CANADIAN FORCES BASE

SUFFIELD

RANGE

STANDING ORDERS

2024 EDITION

CHAPTER 1 – RANGE ORIENTATION AND LAND MANAGEMENT OVERVIEW 1
PART 1 – INTRODUCTION 1
Section 1 – Mission 2
Section 2 – Land Management Governance 2
Section 3 –RSO Structure 3
PART 2 – RANGE CHARACTERISTICS AND CAPABILITIES 3
Section 1 – History 3
Section 2 – Land Users 4
Section 3 – Base Zoning 5
Section 4 – Range Classification 7
Section 5 – Base Support Capability 8
Section 6 – Fixed Ranges 8
Section 7 – Range Licenses 8
Section 8 – Airspace 8
Section 9 – Maps 8
PART 3 – LAND MANAGEMENT RESPONSIBILITIES AND FUNCTIONS 9
Section 1– Base Ops (G3) Branch 9
Section 2 – Base Environmental Officer (B Env O) 11
Section 3 – Real Property Operations Unit (West) Detachment Suffield (RPOU(W) Det Suffield) . 11
Section 4 – Committees 12
Section 5 – External Organizations 13
Section 6 – Land Management Plans and Tools 15
PART 4 – COMPLIANCE ASSURANCE AND ENFORCEMENT 16
Section 1 – Compliance Assurance Monitoring 16
Section 2 – Non-Compliance Enforcement Response 17
SUMMARY 19
CHAPTER 2 – LAND USE AUTHORIZATION PROCEDURES 20
INTRODUCTION 20
LAND USE AUTHORIZATION 21
Land Use Requests 21
PART 1 – LAND USE PLAN ENDORSEMENT 22
Section 1 – Military, Grazing, and Other Non-Oil and Gas Land Users 22
Section 2 – Oil and Gas Land Users 22
PART 2 – BOOKING MILITARY OR THIRD-PARTY TRAINING AT CFB SUFFIELD 23
Section 1– Booking Procedure 23
Section 2 – Coordination of Ranges 24
Section 3 – Logistical and Administrative Support 25
PART 3 – *IMPACT ASSESSMENT ACT* (*IAA)* REQUIREMENTS RELATED TO PROJECTS AS DEFINED IN THE *IAA* 25
PART 4 – APPLICATION FOR DEVELOPMENT (AFD) AND ACTIVITY (AFA) PROCESSES 26
Section 1 – Land Uses Requiring an AFD 27
Section 2 – Land Uses Requiring an AFA 27
Section 3 – Application Submission 28
Section 4 – Application Review 29
PART 5 – NWA PERMITS 33
Section 1 – Application Process 33
Section 2 – Permit Issuance 33

Section 3 – Routine Activity Permits 34
PART 6 – FIELD AUTHORIZATIONS (FA) AND NOTIFICATION OF INTENT (NOI) PROCESS .. 34
Section 1 – Land Uses Requiring a FA and/or NOI 34
Section 2 – FA and NOI Submission 38
Section 3 – FA and NOI Review 38
PART 7 – POST-APPROVAL RANGE CLEARANCE PROCESSES 39
Section 1 – Range Safety Briefing (RSB) 39
Section 2 – Ground Disturbance Clearances 41
Section 3 – Confirmatory Wildlife Surveys 42
Section 4 – Clearance Process for Use of Bivouacs by Visiting Military Units 42
CHAPTER 3 – RANGE ACCESS AND MOVEMENT CONTROL 45
INTRODUCTION 45
PART 1 – MONTHLY RANGE CALENDAR 46
PART 2 – MOVEMENT CONTROL STATIONS 48
Section 1 – Range Control Ops Room 48
Section 2 – EPG Movement Control 48
Section 3 – MTA Movement Control Cells 48
Section 4 – SIRC 49
Section 5 – Airspace Control 49
PART 3 – TEMPLATES 49
Section 1 – Types of Templates 50
Section 2 – Template Controllers 51
Section 3 – Template Control Measures 51
PART 4 – ACCESS ROUTE CONTROL 53
Section 1 – General Route Discipline 53
Section 2 – Site Definition and Access. 56
Section 3 – Speed Limits 56
Section 4 – Special Transit Routes 57
Section 5 – Weather Considerations 58
Section 6 – Vehicle Recovery 59
PART 5 - BARRIERS AND SIGNAGE 59
Section 1 – Perimeter Gate Access 59
Section 2 – Fencing 59
Section 3 – Signage and Markers 60
Section 4 – NWA Boundary 61
PART 6 – ROUTE MAINTENANCE 61
CHAPTER 4 – LAND USE OPERATING REQUIREMENTS 64
INTRODUCTION 64
PART 1 – GENERAL PROHIBITIONS 64
PART 2 – GENERAL LAND USE CONSTRAINTS 65
Section 1 – OOBs Areas 65
Section 2– Activity Restriction Areas (ARAs) 65
Section 3 – Development Thresholds 66
Section 4 – Development Setbacks 66
Section 5 – Aboveground Infrastructure 67
Section 6 – Cattle Grazing 68
Section 7 – Other 69

PART 3 – FIRE CONTROL 70
Section 1 – Fire Reporting 71
Section 2 – Fire Index 71
Section 3 – Firefighting Capability 73
Section 4 – Land User Responsibilities 74
PART 4 – AMMUNITION RELATED PROVISIONS 75
PART 5 – BIVOUAC/FIELD DEPLOYMENT HEALTH AND SAFETY PROVISIONS 76
PART 6 – ENVIRONMENTAL PROVISIONS 80
Section 1 – Environmental Incident Reporting (EIR) 80
Section 2 – Soil and Terrain 80
Section 3 – Water 83
Section 4 – Wildlife 85
Section 5 – Historical Resources 87
Section 6 – Undesirable Plant Control 87
Section 7 – Waste Disposal 88
Section 8 – Contaminant Spill and Release Prevention 89
Section 9 – Contaminant Spill and Release Response 91
Section 10 – Contaminant Spills and Releases Reporting 92
Section 11 – Contaminant Disposal 92
PART 7 – RECLAMATION PROCEDURES 93
Section 1 – Interim Reclamation 93
Section 2 – End-of-Life Reclamation 94
PART 8 – REPORTING AND USAGE PROCEDURES AT CFB SUFFIELD 95
Section 1 – Reports Required by Range Control 95
Section 2 – Signing Out from the RTA and CFB Suffield 95
CHAPTER 5 – AIRSPACE CONTROL AND BASE FLYING ORDERS 97
INTRODUCTION 97
References 97
Definitions 97
Application of Orders 98
Exception to Orders 98
Infraction Reporting 98
PART 1 – DESCRIPTION OF CFB SUFFIELD AIRSPACE 99
Section 1 – Airspace Areas 99
Section 2 – Local Flying Area 101
Section 3 – Airspace Obstructions 101
PART 2 – AIRSPACE CONTROL 102
Section 1 – Elevation 102
Section 2 – Airspace Control Authority (Controlling Agency) 102
Section 3 – Supplemental Airspace Control 102
Section 4 – Coordination Level 102
Section 6 – Prior Permission Request (PPR) 102
Section 7 – Instrument Flight Rules (IFR) Flight Plans 103
PART 3 – CFB SUFFIELD AERODROME 103
Section 1 – Aerodrome Description 103
Section 2 – Operational Control 104
Section 3 – Flight Planning 104
Section 4 – Refuelling Services 104

Section 5 – Decommissioned Runway 104
Section 6 – Engine-Off Landing Area 105
Section 7 – Aerodrome Lighting 105
Section 8 – Temporary Airfields/Forward Air Refueling Points (FARPs) 105
Section 9 – Other Air Facilities 105
PART 4 – FLIGHT RESTRICTIONS 105
Section 1 – General 105
Section 2 – Air Movement Routes 106
Section 3 – Restricted Flying Zones 107
PART 5 – UAS OPERATIONS 108
Section 1 – General 108
Section 2 – Class 1 Open UAS Operations 108
Section 3 – Small UAS (SUAS) Operations 109
PART 6 – AIRCRAFT INCIDENTS 109
Section 1 – Airspace Violations 109
Section 2 – Aircraft Crash/Emergency Landing 109
Section 3 – Aircraft Incident/Investigation 110

ANNEX LIST

Annex A – Key Legislation, Policy and Directives for Land Management
Annex B – Fixed Ranges Standing Orders
Annex C – Route Maintenance Priority Map
Annex D – Escalation Process
Annex E – Land Use Authorization Process Flowcharts
Annex E Appendix 1 – LUAP Defence Operations Flowchart
Annex E Appendix 2 – LUAP Third Party Flowchart
Annex F – ADP Templates
Annex F Appendix 1 – ADP Template – non-O&G
Annex F Appendix 2 – ADP Template – O&G
Annex G – Visiting Unit Request
Annex H – AFD Forms
Annex H Appendix 1 – Form Example AFD General Site or Facility
Annex H Appendix 1 – Instructions General Site or Facility
Annex H Appendix 2 – Form Example AFD Well and Access
Annex H Appendix 2 – Instructions Well and Access
Annex H Appendix 3 – Form Example AFD Linear Feature
Annex H Appendix 3 – Instruction Linear Feature
Annex I – AFA Forms
Annex I Appendix 1 – Form Example AFA General
Annex I Appendix 1 – Instructions AFA General
Annex I Appendix 2 – AFA Seismic
Annex I Appendix 2 – Instruction AFA Seismic
Annex I Appendix 3 – Instruction for Ash Spreading
Annex J – Environmental Work
Annex J Appendix 1 – EED Form
Annex J Appendix 2 – AEED Form
Annex J Appendix 3 – Wildlife Survey Results
Annex K – Request for RTA Access Approval
Annex L – NWA Access
Annex L Appendix 1 – NWA Permit Application
Annex L Appendix 2 – NWA Permit Example
Annex L Appendix 3 – NWA Access Summary Report
Annex M – Access Trail Repairs
Annex N – FA & NOI Templates
Annex N Appendix 1 – 15-Day FA Image
Annex N Appendix 2 – 15-Day FA Instructions
Annex N Appendix 3 – 1-Day NOI Template
Annex O – RTA Access Permit
Annex P – Escort RTA Access Permit
Annex Q – Ground Disturbance Clearance Forms
Annex Q Appendix 1 – Dig Liaison Request
Annex Q Appendix 2 – Instructions Dig Liaison Request
Annex Q Appendix 3 – Dig Permit Application
Annex R – Military Unit Reporting
Annex S – Report Forms
Annex S Appendix 1 – CA EMS 3 CDSG Environmental Incident Report (EIR) Form
Annex T – Template Opening and Closing Procedures
Annex U – Laser Safety
Annex V –Speed Policy

Annex W – Fencing Standard
Annex X – Road Maintenance Allowance
Annex Y – Restricted Development Zones
Annex Z – Firefighting
Annex Z Appendix 1 – Fire Control Priority Map
Annex Z Appendix 2 – Fire Response Times
Annex AA – UXO Procedures
Annex AA Appendix 1 – UXO Disposal Procedures
Annex AA Appendix 2 - Range Control UXO Disposal Procedure
Annex AA Appendix 3 – Chemical or Suspect Chemical UXO Protocol
Annex BB – Ammunition Compound Standard Operating Procedures
Annex CC – Water Extraction Point and Allowable Withdrawal Rates
Annex DD – Wetland Buffer Setback Distances for CFB Suffield
Annex EE – Wetland Mitigation for Land Use File Reviews
Annex FF – Seed Mixes
Annex GG – Prior Permission Request – Military Aircraft
Annex HH – Prior Permission Request – Civilian Aircraft
Annex II – Air Weapons Ranges
Annex JJ - CFB Suffield RSO Acronyms

References

A. Canadian Army Order (CAO) 21-20 Land Ranges and Training Areas
B. Suffield Natural Gas Access Agreement (Memorandum of Agreement, October 1975)
C. Suffield Oil Access Agreement (Memorandum of Agreement, October 1977)
D. Partial Assignment Agreement (PAA), 1 June 1999
E. Range Construction and Maintenance, B-GL-381-002/TS-001
F. Memorandum of Understanding concerning the CFB Suffield National Wildlife Area June 2009
G. CAO 11-07 Canadian Army Environmental Management System (EMS) – Master Document
H. Designated Classes of Projects Order SOR/2019-323 – Ministerial Order
https://laws-lois.justice.gc.ca/eng/regulations/SOR-2019-323/FullText.html
I. DND Directive - Directive Regarding Environmental Impact Assessment 2016
http://intranet.mil.ca/assets/DefenceTeam/docs/en/Infrastructure-environment/environment/environmental-impact-assessment.pdf
J. Interim Direction Pertaining to the Directive Regarding Environmental Impact Assessment Sep 2019
K. National Wildlife Area Management Strategy, 2009
L. National Defence Security Orders and Directives (NDSOD), Chapter 17, Appendix 1 Para 2.4
M. Environment Canada Petroleum Industry Activity Guidelines for Wildlife Species at Risk in the Prairie and Northern Region (November 2011)
N. Environment Canada Activity Setback Distance Guidelines for Prairie Plant Species at Risk
O. Alberta: Guidelines for Acquiring Surface Materials Dispositions on Public Land, 2008 Edition
P. DCS Contaminated Sites Instruction (CSI.004.001) Soil Management
Q. Base Commander Letter, Range and Training Area (RTA) Oil Development Restriction Lifted, 3300-1-4 (RSS O&G Coord), 31 October 2012
R. CFTO C-09-005-004/TS-000. A&E Safety Manual Vol 4. Demil & Disposal
S. Ammunition and Explosive Safety Manual Volume 3 Transportation C-09-005-003/TS-000 - 2013-06-01.
T. 3 CDD Hazardous Material Spills and Releases DEnvr-01-006
U. Use of Military Equipment in Water 2018
V. Guidelines for Alternative Soil Handling Procedures during Pipeline Construction (Alberta Pipeline Environmental Steering Committee, 1996).
W. Alberta *Water Act* and Environment and Sustainable Resource Development (ESRD) Codes of Practice: Pipelines/Telecommunications lines crossing a water body/water course crossings
X. *Fisheries Act*
Y. *Navigation Protection Act*
Z. Alberta *Pipeline Act* and *Pipeline Regulations*
AA. Alberta *Wildlife Act*
BB. Federal Spill Reporting requirements ED 4003 – 1/2003
CC. DND Driver's Manual for Dangerous Goods
DD. Alberta 2010 Reclamation Criteria for Wellsites and Associated Facilities Application Guideline

CHAPTER 1 – RANGE ORIENTATION AND LAND MANAGEMENT OVERVIEW

PART 1 – INTRODUCTION

1. Canadian Forces Base Suffield (hereinafter "the Base" or "CFB Suffield") is a Department of National Defence (DND) administered and controlled property used primarily for military training and research. The Base is situated within the mixed grass prairie region of southeastern Alberta (Figure 1-1). At 2,658 km^2, CFB Suffield is larger than the country of Luxembourg and approximately half the size of Prince Edward Island, making it one of the largest defence establishments in the western world.

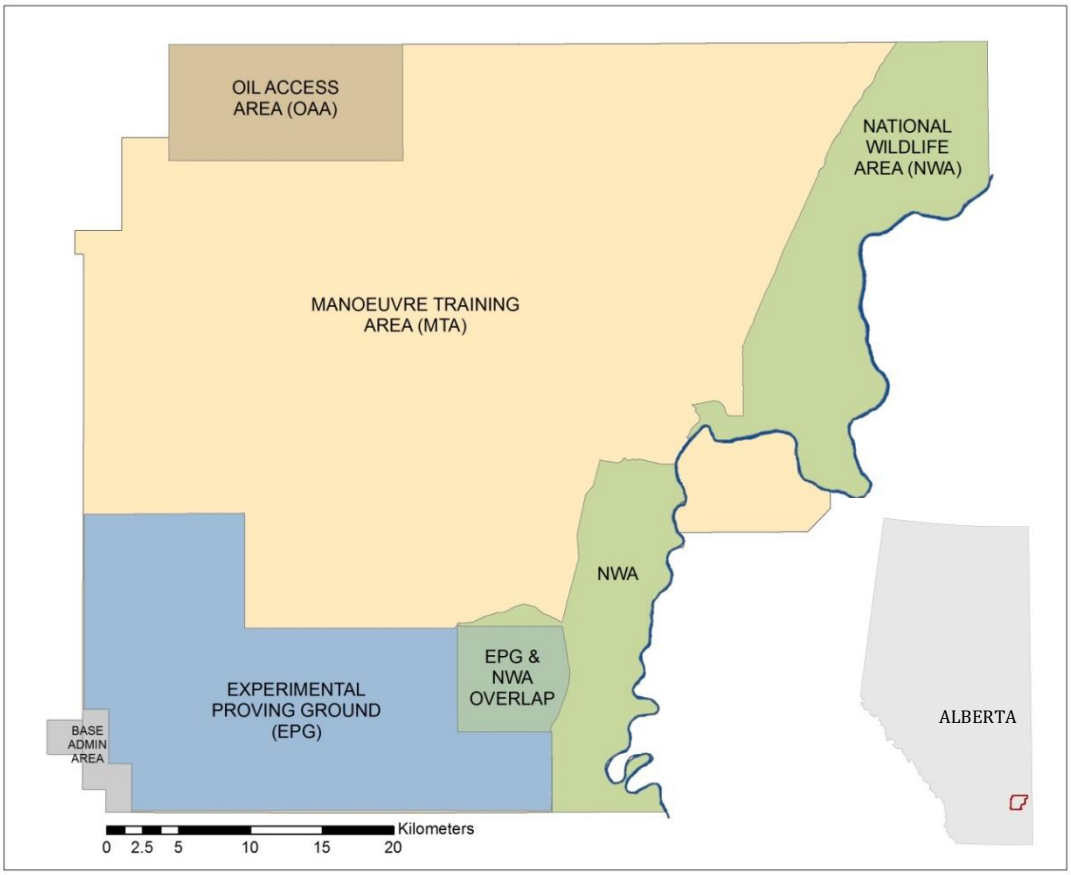


Figure 1-1: Relative location of CFB Suffield

2. The Base is comprised of the Range and Training Area (RTA) and Base Administration (Admin) Area (sometimes referred to as the garrison):

a. the RTA comprises all the training space available at CFB Suffield and is synonymous with the locally used terms "the Range" or "the Block." The RTA is divided into several other functional land management zones depicted in Figure 1-1 and described later in this Chapter under Base Zoning; and

b. the Base Admin Area is located in the southwestern corner of the Base on both the west and east side of Highway 884, and contains critical infrastructure used to support primary user activities in the RTA, including the heliport and the Crown Village of Ralston.

3. Military training includes fire and movement of armoured vehicles (tanks, IFV, AFVs) and other tracked and wheeled vehicles, firing of artillery, large and small weapons, and use of training villages and other infrastructure. Training may occur all year round but is more frequent from May to November when the British Army Training Unit Suffield (BATUS) conducts its exercises. Defence Research Development Canada – Suffield Research Centre (DRDC – SRC) conducts defence research on military engineering, autonomous systems, chemical and biological defence and also provides training to Canadian and international military personnel and national and international first responders through the Counter Terrorism Technology Centre (CTTC). Canadian and other military and police organizations occasionally train at CFB Suffield. The Base is also host to various non-military land uses including oil and gas extraction, grazing, and environmental research.

4. The Base represents one of the largest expanses of predominantly uncultivated native prairie remaining in Canada and has considerable value for native prairie conservation by hosting a wide variety of wildlife habitats, sensitive features, wetlands, and plants and animals, including several federally listed species-at-risk. The native prairie landscape is among the most endangered habitats in the world. Collectively, all military and non-military land uses and their cumulative effects impact the sustainability of the Base and its ongoing availability for land users.

Section 1 – Mission

5. CFB Suffield's mission is to provide a sustainable world class RTA that enables the Canadian Armed Forces (CAF), DRDC – SRC, BATUS, and other potential users to achieve their mandates through effective stewardship of all the RTA infrastructure and equipment.

Section 2 – Land Management Governance

6. DND, as the landowner, manager, and land use authority, is responsible for ensuring that all land uses are carried out in accordance with applicable and relevant laws and policies, including those related to federal real property and the environment.

7. The Base Commander exercises DND's responsibilities concerning safety, security, statutory, regulatory, and policy compliance at CFB Suffield, and exercises authority over all access to the Base. The Base Commander has authority to coordinate activities among all Land Users and shall be fully aware of and approve all land uses. Furthermore, the Base Commander may direct the shutdown of any land uses on the Base. For oil and gas land uses, in accordance with the Access Agreement(s), the Base Commander will continue to authorize entry upon and use of the Base/RTA unless that use of the Base/RTA is not compatible with military purposes and such dual use of the Base cannot be carried on with safety and efficiency. Where conflict with oil and gas land use approval arises due to new and developing military purpose, the Base Commander reserves the right to cancel these land use approvals (Notice of Decisions/Non-Objections) to ensure the continued use of the Base/RTA for military purposes to ensure the safety and efficiency of the military activities. The Base Commander exercises his authorities in full accordance with departmental real property authorities and requirements under the Assistant Deputy Minister (Infrastructure and Environment) (ADM(IE)). (See Part 3, Section 3 for role of Real Property Operations Unit (West) Detachment Suffield (RPOU(W) Det Suffield) and Chapter 2 for land use authorization processes.)

8. In accordance with the *Defence Controlled Access Area Regulations* (*DCAAR*) and CAO 21-20 Land Ranges and Training Areas (ref A), the Base Commander controls access to, and use of, the Base through issuance of Range Standing Orders (RSOs), periodic Base Commander directives, and access approval documentation as appropriate.

9. All land use shall comply with the provisions of legal access instruments and/or access approval conditions, RSOs, DND directives, and all federal, provincial, and municipal laws applicable to access to, entry upon, occupation of, and use of the Base. A non-exhaustive list of key federal legislation, policies, and directives informing this RSO can be found at Annex A. Failure to comply with the conditions for access and use may result in denial of entry, removal, prosecution, or any combination of these (see Part 4 – Compliance Assurance and Enforcement).

10. The Base Commander recognizes that some Alberta legislation, policies, guides, and directives may articulate the appropriate standard of care to which Land Users shall comply on and off the Base. Provincial laws of general application apply on federal land. Where a conflict may arise between levels of regulatory jurisdiction, the Base shall apply the more stringent standard applicable to the circumstance, except when such standard would be incompatible with federal laws on the same subject, or it would impair the fulfilment of the federal mandate.

11. The Base Commander's authority may be exercised by a Canadian Forces member or by an employee or agent of DND to whom the Base Commander has delegated authority for this purpose. Where the term "Base Commander" is used throughout this document, it shall be understood that the employees and agents of DND administering the terms of this document shall do so pursuant to the authority delegated by the Base Commander.

Section 3 –RSO Structure

12. The RSOs are organized into five chapters addressing the following matters:

a. Chapter 1 – General orientation information about CFB Suffield and land use management;

b. Chapter 2 – Land use authorization procedures (LUAP) for all forms of access, development, and activities;

c. Chapter 3 – Range access and movement control procedures for all Land Users;

d. Chapter 4 – Land use operating requirements for all Land Users; and

e. Chapter 5 – Airspace control and Base flying orders.

13. Throughout the RSO, the words "shall" and "must" denote provisions that are imperative in nature and require mandatory full compliance. The words "may" and "should" are used as permissive recommendations, which do not require full compliance and where an individual's discretion could be exercised.

14. The aim of the current chapter is to provide background information on CFB Suffield's history, main land users, key range characteristics, land management organizations and functions, and compliance assurance and enforcement framework.

PART 2 – RANGE CHARACTERISTICS AND CAPABILITIES

Section 1 – History

15. The CFB Suffield area was originally settled in the latter decades of the 19th Century. Over a fifty-year period, the railway, a few small towns, and several homesteads emerged on the land; however, a

farming and ranching life on the prairie presented many hardships from drought, wind, lack of access to water and wood, threats from wildfires and insects, and extremes of summer heat and winter cold. In 1938, the area was declared unfit for agriculture under the *Special Areas Act*, and by 1940 most settlers had abandoned their homesteads.

16. Given the sparse population, the Base was expropriated by the federal government in 1941 for use as a chemical and biological experimental station for both the Canadian and UK governments operating as the Defence Research Establishment Suffield (DRES). This testing continued until 1971 when Canada negotiated an agreement with the UK to enable the British Army training at Suffield. This prompted the establishment of CFB Suffield on the former DRES-administered property, including posting of a Base Commander with supporting military staff to manage the use of CFB Suffield by BATUS. DRES activities were allocated to approximately one-third of the range (on what is now called the Experimental Proving Ground (EPG)), while much of the remainder was used for British training.

17. During this early zoning of the Base, both Canada and the UK recognized the environmentally sensitive and unique nature of the Middle Sand Hills region in the northeast corner of the Base, and the riverbank zone extending approximately 2 km west along the stretch of the South Saskatchewan River forming the majority of the eastern border of the Base. These zones were set as out-of-bounds to military training, and formed the precursor to what would become the CFB Suffield National Wildlife Area (NWA). The NWA was established in accordance with the *Canada Wildlife Act* to support the conservation of wildlife and joined the federal network of NWAs that have been designated because they contain nationally significant habitat for migratory birds, other wildlife, and species at risk, or nationally rare or unusual habitat. The NWA was formally created on 12 June 2003 when the *Regulations Amending the Wildlife Area Regulations*, SOR/2003-226, were registered in the *Canada Gazette Part II.*

18. During the mid-1970s, DND and the Province of Alberta entered into two access agreements to permit the extraction of natural resources at the Base (1975 for natural gas (ref B); 1977 for oil (ref C)). These agreements stipulated that infrastructure (e.g., wells, pipelines) were to be placed underground to prevent interference with military training and defence experimentation. At the time, the technology did not exist to enable oil infrastructure to be placed underground; therefore, the oil agreement established the Oil Access Area (OAA) on Base to permit aboveground extraction operations (ops) in an area that would not be subject to live fire military ops or research. Shortly after the agreements were signed in 1975 and 1977, Alberta assigned its rights to Alberta Energy Corporation (AEC). In 1999, a Partial Assignment Agreement (PAA) (ref D) was signed that enabled Alberta to assign certain mineral rights on the Base to companies other than AEC and its successors. Separate access agreements for companies not associated with the 1975 and 1977 agreements and the PAA have been established as required (e.g., for commercial gas storage). Over 12,000 wells and associated pipelines and facilities have been installed on the Base since the 1970s.

19. Also, in the mid-1970s, DND and Agriculture and Agri-Food Canada entered an agreement to add portions of the RTA to the Prairie Farm Rehabilitation Administration's (PFRA) Community Pasture Program. This arrangement enabled the establishment of several pastures for cattle grazing in areas outside the main Manoeuvre Training Area (MTA) (i.e., OAA, EPG, and NWA). Although the Community Pasture Program was discontinued in 2013, grazing of cattle on an annual basis has continued on the Base under agreements with local grazing entities.

<u>Section 2 – Land Users</u>

20. Throughout the RSO, the term "Land User" refers to all entities (individuals and legal persons) that access, and/or use the lands at the Base, as well as their employees and agents (contractors), and

assignees under access agreements. This includes but is not limited to those in the military, oil and gas, grazing, and environmental research sectors.

21. The following organizations are the principal Land Users at CFB Suffield:

a. British Army Training Unit Suffield (BATUS). Through a long-standing Canada-UK agreement, the British Army has priority use of the CFB Suffield MTA to prepare for and conduct training exercises. Training generally occurs during May to November, with training area maintenance and development occurring on the shoulders of that window. BATUS maintains permanent year-round staff and infrastructure at CFB Suffield to support the planning and execution of training;

b. Defence Research Development Canada – Suffield Research Centre (DRDC – SRC). Formerly DRES, DRDC – SRC is a DND organization responsible to the Assistant Deputy Minister for Defence Research and Development Canada (ADM(DRDC)). DRDC – SRC conducts its research on military engineering, autonomous systems, and chemical and biological defense. DRDC – SRC also provides training to Canadian and international military personnel and national and international first responders through the Counter Terrorism Technology Centre (CTTC). Although defence research activities have historically been conducted across the expanse of the Base, since 1971, these activities have occurred primarily within the EPG;

c. Oil and Gas Industry. In accordance with established access agreements, numerous oil and gas companies operate at CFB Suffield to explore, develop, and produce natural gas and oil resources. Oil and gas activities occur in varying intensities across the entire Base; however, industry access for development and maintenance is restricted when military training and defence research activities are underway; and

d. Grazing Entities. The pastures established by PFRA in the 1970s are still grazed, as well as two other small segments of prairie in Koomati and the southern portion of the NWA. Access and approval for grazing activities is established through access instruments with grazing entities.

Section 3 – Base Zoning

22. The RTA is divided into several land management zones as depicted in Figure 1-2. The named sub-areas (e.g., Liri, Falcon, etc.) are grouped into four functional areas with distinct characteristics and uses as described below:

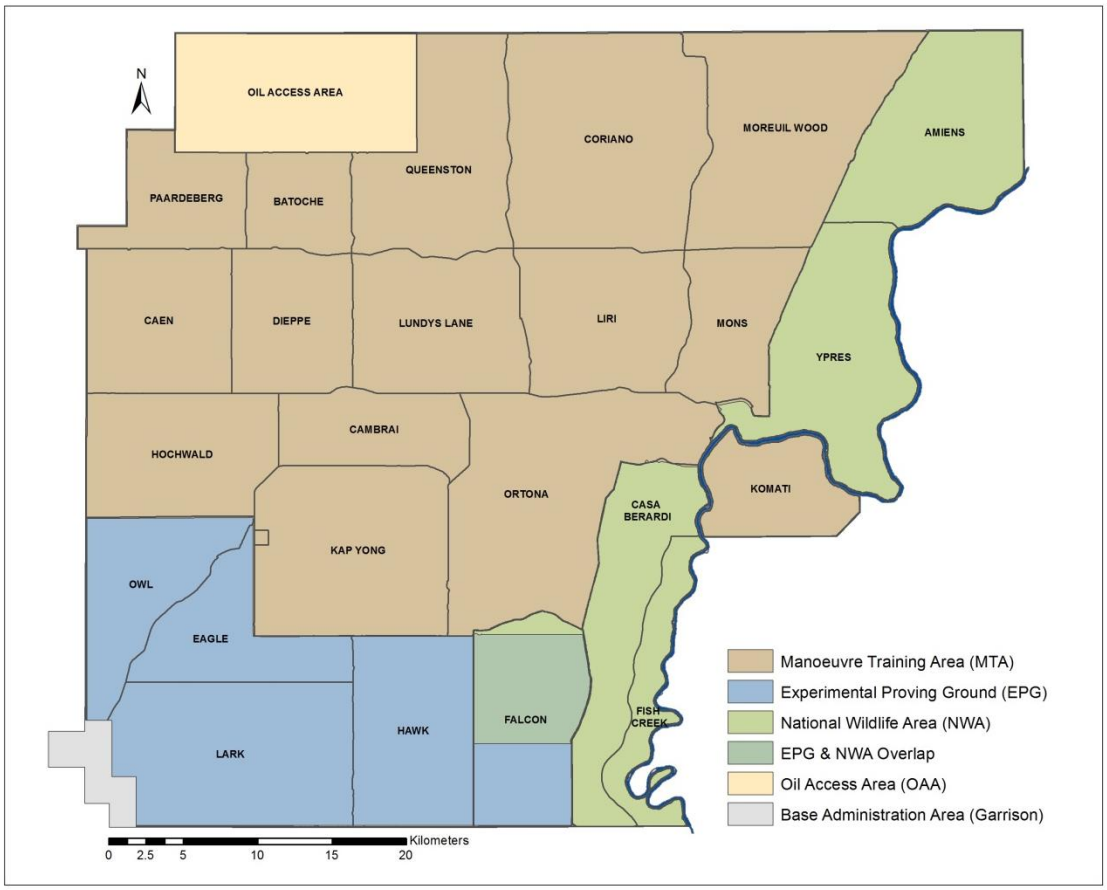


Figure 1-2: CFB Suffield land management zones

a. <u>Manoeuvre Training Area (MTA)</u>

(1) the MTA forms the majority of the RTA with an approximate size of 1,597 km^2, and comprises the areas of Paardeberg, Batoche, Queenston, Coriano, Moreuil Wood, Caen, Dieppe, Lundy's Lane, Liri, Mons, Hochwald, Cambrai, Kap Yong, and Ortona on the west side of the South Saskatchewan River, and Koomati on the east side of the South Saskatchewan River; and

(2) BATUS is recognized as having prime, but not exclusive, use of the MTA. Other Land Users including visiting military units must expect to modify their training plans to adapt to the BATUS training requirements.

b. <u>Experimental Proving Ground (EPG)</u>

(1) the EPG has an approximate size of 494 km^2 comprising the areas of Owl, Eagle, Lark, Hawk, and Falcon, (Note: Area Falcon does include the feature known as "the Hogsback" which is north of Jackson Interface road);

(2) the portion of area Falcon north of Coyote road and east of the 138 easting is part of both the EPG and the NWA; and

(3) DRDC – SRC is recognized as having prime, but not exclusive, use of the EPG. As a rule, the EPG is not considered available for military training unless approved by Base Commander in consultation with DRDC – SRC Head of Field Ops (HFOS). As well, given the potential safety hazards associated with DRDC – SRC's past and present activities in the EPG, this area is not recommended for routine training, which could otherwise take place in the MTA.

c. National Wildlife Area (NWA)

(1) the NWA has an approximate size of 458 km^2 along the South Saskatchewan River on the eastern side of the Base comprising the areas of Amiens, Ypres, Casa Berardi, Fish Creek, and Falcon north of Coyote Road (including the feature known as "the Hogsback" north of Jackson Interface road);

(2) the portion of area Falcon north of Coyote road and east of the 138 easting is part of both the NWA and EPG. This portion of the EPG is used in accordance with an NWA permit (see Chapter 2, Part 4);

(3) the NWA is unique in that the Minister of Environment has delegated administration and enforcement authority for the area to the Minister of National Defence, who in turn has delegated that authority to the Base Commander; therefore, all activities in the NWA are conducted at the discretion of the Base Commander in compliance with the *Canada Wildlife Act* and its *Wildlife Area Regulations*;

(4) access to the NWA is strictly controlled. All those conducting activities in the NWA or entering the NWA other than on authorized transit routes (see Chapter 3, NWA Transit Routes) may do so only in accordance with an NWA permit (see Chapter 2, Part 4); and

(5) the NWA is used as a safety buffer for live fire ricochet from the MTA; however, the NWA is not intentionally fired into or deliberately targeted.

d. Oil Access Area (OAA)

(1) the OAA has an approximate size of 130 km^2 situated within the northwest corner of the Base to permit aboveground oil extraction ops; and

(2) given the high density of aboveground oil and gas infrastructure, the OAA is used for only non-live-fire military training and airspace exercises upon approval from the Base Commander.

Section 4 – Range Classification

23. CFB Suffield is classified as a Type Two dangerous area (Medium/Dangerous) and further categorized as a Category A (Active RTA) as it contains unexploded ordnance (UXO) (ref E). The entire RTA has some degree of UXO and the probability of encountering UXO is extremely high (i.e., impact areas where the primary purpose is or was manoeuvre training, and where UXO producing munitions is or were authorized). As a result of the defence research activities that have taken place since 1941, there is potential to encounter high explosive and chemical UXO throughout the RTA. This includes on established roadways, and especially when conducting mechanical digging.

Section 5 – Base Support Capability

24. Though the CFB Suffield RTA is sizeable, the Base Admin Area and supporting infrastructure is small. CFB Suffield is resourced and mandated to support its two primary users: BATUS and DRDC – SRC; therefore, it has minimal service support capacity for visiting organizations. Visitors or military units not hosted by either DRDC – SRC or BATUS must be prepared to deploy in a self-supporting capacity, or to be invoiced for support services contracted by CFB Suffield. A typical but important example of such a limitation is the Base Ammunition Compound, which is limited on qty of available storage capacity and ammunition available on site for visiting units. Therefore, a unit will have to supply its own ammunition, transport it on site to deploy, operate, and request storage emplacement at the ammunition compound if the ammunition is not in ready use condition/battle loaded. If a visiting unit require complete ammunition support from CFB Suffield timeline for ammunition demands/orders are explained in the Supply Administration Manual. (See Chapter 2, Part 2 for further details on the process for booking training at CFB Suffield).

Section 6 – Fixed Ranges

25. By design, CFB Suffield has minimal training infrastructure in the MTA. The Base has an austere small arms range, suitable for only basic qualification shooting for rifle and pistol. As a result, field-expedient ranges must be created in almost every case requiring extensive reconnaissance and template planning for most training activities. (See Annex B for more information regarding fixed ranges).

Section 7 – Range Licenses

26. Use of CFB Suffield for military exercises is limited to those activities, weaponry, and munitions authorized by CFB Suffield's current range licenses. All range licenses are listed in the Canadian Forces Range Information System (CFRIS). Range Control can be contacted for questions regarding permissible weapons systems and munitions.

27. Weapons systems or munitions can be added to CFB Suffield range licenses through application to Range Control, which will coordinate the request with higher authorities. The approval process has varying timelines depending upon the specifications and safety considerations for the proposed weapon system or munition. Land Users may contact Range Control for details on the application process requirements.

Section 8 – Airspace

28. The entire CFB Suffield area is designated as restricted airspace areas (CYR) 229, 230 and 231. It is prohibited to fly aircraft within CYR 229, 230 and 231 without permission from the Base Commander. Further information on airspace control and flying orders are provided in Chapter 5.

29. Airspace being used northwest of the Base OAA should be aware of wind turbines situated in this area.

Section 9 – Maps

30. The latest editions of the following maps are to be used at CFB Suffield for planning and navigation purposes:

a. 1:50,000
- CFB Suffield Series A702 MCE 156 W

- CFB Suffield Series A702 MCE 156 E

b. 1:100,000
- CFB Suffield MCE 156R

c. 1:250,000
- 72L, Medicine Hat.

d. 1:500,000
- NTS 72 NW (S 1/2) and 72 (N ½) Medicine Hat – Maple Creek (Aeronautical edition).

PART 3 – LAND MANAGEMENT RESPONSIBILITIES AND FUNCTIONS

31. Sustainable land management requires coordination and cooperation to adequately identify, mitigate, and reconcile the unique and often overlapping requirements of military and defence research activities, oil and gas activities, grazing, and other land uses. The following sections describe the main functions and responsibilities of selected staff, advisors, committees, and external organizations in supporting secure, safe, and sustainable use of the Base.

Section 1– Base Ops (G3) Branch

32. The Base Ops (G3) Branch is responsible to the Base Commander for the safe and sustainable management of the RTA. The Branch is comprised of several sections and sub-sections with specific responsibilities:

a. G3 Ops. This position is responsible to the G3 for the scheduling and coordination of all Base activities, including synchronization of operational and logistical support, and overall supervision of day-to-day ops and enforcement of Base safety and security regulations;

b. Range Control Section. This section oversees access control, management, maintenance, and monitoring of the RTA. It is led by the Range Control Officer (RCO) and consists of CAF personnel assigned to conduct range control duties. Range Control can be contacted at sufrangeops@forces.gc.ca:

(1) coordination of all access and movement within the boundaries of the RTA to ensure overall safety of all users;

(2) approval, monitoring and coordination of military training and safety, including air safety and communications network (radio) usage;

(3) signing and marking of RTA boundaries;

(4) security, surveillance, and prevention of unauthorized access;

(5) compliance monitoring and enforcement of RSOs and other applicable federal regulations, rules, and policies;

(6) coordination of firefighting and fire prevention;

(7) traffic control and enforcement;

(8) coordination of the Base Auxiliary Security Force (BASF); and

(9) grassland firefighting within the RTA, first aid and initial response (Awareness Level) to hazardous materials incidents (including chemical munitions) and accidents.

c. Field Ops Section (FOS). This sub-section of Range Control consists of CAF personnel assigned with monitoring the safety and security of the RTA and providing rangeland firefighting capability;

d. Range Maintenance Section. This sub-section of Range Control provides combat engineer expertise and capacity for several range maintenance functions:

(1) routine maintenance of gravel roads and fire guards within the RTA. These duties are dependent on the frequency of field exercises by BATUS and visiting military units;

(2) construction/reconstruction support, including culvert installation and road repairs;

(3) upkeep of the perimeter boundary fence line, which includes the South Saskatchewan River boundary markers on the east side of the RTA;

(4) implementation and management of RTA infrastructure projects (e.g., road upgrades) in coordination with RPOU(W) Det Suffield, Defence Construction Canada, and G4 Procurement;

(5) snow and ice control (SNIC) during winter months. Range Maintenance is responsible for the clearance of year-round routes in the RTA in accordance with Annex C. Range Maintenance is also responsible for heavy equipment support to SNIC ops in the CFB Suffield Garrison and the Crown Village of Ralston. Additional information regarding SNIC ops is available in the annual SNIC plan, which is published in Base Routine Orders and is also available through Range Control;

(6) support to firefighting ops, including water hauling and the provision of trained wildland firefighters, if required; and

(7) emergency support to Land Users through use of heavy equipment assets.

e. Range Sustainability Section (RSS). The RSS supports the application and maintenance of the CFB Suffield Range and Training Area Management System by ensuring that multiple Land Users operate in accordance with Range Standing Orders and environmental legislation while maintaining the integrity and sustainability of the land on behalf of the CFB Suffield Base Commander, Officer in Command of Real Property Operations Unit West Detachment Suffield. Specifically, RSS coordinates and manages portions of the land use authorization process (LUAP) including the facilitation of land use access approvals, monitoring and inspecting land use developments and activities. Contact to discuss the LUAP should occur through RangeSustainability@forces.gc.ca

f. G3 Fire Services. In accordance with the Fire Protection Program Standard, the Base Fire Chief is responsible for developing local procedures and assigning resources to ensure effective performance with respect to fire protection, rescue, emergency medical response, respiratory protection, and HAZMAT Response. Fire Services is responsible for the following on National Defense property:

(1) vehicle and infrastructure firefighting;

(2) aircraft rescue and firefighting and hazardous process standby;

(3) Hazardous Material and chemical, biological, radiological and nuclear incident response;

(4) emergency medical response;

(5) wildland and grassland firefighting;

(6) ammunition firefighting;

(7) rescue operations;

(8) fire investigations; and

(9) fire prevention program.

Section 2 – Base Environmental Officer (B Env O)

33. The B Env O is the authority for providing environmental advice and support for all matters at CFB Suffield including real property management. Reporting directly to the Base Commander, the B Env O is the Army Environmental Programme manager for CFB Suffield, providing oversight on all elements of environmental responsibility including the Canadian Army Environmental Management System (CA EMS), overall environmental sustainability, sustainable RTAs and training, contaminated site management, pollution prevention, storage tank systems oversight, contaminant management, spill response and reporting, ozone depleting substances reporting, environmental compliance, enforcement action and reporting, and environmental performance reporting. The RSS and Real Property Operations (West) Detachment Suffield Environmental Services Officer provides technical environmental services in support of the B Env O carrying out environmental management responsibilities.

Section 3 – Real Property Operations Unit (West) Detachment Suffield (RPOU(W) Det Suffield)

34. RPOU(W) Det Suffield, as the real property authority, provides CFB Suffield with real property services including building services, maintenance, municipal services, property management services, recapitalization within delegated authorities, minor new construction and alterations, demolition, contracting through Defence Construction Canada and Public Services Procurement Canada, and real property service delivery planning. RPOU(W) Det Suffield supports management of the RTA in several key ways:

a. reviews Applications for Development (AFDs), Applications for Activity (AFAs), Field Authorizations (FAs), Notifications of Intent (NOIs), and other land use proposals to advise on real property concerns and conditions, and provide real property approval per delegation from ADM(IE);

b. negotiates and prepares various types of legal land use instruments, including but not limited to surface access agreements, licence agreements, facility crossing instruments, assignments, memoranda of understanding (MOUs), and memoranda of agreement (MOAs);

c. plans, tracks, and manages long-term land use requirements and federal mineral interests, and produces the Master Real Property Development Plan;

d. acts as the land records office by holding and registering all surveys, drawings, agreements, and records related to Land User infrastructure on the Base; and

e. provides the Environmental Services Technologist to support the B Env O mandate.

Section 4 – Committees

35. Real Property Coordination Committee (RPCC). This committee is responsible for assessing and prioritizing engineering work and RTA development at CFB Suffield in accordance with key stakeholder, operational requirements and ADM(IE) infrastructure priorities and efforts. This committee reviews the RPOU(W) Det Suffield Implementation Plan (IMPLAN), monitors and recommends amendments to the Master Real Property Development Plan (MRPDP), and reviews and prioritizes Capital Works Program submissions to ADM(IE). Co-Chaired by the Base Commander and Officer in Command of RPOU(W) Det Suffield, membership includes representatives from RPOU(W) Det Suffield, BATUS, Defence Infrastructure Organization Service Delivery Training (Canada) (DIO SD Trg (Can)), and DRDC – SRC, and various technical advisors from those participating organizations. The RPCC does not include coordination of oil and gas requirements. These coordination's occur through the existing access agreements.

36. Base RTA Working Group (WG) (known as the Range Development Committee (RDC)). The RDC is a subcommittee of the RPCC. In accordance with CAO 21-20 (ref A), the RDC vets and coordinates all development and maintenance aspirations, not including RPOU(W) Det Suffield and oil and gas requirements, in the RTA to achieve military training and research objectives and requirements in a safe and environmentally sustainable manner. Chaired by the G3 (as designated by the Base Commander), membership includes representatives from BATUS, DIO, DRDC – SRC, G3 Branch, RPOU(W) Det Suffield, and Suffield Industry Range Control (SIRC). The Base RTA WG is responsible for:

a. developing and updating the CFB Suffield five-year RTA Development Plan, which identifies and prioritizes all known and potential development project requirements. The WG Chair uses this plan to propose development projects to the Level 2 RTA WG for higher endorsement and consideration in the Army Five-Year RTA Development Plan; and

b. resolving or making recommendations to the Level 2 Commander (i.e., 3 CDSG Commander) on

(1) RTA compliance and regulatory requirements;

(2) safety deficiencies in RTA design and function;

(3) improvements and development to support unit and/or emerging training needs;

(4) assessments of continued RTA suitability and capacity;

(5) RTA management and range control ops; and

(6) RTA policy and process.

37. Suffield Environmental Advisory Committee (SEAC). SEAC was established and its membership defined in the 1975 Natural Gas Access Agreement (ref B), to provide advice to the Base Commander on environmental matters relating to oil and gas activities on the Base.

38. Suffield Grazing Advisory Committee (SGAC). A grazing advisory committee (known as SGAC) was originally established, and its membership defined in a 1983 MOU with the PFRA. Although this MOU is no longer in effect, the Base Commander has retained a grazing advisory committee function within agreements with current grazing entities.

Section 5 – External Organizations

39. Environment and Climate Change Canada (ECCC). ECCC is the primary federal department mandated with preserving and enhancing the quality of Canada's natural environment. ECCC conducts several functions with respect to environmental protection on the Base:

a. provides representation on advisory committees for grazing and oil and gas;

b. provides advice to the Base Commander on a case-by-case basis on matters within ECCC's purview, as requested;

c. provides ongoing advisory and training support for management and enforcement of the CFB Suffield NWA per a MOU between DND and ECCC (ref F); and

d. provides oversight and enforcement of key federal environmental legislation including the *Species at Risk Act*, *Migratory Birds Convention Act, 1994*, and *Canadian Environmental Protection Act, 1999*;

40. Alberta Energy (AE). AE promotes and manages the development of provincially owned energy and mineral resources by industry. AE recommends and implements energy and mineral related policy, grants rights for exploration and development to industry, and establishes and administers fiscal regimes and royalty systems. AE conducts several functions with respect to mineral resources on the Base:

a. grants petroleum and natural gas leases at CFB Suffield for development of Alberta's mineral resources;

b. executes surface access agreements per the PAA (ref D);

c. ensures oil and gas rights issued to Oil and Gas Land Users convey the appropriate access restrictions applicable to the Base;

d. maintains an accurate Surface Access Registry; and

e. assumes responsibility on behalf of lessees or Oil and Gas Land Users failing to satisfy any of their obligations under the agreements.

41. Alberta Energy Regulator (AER). The AER is a regulatory body with a mandate to provide for the safe, efficient, orderly, and environmentally responsible development of Alberta's energy resources. The AER Chief Executive Officer is responsible to a Board of Directors, who set the direction of AER business affairs but are not involved in day-to-day operations and decisions. The AER is responsible for the Government engagement and it makes decisions regarding energy development applications, industry compliance, enforcement, and monitoring, project closures, and all other aspects of energy development under their jurisdiction. The AER exercises its statutory mandate for energy resources on the Base by licensing facilities and conducting inspections in accordance with its routine surveillance and incident response protocols. The AER does not have jurisdiction for surface reclamation or surface access approval on federal land; these responsibilities are exercised by DND for CFB Suffield.

42. Alberta Environment and Parks (AEP). AEP is the provincial government department responsible for public land management, environmental regulation and enforcement, and sustainable development of natural resources. AEP conducts several functions with respect to environmental protection on the Base:

a. provides representation on advisory committees for grazing and oil and gas;

b. provides expert advice on reclamation;

c. provides oversight and enforcement of the Alberta *Wildlife Act*; and

d. provides oversight and enforcement of the Alberta *Water Act*.

43. Suffield Industry Range Control (SIRC). As defined by the 1999 PAA (ref D), SIRC is responsible for providing a variety of range safety services to the Oil and Gas Land Users:

a. providing briefings on range safety and electronic or hard copies of the RSOs to all Oil and Gas Land Users. Oil and Gas Land Users are to ensure all their personnel including contractors and subcontractors are aware of all the RSO requirements to perform their duties and process for accessing the Base;

b. operating a 24-hour/7 day per week range communications ops room located at SIRC headquarters using the call sign 'Alberta Zero' and six access points which SIRC provides daily support to facilitate range access and movement for activities approved by the Base Commander;

c. executing access and movement control for Oil and Gas Land Users onto and within the Base on behalf of the Base Commander;

d. providing access cards in accordance with established criteria that identify Oil and Gas Land Users authorized to access the Base;

e. submitting, on behalf of the Oil and Gas Land Users, AFDs and other documentation to the Base Commander for decision; and

f. collecting surface compensation fees from selected Land Users on behalf of the federal Crown.

Section 6 – Land Management Plans and Tools

44. Canadian Army Environmental Management System (CA EMS). In accordance with CAO 11-07 (ref G), the CA EMS is the central framework intended to provide guidance in managing significant environmental aspects on DND Army lands. Several topic-specific Environmental Management Plans for CFB Suffield have been developed under the CA EMS. Allied forces (e.g., BATUS) are subject to the CA EMS and associated plans. Management plans are available upon request to the Base Environmental Officer.

45. Range and Training Area Management System (RTAMS). In accordance with CAO 21-20 Land Ranges and Training Areas (ref A), the Base Commander operates within the RTAMS quality management framework that guides integration of policy, planning, implementation, performance measurement, and continual improvement for sustainable operation and management of the RTA.

46. Range Condition Assessment (RCA) and Monitoring. The impact of land use is monitored annually to determine the relative health of the prairie ecosystem on the Base. The RCA assesses land cover condition by using remote sensing (e.g., satellite imagery, aerial photography) and ground inspections to assign land cover classes across the entire RTA. The classes are combined with spatial land use information related to military, grazing, and oil and gas land uses to identify areas exhibiting decreased prairie health.

47. Each year, two RCA reports are issued:

a. Report #1 (issued in Fall) identifies land use restrictions for the following year that may include:

(1) excluding all activity from a designated area (i.e., OOBs areas);

(2) limiting use of an area to only certain activities (i.e., activity restriction areas (ARAs)); and

(3) identifying fire management zones with varying priority for fire prevention actions and fire control response to be incorporated into the Fire Mitigation Plan (see para 50.e).

b. Report #2 (issued in Winter) reflects further land cover analysis to identify planning requirements to be implemented in the mid-term (i.e., within two years) that promote resting and rehabilitation of the land including:

(1) relocation and/or re-orientation of training exercises;

(2) relocation or removal of training infrastructure; and

(3) identification of areas of concern that require targeted monitoring in subsequent years.

48. The results of the RCA may inform other land management decisions including:

a. hardening of ground surfaces in select high traffic areas; and

b. reclamation activities for sites where rest and natural recovery is insufficient.

49. Range Maintenance Plan. The Range Maintenance Section maintains a three-year route maintenance plan to address routine upkeep of the Base transit and fire break corridors. Range use may be periodically affected as certain portions of major routes may be placed out-of-bounds for extended periods. Dates for major road repair projects will be published, when known, in the monthly range calendars. Annex C provides further detail on route maintenance.

50. RTA Fire Management. The terrain and vegetation at CFB Suffield is highly susceptible to fires, which can start quickly and spread rapidly posing considerable danger to personnel, equipment, infrastructure and neighbouring landowners. To offset this danger, Range Control facilitates a number of management functions and processes:

a. maintains 24/7 RTA firefighting capacity (two FOS crews);

b. monitors and updates the range fire index and associated land use restrictions daily;

c. monitors and records range fires and affected areas for ongoing range health assessments;

d. reports all fires to the Base Fire Chief and Base Commander through the Integrated Fire Service Management and Reporting System; and

e. publishes an annual Fire Mitigation Plan in consultation with G3 Fire Services, which sets the framework for range preparations designed to mitigate the risk of fires in the RTA. This plan focuses primarily on threats posed by fires initiated by military training in the MTA, and incorporates the use of preventative pre-burns, road grading, and equipment positioning throughout the RTA.

51. See Chapter 4, Part 3 Fire Control for further detail on procedures and requirements for Land Users related to fire prevention and control.

PART 4 – COMPLIANCE ASSURANCE AND ENFORCEMENT

52. As noted earlier, in accordance with *DCAAR* and CAO 21-20 (ref A), the Base controls access to, and use of, the Base through issuance of RSOs and other periodic Base Commander directives. Failure to comply with the conditions for access and use may result in denial of entry, removal, prosecution or any combination of these.

Section 1 – Compliance Assurance Monitoring

53. General Land Use Inspections. The Base conducts scheduled and random inspections of all land use occurring on the Base to ensure compliance with the terms of this RSO; land use approval conditions within Notices of Decision/Non-Objections issued by the Base Commander; mitigation measures within environmental effects determinations, applications for development and engineering construction plans; and applicable directives, access agreement provisions, regulatory requirements, and policy instruments. Annually scheduled inspections of development sites occur after completion of construction at the two-, five-, and ten-year points and every ten years thereafter, while random inspections of development or activity sites may occur at any time. Contaminant spill/release sites are also incorporated into the scheduled inspections to monitor for site recovery and Land User adherence to post-spill recovery commitments (per Chapter 4, Part 6 Section 10 Spills and Releases Reporting).

54. Military Exercise Inspections. Range Control conducts periodic inspections of military exercises throughout the training season. These inspections include, but are not limited to, assessing compliance

with RSO operating provisions, adherence to approved locations, safety templates, and weapons systems, and ongoing maintenance and clean-up of the exercise area.

55. Training Infrastructure Inspections. The Base conducts ongoing inspections and audits of all training infrastructure in the RTA. The RTA inspection (RTAI) program is an integrated platform developed to ensure all training facilities remain adequate to the task, free of defect, safe to use, and in compliance with applicable federal, provincial and municipal health, safety, and environmental regulations. RTAI reporting maintains Base Commander awareness of the status and condition of the RTA; degree of maintenance being conducted to maintain the safety of all personnel using the facilities; and degree of infrastructure compliance with development approval conditions (per Notices of Decision issued by the Base Commander), mitigation measures within environmental effects determinations and engineering construction plans, and requirements detailed in training infrastructure directives (refs E and H).

56. Range Control conducts RTAIs twice a year:

a. Base annual RTAI (Jun-Aug timeframe); and

b. 3 Division RTAI (Oct -Nov timeframe).

57. Range Control is the lead for this inspection program in concurrence with support from RSS LU Ops Gp, DIO SD Trg (Can), RPOU (W) Det Suffield, and G3 Fire Services.

Section 2 – Non-Compliance Enforcement Response

58. All non-compliances within the Base Commander's authority to enforce are added to the Compliance Log (formerly the Compliance Incidents and Concerns Log). A single land use event may produce multiple non-compliances, each of which is recorded in the log for enforcement purposes. Compliance Log status will be provided to Land Users based on a calendar quarter (i.e., 1 January, 1 April, 1 July, 1 October) with an expectation that issues are resolved by 1 October of every year unless otherwise stipulated. Applicable non-compliances are also recorded on the CA EMS Corrective Action Register in accordance with CAO 11-07 (ref G). Concerns related to Annex V Speed Policy may or may not fall under this Non-compliance enforcement response and are left for Range Control and the Military Police to confirm.

59. Any events suspected to be non-compliant with legislation, regulations, and policies administered by other authorities, are reported by the Base to the appropriate agencies for follow-up and action and fall under Theme 2 as listed below. The Base will cooperate with the enforcing agency to assist with its enforcement response as requested and possible.

60. When a non-compliant incident is discovered, the LU Ops Gp (and in consultation with other Base representatives, as required) will implement the escalation process as listed below. Note: Compliance issues not remedied by 1 October of each calendar year, automatically escalate to the next Phase, other than Phase 1 to 2 which is considered an administrative step. Phase 2-6 issues are expected to be remedied by 1 October of the same year or by 1 October of the following year depending on initial discovery (see Annex D). This allows the LU Ops Gp to verify the work and update the Land User:

a. Theme 1 – Issues which are localized or widespread:

(1) LU Ops Gp will enter the specific location in the Compliance Log;

(2) Phase 1 – LU Ops Gp will make reasonable attempts to resolve the issue at the lowest level possible (e.g., phonecalls, field visits to known sites and/or Land Users). Where contact is made, a Compliance Log number, details, and two weeks will be provided to remedy the non-compliance. Regardless if remedied through this process, the non-compliance moves to Phase 2. Where contact cannot be made, then the non-compliance will enter Phase 2 (see below) as an administrative step and not based on a penalty to the Land User

(3) Phase 2 – this phase is the initiating step in the escalation process. This ensures information is recorded and tracked appropriately for the Land User to remedy;

(4) Phase 3 – if Phase 2 issues are not addressed by 1 October or within the timeline specified, then LU Ops Gp will meet with Land User representatives 1 to 31 January of the following calendar year to determine the resolution. At this point, the non-compliance would be expected to be remedied by 1 October unless otherwise specified;

(5) Phase 4 – if the issue is not addressed within the specified timeline (e.g., 1 October), then a meeting with the RTAM O, LU Ops, and the Land User will occur 1 to 31 January of the following calendar year to find a remedy by 1 October;

(6) Phase 5 – if the issue is not resolved within the timeline specified (e.g., 1 October), then a meeting with the RCO/ G3, RTAM O, and LU Ops will occur 1 – 31 January of the following calendar year as a final attempt to resolve the issue. The land user will have until 1October to remedy the issue; and

(7) Phase 6 – if the issue is not addressed by 1 October or the date agreed to at the meeting, then the Base Commander will send a letter indicating his decision with respect to the appropriate remedial measures set out in para 63.

b. Theme 2 – Statutory or regulatory non-compliance issues requiring immediate action and reporting to the applicable authority, e.g., presence in the NWA without a permit:

(1) field inspectors/G3 Range Control report to B Env O;

(2) B Env O reports to B Comd and MPs, as required;

(3) B Env O reports or confirms the non-compliance issue to the appropriate federal or provincial authority (e.g., MPs, ECCC, DFO, AER); and

(4) the authority manages the non-compliance issue and the Base monitors as required.

61. Land Users shall acknowledge receipt of non-compliance notifications and confirm their intent to abide by the specified timeline and/or submit a request for amended remedial actions and/or timelines. Land Users shall provide updates to the Base on the progress of the corrective action. Once a non-compliance has been resolved, the Land User shall report completion to the Base to enable the appropriate inscription in the Compliance Log.

62. Repetition of the same type of incidents and/or chronic non-compliance across varying incidents by a Land User may prompt an escalated enforcement response even if individual non-compliant incidents are satisfactorily addressed. Non-compliant incidents on the CA EMS Corrective Action Register shall be escalated in accordance with the Internal Environmental Non-Compliance Management Process per CAO 11-07 (ref G). Oil and Gas Land Users will also be subject to the enforcement measures contained within their specific Access Agreements.

63. Escalated enforcement response from the Base Commander may include one or a combination of potential remedial measures:

a. Suspension or cancellation of access approval for the land use (site-specific). Access approval may be suspended or revoked for the specific land use development or activity that produced the incidents;

b. Denial of access approval applications for future land uses. Land Users may be denied access approval for all or specific future land uses until non-compliance issues are satisfactorily resolved;

c. Short-term suspension of Base access. Offending personnel and/or the supervising agency may be denied access to CFB Suffield Garrison, RTA, or both for a period of up to 120 days;

d. Long-term suspension of Base access. Offending personnel and/or the supervising agency may be denied access to CFB Suffield Garrison, RTA, or both for a period of up to five (5) years;

e. Permanent suspension of Base access. Offending personnel and/or the supervising agency may be denied access to CFB Suffield Garrison, RTA, or both indefinitely;

f. Administrative or disciplinary action. Military and non-military personnel may be subject to administrative or disciplinary action on behalf of their Chain of Command and/or supervising authority in accordance with established policies or agreements; and

g. Prosecution. Violations of the *Criminal Code* or of Canadian laws shall be subject to investigation and charges being laid.

SUMMARY

64. CFB Suffield is a world-class military training and research facility that hosts a complex array of land use activities. The RSOs provide legislatively grounded procedures and rules for land use governance and decision making to minimize land use conflicts, while ensuring land uses are managed in a manner compatible with legal and policy requirements, military mandates, and responsible environmental stewardship.

65. This chapter has provided background and orientation information about land use and management at CFB Suffield. Remaining chapters of the CFB Suffield RSOs outline in detail the procedures and rules for accessing and operating on the Base.

66. Comments and questions regarding the RSOs may be directed to the Range Control Ops Centre at (403) 544-4310 or (403) 544-4886. Range Control may direct inquiries to additional personnel as required.

CHAPTER 2 – LAND USE AUTHORIZATION PROCEDURES

INTRODUCTION

67. Conducting land use at CFB Suffield requires formal authorization. The levels and forms of authorization vary with Land User and the type of land use requested. The aim of this chapter is to present the hierarchy of potential land use authorizations, and the associated procedures to be applied by Land Users desiring access to CFB Suffield. Annex E details the specific points of contact to direct land use and access requests.

68. Categories of Land Use. Land use may involve developments and/or activities:

a. Development refers to land uses that involve ground disturbance and/or construction or installation of infrastructure including capital improvements that extend the economic life of existing infrastructure, changes in use, product, or intent for a site, expansion, reclamation, demolition, or disposal; and

b. Activities are considered land uses that do not fall within the definition of development (i.e., no ground disturbance or addition, expansion, or removal of infrastructure).

69. Lifecycle Management. All land use at CFB Suffield is approved, conducted, and regulated within a lifecycle management approach that links higher and longer-term land use plans to site-specific activities and developments, and regulates those land uses through to completion and closure. Lifecycle management incorporates three required steps:

a. Authorization for Land Use. No land use shall commence prior to obtaining all required levels of authorization. Authorizations may include land-use-specific approval conditions and contractual obligations (e.g., Access Agreement or License Agreement) with which the Land User shall comply. Requirements and procedures for land use authorizations are detailed in this chapter;

b. Compliant Conduct of Land Use. Land Users shall conduct land use in accordance with access agreements and/or access approval conditions, RSOs, directives, and all federal, provincial, and municipal laws applicable to access to, entry upon, occupation of, and use of CFB Suffield. This applies to implementation of authorized activities, and construction, operation, and ongoing maintenance of authorized infrastructure. RSO provisions for the conduct of land use are presented in Chapters 3 and 4. Land Users shall address any non-compliant incidents in accordance with the CFB Suffield compliance assurance and enforcement process (see Chapter 1); and

c. Land Use Completion and Close-out. Upon completion or discontinuation of a land use, Land Users shall conduct all required steps to remove infrastructure (i.e., decommissioning, abandonment, demolition, and/or disposal) and rehabilitate the land to the regulated and contractual standards (i.e., clean-up, remediation, and reclamation). Land Users shall also remedy any outstanding non-compliant incidents, complete an out clearance, and submit post-use reports and documents. General land rehabilitation requirements are presented in Chapter 4. Specific additional land use closure requirements are communicated within land use approval documentation and individual enforcement responses for non-compliant incidents as required.

LAND USE AUTHORIZATION

70. Land use authorization procedures facilitate two broad forms of authorization:

a. Land Access Approval. This approval is provided by the Base Commander in accordance with the *Defence Controlled Access Area Regulations*, and reflects consideration of military requirements, land use coordination and prioritization, safety, security, and environmental risks, and other land management factors; and

b. Real Property Approval. This approval is provided by RPOU (W) Det Suffield in accordance with the departmental delegation of real property authority through the ADM (IE). This approval provides legal authorization for land use, and reflects consideration of DND program and mandate requirements, indemnity and liability risks, and fair and transparent arrangements for use.

Land Use Requests

71. Land use authorization procedures vary with Land User and land use type; however, land use shall not commence until the following general authorization steps are completed:

a. endorsement in principle of long-range plans, vision, and/or project proposals (Part 1);

b. approval of site- and/or time-specific applications for developments or activities:

(1) Visiting Unit Request (VUR) (for visiting military units to book training) (Part 2);

(2) *Impact Assessment Act* (IAA) requirements (Part 3);

(3) Application for Development (AFD) or Activity (AFA) (Part 4); and/or

(4) NWA Permit (if applicable; Part 5).

c. non-objection of 15-day field authorizations (FAs) or submission of 1-day notifications of intent (NOI) (to commence approved access and/or conduct selected land uses that do not require an AFD or AFA) (Part 6); and

d. post-approval range clearances (Part 7):

(1) range safety briefing and range access permit with safety waiver (Oil and Gas Land Users are subject to the SIRC range access protocols);

(2) ground disturbance clearance including dig liaison(s), dig permit(s), and UXO clearances (as applicable);

(3) confirmatory wildlife survey(s); and

(4) in/out clearances (e.g., for visiting military units using bivouacs).

72. Land Users requiring authorization for use of existing DND facilities shall contact G3 Ops (403-544-4011 x4512). Facilities include buildings, and other sites such as the parade square, airfield, golf driving range, sprinkler park, Fort Whoop Up, and track and field park.

73. Non-oil and gas Land Users requesting authorization to make additions or modifications to DND permanent facilities shall contact RPOU(W) Det Suffield (403-544-4595, SUFPropertyOffice@forces.gc.ca). Depending on the nature of the request, a Work Order may be initiated for a minor modification or repair, or the Land User will be directed to prepare additional application materials through the LU Ops Gp. Major additions or modifications to permanent facilities may also require presentation and endorsement by the Base Commander through the RPCC.

74. Military Land Users requesting authorization to use non-DND land (i.e., off-Base) for military land uses shall contact G3 Ops (403-544-4011 x4512) to obtain VUR information.

75. The remaining parts of this chapter review the varying requirements and procedures for ongoing and potential Land Users to apply for and obtain land use authorizations.

PART 1 – LAND USE PLAN ENDORSEMENT

76. Land Users conducting ongoing and/or recurring land use shall submit forecasts and plans for Base Commander endorsement in principle per the sections below.

Section 1 – Military, Grazing, and Other Non-Oil and Gas Land Users

77. Military Land Users expected to conduct ongoing and/or recurring land use shall submit a Commander Vision in January of each year, or during specific coordination events occurring through the year as required in the Agreements established between the Base and the Military Land User. Documentation can be provided in the format the Commander chooses while referring to the topics from Annex F or use Annex F as is.

78. Grazing land use plans that include all known activity and development aspirations for the remaining term of the grazing agreement, or next five-year period, whichever is shorter, shall be presented to the Base Commander at the annual SGAC meeting. The Annual Development Plan (ADP) documentation (per Annex F, Appendix 1, and any supporting materials) shall be submitted to the LU Ops Gp (RangeSustainability@forces.gc.ca) on or before the day of the SGAC meeting. Within 30 business days, the Base Commander shall review the ADP material and provide a written response to the grazing Land Users regarding the endorsement in principle of the presented projects and plans. For those projects and plans endorsed to proceed for detailed consideration, grazing Land Users shall submit applicable documentation as presented in Parts 3 and 5.

79. Commencement of land use associated with endorsed plans is subject to approvals through the AFD, AFA, NWA permitting, and/or 15-day FA/1-day NOI processes (see Parts 3-5). Note: construction or expansion of permanent DND facilities endorsed through the RPCC are managed by RPOU (W) Det Suffield and are required to be processed through the land use authorization process (LUAP) as outlined in this Chapter but are not subject to an approval.

Section 2 – Oil and Gas Land Users

80. Long Range Plan. Oil and Gas Land Users shall provide a five-year forecast of activity and development aspirations, including number of wells and any significant infrastructure developments (e.g., compressors, major pipelines, new gates), remediation and reclamation plans, assignment, and removal of infrastructure. A map of projected developments shall be included. Long-range aspirations are understood to be subject to change; hence, they may be endorsed in principle, and later refined through the ADP, before being subject to approval through individual AFDs (see Part 4).

81. ADP. Oil and Gas Land Users shall submit an ADP with the following components:

a. Development Overview. This section shall include a chronological overview of all drilling, pipelining, facility, gas storage, and seismic programmes planned for the upcoming calendar year (January 1 - December 31). The facility portion shall include plans for new facilities and major upgrades or changes to the use of existing facilities. The overview shall refer to a 1:50,000 map or overlay depicting the locations of planned wells, pipelines, and any other associated infrastructure. Proposed locations shall be attached in an Excel spreadsheet in UTM and legal land description format; and

b. Preventative/Routine Maintenance, Capital Improvement, Abandonment, and Reclamation Plans. This section shall include a general description of the annual preventative/routine maintenance plan (including but not limited to information related to caisson repairs/replacements, cathodic protection, well servicing, pipeline liner installations, automatic shut off installations), and capital improvement, abandonment, and reclamation plans.

82. ADPs shall be presented by the Oil and Gas Land Users during the annual ADP meeting held with the Base, SEAC, SIRC, and the Oil and Gas Land Users in June. ADP documentation (per Annex F, Appendix 2, and any supporting materials) shall be submitted to the LU Ops Gp (RangeSustainability@forces.gc.ca) on or before the day of the ADP meeting. Reviews by DND will occur through the Army and ADM (IE) and therefore, written response should be expected prior to the Christmas leave season (mid-December) regarding the endorsement of the presented projects and plans. For those projects and plans endorsed to proceed for detailed consideration, Oil and Gas Land Users shall submit applicable documentation as presented in Parts 3, 4 and 6.

PART 2 – BOOKING MILITARY OR THIRD-PARTY TRAINING AT CFB SUFFIELD

Section 1– Booking Procedure

83. Units or third parties (e.g., RCMP) participating in exercises with DRDC – SRC or BATUS shall coordinate arrangements directly through the appropriate contacts unique to those organizations. All other organizations requesting use of the RTA shall contact G3 Ops to commence exercise planning. Use of the RTA is booked on a first-come-first-served basis; therefore, planning of smaller exercises (unit/sub-unit) units or third party's are encouraged to liaise with the Range Control Ops Warrant Officer (WO) (sufrangectrlopswo@forces.gc.ca) to determine if areas or ranges are available. Requests for larger exercises (brigade/unit live-fire) shall be vetted at the annual British Army Training in Canada (BATIC) conference (held in the Fall) before detailed planning may commence.

84. Once the exercise request is endorsed in principle through early planning discussions, the requesting unit or third party shall submit a VUR (Annex G) a minimum of 45 calendar days prior to the start of scheduled training. This document formalizes the unit's or third party's intentions and provides official notification and quantification of its support requirements. Organizations with access instruments (e.g., MOUs, License Agreements) in place may use the early planning discussions and VUR processes. Third party requests without access instruments will require endorsement through the Base Commander and may need to follow the AFA process.

85. Use of Bivouacs. Units may bivouac anywhere in the training area except in designated "no bivouac" or OOBs areas, as directed by Range Control. Range Control shall allocate the location of the bivouac site in accordance with an approved VUR, which shall detail all logistical requirements including engineer assistance and arrangements for tent floorboards, garbage containers for dry waste disposal, garbage pickup, ablution facilities (i.e., Mobile Laundry and Bath Unit (MLBUs)), grey water tanks, and chemical toilets. Note: funding for all support requirements is the responsibility of the unit.

86. Use of Training Infrastructure. Requests for use of BATUS training infrastructure shall be included in the VUR and may be subject to refusal or restriction. BATUS/UK training infrastructure has only been certified safe by UK Engineers for use by UK soldiers. Canadian soldier use is subject to certification by Canadian engineers. The training infrastructure state will be verified prior to and following usage via in and out clearances. Requesting units shall be held financially responsible for any damage resulting from their activities.

87. Construction or Installation of Infrastructure. Units or third parties requesting approval to construct or install training infrastructure and/or associated access (e.g., roads) as part of the VUR shall also be subject to completion of an AFD (see Part 4). Note: completion of AFD requirements and obtaining approvals may require considerable lead time. Development aspirations shall be discussed during early planning discussions to identify application requirements and timelines.

88. Once the VUR is processed, the unit or third party shall be notified if permission is granted and CFRIS will be updated accordingly. Questions pertaining to the VUR process may be directed to the G3 Ops.

Section 2 – Coordination of Ranges

89. Range Control (via the RCO and Ops WO) coordinates range use. Units or third parties with approved VURs shall contact Range Control directly (email, telephone, and/or face-to-face) to finalize arrangements. For large or complex exercises, an on-site range reconnaissance and range coordination visit by the units, or third party's exercise planners is highly recommended. Key coordination milestones that shall be achieved prior to commencement of the exercise include:

a. full identification of the size and scope of the proposed training;

b. coordination of specific real estate requirements;

c. submission, and approval by the RCO of all danger area overlays (per BGL-381-001/TS-000 Chapter 2) by no later than the fifteenth day of the month preceding the month in which training will take place. Failure to meet this deadline will likely result in cancellation of the training;

d. submission of the unit Commanding Officer's appointment list of exercise Officers in Charge (OICs), Range Safety Officers and Assistant Range Safety Officers (any time before training commences). This list shall be signed by the unit's Commanding Officer only and must be current within the last 12 months. Third parties are to confirm this requirement with Range Control;

e. confirmed approval of all range development components per AFDs associated with the exercise (see Part 4);

f. submission of 1-day NOIs to commence development approved through AFDs (see Part 6);

g. approval by the RCO of all proposed ground disturbance activities through the completion of the dig liaison/permit process (see Part 7 – Ground Disturbance Clearance);

h. agreement on the identity and call sign of the Template Controller/Range Safety Officer for all restricted templates;

i. submission of a bivouac access plan that uses existing trails and roads. Constructed access routes are prohibited unless authorized through an AFD process in conjunction with the VUR;

j. submission of a fire prevention plan including support requirements for mowing around targets, pre-burning, and addition of fireguards;

k. submission to Range Control of the exercise directive including details of exercise-specific environmental mitigation measures and reclamation actions with timelines for all areas of the RTA used during the exercise;

l. coordination of any other matters which may result from the unit's or third party's physical presence on the garrison and ranges (i.e. railhead on/offloading, establishment of temporary ammunition dumps, etc.); and

m. coordinate the details for the out-clearance timings and procedures to be completed at the end of training and prior to the Land User's departure.

Section 3 – Logistical and Administrative Support

90. G3 Ops coordinates all logistical and administrative support for visiting units or third parties, including coordination with Land Use Ops for Request for Discussion to determine any land management requirements/conditions for use of the RTA. Given the limited support capacity at CFB Suffield, visiting military units or third parties not hosted by DRDC – SRC or BATUS shall be prepared to deploy in a self-supporting capacity, or to be invoiced for support services contracted by CFB Suffield. The approved VUR represents the visiting unit's or third parties' authority for CFB Suffield to establish contracts to support the exercise. Units or third parties shall adhere to timings presented in the VUR to avoid jeopardizing the exercise through delays in establishment of service support contracts. The VUR shall include full details on financial arrangements and coding.

91. Units or third parties shall provide as much advance notice as possible of training cancellation. Cancellation of training may result in financial costs to the unit, or third party as related to cancellation terms for any established service support contracts.

92. Confirmation that units or third parties have correctly completed both the operational and support coordination processes will be evident from the following:

a. the unit's or third party's range bookings shall appear in the CFB Suffield monthly range calendar/CFRIS; and

b. G3 Ops shall distribute a Base Support Instruction (BSI) to affected CFB Suffield Branches, and to the unit or third party no later than seven days prior to the unit's or third party's arrival.

93. Units or third parties that do not receive a BSI should contact G3 Ops, as this may indicate problems with the arrangement of logistical support.

PART 3 – *IMPACT ASSESSMENT ACT (IAA)* REQUIREMENTS RELATED TO PROJECTS AS DEFINED IN THE *IAA*

94. The *IAA* came into force in 2019. The IAA distinguishes between Designated Projects and Projects. For Land User awareness, on the Base, the only activity that may be considered a Designated

Project is item 1 of the Schedule to the *Physical Activities Regulations*, which is "The construction, operation, decommissioning and abandonment in a *wildlife area […]* **(c)** a new oil or gas facility or oil and gas pipeline". Therefore, the text that follows pertains only to Projects.

95. In addition to the *IAA* and the *Physical Activities Regulations*, documents that Land Users shall be aware of include, as amended from time to time: the *Designated Classes of Projects Order*, SOR/2019-323 (ref H), DND Directive Regarding Environmental Impact Assessment (ref I), Interim Direction Pertaining to the Directive Regarding Environmental Impact Assessment (ref J), and the EIA Process under Interim Direction for the Federal Lands/Outside of Canada provisions of the Impact Assessment Act (flowchart).

96. The steps a Land User shall take include:

a. consider whether a proposed project may require an environmental effects determination under the *IAA* by considering the *Designated Classes of Projects Order*, SOR/2019-323;

b. where required for a specific Project, the Land User is responsible for consulting with the Indigenous communities per the Interim Direction Pertaining to the Directive Regarding Environmental Impact Assessment, page 12 (ref J);

c. submit to the LU Ops Gp (RangeSustainability@forces.gc.ca) a draft Abbreviated Environmental Effects Determination (AEED)/Environmental Effects Determination (EED) and a Notice of Intent to make an EED (project description) (with translated copy) (template available from LU Ops Gp) to Director General Environment Sustainability Manager (DGESM) for posting to the Canadian Impact Assessment Registry (CIAR);

d. a minimum of 30 days after registration to the CIAR, the Land User will send a Notice of Determination (template available from LU Ops Gp) to the Base;

e. submit a final draft AEED/EED to the LU Ops Gp;

f. the LU Ops Gp, with input from the Land User, will send the draft Notice of Determination to the Authority for the purposes of the *IAA*, whereby the Authority within the meaning of the *IAA* is the Base Commander when there is an Oil & Gas project and ADM(IE) for projects by other Land Users;

g. the final environmental effects determination will be made by the Authority for the purposes of the *IAA*;

h. the final Notice of the Determination, including any mitigation measures that were considered in making the determination will be sent to DGESM for posting to the CIAR no sooner than 30 days after the Notice of Intent; and

i. Land Users can move to the next requirement of the RSO based on their project type as listed in the following Parts of Chapter 2.

PART 4 – APPLICATION FOR DEVELOPMENT (AFD) AND ACTIVITY (AFA) PROCESSES

97. Land use approvals are facilitated through either the AFD or AFA processes where a Land User already possesses an Access Instrument including but not limited to a License Agreement or MOU. Where an access instrument has not been granted, proposals (Request for Discussions (RFD)) can be

submitted to the Base Commander for consideration of endorsement to proceed to the next step including the AFD or AFA processes.

Section 1 – Land Uses Requiring an AFD

98. The types of developments requiring an AFD approval include, but are not limited to:

a. new well or facility sites (including cathodic protection), or addition of wells or caissons to an existing site;

b. construction or expansion of military training and research infrastructure;

c. planned large-scale and/or multi-year RTA preparations to support military training involving ground disturbance using mechanical digging (e.g., minefield/plowing lanes, anti-tank ditches, target pit arrays);

d. new oil, gas, or water pipelines or access rights-of-way (ROWs);

e. construction, expansion, or upgrading of roads and fireguards;

f. expansions to existing sites or ROWs;

g. installation of water wells;

h. modifications to an existing site that change the approved site usage;

i. installation of fencing;

j. installation of corrals; and

k. addition or expansion of grazing dugouts.

Section 2 – Land Uses Requiring an AFA

99. Land uses that do not involve development as outlined for an AFD may require an AFA. Organizations that do not have access instruments in place (e.g., MOAs, MOUs, License Agreements) or are proposing a new/unknown activity on the Base may be required to submit a formal letter to the Base Commander for endorsement prior to providing an AFA. Activities requiring an AFA approval include, but are not limited to:

a. environmental research and monitoring programs;

b. oil and gas seismic programs;

c. community relations events, scattering of ashes from homesteaders, homestead visits (e.g., tours, trail rides);

d. use of surveillance drones or Uncrewed Aerial System (UAS) less DRDC – SRC requests;

e. other third-party use of the range not otherwise arranged through BATUS or DRDC – SRC, or associated with a VUR;

f. tour/visit requests to the NWA where agreements with the Government of Canada are in place (e.g., Oil and Gas Land Users, BATUS). NWA permits will be required per Chapter 2, Part 5;

g. tour/visit requests to the NWA where agreements with the Government of Canada are not in place or where agreements have not contemplated the activity which includes but is not limited to external agencies; and

h. deploy or operate new equipment and weapon systems/ammunition that has not previously been assessed for usage at Suffield, less DRDC – SRC equipment and experiments. A minimum of one year should be allocated for the review of this submission prior to usage at Suffield.

100. Land uses that do not require an AFD or AFA may be subject to the 15-day FA or 1-day NOI processes (see Part 6 for process and applicable developments and activities).

Section 3 – Application Submission

101. The following items are required in electronic format on CD/DVD/email. Oil and Gas Land Users are to work through SIRC who will compile the information into the formats required and transport the materials to DND. The following items are required for every AFD/AFA submission:

a. completed AFD or AFA forms (see Annex H and Annex I);

b. completed NWA permit application (if applicable; see Part 5);

c. GIS shapefiles, as applicable (e.g., wells, access routes, pipelines, and site footprint with attribute data and geo-spatial reference in UTM NAD 1983 Zone 12N);

d. *oil and gas applications only* - existing disturbances per section (DPS) report (as produced by Midwest Surveys Inc. or produced using Midwest Survey Inc data). See Chapter 4, Part 2 Section 3 for details on the DPS requirements;

e. conceptual development diagrams, as applicable (i.e., construction schematics and map with proposed location and extent). *For oil and gas applications only:* legal surveys (for oil development), site plans (for natural gas and facilities), or construction alignment plans (for pipelines or linear features) that depict existing and proposed infrastructure as prepared by a professional surveyor;

f. environmental work including draft Environmental Effects Determination per the *IAA* process above and wildlife observation data forms (see Annex J for detailed requirements and forms).
Note: Environmental work to support an AFD/AFA submission does not require separate approval from the Base Commander. Non-Oil and Gas Land Users shall contact the LU Ops Gp (RangeSustainability@forces.gc.ca) to coordinate range clearance and safety briefings for environmental personnel; Oil and Gas Land Users shall coordinate these clearances through SIRC;

g. list of existing groundwater wells that will support the land use being applied for in the AFD/AFA;

h. *non-oil and gas applications only* – where activity or development is proposed in the EPG, security clearance documentation shall be provided at submission which is reviewed through DRDC – SRC. Documents are available upon request through LU Ops Gp;

i. *military training infrastructure applications only* – a site management plan that includes the following information:

(1) a Standing Operating Procedure (SOP) detailing the specific orders for usage of the infrastructure;

(2) a monitoring plan to ensure that use is conducted in accordance with the usage SOP, approval conditions, mitigation measures, and RSOs;

(3) an ongoing maintenance plan; and

(4) the decommissioning forecast with reclamation plan.

j. surveillance drones or UAS – completed 3 CDSG Non-Military UAS Application & Approval form, available upon request from Range Control, in conjunction with the AFA submission.

102. Land Users (except Oil and Gas Land Users) shall submit AFD/AFAs directly to the LU Ops Gp (RangeSustainability@forces.gc.ca); Oil and Gas Land Users shall submit applications to SIRC, which will forward them to the LU Ops Gp for processing.

Section 4 – Application Review

103. Applications are reviewed during business days from Monday to Friday, excluding the military Christmas leave period (beginning mid-December through the first week of January).

104. Applications are first reviewed for completeness and accuracy. If errors or omissions are identified, the LU Ops Gp will return the application to the Land User (via SIRC for oil and gas applications). To proceed with the application, Land Users shall reapply with revised documentation that addresses the identified errors and omissions. Application review timelines shall commence upon receipt of complete and accurate applications. Acknowledgement correspondence shall be issued to the Land User upon confirmation that an application is complete and accurate and proceeding to further processing. All AFD/AFAs and 15-day FAs/1-day NOIs (Part 6) are registered, and project lists are created to assist with prioritizing applications and notifications. Project lists are provided to Land Users on a bi-weekly basis.

105. Building Codes and Standards. When an AFD is submitted for permanent infrastructure construction, alteration, or renovation, or a change of occupancy type, the following requirements shall apply:

a. all work shall conform to the requirements identified in A-GG-005-000/AG-001 Fire Protection Program Standard and shall meet the requirements of the documents referenced in Fire Marshal Directive (FMD) 1009 Orders, Codes and Standards. This includes, but is not limited to, conformance to the current edition of the following:

(1) *Canada Labour Code;*

(2) Alberta *Workers' Compensation Act;*

(3) FMD 4003 Fire Protection and Life Safety Engineering Design;

(4) National Building Code of Canada (NBCC);

(5) National Fire Code of Canada (NFCC);

(6) Canadian Electrical Code; and

(7) Treasury Board Fire Protection Standard.

b. materials and workmanship shall conform to, or exceed, current standards as indicated in Division B of the NBCC, which includes conformance to standards developed by the following:

(1) American Society for Testing and Materials International (ASTM);

(2) Canadian General Standards Board (CGSB);

(3) Canadian Standards Association (CSA); and

(4) Underwriter's Laboratories of Canada (ULC) standards.

c. when a specific requirement is not covered by any of the standards indicated above, established industry standards and engineering practices shall be followed. In the absence of such technical direction, the Canadian Forces Fire Marshal (CFFM) shall rule on the acceptability of the design;

d. in the event of a difference or conflict between referenced codes, standards and publications, the most stringent requirements shall apply; and

e. project documents submitted for review shall conform to the requirements outlined in the Administrative Provisions of the NBCC. Information contained in documents submitted shall conform to the applicable standard in force on the date of application submission. If codes or standards change during the review, the applicant shall be given opportunity to amend the AFD if required.

106. AFDs for training infrastructure shall adhere to the Canadian Army standard B-GL-381-002/TS-001 (Range Construction and Maintenance). BATUS/UK training infrastructure is constructed to UK standards and certified by UK engineers for BATUS/UK usage only.

107. Review Timelines. Upon submission, applications will follow either routine or non-routine processing streams. The application stream is determined based on responses entered on the AFD/AFA forms. Responses of "No" trigger a non-routine application.

a. Routine applications require a minimum of 30 business days for review.

b. Non-routine applications are not subject to fixed timelines as they require additional risk analysis of operational, policy, and environmental impacts.

108. Pre-Approval Documentation. If applicable, documentation from processes that run concurrently with the Base AFD/AFA processes shall be provided to the LU Ops Gp (RangeSustainability@forces.gc.ca) prior to issuance of an approval, including:

a. *Species at Risk Act* permits;

b. Fisheries and Oceans Canada authorizations;

c. Transport Canada authorizations (e.g., for radio frequencies);

d. Alberta Historical Resource Clearance Letters; and

e. AEP water licenses and research permits.

109. Request for Range Access Approval. When applicable, concurrent with the processing of AFD/AFAs, the LU Ops Gp shall prepare and circulate the Request for Range Access Approval for signature (Annex K). The LU Ops Gp shall forward the signed form to Range Control to authorize the Range Safety Briefing process (see Part 7).

110. Application Approvals. DND approval shall be issued in writing to the Land User in the form of a Notice of Decision (NOD) letter with accompanying NWA permit (see Part 5) and legal documentation, if applicable. Upon receipt of the NOD package, the Land User may proceed with applicable post-approval range clearance steps (see Part 7) prior to commencing the approved land use.

111. The Land User shall ensure that approval documentation (i.e., NOD and permit) is producible either in hard or digital copy and available for viewing when on the Base throughout the duration of the land use. For developments, the documentation may be held on site by the construction foreman, supervisor, or officer in command. SIRC shall ensure that Oil and Gas Land Users requesting access to the Base are in possession of the applicable approval documentation prior to providing a route clearance onto the Base.

112. Application Denials. Prior to an AFD/AFA receiving a decision of denial, the Land User will be provided the Base justification for denial and 30 business days to provide supplemental information to mitigate or further justify their need for the AFD/AFA. If supplemental information is not received and/or the information still does not meet the requirements of the Base, the denial will proceed. Where an AFD/AFA is not approved, the application may be revised and resubmitted with new information to meet the requirements. Re-submitted applications shall be subject to similar review timelines as original applications.

113. Amendments. If an application requires amendment, the Land User shall submit a revised application with a cover letter highlighting the information being amended. Amendments shall be processed differently depending on the status of the application being amended:

a. if the application is in progress, the new information will be incorporated into the review to inform the Base decision. Depending upon the magnitude of the amendment, the application review stream and timelines may change (e.g., shifted from routine to non-routine); or

b. if a previously approved application is amended, the Land User shall meet the following requirements while the amendment is being processed:

(1) minor changes: the approved land use may continue; however, a revised NOD shall be issued to the Land User. Minor amendments include, but are not limited to, site or well label changes and editorial errors; and

(2) major changes: the Land User shall contact the LU Ops Gp (RangeSustainability@forces.gc.ca) immediately to determine workable solutions that may include that the land use cease until consultation with the Base concludes. Results of the discussion will lead to an amendment, such as but not limited to, the Land User submitting amended material within 1-day of the reported change. Major amendments include those which affect development or environment requirements (e.g., wildlife concerns, changes to the interim reclamation method), increase the development footprint (e.g., previously unanticipated temporary workspace), add infrastructure to a site (e.g., facility caissons), or change the approved land use (e.g., introduce requirement for ground disturbance), location, timeline, or site designation.

114. Approval Expiry:

a. development approvals within the RTA minus the OAA shall expire when (1) construction does not start within one year from the date of issue; or (2) construction is not complete within two years from the date of issue. Development approvals within the OAA shall expire when (1) construction does not start within two years from the date of issue; or (2) construction is not complete within three years from the date of issue. The construction start date is considered to occur when ground disturbance begins for the installation of infrastructure. Construction is considered complete when ground disturbance ends for the installation of infrastructure but shall not necessarily include interim reclamation commencement (e.g., contouring and seeding).

b. activity approvals are issued for prescribed dates as indicated on the NOD and expire once those dates have elapsed.

115. Approval Extension. When construction/activity does not start or is not anticipated to be completed within the required timelines, the Land User may request an approval extension via email to the LU Ops Gp prior to expiry of the NOD and within an appropriate timeframe for the Base to provide documentation back to the Land User prior to expiry (e.g., minimum of 30 working days). The Land User shall submit reason(s) for the extension and confirm that there are no changes to the original AFD/AFA. If granted, a non-objection for the extension at the same length of time as the original approval shall then be issued unless Base Commander authority is required for other reasons. AFD/AFA extensions are evaluated on a case-by-case basis and may be issued for the timeline requested by the Land User to complete the project. No extensions shall be granted on expired approvals.

116. Land Use Cancellation. To cancel an approved land use at any point prior to commencement, the Land User shall submit an email to the LU Ops Gp with the file number, site location and cancellation date. Any site where ground disturbance was commenced but then submitted for cancellation shall be subject to required reclamation procedures per Chapter 4, Part 7. The Base Commander reserves the right to cancel land use approvals per Chapter 1 paragraph 7.

117. Post-use Reporting and Document Submission. 30 business days following construction or activity completion, the Land User shall submit to the LU Ops Gp (RangeSustainability@forces.gc.ca) the following:

a. project-specific reporting requirements, as specified in the NOD;

b. finalized development diagrams (e.g., site drawings/as-built drawings/surveys that depict but are not limited to any additions of infrastructure to sites or site dimension changes);

c. supplemental environmental documentation (e.g., wildlife load forms from results of wildlife surveys or confirmatory wildlife surveys; (Annex J));

d. construction or activity commencement and completion dates; and

e. *oil and gas applications only* – post-construction information (i.e., AER licence number, Alberta lease date, spud date, deepest formation, Unique Well Identifier (UWI) for all bottom hole locations, well name).

PART 5 – NWA PERMITS

Section 1 – Application Process

118. Land Users requiring access to the NWA shall submit an NWA Permit Application (Annex L, Appendix 1) as part of an AFD/AFA application package (see Part 4). An NWA permit alone does not grant access to the range; permits are issued in conjunction with approved AFDs and AFAs. Land Users entering the NWA shall also complete all necessary post-approval range clearance steps (Chapter 2, Part 7).

119. The RSS Bio Group is the primary point of contact for all NWA permitting inquiries (403-544-4011 x5184). Land Users with aspirations to conduct land uses in the NWA are encouraged to first liaise with the RSS NWA Biologist to assess the potential for obtaining an NWA permit before submitting a land use application.

120. Permit applications are assessed in relation to DND mandates and land management goals, NWA Management Strategy (ref K), and relevant legislation and policies. Any activity within the NWA shall be reviewed to prioritize conservation and minimize wildlife interference.

121. The issuance of an NWA permit may be contingent upon:

a. the outcome of an Environmental Effects Determination (submitted per Part 3) pursuant to the *IAA;*

b. obtaining a permit to engage in an activity that will affect a listed wildlife species, any part of its critical habitat, or the residences of its individuals, pursuant to the *Species At Risk Act (SARA)* (Sec 73);

c. obtaining required authorizations (e.g., AEP research permits, collection licences); and

d. in the case where an NWA permit is required for "The construction, operation, decommissioning and abandonment in a *wildlife area […]* **(c)** a new oil or gas facility or oil and gas pipeline" then the activity is a Designated Project and the issuance of a NWA permit is contingent upon the outcome of an impact assessment pursuant to the *IAA*.

Section 2 – Permit Issuance

122. An NWA permit is issued to the Land User with the NOD for the associated approved AFD/AFA (see Part 4). An NWA permit identifies the permit holder, states the permitted land use, the permit duration, and the conditions of access, and includes signature blocks for Base Commander approval and acknowledgement by the permit holder (See Annex L, Appendix 2 for example permit).

123. The permit holder shall complete the acknowledgement block on the permit in the presence of RSS Biology staff.

124. All Land Users conducting land use under an issued permit shall have the permit document (original, photocopy, or digital) available for presentation when operating in the NWA; the named Permit Holder shall be accountable for permit compliance of all individuals operating under the permit.

125. Amendments. Permit holders are restricted to conducting permitted activities. If amendments to the AFD/AFA approval are granted (per Part 4 – Amendments), the Land User will receive an updated NWA Permit.

126. Reporting. In addition to other reporting conditions stipulated on the permit, permit holders shall submit an NWA Access Summary report (Annex L, Appendix 3) within 30 days of expiry of the permit.

127. Permit Suspension. The Base Commander is in no way obligated to issue requested permits and reserves the right to suspend a permit. If an NWA permit is suspended, the associated AFD or AFA shall also be invalidated for all portions of the land use within the NWA.

Section 3 – Routine Activity Permits

128. Base personnel who require regular access to the NWA as a part of their job functions are included under routine activity permits issued at the Branch Head level. Before entering the NWA, all personnel shall familiarize themselves with and comply with their applicable permits.

129. Land Users routinely accessing the NWA pursuant to existing agreements (e.g., oil and gas and grazing Land Users) shall operate in accordance with routine activity permits.

130. Routine activity permits may be reviewed, amended, reissued, or suspended at any time, and shall be updated when permitted personnel, positions, or Land User agreements change.

PART 6 – FIELD AUTHORIZATIONS (FA) AND NOTIFICATION OF INTENT (NOI) PROCESS

Section 1 – Land Uses Requiring a FA and/or NOI

131. FAs and NOIs provide the Base Commander with information regarding administrative changes, commencement of approved land uses, and modifications, maintenance activities, or repairs at existing sites. Definitions for each process include:

a. a 15-day FA will request land use activities in accordance with Tables 2-1 and 2-3 and will require a non-objection e-mail from the Base to the Land User prior to commencement of the activity; and

b. a 1-day NOI is submitted to the Base to indicate the commencement of a land use based on Tables 2-2 and 2-4.

132. RPOU (W) Det Suffield PM Projects/CF141. Where PM Projects or CF141 requests are in place, B Env O/LU Ops Gp will receive the RPOU (W) Det Suffield initial siting documents and process through LUAP to provide recommendations to RPOU (W) Det Suffield for consideration. The process will follow the same flow as the 15-day FA per internal PM Consultation Process and/or CF141/Contract Consultation Process flowcharts. Flowcharts available upon request to LU Ops Gp.

Table 2-1: FA categories for military, grazing, and other Non-Oil and Gas Land Users

Serial	Notification Type	Land Use Type
1	15-day	Military training infrastructure improvements or modifications that do not require an EED
2		Planned Digging: -Mechanical and hand digging for exercise-specific RTA preparations (e.g., defensive positions) and hand digging not reviewed through a VUR -Target pits, vehicle/warrior pits, gun pits, trenches
3		Maintenance of existing infrastructure including but not limited to water tank repairs, fence repairs with ground disturbance, water pipeline repairs, utility replacements & repairs, and culvert repairs *maintenance of military infrastructure is performed through the RTAI.
4		Re-configuration of corrals (same approximate location)
5		Importation/storage/usage/transportation of soils per Chapter 4, Part 6 Section 2 *include soil management plan/methods with the FA material
6		Decommissioning/abandonment/clean-up of existing facilities, sites and trail closures
7		Livestock fence removals
8		Reclamation/remediation (e.g., trail removal, contamination removal, interim reclamation, end-life site reclamation) *analytical results of contamination investigation shall be submitted with the FA material
9		Pre-burns or fire to control undesirable plants
10		G3 Road Maintenance within the NWA
11		Change of location of seacans (e.g., removal from RTA to Base)

Table 2-2: NOI categories for military, grazing, and other Non-Oil and Gas Land Users

Serial	Notification Type	Land Use Type
1	1-day	Approved AFD work commencement or approved activities (AFA)
2		Dynamic Digs (BATUS & VUR) – mechanical and hand digging in support of tactical scenario-based training at company level or greater including but not limited to -defensive position trenches -minefield breaching that can include scraping/plowing -infrastructure crossing of manufactured rivers, bridges, fascines *7-day notice prior to commencement required to Range Control & LU Ops Gp **1-day notice with locations required via email to the LU Ops Gp ***confirmation is required that the Go/No-Go map was assessed during location determination
3		Maintenance of existing fireguards
4		Undesirable plant control (e.g., weed spraying, mowing)
5		Salt placement for cattle grazing

Table 2-3: FA categories and requirements for Oil and Gas Land Users.

Serial	Notification Type	Land Use Type
1	15-day	Ground disturbance including but not limited to: - caisson repairs/replacements - surface casing vent leaks - riser replacements - removal of infrastructure/fencing - well abandonment - pipeline or caisson abandonment (bellholes) - pipeline repairs - decommissioning of facilities and access trails that require more work than stipulated within Annex M
2		Importation/storage/usage/transportation of soils per Chapter 4, Part 6 Section 2 *include soil management plan/methods with the FA material
3		Change of use/product at a site
4		Remediation activities related to Phase II contamination removal *include analytical results of contamination investigation with the FA material
5		Access changes (e.g., re-routes) or upgrades other than the requirements within Annex M
6		Additions to existing sites including but not limited to: -cathodic protection that may include but not limited to linear features (e.g., cables), anode beds, sacrificial anode beds, rectifiers -electrical line/cables -caisson additions/expansions -facility changes/additions/replacements (e.g., permanent tank installations) -occupied trailers
7		Assignments between oil and gas companies

Table 2-4: NOI categories and requirements for Oil and Gas Land Users.

Serial	Notification Type	Land Use Type
1	1-day	Approved AFD/AFA/FA work commencement including but not limited to: - drilling rigs, facility & pipeline construction, and seismic exploration - transportation of approved soils throughout Base - placing built/constructed sites into interim reclamation
2		Service rigs including but not limited to: - fracturing, oil service, injection service, disposal service, gas service rigs, and abandonment rigs
3		Spill remediation, spill infrastructure repair, spill interim reclamation
4		Water withdrawals not associated with drilling programmes and/or AEP water licenses
5		NWA Ground Disturbance Registry submissions including a NWA Reclamation Site Management Plan with Pre Disturbance Preparation & Registration, On-site Record, and One Year Post Construction Check-up
6		Low ground disturbance well abandonments
7		Access trail repairs as described in Annex M
8		Access trail closures *from and to locations required
9		Temporary in-field storage of service equipment (e.g., tanks, rigs)
10	Base NOI not required, however the oil and gas Land User shall notify SIRC and data is available upon request	Perforating
11		Logging
12		Swabbing or any well work requiring vehicles of similar size and impact of a swab operation
13		Siphon string pulls
14		Hauling produced water
15		Snow ploughing
16		Single well battery (SWB) installations
17		Line heater installations
18		Temporary aboveground piping
19	No notification required	Re-contouring of caissons and pipelines (safety reasons due to slumping)
20		Hydrovac activities for the purpose of line locating only
21		Additions or modifications within existing caissons or buildings where change of use/product is not occurring
22		Surface water discharge (pump-offs) -oil and gas Land User shall notify SIRC and data is available upon request

Section 2 – FA and NOI Submission

134. Land Users shall submit FA requests and NOIs to the Base for 15-day or 1-day (business days) processes according to the requirements listed in Tables 2-1 to 2-4. An FA or NOI may also be required on a case-by-case basis as part of the Land User response to remedy a non-compliant incident (see Chapter 1 Part 4 Compliance Assurance and Enforcement). The 15-day FA form is available from the LU Ops Gp upon request. An image and instruction is located at Annex N Appendix 1 and 2.

135. Submission Format. Each 15-day FA shall be submitted to the LU Ops Gp (RangeSustainability@forces.gc.ca) by email. One or more 1-day NOIs shall be submitted by email using the template at Annex N, Appendix 2. Dynamic dig notice shall be submitted 7-days prior to training activity to allow Range Control to coordinate with SIRC for line locate crews to be available 24 hr/day during the training activity. Submission of known digging locations shall occur via email to the LU Ops Gp (RangeSustainability@forces.gc.ca) and Range Control (sufrangectrlopswo@forces.gc.ca) as a 1-day NOI prior to proposed digging commencement and LU Ops Gp will provide an email indicating the status of the area based on the go/no-go map.

136. Environmental Work. For land uses to be conducted under a 15-day FA during the period of 1 March – 15 October, environmental work shall be performed in accordance with Annex J. FAs for land uses conducted outside of this time range do not require environmental work, unless the Land User is provided specific direction. Where environmental work was not performed, Land Users shall provide a statement indicating why the environmental work was not performed either at submission or as part of the Post-use Reporting and Document Submission.

137. Oil and Gas Abandonments. All forms of well, pipeline, and facility abandonment require a 15-day FA or 1-day NOI depending on type of abandonment. Abandonments at the cut and cap stage that include ground disturbance require a 15-day FA (per Table 2-3, serial 1). Well abandonments applying low impact water jet technology, any other type of abandonment where the only ground disturbance includes hydrovac slots (similar to line locates), and downhole abandonment work, require a 1-day NOI (per Table 2-4, serial 6). Any soil additions to the site need to follow the requirements at Chapter 4, Part 6, Section 2 Soils and Terrain para 363.

Section 3 – FA and NOI Review

138. Submissions of FA requests and NOIs are reviewed on business days from Monday to Friday, excluding statutory holidays and the period designated as military Christmas leave beginning in mid-December through the first week of January of the following year. Dynamic digs will be reviewed pending email request from Military Land Users and responses delivered within 1-day.

139. Non-Objection Response. The LU Ops Gp shall issue either an objection or non-objection response (in the form of an email) for all notifications that fall under a 15-day FA. Upon receipt of the non-objection response, the Land User may proceed with applicable post-approval range clearance steps (see Chapter 2, Part 7) prior to commencing the approved land use. Dynamic dig responses shall be delivered within 1-day; the Military Land User can commence activity in conjunction with the dig liaison.

140. The Land User shall abide by any and all conditions included in the non-objection response. The Land User shall ensure that approval documentation (i.e., non-objection response, original NOD, and applicable permits) is producible and available for viewing when on the Base throughout the duration of the land use. The documentation, in digital or hardcopy, may be held on site by the construction foreman, supervisor, or officer in command. SIRC shall ensure that Oil and Gas Land Users requesting access to the Base are in possession of the applicable approval documentation prior to providing a route clearance onto the Base.

141. Base Commander consent is implied for 1-day NOIs, (IAW para 139) unless the Land User receives an email from the LU Ops Gp explicitly objecting to the activity prior to commencement.

142. If the Base provides an objection response to a Land User 15-day FA, the Land User may revise and re-submit the 15-day FA request to meet the requirements set out in the objection. Re-submitted 15-day FA requests shall be subject to similar review timelines as the original request.

143. FA Amendments. If a 15-day FA or its supporting information requires amendment, the Land User shall contact the LU Ops Gp (RangeSustainability@forces.gc.ca) immediately to determine workable solutions that may include but are not limited to the land use ceasing. All amendments shall include the Land User submitting a revised request with updated memo, site list, and site plan, as applicable, highlighting the amended information. An amendment may occur prior to or after the non-objection response. Amendment types include but are not limited to changes in equipment type, those which affect environmental requirements, increase the land use footprint, or addition of sites.

144. FA Non-Objection Expiry. A non-objection response shall expire when (1) the land use does not commence within one year from the date of issue; or (2) the land use is not complete within two years from the date of issue. Land use with ground disturbance is considered complete when the ground disturbance actions are completed but shall not necessarily include interim reclamation commencement (e.g., contouring and seeding). No extensions to non-objections shall be granted.

145. FA Cancellation by Land User. To cancel a 15-day FA at any point prior to commencing the work, the Land User shall submit an email to the LU Ops Gp (RangeSustainability@forces.gc.ca) with the file number, site location and cancellation date. Any site where ground disturbance commenced but then submitted for cancellation shall be subject to required reclamation procedures per Chapter 4, Part 7.

146. Post-use Reporting and Document Submission. 30 business days following construction or activity completion, the Land User shall submit to the LU Ops Gp (RangeSustainability@forces.gc.ca) the following information to complete and close a 15-day FA file, unless previously coordinated with LU Ops Gp,

a. reporting requirements as specified in the non-objection response;

b. development surveys or drawings (e.g., as-built drawings);

c. Military Land User final ground disturbance location(s) in UTM NAD 1983 Zone 12N;

d. environmental work and any supplemental environmental documentation (e.g., wildlife load forms from wildlife surveys or confirmatory wildlife surveys (Annex J) or a statement indicating why environmental work was not completed; and

e. construction commencement and completion dates.

PART 7 – POST-APPROVAL RANGE CLEARANCE PROCESSES

Section 1 – Range Safety Briefing (RSB)

147. All Land Users (military and non-military) shall receive a RSB prior to being granted access to the range. This briefing shall remain valid for 12 months from the date of the briefing. Due to their extensive activity on the RTA, Range Control personnel shall receive a RSB every six months.

148. The RSB shall, at a minimum, detail the following:

a. general information on CFB Suffield;

b. description and contact information for the movement control stations designated at CFB Suffield (see Chapter 3);

c. radio protocol including the correct method for requesting route clearance, providing radio reports, and checking in and out radio equipment;

d. obligations of Land Users, including the need to always maintain communications with their movement control station;

e. explanation of the need to remain out of red templates and other out-of-bounds areas;

f. examples of UXO and the actions to be taken in the event of an encounter with UXO, especially suspected chemical UXO;

g. the responsibility to report any potential hazards encountered on the RTA (e.g., bad stretches of road, washouts, obstacles, fires);

h. actions on becoming lost, straying from approved route, or in the event of an emergency;

i. road speed limits and how they are subject to change, including an explanation of speed enforcement mechanisms;

j. environmental and wildlife concerns and rules; and

k. specific hazards pertaining to known sites.

149. At the conclusion of the RSB, non-military personnel shall be required to sign a range access permit with safety waiver (Annex O), which will also be signed by the RCO or designate and returned to the Land User. Oil and Gas Land Users are subject to the SIRC range access protocols. Access shall be denied to all Land Users not willing to accept the dangers and control measures outlined in the RSB and waiver document. Land Users shall always have the range access permit available for presentation when operating in the RTA.

150. Range Control Ops in building 604 provides the RSB, but in the interest of practicality, the following organizations are also authorized to conduct RSBs and coordinate pre-access safety checks for entry into the RTA:

a. DRDC – SRC, HFOS for personnel, contractors, visitors, and Land Users associated with DRDC – SRC;

b. DIO SD Trg (Can) Range Safety Liaison Officer (RSLO) for BATUS permanent and temporary staff, contractors, troops, and visitors; and

c. Supervisor, SIRC for Oil and Gas Land Users.

151. Visiting Canadian military units shall screen all military and non-military members, contractors and proposed visitors through the RSB process before gaining access to the ranges. All visiting units shall appoint an Office of Primary Interest (OPI) who will receive a RSB from Range Control. The unit OPI shall then provide the RSB to all visiting unit personnel (military and non-military). The unit OPI shall provide to Range Control, no later than 12 hrs after arrival, a signed nominal roll indicating the personnel who have received the RSB. Personnel who have not received the RSB will not participate in training

until they have received the RSB and the nominal roll has been updated with Range Control. Access shall be denied to those not willing to accept the dangers and control measures.

152. Escort Range Access Permit. The use of an escort range access permit (Annex P) is reserved for exceptional cases when it is not practical or feasible to provide an RSB. The permit document includes a safety waiver that shall be signed by the permitted individual. Access shall be denied to those not willing to accept the dangers and control measures outlined on the permit. Persons in possession of an escort range access permit shall always be under escort within the RTA by a person in receipt of a valid RSB. For Oil and Gas Land Users, SIRC does not utilize the Escort Range Access Permit as a part of their range access protocols.

Section 2 – Ground Disturbance Clearances

153. Ground disturbance is considered as any land use on or under the land surface including, but not limited to, excavating, digging, trenching, plowing, drilling, tunnelling, augering, backfilling, blasting, topsoil stripping, land levelling, quarrying, clearing, and grading that results in a disturbance or displacement of the soil.

154. Ground disturbance, especially mechanical excavation, at CFB Suffield involves significant safety risks because of the presence of underground infrastructure and hazards including, but not limited to, natural gas, oil, injection, sewage, and water pipelines, telecommunication, and electrical power conduits, and known contaminated areas. To mitigate risks associated with ground disturbance and comply with the Alberta *Pipeline Act* and the Alberta *Occupational Health and Safety Code 2009*, Land Users shall adhere to the dig liaison and dig permit process requirements, as applicable, (processes described below) to locate and mark underground infrastructure and hazards (i.e., to conduct line-locates) for all ground disturbances.

155. All ground disturbance shall be conducted in accordance with a land use authorization (i.e., NOD/non-objection). A dig liaison and/or dig permit shall be requested for only approved ground disturbance, these two processes are separate, and are the responsibility of the Land User to organize and submit to the appropriate authorities. Dig liaisons and/or dig permits in no way provide approval for land uses requiring ground disturbance, nor do they fulfill the requirements for other post-approval range clearances. Dig liaisons shall not be used to request amendments to land use approvals involving ground disturbance. Land Users shall request amendments to approved land uses through the process detailed in Chapter 2, Part 4 and Part 6 prior to requesting a dig liaison or dig permit.

156. Dig Liaison. For military and other Non-Oil and Gas Land Users, a request for a dig liaison (Annex Q, Appendix 1) shall be submitted to Range Control (sufrangectrlopswo@forces.gc.ca) a minimum of 48 hours prior to the scheduled start of digging. Military Land Users shall include a dig trace with the dig liaison form.

157. A dig liaison at the proposed ground disturbance site shall include representatives of the Range Control (dig liaison coordinator) and Land User, and personnel from the following organizations as applicable:

a. SIRC – coordinates with applicable operator(s) to ensure their personnel and line locate companies attend dig liaisons as requested. Where operators determine from a desktop perspective that their infrastructure is more than 100 m from the ground disturbance, an email from the operator can be provided to the Base rather than attendance. The email shall include the map product used to determine there are no issues and shall be signed by a company representative;

b. RPOU(W) Det Suffield – to conduct line locates for DND infrastructure and issue a final dig permit (see below for dig permit requirements);

c. DRDC – SRC – to advise on ground disturbance hazards in the EPG; and

d. G3 RSS – as required, to aid with any environmental concerns that may arise during the dig liaison. Additional or unforeseen environmental or siting concerns identified during the dig liaison may require the submission of an amended AFD/NOI.

158. Personnel at the dig liaison shall comment on and sign the dig liaison request form to provide clearance for digging of their marked areas. The final authorization to dig shall be provided by the RCO through the signed dig liaison form. The dig liaison results shall be distributed to all parties involved in the process.

159. Oil and Gas Land Users shall conduct their own line-locates and do not require dig liaisons or dig authorizations from Range Control. Oil and Gas Land Users shall obtain a dig permit if conducting ground disturbance within 30 m of DND infrastructure (see Dig Permit process below).

160. Dig Permit. For proposed ground disturbance within the Base Admin Area, or 30 m of DND infrastructure, Land Users shall submit a request for a dig permit to RPOU (W) Det Suffield (Annex Q, Appendix 2) as follows:

a. Non-Oil and Gas Land Users shall submit a dig permit request with a dig liaison request to Range Control; and

b. Oil and Gas Land Users shall submit a dig permit request to the LU Ops Gp.

161. No visible UXO shall be on the site prior to commencing ground disturbance. Ground disturbances conducted by civilian organizations and contractors shall require a UXO clearance of the site, whereby how to complete the clearance can be confirmed through Range Control, and all results provided to sufrangectrlopswo@forces.gc.ca, with consideration for the nature of the project proposed. All ground disturbance at the site shall cease if UXO is discovered. Any UXO discovered prior to or during ground disturbance shall be marked, as per instructions in Annex AA, and reported to Range Control by the Land User, and removed based on Annex AA Appendix 1, prior to commencement or re-commencement of ground disturbance.

162. Ground disturbance shall be conducted in accordance with soil handling provisions detailed in Chapter 4, Part 7 Section 2.

Section 3 – Confirmatory Wildlife Surveys

163. Confirmatory wildlife surveys are to be completed prior to commencing a land use such as but not limited to land use approved through the AFD or FA processes. The Land User shall complete a confirmatory wildlife survey in accordance with Annex J. If any wildlife issues are detected, the land use shall not commence, and the Land User shall immediately report the findings to the LU Ops Gp to discuss required mitigation measures.

Section 4 – Clearance Process for Use of Bivouacs by Visiting Military Units

164. March-In. Whenever a unit bivouacs in the training area, they will be marched into the site by Range Control. Upon march-in, the bivouac site shall be subject to fire, hygiene, environment, and safety inspections by Base representatives. The unit shall coordinate these inspections and obtain signatures of

clearance on the User-Unit After Action Report (AAR) (Annex R). All digging and excavations shall adhere to Ground Disturbance Clearance requirements (Section 2) and soil handling provisions (Chapter 4, Part 7 Section 2). The unit shall also record the UTM locations of all digging and excavations on the User-Unit AAR to permit follow-up repair and inspection. If the unit is unable to carry out a physical inspection of the site and agrees to accept the area sight unseen, a report on the status of the facility and the provision of administrative requirements shall be forwarded to Range Control (sufrangectrlopswo@forces.gc.ca) within 24 hours of occupation.

165. Upon march-in, units shall have in their possession a copy of current RSOs and the Monthly Range Calendar. These documents shall always be available for presentation during the unit's use of the range. Prior to use of a bivouac, units shall also be familiar with CAO 11-40 Fire Safety. Bivouacs shall be established in accordance with the requirements of Fire Marshal Directive (FMD) 2000 DND/CAF Fire Protection Services Standard on Deployed Operations.

166. Reconnaissance parties and control or safety staffs shall receive a briefing on environmental protection from the B Env O or representative. User units are responsible to thoroughly brief their personnel on environmental requirements and restrictions.

167. The unit shall ensure that all personnel are briefed on the conditions of occupancy within the first 24 hours of establishing the bivouac. The briefing will include safety, fire, hygiene, environmental, and the unit's responsibility for cleanliness on march-out.

168. March-Out. Prior to leaving the bivouac area, the unit shall comply with the following requirements:

a. the complete bivouac area will be free of all garbage. Over-full dumpsters shall not be left in the training area. Arrangements for removal of dumpsters shall be confirmed before a unit is certified clear of a bivouac;

b. all excavations noted on the Range Clearance/AAR and any other incidental holes and pits dug by the unit shall be refilled with soil stockpiled during excavation at the site. Wood or garbage of any type shall not be used to refill holes or pits;

c. the water drain trenches for the tented areas shall be filled to ground level using soil on-site;

d. all string, cord, cable, hessian, mine tape, or wire erected or used to support aerials, antennae, field telephones, or to hang clothes and mark pathways shall be removed; and

e. all temporary building signs and fences (including pickets and concertina) shall be dismantled and removed. Building materials including boards, timber, logs, or tin shall be removed. Pallets, duckboards, and platforms shall be returned to a designated location or to the location where they were issued.

169. The bivouac march-out inspection shall be conducted after the departure of the unit's main body. The unit shall provide the Range Control representative with a map, trace or grid reference record of all training areas used, and all areas identified for follow-up reclamation in accordance with the unit's environmental mitigation plan (see Coordination of Ranges, para 89); Range Control may also direct additional areas to be inspected.

170. The march-out inspection team will conduct a physical check of the bivouac area completing the AAR form (Annex R). The team shall consist of:

a. Range Control representative;

b. Base Environmental Officer and RSS representative;

c. RPOU(W) Det Suffield representative if engineer work is required; and

d. Officer or Senior NCO representing the visiting unit.

171. The march-out inspection team shall note deficiencies and damages to the unit and appropriate Base branches. Units should plan two days for the rear party to complete march-out and shall have sufficient personnel and equipment to correct any faults found and conduct reclamation actions in accordance with the unit's environmental mitigation plan. Note: some reclamation actions may require follow-up action beyond two days. The march-out inspection team shall assess longer-term reclamation requirements and report on the specific tasks and timelines; fulfillment of the reclamation tasks shall be set as a condition on signing the march-out clearance.

172. Costs for damages incurred by the unit shall be recovered through the unit, including longer-term reclamation actions that are not resolved by the specified timeline. If necessary, the decision for unit responsibility for costs shall be determined by the Base Commander in consultation with the unit, CFB Suffield G3 Branch and RPOU(W) Det Suffield.

CHAPTER 3 – RANGE ACCESS AND MOVEMENT CONTROL

INTRODUCTION

173. Access to and movement on the RTA is strictly controlled. Safe allocation and use of the RTA is achieved through rigorous terrain management and movement control measures, and ongoing policing of the deployment and movement of all Land Users.

174. Land Users, not including Oil and Gas Land Users who are subject to the SIRC range access protocols, shall not be permitted to enter the RTA unless they are in possession of:

a. proof of access approval (per procedures detailed in Chapter 2);

b. a range safety briefing and signed safety waiver (as defined in Chapter 2, Part 7);

c. a Base map (as defined in Chapter 1).

d. a radio signed out from Range Control. Cellular phone is permitted in exceptional circumstances only;

e. clear understanding of their destination(s);

f. route clearance – confirmation via radio from one of several movement control stations that their proposed route does not traverse any dangerous areas (see Annex R for radio voice procedure); and

g. firefighting equipment – all commercial vehicles (e.g., pick-up trucks) shall minimally be equipped with a fire broom or fire beater to put out grass fires, and a portable 10 lb dry chemical fire extinguisher for the vehicle.

175. Access onto the Base shall be made through a Base-designated entry point only; climbing over/through or cutting of fence lines or locked barriers is prohibited.

176. Land Users shall travel only along approved routes as cleared through Range Control or authorized control centre (see Part 2). Military Police (MPs) and Alberta Fish and Wildlife Officers are not required to request route clearances; standard operating procedures (SOP) for these entities are held with Range Control. Range Control shall be consulted prior to activities of the MPs or Alberta Fish and Wildlife Officers per the SOP and Annex S.

177. In addition to requesting route clearances, all Land Users, not including Oil and Gas Land Users who are subject to the SIRC range access protocols, shall conduct hourly radio check-ins when operating in the RTA.

178. Incursions. All Land Users are expected to remain vigilant for incursions into their allotted areas (e.g., people getting lost). All incursions shall be reported to Range Control immediately. Military units shall immediately stop all live-fire. The unit may also dispatch a vehicle to intercept the offender to prevent further disruption to the unit or other Land Users. Range Control shall deploy to the area and escort the offender out of the area. Further measures will be taken depending upon individual circumstances.

179. Missing Persons Searches. The RCO is the designated CFB Suffield Search Master and is responsible for detailed planning and conduct of all searches for missing persons related to military and

non-military use of the RTA. Land Users shall notify Range Control of missing persons immediately. All live-fire training shall be suspended until missing persons are found and removed from danger areas.

180. Emergencies. Personnel experiencing or encountering an emergency shall contact their movement control centre immediately. The use of certain phrases on the radio indicates an emergency in progress (e.g., Pan Pan Pan, May Day, Casevac, and Minimize). If any of these phrases are heard, Land Users shall cease radio use until Range Control announces a return to normal procedures. Those requiring use of the radio for routine matters (e.g., route clearance) shall be patient and stay off the radio. Emergency voice procedures are detailed in Annex S.

181. Ambulances or other emergency responders shall be escorted to required locations in the RTA by Range Control (or other authorized entity such as BATUS, DRDC or SIRC or G3 Fire Services when authorized by Range Control).

182. The remainder of this chapter addresses the methods and requirements for safe and effective terrain management and movement control employed in the RTA:

a. monthly range calendar;

b. movement control stations;

c. templates;

d. access route control;

e. barriers and signage; and

f. ongoing route maintenance.

PART 1 – MONTHLY RANGE CALENDAR

183. CFB Suffield does not publish Daily Range Standing Orders (DRSOs). As well, the size and variable terrain of the RTA renders barriers and sentries impractical in most cases for demarcating danger zones. Instead, Range Control publishes and distributes to all Land Users a monthly range calendar in map format (see Figure 3-1 for a representative example). Based on the Range Control Monthly Range Calendar, SIRC produces a monthly range calendar based on the Township/Range System for use by Oil and Gas Land Users. This calendar will provide the Oil and Gas Land Users with only the areas that are OOBs marked in red. Access to the areas not OOBs will be coordinated through SIRC. To allow all range users time to plan and coordinate, it is imperative that all users plan their work well in advance and requests that require a template in the RTA are sent to the Range Control Ops WO NLT the 14th of each month prior for approval. The Range Calendar will be published on the 15th of the month which will allow all users the time and flexibility to plan any activities to achieve their mandate. Requests received after the 15th of each month will be treated as an exception requiring G3 or RCO approval. If approved by the G3 or RCO, it will be published as an amendment.

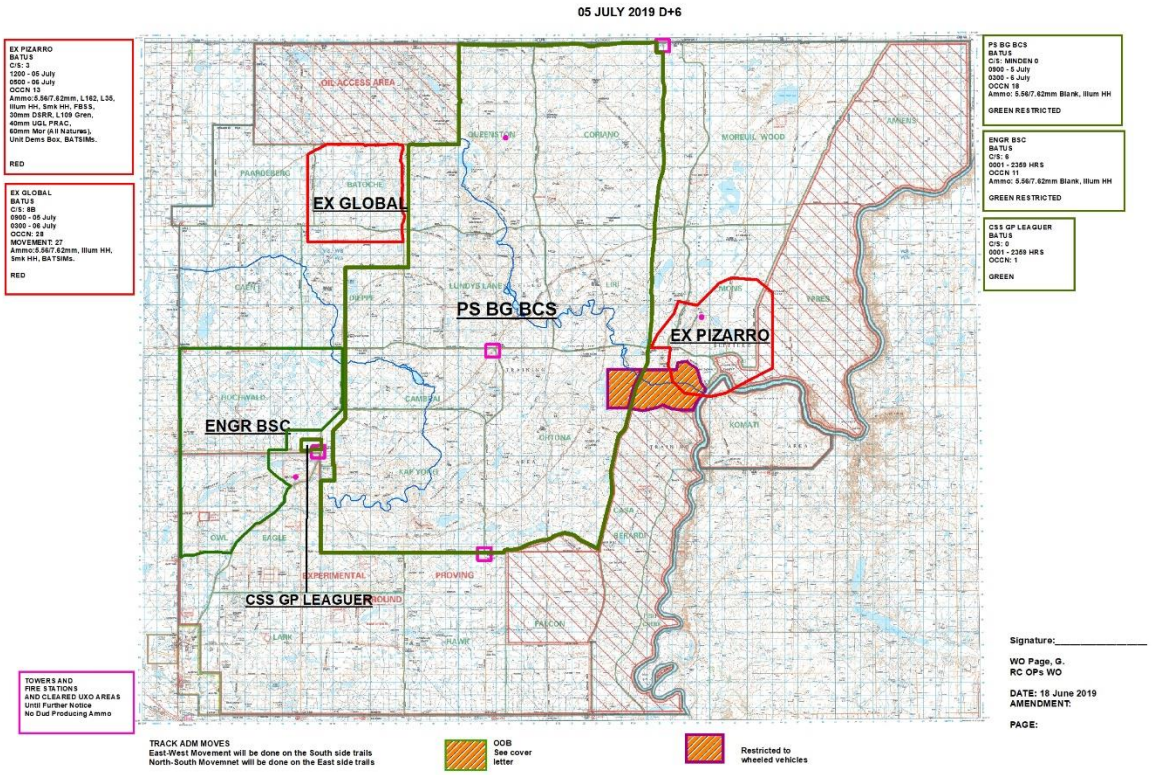


Figure 3-1: Example range calendar page

184. The range calendar is the authoritative document for:

a. the allocation and use of all range and training areas for activities by military and civilian personnel;

b. control of airspace;

c. authorizing weapons and ammunition;

d. authorizing impact areas and gun deployment areas;

e. access and movement control measures (e.g., OOBs or ARAs);

f. known danger areas; and

g. notification of roads closed to traffic.

185. The information contained in the range calendar is subject to change; therefore, all Land Users shall contact their respective movement control station (see Part 2) to obtain updated information prior to accessing the RTA.

PART 2 – MOVEMENT CONTROL STATIONS

Section 1 – Range Control Ops Room

186. The Range Control Ops Room is located within the Base Admin Area in Building 604 on the east side of Highway 884 (the Jenner Road). The Ops Room is open 24/7, every day of the year, with a 24/7 radio net using the call sign "Range Control". The Ops Room can also be reached by phone at (403) 544-4310 or (403) 544-4886 and sufrangectrlopswo@forces.gc.ca. If the radio net and land-line phones are out of service, range users may contact the Ops Room satellite phone at 8816-7631-8798.

187. Access and movement control for the RTA is vested in Range Control. Additional sub-control stations exist with authority to control access and movement on behalf of Range Control for only selected Land Users and/or portions of the CFB Suffield RTA, as outlined in the sections below. All sub-control stations shall coordinate movement on their respective nets in accordance with the monthly range calendar and ongoing direction from Range Control.

188. Access to the RTA via the Base Admin Area is governed by the MP. Land Users shall provide adequate identification and proof of requirement to be on the Base before being permitted to access the Base Admin Area.

Section 2 – EPG Movement Control

189. DRDC – SRC Field Ops Section is authorized and responsible to control DRDC – SRC access and vehicle movement within the EPG.

190. The DRDC – SRC control station or Delta Net uses the call sign "Alpha". Delta Net may be contacted on the radio net or by phone at (403) 544-4774.

191. All call signs operating under Range Control shall remain on the Range Control net and receive route clearance from Range Control while operating in the EPG. Exceptions may be granted to improve safety and security of personnel operating within the EPG (i.e., route maintenance crews operating in the EPG) at the discretion of the RCO.

Section 3 – MTA Movement Control Cells

192. DIO SD Trg (Can) is authorized and responsible to control BATUS access and vehicle movements within the MTA during the active training season. The DIO SD Trg (Can) Ops Room also assumes movement control authority for direct support agencies (e.g., SAAB and CUBIC). The DIO SD Trg (Can) is an internal BATUS movement control cell; external parties requiring contact with DIO SD Trg (Can)/BATUS organizations on the RTA shall relay such requests through Range Control.

193. The DIO SD Trg (Can) Ops Room is co-located in Building 604 with the Range Control Ops Room and uses the call sign "Zero". The DIO SD Trg (Can) Ops Room may be contacted by phone at (403) 544-4312.

194. Similar to DIO SD Trg (Can)/BATUS, visiting Canadian units may be granted authority for an MTA movement control cell for large exercises. The visiting unit must be able to deploy a suitable command post capable of controlling unit movement. Building 604 has a location for the establishment of a unit movement control cell. Availability of the location for use is to be coord with the Ops WO. The required size and composition of the control cell shall be determined by the RCO depending on the training activity.

Section 4 – SIRC

195. SIRC is authorized and responsible to control the access and movement of Oil and Gas Land Users on the RTA. Access for Oil and & Gas Land Users is through one of six access gates operated by SIRC on the south and west side of the RTA and the compressor station on the south side of Koomati.

196. The SIRC Ops Room is located within Base Admin Area in Building 441 on the west side of Highway 884. The SIRC Ops Room operates a 24/7 radio net using the call sign "Alberta Zero" on the Range Control net. The SIRC Ops Room may be contacted by phone at (403) 544-4485.

Section 5 – Airspace Control

197. Aircraft operating within the CFB Suffield restricted airspace zones (CYR 229, 230 and 231) shall obtain authorization from the G3. Aircraft operating in support of a defence research activity (exclusively in CYR 230) will be under the authority of the Centre Director/HFOS with an advisory provided to the G3. Facilitation of authorizations for day-to-day ops has been delegated to Range Control. Entrance into CFB Suffield airspace requires the completion of a Prior Permission Request (PPR). See Chapter 5 for additional information on airspace control, access requirements, and restrictions.

PART 3 – TEMPLATES

198. A "template" is an assigned area of the RTA within which a military or defence research Land User may conduct activities. This term is not to be confused with "Danger Area Template" (DAT), which refers to a danger area associated with a specific weapon system (per B-GL-381-001/TS-000 Training Safety).

199. Templates shall be assigned by the RCO to allocate, coordinate, and restrict use of the RTA among Land Users. Template designation accounts for exercise requirements, known danger areas associated with live-fire or other safety concerns, routes and terrain features that may be influenced by danger areas, and adequate safety buffering for live-fire activities. The RCO shall be consulted regarding templates that intend to include Rattlesnake Road, which is an important Main Supply Route (MSR) within the RTA. All or portions of the NWA may be templated as a safety buffer for ricochet from the MTA; however, the NWA shall not intentionally be fired into or deliberately targeted. Activities without safety implications may not be templated.

200. The EPG contains specialty testing areas with pre-calculated danger templates known to Range Control. As many DRDC – SRC experiments are weather dependent, the timing of trials can be confirmed only on short notice. Therefore, DRDC – SRC is exempt from the requirement to publish its daily danger templates in the monthly range calendar. DRDC-SRC access controllers are responsible for turning a template RED (active) or turning a template GREEN (inactive) on the Delta Net. Range Control shall update template information daily and inform Land Users of new OOBs areas by radio. In cases when unique or large templates are generated from visiting organizations conducting trials, DRDC – SRC HFOS will identify the template sizes and dates beforehand for publication in the monthly range calendar.

201. Once designated, templates appear as coloured border features (e.g., red, green) on each day's activity map published within the monthly range calendar. See Types of Templates below for descriptions of common templates. Oil and Gas Land Users will utilize the SIRC monthly range calendar which identify only areas that are OOBs marked in red.

202. DATs. The following applies to DATs at CFB Suffield:

a. DATs shall be applied in accordance with current CAF training safety directives and CFRIS;

b. DATs shall be a minimum of 1000 m from the RTA perimeter boundary and aboveground commercial infrastructure (e.g., compressor stations);

c. DATs shall be submitted to Range Control for approval by the RCO a minimum of 15 business days prior to the use of any weapons system;

d. all Range Safety Officers shall be in possession of an approved DAT to conduct training; and

e. as BATUS does not currently use CFRIS, the BATUS Template Controller shall create the DAT overlay based on proposed arcs, weapon and munition types approved for use at CFB Suffield, verify its accuracy and conformance to British and Canadian regulations. The DAT overlay is reviewed and approved by the following personnel to ensure accuracy and conformance to British and Canadian regulations:

(1) BATUS Senior Range Conducting Officer;

(2) DIO Range Safety Liaison Officer; and

(3) G3 RCO.

Once all these personnel have approved/signed the DAT, it can be actioned during approved live-fire training.

203. Templates shall be assigned a Template Controller, which is normally the OIC of the exercise or the Range Safety Officer for the unit. Responsibilities of the Template Controller are detailed below and in Annex T.

204. All Land Users shall adhere to template control measures. Questions on templates may be directed to Range Control. Oil and Gas Land Users will direct their questions to SIRC.

Section 1 – Types of Templates

205.

206. Green Templates. Green templates are used to allocate RTA space for exercises where there are no safety or interference implications if another Land User accesses or transits the area (e.g., manoeuvre training with no live fire or use of pyrotechnics). Green templates permit the Template Controller to manoeuvre the unit within the template without the need to consult with Range Control for route clearance. Range Control may also permit other organizations to access or transit the area without consulting with the Template Controller. Depending upon the nature of the exercise, green templates may be upgraded to “green-restricted” for certain portions of training (e.g., nighttime cross-country or blackout driving). The determination to upgrade green templates to green-restricted templates rests with Range Control in consultation with the user unit.

207. Green-Restricted Templates. Green-restricted templates are used to allocate RTA space for exercises where the presence of other Land Users may be distracting or introduce safety risks (e.g., manoeuvre training with no live fire but includes use of pyrotechnics and/or blackout driving).

Application of this template denies access to the area for all Land Users other than the unit to which the template is assigned unless coordinated with the Template Coordinator. This template assigns the Template Controller as the sole authority for permitting access. Range Control may not clear access to the area except in the event of an emergency.

208. Red Templates. Red templates are used to allocate RTA space for exercises involving live-fire training and any use of lasers (Class 3B or higher) (See Annex U for additional information on Laser Safety). Application of this template denies access to the area for all Land Users other than the unit to which the template is assigned unless coordinated with the Template Controller, who is the sole authority for permitting access. Range Control may not clear access to the area except in the event of an emergency.

Section 2 – Template Controllers

209. All Template Controllers must be known to Range Control and shall be pre-assigned unique call signs on the Range Control Net. Pre-assignment is necessary because the Template Controller call signs shall be published with the template information in the monthly range calendar.

210. Template Controllers shall:

a. ensure a full visual sweep (air or ground) of the entire template has been conducted immediately prior to activating a red template to ensure no unauthorized persons, vehicles, or equipment are present within the template;

b. upon turning a template "RED" or "ACTIVE", assume responsibility for controlling the movement of personnel and vehicles inside the template. Any unit movement outside of the template, including transiting between the garrison and the template, requires normal transit authority via route clearance from Range Control;

c. maintain constant, direct communications with Range Control or other authorized control station;

d. for green-restricted templates, police the area to identify unauthorized incursions. Any such incursions shall be reported to Range Control immediately; and

e. for red templates, police the area to identify unauthorized incursions. In the event of an incursion, live-fire shall cease immediately, and the incursion reported to Range Control.

Section 3 – Template Control Measures

211. The appearance of a template in the monthly range calendar does not automatically grant authority for a unit to enter the RTA and commence training. Control measures shall be followed to ensure that training commences after a series of safety checks as outlined below. Additional information on template opening and closing procedures is available at Annex T.

a. Timings. Templates shall not be permitted to go active or live before the times published in the range calendar as other Land Users have planned on having access until the published time. Similarly, units shall contact Range Control in the event of delays in their training. Template Controllers shall call no later than 30 minutes after the published timing. A failure to make contact within 60 minutes of the published time may result in the template being cancelled and access to the area being opened to other Land Users.

Once active, extensions to start times may be granted no later than 60 minutes prior to published timings by Range Control upon checking with other units;

b. Accounting for All Exercise Personnel. During range activities, Template Controllers shall keep track of all unit personnel deployed on the ranges. Prior to being granted authority to commence live-fire training, Range Control shall specifically require verbal confirmation from the Template Controller that, "I can account for all deployed personnel and vehicles, request permission to go RED";

c. Going ACTIVE/Going RED. "Going ACTIVE" is employed to activate a GREEN or GREEN-RESTRICTED template (i.e., no live fire). "Going RED" is a term employed to activate a RED or live-fire template. Range Control shall transmit the status of all templates to other Land Users;

d. Pauses in Training. For long exercises, when units wish to take temporary breaks (e.g., for reorganization, debriefing, staff turnovers, etc.), they shall notify Range Control that training has been concluded for the evening or for the next several hours. Similarly, to pause a "live-fire" template, the Template Controller shall inform Range Control that the template is at "RED CHECK FIRE" for a certain period. This alerts Range Control and other users to the possibility that they may (on agreement from the Template Controller) have temporary access to the area. Prior to recommencing live fire, the Template Controller shall seek permission to "Go RED", at which time Range Control will confirm that the template is clear of any units or personnel that have entered the template during the RED CHECK FIRE, confirm the Template Controller still has control of the ground and can account for all their call signs. Once these items are confirmed, Range Control will give permission for the template to go back to RED. Template Controllers shall not declare the template to be concluded (i.e., "GO GREEN") until the exercise is ended. A mistake of this nature may result in the template being cancelled prior to the completion of training;

e. Check-fires. In the event of serious accidents, incidents, or fires of any kind, the Template Controller shall initiate a local check-fire, so that efforts can be concentrated on addressing the situation. During this period, Range Control may issue a local or cross-the-board check-fire on affected live templates to clear the airways and roadways for emergency response elements (e.g., helicopter-medivac). In the event of a Range Control issued "check-fire", none of the affected templates may recommence training until Range Control lifts this restriction;

f. Unauthorized Entry. The Template Controller of any restricted template must ensure that all exercise participants know to report immediately the presence of unauthorized persons within the area. The Template Controller shall initiate a "CHECK FIRE" in the event of unauthorized entry to safeguard the situation. As a minimum this means that all live-fire, all use of lasers, and all heavy vehicle manoeuvre in the affected area shall be stopped immediately so that the offender can be intercepted and identified. Any occurrence of unauthorized entry must be immediately reported to Range Control along with any details of the intrusion (e.g., vehicle description, location, direction of travel, etc). See Annex S for reporting formats for missing persons or vehicles, and trespassers (air or ground);

g. Conclusion of Training. Upon conclusion of training and the unit is leaving the RTA, the Template Controller shall notify Range Control that training is concluded, and request permission to "GO GREEN" for RED templates, or "INACTIVE" for GREEN or

GREEN-RESTRICTED templates. Prior to turning the template, Range Control shall confirm with the Template Controller that no fires are active in the template. Templates shall not be allowed to GO GREEN or INACTIVE until all fires are out or when authorized by the RCO. Upon granting a GREEN or INACTIVE status, the template is considered cancelled and control of all movement in the area reverts to Range Control; and

h. OOBs Templates. Unexpected red templates may occasionally be imposed on areas of the RTA. This is usually conducted when dangerous UXO is discovered or is in the process of being destroyed. In those cases, Range Control shall announce the details of the template, and keep affected users informed on the situation.

PART 4 – ACCESS ROUTE CONTROL

Section 1 – General Route Discipline

212. RTA Roads. Very few roads in the RTA were built for long-term use. Unmarked UXO, shell craters, washouts, and flooded areas may be encountered. Roads are maintained at modest levels of repair or only as fireguards (e.g., circle routes) depending upon route prioritization (see Annex C and Part 6). In addition, road signs and safety warning signs are minimized. As a result, the existing routes may be hazardous; therefore, all drivers shall be vigilant and drive to road conditions.

213. Access, other than all named RTA Roads/Routes, shall be considered trails, designed for access to Land User sites. Ground disturbance, surface vegetation disturbance, grade development and surface improvements shall be minimized on access trails (should these activities be required, see Chapter 2). Access on trails is to occur during dry or frozen conditions to maintain minimal disturbance.

214. Only a single existing route shall be used to access oil and gas sites; in some situations, an oil and gas site may have an entrance and an exit route when the site serves as a link between two or more sites.

215. Military vehicles, oil and gas surveyors and environmental work surveyors, dig liaison participants, grazing entities accessing salt locations, dugouts, and finding cattle should use existing roads and trails.

216. Adverse Ground Conditions. Land use conducted during adverse ground conditions (i.e., wet and/or recently thawed ground), not related to essential military training activities, resulting in environmental damage such as but not limited to soil rutting, soil erosion, or siltation/sedimentation is prohibited unless incidental to an approved military training exercise. Soil rutting is defined as an area of concentrated soil compaction and/or soil displacement, vegetation tearing, and admixing of soils caused by the operation of tracked or wheeled vehicles that result in disturbed areas with the following characteristics:

a. minimum of 2 meters long;

b. minimum of 20 centimetres in width; and

c. minimum of 5 centimetres in depth as measured from the top of the surrounding topsoil level (pre-rutted soil) to the top of the compacted soil.

217. For situations where continuing work during adverse ground conditions is believed necessary (e.g., commenced projects that cannot be stopped for health or safety reasons), the Non-Oil and Gas Land

User shall contact the LU Ops Gp (RangeSustainability@forces.gc.ca) (after hours, weekends and holidays contact Range Control - sufrangectrlopswo@forces.gc.ca) and Oil and Gas Land Users shall contact SIRC immediately to request permission to continue and discuss options for minimizing land disturbance. If approved by the G3, a written non-objection with applicable mitigation measures shall be issued by email.

218. Trail Braiding/Straddling. Trail braiding/straddling (i.e., deviating from an existing trail in such a way that the existing trail is persistently widened, or additional persistent parallel trails are created through damage to vegetation and erosion of soils adjacent to the existing trail) is prohibited. Land Users requiring continued use of a degraded or impassable trail shall submit a 1-day NOI to remedy the condition of the trail per Annex M. The 1-day NOI shall include details of the repair including use of blading and additions of soil and gravel per Annex M. Where vehicles and equipment are meeting on an access trail, one vehicle or equipment is permitted to drive off the trail to allow passing. Vehicles and equipment shall not use trails for long passing routes. Vehicles and equipment are permitted to make large turns when required but shall not consider this a long-term solution if access requires more permanent changes.

219. Trail Closure. Trails may be closed if they are no longer required, and all other closures shall be discussed with LU Ops Gp (RangeSustainability@forces.gc.ca) to determine whether other Land Users may affect reclamation initiatives. A 1-day NOI (per Chapter 2, Part 6) shall be submitted to indicate the closure and reclamation of an existing trail. Shapefiles with trails that have been closed shall be provided on a periodic basis or upon request by the Base. Closed trails shall not be used by all Land Users nor shall new unapproved access routes be created. Signage including staking and flagging shall be placed and maintained on closed trails to prevent continued use. Closed trails shall not be blockaded with rocks or other obstacles that could pose a safety hazard to military manoeuvres.

220. Tracked Vehicles. No tracked vehicles of any kind are permitted on RTA roads or circle routes, unless specific approval is granted by the Base Commander (e.g., bridges placed on RTA routes). Tracked vehicles shall use designated tank tracks where available, and where east-west moves occur travel shall occur on the south side of roads, and north-south moves shall occur on the east side of roads. Tracked vehicles shall also travel cross-country parallel to roads, and cross existing routes at only right angles. The primary tank track from the Base Admin Area to the MTA is depicted in Figure 3-2. There is also a designated concrete tank crossing on Rattlesnake Road just north of Bayonet Trail at E 499105, N 5584638. Within the Base Admin Area, tracked vehicles are not permitted to drive outside of the Force Maintenance Area (FMA) except to access the MTA via the Dust Bowl (a marshalling area centred on E488400 N 5569190) and existing tank track.

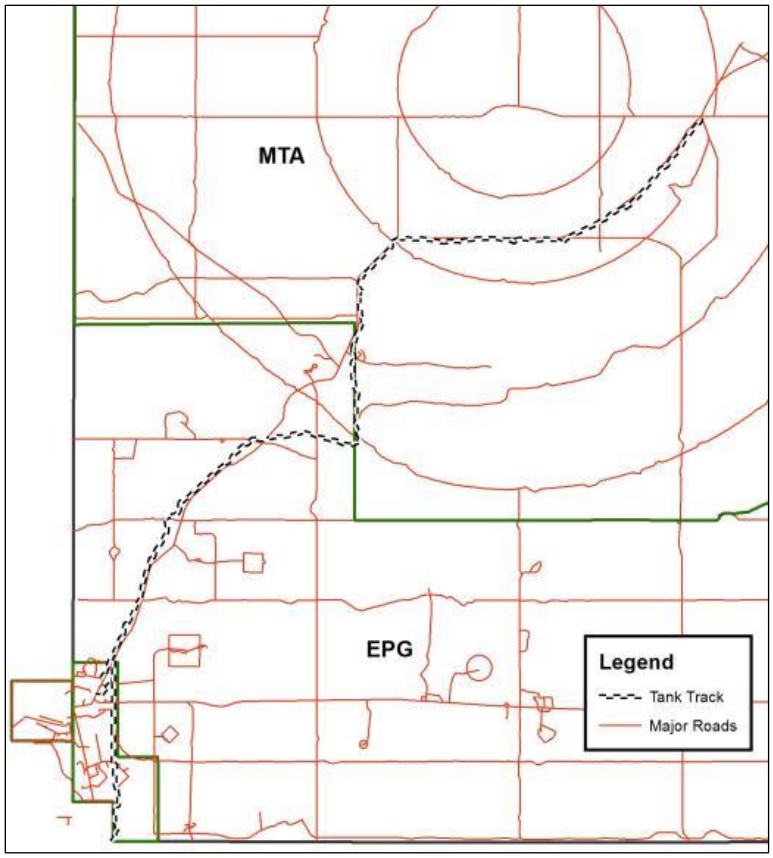


Figure 3-2: Main tank track

221. Cross-country Vehicle Use. Cross-country use of all-terrain vehicles (ATVs)/utility terrain vehicles (UTVs) and/or snowmobiles is permitted but shall not create persistent trails characterized by bare soil (i.e., loss of vegetation) and/or soil compaction.

222. Personal Vehicles. DND and CF personnel shall use only DND-issued or contracted vehicles within the RTA; use of personal vehicles in the RTA by DND and CF personnel is prohibited. Civilian Land Users shall use personal vehicles in the RTA at their own risk.

223. Horses and Other Working Animals. Horses and other working animals (e.g., dogs) may be employed to move cattle within designated grazing areas on the RTA. Land Users shall always maintain control of working animals and shall not allow working animals to range freely on the RTA. Recreational use of working animals within the RTA is prohibited.

224. Cattle Movement. Land User activities shall be coordinated through Range Control to prevent movement and activity conflicts during livestock take-in or take-out dates. The right of way shall be given to cattle accompanied by riders on horseback moving cattle from one pasture to another.

225. Vehicle Cleanliness Requirements. All vehicles entering the Base shall be clean and free of soil and vegetation (see Chapter 4, Part 6 Section 6 for information on undesirable plant species).

226. Running/Marching in the RTA. For safety reasons, running or marching on RTA roads as a formed body of troops requires authorization from the RCO. Specific use of Coyote road for PT/running/marching troops is prohibited. Personnel running or marching on RTA roads shall occur

during daylight hours only and shall be cleared through Range Control (meeting the access conditions and movement control measures outlined in para 174). Groups running or marching on RTA roads shall employ one point-man with a safety vest 100 meters forward and one point-man with a safety vest 100 meters to the rear. A safety vehicle with flashing lights shall be 100 meters to the rear of the rear point-man.

Section 2 – Site Definition and Access.

227. Access trail right of ways (ROWs) shall be a maximum of 10 m. Pipeline ROWs shall be a maximum of 15 m. If the two are in common, the ROW shall be a maximum of 15 m. All other widths shall be approved by the Base Commander. Access shall not be used for temporary or permanent storage of construction equipment, unless specified in an AFD or 15-day FA. Information pertaining to use of access can be found in Trail Braiding/Straddling at para 218.

228. Where the ROW for a linear feature (e.g., pipeline, communications line, water line) and an access route are not in a common corridor, vehicle access along the ROW shall occur only during construction, repair, and preventative maintenance inspections of the linear feature. Vehicle access shall be taken on only one side of the ROW as selected by the Land User unless otherwise specified as a land use approval condition.

229. If temporary/alternative access is required the Base shall be notified through the 15-day FA process (see Chapter 2, Part 6).

230. Where new construction is proposed, Land Users shall identify the boundaries of the site, and new access and pipeline ROWs (i.e., using stakes). Markings shall occur at each corner of the site. Construction crews shall stay within the marked boundaries when conducting their activities. During ops or servicing, Land Users shall operate within the same boundaries throughout the life of the site.

231. Existing sites that are maintained by the Base and Military Land Users (e.g., Gate 12 gravel pile location, Gate 9 military storage location) shall not be used for third party Land User storage unless a 15-day FA is submitted for Base Commander review and decision.

Section 3 – Speed Limits

232. The maximum speed limit on CFB Suffield roads is 70 km/h except in the cases listed below:

a. roads bounding and within the NWA have a maximum speed limit of 50 km/h (for wildlife conservation) year-round, see Figure 3-3;

b. between 1 April and 31 October, the route along Sapper Trail from Gate 23 to Interface Road has a maximum speed limit of 50 km/h (for wildlife conservation);

c. when passing road maintenance vehicles completing work, the maximum speed is 30 km/h; and

d. when passing marching troops, the maximum speed limit is 10 km/h.

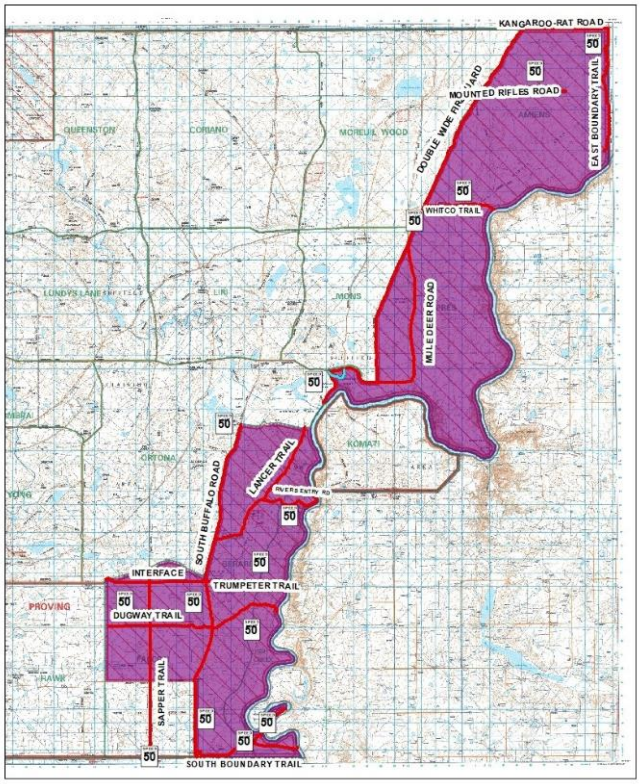


Figure 3-3: NWA Roads with Speed Limits

233. Land Users shall drive at speeds commensurate with the local conditions (i.e., slower if appropriate), but not exceeding the maximum speed limit.

234. Land Users shall drive at reduced speed limits if required by Range Control in all or portions of the RTA (e.g., during times of inclement weather or reduced visibility, or in areas of environmental or wildlife sensitivity). Range Control shall broadcast changes to Land Users by radio and/or in the monthly range calendar when the speed limit changes in all or portions of the RTA. Specific routes may be signed to denote zones of lower speed. Land Users are encouraged to check with Range Control at any time to obtain driving condition reports.

235. Speed Limit Enforcement. Range Control and MPs patrol the ranges and conduct radar surveillance. SIRC will monitor the movement of Oil and Gas Land User in the RTA as directed by the G3/RCO. The standard method for dealing with speeders is covered in Annex V.

Section 4 – Special Transit Routes

236. EPG Corridor for Road and Air Traffic. The EPG is out of bounds to all visitors not involved in DRDC – SRC activities unless otherwise cleared. Given that the EPG lies between the Base Admin Area and the MTA, a transit corridor has been established along Rattlesnake Road for the movement of air and ground traffic deploying to and from the MTA. Users of the MTA shall use this transit corridor or deploy via civilian roads external to RTA (e.g., via Highway 884 (the Jenner Road) along the Base's western boundary). See Chapter 5, Part 4 for further information on Air Movement Transit Routes.

237. Wildlife Conservation Transit Route. To mitigate impacts of land use on wildlife, the Base Commander may implement management actions including speed limits (see para 232) and specially controlled routes as required. The following special route is in effect between 1 April and 31 October, all traffic entering at Gate 23 that is not bound for the NWA or Area Falcon shall immediately divert west along South Boundary Road to Bingville Road. Traffic bound for Ortona may travel east on Interface Road and north on Sapper Road (Figure 3-4). Between 1 November and 31 March, industry traffic may transit through the NWA along Sapper Road to access sites outside the NWA. NWA Permits are required to use this transit route during 1 November to 31 March.

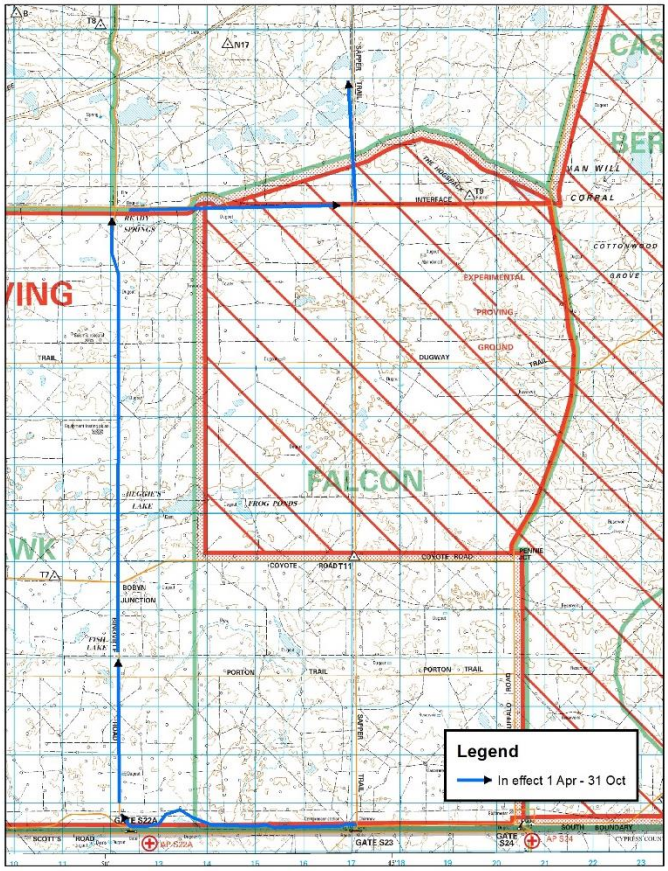


Figure 3-4: Wildlife conservation transit route

Section 5 – Weather Considerations

238. Weather Forecasts. Weather forecasts for the next 48-hour period are received by Range Control at 0600 and 1800 hrs daily. Adverse weather conditions shall be communicated by Range Control to all Land Users and subordinate control stations (DRDC-SRC and SIRC). Astronomical data including sun, light, moon, and moon phase tables are available upon request.

239. Weather Advisories and Decisions. Weather systems may be extremely variable with varying intensities of weather phenomena that affect the whole Base or only portions. During periods when adverse weather conditions may affect personnel safety during ops, training, maintenance or general activities, the final decision to reduce, modify or curtail activities shall rest with the Base Commander. The decision shall be automatically relayed to all Land Users in the training area by Range Control.

Section 6 – Vehicle Recovery

240. The Base vehicle maintenance detachment (Base Maintenance) comprises civilian personnel and resources to recover CFB Suffield DND vehicles only. Base Maintenance operates from Monday to Thursday between 0800 hrs and 1600 hrs, and Friday between 0800 hrs and 1400 hrs. Recovery outside of these times shall be conducted in emergencies only. Smaller visiting military units may be able to source recovery from Base Maintenance; however, larger units shall deploy to CFB Suffield with integral assets to support unit recovery requirements:

a. units with integral recovery resources are responsible for the recovery of unit vehicles within the training area on a 24-hour basis; and

b. units requiring the recovery services of Base Maintenance shall submit their requests to Range Control.

241. Non-DND vehicles shall be recovered via a private towing company only. Private towing companies shall be screened for access to the RTA in accordance with para 174. Some local towing companies maintain personnel with valid range safety briefings. Range Control shall provide a list of previously screened operators upon request and will coordinate RTA entry and access. Oil and Gas Land Users will coordinate any vehicle recovery requirements through SIRC.

PART 5 - BARRIERS AND SIGNAGE

Section 1 – Perimeter Gate Access

242. Some primary Land Users (i.e., DIO SD Trg (Can)/BATUS, DRDC – SRC, and SIRC) may be issued perimeter gate keys to access the RTA via external civilian roads. All perimeter gates are locked and share the same key. Personnel or units who lose perimeter gate keys or damage an exterior lock shall report the incident to Range Control immediately and may be held financially responsible for replacement, up to and including replacement of all perimeter locks and keys.

243. Pre-authorized SIRC gates shall screen all traffic through those gates in accordance with RTA access procedure requirements as directed by the G3/RCO. (see para 174).

Section 2 – Fencing

244. No fences or gates shall be installed without approval from the Base Commander (per procedures detailed in Chapter 2, Part 4), and completion of all applicable range clearances (per Chapter 2, Part 7).

245. All new wired fences and repairs to existing wired fences shall adhere to the specifications detailed in Annex W.

246. Fence lines installed to control vehicle access (e.g., administrative routes), or prevent access to reclamation sites or sensitive areas (e.g., Sites of Significant or Scientific Interest (SSSIs)), shall be installed using wooden posts or six-foot pickets with no wire attached.

247. Six-foot chain-link fencing shall be installed around oil and gas compressor stations and batteries and any other sites deemed essential by Oil and Gas Land Users for safety reasons within the OAA or 100 m periphery of the Base.

248. Within grazing pastures, Oil and Gas Land Users shall request authorization to install fencing to isolate oil and gas sites from the influence of cattle during infrastructure construction or site recovery. During site recovery, removal of fences or opening of gates may also be authorized to enable cattle to assist with site recovery.

249. Appropriate structures (e.g., cattle guards/texas gates, gates) shall be installed at points where cattle pasture fence lines cross access routes to prevent cattle from escaping. Maintenance of structures is the responsibility of the Land User who requires the structure or received approval for the structure.

250. When no longer required, fences shall be removed, and post holes filled in with soil from an approved source or holes left to settle on their own. Fence posts shall not be cut off at surface and segments cannot be left in the ground.

251. Any personnel or Land Users who locate a broken barrier or gate, or unauthorized access route shall report the finding immediately to Range Control (sufrangectrlopswo@forces.gc.ca).

Section 3 – Signage and Markers

252. No existing posters, signs, markers, stakes, or displays shall be defaced, destroyed, or removed without written authorization from the Base Commander.

253. No permanent posters, signs, or displays shall be installed within the Base or on the Base perimeter (e.g., on fences, gates) without written authorization from the Base Commander. Land Users may install temporary markers (e.g., stakes with flagging) to indicate access routes to new sites (e.g., routes for construction crews moving to new oil and gas drilling sites). All temporary markers shall be removed by the responsible Land Users promptly upon completion of construction.

254. When Oil and Gas Land Users mark caisson locations, the markers shall be made of plastic pipe at a height not greater than 1.5 m; inflexible markers (e.g., metal pickets or wooden posts) are prohibited.

255. The Base Commander may authorize the installation of permanent or seasonal roadway signage to identify sensitive wildlife zones, provide driver safety warnings, and/or reduce speed limits. All Land Users shall abide by posted speed limits.

256. All Land Users shall respect warning signage and road barriers deployed by DRDC – SRC on access routes into live-test areas within the EPG. In all circumstances, if unexpected barriers are encountered, users shall stop, and double-check their route with their movement control station.

257. Signage for SSSI (shown below) shall be attached to posts or pickets demarcating OOBs areas for reclamation or environmental monitoring.

Section 4 – NWA Boundary

258. As part of the legal designation, the NWA has a legal survey description, Plan #951 0828, registered with the Land Titles Office for the South Alberta Land Registration District. Permanent survey pins are sited intermittently along the surveyed boundary, except along the South Saskatchewan River. The eastern boundary along the river is defined as the left bank (as determined when facing downstream) per the *Alberta Surveys Act*.

259. The approximate boundaries of the NWA are demarcated with CWS NWA signs as shown below.

260. It is the responsibility of all individuals accessing the RTA to know and recognize the boundary of the NWA to avoid trespassing infractions. Spatial information on the NWA boundary may be obtained from the RSS GIS Gp (403) 544-4011 x5450.

PART 6 – ROUTE MAINTENANCE

261. Route Maintenance is an ongoing process on the RTA conducted by G3 Range Maintenance and approved Land Users. Hard top and hard pack roadways, known as MSRs, shall be maintained in a condition to ensure mobility, safety, and environmental protection. This includes the maintenance of verges, ditches, and culverts. Range maintenance standards are set in accordance with B-GL-381-002/TS-001 Range Construction and Maintenance.

262. MSR maintenance shall include grading and cleaning of the ditches and/or back slope to no more than 10.06 metres or 33 feet from the centre of the roadway. Annex X contains a graphical representation of the authorized route maintenance allowance at CFB Suffield and the required widths and slopes for

range roads. No more than 10 cm (4 inches) in depth shall be scraped during route grading. To ensure the safety of heavy equipment operators and adherence to environmental regulations, any other work to be conducted outside of these conditions shall be authorized through a dig liaison (Chapter 2, Part 7 Ground Disturbance Clearance).

263. Route construction/upgrading shall limit removal of vegetation to designated areas and shall avoid areas prone to erosion, particularly along banks or near wetlands. Reduced slopes shall be used as necessary to protect against erosion. To reduce erosion potential, see Chapter 4, Part 6, Section 2 Soil and Terrain.

264. Culvert tops must be laid at least 15 cm below the natural bed of water or at a depth equal to one fifth the culvert diameter. Culverts shall be bevelled on both ends to minimize injury to livestock. Riprap rock/gravel shall be placed around culvert ends.

265. Gravel and Two-Strip Gravel Additions. Land Users shall conduct no route preparation including clearing/stripping of soils, shrubs, or vegetation, or addition of gravel or two-strip gravelling (i.e., gravel placed in the wheel tracks while leaving the centre portion gravel free) unless specifically approved by the Base Commander. Where approved for use, gravel shall be clean, free of undesirable plant species and seeds, and applied to no greater depth than 5 cm, and no greater width than 70 cm per strip. Gravel applied on existing trails to fill ruts or uneven ground shall not exceed 5 cm above the surrounding ground level.

266. Prior to application of gravel, Land Users shall alleviate soil compaction. Land Users shall ensure gravel is applied only to appropriate soil types; certain soils (e.g., sand) do not effectively receive gravel.

267. Snow and Ice Control (SNIC). Range Control is responsible to ensure range roads and areas required for training or ops are free from ice and snow in accordance with the annual CFB Suffield SNIC Plan. Land Users requiring snow removal shall contact Range Control (sufrangectrlopswo@forces.gc.ca).

268. Oil and Gas Land Users may plough snow on existing routes to facilitate access to approved oil and gas locations where drilling, construction, or servicing is to take place. Ploughing shall not result in scalping of the prairie (e.g., such as by the blade of the plough or grader being too low). Snow ploughing where access routes do not exist is prohibited.

269. Range Hazard Reporting. All range users upon finding a range safety hazard or requirement for maintenance to the RTA shall report the problem to Range Control. Range Control is responsible for coordinating all maintenance requirements in the RTA, including the submission of paperwork through RPOU (W) Det Suffield as required.

270. Route Maintenance Priorities. The roads in the RTA are prioritized into four categories (see Route Maintenance Priority Map at Annex C):

a. Priority 1 (Purple Routes). These gravel roads are the MSRs within the RTA and are the only roads that Range Maintenance is responsible for maintaining year-round. These roads shall have the snow cleared as required in the winter months;

b. Priority 2a (Orange Routes). These gravel roads are MSRs. They are maintained by Range Maintenance in the summer months, as required, but also receive snow clearance during the winter months by SIRC. These routes shall be graded a minimum of three times each summer;

c. Priority 2b (Red Routes). These gravel roads are MSRs, but they are maintained by Range Maintenance only in the summer months, as required. These routes shall be graded a minimum of three times each summer;

d. Priority 3 (Black Routes). These roads are maintained as fire guards. They have deep ditches and are kept free of vegetation to prevent fire from crossing. They are dirt roads and are quite vulnerable to wet conditions; therefore, these routes are also known as seasonal routes;

e. Priority 4 (Green Routes). These roads are maintained year-round by SIRC under agreement with CFB Suffield. Range Maintenance shall conduct maintenance on these routes only if requested by SIRC or required to support ops and trg; and

f. Priority 5 (Blue Routes). These roads are maintained year-round by Oil and Gas Land Users.

271. Priority 1 and 2 routes (MSRs) throughout the RTA are maintained as two-way traffic gravel roads suitable for use by wheeled vehicle traffic in all conditions. Priority 3 routes (fire guards) are seasonal one lane traffic dirt roads often with steep ditches on each side.

272. Questions or concerns regarding route maintenance requirements or standards shall be directed to the Range Maintenance WO (RMWO) at 403-544-4701.

CHAPTER 4 – LAND USE OPERATING REQUIREMENTS

INTRODUCTION

273. The DND has a responsibility to manage the collective impacts of land uses on the Base in an environmentally sustainable manner. To this end, the Base employs the concept of "minimum disturbance", whereby Land Users shall be proactive and fully evaluate potential effects before initiating any activities. The expectation is that Land Users will employ best management practices to avoid and minimize disturbance footprint, retain scenic and aesthetic values of the grassland, and reclaim unavoidable disturbances to be consistent with the native prairie vegetation community, soils, and productivity at a given location.

PART 1 – GENERAL PROHIBITIONS

274. Removal of Weapons Parts or Ammunition. Removal of live or blank ammunition, pyrotechnics, or any parts thereof from the RTA is prohibited. Any discovery of live or blank ammunition, pyrotechnics, or any parts thereof shall be reported to Range Control (sufrangectrlopswo@forces.gc.ca).

275. Alcohol/Cannabis. Alcohol is permitted on the RTA only with the explicit written permission of the Base Commander and consumption will occur IAW orders and directives. Cannabis is prohibited.

276. Drugs. Possession and use of illicit drugs, or prescription drugs without a valid prescription, are prohibited within the boundary of CFB Suffield.

277. Firearms. Possession and use of firearms within the boundary of CFB Suffield are prohibited unless approved by the Base Commander.

278. Hunting, Trapping and Fishing. CFB Suffield is designated by the Government of Alberta as Wildlife Management Area 732. All forms of hunting, trapping, and fishing are prohibited unless specifically authorized by the Base Commander in conjunction with Alberta Fish and Wildlife. The following are prohibited on the Base:

a. removal of wildlife sheds, plants (except for the purposes of identifying plants, other than SAR) or dead wildlife; and

b. killing, harming, harassing, or feeding wildlife.

279. Photography. Land Users are authorized to take photos which are directly related to the conduct of their authorized work as a record of training, research, or development. Land Users not involved in military activities or training are prohibited from taking photos of any military activity or facility unless explicitly authorized by the Base Commander (ref L). Where cameras or recording devices are required in the EPG, DRDC – SRC approval shall be obtained through Chapter 2, Part 4 Section 2.

280. Pets. Other than authorized use of working animals (e.g., horses and dogs) per Chapter 3 Part 4, pets are prohibited within the boundary of CFB Suffield.

PART 2 – GENERAL LAND USE CONSTRAINTS

Section 1 – OOBs Areas

281. OOBs Areas. The Base may designate areas of environmental or cultural significance as OOBs. These may include research and monitoring sites, areas under remediation or vegetation recovery, or historical, archaeological, or paleontological sites. These sites may be marked with white fibreglass rods topped with green golf balls, SSSI signs, stakes, fences, and/or other signage. There are seven major archaeological sites and three graveyards, which are fenced and OOBs, in addition to several minor sites such as tepee rings and rock cairns. Land Users shall check with Range Control to identify such areas. Entry to or disturbance of OOBs areas is prohibited unless approved by the Base Commander.

282. The Base Commander may from time to time establish temporary or permanent OOBs areas to exclude some or all Land User development and activity. OOBs may be established to preserve the current capability and future capacity of military training and defence research; protect wildlife, sensitive land features, and ecological functions; enable recovery of previously disturbed and/or reclaimed sites; and prevent access to areas that pose potential health and safety risks. OOBs take different forms, including general development setbacks, defined sites, or landscape-level zones:

a. general development setbacks are presented in Table 4-1. Setback distances and timing restrictions associated with wildlife and sensitive features have also been established that may restrict access to certain areas or preclude development (refs N and O);

b. defined sites are communicated to Land Users via the RSOs and/or Range Calendar as issued by Range Control and/or consultation during the Range Condition Assessment (RCA) process; and

c. landscape-level zones are generally long-term OOBs comprising large areas of the Base and subject to varying degrees of exclusion per Base Commander direction, DND policy, and/or legislation. Landscape-level zones currently in effect are listed below:

(1) NWA. The NWA is a protected area for the conservation of wildlife per the *Canada Wildlife Act*. All access to and activities and development within the NWA are conducted in accordance with the NWA Management Strategy (ref K) and are subject to authorization under an NWA Permit. See Chapter 2 for further information on NWA restrictions and access processes.

Section 2– Activity Restriction Areas (ARAs)

283. An ARA is an area where some activities are restricted while others are permitted to ensure the reduction of cumulative effects, protection of wildlife, and promotion of environmental recovery. New oil and gas development and planned military training components (e.g., leaguers, after action reviews, maintenance days, and targetry) are not permitted. Unless otherwise specified, ARAs are identified and monitored through the RCA process. ARAs are reviewed through the RCA and may be removed from this status as recovery allows. Current permanent ARAs include:

a. the portion of Ortona, overlapping South Buffalo road known as Nishimoto Flats. Restrictions include no vehicles off road due to sensitive soils and vegetation communities; and

b. Restricted Development Zones (RDZs). To preserve current capability and future capacity for military training and research as well as promote environmental sustainability, there are currently two RDZs established in the MTA (see Annex Y) that restrict further development by non-military Land Users (e.g., oil and gas, grazing). Operation and maintenance of existing non-military Land User infrastructure is permitted within the RDZs.

Section 3 – Development Thresholds

284. The Base Commander will from time to time also establish development thresholds to manage the cumulative effects of multiple overlapping land uses with the aim of sustaining military training and defence research capacity and ecological integrity. Development thresholds in effect are listed below:

a. 16 Disturbances Per Section (DPS). The number of oil and gas surface location disturbances is limited to 16 per section (square mile), where a disturbance refers to a defined oil and gas site regardless of well or facility type (e.g., gas well, oil well, water well, separator, satellite, header, sump, etc.). A single existing wellhead may be re-entered and/or additional wells and facilities added to existing sites without increasing the disturbance count provided that no single site exceeds 1.96 ha (equivalent to 140 m x 140 m), and the total area of oil and gas disturbance in the section does not exceed 31.36 ha (16 disturbances x 1.96 ha). Temporary workspace is not included in disturbance area calculations.

Section 4 – Development Setbacks

285. Developments shall adhere to the year-round setbacks in Table 4-1. Location information on existing setback locations per Table 4-1 is available from the LU Ops Gp upon request.

Table 4-1. Development setbacks.

Setback Type	Setback
DND buildings and ancillary infrastructure (e.g., weather stations)	100 m from site edge
DND roads (per Annex C)	15 m ROW
Former government road allowances (GRAs)	20 m from GRA edge
Oil and gas wells (producing, suspended, abandoned, reclaimed) (AER Directive 20 and 79)	5 m radius from existing or former wellbore location
DND airfield	Consult RPOU(W) Det Suffield *
Ammo compound	Consult I/C Ammo*
Military training infrastructure (e.g., villages and Forward Operating Base (FOB) sites)	500 m from site edge
Hard targets	25 m from edge of target
Contaminated Sites	500 m from site edge
Monitoring sites (30 m transects)	150 m from centre of transect
Monitoring sites (100 m transects)	200 m from centre of transect
Coulee systems (per Part 6 Section 2)	100 m from coulee edge
Wetland and drainage/lotic systems (per Part 6 Section 3)	100 m from high water mark
Wildlife (per Part 6 Section 4)	Various

Note: *Determination of development setbacks around these facilities shall be conducted on a case-by-case basis, subject to the application of numerous site and development specific factors.

Section 5 – Aboveground Infrastructure

286. Access to Infrastructure. CFB Suffield has a variety of infrastructure located throughout the RTA. This includes, but is not limited to buildings, villages, tunnel complexes, trenches, gated and fenced areas, corrals, dugouts, and oil and gas infrastructure. These areas shall be avoided, unless specifically authorized by Range Control in consultation with the appropriate Land User. All units or personnel shall be held financially responsible for any damage caused to infrastructure as a result of unauthorized use or negligence.

287. Aboveground Infrastructure. Unless authorized by the Base Commander, aboveground infrastructure is prohibited in the MTA and EPG. Single well batteries with steel containment rings and associated equipment for testing and producing of oil wells, until pipeline is tied in, shall be allowed to be placed in the MTA or EPG as long as they are removed within 24 hours of military activities or defence research trials commencing.

288. Some long-term (i.e., situated longer than one year on the range) aboveground infrastructure may be authorized provided it is designed in a manner that will not damage military vehicles, create hazardous specular (reflective) surfaces in the case of laser equipment, or interfere with research programs. All proposed above ground infrastructure requires example photography or diagrams at application. Examples include:

a. SCADA and Solar Panels. If positioning affects military training, or other Land Users, then the infrastructure shall be positioned differently or removed. Positioning shall be vetted and may be ordered removed where military personnel or other Land Users could be at risk. The initial siting of above ground infrastructure within the RTA (less the OAA) will be reviewed during the AFD process. After installation, if the infrastructure affects a military training requirement, a consultation with the proponent of the infrastructure will occur to determine options with regards to siting or removal to ensure that the military training can occur and that all Land Users are not put at risk in the performance of their duties; and

b. Vent Hoods. Removal shall occur if new methods are developed for cooling equipment below ground.

289. Aboveground infrastructure with height implications (e.g., towers, flare stacks, and tanks) may be subject to height restrictions to accommodate airspace requirements. Approvals and restrictions shall be determined through the AFD process for the infrastructure.

290. Oil and gas long-term aboveground infrastructure (i.e., situated longer than one year on the Base) shall be painted non-reflective tan color.

291. Electrical powerlines shall be situated below ground unless the Base Commander approves otherwise. Land Users shall complete pre-planning with the Base prior to submitting an AFD for aboveground electrical powerlines. Aboveground power lines shall be constructed in a manner which reduces risk for avian electrocution, following the isolation and insulation principles outlined in APLIC 2006 and the CFB Suffield Power Line Risk Assessment (available upon request).

292. Caissons. Caissons or “Protective Well Head Devices” are a requirement under the 1975/77/99 Access Agreements. All oil and gas infrastructure caissons shall adhere to the following requirements:

a. when an Oil and Gas Land User chooses to mark caissons, they shall be marked with a plastic pipe at a height not greater than 1.5 m;

b. caisson grating shall be kept fully closed and flush and level with the existing topography. Where topography is such that a caisson may fill with fluid from run-off/rain events, caissons can be elevated by 30 cm over existing surface. All other caisson heights require specific Base Commander approval. Caissons below the soil surface shall be raised to ensure safety of training troops;

c. caissons within the NWA may not require the same level of contouring as other areas of Base, however, when issues are found by Land Users or the Base, the Base will review on a case-by-case basis to ensure safety is met of personnel, wildlife, and cattle;

d. caissons shall be covered with plywood of a minimum thickness of 1/2 inch; and

e. caisson integrity shall be maintained. This shall include, but is not limited to, replacing gratings and plywood, and replacing rusted/collapsing caissons.

293. Gravel & Borrow Pits. These developments shall adhere to the AFD process outlined in Chapter 2 Part 4 and be managed in accordance with the Alberta Guidelines for Surface Dispositions on Public Lands (ref M) and the Contaminated Sites Instruction (CSI.004.001) Soil Management para 12.3 (ref N).

294. Storage of equipment, materials, and hazardous products shall be confined to approved storage areas. Where the storage requirements change from the original intent of a site, Land Users shall apply through the 15-day FA process for a change of use. Temporary in-field storage on existing sites related to a project (e.g., drilling or construction) shall be included within application materials. If the storage is for a service program, a 1-day NOI is required for in-field storage.

Section 6 – Cattle Grazing

295. During the summer months of June to October, cattle are grazed on the Base within designated pastures (Figure 4-1). Cattle found outside these areas shall be reported to Range Control immediately with the grid and description of the animal.

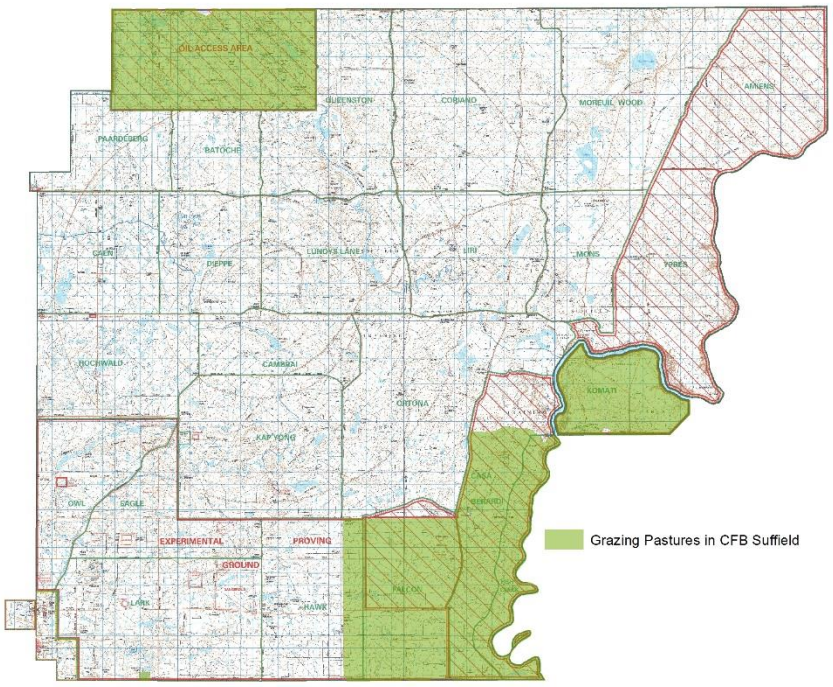


Figure 4-1: CFB Suffield grazing pastures

296. Stocking Rates. Prior to release of cattle on the RTA, stocking rates shall be approved and distributed by the Base Commander.

297. Salt Placement. Upon locations being known for salt placement, grazers shall provide a 1-day NOI and provide amendments throughout the grazing season as the salt is moved to new locations.

Section 7 – Other

298. Noise Concerns. To reduce the potential for adjacent Landowner noise complaints, the Base Public Affairs Officer may place notices in local papers prior to live-fire exercises throughout the active training season or prior to large scale defence research trials. Range Control shall maintain a record of complaints.

299. Lights. Lights from land use activities, such as but not limited to drilling and fracturing rigs, shall be limited, and placed to reduce impacts on military night manoeuvres as directed by Range Control. This direction will be transmitted to Oil and Gas Land Users through SIRC.

300. Oil and Gas Seismic Exploration Activity. Land User environmental personnel shall be present throughout the entirety of seismic projects (e.g., 24 hr programmes require environmental personnel present throughout the 24 hr period) to ensure operator compliance with RSOs and conditions of the land use approval.

301. Scheduling. Construction on sites during periods when military training or defence research is scheduled in the area shall be halted, with site clean-up (e.g., contouring well caissons, removal of all large boulders, filling of holes, erosion control, removal of berms, and interim reclamation) completed no

later than 48 hours prior to the scheduled commencement date for military training or defence research activities. If this timeline cannot be achieved, Land Users shall contact the Base to determine options, however, if known ahead of time that timelines may not be adhered to then the construction activities shall not commence.

302. Facility Crossings. A Facility Crossing Agreement (FCA) shall be executed prior to construction when a Land User's infrastructure (e.g., pipeline, site, access trail) will cross DND infrastructure (e.g., utilities, sites) or Priority 1 roads in Annex C. FCA requirements shall be identified during the AFD process. RPOU (W) Det Suff will submit FCAs when crossing other Land User's infrastructure.

303. Oil and Gas Infrastructure RTA Risk Mitigation. To permit continuation of military training and research and allow for reduced risk and damage to oil and gas facilities and pipelines from military activities (ref O), the mitigation measures listed below shall be applied. Note: these requirements are subject to change as military and oil and gas technologies evolve and should not be construed as implying that damage will not occur to underground infrastructure:

a. pressure monitoring and remote activation systems shall be installed on oil gathering systems (e.g., injection systems, headers, satellites, or other infrastructure that will not automatically shut down in the event of a spill); and

b. all new oil-related pipelines (e.g., injection, oil, EOR) shall be a minimum of 2 m below ground in the MTA and EPG. Oil-related pipelines in the OAA shall be a minimum of 1.5 m below the ground. Shallow gas pipelines shall be a minimum of 1.5 m throughout the Base. These depths are also required below the surface of ditches along roads.

PART 3 – FIRE CONTROL

304. The Fire Mitigation Plan is created by the RCO in consultation with G3 Fire Services, DRDC – SRC and BATUS. It is reviewed annually and amended as required. It outlines what assets make up the FOS, DRDC – SRC and G3 Fire Services' firefighting capabilities. It highlights common fire threats and mitigation measures such as planned pre-burns for the coming season. It explains some of the tactics used when firefighting. It describes the Fire Danger Index and the corresponding restrictions as well as the Fire Priority Map. This is then disseminated to G3 Fire Services, DRDC – SRC, BATUS, RSS and SIRC. This enhances fire awareness and educates stake holders on the fire response plan.

305. CFB Suffield is a Type Two range, extremely high risk for UXO occurrence. The terrain and vegetation at CFB Suffield is susceptible to wildland fires ignited by natural causes and military munitions use. The Base Commander places high priority on safely and efficiently preventing and managing fires on the RTA to minimize risk to personnel, infrastructure, neighbouring lands and livelihoods, and sensitive environmental areas.

306. The Canadian Forest Fire Danger Rating System (CFFDRS) consists of many components including the Canadian Forest Fire Weather Index System, Canadian Forest Fire Behaviour Prediction System, and the Canadian Wildland Fire Information System. This is a comprehensive system of tools designed to evaluate environmental factors that influence the ignition, spread, and behavior of wildland fire, with emphasis on firefighting within a forestry environment. All FOS and DND firefighters within CFB Suffield receive training endorsed by the Canadian Forces Fire Marshall.

Section 1 – Fire Reporting

307. For planning considerations, the Range Control Ops personnel will use the table at Annex Z, Appendix 2. This table indicates travel time over travel distance between the named locations. This is what all range users should expect as approximate response times in fair weather conditions.

308. Land Users shall report all fires on the RTA whether they caused the fires or not and regardless of where the fires are located. Fires shall be immediately reported to Range Control or other applicable movement control station (e.g., Delta Net, DIO SD Trg (Can) OPS Room, SIRC), using the Range Fire Report located in Annex S. All movement control stations shall immediately relay fire reports to Range Control. All fires, other than grass fires that have started from ammunition or explosives associated directly with military training or trials, shall be reported to G3 Fire Services for investigation.

309. Range Control shall record and report all fires to the Base Fire Chief and Base Commander through the Integrated Fire Services Management and Reporting System (IFSMR). The exception to this practice is that DRDC – SRC shall report through the IFSMR system for fires fought exclusively by DRDC – SRC Field Support Group (FSG), and shall provide summary details (e.g., location, size of fire, etc) to Range Control for range health assessment tracking and internal reporting purposes.

Section 2 – Fire Index

310. Range Control shall get its daily Fire Index directly from the Natural Resources Canada, Canadian Wildland Fire Information System. Table 4-2 depicts the Fire Index and the corresponding activity, restrictions/mitigations and authority required. This has been produced by the RCO in conjunction with G3 Fire Services and approved by the Base Commander. Further, for any work that poses a fire hazard a Hot Work permit is required. This permit is filled out through G3 Fire Services and stipulates the restrictions and/or mitigations. Additionally, for UXO destruction, the Blind Destruction Go/No-Go check list (Annex Z, Appendix 2) must be consulted. It ties the fire weather conditions to mitigation and authorization requirements specific to UXO destruction.

311. **NOTE:** Table 4-2 is to be used as a guide for planning purposes only and does not provide an exhaustive list of potential fire causing activity. Further restrictions may be implemented at any level, at any time and on any activity to mitigate the limited resources available on a given day.

Table 4-2. CFB Suffield Fire Index Restrictions

STATUS	Description	Activity	Restrictions/Mitigation	Authority
Low	Grass fire ignition unlikely.	Hot Work	Permit, Fire watch	BFC
		Open Burning	Permit, Fire watch, fire truck(s)	BFC
		Fireworks	Permit, qualifications, fire trucks, winds must be <25km/hr	BFC
		Ammunition	Nil	RCO
		Pyrotechnics	Nil	RCO
		Aircraft Launched Flares	Nil	RCO
		Vehicle	Nil	RCO
		UXO Destruction	As per SOP	RCO
Moderate	Slow burning grass fires possibly contained/extinguished by personnel using hand tools.	Hot Work	Permit, Fire watch	BFC
		Open Burning	Permit, Fire watch, fire truck(s)	BFC
		Fireworks	Permit, qualifications, fire trucks, winds <25km/hr	BFC

		Ammunition	Nil	RCO
		Pyrotechnics	Nil	RCO
		Aircraft Launched Flares	Nil	RCO
		Vehicle	Nil	RCO
		UXO Destruction	As per SOP	RCO
High	Vigorous grass fires expected. Will require range fire trucks and water tenders in addition to any personnel using hand tools to control/extinguish fires. Direct attack likely effective, but indirect tactics must be considered. Use Beaufort Wind Scale to predict rate of spread and take necessary precautions to include advising adjacent jurisdictions when fires are within perimeter priority #1 areas.	Hot Work	Permit, Fire watch, fire truck(s)	BFC
		Open Burning	Permit, Fire watch, fire truck(s)	BFC
		Fireworks	Not permitted	BFC
		Ammunition	Nil	RCO
		Pyrotechnics	Nil	RCO
		Aircraft Launched Flares	Subject to authorization	RCO
		Vehicle	Not to be left idling	RCO
		UXO Destruction	As per SOP	RCO
Very High	High-intensity grass fires. Head fire conditions very likely to require indirect attack tactics. Use of personnel with hand tools likely to be ineffective and unsafe. Notification to be provided to adjacent fire services to be on standby when fires are within 1 hr of base perimeter based on wind scale prediction.	Hot Work	Plan for periods of lower fire risk	BFC
		Open Burning	Plan for periods of lower fire risk	BFC
		Fireworks	Not permitted	BFC
		Ammunition	Types may be restricted (restricted with sustained wind ≥ 50Kph)	RCO
		Pyrotechnics	Use may be restricted (restricted with sustained wind ≥ 50Kph)	RCO
		Aircraft Launched Flares	Subject to authorization	RCO
		Vehicle	Not to be left idling	RCO
		UXO Destruction	As per SOP	RCO
Extreme	Fast-spreading high-intensity grass fires are difficult to control. Suppression actions limited to flanks. Assets assigned to indirect tactics critical to control the fire's head. Early dispatch and staging of required base resources necessary. Adjacent fire services to be notified to stage at safe access points when fire is within 2 hrs of base perimeter based on wind scale prediction.	Hot Work	Plan for periods of lower fire risk	BFC
		Open Burning	Plan for periods of lower fire risk	BFC
		Fireworks	Not permitted	BFC
		Ammunition	Types may be restricted (restricted with sustained wind ≥ 25Kph)	Base Commander
		Pyrotechnics	Use may be restricted (restricted with sustained wind ≥ 25Kph)	Base Commander
		Aircraft Launched Flares	Use restricted	Base Commander
		Vehicles	Not to be left idling	Base Commander
		UXO Destruction	Pri 1 Blinds; Only with justification	Base Commander
Nil	Local assessment to determine status (Trained personnel) using CFFDRS			

312. Fire Index Signs at Range Control and high-traffic perimeter gates shall be updated in accordance with changes to the Fire Index. Range Control shall inform all Land Users and movement control stations of changes to the Fire Index. All Land Users shall confirm the Fire Hazard Index and associated land use restrictions with Range Control prior to accessing the RTA.

313. Depending on the severity of the Fire Index and intensity of live-fire training proposed for a given day, training units may be subject to restrictions on the use of ammunition types and pyrotechnics at the discretion of the RCO. Use of aircraft launched flares shall be authorized by the Base Commander and subject to restrictions per Chapter 5, Part 4.

314. Taking into consideration recommendations made by Range Control and the Base Fire Chief, the Base Commander is the sole authority for starting fires. All pre-burns or back-burns shall be authorized

prior to commencement. Once approved by the Base Commander, day-to-day authority for the starting of fires (e.g., the annual Fire Mitigation Plan) is delegated to the RCO.

Section 3 – Firefighting Capability

315. All Land Users shall take immediate action to attempt to extinguish or control fires they start. All commercial vehicles deployed to the RTA shall be equipped minimally with a fire broom or fire beater and a portable 10 lb fire extinguisher. A person-portable water delivery system is also recommended. Military units shall suspend live-fire training and attempt to gain control of the fire. All fires will be reported to Range Control immediately. Land user will report on size, location of fire and the ability and assets they have to fight fire. If Range Control firefighting personnel are to be deployed, they will take command of the fire scene through a handover upon arrival.

316. The Base Commander has designated Range Control FOS and G3 Fire Services as the authorities to fight wildland fires throughout the RTA. DRDC – SRC FSG is responsible for the provision of wildland firefighting capabilities during normal working hours in support of DRDC – SRC operations within the EPG.

317. Range Control shall maintain a 24/7 firefighting capability adjusted to align with the current Fire Index. If Range Control is unable to meet the following minimum staffing requirements, the RCO may order that land uses posing a fire risk (e.g., live-fire military training) cease until the standards can be achieved:

a. High, Very High, or Extreme – four fire trucks, a water truck, and a fire leader, with a minimum of two personnel per firefighting vehicle; and

b. Low or Moderate – two fire trucks, a water truck, and a fire leader, with a minimum of two personnel per firefighting vehicle.

318. Upon arrival at a fire scene, the Fire Leader (normally the FOS Commander or a senior G3 Fire Services Officer (Fire Chief/Deputy Fire Chief/Platoon Chief)) shall assume command of the fire and template until the fire is no longer a hazard. Template controllers shall react to the demands of the Fire Leader and at the discretion of the national command, aid when safe to do so.

319. The Fire Leader may order the temporary cessation of activities on any part of the RTA to minimize threats to firefighting personnel and enable rapid movement of safety vehicles necessary to fight fires.

320. All those employed in the fighting of wildland fires in the RTA shall be trained to the National Fire Protection Association (NFPA) 1051 Wildland Firefighting Professional Qualification standard. Personnel assigned to the FOS or DRDC – SRC FSG may participate in firefighting while training is underway but shall be under the direct supervision of a qualified Wildland Firefighter. Various tactics and personal protective equipment (PPE) shall be employed per Annex Z.

321. All those employed in the fighting of grassland firefighters shall have the following training:

a. Initial qualifications:

(1) ICS 100 - 4 hrs online;

(2) S100G Grassland Wildfire Operations - 8 hrs; and

(3) Grassland Firefighter Certification - 40 hrs.

b. Second season qualifications:

(1) Advanced Grassland Firefighter Certification - 40 hrs;

(2) NFPA 1002 wildland Fire Apparatus Driver Operator - 40 hrs; and

(3) NFPA 1002 Mobile Water Supply Driver/Operator - 40 hrs certification (for those tasked with driving water tenders).

c. Supervisor qualifications:

(1) ICS 200, Online; and

(2) Grassland Fire Commander Certification - 32 hrs.

322. When multiple fires are underway, a priority system for firefighting shall be applied (see Annex Z). If firefighting assets are no longer able to maintain control of all active fires, or multiple priority 1 fires are active, all live-fire training shall be suspended by the RCO until the situation is brought under control.

Section 4 – Land User Responsibilities

323. To minimize the dangers posed by fire, all Land Users shall adhere to the following practices:

a. at the discretion of the national command, individuals shall remain on the site of the fire while ensuring personnel safety until relieved by the Fire Leader and shall be expected to aid in firefighting efforts when the national command deems it is safe to provide this assistance. Oil and Gas Land Users will address fire in accordance with their access agreements and coordinate firefighting efforts through SIRC;

b. tracked vehicles or other mechanical means (e.g., dozer blades) shall not be used to extinguish fires, which includes but is not limited to digging firebreaks with axes, picks and/or shovels;

c. cigarette butts and matches shall be removed from the Base and not thrown on the ground;

d. vehicles shall not be left idling when the Base Commander has determined that the Fire Index level is extreme unless sites have been mowed to reduce fire hazard. All vehicle undercarriages shall be regularly inspected to prevent any build-up of flammable material (e.g., grass) around the vehicle exhaust systems;

e. mowing shall occur prior to construction/servicing to reduce the possibility of ignition sources but only if it is outside of the bird breeding season (1 May to 31 August) per Chapter 4 Part 6 Section 4 – Wildlife; and

f. during extreme fire index, mowing activities shall meet the following requirements or Land Users shall provide their plan for approval through LU Ops Gp that will meet the requirements listed below:

(1) a water truck or trailer mounted unit or firefighting skid package in the back of a pickup truck;

(2) water tanks shall be a minimum of 1000 L and have a minimum of 200 L per minute pump with hose and nozzle suitable for extinguishing grass fires;

(3) water trucks shall follow 200-300 m behind the mower to provide adequate distance to watch for fires; and

(4) two fire brooms, two fire rakes, and 2 20lb pressurized water extinguishers.

324. Templates shall not be permitted to clear or "Go Green" until all fires are confirmed extinguished by the Template Controller.

PART 4 – AMMUNITION RELATED PROVISIONS

325. Ground Penetrating Explosives. The presence of sub-surface infrastructure constrains the use of ground penetrating area munitions (e.g., delay fuse artillery, mortar rounds) and engineer-cratering tasks. As such all are prohibited without pre-planning and approvals in place. To ensure proper consultation with Range Control to obtain the necessary approvals, military units interested in using ground penetrating munitions shall seek authority through the AFA process 30 days in advance of the activity. Air delivered munitions are considered separately and covered in Chapter 5.

326. Post-Exercise Cleanups/Range Sweep. All units shall keep training areas clean and free from UXO. Cleanups/Range Sweeps shall be built into a unit's exercise plan and reviewed by Range Control. No unit shall be permitted to depart the RTA until Range Control has approved the unit's allotted areas as clean and free from UXO.

327. Ammunition Accidents and Incidents. Procedures to be followed after an Ammunition Accident or Incident are specified in Base Standing Order (BSO) 409 – Ammunition and Explosives Safety Program.

328. Ammunition Defects or Malfunctions. Ammunition defects or malfunctions shall be reported to the Base Ammunition Section as detailed:

a. defects or malfunctions that in the opinion of the Officer in Charge (OIC) and/or Range Safety Officer present a safety hazard to personnel and/or facilities and equipment, or that require training to cease shall be reported immediately to Range Control;

b. defects or malfunctions that in the opinion of the OIC and/or Range Safety Officer do not present a safety hazard and do not require training to cease shall be reported to the Base Ammunition Section during the ammunition/salvage return at the end of the exercise; and

c. all ammunition defects and/or malfunctions require that the OIC or Range Safety Officer initiate a CF-410 Ammunition and Explosive Defect and Malfunction Report, which shall be submitted to the Base Ammunition Section prior to the military unit departing CFB

Suffield. Instructions for completing the CF-410 are provided in BSO 409 – Ammunition and Explosives Safety Program.

329. Ammunition Salvage. Improper disposal of ammunition and ammunition packaging results in serious safety hazards, which places waste handling personnel and contractors at extreme risk. All ammunition salvage shall be certified free from explosive (FFE) and shall be returned to the ammunition compound for disposal. See Annex BB for Ammunition Compound Standard Operating Procedures.

330. Surplus Artillery Propellant and Mortar Propellant Increments Disposal. The environmental impact of open burning of surplus propellant on Canadian Forces RTAs may be significant if not conducted in a controlled and deliberate fashion. The open burning of propellant on the surface of bare ground or on a concrete pad does not suitably contain the explosive residues and is deemed to be not environmentally responsible. Open burning of surplus artillery propellant and mortar propellant increments shall not occur in the RTA and will occur only in accordance with ref P - CFTO C-09-005-004/TS-000. A&E Safety Manual Vol 4. Demil & Disposal. Upon the cessation of firing, user units shall collect, repack and return, within approved containers, all surplus artillery propellant or mortar propellant increments to the issuing facility (ammunition compound) for destruction (ref P).

331. UXO. The Type Two nature of the CFB Suffield area signifies that UXO may be encountered anywhere on the RTA. In addition, the legacy of chemical experimentation at CFB Suffield poses the added danger that older UXOs may be chemical munitions. All non-oil and gas construction projects/tasks require Base confirmation through Range Control of the level of UXO clearance required and whether a residual risk assessment is required prior to commencing work in areas previously cleared. Oil and Gas Land Users will receive direction from SIRC on the requirements related to UXO. Annex AA provides the requirements for all Land Users for proper UXO handling.

332. UXO Clearance. UXO clearance shall be conducted in accordance confirmation through Range Control and all results provided to sufrangectrlopswo@forces.gc.ca. All construction task/project(s) require Base confirmation through Range Control of the level of UXO clearance required and whether a residual risk assessment is required prior to commencing work in areas previously cleared of UXO. Any UXO Clearance needing to be completed in the EPG is coordinated through DRDC – SRC HFOS corey.dorn@forces.gc.ca.

333. Ammunition storage shall follow the requirements provided in Annex BB.

PART 5 – BIVOUAC/FIELD DEPLOYMENT HEALTH AND SAFETY PROVISIONS

334. In and Out Routine. Once a unit has established a bivouac area, the unit shall contact the Base Hospital (Clinic 2 I/C local - 4890 or BSurg local – 4928) to arrange a march-in hygiene and sanitation inspection. A sweep of all training areas used by a unit shall be made on the day of departure. Range Control will conduct an inspection of the bivouac location during the out clearance.

335. Water Supply. Queries of potable water shall be directed to Range Control. Two locations exist for units to draw water from and are listed below. All water usage shall be tracked and logged and provided to Range Control when requested:

a. North side of Building 325 GR 87505 68817; and

b. North of Range Control on Rattlesnake road GR 88107 69532.

336. Food Supply. All food consumed in the RTA shall be drawn from an approved source in accordance with CAF policy, or policies governing food regulations of other controlling organizations (e.g., BATUS).

337. Field Kitchen Hygiene. Field kitchens are a potential source of numerous health problems and require special attention to hygiene and sanitation:

a. field kitchens shall maintain a 100 m setback from wetlands;

b. all wastewater from bivouac kitchens are to be dealt with in accordance with provisions outlined in Chapter 4 Part 6 Section 7– Waste Disposal;

c. field kitchens shall not be camouflaged;

d. food storage shall be kept off the ground and designed to discourage attraction of animals;

e. food storage areas shall not be used as living quarters;

f. personnel shall not wear camouflage of any type while employed in food service duties; and

g. personnel employed in food service duties shall maintain a high standard of personal hygiene and shall be provided with a daily shower where operationally available.

338. Occupancy. During the period that any bivouac site is occupied, all authorized ammo points, POL points, stores, kitchens, etc shall be positioned greater than 100 m from main roads. Base staff may conduct unscheduled inspections.

339. Environmental Health.

a. the CFB Suffield winter presents a wide variation in temperature and wind velocity. There may be times when it is necessary to know the exact wind chill factor and how it will affect training. The wind chill factor can be obtained from Range Control. The temperature and wind chill limitations applied to a unit are a Unit Commanding Officer's responsibility;

b. the CFB Suffield summers have inherent problems with temperature fluctuations and loss of operational efficiency, both mental and physical, occurs under certain definable degrees of heat stress. If the stress is severe enough, it will lead to heat cramps, fatigue, exhaustion and eventually, disability and death. Personnel have an increased resistance to heat injury when their water and salt balances are maintained, when they are acclimatised gradually to hot environments and when they are in proper physical condition. The Wet Bulb Globe Temperature Index (WBGT) is the index used to determine the type of training that can be safely undertaken. The WBGT index can be acquired from Range Control. The WBGT limitations applied to a unit are a Unit Commanding Officer's responsibility; and

c. Range Control updates Land Users and sub stations of impending storm/weather updates/warnings. The Base Commander is updated of the seven day forecast weekly to assist in determining operational priorities as needed.

340. Hearing Conservation

a. General. Steady-state and impulse noises of sufficient magnitude are hazardous to hearing. Guidelines have been developed for hearing conservation. The standards are found in B-GL-381-001/TS-000 Training Safety. If these standards are exceeded, damage to hearing may result; and

b. Protection. All weapon firing and demolitions are potentially hazardous to hearing. Any person near demolition charges or weapons that are being fired shall wear a properly fitted hearing protection device as follows:

(1) Ear Plugs. All personnel that are engaged in training or administrative duties on live firing ranges shall insert properly fitted earplugs. These plugs shall be worn as a minimum protective device when firing practices are being conducted including the firing of blank large calibre ammunition;

(2) Aural Protectors. Aural protectors (also known as “ear muffs”) are preferable to ear plugs and should be worn when available, particularly when firing general-purpose machine guns and/or larger calibre weapons, and in addition to and not in lieu of ear plugs. If verbal commands cannot be clearly heard and understood, then one of the protectors may have to be partially removed for the purpose of receiving fire orders and replaced for firing; and

(3) Minimum Distance/Maximum Exposure. A summary of the minimum distance at which hearing protection must be worn and the maximum daily exposure permissible is contained in B-GL-304-003/TS-0A1 Training Safety.

341. Hantavirus Threat. Deer mice are found throughout the RTA and can be infected with Hantavirus. It is safest to assume that all signs of mouse infestation represent a risk. The virus is excreted in mouse urine and feces and can become airborne during cleaning activities (particularly sweeping) and then inhaled. When sweeping out any facilities the following equipment is recommended and is a Land User responsibility to provide:

a. ½ facemask with HEPA filters;

b. disposable HEPA filters;

c. rubber or plastic gloves;

d. Tyvec or cloth coveralls;

e. rubber boots;

f. domestic bleach; and

g. domestic laundry detergent.

342. West Nile Virus Threat. Mosquitoes present a potential for carrying West Nile virus, which has been detected in the RTA. Land Users should take precautions against biting mosquitoes, such as using mosquito repellant and covering exposed skin as much as possible. Signs of illness should be closely monitored for early detection. Additional information is available through the Base Medical Centre.

343. Other Health Threats. Other biting insects of concern are Black Widow spiders and the Brown Recluse spider. There are also numerous types of snakes, including the Prairie Rattlesnake. Land Users are recommended to seek additional health-related information on these hazards, which is available through the Base Medical Centre.

344. White Phosphorus (WP) Burns and Poisoning - Treatment and Precautions. WP from ammunition causes severe and painful burns when it comes into contact with skin. Every person handling, storing, or firing WP ammunition shall be familiar with the emergency first aid treatment of white phosphorus burns. When using WP ammunitions, the OIC Practice shall ensure that a WP specific safety brief is conducted prior to firing and that proper first aid kit is readily available. Although not commonly in use at CFB Suffield, WP can lay dormant for several years and still poses a risk of causing severe and painful burns if exposed or disturbed. As it burns, WP will crust over and anything that breaks the crust will cause it to reignite.

345. Hydrogen Sulfide (H_2S) Gas. H_2S gas is a highly toxic and flammable gas commonly found in natural gas, biogas, oil, injection fluids, and propane. Given the volume of oil and gas infrastructure in the RTA, it is possible that Land Users may encounter H_2S gas. Being heavier than air, it tends to accumulate at the bottom of poorly ventilated spaces. Although very pungent at first, it quickly deadens the sense of smell, so potential victims may be unaware of its presence until it is too late. H_2S gas can render unprotected personnel unconscious extremely quickly. All Land Users shall report damaged oil and gas infrastructure to Range Control immediately. Do not approach damaged oil and gas infrastructure. Unprotected personnel who happen upon unconscious personnel near oil and gas infrastructure are to report the incident to Range Control or their controlling station immediately, as this may indicate the presence of a H_2S gas leak; unprotected personnel shall not attempt to assist. Assistance shall be provided by protected and qualified personnel only.

346. Oil and Gas Infrastructure. Doors and caissons of oil and gas sites/facilities shall not be opened and/or entered without the owner/operator of the facility present.

347. Casualty Evacuation (CASEVAC). In case of emergency, the senior person in rank/position shall take command of the site and the following actions shall be performed:

a. estimate the immediate dangers;

b. clear and cordon the area;

c. provide lifesaving First Aid;

d. contact command net/Range Control with initial No Duff message;

e. provide additional First Aid as appropriate;

f. send detailed message/9-Liner report as required (Annex S, Part 2);

g. identify and lay out a landing zone if time and situation permit; and

h. wait and guide rescuers.

PART 6 – ENVIRONMENTAL PROVISIONS

Section 1 – Environmental Incident Reporting (EIR)

348. Based on the 3 CDSG Hazardous Material Spills and Releases DEnvr-01-006 (ref Q), EIRs shall be completed (Annex S Appendix 1) and submitted to Range Control for coordination with the B Env O for the following incidents:

a. all spills and releases as in the Contaminant sections below;

b. non-compliance with environmental legislation including but not limited to *SARA*, Alberta *Wildlife Act*;

c. unauthorized military manoeuvre or RTA damage;

d. failure of military vehicles washing prior to leaving CFB Suffield and failure of all Land Users to wash vehicle prior to entering the RTA;

e. failure of a Land User to remove contamination based on decontamination protocol (ref R) on vehicle, watercraft, military equipment, and personal clothing after their use in waterbodies; and

f. failure of a military Land User to respond to a site inspection visit, and/or identify corrective actions to remediate identified observations.

Section 2 – Soil and Terrain

349. Sensitive soil and terrain areas include but are not limited to sandy soils, steep slopes (greater than 15%), blowouts, and naturally erosion prone areas. Development in these areas shall be avoided. In circumstances when avoidance is not possible, mitigation for erosion prevention and protection of habitat and wildlife shall be included with an AFD.

350. Coulees. Developments shall avoid coulee systems (i.e., dry stream valleys, long steep-sided ravines that once carried melt water from glaciers) by applying a 100 m setback from the coulee edge. If a Land User wishes to encroach on this setback, then mitigation shall be submitted with an AFD that articulates how risk to the coulee system shall be reduced or avoided with respect to, but not limited to, spills, sedimentation, critical ungulate winter range, and erosion.

351. Trees. All treed areas are OOBs, including but not limited to, Adams Pond (GR 922924) and Sherwood Forest (GR 3090). Cutting trees and removal of wood are prohibited.

352. Excavation. All activities and developments involving ground disturbance shall be applied for and approved through the AFD or 15-day FA/NOI processes in Chapter 2. Dig liaisons shall occur after approval is granted through the AFD or 15-day FA/NOI processes. Military units shall record the location of all digging or engineer excavations using GPS and the Range Clearance/AAR (Annex R), to permit follow-up repair and inspection. All excavations shall be filled before units depart.

353. Soil Disturbance and Handling. All soil disturbances shall be conducted in a manner that:

a. conserves topsoil structure, and vegetative propagules (e.g., roots, seeds);

b. prevents the destruction, degradation, and/or contamination of soil properties (e.g., chemical, physical, and/or biological); and

c. protects soils from slumping and erosion (i.e., wind, water, gravity, or sedimentation).

354. Erosion control measures shall be implemented to protect soil where wind and/or water erosion are risks. Measures include but are not limited to one-year 100% biodegradable matting, cover crops (see Part 7 Section 1), and sediment fencing.

355. In areas where soil stripping is approved, and the topsoil depth is at least 15 cm, topsoil (A-horizon) and subsoil (B-horizon) shall be separated and placed at least 1 m apart (ref W). The topsoil layer shall be removed to a minimum depth of 15 cm. See Alberta Guidelines for Alternative Soil Handling Procedures during Pipeline Construction (ref S). Examples of topsoil removal related to Military Land Users include but are not limited to target pits, vehicle pits, gun engagement locations.

356. To avoid admixing during frozen ground conditions, specialized equipment (e.g., topsoil cutter or Stinnissen mixer) shall be used to assist in stripping frozen topsoil.

357. Topsoil scalping shall not occur during topsoil storage and replacement.

358. The stockpiling and replacement of soil shall be completed by the following growing season (e.g., when construction occurs in the fall, soils shall be replaced by summer of the following year) to promote increased reclamation success, reduce weed establishment, and reduce erosion, unless longer timelines are approved by the Base Commander.

359. All material excavated or disturbed shall be restored to match the existing topography of the original site and ensure overland flow occurs in the same fashion as pre-disturbance. A crown (roach) of backfilled material shall not exceed 60 cm with frozen material or 30 cm of non-frozen and dry material. Soil shall be replaced in a manner that exhibits parameters conducive to vegetation establishment and erosion resistance (e.g., contoured correctly, no admixing).

360. Wood chips/sawdust shall be stored within containers and not mixed with soils or placed on the ground surface.

361. The addition of material to improve/change the organic matter content of the soil will be considered on a case-by-case basis through the 15-day FA. Land Users can also consider cover crops to add litter.

362. Backfill material shall follow the Contaminated Sites Instruction (CSI.004.001) Soil Management. At a minimum, backfill shall be clean, on-Base source, and similar to what was on site. Gravel, sand, or any other foreign material shall not be used as backfill material on native prairie, unless approved by the Base Commander.

363. <u>Soil Importation/Storage/Usage/Transportation</u>. Importation, storage, usage, and transportation of soil is required to follow the Contaminated Sites Instruction (CSI.004.001) Soil Management and requires non-objection through the 15-day FA process (per Chapter 2 Part 6). 15-day FAs for new soil importation, storage, usage, and transportation shall include a description of the intended usage of the soil including, but not limited to, caisson contouring, access trail repairs, filling of ruts, target pits, and spill remediation. Transportation of an already approved source that exists on Base does not require further process requirements.

364. Storage of imported soil shall occur on previously approved soil storage locations (e.g., well sites, batteries, compressors, storage compounds) and/or new locations for which non-objections have been issued. 15-day FAs for new soil importation, storage, usage, and transportation shall include soil management plan per the Contaminated Sites Instruction (CSI.004.001) Soil Management.

365. Approved soil sources, including all soil horizons and vegetative propagules, are the only soils allowed for transportation.

366. Soil shall be free of slag, stones, sticks, waste, and any garbage. Analysis of soil shall be aligned with the Contaminated Sites Instruction (CSI.004.001) Soil Management and at a minimum performed when a new source is identified, material is added to the original source, the vegetation has changed on the source pile, and every year to test for chemical composition, physical structure, organic matter, and undesirable species changes. Base personnel may visit the source location prior to recommending a non-objection. Certified laboratory analysis shall be completed by a CALA Accredited Laboratory and detection limits shall be below the regulatory criteria. Analysis of soil shall include testing parameters from the Contaminated Sites Instruction (CSI.004.001) Soil Management and the following:

a. Physical. Textural class similar to receiving soil, including one textural class difference (e.g., when the receiving soil is loamy, the imported soil may be a clay loam, or sandy loam);

b. Chemical. Metals, Volatile organic compounds (VOC's), polycyclic aromatic hydrocarbons (PAH's), per and polyfluoroalykyl substances (PFAS), benzene, toluene, ethylbenzene, and xylenes (BTEX), petroleum hydrocarbons (PHC's), sodium adsorption rate (SAR), electrical conductivity (EC), and pH, per requirements of the CCME criteria for Agricultural Land Use; and

c. Biological. Undesirable plant species such as, but not limited to, crested wheatgrass, alfalfa, and *Alberta Weed Control Regulation* listed species.

367. Boulders/rocks create safety hazards for military training. When ground disturbance occurs (e.g., pipelines, trenching, sites with open builds), boulders/rocks shall be removed from the surface and transported to sites off the Base or placed back under the surface. New excavations shall not be created to bury boulders/rocks.

368. Land Users shall monitor areas of ground disturbance after construction and through the life cycle of permanent infrastructure to ensure that safety hazards do not present themselves (e.g., slumping, roaches not settling).

369. Oil and Gas Seismic Exploration Activity. The following conditions shall be met for seismic exploration activity regarding soils and topography:

a. low ground pressure motorized vehicles/equipment shall be used through all phases of exploration; and

b. motorized vehicles are prohibited on steep slopes (greater than 15%). Only hand drilling shall be applied. Helicopters may be used to set drills down in coulees.

370. Dimensions for Oil and Gas Sites. Shallow gas well sites shall be 1 ha (i.e., 100 m by 100 m, or other equivalent dimensions). Oil, other deep well sites (e.g., gas, injection, disposal), and facility sites (e.g., satellites, headers, or separation) shall be 1.44 ha (i.e., 120 m by 120 m, or other equivalent

dimensions). All larger site dimensions and extensions to sites (1.96 ha maximum) shall receive specific approval from the Base Commander and shall not exceed a total disturbance area of 31.36 ha (16 disturbances x 1.96 ha) per section.

371. Temporary Workspace. Temporary workspace shall be used only for piling soil and storing equipment. No ground excavation shall occur within temporary workspace. Fencing may occur if applied for in the application process. Interim reclamation of temporary workspace shall follow the same timelines as site interim reclamation. Temporary workspace allocations do not represent site expansions, nor do they factor into 16 DPS area calculations. Temporary workspace is approved through the AFD or 15-day FA processes in Chapter 2.

372. Military Site Preparation. Minimum disturbance techniques shall be used to develop military sites, including no soil stripping/scraping unless approved by the Base Commander. Disturbances at military sites shall be approved by the Base Commander through the AFD or 15-day FA/NOI process. Where disturbance is required, subsoil storage shall not be placed on native prairie and shall be placed on existing disturbance or geotextile mats.

373. Oil and Gas Drilling. Low impact drilling (i.e., methods used to minimize disturbance to native prairie vegetation including, but not limited to, minimal to no soil stripping at development sites) shall be implemented wherever possible. Soil disturbance including, but not limited to, half/partial builds and full builds will be considered on an individual site basis only. When approving a half/partial build or full build, the Base Commander may require the site to be placed into interim reclamation if the open site will impede military training; otherwise, the site shall be closed within one growing season per para 362.

374. Pipelines. Trench width shall not exceed the pipe diameter plus 1 m. A larger trench width to accommodate more lines, or address safety concerns related to soil conditions may be approved on a case-by-case basis.

Section 3 – Water

375. Groundwater or subsurface water is held in soil pore spaces and fractures in rock formations. The surface of the subsurface materials that are saturated with groundwater is referred to as the water table. Requirements for new groundwater extraction follow a two part procedure:

a. site location and access to the site requires Base Commander approval. See Chapter 2, Part 4; and

b. groundwater extraction and drilling are regulated by AEP through a licensing process. A copy of all AEP water licenses (e.g., temporary diversion and permanent licenses) shall be submitted to the Base within 10 business days of a request, or per AFD/AFA Pre-Approval Documentation requirements under Chapter 2, Part 4.

376. Surface water locations (i.e., dugouts that do not have water wells on site) that have been approved by the Base may be used for water withdrawal upon notification to the Base through the 1-day NOI process (Table 2-4) (Annex CC).

377. Wetlands shall be considered as lands having water at, near, or above the land surface, or that is saturated with water long enough to promote wetland or aquatic processes as indicated by poorly drained (hydric) soils, hydrophytic vegetation (water-loving) and various kinds of biological activity adapted to a wet environment. Drainage/lotic (flowing) systems shall be considered as all permanent or intermittent channels, coulee systems and riparian areas formed by water flow (known as watercourses in ref T).

378. Wetlands and drainage/lotic systems are delineated by the provincial Grassland Vegetation Inventory (GVI) available as a GIS layer through AEP. GVI is a tool used to determine classes of wetlands and drainage/lotic systems at a desktop level. At the Base, the Stewart & Kantrud wetland classification system (Table 4-2) shall be used to classify wetlands while GVI shall be used to classify drainage/lotic systems (Table 4-3).

Table 4-2. Stewart and Kantrud wetland classification system.

Wetland Class (Type)	**Permanency**
I (Short-term flooded basin)	Ephemeral
II (Wet Meadow)	Temporary
III (Shallow Marsh)	Seasonal
IV (Deep Marsh)	Semi-Permanent
V (Open Water Pond)	Permanent
VI (Saline Pond)	Variable
VII (Fen)	Saturated

Table 4-3. Grassland Vegetation Inventory (GVI) classification system.

Primary Class	**Land Class**	**Land Sub-Class**	**Site Type**	**Short Code**	**ID**
Water	Wetland	Lotic	Lotic (River)	LtcR	6
Native/Natural	Wetland	Lotic	Lotic (Coniferous)	LtcC	7
			Lotic (Deciduous)	LtcD	8
			Lotic (Shrub)	LtcS	9
			Lotic (Herbaceous)	LtcH	10

379. Setbacks from wetlands and drainage/lotic systems are 100 m from the high water mark of the wetland/drainage/lotic system to the site boundary or right-of-way boundary (Annex DD). In circumstances when the setback cannot be maintained, mitigations outlining protection of habitat and wildlife, and prevention of contamination during construction, operation, and end-life shall be included with an AFD, with reference to the Wetland Mitigation for File Review document (Annex EE). During operations/maintenance of legacy infrastructure in wetlands, activity shall occur in dry or frozen ground conditions only, unless LU Ops Gp is consulted on suitable mitigations measures.

380. Drainage/lotic system crossings will be considered if mitigation supplied is congruent with the Alberta *Water Act* and applicable federal legislation (refs U, V, and W). Crossings on the South Saskatchewan River shall require provincial and federal authorizations (refs T, U, V, and W).

381. In addition to setback distances and drainage crossings, consideration shall be given to how a land use will influence localized natural drainage patterns. On a larger catchment area scale, water flow shall not be blocked, and the water table shall not be altered (e.g., caissons and sites shall be contoured to not block flow across a site).

382. Water surface discharge (pump-offs) from Oil and Gas Land User infrastructure (including but not limited to gas wells, oil wells, injection wells, disposal wells, EOR wells, all facilities, and areas that do not meet the AER definition of “good house-keeping practices”) shall meet the requirements listed in the AER Directive 55. Landowner consent can be obtained by submitting a 1-day notification per Chapter 2, Part 6 with test results. Where water does not meet criteria, it shall be disposed of off-Base. Water surface discharge shall not occur into Class I-V wetlands, the river, and dugouts.

383. Oil and Gas Seismic Exploration Activity. Soil disturbance to wetland basins shall not occur. Shot holes shall not be placed in Class I to V wetlands. Receiver lines may be placed in wetlands (all classes) on foot only, except where another manner has been approved. Class III to V wetlands shall be mapped and marked to avoid traversing with seismic equipment during the activities.

Section 4 – Wildlife

384. All Land Users are bound by federal and provincial legislation including the *Species at Risk Act* (*SARA*), *Canada Wildlife Act*, the *Migratory Birds Convention Act, 1994 (MBCA)*, and Alberta *Wildlife Act (AWA)*. Land Users and individuals who contravene the legislation may face penalties and legal action as provided in the applicable legislation.

385. Species at Risk (SAR). The locations of SAR Critical Habitat and known residencies and other important habitat features are maintained by the RSS to support land use oversight with respect to *SARA*, *MBCA* and *AWA*.

386. The following are prohibited on the Base:

a. removal of wildlife sheds, plants (except for the purposes of identifying plants, other than SAR) or dead wildlife (ref X); and

b. killing, harming, harassing, or feeding wildlife.

387. The following shall be adhered to as it relates to wildlife:

a. exercise controllers shall cease all live-fire activities as a result of wildlife entering target and/or impact areas and resume live-fire activities only once the area is clear;

b. all dead or injured animals shall be reported to Range Control. Range Control is the authority for disposing of injured animals;

c. Chronic Wasting Disease (CWD) has been observed in the area; any animal acting in a strange manner shall be reported to Range Control; and

d. during construction or military operations, trenches not in use require mitigation to reduce harm and mortality to wildlife. Mitigations may include but are not limited to: complete covering of trenches, or built-in or removable egress of 45 degrees for every 100 m of trenching.

e. for direction on wildlife, including setbacks and requirements, refer to guidance from the responsible authorities as referenced in Annex J (refs B-D).

388. From 15 December to 30 April, land uses shall be curtailed in critical ungulate winter range when winter conditions prove to be harsh (i.e., crusted snow, cold temperatures) as determined by the Base Commander in consultation with AEP. Critical ungulate winter range is defined below in Figure 4-2.

389. Ferruginous hawk and burrowing owl residences (i.e., nests and roosts), where nesting activity occurred in a given year, retain an active designation into the second year of inactivity (Annex J ref D). Retention of a setback on an inactive Ferruginous hawk nest will be at the discretion of a Base Biologist.

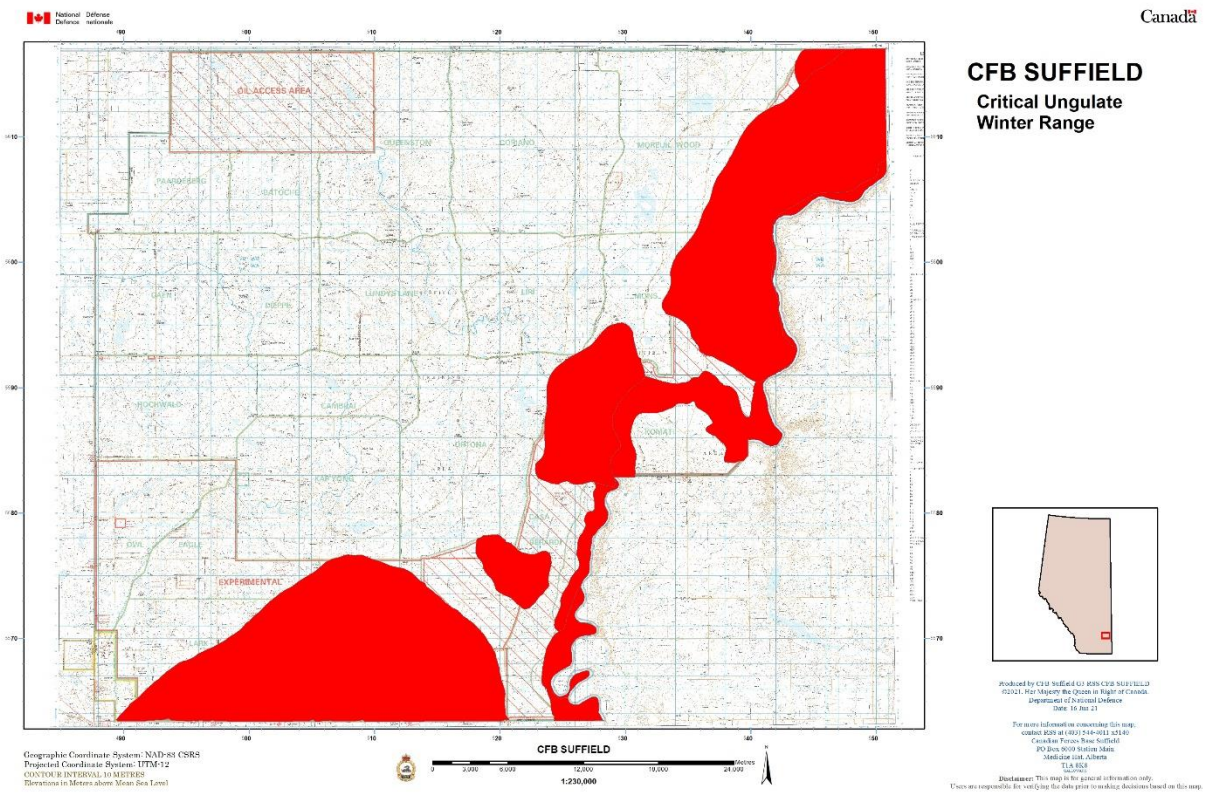


Figure 4-2: Critical Ungulate Winter Range at CFB Suffield

390. Artificial Nest Platforms (ANP). Applications for ANP shall be submitted per Chapter 2, Part 4. Relocations of natural nests or previously installed ANP shall not be permitted to satisfy setback distance requirements for new developments.

391. New developments shall adhere to all setbacks for SAR, or mitigation shall be provided that aligns with the Environment Canada Petroleum Industry Activity Guidelines for Wildlife Species at Risk in the Prairie and Northern Region (November 2011) (ref Y) and Environment Canada Activity Setback Distance Guidelines for Prairie Plant Species at Risk (ref Z). All developments shall be reviewed by the Base to ensure adherence to the ECCC guidelines. Land Users that are not able to meet the requirements within the guidelines shall approach ECCC to either receive a permit or written endorsement to complete the project. Permits and/or written endorsements shall be provided to the Base before a NOD shall be issued.

392. If and when SAR are detected during environmental work and/or operations and/or data is made available to the Land User, Land Users shall adjust their ongoing operations to ensure the risk to the SAR is minimized. Mitigation includes, but is not limited to, the reduction of speed in certain areas and/or restriction of site servicing activity to seasons that SAR are not present. Adjustments shall be made in consultation with the Base, and ECCC representatives as required.

393. Mechanical control of vegetation whether it is related to reducing the possibility of ignition sources or controlling undesirable plant species shall not occur during the bird breeding season of 1 May to 31 August. Where mowing is necessary during the bird breeding season, a wildlife survey shall be completed per Annex J. Mowing shall be limited to a maximum width of 4 m centred on access ROWs,

maximum width of 3 m centred on pipeline ROWs, and applied to only the footprint on sites where equipment will be placed.

Section 5 – Historical Resources

394. The Alberta *Historical Resources Act* applies on federal lands within Alberta such as the Base. Land Users shall follow the Alberta process for surveying and, where determined/approved by Alberta Culture and Tourism, the removal or exposure of historical resources (i.e., archaeological, paleontological, and historical sites such as cemeteries, homesteads, memorial cairns, and any other site determined to be of historical value).

395. If a Land User requires an Alberta Culture and Tourism clearance letter to perform work, the Base shall receive a copy prior to Base approval for a development or activity per Chapter 2.

Section 6 – Undesirable Plant Control

396. Undesirable plant species (often referred to as invasive plant species or weeds) are plants that pose one or more negative effects to native prairie at the Base. This includes but is not limited to species labeled as prohibited noxious and noxious in accordance with Schedules 1 and 2 of the Alberta *Weed Control Act*, non-native species of hyper abundance, or species (both native and non-native) that exhibit at least one of the following traits:

a. a growth regime that will outcompete desired native vegetation (i.e., offsite vegetation or range community for that area) or promote erosion;

b. species that do not support the desired successional plant community pathway; or

c. any species that differ substantially from the surrounding vegetation.

397. Pioneer weedy species (e.g., weeds including but not limited to kochia and Russian thistle) that appear after soil disturbance are desirable for site recovery by stabilizing soil and allowing native grasses to move onto the site. For assisted natural recovery or erosion control only, some non-native plant species (e.g., cover crops of fall rye and/or flax) may be applied. Land Users shall eradicate pioneer weedy species and not use non-native plant species for assisted natural recovery (per Part 7) unless they meet the following conditions:

a. they do not spread beyond the initial area;

b. they exhibit a density and structure that decreases over a reasonable amount of time (i.e., 2-5 years) and allows the establishment of desirable species; and

c. they are monitored and maintained to ensure the species do not become undesirable.

398. Straw crimping to assist in erosion control is prohibited unless the straw can be certified free of undesirable plant species (i.e., weed free as listed in the Alberta *Weed Control Act*). Proof of a weed free source shall be provided to the Base prior to use.

399. Land Users shall prevent propagation of undesirable plant species and shall resolve undesirable plant control issues on their sites and ROWs using methods such as mowing before seed set. Land Users shall also control undesirable plants on and adjacent to roads as negotiated with the Base Commander (see Annex C). Undesirable plant control activities for inhibiting the propagation and spread of plants shall be

conducted in a manner that prevents damage to desirable wildlife and vegetation. See para 393 for mechanical vegetation control timings during bird breeding seasons.

400. Application of fire to control excessive undesirable species shall be requested through the 15-day FA process under Chapter 2 Part 6 and coordinated through Range Control per para 317.

401. If mechanical vegetation control is deemed unsuitable for the control of undesirable species based on site conditions and species type, then chemical control shall occur provided it is conducted under the supervision of a Pesticide Applicator certified under the Alberta *Environmental Protection and Enhancement Act* (*EPEA)* and Environmental Code of Practice for Pesticides.

402. All herbicides used for the control of undesirable species shall be subject to all restrictions in the *EPEA* and the Alberta *Pest Control Products Act*. If requested, all herbicide application records shall be submitted to the Base within ten business days. The use of soil sterilants is prohibited. The use of herbicides with residual effects greater than 12 months is prohibited in the NWA even if the Land User holds an NWA permit allowing herbicide use.

Section 7 – Waste Disposal

403. Land Users shall remove all garbage including but not limited to rags, antifreeze containers, biocides, herbicides, methanol, welding rods, wood, cigarette butts, well/facility insulation, pipe, tools, lath/stakes/pin flags, cement, and sawdust/wood chips from the Base for disposal.

404. Military Waste Collection and Disposal. Units shall designate a POC, who shall report to Range Control prior to deploying to the field, to receive the Range Cleanup Brief. Waste types shall not be mixed, as cross contamination can result in the creation of hazards to personnel health and safety. Units shall collect, and segregate all waste in accordance with the following direction:

a. Domestic Garbage and Biological/Human Waste. Bag and remove daily to the approved location determined by the RPOU (W) Det Suff Waste Removal Contract. Food shall not be discarded or buried in the MTA. When garbage bins/skips are employed, units are responsible to ensure that, when full, they are gathered and disposed of off-Base in accordance with established processes/contracts to support their activities;

b. Scrap Metal. Remove to specially marked containers situated throughout the Force Maintenance Area (FMA). Larger items can be delivered to the scrap metal compound Building 168 in the FMA;

c. Toxic Waste. Collect separately for disposal in specially marked containers situated throughout the FMA or at G4 Supply R&D at Building 322 (e.g., paint, solvent, batteries) or G4 Hazwaste Disposal at Building 483;

d. Waste Oil. Collect in leak-proof containers and return for disposal in waste oil tanks located around the FMA or at the POL compound;

e. POL Products. Collect separately for disposal in specially marked containers throughout the FMA. Return unused products to the POL compound;

f. POL Contaminated Items. There are three types of waste in this category: used filters, empty oil pails, and contaminated rags. Collect each type separately for disposal in specially marked containers throughout the FMA or at G4 Supply R&D at Building 483;

g. Biomedical Waste. Collect separately and label bags to be dropped off at the Medical Centre on Base;

h. Scrap Wood. Remove to a designated area or to specially marked containers in the FMA; and

i. Beverage Containers. Collect beverage bottles, boxes, and cans for recycling.

405. Tent Ballast. Bags filled with non-native materials shall be emptied at approved storage locations (e.g., sandbags can be emptied at Wilson Junction Sand Bay). Native prairie sod cutting for use as ballasts shall not be used. All bags shall be recycled or disposed of as garbage.

406. Sewage and Grey Water Management. Sewage and grey water from Land User facilities shall not be deposited on the ground. Digging of temporary latrine facilities is not permitted within the training area. The following provisions apply to military sewage and grey water disposal:

a. disposal may occur in the sanitary sewer system on Base at the utility hole immediately east of the MP Building 301;

b. units shall source sewage and grey water containers for use in the RTA, including chemical toilets, which can be contracted on a unit's behalf through the Base VUR process;

c. a biological enhancing agent (e.g., Sept-Aid) shall be used to treat human waste within permanent/chemical toilet facilities; and

d. where permanent/chemical toilet facilities are used, units shall plan through the VUR for emptying the facilities upon out clearance.

407. All fluid not mentioned above shall be contained in aboveground tanks and removed from Base property.

408. Oil and Gas Seismic Exploration Activity. Drill cuttings shall be placed in a container and removed from the Base. Use of any other disposal method (e.g., left on site) requires approval from the Base Commander through the AFA (per Chapter 2 Part 4).

409. Oil and Gas Drilling Waste. All drilling waste shall be removed from the Base. Remote sumps, holding cells, mix-bury-cover pits, land treatment, and land spraying while drilling are prohibited.

Section 8 – Contaminant Spill and Release Prevention

410. General. Land Users shall employ preventative measures to reduce the risk and severity of spills and releases including:

a. providing spill prevention training to all personnel;

b. executing and briefing all personnel on a Site Specific Emergency Response Plan;

c. deploying sufficient spill kits, drip trays, and other secondary containment to commensurate with land uses;

d. allocating personnel as required to provide spill response capacity; and

e. Military Hard Targets. The use of existing tank hulls and vehicle chassis on the RTA as targets for military training and defence research activities is permitted. No additional tank hulls and vehicle chassis (hard targets) will be permitted to be placed in the RTA without authorization of the Base Commander. User units shall coordinate with Range Control their engagements of hard targets prior to commencing their training. Green targets shall be deployed based on the approved design specified in ref E.

411. Vehicle Maintenance.

a. all vehicles and equipment shall be free of leaks prior to entering and while operating on the Base;

b. belly plates and drain plugs shall be in place and securely fastened at all times to prevent leaks;

c. secondary containment shall be placed below defective vehicles and parts removed for repair or replacement;

d. all drained fluids shall be collected in containers adequate for safe transportation and all military fluids and Hazardous Materials (HazMat) shall be returned to the Base for proper disposal per Military Waste Disposal requirements at Part 6 Section 7; and

e. immediately requesting assistance through Range Control when spill is beyond the user's ability to contain or control due to sizes or material involved.

412. Drip Trays:

a. Land Users shall carry and utilize drip trays or hydrophobic mats under military patterned vehicles (Standard Military Pattern/Special Purpose Vehicles and Armoured fighting and Engineering Vehicles) during long halts (i.e., 3 hours or more);

b. civilian pattern vehicles and multi terrain vehicle (MTV) which have been identified to leak shall utilize drip trays or hydrophobic mats;

c. all heaters, generators, and diesel lighting systems shall utilize secondary containment;

d. drip trays shall be monitored to prevent overflow throughout use and during precipitation events; and

e. disposal of contents shall follow the requirements in Part 6 Section 7.

413. Refuelling/Transferring of Fluids. All refuelling points will be set in secondary containment (use and standby). When dispensing fuel from hoses, the nozzle shall be staffed by a spotter at all times. Drip trays shall be employed under the nozzle and at all hose junctions. All refuelling vehicles shall carry a spill response kit and portable secondary containment berm.

414. Bulk Fuel Carrying Vehicles. Vehicles used as stationary fuel points shall always have secondary containment. Forward area refuelling vehicles shall employ a portable secondary containment berm if left in location for over 16 hours. Soil berms shall not be used.

415. Vehicle Props. Vehicles used as props for training shall not be used during live firing. All props in use shall possess a Base G4 Maintenance vehicle prop certificate on file with Range Control, and adhere to the following requirements:

a. all hazardous substances shall be removed (e.g., batteries, halon, and radioactive sources) and all fluids shall be drained (e.g., fuel, engine oil, brake and transmission fluids, shock absorbers, antifreeze, etc.);

b. flammable items shall be removed; and

c. all reflective surfaces such as windows and mirrors shall be removed for laser safety.

416. Storage of HazMat (to include Petroleum/Oil/Lubricants (POL)):

a. all products stored at any location on the Base that have the potential to contaminate surrounding soil or water shall be stored in appropriate HazMat buildings, lockers or secondary containment systems designed to contain leakage and prevent contamination to the surrounding area (e.g., pails, drums and containers for products such as fuels, lubricants, antifreeze, methanol, acids, chemicals) (ref AA);

b. all stockpiles of HazMat and/or storage of POL shall be held within secondary containment devices having at least 110% of the capacity of the largest container;

c. containers of HazMat shall be stored vertically within containment;

d. temporary HazMat storage sites shall be approved through Chapter 2 processes, located on existing disturbances, and located at least 100 m away from wetlands or other sensitive habitat; and

e. soil berms shall not be used. Steel containment rings shall be used for single well battery oil production tanks.

417. Military vehicles carrying HazMat shall follow the DND Driver's Manual for Dangerous Goods direction (ref BB). All HazMat stored in a vehicle for more than 24 hours shall be unloaded or placed in secondary containment.

Section 9 – Contaminant Spill and Release Response

418. After considerations are made to ensure personnel safety and protection, Land Users shall respond immediately to spills and releases resulting from their land uses. Responding personnel shall use personnel protective equipment per applicable safety data sheets related to the materials involved in the spill or release. Initial response efforts shall stop the source of the spill/release (if still active) and prevent contaminants from migrating into a wetland and/or drainage/lotic (flowing) systems per the definition at para 377.

419. Land Users shall remove all hydrocarbons/contaminants and associated staining regardless of size. Excavated areas shall be re-contoured and reclaimed in accordance with Chapter 2, Part 6 15-day FA Process and Part 7 Section 2 Ground Disturbances Clearances, Chapter 4, Part 6 Section 2 Soil and Terrain, and Part 7 Reclamation Procedures provisions.

Section 10 – Contaminant Spills and Releases Reporting

420. Land Users shall notify Range Control immediately of all spills and releases. Oil and Gas Land Users shall notify SIRC who will submit the information to Range Control.

421. Land Users shall follow the Canadian Army (CA) Environmental Management System (EMS) 3 CDSG Hazardous Material Spills and Releases DEnvr-01-006 (ref U) which includes all spill and release types.

422. Land Users shall submit the EIR (Annex S, Appendix 1) to Range Control within 24 hours of the spill or release. SIRC will submit this Report on behalf of Oil and Gas Land Users. Range Control shall coordinate reporting through the B Env O and LU Ops Group. Spill/release sites may be inspected by the B Env O or LU Ops Gp during clean-up efforts. Oil and Gas Land User site inspections will be coordinated through SIRC. Land Users shall provide interim updates by email as requested by the B Env O or LU Ops Gp. Land Users shall submit an updated EIR form with follow-up reporting to the B Env O within six calendar days of initial reporting of the spill/release.

423. Where reporting to a regulatory agency is required (e.g., AER, ECCC) and once clean-up is completed, a final release report or remediation report shall be provided to the LU Ops Gp (RangeSustainability@forces.gc.ca) within 90 business days documenting the following:

a. location of the spill;

b. how the spill occurred;

c. effects the spill had on the surrounding environment including the results of soil sampling from areas such as, but not limited to, the bottom of caissons;

d. measures used to identify the extent and clean-up of the spill (e.g., electromagnetic surveys, dig/dump, hydrovac);

e. the inspection and reclamation programme to be implemented to ensure recovery of the site; and

f. the Land User's preventative maintenance measures to minimize similar spills in the future.

Section 11 – Contaminant Disposal

424. Land Users shall remove all contaminated soil from the Base as per the Contaminated Sites Instruction (CSI.004.001) Soil Management.

425. Excavated contaminated soil shall be placed on geotextile, tarps, or into tanks, to minimize waste volumes and protect native prairie vegetation. Oil and gas can store soil on contaminated soil areas temporarily while cleanup is ongoing.

426. Military hydrocarbon contaminated soil and absorbents can be disposed of as follows:

a. POL Contaminated Bins/Skips - BATUS FMA. Small, bagged amounts of contaminated material can be placed into the designated containers;

b. G4 Supply HazWaste Processing Facility – Building 483 FMA. Small, bagged amounts of contaminated soils can be delivered to this facility; and

c. Non-Hydrocarbon Related Contaminants. These contaminants require specialized disposal procedures, which shall be assessed on a case-by-case basis. The B Env O shall be contacted for direction.

PART 7 – RECLAMATION PROCEDURES

427. Reclamation is defined as restoring the ability of land to support similar land uses to that which existed before a site was established by returning land function, productivity, and usefulness. In its broadest sense, reclamation includes removal of equipment and infrastructure, remediation activities, and the stabilization, contouring, reconstruction and/or re-vegetation of land. The purpose of the reclamation process is to re-establish ecosystem integrity by achieving soil stability, hydrostatic function, and biotic diversity.

428. Remediation in the environmental context deals with the removal, reduction, or neutralization of pollution or contaminants from environmental media such as soil, groundwater, sediment, or surface water for the general protection of human health and the environment.

429. Remediation activities (e.g., Phase II Environmental Site Assessment activities) require notification to the Base as outlined in Chapter 2 Part 6. Oil and gas remediation activities shall be supervised by a professional with a practice area in remediation and reclamation of upstream oil and gas activities.

430. The reclamation process for oil and gas seismic exploration programmes shall commence within one month of seismic activities or as training templates allow. Reclamation shall include but is not limited to filling ruts, removing wires from shot holes, and re-contouring shot holes.

431. Reclamation for all other activities on the Base is presented in this document in two contexts:

a. reclamation following construction/disturbance (interim reclamation); and

b. reclamation following infrastructure abandonment (end-of-life reclamation).

Section 1 – Interim Reclamation

432. Land Users shall undertake interim reclamation activities one growing season after construction completion and/or on oil and gas well sites that have been subject to ground disturbance but not drilled. Base Commander approval is required for sites that are expected to persist longer than one year. Interim reclamation shall be conducted on areas used as temporary workspace.

433. Revegetation. Natural vegetation encroachment for small or narrow disturbances (e.g., bell holes and pipelines) shall be used. Where reseeding is required, the appropriate native seed mix at Annex FF shall be applied for compatibility with specific soil and terrain types.

434. The following interim reclamation hierarchy shall be applied:

a. natural recovery (i.e., allowing the land to re-vegetate naturally by conserving and replacing materials present on the site prior to the disturbance with no seeding) shall be used for activities on native grasslands;

b. assisted natural recovery (i.e., use of fall rye/flax cover crops) shall be used for activities on native grasslands where there is high erosion potential, steep slopes, and sites prone to undesirable plant species sites. Seeding rates shall be three lbs per acre with a ratio of fall rye/flax of 50:50. Cover crops shall be mowed or swathed before seeds become viable, see para 393 for bird breeding season requirements; and

c. if seeding is an option that a Land User would like to pursue, please contact the LU Ops Gp (RangeSustainability@forces.gc.ca) or follow the Base authorized seed mixes per the seeding map at Annex FF. A seeding rate of 10 lbs per acre shall be occur. Cultivars shall not be used. Native seeds shall meet or exceed Certified #1 as outlined in the *Canada Seeds Act* and *Seeds Regulations*. A seed certificate (under the rules and regulations of the *Canada Seeds Act*) for each species shall be provided to the Base at the completion of projects. Seed mixes shall be free of species listed within the Alberta *Weed Control Act*.

435. Sites that have been placed in interim reclamation and have excessive pioneer species or cover crop proliferation shall be mowed to reduce the canopy cover and allow native prairie to encroach, see para 393 for bird breeding season requirements. Undesirable plant species shall be controlled per Part 6 Section 6.

436. If re-disturbance of previously reclaimed land occurs as a result of additional work on a site, further interim reclamation activities shall be undertaken. The Base may place restrictions on land use if recovering soil and vegetation become overly impacted from the disturbing effects of livestock, wildlife, and vehicles.

437. Monitoring and Management. Land Users shall establish and report on reclamation monitoring programs through the LU Ops Gp (RangeSustainability@forces.gc.ca) secretarially or through a meeting with a follow-up record of discussion.

438. Land Users shall conduct long-term monitoring of re-vegetated areas until the native prairie species community has been re-established. If re-vegetation objectives are not achieved in a reasonable time frame (i.e., 2-5 years), the Base shall evaluate the programme for the implementation of alternative or additional methods as necessary. Annually, Land Users shall submit to the Base (at annual general meetings or at another approved time), a report covering ongoing monitoring programmes to assist the Base in maintaining land management objectives and reduce duplication of inspections. Reports are to include the interim reclamation status of recently constructed and/or disturbed sites as well as long term monitoring programmes for range health.

439. Oil and gas sites that have been fenced to alleviate initial disturbance from cattle shall have gates opened or have fences removed within 2-5 years to allow cattle to assist with establishing native prairie. Consultation with LU Ops Gp (RangeSustainability@forces.gc.ca) should occur prior to action. Fencing shall adhere to Chapter 3, Part 5 Section 2.

Section 2 – End-of-Life Reclamation

440. Abandonment. Land Users shall state their intentions for infrastructure abandonment involving ground disturbance in writing to the Base Commander through a 15-day FA per Chapter 2 Part 6.

441. Abandonment of oil and gas sites shall be carried out according to AER Directive 020 and the Alberta *Pipeline Act*.

442. Oil and Gas End of Life Reclamation. Under the current oil and gas agreements, the methodology that exists to process reclamation certificate applications for reclaimed wells and associated facilities is outdated and no longer functional. As well, there is no provincial regulatory regime governing oil and gas reclamation processes on federal lands. Until such time as updated reclamation certificate processes and standards are instituted, Land Users are encouraged to continue undertaking reclamation activities and submit applications in anticipation of obtaining certificates. Any applications to the Base shall be submitted through SIRC using Alberta government documentation per ref CC. The Base shall hold applications for review and approval pending implementation of a reclamation process and standards. All reclamation activities shall be supervised by a Professional with a practice area in remediation and reclamation of upstream oil and gas activities.

443. End-of-life reclamation shall be conducted on areas previously used as temporary workspace.

PART 8 – REPORTING AND USAGE PROCEDURES AT CFB SUFFIELD

Section 1 – Reports Required by Range Control

444. Opening Procedures/Route Clearance. The procedures for turning and controlling various templates are included in Annex T. Procedures to request route clearance along with other common report types are included as Annex S.

445. Other reports are divided into two categories, Daily and Incident Reports, which are explained as follows:

a. Daily Reports. CFB Suffield is mandated to track RTA usage (see Annex S), less defence research operations. A single individual, who is out on the RTA for a single day, represents one “soldier-training-day”. Range Control is assigned the task of compiling statistics on relative usage, including personnel and vehicles. To do this, all unit’s training at CFB Suffield shall report to Range Control daily numbers of the total individuals and vehicles who are using the RTA and total personnel who are deployed in garrison. Reports shall be sent directly to the Range Control Ops Room or the Ops WO;

b. Incident Reports. During training, or any other RTA activity, various types of incidents can occur involving life or limb, DND infrastructure and/or requires DND support (e.g., POL spills, vehicle accidents, personnel injuries, ammunition malfunctions, discovery of suspected UXO, airspace violations, fires etc.). All Land Users, including DRDC – SRC, BATUS, DIO SD Trg (Can), SIRC, and Grazing Licensee(s) shall report such incidents immediately to Range Control, regardless if medical air or emergency response is needed by the Land User. Common reports are listed in Annex S; and

c. SIRC shall notify Range Control immediately of all significant incidents occurring within the area (e.g., industrial accidents, caisson/equipment strikes by munitions, personnel injuries, vehicle accidents, environmental incidents, UXO, and fires).

Section 2 – Signing Out from the RTA and CFB Suffield

446. The following steps shall be conducted upon conclusion of military training:

a. Range Clean-up OPI. A Clean-up OPI shall be appointed prior to the commencement of training and shall meet with Range Control (either RCO or Ops WO) upon arrival to develop the clean-up plan and requirements to be coordinated, thus permitting the unit the

maximum time to prepare. The Clean-up OPI shall be someone in authority who can direct exercise staff to make the preparations necessary for the clean-up;

b. Recording of Clean-up Serials. Throughout the exercise, the unit shall track all areas occupied, or where significant activities occurred including, but not limited to, the unit bivouac, re-supply areas, significant vehicle concentration areas, objectives, forming up points, any locations where garbage or refuse was deposited or consolidated, any prepared trench systems, or other digging. These locations shall be recorded and submitted to Range Control through the AAR (see Annex R). This will form the basis for the clean-up plan;

c. Redeployment Movement Control. A unit shall deploy policing mechanisms for movement back to Base to ensure speed limits are met and vehicles do not stray. The plan to police movement control shall be vetted through Range Control for approval;

d. Range Sweep. Units shall liaise with Range Control for range sweeps and shall assign adequate soldiers, vehicles, and time to carry out the range sweep. Range Control FOS Commanders shall be assigned to a work party to clean up recorded areas. FOS Commanders shall sign-off clean areas and report the area to Range Control as “clear”. Work parties shall remain on the RTA until all serials have been reported as “clear” by FOS Commanders. See Annex R for the AAR;

e. UXO. All units shall report blinds created during training and any suspected UXO encountered in their training areas; and

f. Other Information within the AAR. All ammunition used during training and halon releases shall be recorded in the AAR. Where separate incident reports were submitted for halon releases, the AAR shall still indicate the total releases. The OIC Exercise or the Clean-up OPI shall include any miscellaneous information or comments in the AAR. Once all sections are completed, the form shall be submitted to the RCO for final comments and sign-off. RTA Usage (i.e., number of soldiers training each day and vehicle usage) shall be submitted prior to sign-off. Upon signing off the form, a copy shall be provided to the unit, and Range Control shall retain the original.

447. Problems. If the range clean-up is delayed due to inclement weather, or if a particular clean-up proves impossible to remediate prior to departure, a unit may be required to return with a work party to complete the task. In the event of such a problem, the requirement shall be recorded by the RCO in the AAR. Units that fail to follow-up where noted, shall have the problem raised up their chain of command by G3 Ops, and they may be denied future training exercises at CFB Suffield.

CHAPTER 5 – AIRSPACE CONTROL AND BASE FLYING ORDERS

INTRODUCTION

448. This chapter addresses control measures and conditions governing use of airspace throughout the RTA. Additional regulations governing use of aircraft in support of DRDC – SRC activities may be implemented in addition to this Chapter, in consultation with Range Control and DRDC – SRC HFOS.

References

449. This chapter has been prepared in accordance with the following references:

a. A-GA-135-001/AA-001 Flight Safety for the Canadian Forces;

b. A-GA-135-002/AA-001 Occurrence Investigation Techniques;

c. A-GA-135-003/AG-001 Airworthiness Investigation Manual;

d. B-GA-100-001/AA-000 Flying Orders, Flight Rules, Air Standards and Procedures

e. Designated Airspace Handbook, (replaced every 6 months);

f. DND-A-031-2013 - Airspace Control Edmonton ACC - CFB Suffield, 24 Aug 13;

g. Joint Publication 3-52 - Joint Airspace Control, 20 May 10;

h. NATO STANAG 3102 - Flight Safety Cooperation in Common Ground/Air Space, 27 Mar 07;

i. NATO STANAG 3101 - Flight Safety Exchange of Accident/Incident Information Concerning Aircraft and Missiles;

j. C-07-010-011-TP-000 Canadian Forces Air Weapons Ranges;

k. CFAO 9-20 Range Safety Officers;

l. 1 Canadian Air Division Orders (CAD);

m. A-GG-005-000/AG-001 Fire Protection Program Standard;

n. DAOD 4007-3 Emergency Aircraft Rescue and Firefighting Operations;

o. CANFORGEN 118/18 (Class 1 Open UAS Category);

p. CANFORGEN 220/15 (UAS Activities); and

q. CANFORGEN 80/15 (NATO UAS Classifications).

Definitions

450. The following terms may be used throughout this chapter:

a. Notice to Aircrew (NOTAM). A notice filed with an aviation authority to alert aircraft pilots of potential hazards along a flight route or at a location that could affect the safety of the flight. CFB Suffield applies the most current versions of NOTAMs as always distributed by Navigation Canada;

b. Flight Information Publication (FLIP). A publication containing aeronautical information of a lasting character essential to air navigation including thorough details of regulations, procedures and other information pertinent to flying aircraft;

c. Class F Airspace (CLSF). CLSF airspace is described in terms of horizontal and vertical dimensions effective for a specified period. CLSF airspace may be restricted airspace, advisory airspace, military ops areas or danger areas, and can be controlled airspace, uncontrolled airspace or a combination of both;

d. Controlled Airspace. Airspace of defined dimensions within which air traffic control service is provided;

e. Controlling Agency. The air traffic control unit which normally exercises air traffic control or provides advisory service in a given airspace; and

f. Uncontrolled Airspace. Airspace of defined dimensions within which air traffic control service is not provided.

Application of Orders

451. Unless the Base Commander otherwise directs, these airspace control measures and flying orders, as supplemented by unit flying and standing orders, apply to all users involved in the operation of aircraft at CFB Suffield and the RTA. These orders supplement and shall be applied in conjunction with B-GA-100-001/AA-000 and the 1 CAD Orders.

Exception to Orders

452. To the extent necessary, exceptions to these orders are authorized:

a. when an emergency exists or for the protection of lives; or

b. when written permission is received from the Base Commander.

Infraction Reporting

453. All infractions that contravene these airspace control and flying orders shall be reported to Range Control (sufrangectrlopswo@forces.gc.ca).

454. Any complaints from civilians regarding noise disturbance or low flying shall be forwarded to the CFB Suffield Public Affairs Officer for further action. Range Control shall maintain a registry of noise complaints.

PART 1 – DESCRIPTION OF CFB SUFFIELD AIRSPACE

Section 1 – Airspace Areas

455. CFB Suffield is CLSF airspace designated for military ops and comprises three Canadian Restricted Airspace (CYR) areas: CYR 229 (the MTA), CYR 230 (the EPG) and CYR 231 (the Aerodrome) (Figure 5-1). All CFB Suffield airspace areas, with restrictions, are duly listed in Transport Canada Canadian Flight Safety publications.

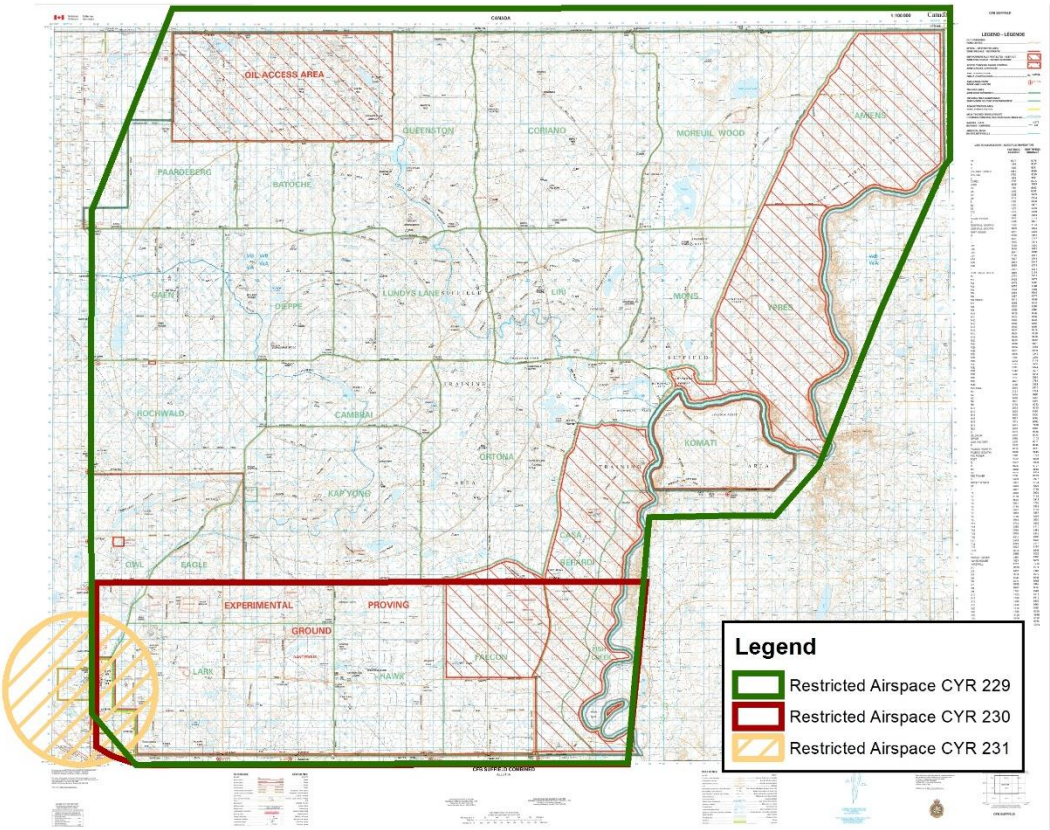


Figure 5-1: CFB Suffield airspace areas

456. CYR 229. This airspace area has the following characteristics:

a. comprises the area bounded by a line from

N50°20'15.00"W111°10'00.00"to

N50°35'00.00"W111°10'00.00"to

N50°43'00.00"W111°05'00.00"to

N50°43'00.00"W110°17'00.00"to

N50°37'00.00"W110°17'00.00"to

N50°25'00.00"W110°25'00.00"to

N50°23'00.00"W110°28'00.00"to

N50°23'00.00"W110°35'20.00"to

N50°20'15.00"W110°35'47.57"to

N50°20'15.00"W111°10'00.00"point of beginning;

b. designated altitude:

(1) surface to unlimited during time of designation: cont 0000Z(DT2300Z) 1 Apr - 0700Z(DT0600Z) 1 Dec; and

(2) surface to 15,000 feet or as specified by NOTAM during time of designation: cont 0701Z(DT0601Z) 1 Dec - 2359Z(DT2259Z) 31 Mar.

c. when any user requires use of the portion of CYR 229 that encompasses the EPG (Areas Owl and Eagle, north of Jackson Trail), Range Control shall liaise with DRDC – SRC HFOS prior to granting permission.

457. CYR 230. This airspace area has the following characteristics:

a. comprises the area bounded by a line from

N50°15'00.00"W111°10'00.00"to

N50°20'15.00"W111°10'00.00"to

N50°20'15.00"W110°35'47.57"to

N50°13'00.00"W110°37'00.00"to

N50°13'00.00"W111°07'20.00"to

N50°15'00.00"W111°10'00.00"point of beginning;

b. designated altitude: surface to unlimited or as specified by NOTAM;

c. time of designation: continuous; and

d. when any user requires use of the portion of CYR 230, Range Control shall liaise with DRDC – SRC HFOS prior to granting permission

458. CYR 231. This airspace area has the following characteristics:

a. comprises the area bounded by a circle of three nautical miles radius centred on N50°16'00.00"W111°11'00.00";

b. designated altitude: surface to 6000 feet; and

c. time of designation: continuous.

Section 2 – Local Flying Area

459. There are several prominent features and landmarks to assist in identifying the boundaries of CFB Suffield from the air:

a. West Boundary (less the Base Admin Area and heliport). Highway 884 (the Jenner Road) from Northing 71 to Northing 035, at which time the boundary is marked by a barbed wire fence running east to approximately Easting 905, north to Northing 10, east to approximately Easting 935, and north to Northing 17;

b. North Boundary. A barbed wire fence along Northing 17. Kangaroo Rat Road runs approximately parallel to the north boundary, on the south side of the barbed wire fence;

c. East Boundary. Along the South Saskatchewan River except in the area of Drowning Ford, where the MTA (Koomati) extends to the east of the river. In the NE corner, the boundary departs from the river and follows the Township Range 2 and 3 boundary;

d. South Boundary. A barbed wire fence with a track on the north side at approximately Northing 63. A gravel county road (Scott's Road) also parallels the boundary fence on the south side; and

e. the majority of the boundary between the MTA and the EPG is a marked by a gravel road at approximately Northing 765.

Section 3 – Airspace Obstructions

460. Known obstructions are listed in Table 5-2. Most obstructions within the RTA are not illuminated.

461. Oil and gas drilling or service rigs may be encountered at any time across the RTA.

Table 5-1: Known air obstructions at CFB Suffield.

Area	**Obstructions**	**Location**	**Height (AGL // ASL)**
EPG	Tri-Tower	WA 060 692	200' // 2317'
	Burst Site	WA 059 693	200' // 2317'
	BRUTUS Complex	Centered on: VA 973 714	600' // 2682'
	Building 15 Tri-Pole	Centered on: VA 923 714	90' // 2525'
	155 Tower	VA 918 711	30' // 2525'
	25 Tower	VA 921 696	30' // 2475'
	Ready Springs	WA 120 763	30' // **
	W6B	Centered on: VA 878 758	30' // **
MTA	EXCON Tower	VA 993 829	** // 2958'
	Matilda Tower	WB 138 093	** // 3084'
	Centurion Tower	WA 293 951	** // 2657'
	Lazy D	WB 269 169	30' // **
OAA	N/S Power Line 1	VB 985 168 to WB 010 145	** // 2500'
	NS Power Line 2	WB 045 168 to WB 059 132	** // 2600'

B Admin	CLEAR NET Tower	VA 878 636	** // 2795'

PART 2 – AIRSPACE CONTROL

Section 1 – Elevation

462. All elevation data in this document will be given in “Above Sea Level” (ASL) unless otherwise noted. To that end, all airspace releases to Navigation Canada’s Edmonton Flight Services shall be in ASL, while local flight information or directions to pilots flying within CFB Suffield’s airspace shall be in “Above Ground Level” (AGL), in order to ensure clarity of instruction to the pilot and reduce the risk of airspace violations.

Section 2 – Airspace Control Authority (Controlling Agency)

463. Aircraft operating within the CFB Suffield restricted airspace zones (CYR 229, 230 and 231) shall obtain authorization from the G3. Aircraft operating in support of a defence research activity (exclusively in CYR 230) will be under the authority of the Centre Director/HFOS with an advisory provided to the G3. Facilitation of authorizations for day-to-day ops has been delegated to Range Control

464. Range Control shall provide route clearance to the exercise area for all exercising aircraft and then hand over airspace control activities to the exercise airspace control cell or template controller.

Section 3 – Supplemental Airspace Control

465. Range Control maintain limited resources to support only routine daily flight within the RTA and control of aircraft entering and leaving the CFB Suffield Aerodrome.

Section 4 – Coordination Level

466. A coordination level shall be established during the template planning process to minimize conflicts between fixed and rotary winged aircraft. Fixed wing aircraft shall remain at or above this coordination level unless on the final run-in portion of an attack. Rotary wing aircraft shall remain below the coordination level. Aircrew shall ensure adequate separation. Daily coordination of airspace will be done with exercise airspace control cell or template controllers at Range Control conference room. Any deviation from these orders shall be coordinated with the responsible agencies through Range Control.

Section 5 – Communications

467. All aircraft shall maintain communications with Range Control, or other controlling agency, as required via the following:

a. VHF (Primary for check-in/AO update) 126.2 MHz

b. UHF (Primary for all other use) 230.5 MHz

c. FM (low band) (secondary) 49.60 MHz

Section 6 – Prior Permission Request (PPR)

468. All aircraft entering CFB Suffield airspace shall have prior permission from the Base. To request airspace access, a PPR (Annex GG for military aircraft and Annex HH for civilian aircraft) shall be

completed and submitted to Range Control 20 working days prior to the access date. Requests for use of the aerodrome facilities shall be included on the PPR. Once air access is approved, Range Control shall provide a PPR# and other CFB Suffield airspace users. G3 Fire Services will receive copies of approved PPRs for all aircraft entering CFB Suffield air space to ensure adequate preplanning in the event of emergency and to ensure crash protection is at the appropriate level for the size and type of aircraft.

Section 7 – Instrument Flight Rules (IFR) Flight Plans

469. IFR arrivals shall be made to the Medicine Hat Regional Airport.

470. There are no assessed departures from the Suffield aerodrome. Field departures in accordance with 1 Canadian Air Division (CAD) Orders Vol 2-006 may be utilized.

PART 3 – CFB SUFFIELD AERODROME

Section 1 – Aerodrome Description

471. The aerodrome is an uncontrolled military facility within CYR 231 (Table 5-1):

a. Elevation – 2525 feet ASL;

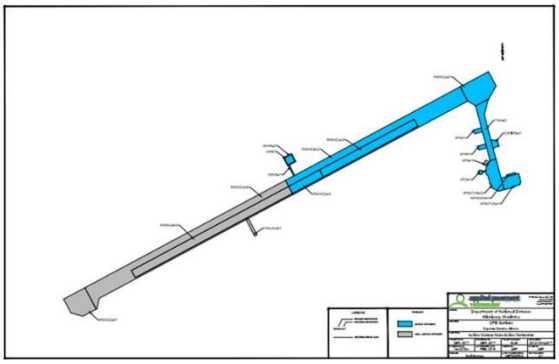
b. Variation - 15º East;

c. Latitude and Longitude - N 50º 16', W 111º 11';

d. Dimensions – Pad: 375 feet long by 130 feet wide; and

e. Circuit – 300 to 500 feet AGL.

Table 5-2: Aerodrome characteristics

REF	N50 16 W111 11 3NNW 13º E (2015) UTC-7(6) ELEV 2525' A5005	** Images are available upon request through Range Control and RPOU (W) Det Suff 
OPR	DND (403) 544-4310/4314, or CSN 520-4310/4314 Mil PPR	
PF	B-1 C-2,3,4,5,6	
FLT PLN FICACC	NOTAM FILE CYSD Edmonton 866-WXBRIEF or 866-541-4102 Edmonton IFR 888-358-7526	
SERVICES FUEL	PNR, MIL ACFT F34, from British Army PPR	
HELI DATA	130’ x 375’ concrete	
LIGHTING	RF (FL)	
COMMS RADIO MIL	126.2 MHz, 230.5 MHz available 1 Apr – 31 Oct & on an irregular basis from 1 Nov – 31 Mar RANGE CONTROL 49.9 (FM low) manned 24/7 year round	
PRO	Runways abandoned. Uncrewed Aerial Vehicles operating from the abandoned runways and transiting to CYR 229 and 230. Parachuting from 12,500 ASL. Gliding to 4500 ASL. Adjacent to CYR 229 & 230 which have live-firing year round. Aircraft in vic bcst on 126.2 Mhz. Do not overfly garrison or the ammo compound unless specifically authorized. Touchdown helicopters on threshold of abandoned Runway 04/22 & Taxi South.	

Section 2 – Operational Control

472. Without authorization from Range Control, no vehicles or mechanical equipment shall enter the heliport area, except emergency vehicles during an emergency.

Section 3 – Flight Planning

473. Flight plans shall be filed and closed through Range Control. All requests for flight planning facilities shall be submitted to Range Control.

474. The nearest flight services station outside of CFB Suffield is at the Medicine Hat Regional Airport, telephone number (403) 526-3040. Note: This facility has limited hours of ops.

Section 4 – Refuelling Services

475. Visiting helicopter crews should be prepared to refuel at the Medicine Hat Regional Airport.

Section 5 – Decommissioned Runway

476. The aerodrome includes one decommissioned runway (22/04).

Section 6 – Engine-Off Landing Area

477. The 100 m x 100 m area adjacent to the decommissioned runway at GR VA 856 686 is the designated “engine-off landing area”.

Section 7 – Aerodrome Lighting

478. Airfield lighting is limited to a helicopter approach aid immediately west of the mid-point of runway 22/04, and taxi lighting from there to the aerodrome. Runway lights can be controlled from Building 210.

Section 8 – Temporary Airfields/Forward Air Refueling Points (FARPs)

479. Requests for establishment of temporary airfields or FARPs on the RTA shall be directed in advance to Range Control. Standby aircraft rescue and firefighting capability provided by G3 Fire Services at temporary airfields or FARPS is required for locations where multiple sorties are to be conducted or hazardous processes such as hot refueling and arming of aircraft will occur.

Section 9 – Other Air Facilities

480. A helipad at Grid 99249 83206 is located at Excon. Contact Range Control for further information.

PART 4 – FLIGHT RESTRICTIONS

Section 1 – General

481. No person shall operate an aircraft (including radio controlled model aircraft) within Base airspace unless the flight has been authorized by the Controlling Agency.

482. All arriving aircraft shall contact Range Control on 126.2 (VHF) to receive air traffic control clearance and obtain updated range information prior to entering Base airspace. When fixed-wing aircraft enter and leave CYR 229, Range Control shall broadcast this information on FM low.

483. All pilots who intend to land on any part of the RTA shall receive a Range Safety Briefing (see Chapter 2, Part 7) prior to entry into CYR 229 or CYR 230. Pilots who do not intend to land in the RTA or intend to land only at the CFB Suffield aerodrome do not require an RSB.

484. All pilots accessing the RTA shall be in possession of the most recent CFB Suffield Map (per Chapter 1, Part 2).

485. Several laser sources are now commonly employed in the training area; therefore, pilots are strongly encouraged to use laser visors when operating within CYR 229 and 230. Details on the specific lasers employed are available upon request through Range Control.

486. Helicopters may fly nap-of-the-earth as low as is commensurate with tactical and training safety requirements; however, if permission has been granted to overfly the NWA or the South Saskatchewan River, pilots shall maintain a minimum altitude of 500 feet above ground level to minimize risk to species at risk.

487. No aircraft shall be used to deliberately harass or harm any species of wildlife.

488. During authorized periods of hunting (various dates throughout November to February), no landings are permitted in the hunting areas. Aircraft shall not be used to assist in hunting (e.g., for scouting or herding animals).

489. Landings within permitted areas of the RTA shall always be made at the discretion of the pilot with the utmost regard for safety.

490. Use of chaff is strictly prohibited. Aircraft Launched Flares shall be used only with specific authorization from the Base Commander. Daily control of authorized flare usage shall be subject to the following restrictions:

a. flares shall be used within red templates only;

b. flares are always prohibited within the OAA, NWA, and area Koomati in the MTA;

c. flares are prohibited within the EPG unless specifically authorized for DRDC – SRC activities;

d. the following rules shall apply with respect to weather conditions, when determining authority for daily use of flares:

(1) Low to Moderate Fire Index. Use permitted within red templates;

(2) High to Extreme Fire Index/Low Winds. Use permitted within red templates, but not within five kilometres of the Base perimeter. (Note: for use of this procedure, low winds are considered as having a steady state of 10 knots or below with gusts above that value); and

(3) High to Extreme Fire Index/High Winds. Use not authorized.

491. Military Parachuting. Training areas and airspace for military parachuting shall be requested through the PPR process in conjunction with a VUR request, as applicable (see Chapter 2, Part 2). Military parachuting within CYR 229 requires authorization from the G3 and within CYR 230 or CYR 231 requires authorization from the Base Commander.

492. Air Weapons Ranges. Regulations for the conduct of air to ground weapons exercises are contained in Annex II.

493. Attack Helicopters. Weapons and laser lights from attack helicopters are particularly powerful and present great risk to Land Users and sub-surface infrastructure. Therefore, Land Users shall comply with special procedures for mitigating these effects in attack helicopter target areas (see para 288).

Section 2 – Air Movement Routes

494. Aircraft shall access the MTA by travelling along the perimeter of the Base or along Rattlesnake Transit Route for Low Level Transit Routes (LLTR) through the EPG. This LLTR lies above Rattlesnake Road, 250 meters to the left and right and at a minimum of 500 AGL to a maximum of 3,000 feet AGL

495. When travelling around the perimeter of the Base, the right hand rule applies (i.e., aircraft shall stay to the right of the perimeter traffic lane. Aircraft flying northbound in the vicinity of Highway 884 (Jenner Road), and westbound along Scott's Road (south perimeter of the Base), may fly 250 meters

inside the perimeter. Extreme care shall be taken on the Scott's road route to avoid DRDC – SRC templates over such areas as the Ritzel Centre (GR VA 923 641) and the Blast Tube Site (GR VA 923 646). Use of the Scott's Road route within the boundary of the Base requires authorization from the G3 upon consultation with DRDC – SRC.

Section 3 – Restricted Flying Zones

496. There are numerous No Fire Areas (NFAs) and Restricted Operations Areas (ROAs) within the CFB Suffield airspace. Pilots shall adhere to flight rules for NFAs/ROAs as communicated in NOTAMs or by Range Control.

497. Aircraft shall avoid flying over all areas marked as OOBs, or DANGEROUS, on the CFB Suffield map.

498. Restricted areas are depicted in the Monthly Range Calendar and are also available upon request from Range Control. Templates shall be verified with Range Control, or other controlling agency as permitted, prior to commencing a flight. Overflight of red templates is prohibited unless previously booked through Range Control.

499. Flying activities as part of normal military training are permitted in the MTA only. Flying over the NWA, OAA, EPG (less the designated LLTR only), and the Base Admin Area (less the Aerodrome airspace) is not permitted without specific authority on a per-case basis from the G3 in consultation with other range users.

500. Flying Over the South Saskatchewan River and NWA. Those portions of CYR 229 and CYR 230 that include the NWA and the South Saskatchewan River are out of bounds to all overflight unless authorized in advance by the G3. For authorized overflights, minimum flight altitudes shall apply:

a. Fast Air/Combat Aircraft. No lower than 8,000 feet AGL;

b. Class 3 UAS. No lower than 3,000 feet AGL;

c. Class 2 UAS and other General Aircraft types. No lower than 500 feet AGL; and

d. Helicopters. No lower than 500 feet AGL.

501. Ammunition Storage Compound. The ammunition compound is centered on GR VA 88 71 and is marked with a dotted red boxed and noted as DANGEROUS on the CFB Suffield map. This area is designated as a No Fly Area (NOFLY); overflight is prohibited. Aircraft shall remain 460m/1,500 feet laterally from the complex, except for the southeastern boundary where aircraft shall remain east of Rattlesnake Road.

502. Flying Hazards. There are many hazards to low-flying aircraft within the RTA including telephone poles and wires, towers, and power lines. There are also high-voltage power lines along both the north and south boundaries and a growing number of radio communications towers on all four sides of CFB Suffield. Prominent air obstructions are shown by standard NATO map symbols on the current CFB Suffield map. See table 5-2 for known airspace obstructions.

PART 5 – UAS OPERATIONS

Section 1 – General

503. For this order, use of UAS shall adhere to unit SOPs or applicable field manual, whichever is stricter.

504. Military Pattern/Produced UAS in Military Airspace. Organizations will be authorized to operate Class 1 Open category UAS when their respective L1 has signed a L1 Command letter accepting responsibility for their operation, the training of operators and reporting of UAS incidents. Other classes of UAS shall have technical and operational airworthiness clearance – as directed in the Airworthiness Programme A-GA-005-000/AG-001. In lieu of an airworthiness clearance, a military pattern/produced UAS requires a Special Purpose Flight Permit (SPFP) issued by the Technical Airworthiness Authority of the CAF prior to flight. After receiving such a permit, a detailed plan of proposed use shall be submitted with the permit to Range Control for review and approval. Range Control will assist users in determining requirements and staffing requests to appropriate authorities for approval of military pattern/produced UAS in CFB Suffield airspace. Once approved, the use of the UAS will be in accordance with the operating parameters of the air worthiness clearance, or SPFP and any other restrictions put in place by Range Control. Approvals can be lengthy, depending on the complexity of the UAS and its proposed use, so range users shall submit such request a minimum of 90 days prior to proposed commencement of activities.

505. Commercial off the Shelf (COTS) UAS in Military Airspace. Technical and operational airworthiness clearances are granted through a Special Flight Operations Certificate (SFOC) issued by Transport Canada. COTS UAS wishing to operate in CFB Suffield may be subject to additional security review as stipulated by 1 MP Regiment, to ensure the integrity of CFB Suffield operational, information technology and communication system security, prior to authorization for use. If a certificate is issued by Transport Canada, a detailed plan of proposed use shall be submitted with the permit to Range Control for review and approval. Range Control will assist users in determining requirements and staffing requests to appropriate authorities for approval of COTS UASs in CFB Suffield Airspace. Once approved, the use of the UAS will be accordance with the SFOC and any other restrictions put in place by Range Control. Approvals can be lengthy, depending on the complexity of the UAS and its proposed use, so range users shall submit such request a minimum of 90 days prior to proposed commencement of activities. See Chapter 2, Part 4 Section 3 for UAS application and approval form.

506. UAS ops conducted in the RTA are conducted using Class 1 Open, Class 1, Class 2, and Class 3 UAS as classified by CANFORGEN 08/15. The primary operators of UAS are BATUS (to support training ops), and DRDC – SRC (to support research trials and evaluation). Other military units may operate Class 1 Open UAS in the RTA. DRDC – SRC may operate other UAS as required for trial and evaluation purposes. DRDC – SRC shall have the authority to operate UAS and shall have full control over UAS ops (by DND and non-DND entities) within the boundaries of CYR 230.

Section 2 – Class 1 Open UAS Operations

507. Range Bookings. Users of Class 1 Open UAS shall book areas of the MTA for intended flight ops (airspace and ground access) though a VUR (see Chapter 2, Part 2) and PPR. Users are reminded that over-booking areas (operating periods and footprint) will unnecessarily limit range use for other users. The user, type of UAS, and the operating ceiling will be indicated in the template description.

508. Overflight. If another UAS agency or crewed aircraft wishes to overfly above the designated Class 1 Open UAS active area indicated in the template, the requesting agency shall coordinate overflight through Range Control and the UAS operator.

509. Launch and Recovery Notification. The UAS operator shall notify Range Control of impending launch and recovery actions a minimum of one hour prior to launching or recovering the aircraft to provide situational awareness to other RTA users.

Section 3 – Small UAS (SUAS) Operations

510. Range Bookings. Users of SUASs shall book areas of the MTA for flight ops (airspace and ground access for ground control stations and launch/recovery systems) through a VUR (see Chapter 2, Part 2) and PPR. An Airspace Coordination Centre (ASCC) may be established to assist with the coordination with Range Control and other air users of the RTA. If an ASCC is established, the SUAS Command Post shall submit Airspace Control Measures to Range Control through the ASCC for coordination with other airspace users.

511. Overflight. If another UAS agency or crewed aircraft wishes to overfly above the designated SUAS active area indicated in the template, the requesting agency shall coordinate overflight through Range Control and the UAS unit. Authorized overflight will be 500 feet above the UASs template ceiling.

512. Launch Notification. The SUAS Command Post shall notify Range Control (through the ASCC if established) of impending launch and recovery actions a minimum of one hour prior to launching or recovering the aircraft. Range Control shall notify all airborne aircraft operating in and near the RTA via the Range Control Safety Net.

PART 6 – AIRCRAFT INCIDENTS

Section 1 – Airspace Violations

513. When an unauthorized aircraft/UAS and/or unsafe overflight occurs within Base airspace, range users shall immediately cease firing and inform Range Control of the circumstances including the following information:

a. identification, and location of the observer;

b. location, route, estimated altitude (AGL), and exact description of the aircraft (colour, number of engines, wing positioning, distinctive markings, call letters, etc.); and

c. weather conditions at the time of sighting.

514. The reporting observer shall also provide a signed witness statement to permit prosecution of the offender through Transport Canada Regulatory Compliance.

Section 2 – Aircraft Crash/Emergency Landing

515. All aircraft incidents are to be actioned in accordance with the CFB Suffield Critical Incident Response Plan (CIRP).

516. In the event of a crash or emergency landing on the RTA, the exercise Range Safety Officer or controlling agency shall:

a. close the air range and order all other aircraft to return to Base (if applicable);

b. immediately dispatch a vehicle to the scene of the crash to aid survivors and secure the crash site;

c. contact Range Control and advise them of the crash and assistance required;

d. maintain communications with Range Control;

e. advise personnel at the crash site that there is to be no smoking and, unless attempting rescue, that they are to remain clear of the aircraft or components in case of explosion of the aircraft or its weapons; and

f. remain at the site to ensure it is well guarded until relieved.

517. Upon receipt of a report of a crash or emergency landing, Range Control shall:

a. determine from the exercise Range Safety Officer, or controlling agency if firefighting or medical support is required;

b. advise G3 Fire Services, and hospital immediately of the situation, giving details of what support is required;

c. advise the G3 and synchronize with the most recent CIRP;

d. coordinate as required, the deployment of medical, firefighting and security personnel;

e. dispatch firefighting resources to contain any peripheral grass fires and safeguard the area. (Note: in case of an aircraft crash, the Range Control firefighting team shall remain outside of the immediate area of the aircraft crash);

f. support, as required, the on-sight crash site OPI (dispatched from the G3 Fire Services); and

g. provide regular updates to the chain of command.

Section 3 – Aircraft Incident/Investigation

518. The G3 or designated representative will contact 3 CDSB Edmonton Flight Safety Officer at 780-973-4011, Ext 4180 and the Directorate of Flight Safety (DFS) should also be contact to report an aircraft accident or a safety concern which requires immediate attention (1-888-WARN DFS (927-6337). Concurrently a Significant Incident Report will be prepared by RCO and forwarded IAW BSO 206 CFB Suffield Incident Reporting Policy.

519. A damaged aircraft or wreckage is not to be removed until released by the Board of Inquiry, Directorate of Flight Safety (DFS), or Base Commander except in case of emergencies. The damaged aircraft or wreckage shall normally be removed only with prior approval from DFS or higher headquarters.

520. In accordance with NATO STANAG 3101, where an incident involves aircraft of only one country, that country shall be solely in charge of the investigation. They may share the results but are not mandated to do so based on this agreement.

KEY LEGISLATION, POLICY AND DIRECTIVES FOR LAND MANAGEMENT

Federal Legislation

1. DND must comply with several pieces of federal legislation, the most relevant of which are listed below:

a. *National Defence Act* – makes the Minister of National Defence responsible for the management of Defence establishments and provides authority to make regulations and orders regarding the management and use of Defence establishments;

b. *Federal Real Property and Federal Immovables Act* – specifies who has authority to manage federal lands and to grant rights to access and use federal lands;

c. *Canadian Environmental Protection Act, 1999 (CEPA, 1999)* – supports sustainable development through pollution prevention and protection of human health and the environment by controlling toxic substances and regulating activities on federal lands;

d. *Impact Assessment Act (IAA)* – requires an evaluation of the environmental effects of proposed projects and activities before they occur;

e. *Federal Sustainable Development Act* - provides the legal framework for developing and implementing a Federal Sustainable Development Strategy that will make environmental decision-making more transparent and accountable to Parliament;

f. *Fisheries Act* – protects fish and fish habitat from human activities;

g. *Species at Risk Act (SARA)* – protects wildlife and wildlife habitat to prevent extinction of species in the wild;

h. *Migratory Birds Convention Act, 1994 (MBCA, 1994)* - protects migratory birds, their eggs, and their nests from hunting, trafficking and commercialization; and

i. *Canada Wildlife Act* – forms the basis for the broader conservation of wildlife within the CFB Suffield National Wildlife Area.

Federal Policies

2. Several key federal policies influence land management at CFB Suffield:

a. Federal Sustainable Development Strategy – provides a whole-of-government view of actions to achieve environmental sustainability priorities, establishes goals and targets, and identifies actions to achieve them;

b. Federal Policy on Wetland Conservation – strategies to provide for the use and management of wetlands so that they can continue to provide a broad range of functions on a sustainable basis; and

c. Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines for the Protection of Environmental and Human Health.

Key References

3. The RSO has also been prepared in accordance with the following references:

a. The latest versions of the Training Safety series, which is divided into three volumes as follows:

b. B-GL-381-001/TS-001 Training Safety;

c. B-GL-381-002/TS-001 Operational Training - Range Construction and Maintenance;

d. B-GL-381-003/TS-000 Operational Training, Part 3 - Range Clearance and Unexploded Explosive Ordnance (UXO) Activities (DRAFT).

e. CFTO C-09-008-002/FP-000. Destruction of Dud & Misfired Ammunition on CF Ranges & Training Areas.

f. C-07-010-011/TP-000 – Canadian Forces Air Weapons Ranges (latest edition);

g. AAP-06 (2013) - NATO Glossary of Terms and Definitions;

h. A-GA-135-001/AA-001 – Abbreviations (latest edition);

i. QR&O 4.21, Standing Orders;

j. CANFORGEN 104/11 ADM MAT 001/11 131216Z JUN 11 – Use of Canadian Forces Range Information System (CFRIS) for Recording all Ammunition and Explosives (A And E) Expenditures;

k. CANFORGEN 192/11 ADM MAT 002/11 141451Z OCT 11 – Managing Authority for CF/DND Destruction Areas;

l. CANFORGEN 106/07 ADM IE 004/07 181246Z JUN 07 – Civilian Equivalent Qualifications for Contracted Range

m. Canada Flight Supplement, Canada and North Atlantic Terminal and Enroute Data (latest edition);

n. Canadian Forces Flight Supplement, DND Flight Information Publication-GPH 205(S) (latest edition);

o. Canadian Forces Flight Information Publication GPH 200 Vol 3, Instrument Procedures, Alberta, Manitoba, and Saskatchewan (latest edition);

p. DND Flight Information Publication GPH 204A, Flight Planning and Procedures Canada and North Atlantic (latest edition);

q. DND Flight Information Publication GPH 204B, Glossary for Pilots and Air Traffic Services Personnel (latest edition);

r. DNDP56 – Canadian Forces Policy for Controlling Civilian Access to Dangerous DND Lands, Ranges and Training Areas;

s. A-SJ-100-001/AS-000 Security Orders for the Department of National Defence (latest edition);

t. Defense Energy and Environment Strategy (DEES);

u. CAO 11—17 Environmental Management System (EMS);

v. DAOD 4003-0 Environmental Protection and Stewardship;

w. DAOD 4003-1 Hazardous Material Management;

x. Assistant Deputy Minister of Infrastructure and Environment Environmental Impact Assessment Interim Directive;

y. 3 CDSG Directive – Hazardous Material Spills and Releases;

z. ED 4003-05 Halocarbon Management.

aa. CFB Suffield Base Standing Orders (BSOs); and

bb. CFB Suffield Base Critical Incident Response Plan (CIRP) (formerly known as the Base Emergency Response Plan (BERP)).

FIXED RANGES STANDING ORDERS

FIELD FIRING SMALL ARMS RANGE (600M AND 100M RANGES)

Description

1. The CFB Suffield Field Firing Small Arms (FFSA) Range is centred at GR 920 802 in area OWL of the EPG on the CFB Suffield RTA. Access is gained from Beaver Road.

2. The FFSA Range consists of a twelve-lane rifle range and a 25-lane pistol range. The main range, with firing lines from 10 to 600 metres, fires NW. The complementary range, with firing lines from 10 to 450 metres, is located at the right flank of the 600 metre range, between the 300- and 400-metre firing lines, and fires NE. Both ranges may be used concurrently, provided firing on the main range is restricted to the 300-metre firing line or forward of it.

3. Each FFSA range consists of a target line of sunken target post boxes for 2' X 4' target posts, plus firing positions on each firing line. The target groups and firing positions are marked with colour-coded stakes. Some firing lines are equipped with firing position sandbags. Target and firing line extremities are marked with white posts to which are affixed flagpole holding brackets. There are **no butts** at the end of either the 600-metre or the 100-metre range.

4. Vehicle traffic on the range shall be restricted to the track from Beaver Road to the Owl Range parking lot, and along extension of that track which parallels the right (north) flank of the main range. Vehicle parking shall normally be restricted to the parking lot located to right rear of the 600-metre firing line. If no shooting is conducted beyond the 300-metre range line, then parking may be set-up in the parking lot next to the range shacks.

Allocation and Control

5. The FFSA Range shall be controlled by the RCO in the same manner as a sub-area of the CFB Suffield RTA. Allocation of the FFSA Range shall be shown on the Monthly Range Calendar as OWL, North of Beaver Road, South of Northing 840, east of Easting 887, west of Easting 955.

Authorized Weapons and Ammunition

6. All weapons and ammunition that may be used on CFB Suffield FFSA Range are listed on the Range Licence in CFRIS. British Army equivalents of the weapons noted on the CFRIS license are permissible, less 5.56/7.62mm for which the UK template exceeds the Owl range safety boundaries. Note: BATUS may fire 5.56/7.62mm at the Owl range facility if a larger safety template is approved by the G3. This shall be conducted on a "per practice" basis as with all BATUS templates.

Safety

7. All practices on the FFSA Range shall be conducted in accordance with DND directives and regulations regarding the conduct and usage of fixed ranges, the RSO, and appropriate weapons manuals.

8. Firing from moving vehicles is prohibited.

9. Firing outside the marked firing lanes is prohibited.

10. The Range Safety Officer shall be in continual radio contact with the Range Control via radio on Channel 1. The Call Sign is "Owl Range". If contact is lost, firing shall cease until contact is regained.

11. Targets, firing lines and firing lanes shall be used.

12. Sentries on Beaver Road and elsewhere may be directed by the RCO.

13. As the FFSA facility has no butts behind its targets, and bullets from practices can travel considerable distances downrange, soldiers shall remain vigilant, and watch for vehicles or people that may appear (by accident) downrange from the target line. If any vehicle or person is sighted, firing shall cease immediately, and the information sent to the Range Control. Firing shall not recommence until after the downrange area has been physically verified as clear by the training unit and the Range Control has authorized the template controller to resume firing.

Range Equipment

14. Targetry and other range equipment shall be provided by the user unit or requested through Range Control. Adequate notice is required if the unit will not be bringing its own targetry. The Range Control Operations Centre holds a range package that contains the flags, and other necessities for running the range. This package shall be returned in good condition prior to the unit clearing out of the range.

Cleanliness

15. After use, the range shall be inspected by Range Control personnel. The following shall be conducted prior to calling for clearance and turning in the range package at Range Control:

a. targets shall be patched, taken down and returned to the target shed located at the admin area;

b. ammunition and empty casings shall be removed from the range and returned to the ammunition section;

c. the range shack, firing points and target area shall be left tidy; and

d. garbage shall be removed from the range.

16. Units that intend to use the range extensively should contract for chemical toilets to be delivered to the range. Units that wish to order chemical toilets shall include this request in their Visiting Unit Request (VUR) (see Chapter 2 – Part 2).

25-METRE SMALL ARMS RANGE

17. CFB Suffield 25-metre small arms range is no longer in use; it is SUSPENDED awaiting decommissioning or modifications to meet appropriate regulations.

TRAP AND SKEET RANGE

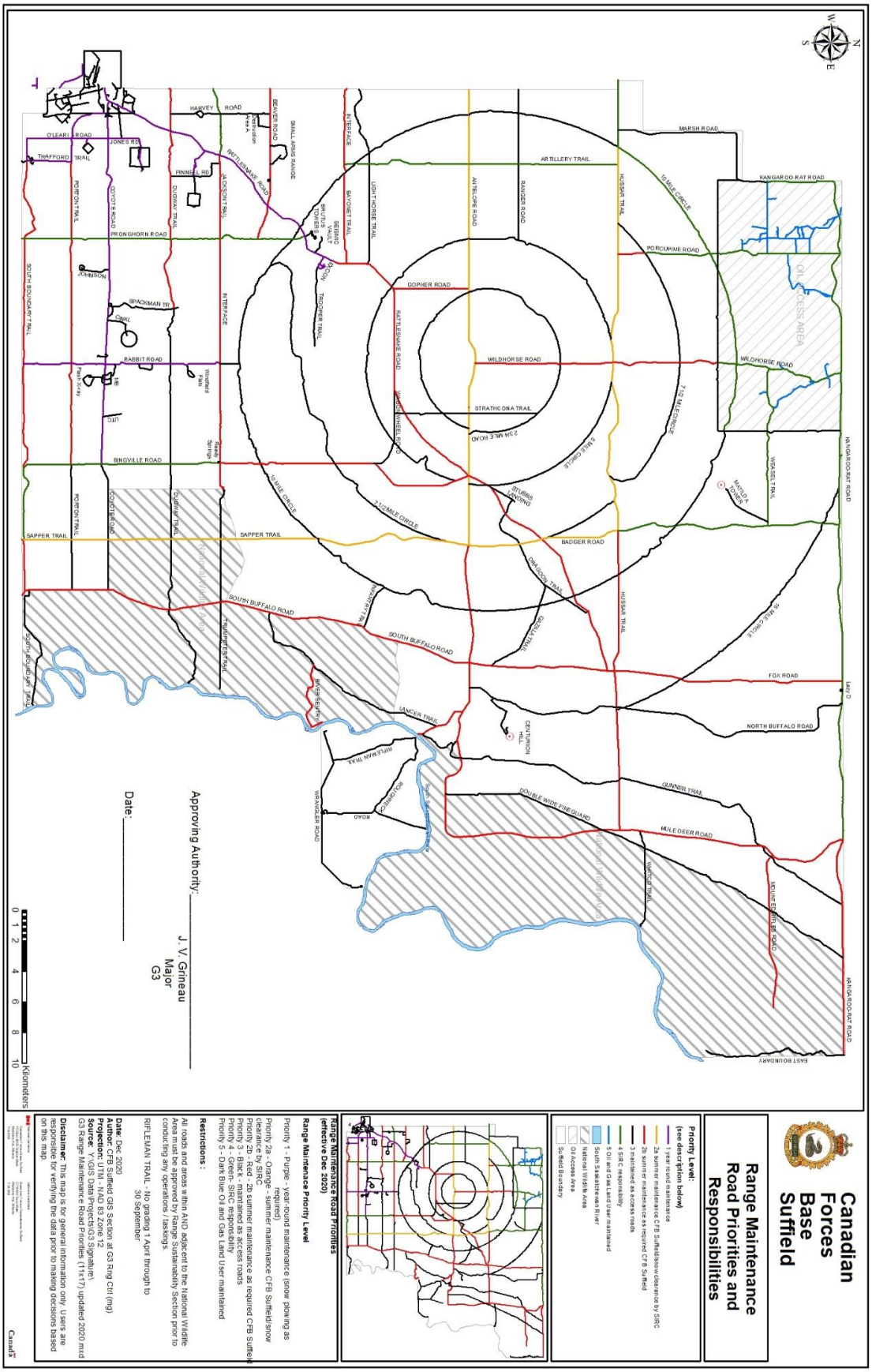
18. CFB Suffield Trap and Skeet Range is no longer in use; it is decommissioned.

DEMOLITION AREA “A”

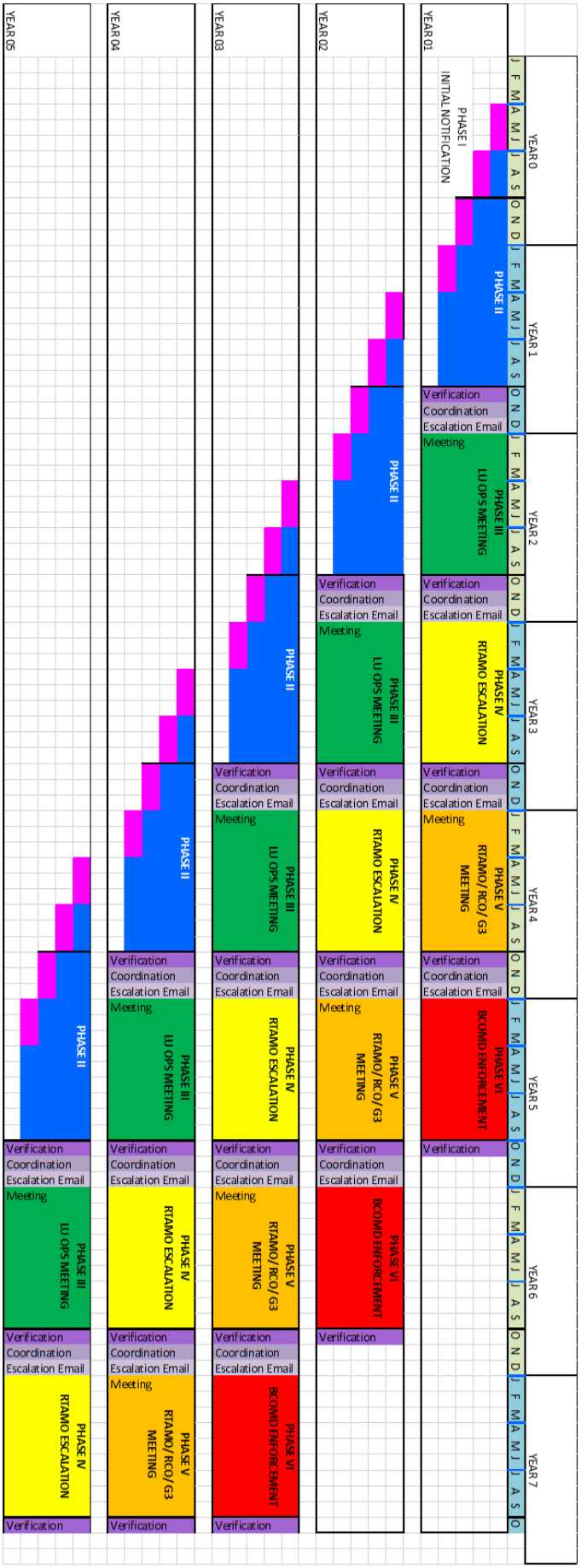
19. CFB Suffield Demolition Area “A” is no longer in use; it is SUSPENDED awaiting decommissioning.

ANNEX C
CFB SUFFIELD
RANGE STANDING ORDERS
2023 EDITION

ROUTE MAINTENANCE PRIORITY MAP



ANNEX D
CFB SUFIELD
RANGE STANDING ORDERS
2024 EDITION



LAND USE AUTHORIZATION PROCESS

Defence Operations

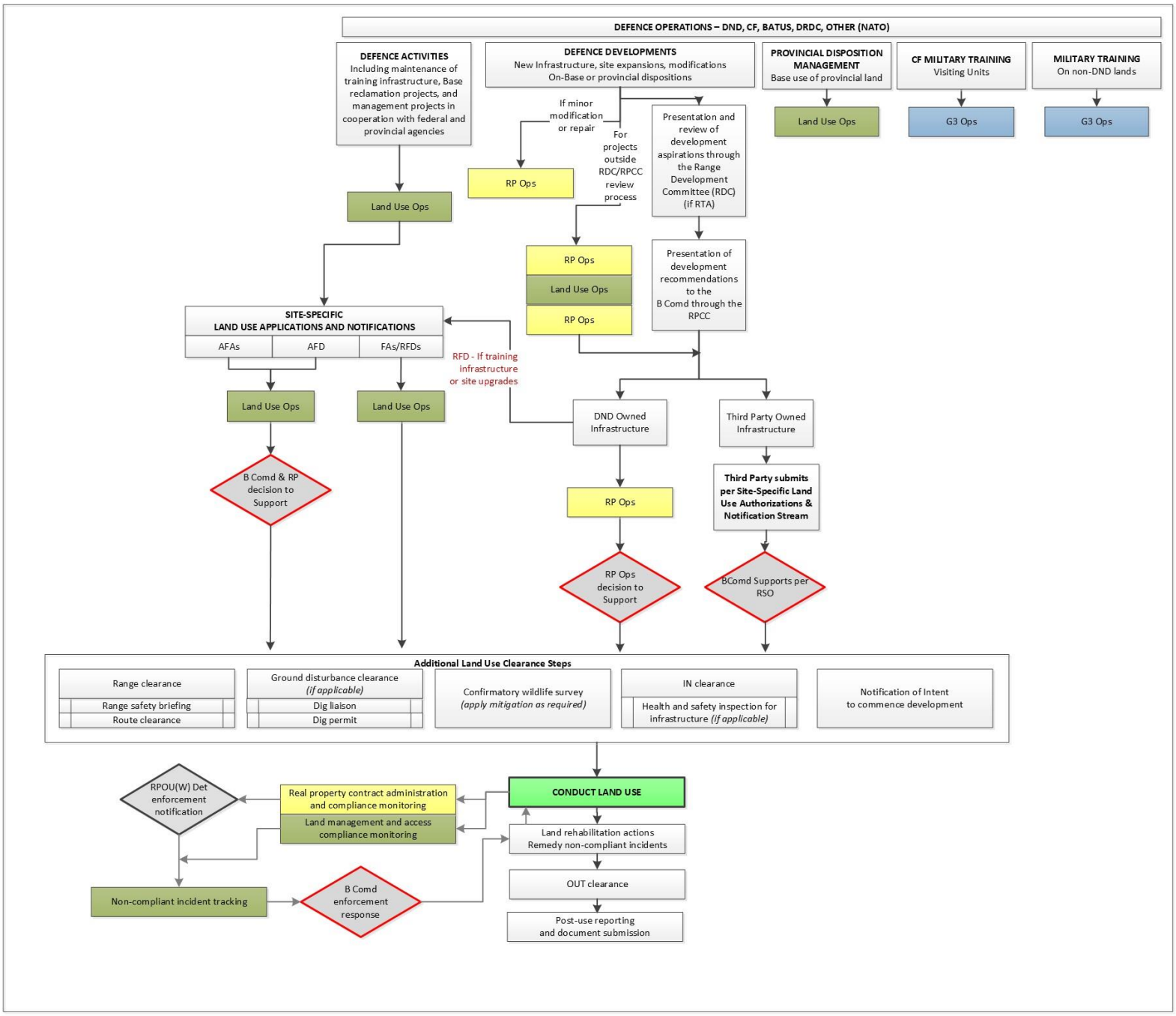
1. The flow of defence submissions through LUAP are located within Annex E Appendix 1. Information passage may not always follow this flow but is the requested avenue to ensure consistency of land management.

Third Party

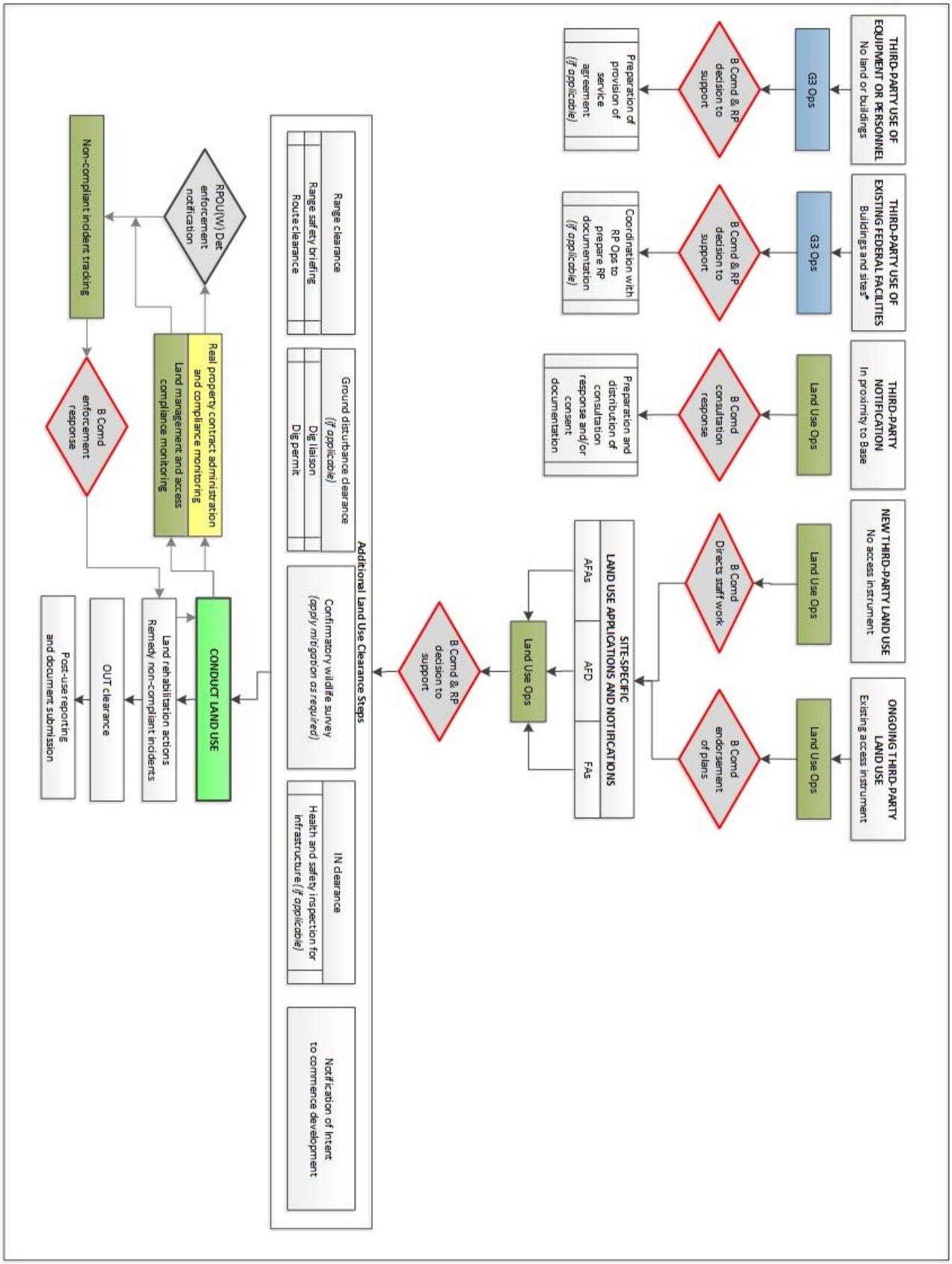
2. The flow of third party submissions through LUAP are located within Annex E Appendix 2. Unless otherwise directed, Land Users should anticipate the flow of their information to follow these pathways. Oil and Gas Land Users will require SIRC to provide their normal services as indicated within the MOAs.

APPENDIX 1
ANNEX E
CFB SUFFIELD
RANGE STANDING ORDERS
2024 EDITION

LUAP DEFENCE OPERATIONS FLOWCHART



LUAP THIRD PARTY FLOWCHART



ANNUAL DEVELOPMENT PLAN TEMPLATES

Introduction

1. Land Users conducting ongoing and/or recurring land use shall submit forecasts and plans for Base Commander endorsement in principle per procedures detailed in RSO Chapter 2, Part 1.

2. This annex provides guiding templates for Annual Development Plans (ADPs) for non-oil and gas Land Users (Appendix 1) and oil and gas Land Users (Appendix 2).

APPENDIX 1
ANNEX F
CFB SUFFIELD
RANGE STANDING ORDERS
2024 EDITION

ANNUAL DEVELOPMENT PLAN ENDORSEMENT REQUEST or BATUS COMMANDER VISION – TEMPLATE
(LAND USER MAY CREATE OWN TEMPLATE WITH INCLUSION OF ACTIVITIES PER BELOW)
(LAND USER) 1 JANUARY TO 31 DECEMBER (YEAR)

1. General Introduction.

2. Forecast Plan.

ACTIVITY	DETAILS	DATES
INFRASTRUCTURE AND SITE DEVELOPMENT	Provide details for all proposed new development projects including temporary infrastructure and extensive excavations. Includes new sites and expansions to existing sites. Attach and refer to 1:50,000 maps depicting the general location and extent of proposed new infrastructure. It is understood that exact locations may change and shall be provided in the individual Applications for Development (AFDs).	Provide dates and/or timeframe for each project
DECOMMISSIONING AND SITE RECLAMATION	Provide details on infrastructure to be decommissioned and removed, and sites to be reclaimed. Attach and refer to 1:50,000 maps depicting the general location and extent of sites to be abandoned and reclaimed.	Provide dates and/or timeframe for each project
LONG RANGE FORECAST	Outline significant infrastructure developments, planned removal of infrastructure, and reclamation intentions for the next five-year period.	Provide a five-year timeline indicating the timeframe for each of the forecasted projects.

3. Conclusion.

Land User Rep signature

OIL AND GAS ANNUAL DEVELOPMENT PLAN (ADP) - **TEMPLATE**
(OIL AND GAS LAND USER NAME) 1 JANUARY TO 31 DECEMBER (YEAR)

1. General Introduction.

2. Forecast Plan.

ACTIVITY	DETAILS	DATES
SHALLOW GAS DRILLING	Provide details of the programme for the upcoming year (1 Jan –31 Dec). Attach and refer to a1:50,000 map or overlay. The map/overlay should show the general plotting of the wells and proposed tie-ins. It is understood that exact locations may change once surveying occurs, and will be provided in the individual Applications for Development (AFDs). Attach the proposed grid locations in an Excel spreadsheet format. The info must be in MGRS or UTM, and not legal land description format. Identify main access roads for the programme on the map/overlay. This will facilitate road maintenance planning and traffic monitoring.	Describe the drilling programme timeline by timeframe For example: ▪ 30 wells to be drilled in Area Owl during 1 Jan to 31 Mar. ▪ 10 wells in Area Owl in August/September Road usage dates shall correspond to the applicable phase of the drilling programme
DEEP GAS DRILLING	Same as above	
OIL DRILLING	Same as above	
MAJOR PIPELINES	Same as above	
SEISMIC PROGRAMMES	Same as above	

ACTIVITY	DETAILS	DATES
MAJOR INFRASTRUCTURE	Provide details on plans for expanding existing and developing new facilities	Provide dates and/or timeframe for each project
ABANDONMENT AND RECLAMATION	Provide details on wells, facilities and pipelines to be abandoned, decommissioned, and/or reclaimed	Provide dates and/or timeframe for each project
LONG RANGE FORECAST	Outline the forecasted number of wells and any significant infrastructure developments (such as, but not limited to, compressors, major pipelines, new gates), remediation plans, or removal of infrastructure, for the next five-year period.	Provide a five-year timeline indicating the timeframe for each of the forecasted projects.

3. Conclusion.

Oil and Gas Land User Rep signature

VISITING UNIT REQUESTS (VUR)

1. This Annex details the means that units or third party entities wishing to train at CFB Suffield shall use to notify the Base of their intentions in a timely and complete manner. Advanced notice (even of minor exercises) is very important for the following reasons:

a. British Army Training Unit Suffield (BATUS) and the Defence Research and Development Canada (Suffield) (DRDC - SRC) have priority use of the RTA; therefore, visitors are encouraged to negotiate range use early in the planning process to increase the likelihood of obtaining adequate areas at the chosen times;

b. CFB Suffield has been established to support BATUS and DRDC - SRC. Any additional support capability is limited; therefore, units are encouraged to inquire early in the planning process about what CFB Suffield can and cannot provide; and

c. CFB Suffield has the capabilities to contract for certain services in support of visiting units; however, complete, accurate, and timely details are required to avoid units paying for unwanted or inadequately co-ordinated services.

2. Once the exercise request is endorsed in principle through early planning discussions, the requesting unit or third party shall submit a VUR a minimum of 45 days prior to the start of scheduled training. This document formalizes the unit's or third party's intentions and provides official notification and quantification of its support requirements.

3. Requesting units shall obtain the VUR form (Excel file) from G3 Ops during initial planning discussions. Completed VURs shall be submitted to G3 Ops in electronic format as an Excel file.

4. Completion of the VUR requires detailed information on the following topics:

a. exercise name, aim, dates/duration, and involved units or third parties;

b. contact information for the exercise coordinators, and advance and rear party/remediation representatives;

c. financial coding and authorities;

d. RTA areas to be used including bivouac locations and excavations;

e. fire prevention plan including requests for support for grass mowing around targets, pre-burning, and addition of fire guards;

f. medical support plan;

g. requirements for Base accommodations and/or facilities;

h. requirements for rations and Mess services;

i. requirements for grey water containers, portable toilets, and handwash stations;

j. requirements for (main supply area) MSA stores;

k. requirements for POL and other transport support;

l. requirements for signals support;

m. requirements for garbage dumpsters and water supply; and

n. requirements for ammunition.

3. Training co-ordinators should anticipate the requirements for conducting on-site reconnaissance, and face-to-face liaison on matters of support. Once published, the unit's exercise instruction shall be sent to CFB Suffield G3 Ops.

VISITING UNIT REQUEST FORM

COVER SHEET

ONLY FILL IN YELLOW HI-LIGHTED AREAS

ALL AMENDMENTS TO AN EXISTING VURs ARE TO BE MADE in RED for easy tracking.

VUR#

Assigned by G3 Ops Suffield

TSR#

Assigned by Range Control

This VUR, and associated proformas, can be found on CFB Suffield Sharepoint site @ https://acims.mil.ca/org/Suffield/default.aspx (Path: G3 / G3 Working / Suffield Category 1: Visiting Unit Requests / Suffield Category 2: Forms)

1. Review and work through all of the tabs comprising this spreadsheet in order to maximize CFB Suffield support for your exercise.
2. Forward the completed VUR, with attachments, to DWAN E-MAIL: +SUF Ops and Training@CFB Suffield@Suffield **NO LATER THAN 45 x calendar days** in advance of your exercise start date in order to allow CFB Suffield to review, coordinate and prepare.
3. Points of Contact: CFB Suffield,G3 Ops O - 403-544-4011 ext 4512 (CSN 520-4512) or Ops WO, 403-544-4011 ext 4322 (CSN 520-4322),

NOTES

1. **British Army Training Unit Suffield (BATUS) and the Defence Research and Development Canada (Suffield) (DRDC)** have priority use of the Base. Therefore visiting units are required to enter their request in CFRIS early to ensure they obtain adequate areas at the chosen times and to allow for de-confliction as required.
2. **CFB Sx** has been established to support BATUS and DRDC. Any additional support capability is limited; therefore units must investigate early what the Base can/cannot provide for them in order to plan effectively.

c. **CFB Sx** can contract for certain services in support of unit visits. However, complete details are required sufficiently in advance to avoid units paying for unwanted, or inadequately co-ordinated services.

Exercise Name:

Dates

Start-Ex: *End-Ex:*

= Date rec'd by B Ops Suffield

0 x days lead time

Lead Unit:

Associated Unit(s) / Sub-Unit(s) (as applicable):

Exercise Outline.

General Location(s) of Training:

(Example: Owl Range or Area: Caen, Hochwald and Ortona)

Estimated Number of Personnel:

Aim of Exercise / Training Objectives to be met:

(CFB Suffield use only)

G3 Approval.

Unit Contacts

ALL AMENDMENTS TO AN EXISTING VURs ARE TO BE MADE in RED for easy tracking.

VUR#	
Assigned by G3 Ops Suffield	
TSR#	
Assigned by Range Control	

Exercise Name:

UNIT CONTACTS

Office(s) of Primary Interest (OPIs).

Unit Ops O.

Rank / Name: *Email:*

Phones: Office Mobile

Unit Ops WO.

Rank / Name: *Email:*

Phones: Office Mobile

Unit OPI in the Field.

Rank / Name: *Email:*

Phones: Office Mobile **Contact Phone While in Suffield**

Visiting units **must** identify OPIs who will supervise exercise activities and maintain links to Range Control during the **entire** period that their personnel are in the Range and Training Area (RTA) in order to ensure safety.
This can be problematic when many, disparate Advance Parties arrive early or when Rear Parties remain behind to clean up.

ADVANCE PARTY CONTACTS

Dates

From: *To:* *Unit / Sub-Unit:*

Number of Personnel

Activity:

Location

OPI Rank / Name:

Unit Rep picking-up Stores from G4 Sup: **or**

If personnel are living in the field at any time, designate camp OPIs as follows:

Dates

From: *To:* *Unit / Sub-Unit:*

Location: *Number of Personnel:*

Unit-Designated ***Fire Warden*** *:*

REMEDIATION / REAR PARTY CONTACTS

Dates

From: *To:* *Unit / Sub-Unit:*

Number of Personnel

Activity:

Location

OPI Rank / Name:

FINIANCIAL Auth

ALL AMENDMENTS TO AN EXISTING VURs ARE TO BE MADE in RED for easy tracking.

VUR#	
Assigned by G3 Ops Suffield	
TSR#	
Assigned by Range Control	

Exercise Name:

FINANCIAL AUTHORITY

Your unit Resource Centre (RC) Manager, or their delegated representative, are required to email a completed copy of this form and scanned Delegation of Authority forms (DOA) for all listed personnel below to DWAN +Suf Ops and Training@CFB Suffield@Suffield or Commercial SUFOpsTraining@forces.gc.ca, in order to allow CFB Suffield agencies to charge expenses against your budget. No exercise support, that accrues costs, can be provided without the aforementioned email and Delegation of Authority forms from your unit financial authority. If you have any questions contact G3 Ops at ph: 403-544-4011 extension 4322 (CSN 520-4322).

Reference: Financial Administration Manual, Chapter 1014-4-1, Control of Financial Signing Authorities, paras 33-36, Special Considerations

For help with calculating cost estimates,

Contact the following CFB Suffield OPIs,

1. Base Accomodations - Accom Clerk, **CSN 520-4470, (see Accn,Rats,PSvcs Tab to VUR);**
2. Rations - G3 Ops WO, **CSN 520-4322, G4 Food Services, CSN 520-4534, or 520-5129 (see Accn,Rats,PSvcs Tab to VUR);**
3. Real Properties Unit (West) - Contracted Services - RPOU(w) BSM/Contracts, **CSN 520-4952, (see RPOU(W) Tab to VUR);**
4. Rental Vehicles - G4 Tpt, **CSN 520-4370 (see G4 Supply Tab to VUR)**, Note: Rental vehicle costs include fuel + any damages;
5. Fuel + Petrol, Oil and Lubricants (POL) Products - G4 Sup, **CSN 520-4330 (see G4 Supply Tab to VUR);**
6. Repair and Disposal (R&D) Services - G4 R&D, **CSN 520-5108 (see G4 Supply Tab to VUR);** and
7. Radio and Communications - 3 CDSG Sigs Det Suf, **CSN 520-4418 (see Sigs Tab to VUR).**

1. The applicable unit financial code for subject exercise is, FE/CN doc. No.

Note. If there is not enough room for additional FIN Codes or GLs, submit detailed info or SAP on a separate page and attach to VUR.

FUND CTR	COST CTR	FUND	GL ACCT	IO	FR/CO #	LN	FIN LIMITATIONS	FUNDS EXPENDED BY Date

Fund: **L101** (for Operations and Maintenance (O&M) expenditures) and / or
L111 (for civilian overtime costs) as applicable, and / or
L115 (for Reserve Operations and Maintenance) as applicable, and / or
L117 (for Environmental services costs) as applicable, and / or
L118 (for Construction Engineering Operations and Maintenance) as applicable

FIN Limitations
Please indicate a financial limitaion (Not to Exceed) amount. And a Expended (Closing) date.

2. **All FE codes and Internal Orders must be filled in for all support requirement annexes submitted.**

3. In order to request expenditures for goods and services above and beyond what is identified in the VUR for subject exercise,the following personnel have been properly delegated Financial Administration Act (FAA) Section 32, Expenditure Initiation Auth, for the above fin code(s) as recorded on DND Fin Signing Authority forms, presently on file with the unit's Regional District Accounting Officer.

Serial	Service Number	Rank / Name	Initials	Position
1				
2				
3				
4				
5				
6				

Expand list as required

4. I authorize CFB Suffield receiving agents to exercise Section 32 FAA commitment authority, and Section 34 FAA certification for purchases against the above financial code(s) both in support of the subject exercise and in accordance with the contract terms.

Name, Init:
Rank:
Position / Title:
Unit / Organization:
Phone:

Signature of CO or Unit RC Manager (=Officer e-mailing this form and DOA)

Date

Land Use & Medical Coverage

ALL AMENDMENTS TO AN EXISTING VURs ARE TO BE MADE in RED for easy tracking.

VUR#	
Assigned by G3 Ops Suffield	
TSR#	
Assigned by Range Control	

Exercise Name:

LAND USE

Use of Civilian Property.

Complete a Land Force Western Area Directive (LFWAD) G3-2-016, Use of Non-DND Property, form and attach to the completed VUR. Contact CFB Suffield Range Control for an updated form.

Ranges and Training Areas.

Reserve RTA facilities and locations by submitting a Training Support Request (TSR) under the CF Range Information System (CFRIS) as early as possible in order to ensure availability, **45 days prior to commencement of training exercise is highly suggested co-inciding with the VUR**. Units booking training venues for the same times will need to de-conflict among themselves and advise Range Control Ops WO (520-4314) and the G3 Ops WO (520-4322).

In-Clearances.

The following points must be adhered to:
1. Advance parties must visit Range Control before 1400 hours (Local) weekdays in order to co-ord initial clear-in to RTA locations. In-Clearances can take from 30min to 2 hours per location.
2. A nominal roll of all personnel taking part in the ex (including those residing on base at any time throughout) to facilitate emergency contact. This list to include: SNs / Ranks / Names / Inititals / Applicable dates.
3. A list of qualified Range Safety Officers, signed by the unit Commanding Officer, to permit live fire events.
4. No unit will be allowed to go live, or conduct any training, until Range Control has verified the requirement for a Range Safety Brief or has a completed Escort Waiver form in their possession (for VIP escorts).
5. Units must submit directly to the RCO, detailed plans for exercises, including: templates (must be in at the 15th of the month preceding the exercise so that it can be entered into the Range Calendar), an environmental mitigation plan, and other planned activities prior to their commencement. Request for digging authorization must be submitted 36 hours in advance.

Serial	Ranges/Areas to be used	Dates		Timing	
		From	To	From	To
1					
2					
3					
4					
5					
6					
7					

Expand list as required.

Access to the Suffield Range and Training Area (RTA).

Normal access is through the main gate however, alternate access may be approved by Range Control Ops WO. Contact Range Control Ops WO, CSN 520-4314 to coord routes into / out of the RTA and the issue of Gate Keys if required.

Serial	Required Gate Access	Dates		Timing	
		From	To	From	To
1					
2					
3					

Bivouac

Units living in semi-permanent Bivouac locations, must be check by the Base Fire Marshall. Leaguers do not require inspection. Contact Base Fire Hall CSN 520-4446 to arrange a timing for the inspection.

Serial	Description	Grid	Dates	
			From	To
1				
2				
3				

Digging / Construction / Building Training Sites (eg. Villages).

CFB Suffield support is requested to clear the following training sites / bivouacs:

Serial	Service Required	Location	Dates		Remarks
			From	To	
1					
2					
3					
4					

Expand list as required

Review CFB Sx Range Standing Orders 2018 EDITION (RSOs) Chapter 1, both

1. Section 4, Military Use Regulations, Article 1.404, Engineer Exercises, and
2. Section 7, Environmental Regulations, Article 1.709, **Digging**.
3. The B Environment Suffield Soil Stripping Standard Operating Procedure.

Complete a Base Construction Engineering (BCE) Excavation Permit for each planned dig and attach to the completed VUR in order to ensure against hitting buried pipelines and cables.

Complete, as well, an Annex Q to RSOs, RTA Development / Activity Approval, form, and submit with the VUR, for each, planned dig as well as for each construction project related to your exercise in order to ensure environmental compliance.

For an updated RSOs contact G3 Ops & Training.

Vehicle Wash Racks

CFB Suffield does not have dedicated wash racks. Use of wash racks is coord through BATUS by G3 Ops. BATUS wash racks typically operate May-Oct during the year. Wash racks are not normally avail Nov-Apr. Wash Bay CSN 520-4077.

MEDICAL **THIS IS A MUST FILL OUT AND SEND TO G3 OPS**

The Units' senior medical member must report to the CFB Suffield MIR Sgt upon arrival. The MIR Sgt will confirm the medical support plan, contacts and brief the Unit medical personnel on the support available in the local area through the MIR. CFB Suffield MIR is located in Bldg 80. Units are responsible to provide their own medical support, complete the below form. The following are the CFB Suffield MIR contacts; Unit will adhere to CFB Suffield MIR after hour's procedures. During normal working

-Create Annex K blank word doc, and have the outline of your medical plan and submit.

G4 Supply

ALL AMENDMENTS TO AN EXISTING VURs ARE TO BE MADE in RED for easy tracking.

VUR#	
Assigned by G3 Ops Suffield	
TSR#	
Assigned by Range Control	

Exercise Name:

PORTABLE TOILETS & HANDWASH STATIONS

**** Toilets** = 1 / 25 pers
Twenty-four (24) hours notice is required for relocation or servicing.
Note: Handwash are not available once temperatures drop below freezing.

			Type of Unit		Date/Time		
Serial	Location/Area	10 Fig Grid	Toilets **	Handwash Stations	Start	End	Frequency of Servicing (Daily, Every other day, etc)
EXAMPLE	**CAEN**	**Gr 23025 02541**	**2**	**1**	**17 May 21 / 1000**	**21 May 21 / 1800**	**Daily**
1							
2							
3							
4							
5							
6							

Expand list as required

GREY WATER CONTAINERS

Note: The containers cannot be emptied if frozen, and are not available once temperatures drop below freezing.

Serial	Location/Area	10 Fig Grid	Number of Containers	Start Date & Time	End Date & Time	Frequency of Servicing (Daily, Every other day, etc)
1						
2						
3						
4						
5						

Expand list as required.

CFSS Access

Date	# of Terminals	Hours	Remarks

Base supply may allow units that require CFSS access to use terminals in building 370. Requests outside of regular working hours will not be normally be actioned

POL

Access to the CFB Suffield pumps is 24/7. Units should be aware that the CFB Suffield pumps are mostly dedicated to supporting BATUS activity. Large user groups should be prepared to support their fuel requirements by deploying suitable POL vehicles. Large quantities of fuel consumption will require off base contracting. Units must state the amount of fuel cards required. Top loading of bulk refuelers is not permitted.

Type	# FOB Keys	Estimated Amount (Litres)
Diesel		
Gas		
Aircraft Fuel		

Materiel Serices Account (MSA) (Camp / Field) Stores.

Base Supply has a limited ammount of MSA Stores items to be borrowed, including **grey water containers. Contact** Base Supply at the number below to determine items and quantities of MSA stores to be submit with the VUR

Note: 1. Visiting units must pick-up borrowed items from, and return same to, MSA Stores, Bldg 370, **CSN 520-4533** or 4539
2. All equipment must be **cleaned** and **drained of fluids** prior to return, and
3. Non-serviceable items must be tagged with CF942, Materiel Condition Tags, and separated from serviceable stock upon return. This is particularly important in the case of modular tentage in order to expedite repairs for follow-on exercises.

Large draws will require a suitable work party. RQMS to contact G3 Ops 10 days in advance of issue for details; MSA request must be filled in the following table

NATO Stock Number	Item Name	Qty	Remarks

BASE TRANSPORT (B TPT) SUPPORT

Note: CFB Suffield has no Standard Military Pattern (SMP) vehicles available for loan to exercises.

If submiting a DND 645 put a **YES** in the box

Request rental vehicles by submitting DND 645, Requisition for Mobile Support Equipment, forms can be found in the electronic library or requested through G3 Ops. Then e-mailed to +SUF MSEOP@CFB Suffield@Suffield (SUFMSEOP@intern.mil.ca)

Note 1. Highway coaches cannot enter the RTA because dust from the gravel roads will damage air conditioning, etc,
2. School bus-type buses can enter the RTA but cannot leave MSRs due to the risk of damage.

Mobile Support Equipment (MSE) Safety.

G4 Tpt Suffield's Collision Investigator responds to all accidents involving Suffield rented vehicles.

Note: 1. All vehicle incidents must be reported on both a,
a. DND 423, Driver's Report of Accident, and a
b. DND 424, Mobile Support Equipment (MSE) Accident Report, or else
G4 Tpt Suffield may need to ascribe vehicle damage to individuals returning rental equipment or the collision may fall under management at fault.
2. Vehicle Trip Tickets must be filled-out completely before returning commercial rentals.

Storage location (SLOCs) (to which G4 Sup -provided exercise items may be issued):

Serial	Unit / Sub-Unit	SLOC	Account Holder Rank / Name	
1				
2				
3				
4				
5				
6				

Expand list as required.

Local Purchasing. **Contact the Local Purchase Order (LPO) office, CSN 520-4335, for planning assistance.**

NOTE 1 Requests/amendments to rental services require a minimum 48hrs notice to coordinate. Submissions must be received during business hours (0730-1600 Mon-Fri).

NOTE 2 Units are required to have a person on site/at range control to receive deliveries from contractors for: (generators/light trailers heater/propane & gases, etc...). Failure to provide a pers to receive the requested equipment will result a "NO DROP" and travel charges applied to the VUR Fin Coding. Another timing will need to be coordinated to receive the equipment.

Rental Heaters.

Ser.	Unit / Sub-Unit	SLOC	Qty	Dates From	Dates To	Pick-Up / Drop-Off Location	POC	Mobile Phone
1								
2								
3								
4								
5								
6								
7								
8								

Expand list as required.

Rental Light Trailers.

Ser.	Unit / Sub-Unit	SLOC	Qty	Dates From	Dates To	Pick-Up / Drop-Off Location	POC	Mobile Phone
1								
2								
3								
4								
5								
6								
7								
8								

Expand list as required.

Rental Generators.

Ser.	Unit / Sub-Unit	SLOC	KW	Qty	Dates From	Dates To	Pick-Up / Drop-Off Location	POC	Mobile Phone
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

Expand list as required.

Repair and Disposal (R&D).

Contact R&D B Sup, **CSN 520-5108**, for relevant information.

Hazardous Materiel (HAZMAT) Equipment and Disposal Services.

The following standard services can be coordinated upon request. Prices indicated below are effective 1 Apr 2012, however additional charges may be incurred for emergency removals:

a. Dedicated Scrap metal bin – Approx 40 cubic metres (Rental - $200/Mo / Drop off / Removal costs- $550ea)
b. Tervita Rag bin (large/white) – equivalent to 10 205L drums ($1800 – includes all transport rental and disposal fees)
c. Tervita Used Containers bin (black) – equivalent to 10 205L drums ($1000 includes all transport rental and disposal fees)
d. Tervita Aerosol bin- (red) ($1000 includes all transport rental and disposal fees)
e. Roll off bin – used for large hazmat / scrap disposals: (Rental - $50/day (Disposal and transportation cost are not included)
f. Yellow Battery Container – Can store approx 40 Hawker batteries: (No Cost – signed out via loan card - limited supply)
g. 205L Drum (open top / closed top) Emergency only: (Removal cost– Dependant upon contained material)
h. Myers tank draining – no cost – minimum 72 Hours notice required (Units can request the relocation of Myers tanks thru BCE)

Note: Upon completion of training, tanks will be emptied and bins removed – costs will be charged to Unit Fin Code provided on the VUR.

Other Services:
a. Scrap Wood –
b. Range Scrap – once certified FFE range scrap can be segregated into commodities (wood/metal etc…)
c. Contaminated soil – use of the Soil farm use can be co-ordinated though Base Environment/Range Control

Repair and Disposal (R&D) Cont.

All issues/returns will be conducted exclusively via appointments. Customers can request a timing to return materiel by emailing +WRT R&D@CFB/ASU@Suffield and providing the information on the template provided below. If email is not a viable.

Serial	Quantity	Req'd Service	Dates From	Dates To	Location	Employing Unit / Sub-Unit	Frequency of Servicing * (eg. Daily, Weekly, etc)
1							
2							
3							
4							
5							
6							
7							
8							

Expand list as required.

*** Contact B Ops Suffield, CSN 520-4512 or 4322**

1. Help plan requirements if necessary, and to
2. **Coord moving** of, or change servicing frequency for, HAZMAT containers after initial placement by the contractor.

VISITING UNIT REQUEST (VUR) - VISITING UNIT REQUEST (VUR) - CFB SUFFIELD

G4 Ammo

ALL AMENDMENTS TO AN EXISTING VURs ARE TO BE MADE in RED for easy tracking.

VUR#	
Assigned by G3 Ops Suffield	
TSR#	
Assigned by Range Control	

Exercise Name:

1. Demands for ammunition must be received by the CFB Suffield Ammo section a minimum of 30 working days (45 Actual Days) prior to pick-up IAW A-LM-007-014/AG-001, Small Arms and Ammunition / Ammunition Control Folder. The request must be approved by the appropriate G3 Ops Res / G3 Tasks and the ammunition must be approved for release in the AIMS Allocation Module. The Ammo section will not issue ammunition to any personnel other than those stipulated on the demand / pre-position message. Requests for demolition kit must be requested on the ammunition demand. The personnel picking up the demolition kit must be qualified to do disposals and must produce a letter / memo signed by the Unit CO stating that the personnel are qualified. The personnel must complete a practice test at the CFB Suffield Ammo section to ensure currency and must attend the required safety briefing. The personnel's name(s) will be kept on file for one year, during which time they will not have to complete the test on consequent visits. Refer to Base Standing Order 916 Unit Ammunition Procedures.

2. Units to fill out, in addition to the DND 2287, the ammunition requested below. This will permit the availability of the ammunition to be confirmed concurrently with the allocation manager approving the demand.

THIS IS FOR INFORMATION ONLY AMMUNITITION STILL MUST BE ORDERED IN MANNER DETAILED ABOVE

SERIAL	NATURE	QUANTITY

Note: In order to draw ammunition, units must clear-in to G4 Ammo (once upon arrival at Suffield and prior to 1600 hrs (Local) weekdays).

G4 Foods pg 1

ALL AMENDMENTS TO AN EXISTING VURs ARE TO BE MADE in RED for easy tracking. **No Verbal Changes will be accepted at anytime.**

VUR#	
Assigned by G3 Ops Suffield	
TSR#	
Assigned by Range Control	

Exercise Name:

RATIONS - BASE-PREPARED MEALS

In order to request meals on base, box lunches and hayboxes,

1	If there is a Kitchen Officer (KO) in your unit, have him / her complete a Food Service Requisition (FSR) via the UNITRAK program, **OR**
	If your unit does not have a KO, complete a Meal Request below to be submit with the VUR,
	(Identify special requirements, such as allergies, pick-up timings, etc, under "REQUESTING UNIT REMARKS"), and
2	If intending to offer base-prepared meals to civilians (including VIPs),contact Base Foods Services, Kitchen Manager **CSN 520-5129**, or Food Svc Accounts Receivable **CSN 520-5174**.

Note:	1. Visiting units must provide and subsequently clean all hayboxes and serving utensils.
	2. Units training in the field will need to pick-up all dispersed meals from the All Ranks Dining Hall, Bldg 436, North side, Door #
	3. CFB Suffield is not equipped to supply Individual Meal Packs (IMPs) to visiting units.
	4. All requests for fresh rations must be given two weeks in advance.
	5. Meal orders must be cancelled no less than **48 x hours** in advance in order to avoid incurring costs.
	6. **Units to provide 1 cook and 1 GD's per every 50 pers on training If Unit has cooks.**
	7. Based on the requirement and amount of training being conducted at CFB Suffield, units may feed at either the Combined Mess or Crowfoot kitchen. The decision will be based on discussion with G3 Ops/Unit and will take into account hard accommodations location.
	8. During on-site trg period, changes to feeding plan will only be accepted via amended VUR in **red** with the proper Financial Authority signature. Changes need to be submitted no less then 24hrs in advance so the kitchen manager can confirm the availability of on site rations to accommodate the requested changes. DRMIS cost recoveries will be completed on or there abouts but not before the last day of the request. Unless feeding is for a perlonged period over 30 days. Then recoveries will be completed on a monthly basis. For any Question Contact the Food Services Officer. **CSN 520-5006.**

VUR#	
Assigned by G3 Ops Suffield	
TSR#	
Assigned by Range Control	

G4 Foods pg 2

ALL AMENDMENTS TO AN EXISTING VURs ARE TO BE MADE in RED for easy tracking.

Exercise Name:

Note:
1. Was a Food Service Requishition completed on UNITRAK? Y/N
2. Was Suffield Food Services contacted? Y/N
2. Name of Unit KO? Name: Contact:

Date	Combined Kitchen			Hay Box / w Pick up time			Box Lunches / w Pick up time		
	Brkfst	Lunch	Dinner	Brkfst	Lunch	Dinner	Brkfst	Lunch	Dinner
Example	20	20	10	15 / 0730	100 / 1100	15 / 1700	15 / 0630	100 / 1000	15 / 1600

VISITING UNIT REQUEST (VUR) - VISITING UNIT REQUEST (VUR) - CFB SUFFIELD

RPOU (W)

ALL AMENDMENTS TO AN EXISTING VURs ARE TO BE MADE in RED for easy tracking.

VUR#	
Assigned by G3 Ops Suffield	
TSR#	
Assigned by Range Control	

Exercise Name:

GARBAGE DUMPSTERS

The garbage dumpsters serve only for non-hazardous materiel.

Serial	Location/Area	10 Fig Grid	**Small or Large**	# of Units	Start Date	End Date	Frequency of Servicing (Daily, Bi-Weekly, etc)
1							
2							
3							
4							
5							

Expand list as required.

***** Small** Dumpsters (6 x cubic yards capacity)
Large Dumpsters (18 x cubic yards capacity)

POC for delivery:

Water Point

Serial	POC	Start Date	End Date	Estimated Water consumption (Litres)
1				
2				
3				
4				
5				

In order to utilize the CFB Suffield base pump house, the visiting unit must indicate a POC and an estimated daily consumption rate in the table provided below. The WTP will confirm that the requested daily amounts will not interfere with operations. If there are no issues, the name of the primary POC will be given to the main gate. The main gate holds spare key FOBs that can be signed out by the primary POC. The total water amounts are logged on a computer that is accessed by the WTP to track consumption. Units will be billed accordingly.

VISITING UNIT REQUEST (VUR) - VISITING UNIT REQUEST (VUR) - CFB SUFFIELD

Accommodations, PSvcs

ALL AMENDMENTS TO AN EXISTING VURs ARE TO BE MADE in RED for easy tracking.

VUR#	
Assigned by G3 Ops Suffield	
TSR#	
Assigned by Range Control	

Exercise Name:

BASE ACCOMMODATIONS (B ACCNS) and FACILITIES

Quarters.

Serial	Building	Bed Spaces	Remarks / Room Configuration	Cost / Bed / Night With Bedding	Cost / Bed / Night Without Bedding
1	349	10	Single Room, Shared Bath	11.29	N/A
2	OK Lodge	6	VIP Quarters	40.00	N/A
3	90	See Notes	Rutherford	14.53	11.00
4					

Contact G3 Ops WO, **CSN 520-4322** directly. Rooms are allotted on a first-come, first-served basis. On request, rooms can be sourced to British Army Training Unit Suffield. These are subject to BATUS availability, and can be cancelled by BATUS at any time.

Note:
1. Units must provide a nominal roll when clearing-in to quarters in order to account for personnel in the event of an emergency,
2. Visitong units must contact G4 Accommodations 544-4011 Ext 4470 (Weekdays) or report to the East Gate (afterhours and
3. Non-VIP visitors are required to clean their quarters prior to departure, failure to comply may resault in a cleanig bill to your unit.
4. When accounting for rooms, if those on advance parties or Remediation Parties are part of the full exercise, use the full time the accommodations are required. DO NOT break it down.

Serial	Arrival Date	Departure Date	Unit / Sub-Unit	Number of Personnel Male	Number of Personnel Female	Building Requested
Advance Parties						
1						
2						
Main Body Personnel Living on Base						
3						
4						
Remediation / Rear Parties						
5						

Serial	Arrival Date	Departure Date	Rank	Name	Initials	Unit	Position
COs / RSMs / Other VIPs							
6							
7							
8							
9							

Expand list as required.

Other Base Facilities. **FE Code** 0

Serial	Base Facility	Start Date	End Date	Unit / Sub-Unit OPI, Rank / Name	Contact Phone In Suffield	Special Requirements (eg. Projector, DWAN access, etc)
1	**Base Theatre**					

2	Bldg R1 (Gym)						
3	**Base Tg Ctr**	**#1**					
4	Bldg 94	**#2**					
5	Classrooms	**#3**					
6	**Computer Lab**						
7	Bldg 94						
8	(12 x terminals						
9	including instructor)						

Outdoor Parking Lots.

Serial	Start Date	End Date	# of Vehicles	Unit / Sub-Unit	Unit / Sub-Unit OPI	Contact Phone in Suffield
1						
2						
3						
4						

Expand list as required.

PERSONNEL SERVICES

Alcohol Request. **FE Code**

1. Any units coming to train at CFB Suffield will need to get the approval from BComd (thru COS) to organize event in the training areas were alcohol is consumed. The request should be approved if the unit meets the requirements from the references and also the regulations from their own formation/wing/base. All alcohol for this event shall be purchased from the Base Central Warehouse. Approval for the event, along with a Nominal Roll, shall be presented to the BCW Supervisor at the time of purchase.

2. All units, regardless of size, are to familiarize themselves with the CFB Suffield Alcohol Policy before submitting this request. The CFB Suffield Alcohol Policy is available, in electronic form, upon request to G3 Ops.

3. In accordance with the Alberta Gaming and Liquor Commission, and Alberta Gaming and Liquor Act, the serving of alcohol is only permitted in a recognized institute. The serving of alcohol in other than recognized institutes requires the specific approval of the Commanding Officer of CFB Suffield. It is incumbent upon each licensee to know and control the quantity of alcohol in each recognized institute. To ensure control measure compliance in other than recognized institutes, visiting units are required to liaise with the CFB Suffield Hospitality Manager at local 4343.

Subsequent alcohol requests must be submitted no later than **10 x working days** prior to each event in order to procure product in time.

MESS REQUEST

Junior Ranks Mess Facility (Max 300 pers)	
Junior Ranks Club - Longhorn Club (Max 403 pers)	
WO & Sgts Mess Facility (Max 300 pers)	
Officers Mess Facility (Max 333 pers)	
Crowfoot Mess (Max 500 pers)	
Date & Timings of Function:	
Type of Function:	
Approx. number of guests:	

SERVING OF ALCOHOL IN OTHER THAN RECOGNIZED INSTITUTES

Requesting Unit:
Type of Function:
Date & Timings of Function:
Note:

ALCOHOL REQUEST FORM

Requesting Unit:

Type/Description of Alcohol Requested	Quantity	Comments

VISITING UNIT REQUEST (VUR) - VISITING UNIT REQUEST (VUR) - CFB SUFFIELD

Siginals

ALL AMENDMENTS TO AN EXISTING VURs ARE TO BE MADE in RED for easy tracking.

Exercise Name:

VUR#	
Assigned by G3 Ops Suffield	
TSR#	
Assigned by Range Control	

CFB Suffield is able to provide limited communication line service to Visiting Units. Any requests for sigs support must be received by G3 Ops a minimum of 45 days prior to activity start date.

Motorola Radio & Net

Handhelds/Chargers/Frequency	Requirement	Qty	Other (Radio holders, Number of Frequencies, Etc)

Structured Wiring

Location (Bldg, RM #, DVO)	Type Of Phone	Qty	**FEATURES***	DATE REQR	OPI	NOTES

Tels Services and PBX

Tel Svcs Admin (Cell/Pager)	Requirement	Qty	Other (Name Display, etc)

PBX Admin Land Line on Base	Requirement	Qty	Other (VoiceMail / Display /Long Distance / Type of Set)

G-6 can provide the following by submission of an IT/IS Work Order put thru the

1. Network connection to Viper Village and Excon. (DWAN and GP Net);
2. Transmit and Receive messages during unit's normal operating Hours; and
3. Land Line for Telephones to Viper Village, Excon and Gate W-7.

APPLICATION FOR DEVELOPMENT FORMS

Introduction

1. Land Users conducting development on the Base shall submit appropriate documents for Base Commander and RPOU (W) Det Suffield approval per procedures detailed in RSO Chapter 2, Part 4.

2. This annex provides images of the forms with instructions for various types of development. The electronic form is available upon request to the LU Ops Gp:

a. General site or facility – all Land Users;

b. Oil and gas well with access routes; and

c. Oil and gas pipeline and all Land User linear features.

APPLICATION FOR DEVELOPMENT GENERAL SITE & FACILITY FORM EXAMPLE

Application For Development - General Site or Facility

1 Does this activity trigger the Impact Assessment Act (IAA)? Yes ☐ No ☐

If No, applicant MUST complete AEI form (tab below) on this file

2 Why or why not? ☐

3 If Yes to 1, which document is included EED ☐ AEED ☐

4 Date of Application (DD MMM YY) ☐ Reference: Endorsement Date ☐

5 Applicant Name (Land User) ☐

6 Environmental Consultant ☐

7 Survey Date(s) ☐

8 Programme Name ☐

9 Project Overview ☐

10 Site Type ☐ Previous CFB Suffield File # ☐

11 Site Requirement Modification within Existing Site ☐ Expansion of Existing Site ☐ New Site ☐

12 Below or Above Ground Below ☐ Above ☐

13 Area of Base ☐

14 Access Agreement granted pursuant to: ☐

15 Location (LSD,Sec,Twp,Rge) ☐ Site Name ☐

16 UTM NAD 83 Easting ☐ Northing ☐

17 Target Commencement ☐ Target Construction Completion ☐

18 Target Interim Reclamation Commencement ☐

19 Construction method ☐ If partial strip, percentage of site to be stripped ☐

20 If full build, provide justification ☐

21 Caisson Addition/Expansion Yes ☐ No ☐

22 If Yes, describe (amount, size) ☐

23 On-Site Tie-In Yes ☐ No ☐ If Yes, Tie-In length (m) ☐

24 The site size is standard per the RSO Yes ☐ No ☐ Dimensions of site (in meters) ☐

25 If no, provide mitigation for site size ☐

26 Additional area is required beyond the existing site Yes ☐ No ☐

27 If yes, describe ☐

28 Existing access will be used Yes ☐ No ☐

29 New access trail shown on survey/map/drawing Yes ☐ No ☐

30 Access upgrades planned Yes ☐ No ☐ If Yes, describe upgrades ☐

31 Two-strip gravel will be used Yes ☐ No ☐ Provide Rationale ☐

32 Site will be fenced Yes ☐ No ☐ If Yes, describe Fencing ☐

Temporary Infrastructure

33 Short-term above ground piping Yes ☐ No ☐ Long-term structures/storage Yes ☐ No ☐

34 Short-term structures/storage Yes ☐ No ☐ Other temporary infrastructure ☐

35 If Yes to any, provide details on applicable phase of construction and length of time required

Interim Reclamation

36 Interim reclamation method to be used

37 If seeding is to occur, provide DND Seed Cluster Mix #

38 Provide the rationale for interim reclamation choice

Environmental Work/Surveys and Potential Impacts

39 Environmental work/surveys of the subject area has been conducted within the last year Yes ☐ No ☐

40 If no, provide explanation why:

41 Not located in the setback of a monitoring site(s) Yes ☐ No ☐

42 If no, provide explanation why:

43 Disturbance per section (DPS) count is less than/equal to 16 Yes ☐ No ☐

44 If no, provide explanation why

OOB/ARA & DND Infrastructure

45 The development is not within an OOB/ARA or be within 100 m of DND infrastructure Yes ☐ No ☐

46 If no, provide explanation why:

47 Industry Infrastructure will not cross DND infrastructure (If no, FCA Required) Yes ☐ No ☐

48 This development is operationally required under the Applicant's Access Agreement Yes ☐ No ☐

49 If no, provide explanation why:

Historical and Cultural Resources

50 Historical Resource Act Clearance is required Yes ☐ No ☐

51 If Yes, clearance is provided with submission Yes ☐ No ☐

52 If No, clearance is forthcoming Yes ☐ No ☐

53 Comments (if required)

Additional Environmental Information

Overall Development Programme Context

1 [ ]

Water

Groundwater

2 Will groundwater be used for construction and/or operations of the development? Yes [ ] No [ ]

3 Location of Well [ ]

4 If existing, provide OG # for original well installation: [ ]

Wetlands and Drainage/Lotic Systems

5 Wetlands or drainage/lotic systems within 100 m of the development site? Yes [ ] No [ ]

6 If Yes, provide Wetland/Drainage/Lotic System Details (per Onsite Assessment) for each below

	Proximity (m)	Class	Mitigation
7			
8			
9			
10			
11			

12 Where desktop classifications vary from onsite assessments, provide the desktop classes and possible rationales for the discrepancy

13 [ ]

14 Drainage/lotic system crossing required Yes [ ] No [ ]

15 If Yes, describe the drainage/lotic system (GVI class per onsite assessment):

16 [ ]

17 Type of Crossing [ ]

18 Mitigation [ ]

Soil and Terrain

19 Soil handling to be conducted per RSO standard Yes [ ] No [ ]

20 If no, describe [ ]

21 Do sensitive soil and terrain areas (per the RSO) exist on the development site? Yes [ ] No [ ]

22 If Yes, describe [ ]

23 Coulee systems within 100 m of the development site Yes [ ] No [ ]

24 If Yes, proximity (in metres) [ ]

25 Development will alter soil or terrain at the site Yes [ ] No [ ]

26 If Yes, describe alteration [ ]

27 Applicable soil landscape model classification(s) for the site [ ]

28 Target topsoil (A horizon) salvage depth (cm) [ ]

29 Time of year salvage will occur [ ] Length of time soil will be stored [ ]

30 Mitigation [ ]

Vegetation

Species and Habitat Considerations

31 Sensitive plant species (per the RSO) exist on the development site or within prescribed survey and/or setback distances from the development site — Yes ☐ No ☐

32 If yes, provide plant details for each below

	Common Name	Scientific Name	UTM NAD 83 Easting	UTM NAD 83 Northing	Distance from Site	Category	SARA-Listed Status	Setback Encroachment
33								
34								
35								
36								
37								

38 SARA Permit #

39 Mitigation

Vegetation Community Characterization

40 Existing onsite ecological range site name(s):

41 Existing onsite vegetation community description(s):

42 Existing offsite ecological range site name(s):

43 Existing offsite vegetation community descriptions(s):

44 If variation is evident between the predicted ecological range sites and the surveyed on/offsite vegetation, provide a possible rationale for why the difference exists

45

46 Describe any existing disturbance on the development site

Wildlife

47 Sensitive wildlife species exist on the development site or within prescribed survey and/or setback distances from the development site — Yes ☐ No ☐

48 If yes, provide species details for each below

	Common Name	Scientific Name	UTM NAD 83 Easting	UTM NAD 83 Northing	Distance from Site	Category	SARA-Listed Status	MCBA Status	Setback Encroachment
49									
50									
51									
52									
53									

54 SARA Permit # MBCA Permit #

55 Mitigation

Application Instructions for AFD General Site or Facility

This instruction assists Land Users with filling out the AFD to support new/modified/expanded sites or facilities. Not all the instructions listed below will pertain to a Land Users submission. The instruction is laid out to address both 'Yes'/'No' answers and provide expectations of information at submission. All questions can be directed to LU Ops Gp at rangesustainability@forces.gc.ca.

1. **Does this activity trigger the IAA**: Choose 'Yes' or 'No' based on the Flowchart EIA Process under Interim Direction for the Federal Lands provisions of the Impact Assessment Act_Sep19 and the RSO Chapter 2, Part 3.

2. **Why or Why Not**: If 'Yes', describe how the project meets the definition within the Act. If 'No', describe why using the flowchart and Ministerial Order - Designated Classes of Projects Order SOR_2019-323.

3. **Document included**: If 'Yes' to para 1, include which document will be part of the AFD submission; EED or AEED.

4. **Date & Reference: Endorsement Date:** Enter the date the application will be made to the Base. Enter the date of the Annual Development Plan (ADP) Meeting or Real Property Planning Committee Meeting or other endorsement date at which presentation and discussion occurred about the development.

5. **Applicant Name (Land User)**: Identify the Land User for the development.

6. **Environmental Consultant**: Identify the environmental consultant (company name) who will be performing the environmental work and/or associated with the development.

7. **Survey Dates:** Provide the completion date (s) of environmental work.

8. **Programme Name**: Enter the overall programme name. The programme name often coincides with a reservoir name, battery, area on Base, training activity, etc.

9. **Project Overview**: Include a description of all activities to be performed in relation to the development particularly if outside the normal development chain of events for a site, well, and/or pipeline (contact the Land Use Ops Gp for oil and gas chain of events documentation).

10. **Site Type and Past CFB Suffield File #**: Identify the type of site from gas facility, oil facility, gas storage facility, military facility, grazing facility, other. If 'other' is chosen, include information on the type of facility. If the Land User is aware of any past approved projects associated with their application, place the known file number in this area.

11. **Site Requirement**: Identify what will be occurring on the site: modifying within the existing boundaries (e.g., adding new caissons or buildings to support a new system or development, change of use), expanding an existing site (e.g., to support a new system or improve current system) which will still be within the allowable 16 DPS limits, or new site.

12. **Below or Above Ground**: Indicate whether the site will be below or above ground. LU Ops Gp may request further information if the site is requested to be above ground and pre-planning was not discussed with the Base.

13. **Area of Base**: Identify where the development will be taking place on the Base (EPG, MTA and/or OAA). If the development is to take place in the Base Administrative area (B Admin), the development is considered non-routine. If the development is in the NWA, please refer to RSO Chapter 2, Part 5.

14. **Access Agreement granted pursuant to**: Provide the Agreement that the Land Users will adhere to for their development, e.g., MAA, PAA, License Agreement with date, MOU.

15. **Location (LSD,Sec,Twp,Rge)**: Enter the legal land description of the site (center point of site). Non-O&G Land Users may leave blank or contact LU Ops Gp for assistance.

16. **UTM NAD 83**: Enter the UTM NAD 1983 Zone 12 Easting and Northings (center point of site).

17. **Target Commencement & Target Construction Completion**: Provide the date the development is proposed to start and provide the target completion of development. It is recommended to consult with all personnel involved with phases of construction, interim reclamation, and operations to ensure all information is captured.

18. **Target Interim Reclamation Commencement**: Provide the target interim reclamation date. It is recommended to consult with all personnel involved with phases of construction, interim reclamation, and operations to ensure all information is captured.

19. **Construction Method**: Indicate the type of build the site requires: full, partial or no build. If a full or partial build, Land Users can expect longer review times by the Base. If a partial build, provide the percentage of the area to be built. Land Users soil handling will be in accordance with RSO Chapter 4, Part 6 Section 2.

20. **If a full build, provide justification** for the need which may include but is not limited to rig size, elevations, and time on site.

21. **Caisson Addition/Expansion**: Indicate ‘Yes’ or ‘No’.

22. **Caisson Addition/Expansion**: If ‘Yes’, fill out the line provided with how many caissons will be on-site, size, or if an expansion, provide the size.

23. **On-site Tie-in**: Indicate ‘Yes’ or ‘No’. If ‘Yes’, fill out the line provided with the length.

24. **The site size is standard per the RSO and Dimensions of site**: Indicate ‘Yes’ or ‘No’ and provide the dimensions of the site in meters, which should align with the RSO Chapter 4, Part 6 Section 2 and the survey information.

25. **If ‘No’, provide mitigation for site size:** Where the site may be larger than indicated in the RSO, include mitigations within the provided line.

26. **Additional area is required beyond the existing site**: If additional space is required on the site, choose 'Yes'.

27. **Additional area is required beyond the existing site**: If 'Yes', add the amount required based on the survey plans (ha and/or meters by meters). Consider the information within the RSO regarding site extensions and the maximum size allowed (RSO Chapter 4, Part 6 Section 2). Additional working space is provided on the survey plans, site schematic, or construction alignment plan and is part of the overall reclamation of the site.

28. **Existing access will be used**: Indicate 'Yes' or 'No'.

29. **New access trail shown on survey/map/drawing**: Indicate 'Yes' or 'No'.

30. **Access upgrades planned**: Indicate 'Yes' or 'No'. If 'Yes', provide detail in the line on what will occur with the upgrade (e.g., blading, gravel). If the upgrade is to be substantial (e.g., all weather road, building ditches), the Base will require a separate AFD to address all potential effects.

31. **Two-strip gravel will be used**: Indicate 'Yes' or 'No'. If a new access route is proposed, then two-strip gravel shall be considered. Provide detail in the line on the portion of the access that will be two-strip graveled (e.g., 100 m, low spots). If 'No', provide details on why two-strip gravel is not being used.

32. **Site will be fenced**: Indicate 'Yes' or 'No'. If 'Yes', provide the rationale for the fence and required timelines for the presence of the fence.

Temporary Infrastructure:

33. **Short-term above ground piping and Long-tem structure/storage**: Indicate 'Yes' or 'No' to both.

34. **Short-term structures/storage and Other**: Indicate 'Yes' or 'No' to both. For 'Other', Where infrastructure is required at the site that is not listed as an option in this section, provide the infrastructure that is being proposed to support the development, the phase for which the infrastructure is required (e.g., construction, operation), and required timelines for the presence of the infrastructure.

35. **If 'Yes' to questions 33-34:** Provide the phase for which the infrastructure is required (e.g., construction, operation), and required timelines for the presence of the infrastructure.

Interim Reclamation:

36. **Interim reclamation method to be used**: Indicate the type of interim reclamation to be used by reviewing the RSO at Chapter 4 Part 7 Section 1 – Natural recovery, Assisted Natural Recovery or Seeding. Note: the Base expects Natural Recovery to be the first consideration.

37. **If seeding is to occur, provide DND Seed Cluster Mix #**: see Annex FF.

38. **Provide the rationale for interim reclamation choice**: Provide the rationale for the chosen interim reclamation method. Refer to RSO Chapter 4 Part 7 Section 1.

Environmental Work/Surveys & Potential impacts: O&G Land Users are required to fill out this portion of the document. Base entities may require services from LU Ops Gp such as environmental work and selections can be left blank where assistance is required.

39. **Environmental work/surveys of the subject areas has been conducted within the last year**: An answer of 'Yes' indicates environment work/surveys of the subject area have been conducted in accordance with RSO Chapter 2 and Annex J.

40. **If 'No', provide explanation why**: 'No' may indicate that the environmental work was completed outside the appropriate survey windows, and mitigation has been submitted in the provided line to support the timeframes. 'No' may also indicate that surveys were not performed at all, which will result in a rejection of the AFD unless justification can be provided.

41. **Not located in the setback of a monitoring site**: See Table 4-1 of the RSO Chapter 4, Part 2 Section 4 for monitoring site setbacks. 'Yes' indicates setbacks were maintained for monitoring sites. Monitoring sites are used to determine training impacts on grassland systems and provide experts recommendations for future training such as placing out of bounds or activity restrictions therefore other land use impacts are reviewed closely.

42. **If 'No', provide explanation why**: 'No' indicates that the setback for monitoring sites cannot be avoided and mitigation is included in the provided line.

43. **Disturbance per section (DPS) count is less than/equal to 16**: *O&G LUs only* – See RSO Chapter 4, Part 2 Section 3 for the 16 Disturbances Per Section (DPS) land use constraint. 'Yes' indicates that there are fewer than or equal to 16 DPS. 'Yes' includes instances where wells are re-entered or additional wells or facilities are added to existing sites provided the site area restrictions are adhered to per RSO Chapter 4, Part 2 Section 3.

44. **If 'No', provide explanation why**: 'No' indicates that there are more than 16 DPS and details shall be included in the provided line regarding special circumstances or mitigation measures to permit greater than 16 DPS. Although Land Users can apply for the development and choose 'No', the Base will reject most proposed new developments not meeting the 16 DPS land use constraint.

OOB/ARA_DND Infrastructure:

45. **The development is not within an OOB/ARA or be within 100 m of DND infrastructure**: 'Yes' indicates the development is not within an existing OOB/ARA.

46. **If 'No', provide explanation why**: 'No' indicates the development will be within an OOB/ARAs and further details are required in the provided line.

47. **Industry infrastructure will not cross DND infrastructure**: DND infrastructure includes utilities and high-grade roads. 'Yes', indicates no further action is required by the Land User. 'No' indicates that a facility crossing agreement (FCA) is required per RSO Chapter 4, Part 2 Section 7. The applicant may not have all DND infrastructure or roads in their databases; therefore, the requirement for an FCA may be identified once the Base has reviewed the AFD. The LU Ops Gp will coordinate execution of the FCA as part of processing the AFD package.

48. **This development is operationally required under the Applicant's Access Agreement**: Indicate 'Yes' or 'No'.

49. **If 'No', provide explanation why**: If 'No' is chosen, the Base will review the file on a case-by-case basis to determine whether the Access Agreement supports the development.

Historical Resources and Cultural Resources:

50. **Historical Resource Act Clearance is required**: Indicate 'Yes' or 'No'. 'Yes' indicates that the Alberta Culture and Tourism's latest listing of Significant Historical Sites and Areas and the DND database have been reviewed, field surveys completed and move to next question. 'No' indicates Alberta Culture and Tourism's latest listing of Significant Historical Sites and Areas and the DND database have been reviewed and there were no historical resource values so clearance and surveys were not required.

51. **If 'Yes', clearance is provided with submission**: Indicate 'Yes' or 'No'. 'Yes' indicates documents submitted with application.

52. **If 'No', clearance is forthcoming**: Indicate 'Yes' or 'No'. 'No' indicates documents were not obtained for provincial clearance for identified historical resources and no decision for the project will occur until the HRA Clearance has been submitted to the Base.

53. **Comments**: This box allows a Land User to indicate that the Alberta Culture and Tourism process has been initiated concurrently with the AFD process. All Alberta Culture and Tourism clearances shall be submitted to the Base prior to Base approval.

Additional Environmental Information *TAB*: This tab is used if the Land User chooses 'No' at 'Does this activity trigger the IAA' (point 1 above) or where larger scale EEDs were completed for areas and more specific survey work are required for site specific locations (e.g., O&G LUs ADP EED completed, therefore site specific environmental info needs to be submitted).

1. **Overall Development Programme Context**: This section is generally related to O&G Land Users, however, others may find it useful to pull together all aspects of their development plans by articulating where the applied for location fits within the overall development. Provide context for how this site aligns with the Annual Development Plan (ADP) or other meetings where Base Commander provided endorsement.

Water:

Groundwater:

2. **Will groundwater be used for construction and/or operations of this development**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions.

3. **Location of well**: Provide the location of the well in legal land description and UTM formats, and where applicable, the site name.

4. **If existing, provide OG # for original well installation**: Provide the original OG #; if an OG # is not available, provide the original construction date.

Wetlands and Drainages/Lotic Systems: See RSO Chapter 4, Part 6 Section 3 for wetland definitions and requirements and drainage/lotic system definitions and crossing requirements. Annex DD provides the Wetland Policy and Annex EE provides information for wetland mitigation if projects are within a setback.

5. **Wetlands or drainage/lotic systems within 100 m of development**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions.

6. **If 'Yes', provide Wetland/Drainage/Lotic System Details (per Onsite Assessment) for each below.** Where there are too many wetlands for the provided table, a supplemental submission can occur. (Questions 7-11 - *The order of questions from 7-11 describe the columns not each row*.)

7. **Proximity (in meters)**: Provide the distance from the site edge/ROW edge to the high-water mark of the wetland(s) or drainage/lotic system(s).

8. **Wetland class (es) and/or drainage/lotic system class(es)**: Indicate the class of each feature per onsite assessments. Use the Stewart and Kantrud (S&K) wetland classification system for wetlands, and the Grassland Vegetation Inventory (GVI) classification system for drainage/lotic systems.

9. **Mitigation**: Focus of mitigation should be relevant to the phase of construction and/or operation and consider the length of time the effect may be present (e.g., sediment fence installed during construction to protect wetland from sedimentation). Consult Annex EE Wetland Mitigation for File Reviews for additional information on mitigation options.

10. **Continue with wetlands if more exist**.

11. **Continue with wetlands if more exist**.

12. **Where desktop/GVI classification vary from onsite assessment, provide rationales for the discrepancy, and include a possible explanation for the discrepancy based on the onsite observations**.

13. **Comment Box for question 12**.

14. **Drainage/lotic system crossing required**: Indicate 'Yes' or 'No'. If 'Yes', continue with the following questions.

15. **If 'Yes', describe the drainage/lotic system**: Identify the GVI class for the system per onsite assessment.

16. **Comment Box for question 15.**

17. **Type of crossing**: Indicate type of crossing (e.g., Class D Water Body crossing) per the Alberta *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water Body* as required by the Alberta *Water Act*

18. **Mitigation**: Focus of mitigation should be relevant to the phase of construction and/or operation and consider the length of time the effect may be present (e.g., sediment fence installed during construction to protect wetland from sedimentation). Consult Annex EE Wetland Mitigation for File Reviews for additional information on mitigation options.

Soil and Terrain:

19. **Soil handling to be conducted per RSO standard**: 'Yes' indicates soil handling will occur in accordance with RSO.

20. **If 'No', describe**: the Land User shall provide details of the changes in the provided line.

21. **Do sensitive soil and terrain areas (per the RSO) exist on the site**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions. Refer to the RSO Chapter 4, Part 6 Section 2 for sensitive soil and terrain categories.

22. **If 'Yes', describe**: Provide information on the type of sensitive soil and terrain.

23. **Coulee systems within 100 m of development**: Indicate 'Yes' or 'No'. If 'Yes', continue with following question.

24. **If 'Yes', proximity (in metres)**: Provide the distance from the site edge/ROW edge to the top edge of the coulee break.

25. **Will the development alter soil or terrain at the site**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions.

26. **If 'Yes', describe alteration**: This may include but is not limited to build type, addition of berms, and caisson installation/level of caisson to the ground.

27. **Applicable soil landscape model classification(s) for the site**: Indicate the applicable soil classification(s) for the site. The Landwise soil classification model shall be the first choice when determining soil landscape classifications. The Landwise model information is available from the LU Ops Gp. If Landwise is not used, specify which soil landscape classification model was used and why.

28. **Target topsoil (A horizon) salvage depth**: Provide in centimeters. If the salvage will not meet the requirements from RSO Chapter 4, Part 6 Section 2, indicate why.

29. **Time of year salvage will occur and length of time soil will be stored**: Indicate the anticipated timeframe that soil will be salvaged (e.g., winter, spring, summer, fall) and length of time soil is anticipated to be stored.

30. **Mitigation**: Provide details on how disturbance will be mitigated. Focus of mitigation should be relevant to the phase of construction and/or operation and consider the length of time the effect may be present (e.g., matting during construction, two strip/track gravel prior to construction and through operation of the site, reduced build size in certain areas of the site.) Provide information regarding interim reclamation (e.g., how and when soil will be replaced; drainage issues after soils replaced). If erosion potential on steep slopes associated with an access trail is a concern, consider use of two-track gravel

and/or a cover crop with a natural recovery to assist with establishing vegetation and reducing erosion potential.

Vegetation:

Species and Habitat Considerations:

31. **Do sensitive plant species (per the RSO) exist on the development site or within prescribed survey and/or setback distances from the development site**: Indicate whether any sensitive plant species (per RSO Chapter 4 Part 6 Section 4) exist on the development site or within prescribed survey and/or setback distances from the development site. The applicable setbacks are presented in references within Annex J; otherwise, a 500 m survey radius applies. If 'Yes', continue with following questions.

32. **If 'Yes'**: List detected species. Provide common and scientific names, location (UTM), distance from site (m), sensitive species category, *SARA*–listed status, and setback encroachment (if applicable) per Environment Canada's Activity Set–back Distance Guidelines for Prairie Plant Species at Risk – list all identified sensitive plant species including location in UTM format, distance from the site in meters, sensitive species category per Annex J, the *SARA*–listed status, and the setback encroachment (if applicable).

33. **Common name**: Provide the name known in English.

34. **Scientific name**: Provide the Latin name for the plant.

35. **UTM 83**: Provide the Easting and Northing of the plant that was observed.

36. **Distance from site**: Distance from the site edge.

37. **Category, *SARA*-listed Status & Setback Encroachment**: Provide the sensitive species category.

38. ***SARA* Permit #**: Provide a *SARA*–permit number if applicable.

39. **Mitigation:** Provide details on how disturbances will be mitigated. Focus of mitigation should be relevant to the phase of construction and/or operation and articulated within this section. Reference soil and terrain section if required if conservation of soil will preserve vegetation.

Vegetation Community Characterization:

40. **Existing onsite ecological range site name(s)**: Provide the predicted ecological range site classification per GVI. This is the reference plant community or climax community for the site and reflects the expected state with no human or climate impacts.

41. **Existing onsite vegetation community description(s)**: Provide the actual ecological range site classification per range health assessment.

42. **Existing offsite ecological range site name(s)**: See above para 40 under the AEI Tab numbering.

43. **Existing offsite vegetation community description(s)**: See above para 41.

44. **If variation is evident between the predicted GVI ecological range sites and the surveyed on/offsite vegetation**: Provide a possible rationale for any variation among the pre–development ecological range site classifications and the on and offsite vegetation conditions. If applicable, provide information considered during the assessment (e.g., climate, invasive species).

45. **Comment Box for question 44**.

46. **Describe any existing disturbance on the development site**: Describe any existing natural or anthropogenic disturbance on the development site.

Wildlife:

47. **Do sensitive wildlife species exist on the development site or within prescribed survey and/or setback distances from the development site**: Indicate whether any sensitive wildlife species (Annex J) exist on the development site or within prescribed survey and/or setback distances from the development site. The applicable setbacks are presented in Annex J refs A and B; otherwise, a 500 m survey radius applies. If 'Yes', continue with following questions.

48. **If 'Yes'**: List detected species – provide common and scientific names, location (UTM), distance from site (m), sensitive species category, *SARA*–listed status, *MBCA* status, and setback encroachment (if applicable) per Environment Canada's Petroleum Industry Activity Guidelines for Wildlife Species at Risk in the Prairie and Northern Region – list all identified sensitive plant species including location in UTM format, distance from the site in metres, sensitive species category per Annex J, the *SARA*–listed status, the *Migratory Birds Convention Act, 1994* (*MBCA)* status, and the setback encroachment (if applicable)

49. **Provide common and scientific names**.

50. **UTM 83**: Provide the Easting and Northing of the plant that was observed.

51. **Distance from site**: Distance from the site edge.

52. **Category, *SARA*-listed Status & MBCA status**: Provide the sensitive species category.

53. **Setback Encroachment**: If applicable.

54. ***SARA* Permit # and *MBCA* Permit #**: Provide a *SARA* or *MBCA* –permit number if applicable.

55. **Mitigation**: Provide details on how any adverse effects will be mitigated. Focus of mitigation should be relevant to the phase of construction and/or operation (e.g., construction to occur outside the wildlife season when burrowing owl is not present). If wildlife associated with a coulee system is a concern, consider if the coulee aligns with Alberta Fish and Wildlife Critical Ungulate winter range or contains sharp relief and woody vegetative cover commonly associated with high value ungulate range. Also consider the likelihood for the coulee to have specific wildlife features like snake hibernacula based on presence of slumps or cracks and degree of slope instability.

APPLICATION FOR DEVELOPMENT WELL & ACCESS FORM EXAMPLE

Application For Development - Well and Associated Access

1 Does this activity trigger the Impact Assessment Act (IAA)? Yes ☐ No ☐
If No, applicant MUST complete AEI form (tab below) on this file
2 Why or why not? ☐
3 If Yes to 1, which document is included EED ☐ AEED ☐
4 Date of Application (DD MMM YY) ☐ Reference: Endorsement Date ☐
5 Applicant Name (Land User) ☐
6 Environmental Consultant ☐
7 Survey Date(s) ☐
8 Programme Name ☐
9 Project Overview ☐
10 Well Type ☐ Previous CFB Suffield File # ☐
11 On-site Tie-in Required Yes ☐ No ☐ Type: Pipeline ☐ Electrical ☐ Tie-in Length ☐ m
12 Below or Above Ground Below ☐ Above ☐
13 Area of Base ☐
14 Access Agreement granted pursuant to: ☐
15 Location (LSD,Sec,Twp,Rge) ☐ Well Name ☐
16 UTM NAD 83 Easting ☐ Northing ☐
17 Multi-Well Site ☐ at Existing Disturbance ☐ CFB Suffield File # ☐
18 New P&&NG lease (after 1 May 1996) ☐ Terminating formation and target zone: ☐
19 Target Commencement ☐ Target Construction Completion ☐
20 Target Interim Reclamation Commencement ☐
21 Construction method ☐ If partial strip, percentage of site to be stripped ☐
22 If full build, provide justification ☐
23 The site size is standard per the RSO Yes ☐ No ☐ Dimensions of site (in meters) ☐
24 If no, provide mitigation for site size ☐
25 Additional area is required beyond the existing site Yes ☐ No ☐
26 If yes, describe ☐
27 Existing access will be used Yes ☐ No ☐
28 New access trail shown on survey/map/drawing Yes ☐ No ☐
29 Access upgrades planned Yes ☐ No ☐ If Yes, describe upgrades ☐
30 Two-strip gravel will be used Yes ☐ No ☐ Provide Rationale ☐
31 Site will be fenced Yes ☐ No ☐ If Yes, describe Fencing ☐

Temporary Infrastructure

32 Short-term above ground piping Yes ☐ No ☐ Long-term structures/storage Yes ☐ No ☐

33 Short-term structures/storage Yes ☐ No ☐ Single Well Battery Yes ☐ No ☐

34 Other temporary infrastructure ☐

35 If Yes to any, provide details on applicable phase of construction and length of time required ☐

Interim Reclamation

36 Interim reclamation method to be used ☐

37 If seeding is to occur, provide DND Seed Cluster Mix # ☐

38 Provide the rationale for interim reclamation choice ☐

Environmental Work/Surveys and Potential Impacts

39 Environmental work/surveys of the subject area has been conducted within the last year Yes ☐ No ☐

40 If no, provide explanation why: ☐

41 Not located in the setback of a monitoring site(s) Yes ☐ No ☐

42 If no, provide explanation why: ☐

43 Disturbance per section (DPS) count is less than/equal to 16 Yes ☐ No ☐

44 If no, provide explanation why ☐

OOB/ARA & DND Infrastructure

45 The development is not within an OOB/ARA or be within 100 m of DND infrastructure Yes ☐ No ☐

46 If no, provide explanation why: ☐

47 Industry Infrastructure will not cross DND infrastructure (If no, FCA Required) Yes ☐ No ☐

48 This development is operationally required under the Applicant's Access Agreement Yes ☐ No ☐

49 If no, provide explanation why: ☐

Historical and Cultural Resources

50 Historical Resource Act Clearance is required Yes ☐ No ☐

51 If Yes, clearance is provided with submission Yes ☐ No ☐

52 If No, clearance is forthcoming Yes ☐ No ☐

53 Comments (if required) ☐

Additional Environmental Information

Overall Development Programme Context

1 [ ]

Water

Groundwater

2 Will groundwater be used for construction and/or operations of the development? Yes [ ] No [ ]

3 Location of Well [ ]

4 If existing, provide OG # for original well installation: [ ]

Wetlands and Drainage/Lotic Systems

5 Wetlands or drainage/lotic systems within 100 m of the development site? Yes [ ] No [ ]

6 If Yes, provide Wetland/Drainage/Lotic System Details (per Onsite Assessment) for each below

	Proximity (m)	Class	Mitigation
7			
8			
9			
10			
11			

12 Where desktop classifications vary from onsite assessments, provide the desktop classes and possible rationales for the discrepancy

13 [ ]

14 Drainage/lotic system crossing required Yes [ ] No [ ]

15 If Yes, describe the drainage/lotic system (GVI class per onsite assessment):

16 [ ]

17 Type of Crossing [ ]

18 Mitigation [ ]

Soil and Terrain

19 Soil handling to be conducted per RSO standard Yes [ ] No [ ]

20 If no, describe [ ]

21 Do sensitive soil and terrain areas (per the RSO) exist on the development site? Yes [ ] No [ ]

22 If Yes, describe [ ]

23 Coulee systems within 100 m of the development site Yes [ ] No [ ]

24 If Yes, proximity (in metres) [ ]

25 Development will alter soil or terrain at the site Yes [ ] No [ ]

26 If Yes, describe alteration [ ]

27 Applicable soil landscape model classification(s) for the site [ ]

28 Target topsoil (A horizon) salvage depth (cm) [ ]

29 Time of year salvage will occur [ ] Length of time soil will be stored [ ]

30 Mitigation [ ]

Vegetation

Species and Habitat Considerations

31 Sensitive plant species (per the RSO) exist on the development site or within prescribed survey and/or setback distances from the development site — Yes ☐ No ☐

32 If yes, provide plant details for each below

	Common Name	Scientific Name	UTM NAD 83 Easting	UTM NAD 83 Northing	Distance from Site	Category	SARA-Listed Status	Setback Encroachment
33								
34								
35								
36								
37								

38 SARA Permit #

39 Mitigation

Vegetation Community Characterization

40 Existing onsite ecological range site name(s):

41 Existing onsite vegetation community description(s):

42 Existing offsite ecological range site name(s):

43 Existing offsite vegetation community descriptions(s):

44 If variation is evident between the predicted ecological range sites and the surveyed on/offsite vegetation, provide a possible rationale for why the difference exists

45

46 Describe any existing disturbance on the development site

Wildlife

47 Sensitive wildlife species exist on the development site or within prescribed survey and/or setback distances from the development site — Yes ☐ No ☐

48 If yes, provide species details for each below

	Common Name	Scientific Name	UTM NAD 83 Easting	UTM NAD 83 Northing	Distance from Site	Category	SARA-Listed Status	MCBA Status	Setback Encroachment
49									
50									
51									
52									
53									

54 SARA Permit # MBCA Permit #

55 Mitigation

Application Instructions for AFD Well and Associated Access

This instruction assists Land Users with filling out the AFD to support new well and associated access. Not all the instructions listed below will pertain to a Land Users submission. The instruction is laid out to address both 'Yes'/'No' answers and provide expectations of information at submission. All questions can be directed to LU Ops Gp at rangesustainability@forces.gc.ca.

1. **Does this activity trigger the IAA**: Choose 'Yes' or 'No' based on the Flowchart EIA Process under Interim Direction for the Federal Lands provisions of the Impact Assessment Act_Sep19 and the RSO Chapter 2, Part 3.

2. **Why or Why Not**: If 'Yes', describe how the project meets the definition within the Act. If 'No', describe why using the flowchart and Ministerial Order - Designated Classes of Projects Order SOR_2019-323.

3. **Document included**: If 'Yes' to para 1, include which document will be part of the AFD submission; EED or AEED.

4. **Date & Reference: Endorsement Date:** Enter the date the application will be made to the Base. Enter the date of the Annual Development Plan (ADP) Meeting or Real Property Planning Committee Meeting or other endorsement date at which presentation and discussion occurred about the development.

5. **Applicant Name (Land User):** Identify the Land User for the development.

6. **Environmental Consultant**: Identify the environmental consultant (company name) who will be performing the environmental work and/or associated with the development.

7. **Survey Dates:** Provide the completion date (s) of environmental work.

8. **Programme Name**: Enter the overall programme name. The programme name often coincides with a reservoir name, battery, area on Base, training activity, etc.

9. **Project Overview:** Include a description of all activities to be performed in relation to the development particularly if outside the normal development chain of events for a site, well, and or pipeline (contact the Land Use Ops Gp for oil and gas chain of events documentation).

10. **Well Type and Previous CFB Suffield File #**: Identify the type of well from gas, oil, injection, water source, storage and other. If 'other' is chosen, include information on the type of facility. If the Land User is aware of any past approved projects associated with their application, place the known file number in this area.

11. **On-site Tie-in required**: where an on-site tie-in is proposed, check the box. Then include the type of tie-in (i.e., pipeline, electrical) and the length in meters.

12. **Below or Above Ground**: Indicate whether the site will be below or above ground. LU Ops Gp may request further information if the site is requested to be above ground and pre-planning was not discussed with the Base.

13. **Area of Base:** Identify where the development will be taking place on the Base (EPG, MTA, and/or OAA). If the development is to take place in the Base Administrative area (B Admin), the development is considered non-routine. If the development is in the NWA, please refer to RSO Chapter 2, Part 5.

14. **Access Agreement granted pursuant to**: Provide the Agreement that the Land Users will adhere to for their development, e.g., MAA, PAA, License Agreement with date, MOU.

15. **Location (LSD,Sec,Twp,Rge)**: Enter the legal land description of the site (center point of site) and the well name (e.g., 15V-16-17-8). Non-O&G Land Users may leave blank or contact LU Ops Gp for assistance.

16. **UTM NAD 83**: Enter the UTM NAD 1983 Zone 12 Easting and Northings (center point of site).

17. **Multi-Well Site**: Check this box where more than one well will be located on the site. Include the existing disturbance and the CFB Suffield file number for the already existing well/wells, as applicable.

18. **New P&NG lease (after May 1996) and Terminating formation and Target Zone**: Check the box if the mineral lease was acquired from Alberta Energy after 1 May 1996. Include the name and depth to which the well is drilled.

19. **Target Commencement & Target Construction Completion**: Provide the date the development is proposed to start and provide the target completion of development. It is recommended to consult with all personnel involved with phases of construction, interim reclamation, and operations to ensure all information is captured.

20. **Target Interim Reclamation Commencement**: Provide the target interim reclamation date. It is recommended to consult with all personnel involved with phases of construction, interim reclamation, and operations to ensure all information is captured.

21. **Construction Method**: Indicate the type of build the site requires: full, partial or no build. If a full or partial build, Land Users can expect longer review times by the Base. If a partial build, provide the dimensions of the area to be built. Land Users soil handling will be in accordance with RSO Chapter 4, Part 6 Section 2.

22. **If a full build, provide justification**: Provide information as to why a full build would be required which may include but is not limited to rig size, elevations, and time on site.

23. **The Site Size is Standard per the RSO and Dimensions of Site**: Indicate ‘Yes’ or ‘No’ and provide the dimensions of the site in metres, which should align with the RSO Chapter 4, Part 6 Section 2 and the survey information.

24. **If ‘No’, provide mitigation for site size**: Where the site may be larger than indicated in the RSO, include mitigations within the provided line.

25. **Additional area is required beyond the existing site**: If additional space is required on the site choose ‘Yes’ or ‘No’

26. **Additional area is required beyond the existing site**: If 'Yes', add the amount required based on the survey plans (ha and/or meters by meters). Consider the information within the RSO regarding site extensions and the maximum size allowed (RSO Chapter 4, Part 6 Section 2). Additional working space is provided on the survey plans, site schematic, or construction alignment plan and is part of the overall reclamation of the site.

27. **Existing Access will be used**: Indicate 'Yes' or 'No'.

28. **New Access trail shown on survey/map/drawing**: Indicate 'Yes' or 'No'.

29. **Access upgrades planned:** Indicate 'Yes' or 'No'. If 'Yes' provide detail in the line provided on what will occur with the upgrades (e.g., blading, gravel). If the upgrade is to be substantial (e.g., all weather road, building ditches), the Base will require a separate AFD to address all potential effects.

30. **Two-strip gravel will be used**: Indicate 'Yes' or 'No'. If a new access route is proposed, then two-strip gravel shall be considered. Provide detail in the line provided on the portion of the access that will be two-strip gravelled (e.g., 100m, low spots). If 'No', provide details on why two strip gravel is not being used.

31. **Site will be fenced**: Indicate 'Yes' or 'No'. If 'Yes', provide the rationale for the fence and required timelines for the presence of the fence.

Temporary Infrastructure:

32. **Short-term above ground piping and Long-term structure/storage:** Indicate 'Yes' or 'No' to both.

33. **Short-term structures/storage and Single well battery:** Indicate 'Yes' or 'No' to both.

34. **Other temporary infrastructure**: Where infrastructure is required at the site that is not listed as an option in this section, provide the infrastructure that is being proposed to support the development, the phase for which the infrastructure is required (e.g., construction, operation), and required timelines for the presence of the infrastructure.

35. **If 'Yes' to questions 32-34:** Provide the phase for which the infrastructure is required (e.g., construction, operation), and required timelines for the presence of the infrastructure.

Interim Reclamation:

36. **Interim reclamation method to be used**: Indicate the type of interim reclamation to be used by reviewing the RSO Chapter 4, Part 7 Section 1 – Natural Recovery, Assisted Natural Recovery, or Seeding. Note: the Base expects Natural Recovery to be the first consideration.

37. **If seeding is to occur, provide DND Seed Cluster Mix #**: See Annex FF.

38. **Provide the rationale for interim reclamation choice**: Provide the rationale for the chosen interim reclamation method. Refer to RSO Chapter 4, Part 7 Section 1.

Environmental Work/Surveys and Potential Impacts: O&G Land Users are required to fill out this portion of the document. Base entities may require services from LU Ops Gp such as environmental work and selections can be left blank where assistance is required.

39. **Environmental work/surveys of the subject area has been conducted within the last year**: An answer of 'Yes' indicates environment work/surveys of the subject area have been conducted in accordance with RSO Chapter 2 and Annex J.

40. **If 'No', provide explanation why**: 'No' may indicate that the environmental work was completed outside the appropriate survey windows, and mitigation has been submitted in the provided line to support the timeframes. 'No' may also indicate that surveys were not performed at all, which will result in a rejection of the AFD unless justification can be provided.

41. **Not located in the setback of a monitoring site**: See Table 4-1 of the RSO Chapter 4, Part 2 Section 4 for monitoring site setbacks. 'Yes' indicates setbacks were maintained for monitoring sites. Monitoring sites are used to determine training impacts on grassland systems and provide experts recommendations for future training such as placing out of bounds or activity restrictions therefore other land use impacts are reviewed closely.

42. **If 'No', provide explanation why**: 'No' indicates that the setback for monitoring sites cannot be avoided and mitigation is included in the provided line.

43. **Disturbance per section (DPS) count is less than/equal to 16**: *O&G LUs only* – See RSO Chapter 4, Part 2 Section 3 for the 16 Disturbances Per Section (DPS) land use constraint. 'Yes' indicates that there are fewer than or equal to 16 DPS. 'Yes' includes instances where wells are re-entered or additional wells or facilities are added to existing sites provided the site area restrictions are adhered to per RSO Chapter 4, Part 2 Section 3.

44. **If 'No', provide explanation why**: 'No' indicates that there are more than 16 DPS and details shall be included in the provided line regarding special circumstances or mitigation measures to permit greater than 16 DPS. Although Land Users can apply for the development and choose 'No', the Base will reject most proposed new developments not meeting the 16 DPS land use constraint.

OOB/ARA & DND Infrastructure:

45. **The development is not within an OOB/ARA or be within 100 m of DND infrastructure**: 'Yes' indicates the development is not within an existing OOB/ARA.

46. **If 'No', provide explanation why**: 'No' indicates the development will be within an OOB/ARAs and further details are required in the provided line.

47. **Industry infrastructure will not cross DND infrastructure (If 'No', FCA Required)**: DND infrastructure includes utilities and high-grade roads. 'Yes', indicates no further action is required by Land User. 'No' indicates that a facility crossing agreement (FCA) is required per RSO Chapter 4, Part 2 Section 7. The applicant may not have all DND infrastructure or roads in their databases; therefore, the requirement for an FCA may be identified once the Base has reviewed the AFD. The LU Ops Gp will coordinate execution of the FCA as part of processing the AFD package.

48. **This development is operationally required under the Applicant's Access Agreement**: Indicate 'Yes' or 'No'.

49. **If 'No', provide explanation why**: If 'No' is chosen the Base will review the file on a case-by-case basis to determine whether the Access Agreement supports the development.

Historical and Cultural Resources:

50. **Historical Resource Act Clearance is required**: Indicate 'Yes' or 'No'. 'Yes', indicates that the Alberta Culture and Tourism's latest listing of Significant Historical Sites and Areas and the DND database have been reviewed, field surveys completed and move to next question. 'No' indicates Alberta Culture and Tourism's latest listing of Significant Historical Sites and Areas and the DND database have been reviewed and there were no historical resource values so clearance and surveys were not required.

51. **If 'Yes', clearance is provided with submission**: Indicate 'Yes' or 'No'. 'Yes' indicates documents submitted with application.

52. **If 'No', clearance is forthcoming**: Indicate 'Yes' or 'No'. 'No' indicates documents were not obtained for provincial clearance for identified historical resources and no decision for the project will occur until the HRA Clearance has been submitted to the Base.

53. **Comments**: this box allows a Land User to indicate that the Alberta Culture and Tourism process has been initiated concurrently with the AFD process. All Alberta Culture and Tourism clearances shall be submitted to the Base prior to Base approval.

Additional Environmental Information *TAB*: This tab is used if the Land User chooses 'No' at 'Does this activity trigger the IAA' (point 1 above) or where larger scale EEDs were completed for areas and more specific survey work are required for site specific locations (e.g., O&G LUs ADP EED completed, therefore site specific environmental info needs to be submitted).

1. **Overall Development Programme Context**: This section is generally related to O&G Land Users; however, others may find it useful to pull together all aspects of their development plans by articulating where the applied for location fits within the overall development. Provide context for how this site aligns with the Annual Development Plan (ADP) or other meetings where Base Commander provided endorsement.

Water:

Groundwater:

2. **Will groundwater be used for construction and/or operations of this development**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions.

3. **Location of well**: Provide the location of the well in legal land description and UTM formats, and where applicable, the site name.

4. **If existing, provide OG # for original well installation**: Provide the original OG #; if an OG # is not available, provide the original construction date.

Wetlands and Drainages/Lotic Systems: See RSO Chapter 4, Part 6 Section 3 for wetland definitions and requirements and drainage/lotic system definitions and crossing requirements. Annex DD provides the Wetland Policy and Annex EE provides information for wetland mitigation if projects are within a setback.

5. **Wetlands or drainage/lotic systems within 100 m of development**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions.

6. **If 'Yes', provide Wetland/Drainage/Lotic System Details (per Onsite Assessment) for each below.** Where there are too many wetlands for the provided table, a supplemental submission can occur. (Questions 7-11 - *The order of questions from 7-11 describe the columns not each row*.)

7. **Proximity (in metres)**: Provide the distance from the site edge/ROW edge to the high-water mark of the wetland(s) or drainage/lotic system(s).

8. **Wetland class(es) and/or drainage/lotic system class(es)**: Indicate the class of each feature per onsite assessments. Use the Stewart and Kantrud (S&K) wetland classification system for wetlands, and the Grassland Vegetation Inventory (GVI) classification system for drainage/lotic systems.

9. **Mitigation**: Focus of mitigation should be relevant to the phase of construction and/or operation and consider the length of time the effect may be present (e.g., sediment fence installed during construction to protect wetland from sedimentation). Consult Annex EE Wetland Mitigation for File Reviews for additional information on mitigation options.

10. **Continue with wetlands if more exist**.

11. **Continue with wetlands if more exist**.

12. **Where desktop/GVI classification vary from onsite assessment, provide rationales for the discrepancy, and include a possible explanation for the discrepancy based on the onsite observations**.

13. **Comment Box for question 12**.

14. **Drainage/lotic system crossing required**: Indicate 'Yes' or 'No'. If 'Yes', continue with the following questions.

15. **If 'Yes', describe the drainage/lotic system**: Identify the GVI class for the system per onsite assessment.

16. **Comment Box for question 15.**

17. **Type of crossing**: Indicate type of crossing (e.g., Class D Water Body crossing) per the Alberta *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water Body* as required by the Alberta *Water Act*

18. **Mitigation**: Focus of mitigation should be relevant to the phase of construction and/or operation and consider the length of time the effect may be present (e.g., sediment fence installed during

construction to protect wetland from sedimentation). Consult Annex EE Wetland Mitigation for File Reviews for additional information on mitigation options.

Soil and Terrain:

19. **Soil handling to be conducted per RSO standard**: 'Yes' indicates soil handling will occur in accordance with RSO.

20. **If 'No', describe**: the Land User shall provide details of the changes in the provided line.

21. **Do sensitive soil and terrain areas (per the RSO) exist on the site**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions. Refer to the RSO Chapter 4, Part 6 Section 2 for sensitive soil and terrain categories.

22. **If 'Yes', describe**: Provide information on the type of sensitive soil and terrain.

23. **Coulee systems within 100 m of development**: Indicate 'Yes' or 'No'. If 'Yes', continue with following question.

24. **If 'Yes', proximity (in meters)**: Provide the distance from the site edge/ROW edge to the top edge of the coulee break.

25. **Development will alter soil or terrain at the site**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions.

26. **If 'Yes', describe alteration**: This may include but is not limited to build type, addition of berms, and caisson installation/level of caisson to the ground.

27. **Applicable soil landscape model classification(s) for the site**: Indicate the applicable soil classification(s) for the site. The Landwise soil classification model shall be the first choice when determining soil landscape classifications. The Landwise model information is available from the LU Ops Gp. If Landwise is not used, specify which soil landscape classification model was used and why.

28. **Target topsoil (A horizon) salvage depth (cm)**: Provide in centimeters. If the salvage will not meet the requirements from RSO Chapter 4, Part 6 Section 2, indicate why.

29. **Time of year salvage will occur and length of time soil will be stored**: Indicate the anticipated timeframe that soil will be salvaged (e.g., winter, spring, summer, fall) and length of time soil is anticipated to be stored.

30. **Mitigation**: Provide details on how disturbance will be mitigated. Focus of mitigation should be relevant to the phase of construction and/or operation and consider the length of time the effect may be present (e.g., matting during construction, two strip/track gravel prior to construction and through operation of the site, reduced build size in certain areas of the site.) Provide information regarding interim reclamation (e.g., how, and when soil will be replaced; drainage issues after soils replaced). If erosion potential on steep slopes associated with an access trail is a concern, consider use of two-track gravel and/or a cover crop with a natural recovery to assist with establishing vegetation and reducing erosion potential.

Vegetation:

Species and Habitat Considerations:

31. **Do sensitive plant species (per the RSO) exist on the development site or within prescribed survey and/or setback distances from the development site**: Indicate whether any sensitive plant species (per RSO Chapter 4, Part 6 Section 4) exist on the development site or within prescribed survey and/or setback distances from the development site. The applicable setbacks are presented in references within Annex J; otherwise a 500 m survey radius applies. If 'Yes', continue with following questions.

32. **If 'Yes'**: List detected species. Provide common and scientific names, location (UTM), distance from site (m), sensitive species category, *SARA*–listed status, and setback encroachment (if applicable) per Environment Canada's Activity Set–back Distance Guidelines for Prairie Plant Species at Risk – list all identified sensitive plant species including location in UTM format, distance from the site in meters, sensitive species category per Annex J, the *SARA*–listed status, and the setback encroachment (if applicable).

33. **Common name**: provide the name known in English.

34. **Scientific name**: provide the Latin name for the plant.

35. **UTM 83**: provide the Easting and Northing of the plant that was observed.

36. **Distance from site**: distance from the site edge.

37. **Category, *SARA*-listed Status & Setback Encroachment**: provide the sensitive species category.

38. ***SARA* Permit #**: Provide a *SARA*–permit number if applicable.

39. **Mitigation:** Provide details on how disturbances will be mitigated. Focus of mitigation should be relevant to the phase of construction and/or operation and articulated within this section. Reference soil and terrain section if required if conservation of soil will preserve vegetation.

Vegetation Community Characterization:

40. **Existing onsite ecological range site name(s)**: Provide the predicted ecological range site classification per GVI. This is the reference plant community or climax community for the site and reflects the expected state with no human or climate impacts.

41. **Existing onsite vegetation community description(s)**: Provide the actual ecological range site classification per range health assessment.

42. **Existing offsite ecological range site name(s)**: See above para 40 under the AEI Tab numbering.

43. **Existing offsite vegetation community description(s)**: See above para 41.

44. **If variation is evident between the predicted GVI ecological range sites and the surveyed on/offsite vegetation**: Provide a possible rationale for any variation among the pre–development

ecological range site classifications and the on and offsite vegetation conditions. If applicable, provide information considered during the assessment (e.g., climate, invasive species).

45. **Comment Box for question 44**.

46. **Describe any existing disturbance on the development site**: Describe any existing natural or anthropogenic disturbance on the development site.

Wildlife:

47. **Do sensitive wildlife species exist on the development site or within prescribed survey and/or setback distances from the development site**: Indicate whether any sensitive wildlife species (Annex I) exist on the development site or within prescribed survey and/or setback distances from the development site. The applicable setbacks are presented in Annex J refs A and B; otherwise a 500 m survey radius applies. If 'Yes', continue with following questions.

48. **If 'Yes'**: List detected species – provide common and scientific names, location (UTM), distance from site (m), sensitive species category, *SARA*–listed status, *MBCA* status, and setback encroachment (if applicable) per Environment Canada's Petroleum Industry Activity Guidelines for Wildlife Species at Risk in the Prairie and Northern Region – list all identified sensitive plant species including location in UTM format, distance from the site in meters, sensitive species category per Annex J, the *SARA*–listed status, the *Migratory Birds Convention Act, 1994* (*MBCA)* status, and the setback encroachment (if applicable)

49. **Provide common and scientific names**.

50. **UTM 83**: provide the Easting and Northing of the plant that was observed.

51. **Distance from site**: distance from the site edge.

52. **Category, *SARA*-listed Status & MBCA status**: provide the sensitive species category.

53. **Setback Encroachment**: If applicable.

54. ***SARA* Permit # and *MBCA* Permit #**: Provide a *SARA* or *MBCA* –permit number if applicable.

55. **Mitigation**: Provide details on how any adverse effects will be mitigated. Focus of mitigation should be relevant to the phase of construction and/or operation (e.g., construction to occur outside the wildlife season when burrowing owl is not present). If wildlife associated with a coulee system is a concern, consider if the coulee aligns with Alberta Fish and Wildlife Critical Ungulate winter range or contains sharp relief and woody vegetative cover commonly associated with high value ungulate range. Also consider the likelihood for the coulee to have specific wildlife features like snake hibernacula based on presence of slumps or cracks and degree of slope instability.

APPLICATION FOR DEVELOPMENT LINEAR FEATURE FORM EXAMPLE

Application For Development - Linear Feature

1 Does this activity trigger the Impact Assessment Act (IAA)? Yes ☐ No ☐
If No, applicant MUST complete AEI form (tab below) on this file

2 Why or why not? ☐

3 If Yes to 1, which document is included EED ☐ AEED ☐

4 Date of Application (DD MMM YY) ☐ Reference: Endorsement Date ☐

5 Applicant Name (Land User) ☐

6 Environmental Consultant ☐

7 Survey Date(s) ☐

8 Programme Name ☐

9 Project Overview ☐

10 Access Agreement granted pursuant to: ☐

11 Area(s) of Base ☐

12 Location (LSD,Sec,Twp,Rge) Start ☐ End ☐

13 UTM NAD 83 Start Easting ☐ Start Northing ☐
End Easting ☐ End Northing ☐

14 Target Commencement ☐ Target Construction Completion ☐

15 Target Interim Reclamation Commencement ☐

16 Construction method ☐ Comment ☐

17 Category New ROW ☐ Existing ROW ☐ If Existing ROW, provide File Number ☐

18 Caisson Addition/Expansion Yes ☐ No ☐

19 If yes, describe (amount, size) ☐

20 On-Site Tie-In Yes ☐ No ☐ Tie-in length (m) ☐

21 ROW Length(m) ☐

22 The pipeline depth is standard per the RSO Yes ☐ No ☐ Target depth of lines (m) ☐

23 The ROW width is standard per the RSO Yes ☐ No ☐ ROW Width (m) ☐

24 If no, provide mitigation ☐

25 Access to be used to get to linear feature ☐

26 Number of Lines in ROW ☐ Comment on addition of lines ☐

27 Pipeline Type ☐ Diameter ☐ Voltage ☐

28 Above Ground Yes ☐ No ☐

Temporary Infrastructure

29 Long-term structures/storage Yes ☐ No ☐ Short-term structures/storage Yes ☐ No ☐

30 Other temporary infrastructure ☐

31 If Yes to any, provide details on applicable phase of construction and length of time required ☐

Interim Reclamation

32 Interim reclamation method to be used ☐

33 If seeding is to occur, provide DND Seed Cluster Mix # ☐

34 Provide the rationale for interim reclamation choice ☐

Environmental Work/Surveys and Potential Impacts

35 Environmental work/surveys of the subject area has been conducted within the last year Yes ☐ No ☐

36 If no, provide explanation why: ☐

37 Not located in the setback of a monitoring site(s) Yes ☐ No ☐

38 If no, provide explanation why: ☐

OOB/ARA & DND Infrastructure

39 The development is not within an OOB/ARA or be within 100 m of DND infrastructure Yes ☐ No ☐

40 If no, provide explanation why: ☐

41 Industry Infrastructure will not cross DND infrastructure (If no, FCA Required) Yes ☐ No ☐

42 This development is operationally required under the Applicant's Access Agreement Yes ☐ No ☐

43 If no, provide explanation why: ☐

Historical and Cultural Resources

44 Historical Resource Act Clearance is required Yes ☐ No ☐

45 If Yes, clearance is provided with submission Yes ☐ No ☐

46 If No, clearance is forthcoming Yes ☐ No ☐

47 Comments (if required) ☐

Additional Environmental Information

Overall Development Programme Context

1 [ ]

Water

Groundwater

2 Will groundwater be used for construction and/or operations of the development? Yes [ ] No [ ]

3 Location of Well [ ]

4 If existing, provide OG # for original well installation: [ ]

Wetlands and Drainage/Lotic Systems

5 Wetlands or drainage/lotic systems within 100 m of the development site? Yes [ ] No [ ]

6 If Yes, provide Wetland/Drainage/Lotic System Details (per Onsite Assessment) for each below

	Proximity (m)	Class	Mitigation
7			
8			
9			
10			
11			

12 Where desktop classifications vary from onsite assessments, provide the desktop classes and possible rationales for the discrepancy

13 [ ]

14 Drainage/lotic system crossing required Yes [ ] No [ ]

15 If Yes, describe the drainage/lotic system (GVI class per onsite assessment):

16 [ ]

17 Type of Crossing [ ]

18 Mitigation [ ]

Soil and Terrain

19 Soil handling to be conducted per RSO standard Yes [ ] No [ ]

20 If no, describe [ ]

21 Do sensitive soil and terrain areas (per the RSO) exist on the development site? Yes [ ] No [ ]

22 If Yes, describe [ ]

23 Coulee systems within 100 m of the development site Yes [ ] No [ ]

24 If Yes, proximity (in metres) [ ]

25 Development will alter soil or terrain at the site Yes [ ] No [ ]

26 If Yes, describe alteration [ ]

27 Applicable soil landscape model classification(s) for the site [ ]

28 Target topsoil (A horizon) salvage depth (cm) [ ]

29 Time of year salvage will occur [ ] Length of time soil will be stored [ ]

30 Mitigation [ ]

Vegetation

Species and Habitat Considerations

31 Sensitive plant species (per the RSO) exist on the development site or within prescribed survey and/or setback distances from the development site — Yes ☐ No ☐

32 If yes, provide plant details for each below

	Common Name	Scientific Name	UTM NAD 83 Easting	UTM NAD 83 Northing	Distance from Site	Category	SARA-Listed Status	Setback Encroachment
33								
34								
35								
36								
37								

38 SARA Permit #

39 Mitigation

Vegetation Community Characterization

40 Existing onsite ecological range site name(s):

41 Existing onsite vegetation community description(s):

42 Existing offsite ecological range site name(s):

43 Existing offsite vegetation community descriptions(s):

44 If variation is evident between the predicted ecological range sites and the surveyed on/offsite vegetation, provide a possible rationale for why the difference exists

45

46 Describe any existing disturbance on the development site

Wildlife

47 Sensitive wildlife species exist on the development site or within prescribed survey and/or setback distances from the development site — Yes ☐ No ☐

48 If yes, provide species details for each below

	Common Name	Scientific Name	UTM NAD 83 Easting	UTM NAD 83 Northing	Distance from Site	Category	SARA-Listed Status	MCBA Status	Setback Encroachment
49									
50									
51									
52									
53									

54 SARA Permit # MBCA Permit #

55 Mitigation

Application Instructions for AFD Linear Feature

This instruction assists Land Users with filling out the AFD to support new linear features such as but not limited to pipelines, powerlines/electrical lines, minefield plow (batsim), access trails, fireguard. The instruction is laid out to address both 'Yes'/'No' answers and provide expectations of information at submission. All questions can be directed to LU Ops Gp at rangesustainability@forces.gc.ca.

1. **Does this activity trigger the IAA**: Choose 'Yes' or 'No' based on the Flowchart EIA Process under Interim Direction for the Federal Lands provisions of the Impact Assessment Act_Sep19 and the RSO Chapter 2, Part 3.

2. **Why or Why Not**: If 'Yes', describe how the project meets the definition within the Act. If 'No', describe why using the flowchart and Ministerial Order - Designated Classes of Projects Order SOR_2019-323.

3. **Document included**: If 'Yes' to para 1, include which document will be part of the AFD submission; EED or AEED.

4. **Date & Reference: Endorsement Date:** Enter the date the application will be made to the Base. Enter the date of the Annual Development Plan (ADP) Meeting or Real Property Planning Committee Meeting or other endorsement date at which presentation and discussion occurred about the development.

5. **Applicant Name (Land User):** Identify the Land User for the development.

6. **Environmental Consultant**: Identify environmental consultant (company name) associated with the development.

7. **Survey Dates:** Provide the completion date (s) of environmental work.

8. **Programme Name**: Enter the overall programme name. The programme name often coincides with a reservoir name, battery, area on Base, training activity, etc.

9. **Project Overview**: Include a description of all activities to be performed in relation to the development particularly if outside the normal development chain of events for a site, well, and/or pipeline (contact the Land Use Ops Gp for oil and gas chain of events documentation).

10. **Access Agreement granted pursuant to**: Provide the Agreement that the Land Users will adhere to for their development, e.g., MAA, PAA, License Agreement with date, MOU.

11. **Area of Base**: Identify where the development will be taking place on the Base (EPG, MTA and/or OAA). If the development is to take place in the Base Administrative area (B Admin), the development is considered non-routine. If the development is in the NWA, please refer to RSO Chapter 2, Part 5. If the linear features traverses more than one area identify all areas.

12. **Location (LSD,Sec,Twp,Rge)**: Enter the legal land description of the pipeline start and end points. If the pipeline is ending at a well site, include the well name as depicted on the survey plan and/or construction alignment plan. Non-O&G Land Users may leave blank or contact LU Ops Gp for assistance.

13. **UTM NAD 83**: Enter the UTM NAD 1983 Zone 12 Easting and Northings start and end points.

14. **Target Commencement & Target Construction Completion**: Provide the date the development is proposed to start and provide the target completion of development. It is recommended to consult with all personnel involved with phases of construction, interim reclamation and operations to ensure all information is captured.

15. **Target Interim Reclamation Commencement**: Provide the target interim reclamation date. It is recommended to consult with all personnel involved with phases of construction, interim reclamation and operations to ensure all information is captured.

16. **Construction Method**: Include the method of construction (e.g., trenching, chain trenching, spider plough, boring). Use the Comment box for any deviations along the route that does not align with the majority of the construction (e.g., trenching on 90%, boring under Hussar road).

17. **Category**: Indicate if the ROW is New or Existing; new ROW indicates the pipeline will not parallel an existing ROW or disturbance. Existing ROW indicates that the pipeline will parallel an existing disturbance or the pipeline will be placed in an existing ROW.

18. **Caisson Addition/Expansion**: Indicate ‘Yes’ or ‘No’.

19. **If ‘Yes’ to question 18**: A caisson will be added or expanded on site and requires depiction on the construction alignment plans with size. If ‘No’ is chosen, nothing further is required.

20. **On-site Tie-in**: Indicate ‘Yes’ or ‘No’. If ‘Yes’, fill out the line provided with the length. If ‘Yes’ is chosen, a linear feature not related to the applied for pipeline will be installed on the site and requires depiction on the construction alignment plan with length.

21. **ROW length**: Indicate how long the ROW will be in meters;

22. **The pipeline depth is standard & Target depth of lines**: ‘Yes’/’No’ does the depth of lines align with the RSO Chapter 4, Part 2 Section 7. Indicate the planned target line depth.

23. **ROW width**: Indicate the anticipated width of the ROW. The ROW shall meet the requirements within RSO Chapter 3, Part 4.

24. **If the width doesn’t align with the RSO:** For ROWs that exceed the RSO provision, provide substantiation for the needed width (e.g., more pipelines required in trench therefore trench wider and more space needed for soil piles)..

25. **Access:** Describe access being used to get to linear feature

26. **Number of lines in ROW & Comment on addition of lines** : Indicate how many lines will be run in the trench. Describe the types of lines to be run in the trench.

27. **Pipeline Type**: Identify the type of linear feature; if pipelines have the same start and end points, they may share an application form (e.g., powerline and oil line). However, if separate licenses are

required (e.g., oil pipelines sharing a common trench), then separate applications are required. 'Other' could include minefield plow (batsim), access trails, fireguard, communication, fuel, or cables. Depending on type the associated boxes should be filled out. Such as voltage, diameter of the pipe to be installed, and type of pipe (e.g., steel, flexpipe, fiberglass, electrical conduit). Where 'powerline' is checked, provide if it will be above ground. If the above ground box is not checked off, the pipeline will be under ground.
Diameter: Indicate diameter
Voltage: Indicate voltage if it applies

28. **Above Ground:** Indicate if above ground

29. **Long-term structures/storage & Short-term structures/storage**: Indicate 'Yes' or 'No'.

30. **Other**: Where infrastructure is required at the site that is not listed as an option in this section, provide the infrastructure that is being proposed to support the development, the phase for which the infrastructure is required (e.g., construction, operation), and required timelines for the presence of the infrastructure.

31. **If 'Yes' to questions 29-31:** Provide the phase for which the infrastructure is required (e.g., construction, operation), and required timelines for the presence of the infrastructure;

32. **Interim reclamation method to be used:** Indicate the type of interim reclamation to be used by reviewing the RSO at Chapter 4 Part 7 Section 1 – Natural recovery, Assisted Natural Recovery or Seeding. Note: the Base expects Natural Recovery to be the first consideration.

33. **If seeding is to occur, provide DND Seed Cluster Mix #:** See Annex FF.

34. **Provide the rationale for interim reclamation choice:** Provide the rationale for the chosen interim reclamation method. Refer to RSO Chapter 4 Part 7 Section 1.
Environmental Work/Surveys & Potential impacts: O&G Land Users are required to fill out this portion of the document. Base entities may require services from LU Ops Gp such as environmental work and selections can be left blank where assistance is required.

35. **Environmental work/surveys of the subject areas has been conducted within the last year**: An answer of 'Yes' indicates environment work/surveys of the subject area have been conducted in accordance with RSO Chapter 2 and Annex J.

36. **If 'No', provide explanation why:** 'No' may indicate that the environmental work was completed outside the appropriate survey windows, and mitigation has been submitted in the provided line to support the timeframes. 'No' may also indicate that surveys were not performed at all, which will result in a rejection of the AFD unless justification can be provided.

37. **Not located in the setback of a monitoring site:** See Table 4-1 of the RSO Chapter 4, Part 2 Section 4 for monitoring site setbacks. 'Yes' indicates setbacks were maintained for monitoring sites. Monitoring sites are used to determine training impacts on grassland systems and provide experts recommendations for future training such as placing out of bounds or activity restrictions therefore other land use impacts are reviewed closely.

38. **If 'No', provide explanation why:** 'No' indicates that the setback for monitoring sites cannot be avoided and mitigation is included in the provided line.

OOB/ARA_DND Infrastructure:

39. **The development is not within an OOB/ARA or be within 100 m of DND infrastructure:** 'Yes' indicates the development is not within an existing OOB/ARA.

40. **If 'No', provide explanation why:** 'No' indicates the development will be within an OOB/ARAs and further details are required in the provided line.

41. **Industry infrastructure will not cross DND infrastructure:** DND infrastructure includes utilities and high grade roads. 'Yes' indicates no further action is required by industry. 'No' indicates that a facility crossing agreement (FCA) is required per RSO Chapter 4, Part 2 Section 7. The applicant may not have all DND infrastructure or roads in their databases; therefore, the requirement for an FCA may be identified once the Base has reviewed the AFD. The LU Ops Gp will coordinate execution of the FCA as part of processing the AFD package.

42. **This development is operationally required under the Applicant's Access Agreement:** Indicate 'Yes' or 'No'.

43. **If 'No', provide explanation why:** If 'No' is chosen, the Base will review the file on a case-by-case basis to determine whether the Access Agreement supports the development.

Historical Resources:

44. **Historical Resource Act Clearance is required:** Indicate 'Yes' or 'No'. 'Yes' indicates that the Alberta Culture and Tourism's latest listing of Significant Historical Sites and Areas and the DND database have been reviewed, field surveys completed and move to next question. 'No' indicates Alberta Culture and Tourism's latest listing of Significant Historical Sites and Areas and the DND database have been reviewed and there were no historical resource values so clearance and surveys were not required.

45. **If 'Yes', clearance is provided with submission:** Indicate 'Yes' or 'No'. 'Yes' indicates documents submitted with application.

46. **If 'No', clearance is forthcoming:** Indicate 'Yes' or 'No'. 'No' indicates documents were not obtained for provincial clearance for identified historical resources and no decision for the project will occur until the HRA Clearance has been submitted to the Base.

47. **Comments:** This box allows a Land User to indicate that the Alberta Culture and Tourism process has been initiated concurrently with the AFD process. All Alberta Culture and Tourism clearances shall be submitted to the Base prior to Base approval.

Additional Environmental Information TAB: This tab is used if the Land User chooses 'No' at 'Does this activity trigger the IAA' (point 1 above) or where larger scale EEDs were completed for areas and more specific survey work are required for site specific locations (e.g., O&G LUs ADP EED completed, therefore site specific environmental info needs to be submitted).

1. **Overall Development Programme Context**: This section is generally related to O&G Land Users, however, others may find it useful to pull together all aspects of their development plans by articulating where the applied for location fits within the overall development. Provide context for how this site aligns with the Annual Development Plan (ADP) or other meetings where Base Commander provided endorsement.

Water:

Groundwater:

2. **Will groundwater be used for construction and/or operations of this development**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions.

3. **Location of well:** Provide the location of the well in legal land description and UTM formats, and where applicable, the site name.

4. **If existing, provide OG # for original well installation:** Provide the original OG #; if an OG # is not available, provide the original construction date.

Wetlands and Drainages/Lotic Systems: See RSO Chapter 4, Part 6 Section 3 for wetland definitions and requirements and drainage/lotic system definitions and crossing requirements. Annex DD provides the Wetland Policy and Annex EE provides information for wetland mitigation if projects are within a setback.

5. **Wetlands or drainage/lotic systems within 100 m of development:** Indicate 'Yes' or 'No'. If 'Yes', continue with following questions.

6. **If 'Yes', provide Wetland/Drainage/Lotic System Details (per Onsite Assessment) for each below.** Where there are too many wetlands for the provided table, a supplemental submission can occur. (Questions 7-11 - *The order of questions from 7-11 describe the columns not each row*.)

7. **Proximity (in meters):** Provide the distance from the site edge/ROW edge to the high water mark of the wetland(s) or drainage/lotic system(s).

8. **Wetland class (es) and/or drainage/lotic system class(es):** Indicate the class of each feature per onsite assessments. Use the Stewart and Kantrud (S&K) wetland classification system for wetlands, and the Grassland Vegetation Inventory (GVI) classification system for drainage/lotic systems.

9. **Mitigation:** Focus of mitigation should be relevant to the phase of construction and/or operation and consider the length of time the effect may be present (e.g., sediment fence installed during construction to protect wetland from sedimentation). Consult Annex EE Wetland Mitigation for File Reviews for additional information on mitigation options.

10. **Continue with wetlands if more exist.**

11. **Continue with wetlands if more exist.**

12. **Where desktop/GVI classification vary from onsite assessment, provide rationales for the discrepancy, and include a possible explanation for the discrepancy based on the onsite observations.**

13. **Comment Box for question 12**.

14. **Drainage/lotic system crossing required:** Indicate 'Yes' or 'No'. If 'Yes', continue with the following questions.

15. **If 'Yes', describe the drainage/lotic system:** Identify the GVI class for the system per onsite assessment.

16. **Comment Box for question 15.**

17. **Type of crossing:** Indicate type of crossing (e.g., Class D Water Body crossing) per the Alberta *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water Body* as required by the *Alberta Water Act*.

18. **Mitigation:** Focus of mitigation should be relevant to the phase of construction and/or operation and consider the length of time the effect may be present (e.g., sediment fence installed during construction to protect wetland from sedimentation). Consult Annex CC Wetland Mitigation for File Reviews for additional information on mitigation options.

Soil and Terrain:

19. **Soil handling to be conducted per RSO standard:** 'Yes' indicates soil handling will occur in accordance with RSO.

20. **If 'No', describe:** the Land User shall provide details of the changes in the provided line.

21. **Do sensitive soil and terrain areas (per the RSO) exist on the site:** Indicate 'Yes' or 'No'. If 'Yes', continue with following questions. Refer to the RSO Chapter 4, Part 6 Section 2 for sensitive soil and terrain categories.

22. **If 'Yes', describe:** Provide information on the type of sensitive soil and terrain.

23. **Coulee systems within 100 m of development:** Indicate 'Yes' or 'No'. If 'Yes', continue with following question.

24. **If 'Yes', proximity (in meters):** Provide the distance from the site edge/ROW edge to the top edge of the coulee break.

25. **Will the development alter soil or terrain at the site:** Indicate 'Yes' or 'No'. If 'Yes', continue with following questions.

26. **If 'Yes', describe alteration:** This may include but is not limited to build type, addition of berms, and caisson installation/level of caisson to the ground.

27. **Applicable soil landscape model classification(s) for the site:** Indicate the applicable soil classification(s) for the site. The Landwise soil classification model shall be the first choice when determining soil landscape classifications. The Landwise model information is available from the LU Ops Gp. If Landwise is not used, specify which soil landscape classification model was used and why.

28. **Target topsoil (A horizon) salvage depth:** Provide in centimeters. If the salvage will not meet the requirements from RSO Chapter 4, Part 6 Section 2, indicate why.

29. **Time of year salvage will occur and length of time soil will be stored:** Indicate the anticipated timeframe that soil will be salvaged (e.g., winter, spring, summer, fall) and length of time soil is anticipated to be stored.

30. **Mitigation:** Provide details on how disturbance will be mitigated. Focus of mitigation should be relevant to the phase of construction and/or operation and consider the length of time the effect may be present (e.g., matting during construction, two strip/track gravel prior to construction and through operation of the site, reduced build size in certain areas of the site.) Provide information regarding interim reclamation (e.g., how and when soil will be replaced; drainage issues after soils replaced). If erosion potential on steep slopes associated with an access trail is a concern, consider use of two-track gravel and/or a cover crop with a natural recovery to assist with establishing vegetation and reducing erosion potential.

Vegetation:

Species and Habitat Considerations:

31. **Do sensitive plant species (per the RSO) exist on the development site or within prescribed survey and/or setback distances from the development site:** Indicate whether any sensitive plant species (per RSO Chapter 4 Part 6 Section 4) exist on the development site or within prescribed survey and/or setback distances from the development site. The applicable setbacks are presented in references within Annex J; otherwise a 500 m survey radius applies. If 'Yes', continue with following questions.

32. **If 'Yes':** List detected species. Provide common and scientific names, location (UTM), distance from site (m), sensitive species category, SARA–listed status, and setback encroachment (if applicable) per Environment Canada's Activity Set–back Distance Guidelines for Prairie Plant Species at Risk – list all identified sensitive plant species including location in UTM format, distance from the site in metres, sensitive species category per Annex J, the SARA–listed status, and the setback encroachment (if applicable).

33. **Common name:** Provide the name known in English.

34. **Scientific name:** Provide the Latin name for the plant.

35. **UTM 83:** Provide the Easting and Northing of the plant that was observed.

36. **Distance from site:** Distance from the site edge.

37. **Category, *SARA*-listed Status & Setback Encroachment:** Provide the sensitive species category.

38. ***SARA* Permit #:** Provide a *SARA*–permit number if applicable.

39. **Mitigation:** Provide details on how disturbances will be mitigated. Focus of mitigation should be relevant to the phase of construction and/or operation and articulated within this section. Reference soil and terrain section if required if conservation of soil will preserve vegetation.

Vegetation Community Characterization:

40. **Existing onsite ecological range site name(s):** Provide the predicted ecological range site classification per GVI. This is the reference plant community or climax community for the site, and reflects the expected state with no human or climate impacts.

41. **Existing onsite vegetation community description(s):** Provide the actual ecological range site classification per range health assessment.

42. **Existing offsite ecological range site name(s):** See above para 40 under the AEI Tab numbering.

43. **Existing offsite vegetation community description(s):** See above para 41.

44. **If variation is evident between the predicted GVI ecological range sites and the surveyed on/offsite vegetation:** Provide a possible rationale for any variation among the pre–development ecological range site classifications and the on and offsite vegetation conditions. If applicable, provide information considered during the assessment (e.g., climate, invasive species).

45. **Comment Box for question 44.**

46. **Describe any existing disturbance on the development site:** Describe any existing natural or anthropogenic disturbance on the development site.

Wildlife:

47. **Do sensitive wildlife species exist on the development site or within prescribed survey and/or setback distances from the development site:** Indicate whether any sensitive wildlife species (Annex J) exist on the development site or within prescribed survey and/or setback distances from the development site. The applicable setbacks are presented in Annex J refs A and B; otherwise, a 500 m survey radius applies. If ‘Yes’, continue with following questions.

48. **If ‘Yes’:** List detected species – provide common and scientific names, location (UTM), distance from site (m), sensitive species category, SARA–listed status, MBCA status, and setback encroachment (if applicable) per Environment Canada’s Petroleum Industry Activity Guidelines for Wildlife Species at Risk in the Prairie and Northern Region – list all identified sensitive plant species including location in UTM format, distance from the site in meters, sensitive species category per Annex J, the SARA–listed status, the Migratory Birds Convention Act, 1994 (MBCA) status, and the setback encroachment (if applicable)

49. **Provide common and scientific names.**

50. **UTM 83:** Provide the Easting and Northing of the plant that was observed.

51. **Distance from site:** Distance from the site edge.

52. **Category, SARA-listed Status & MBCA status:** Provide the sensitive species category.

53. **Setback Encroachment:** If applicable.

54. ***SARA* Permit # and MBCA Permit #:** Provide a *SARA* or *MBCA* –permit number if applicable.

55. **Mitigation:** Provide details on how any adverse effects will be mitigated. Focus of mitigation should be relevant to the phase of construction and/or operation (e.g., construction to occur outside the wildlife season when burrowing owl is not present). If wildlife associated with a coulee system is a concern, consider if the coulee aligns with Alberta Fish and Wildlife Critical Ungulate winter range or contains sharp relief and woody vegetative cover commonly associated with high value ungulate range. Also consider the likelihood for the coulee to have specific wildlife features like snake hibernacula based on presence of slumps or cracks and degree of slope instability.

ANNEX I
CFB SUFFIELD
RANGE STANDING ORDERS
2024 EDITION

APPLICATION FOR ACTIVITY FORMS

Introduction

1. Land Users conducting activities (i.e., land uses not involving infrastructure development or major ground disturbance) on the Base shall submit AFAs for Base Commander and RPOU (W) Det Suffield approval per procedures detailed in RSO Chapter 2, Part 4.

2. This annex provides images of the AFA forms with instructions for various activities. The electronic form is available upon request to the LU Ops Gp:

   a. Appendix 1 – general activity – all Land Users; and

   b. Appendix 2 – oil and gas seismic program.

APPLICATION FOR ACTIVITY GENERAL FORM EXAMPLE

Application For Activity - General

1 Does this activity trigger the Impact Assessment Act (IAA)? Yes ☐ No ☐

2 Why or why not? ☐

3 If Yes to 1, which document is included EED ☐ AEED ☐

4 Date of Application (DD MMM YY) ☐ Reference: Endorsement Date ☐

5 Applicant Name (Land User) ☐

6 Date Activity Planned Start ☐ End ☐

7 Activity Name ☐

8 Describe Activity ☐

9 Previous CFB Suffield File # ☐

10 Activity Type ☐

11 Area of Base ☐ Training Area Name ☐

12 Access Agreement granted pursuant to: ☐ Other Access Agreement ☐

13 Permit Type ☐ Permit Number ☐

Environmental Work/Surveys and Potential Impacts

14 Environmental work/surveys of the subject area has been conducted within the last year Yes ☐ No ☐

15 If no, provide explanation why: ☐

16 Not located in the setback of a monitoring site(s) Yes ☐ No ☐

17 If no, provide explanation why: ☐

Access

18 Access to sites will be on existing roads/trails (If no, provide explanation in Comments section) Yes ☐ No ☐

OOB/ARA

19 The activity is not within an OOB/ARA or be within 100 m of DND infrastructure Yes ☐ No ☐

20 If no, provide explanation why: ☐

21 Is this activity operationally required under the Applicant's Access Agreement? Yes ☐ No ☐

22 If no, provide explanation why: ☐

23 Comments (if required)

☐

Application Instructions for AFA General

This instruction assists Land Users with filling out the AFA to support general activities as listed in Chapter 2, Part 4 Section 2. Not all the instructions listed below will pertain to a Land Users submission. The instruction is laid out to address both 'Yes'/'No' answers and provide expectations of information at submission. All questions can be directed to LU Ops Gp at rangesustainability@forces.gc.ca.

1. **Does this activity trigger the IAA**: Choose 'Yes' or 'No' based on the Flowchart EIA Process under Interim Direction for the Federal Lands provisions of the Impact Assessment Act_Sep19 and the RSO Chapter 2, Part 3. If 'No', move to question 2. If 'Yes', move to question 3.

2. **Why or Why Not**: If 'Yes', describe how the project meets the definition within the Act. If 'No', describe why using the flowchart and Ministerial Order - Designated Classes of Projects Order SOR_2019-323.

3. **Document included**: If 'Yes' to para 1, include which document will be part of the AFA submission; EED or AEED.

4. **Date & Reference: Endorsement Date:** Enter the date the application will be made to the Base. Enter the date of the Annual Development Plan (ADP) Meeting or Real Property Planning Committee Meeting or other endorsement date at which presentation and discussion occurred about the activity.

5. **Applicant Name (Land User)**: Identify the Land User for the activity.

6. **Date Activity Planned:** Provide the start and end dates of the planned activity. Use the Comment section to elaborate, if required.

7. **Activity Name**: Provide the overall name of the Activity.

8. **Describe Activity:** Include a description of all activities to be performed. If the space provided is not large enough for the description, supplemental documentation can be attached.

9. **Previous CFB Suffield File Number:** Provide the RFD number if there was one or another file number if related.

10. **Activity Type:** Describe what the activity (e.g., surveying, tour, ash spreading) entails.

11. **Area of Base and Training Area Name**: Identify where the activity will be taking place on the Base (EPG, MTA and/or OAA). If the activity is to take place in the Base Administrative area (B Admin), the activity is considered non-routine. If the activity is in the NWA, please refer to RSO Chapter 2, Part 5. If the activity is planned for more than one area, describe them all.

12. **Access Agreement granted pursuant to and Other Access Agreements**: Provide the Agreement that the Land Users will adhere to for their activity (e.g., MAA, PAA, License Agreement, MOU). If an agreement is not in place, indicate "Agreement needed".

13. **Permit Type and Number**: If the Activity is related to species at risk under *SARA*, the Alberta *Wildlife Act*, or any other legislation where a permit is required to complete work, provide the type of permit that has been received by the Applicant. Where a permit is in place, please provide the number and attach the permit to the application.

14. **Environmental work/surveys of the subject areas has been conducted within the last year**: An answer of 'Yes' indicates environment work/surveys of the subject area have been conducted in accordance with RSO Chapter 2 and Annex J.

15. **If 'No', provide explanation why**: 'No' may indicate that the environmental work was completed outside the appropriate survey windows, and mitigation has been submitted in the provided line to support the timeframes. 'No' may also indicate that surveys were not performed at all, which may result in a rejection of the AFA unless justification can be provided.

16. **Not located in the setback of a monitoring site**: See Table 4-1 of the RSO Chapter 4, Part 2 Section 4 for monitoring site setbacks. 'Yes' indicates setbacks were maintained for monitoring sites. Monitoring sites are used to determine training impacts on grassland systems and provide experts recommendations for future training such as placing out of bounds or activity restrictions therefore other land use impacts are reviewed closely. Land Users may need to confirm with LU Ops Gp whether Monitoring Sites are within their proposed area of activity.

17. **If 'No', provide explanation why**: 'No' indicates that the setback for monitoring sites cannot be avoided and mitigation is included in the provided line.

18. **Access to sites will be on existing roads/trails**: 'Yes' indicates the access will occur on existing road and trail systems. **If 'No', provide explanation in Comments section**: In the Comment section, provide a description of how the access will be gained to complete the activity (e.g., on foot, ATV/UTV, cross-country). The Base will review access off existing roads and trails on a case-by-case basis.

19. **The activity is not within an OOB/ARA or be within 100 m of DND infrastructure**: 'Yes' indicates the activity is not within an existing OOB/ARA.

20. **If 'No', provide explanation why**: 'No' indicates the activity will be within an OOB/ARAs and further details are required in the provided line. Land Users may need to confirm with LU Ops Gp whether DND infrastructure is within their proposed area of activity.

21. **This activity is operationally required under the Applicant's Access Agreement**: Indicate 'Yes' or 'No'.

22. **If 'No', provide explanation why**: If 'No' is chosen, the Base will review the file on a case-by-case basis to determine whether the Access Agreement supports the activity.

23. **Comments (If required):** Space for question 18, and any other comments required.

Additional Environmental Information *TAB*: This tab is used if the Land User chooses 'No' at 'Does this activity trigger the IAA' (point 1 above) or where larger scale EEDs were completed for areas and more specific survey work are required for site specific locations (e.g., O&G LUs ADP EED completed, therefore site specific environmental info needs to be submitted).

1. **Overall Activity Programme Context**: This section is generally related to O&G Land Users, however, others may find it useful to pull together all aspects of their activity plans by articulating where the applied for location fits within the overall activity. Provide context for how this site aligns with the Annual Development Plan (ADP) or other meetings where Base Commander provided endorsement.

Water:

Groundwater:

2. **Will groundwater be used for construction and/or operations of this activity**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions.

3. **Location of well**: Provide the location of the well in legal land description and UTM formats, and where applicable, the site name.

4. **If existing, provide OG # for original well installation**: Provide the original OG #; if an OG # is not available, provide the original construction date.

Wetlands and Drainages/Lotic Systems: See RSO Chapter 4, Part 6 Section 3 for wetland definitions and requirements and drainage/lotic system definitions and crossing requirements. Annex DD provides the Wetland Policy and Annex EE provides information for wetland mitigation if projects are within a setback.

5. **Wetlands or drainage/lotic systems within 100 m of activity**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions.

6. **If 'Yes', provide Wetland/Drainage/Lotic System Details (per Onsite Assessment) for each below.** Where there are too many wetlands for the provided table, a supplemental submission can occur. (Questions 7-11 - *The order of questions from 7-11 describe the columns not each row*.)

7. **Proximity (in meters)**: Provide the distance from the site edge/ROW edge to the high-water mark of the wetland(s) or drainage/lotic system(s).

8. **Wetland class (es) and/or drainage/lotic system class(es)**: Indicate the class of each feature per onsite assessments. Use the Stewart and Kantrud (S&K) wetland classification system for wetlands, and the Grassland Vegetation Inventory (GVI) classification system for drainage/lotic systems.

9. **Mitigation**: Focus of mitigation should be relevant to the phase of construction and/or operation and consider the length of time the effect may be present (e.g., sediment fence installed during construction to protect wetland from sedimentation). Consult Annex EE Wetland Mitigation for File Reviews for additional information on mitigation options.

10. **Continue with wetlands if more exist**.

11. **Continue with wetlands if more exist**.

12. **Where desktop/GVI classification vary from onsite assessment, provide rationales for the discrepancy, and include a possible explanation for the discrepancy based on the onsite observations**.

13. **Comment Box for question 12**.

14. **Drainage/lotic system crossing required**: Indicate 'Yes' or 'No'. If 'Yes', continue with the following questions.

15. **If 'Yes', describe the drainage/lotic system**: Identify the GVI class for the system per onsite assessment.

16. **Comment Box for question 15.**

17. **Type of crossing**: Indicate type of crossing (e.g., Class D Water Body crossing) per the Alberta *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water Body* as required by the Alberta *Water Act*

18. **Mitigation**: Focus of mitigation should be relevant to the phase of construction and/or operation and consider the length of time the effect may be present (e.g., sediment fence installed during construction to protect wetland from sedimentation). Consult Annex EE Wetland Mitigation for File Reviews for additional information on mitigation options.

Soil and Terrain:

19. **Soil handling to be conducted per RSO standard**: 'Yes' indicates soil handling will occur in accordance with RSO.

20. **If 'No', describe**: the Land User shall provide details of the changes in the provided line.

21. **Do sensitive soil and terrain areas (per the RSO) exist on the site**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions. Refer to the RSO Chapter 4, Part 6 Section 2 for sensitive soil and terrain categories.

22. **If 'Yes', describe**: Provide information on the type of sensitive soil and terrain.

23. **Coulee systems within 100 m of activity**: Indicate 'Yes' or 'No'. If 'Yes', continue with following question.

24. **If 'Yes', proximity (in metres)**: Provide the distance from the site edge/ROW edge to the top edge of the coulee break.

25. **Will the activity alter soil or terrain at the site**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions.

26. **If 'Yes', describe alteration**: This may include but is not limited to build type, addition of berms, and caisson installation/level of caisson to the ground.

27. **Applicable soil landscape model classification(s) for the site**: Indicate the applicable soil classification(s) for the site. The Landwise soil classification model shall be the first choice when determining soil landscape classifications. The Landwise model information is available from the LU Ops Gp. If Landwise is not used, specify which soil landscape classification model was used and why.

28. **Mitigation**: Provide details on how disturbance will be mitigated. Focus of mitigation should be relevant to the phase of construction and/or operation and consider the length of time the effect may be present (e.g., matting during construction, two strip/track gravel prior to construction and through operation of the site, reduced build size in certain areas of the site.) Provide information regarding interim reclamation (e.g., how and when soil will be replaced; drainage issues after soils replaced). If erosion potential on steep slopes associated with an access trail is a concern, consider use of two-track gravel and/or a cover crop with a natural recovery to assist with establishing vegetation and reducing erosion potential.

Vegetation:

Species and Habitat Considerations:

29. **Do sensitive plant species (per the RSO) exist on the activity site or within prescribed survey and/or setback distances from the activity site**: Indicate whether any sensitive plant species (per RSO Chapter 4 Part 6 Section 4) exist on the activity site or within prescribed survey and/or setback distances from the activity site. The applicable setbacks are presented in references within Annex J; otherwise, a 500 m survey radius applies. If 'Yes', continue with following questions.

30. **If 'Yes'**: List detected species. Provide common and scientific names, location (UTM), distance from site (m), sensitive species category, *SARA*–listed status, and setback encroachment (if applicable) per Environment Canada's Activity Set–back Distance Guidelines for Prairie Plant Species at Risk – list all identified sensitive plant species including location in UTM format, distance from the site in meters, sensitive species category per Annex J, the *SARA*–listed status, and the setback encroachment (if applicable).

31. **Common name**: Provide the name known in English.

32. **Scientific name**: Provide the Latin name for the plant.

33. **UTM 83**: Provide the Easting and Northing of the plant that was observed.

34. **Distance from site**: Distance from the site edge.

35. **Category, *SARA*-listed Status & Setback Encroachment**: Provide the sensitive species category.

36. ***SARA* Permit #**: Provide a *SARA*–permit number if applicable.

37. **Mitigation:** Provide details on how disturbances will be mitigated. Focus of mitigation should be relevant to the phase of construction and/or operation and articulated within this section. Reference soil and terrain section if required if conservation of soil will preserve vegetation.

Vegetation Community Characterization:

38. **Existing onsite ecological range site name(s)**: Provide the predicted ecological range site classification per GVI. This is the reference plant community or climax community for the site and reflects the expected state with no human or climate impacts.

39. **Existing onsite vegetation community description(s)**: Provide the actual ecological range site classification per range health assessment.

40. **Existing offsite ecological range site name(s)**: See above para 38 under the AEI Tab numbering.

41. **Existing offsite vegetation community description(s)**: See above para 39.

42. **If variation is evident between the predicted GVI ecological range sites and the surveyed on/offsite vegetation**: Provide a possible rationale for any variation among the pre–activity ecological range site classifications and the on and offsite vegetation conditions. If applicable, provide information considered during the assessment (e.g., climate, invasive species).

43. **Comment Box for question 42**.

44. **Describe any existing disturbance on the activity site**: Describe any existing natural or anthropogenic disturbance on the activity site.

Wildlife:

45. **Do sensitive wildlife species exist on the activity site or within prescribed survey and/or setback distances from the activity site**: Indicate whether any sensitive wildlife species (Annex J) exist on the activity site or within prescribed survey and/or setback distances from the activity site. The applicable setbacks are presented in Annex J refs A and B; otherwise, a 500 m survey radius applies. If 'Yes', continue with following questions.

46. **If 'Yes'**: List detected species – provide common and scientific names, location (UTM), distance from site (m), sensitive species category, *SARA*–listed status, *MBCA* status, and setback encroachment (if applicable) per Environment Canada's Petroleum Industry Activity Guidelines for Wildlife Species at Risk in the Prairie and Northern Region – list all identified sensitive plant species including location in UTM format, distance from the site in meters, sensitive species category per Annex J, the *SARA*–listed status, the *Migratory Birds Convention Act, 1994* (*MBCA)* status, and the setback encroachment (if applicable)

47. **Provide common and scientific names**.

48. **UTM 83**: Provide the Easting and Northing of the plant that was observed.

49. **Distance from site**: Distance from the site edge.

50. **Category, *SARA*-listed Status & MBCA status**: Provide the sensitive species category.

51. **Setback Encroachment**: If applicable.

52. ***SARA* Permit # and *MBCA* Permit #**: Provide a *SARA* or *MBCA* –permit number if applicable.

53. **Mitigation**: Provide details on how any adverse effects will be mitigated. Focus of mitigation should be relevant to the phase of construction and/or operation (e.g., construction to occur outside the wildlife season when burrowing owl is not present). If wildlife associated with a coulee system is a concern, consider if the coulee aligns with Alberta Fish and Wildlife Critical Ungulate winter range or contains sharp relief and woody vegetative cover commonly associated with high value ungulate range. Also consider the likelihood for the coulee to have specific wildlife features like snake hibernacula based on presence of slumps or cracks and degree of slope instability.

APPLICATION FOR ACTIVITY SEISMIC FORM EXAMPLE

Application For Activity - Seismic

1 Does this activity trigger the Impact Assessment Act (IAA)? Yes ☐ No ☐

2 Why or why not? ☐

3 If Yes to 1, which document is included EED ☐ AEED ☐

4 Date of Application (DD MMM YY) ☐ Reference: Endorsement Date ☐

5 Applicant Name (Land User) ☐

6 Date Activity Planned Start ☐ End ☐

7 Programme Name ☐

8 Describe Seismic Programme (2-D or 3-D) ☐ Energy Source ☐

Equipment Required (e.g., wheeled/tracked, portable) ☐

9 Site Schematic Included? Yes ☐ No ☐

11 Area of Base ☐ Training Area Name ☐

12 Access Agreement granted pursuant to: ☐ Other Access Agreement ☐

13 License Agreement required Yes ☐ No ☐

14 Location (Sec, Twp, Rge) ☐ UTM NAD 83 E ☐ N ☐

15 Staging Area required Yes ☐ No ☐

16 Location (LSD,Sec,Twp,Rge) ☐ UTM NAD 83 E ☐ N ☐

Environmental Work/Surveys and Potential Impacts

17 Environmental work/surveys of the subject area has been conducted within the last year Yes ☐ No ☐

18 If no, provide explanation why: ☐

19 Not located in the setback of a monitoring site(s) Yes ☐ No ☐

20 If no, provide explanation why: ☐

Access

21 There will be a single trail access and no trail enhancements Yes ☐ No ☐

(If no, provide explanation in Comments section)

OOB/ARA

22 The activity is not within an OOB/ARA or be within 100 m of DND infrastructure Yes ☐ No ☐

23 If no, provide explanation why: ☐

24 Is this activity operationally required under the Applicant's Access Agreement? Yes ☐ No ☐

25 If no, provide explanation why: ☐

26 Comments (if required)

☐

Additional Environmental Information

Overall Activity Programme Context

1

Water

Groundwater

2 Will groundwater be used for construction and/or operations of the activity? Yes ☐ No ☐

3 Location of activity

4 If existing, provide OG # for original activity:

Wetlands and Drainage/Lotic Systems

5 Wetlands or drainage/lotic systems within 100 m of the activity? Yes ☐ No ☐

6 If Yes, provide Wetland/Drainage/Lotic System Details (per Onsite Assessment) for each below

	Proximity (m)	Class	Mitigation
7			
8			
9			
10			
11			

12 Where desktop classifications vary from onsite assessments, provide the desktop classes and possible rationales for the discrepancy

13

14 Drainage/lotic system crossing required Yes ☐ No ☐

15 If Yes, describe the drainage/lotic system (GVI class per onsite assessment):

16

17 Type of Crossing

18 Mitigation

Soil and Terrain

19 Soil handling to be conducted per RSO standard Yes ☐ No ☐

20 If no, describe

21 Do sensitive soil and terrain areas (per the RSO) exist on the activity site? Yes ☐ No ☐

22 If Yes, describe

23 Coulee systems within 100 m of the activity Yes ☐ No ☐

24 If Yes, proximity (in metres)

25 Activity will alter soil or terrain Yes ☐ No ☐

26 If Yes, describe alteration

27 Applicable soil landscape model classification(s) for the activity

28 Mitigation

Vegetation

Species and Habitat Considerations

29 Sensitive plant species (per the RSO) exist on the activity corridor or within prescribed survey and/or setback distances from the activity Yes ☐ No ☐

30 If yes, provide plant details for each below

	Common Name	Scientific Name	UTM NAD 83 Easting	UTM NAD 83 Northing	Distance from Site	Category	SARA-Listed Status	Setback Encroachment
31								
32								
33								
34								
35								

36 SARA Permit #

37 Mitigation

Vegetation Community Characterization

38 Existing onsite ecological range site name(s):

39 Existing onsite vegetation community description(s):

40 Existing offsite ecological range site name(s):

41 Existing offsite vegetation community descriptions(s):

42 If variation is evident between the predicted ecological range sites and the surveyed on/offsite vegetation, provide a possible rationale for why the difference exists

43

44 Describe any existing disturbance on the activity site

Wildlife

45 Sensitive wildlife species exist on the activity corridor or within prescribed survey and/or setback distances from the activity Yes ☐ No ☐

46 If yes, provide species details for each below

	Common Name	Scientific Name	UTM NAD 83 Easting	UTM NAD 83 Northing	Distance from Site	Category	SARA-Listed Status	MCBA Status	Setback Encroachment
47									
48									
49									
50									
51									

52 SARA Permit # MBCA Permit #

53 Mitigation

Application Instructions for AFA Seismic Exploration

This instruction assists Land Users with filling out the AFA to support general activities as listed in Chapter 2, Part 4 Section 2. Not all the instructions listed below will pertain to a Land Users submission. The instruction is laid out to address both 'Yes'/'No' answers and provide expectations of information at submission. All questions can be directed to LU Ops Gp at rangesustainability@forces.gc.ca.

1. **Does this activity trigger the IAA**: Choose 'Yes' or 'No' based on the Flowchart EIA Process under Interim Direction for the Federal Lands provisions of the Impact Assessment Act_Sep19 and the RSO Chapter 2, Part 3. If 'No', move to question 2. If 'Yes', move to question 3.

2. **Why or Why Not**: If 'Yes', describe how the project meets the definition within the Act. If 'No', describe why using the flowchart and Ministerial Order - Designated Classes of Projects Order SOR_2019-323.

3. **Document included**: If 'Yes' to para 1, include which document will be part of the AFA submission; EED or AEED.

4. **Date & Reference: Endorsement Date:** Enter the date the application will be made to the Base. Enter the date of the Annual Development Plan (ADP) Meeting or Real Property Planning Committee Meeting or other endorsement date at which presentation and discussion occurred about the activity.

5. **Applicant Name (Land User)**: Identify the Land User for the activity.

6. **Date Activity Planned:** Provide the start and end dates of the planned activity. Use the Comment section to elaborate, if required.

7. **Programme Name:** Enter the overall programme name (i.e., the larger development project of which this specific development is a part). The programme name often coincides with a reservoir name, battery, or area on Base.

8. **Describe the Seismic Programme, Energy Source & Equipment required**: Identify the type of seismic programme. Use the Comments section at the end of the AFA form to elaborate on the programme if required. Identify the type of energy source (e.g., dynamite, vibroseis) to be used in conducting the seismic work. Use the Comments section at the end of the AFA form to elaborate on the programme if required. Identify the type of equipment to be used in the programme.

9. **Site Schematic Included**: Provide 'Yes' or 'No'. Site schematics are air photos with added diagrams depicting the proposed infrastructure and any issues that may trigger a non-routine file (e.g., wetlands within 100 m). Include the shot line and receiver line location information on the site schematics

10. **Area of the Base & Training Area Name**: Identify where the development will be taking place on the Base (EPG, MTA and/or OAA). If the development is to take place in the Base Administrative area (B Admin), the development is considered non-routine. If the development is located in the NWA, please refer to RSO Chapter 2, Part 4.

11. **Access Agreement granted pursuant to Or Other Access Agreement**: Indicate the Access Agreement that applies to the proposed activity. If an agreement is not in place do not fill out and answer the Other Access Agreement. Master Access Agreement (MAA) and Partial Access Agreement (PAA)

are related to oil and gas Land Users only. Contact the Land Use Ops Group to assist in determining where Access Agreements exist.

12. **License Agreement Required**: Indicate if a license agreement is required; if a Land User does not possess an Access Agreement with the Base, then this question requires a 'Yes'. Where 'Yes' is chosen, the Land Use Ops Group will pursue the information through their means. If 'No' is chosen, the activity may not proceed unless other means are discussed with the Base. Or 'No' may mean that an Access Agreement per question 11 is in place.

13. **Location (Sec, Twp, Rge) & UTM (E &N)**: Enter the section(s) where the programme will occur, and the center point of the section(s) in UTM in NAD 1983 Zone 12 Easting and Northings.

14. **Staging area required**: Identify if a staging area is required. If 'Yes', proceed to the next question.

15. **Location (Sec, Twp, Rge) & UTM (E &N)**: Indicate the location of the staging area(s) and the center point of the location (s) in UTM in NAD 1983 Zone 12 Easting and Northings.

16. **Environmental work/surveys of the subject areas has been conducted within the last year**: An answer of 'Yes' indicates environment work/surveys of the subject area have been conducted in accordance with RSO Chapter 2 and Annex J.

17. **If 'No', provide explanation why**: 'No' may indicate that the environmental work was completed outside the appropriate survey windows, and mitigation has been submitted in the provided line to support the timeframes. 'No' may also indicate that surveys were not performed at all, which may result in a rejection of the AFA unless justification can be provided.

18. **Not located in the setback of a monitoring site**: See Table 4-1 of the RSO Chapter 4, Part 2 Section 4 for monitoring site setbacks. 'Yes' indicates setbacks were maintained for monitoring sites. Monitoring sites are used to determine training impacts on grassland systems and provide experts recommendations for future training such as placing out of bounds or activity restrictions therefore other land use impacts are reviewed closely. Land Users may need to confirm with LU Ops Gp whether Monitoring Sites are within their proposed area of activity.

19. **If 'No', provide explanation why**: 'No' indicates that the setback for monitoring sites cannot be avoided and mitigation is included in the provided line.

20. **There will be a single trail access and no trail enhancements. Access Trail:** 'Yes' indicates the access trail for the staging areas (or other requested areas) will meet the standards set out in RSO Chapter 3, Part 4 Section 2, and that a single access route is assigned. 'No' indicates more than one trail is required and/or trail enhancements are required. Trail enhancements may include but are not limited to grading or temporary/alternate access. Details shall be provided in the comment section. New access trails and all-weather roads require a separate Application for Development (AFD).

21. **The activity is not within an OOB/ARA or be within 100 m of DND infrastructure**: 'Yes' indicates the activity is not within an existing OOB/ARA.

22. **If 'No', provide explanation why**: 'No' indicates the activity will be within an OOB/ARAs and further details are required in the provided line. Land Users may need to confirm with LU Ops Gp whether DND infrastructure is within their proposed area of activity.

23. **This activity is operationally required under the Applicant's Access Agreement**: Indicate 'Yes' or 'No'.

24. **If 'No', provide explanation why**: If 'No' is chosen, the Base will review the file on a case-by-case basis to determine whether the Access Agreement supports the activity.

25. **Comments (If required):** Space for question 20, and any other comments required.

Additional Environmental Information *TAB*: This tab is used if the Land User chooses 'No' at 'Does this activity trigger the IAA' (point 1 above) or where larger scale EEDs were completed for areas and more specific survey work are required for site specific locations (e.g., O&G LUs ADP EED completed, therefore site specific environmental info needs to be submitted).

1. **Overall Activity Programme Context**: This section is generally related to O&G Land Users, however, others may find it useful to pull together all aspects of their activity plans by articulating where the applied for location fits within the overall activity. Provide context for how this site aligns with the Annual Development Plan (ADP) or other meetings where Base Commander provided endorsement.

Water:

Groundwater:

2. **Will groundwater be used for construction and/or operations of this activity**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions.

3. **Location of well**: Provide the location of the well in legal land description and UTM formats, and where applicable, the site name.

4. **If existing, provide OG # for original well installation**: Provide the original OG #; if an OG # is not available, provide the original construction date.

Wetlands and Drainages/Lotic Systems: See RSO Chapter 4, Part 6 Section 3 for wetland definitions and requirements and drainage/lotic system definitions and crossing requirements. Annex DD provides the Wetland Policy and Annex EE provides information for wetland mitigation if projects are within a setback.

5. **Wetlands or drainage/lotic systems within 100 m of activity**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions.

6. **If 'Yes', provide Wetland/Drainage/Lotic System Details (per Onsite Assessment) for each below.** Where there are too many wetlands for the provided table, a supplemental submission can occur. (Questions 7-11 - *The order of questions from 7-11 describe the columns not each row*.)

7. **Proximity (in meters)**: Provide the distance from the site edge/ROW edge to the high-water mark of the wetland(s) or drainage/lotic system(s).

8. **Wetland class (es) and/or drainage/lotic system class(es)**: Indicate the class of each feature per onsite assessments. Use the Stewart and Kantrud (S&K) wetland classification system for wetlands, and the Grassland Vegetation Inventory (GVI) classification system for drainage/lotic systems.

9. **Mitigation**: Focus of mitigation should be relevant to the phase of construction and/or operation and consider the length of time the effect may be present (e.g., sediment fence installed during construction to protect wetland from sedimentation). Consult Annex EE Wetland Mitigation for File Reviews for additional information on mitigation options.

10. **Continue with wetlands if more exist**.

11. **Continue with wetlands if more exist**.

12. **Where desktop/GVI classification vary from onsite assessment, provide rationales for the discrepancy, and include a possible explanation for the discrepancy based on the onsite observations**.

13. **Comment Box for question 12**.

14. **Drainage/lotic system crossing required**: Indicate 'Yes' or 'No'. If 'Yes', continue with the following questions.

15. **If 'Yes', describe the drainage/lotic system**: Identify the GVI class for the system per onsite assessment.

16. **Comment Box for question 15.**

17. **Type of crossing**: Indicate type of crossing (e.g., Class D Water Body crossing) per the Alberta *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water Body* as required by the Alberta *Water Act*.

18. **Mitigation**: Focus of mitigation should be relevant to the phase of construction and/or operation and consider the length of time the effect may be present (e.g., sediment fence installed during construction to protect wetland from sedimentation). Consult Annex EE Wetland Mitigation for File Reviews for additional information on mitigation options.

Soil and Terrain:

19. **Soil handling to be conducted per RSO standard**: 'Yes' indicates soil handling will occur in accordance with RSO.

20. **If 'No', describe**: the Land User shall provide details of the changes in the provided line.

21. **Do sensitive soil and terrain areas (per the RSO) exist on the site**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions. Refer to the RSO Chapter 4, Part 6 Section 2 for sensitive soil and terrain categories.

22. **If 'Yes', describe**: Provide information on the type of sensitive soil and terrain.

23. **Coulee systems within 100 m of activity**: Indicate 'Yes' or 'No'. If 'Yes', continue with following question.

24. **If 'Yes', proximity (in metres)**: Provide the distance from the site edge/ROW edge to the top edge of the coulee break.

25. **Will the activity alter soil or terrain at the site**: Indicate 'Yes' or 'No'. If 'Yes', continue with following questions.

26. **If 'Yes', describe alteration**: This may include but is not limited to build type, addition of berms, and caisson installation/level of caisson to the ground.

27. **Applicable soil landscape model classification(s) for the site**: Indicate the applicable soil classification(s) for the site. The Landwise soil classification model shall be the first choice when determining soil landscape classifications. The Landwise model information is available from the LU Ops Gp. If Landwise is not used, specify which soil landscape classification model was used and why.

28. **Mitigation**: Provide details on how disturbance will be mitigated. Focus of mitigation should be relevant to the phase of construction and/or operation and consider the length of time the effect may be present (e.g., matting during construction, two strip/track gravel prior to construction and through operation of the site, reduced build size in certain areas of the site.) Provide information regarding interim reclamation (e.g., how and when soil will be replaced; drainage issues after soils replaced). If erosion potential on steep slopes associated with an access trail is a concern, consider use of two-track gravel and/or a cover crop with a natural recovery to assist with establishing vegetation and reducing erosion potential.

Vegetation:

Species and Habitat Considerations:

29. **Do sensitive plant species (per the RSO) exist on the activity site or within prescribed survey and/or setback distances from the activity site**: Indicate whether any sensitive plant species (per RSO Chapter 4 Part 6 Section 4) exist on the activity site or within prescribed survey and/or setback distances from the activity site. The applicable setbacks are presented in references within Annex J; otherwise, a 500 m survey radius applies. If 'Yes', continue with following questions.

30. **If 'Yes'**: List detected species. Provide common and scientific names, location (UTM), distance from site (m), sensitive species category, *SARA*–listed status, and setback encroachment (if applicable) per Environment Canada's Activity Set–back Distance Guidelines for Prairie Plant Species at Risk – list all identified sensitive plant species including location in UTM format, distance from the site in meters, sensitive species category per Annex J, the *SARA*–listed status, and the setback encroachment (if applicable).

31. **Common name**: Provide the name known in English.

32. **Scientific name**: Provide the Latin name for the plant.

33. **UTM 83**: Provide the Easting and Northing of the plant that was observed.

34. **Distance from site**: Distance from the site edge.

35. **Category, *SARA*-listed Status & Setback Encroachment**: Provide the sensitive species category.

36. ***SARA* Permit #**: Provide a *SARA*–permit number if applicable.

37. **Mitigation:** Provide details on how disturbances will be mitigated. Focus of mitigation should be relevant to the phase of construction and/or operation and articulated within this section. Reference soil and terrain section if required if conservation of soil will preserve vegetation.

Vegetation Community Characterization:

38. **Existing onsite ecological range site name(s)**: Provide the predicted ecological range site classification per GVI. This is the reference plant community or climax community for the site and reflects the expected state with no human or climate impacts.

39. **Existing onsite vegetation community description(s)**: Provide the actual ecological range site classification per range health assessment.

40. **Existing offsite ecological range site name(s)**: See above para 38 under the AEI Tab numbering.

41. **Existing offsite vegetation community description(s)**: See above para 39.

42. **If variation is evident between the predicted GVI ecological range sites and the surveyed on/offsite vegetation**: Provide a possible rationale for any variation among the pre–activity ecological range site classifications and the on and offsite vegetation conditions. If applicable, provide information considered during the assessment (e.g., climate, invasive species).

43. **Comment Box for question 42**.

44. **Describe any existing disturbance on the activity site**: Describe any existing natural or anthropogenic disturbance on the activity site.

Wildlife:

45. **Do sensitive wildlife species exist on the activity site or within prescribed survey and/or setback distances from the activity site**: Indicate whether any sensitive wildlife species (Annex J) exist on the activity site or within prescribed survey and/or setback distances from the activity site. The applicable setbacks are presented in Annex J refs A and B; otherwise, a 500 m survey radius applies. If 'Yes', continue with following questions.

46. **If 'Yes'**: List detected species – provide common and scientific names, location (UTM), distance from site (m), sensitive species category, *SARA*–listed status, *MBCA* status, and setback encroachment (if applicable) per Environment Canada's Petroleum Industry Activity Guidelines for Wildlife Species at Risk in the Prairie and Northern Region – list all identified sensitive plant species including location in UTM format, distance from the site in meters, sensitive species category per Annex J, the *SARA*–listed status, the *Migratory Birds Convention Act, 1994* (*MBCA)* status, and the setback encroachment (if applicable)

47. **Provide common and scientific names**.

48. **UTM 83**: Provide the Easting and Northing of the plant that was observed.

49. **Distance from site**: Distance from the site edge.

50. **Category, *SARA*-listed Status & MBCA status**: Provide the sensitive species category.

51. **Setback Encroachment**: If applicable.

52. ***SARA* Permit # and *MBCA* Permit #**: Provide a *SARA* or *MBCA* –permit number if applicable.

53. **Mitigation**: Provide details on how any adverse effects will be mitigated. Focus of mitigation should be relevant to the phase of construction and/or operation (e.g., construction to occur outside the wildlife season when burrowing owl is not present). If wildlife associated with a coulee system is a concern, consider if the coulee aligns with Alberta Fish and Wildlife Critical Ungulate winter range or contains sharp relief and woody vegetative cover commonly associated with high value ungulate range. Also consider the likelihood for the coulee to have specific wildlife features like snake hibernacula based on presence of slumps or cracks and degree of slope instability.

PROCEDURE FOR SPREADING ASHES AT CFB SUFFIELD

Identification

1. Approval Authority. CFB Suffield Base Commander and OC of RPOU (W) Det Suff

2. Inquiries. CFB Suffield RTAM O

3. Purpose. This instruction outlines the procedure to be followed when a request for spreading of ashes at CFB Suffield is received.

4. Eligibility Criteria.

   a. all former members of the Canadian Armed Forces, both Regular and Reserve Force, including the Merchant Navy of Canada, and were honourably discharged;

   b. former members of Her Majesty's Forces who were honourably discharged;

   c. Allied Active Service members who became residents of, and died while residing in Canada, and were honourably discharged;

   d. a family member or friend of the service member; and

   e. a family member or friend who were homestead owners prior to DRES/CFB Suffield being formed.

5. Procedure. An AFA (Annex H Appendix 1) shall be filled out with support from the LU Ops Gp and sent to RangeSustainability@forces.gc.ca:

   a. to cover the cost of duties for current military and civilian, $250 shall be provided with the application and the cheque addressed to the Receiver General of Canada, or at the discretion of the Base Commander no fees will be charged;

   b. CFB Suffield will review the AFA and provide approval within 30 working days of receiving a completed AFA and funds; and

   c. a Notice of Decision with contact info and conditions will be provided to the applicant and it is the applicant's responsibility to follow-up with contacts to finalize details.

ENVIRONMENTAL WORK

References

A. Alberta Government Wildlife Sweep Protocols Sensitive Species Inventory Guidelines, 2020
B. Environment Canada Petroleum Industry Activity Guidelines for Wildlife Species at Risk in the Prairie and Northern Region, 2011
C. Environment Canada Activity Setback Distance Guidelines for Prairie Plant Species at Risk, 2011
D. Alberta Government Recommended Land Use Guidelines for Protection of Selected Wildlife Species and Habitat within Grassland and Parkland Natural regions of Alberta, 2011
E. Alberta Government Sensitive Species Inventory Guidelines, 2013
F. Alberta Government Alberta Ferruginous Hawk Recovery Plan 2009-2014
G. Environment Canada Description of Residence for Burrowing Owl (Athene cunicularia) in Canada
H. Alberta Government Master Schedule of Standards and Conditions, 2021

Introduction

1. In accordance with land use authorization procedures (Chapter 2), all land use applications require supporting environmental work to characterize site conditions and identify and mitigate potential adverse environmental effects related but not limited to wildlife including SAR, wetlands, vegetation communities, sensitive landscape features and habitat, and archaeological/historical features.

Environmental Work Requirements

2. An AFD or AFA requires assessment of the following environmental components:

   a. vegetation characteristics on and off site (including undesirable species). The AEP range health assessment protocol shall be applied;

   b. legally protected habitat and sensitive landscape features (i.e., easily disturbed, unique, or rare biophysical attributes or ecological communities including coulee systems, blowouts, sand dunes, areas of sandy soil, steep slopes, riparian areas, and rare plant communities);

   c. historical resources using the Alberta Culture and Tourism processes (www.culture.alberta.ca);

   d. wetlands and drainage systems within 100 m of development or activity site, and any crossings of drainage systems; and

   e. species per wildlife survey requirements (paragraphs 6-8 below).

3. In accordance with the *Impact Assessment Act 2019*, environmental work for consideration of a new land use (i.e., an AFD or AFA) shall be submitted with an Environmental Effects Determination (EED) or Abbreviated Environmental Effects Determination (AEED) (Appendix 1 and 2).

4. A 15-day FA for land use conducted during 1 March – 31 October requires confirmatory wildlife surveys in accordance with paragraphs 6-8 below. Survey results shall be provided to the Base prior to 15-day FA commencement and include a description of the environmental work conducted, key findings, and mitigation to be implemented as applicable using Annex I Appendix 3.

5. Confirmatory wildlife surveys (per Chapter 2, Part 7) shall be conducted no more than 7 days prior to commencing all approved land uses (e.g., approved AFDs, AFAs, or FAs) in accordance with paragraphs 6-8 below, and guidelines in ref A. Results shall be submitted using Annex I Appendix 3.

Wildlife Survey Requirements

6. Surveys for wildlife shall be conducted within a minimum of 500 m from a development or activity site unless specific wildlife and vegetation setbacks indicate otherwise (e.g., per refs B and C). While observations of all species should be noted, several classes of focal species shall be targeted by surveys if suitable habitat exists:

a. legally listed Endangered, Threatened, or Special Concern plant or animal species under the federal *Species at Risk Act* or provincial *Wildlife Act*;

b. reference D; and

c. migratory birds.

7. Wildlife surveys shall be conducted during the period of 1 March to 31 October, during the appropriate seasonal period for the target species and in accordance with the methods in the Alberta Sensitive Species Inventory Guidelines (ref D). Migratory bird sweeps shall be conducted from 1 May to 31 August. Two exceptions to these guidelines shall be observed:

a. ground searches for burrowing owls will be considered valid only if they were conducted between 15 May and 31 December; and

8. Land Users shall submit a wildlife observation data form (load form) with all results (target species and incidentals, irrespective of federal or provincial designation) from wildlife surveys conducted (i.e., for AFDs and AFAs, and for subsequent 15-day FAs and confirmatory surveys). Wildlife load forms shall be submitted per Post-use Reporting and Document Submission requirements (Chapter 2, Part 4 and Part 6). The load form template in Excel format is available from the Land Use Ops Gp upon request and requires population of the following information:

a. species;

b. location in UTM NAD 1983 Zone 12N with indication of precision;

c. any observed features (e.g., nest, burrow, lek);

d. observed feature status (i.e., active versus inactive) with supporting comments on sign assessed to determine the feature status (e.g., presence or absence of feathers, pellets, whitewash, shredded manure, etc.);

e. count and types of individuals observed;

f. date of observation; and

g. observer and affiliated organization.

9. Wildlife surveys shall be conducted annually until project construction is completed (ref A), with confirmatory wildlife surveys required prior to project commencement (see para 5).

10. Ferruginous hawk and burrowing owl residences (i.e., nests and roosts), where nesting activity occurred in a given year, retain an active designation into the second year of inactivity (refs D and E). Retention of a setback on an inactive ferruginous hawk nest will be at the discretion of RSS Biologists.

OPI Project File #:[Insert OPI Project file #]
Establishment File #:[Insert Establishment file #]
EIA#:[Insert EIA #]
CIAR# (Insert CIAR#)

For: Department of National Defense (DND)

Environmental Effects Determination (EED) Report

Project: [Insert Project Title]

Prepared by: [Insert name]

Date: [Date last modified]

Version: [Insert version number as appropriate]

[INSTRUCTIONS ARE PROVIDED AS TEXT BETWEEN BRACKETS, WITH A HIGHLIGHT. TO REMOVE THE HIGHLIGHTING, SELECT THE DESIRED TEXT AND PRESS CTRL+SPACE].

Executive Summary

[Provide an executive summary of the principal conclusions of the EED process, including the environmental components for which mitigation measures will be implemented and residual impacts after mitigation (if any). Include a summary of any significant concerns raised by the

public or indigenous communities and state if and how these have been resolved. Identify which recommendations from the DND EED Report will be incorporated into the Project design and its implementation.

Executive Summary Example:

NOTE: This is an example to be used as reference when you complete your executive summary and is not a template. Please ensure that this section is completed taking into account the findings and outcome of your evaluation.

"A review of the potential significant adverse environmental effects was conducted for [insert project name] located at the Department of National Defence [insert property name] property.

The Project consists of the following components:

- *[insert list of project components]*

Potential significant adverse environmental effects of the Project were assessed and mitigation measures have been identified to minimize or eliminate these effects on the Valued Ecosystem Components.

- *[insert list of VECs]*

[Insert a summary of any concerns raised by the public or Indigenous communities]

On the basis of this Environmental Effects Determination report, it has been determined that the Project is not likely to cause significant adverse environmental effects. Therefore the Project can proceed with application of the mitigation measures specified in the interaction tables in this report."

OPI Project File #:[Insert OPI Project file #]
Establishment File #:[Insert Establishment file #]
EIA#:[Insert EIA #]
CIAR# (Insert CIAR#)

Part 1. Project Information

1.1 Title of Proposed Project

[Insert title Provide in both official languages a Project Title that provides the public an appreciation of what the project is undertaking, it should be unique and descriptive. For example Construction of a new Medical Centre at CFB Petawawa versus Construct a building.]

1.2 Originating Directorate, Base, or Unit

[Identify whether this project is being undertaken by Department of National Defence or by another entity. Identify the group from which the proposed project is originating or is responsible for its overall coordination.]

1.3 Location of Proposed Project

[Identify the specific Defence Establishment where the project will take place and the direction and distance of the Defence Establishment to the nearest community. Include the latitude and longitude as associated with the Defence Establishment. If outside a Defence Establishment identify the location where it will take place.Latitude and longitude of the Project location must be provided. Satellite views (i.e. obtained from Google Earth) can be inserted here or provided in an annex Include the Latitude and Longitude of the location for the project].

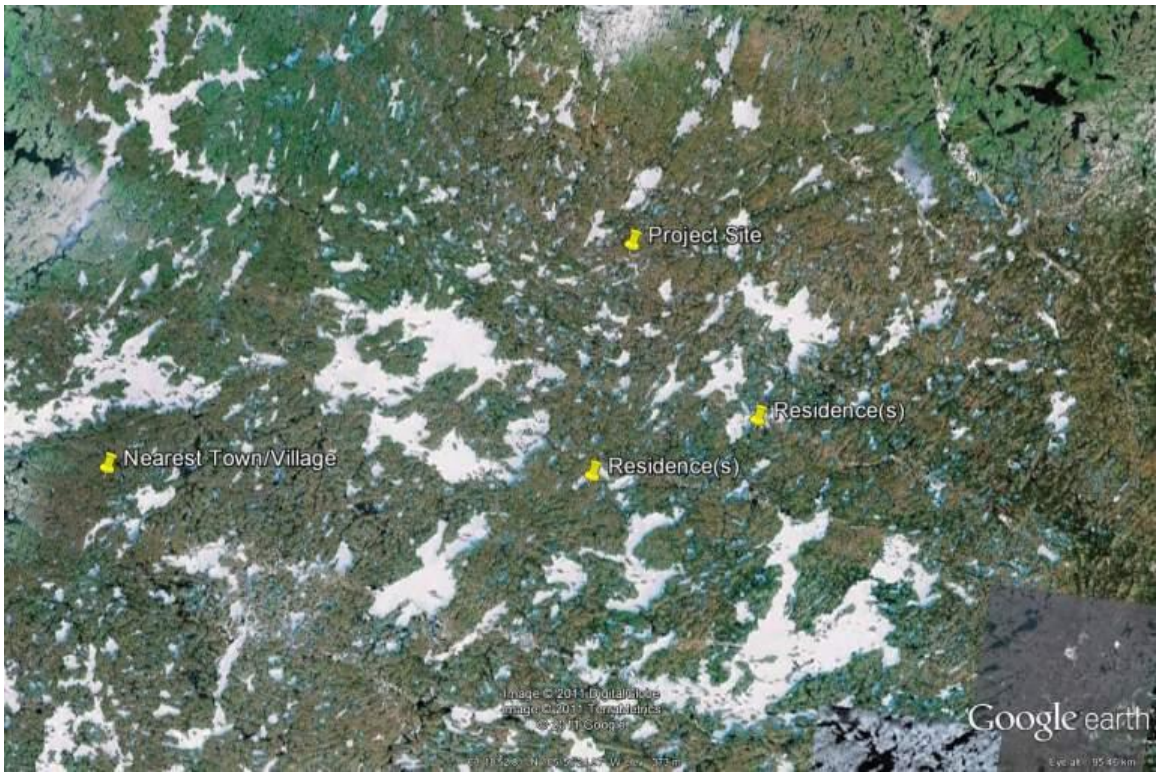


Figure 1. Example of the satellite view (Google Earth) of the location of a proposed project in reference to the nearest town. Please include a scale bar to indicate distances in meters or kilometres.]

1.4 Project Summary

[Provide in both official languages a short paragraph explaining the undertaking being proposed as part of the project. Provide a brief description of the proposed project throughout its full life span (e.g. construction, operation, site restoration).]

1.5 Applicability of DND EIA Directive

This activity meets the definition of a project under s.82 or 83 of the *IAA* as it is a physical activity to be carried out on federal lands or outside Canada and is in relation to a physical work. Therefore, an Environmental Effects Determination is required under s.82 or 83 before it can proceed.

This project is not found in either the Ministerial Order: Designated Classes of Projects Order or the DND Abbreviated Report Criteria; therefore a full report must be prepared.

1.6 EED Start Date

[Provide the start date of the environmental effects determination process. This is the date it was registered on the Canadian Impact Assessment Registry]

1.7 EIA number

[This number is provided by ADM(IE) after the Project has been submitted to the Defence EIA Portal]

1.7.1 IAA Registry Number

[This number is provided by ADM(IE) after the Project has been submitted to the Defence EIA Portal and registered on the Canadian Impact Assessment Registry]

1.8 Provincial and Municipal Government Involvement

[If applicable, briefly describe the Provincial and Municipal government environmental requirements, if any, for the area in which the proposed project is to occur.]

1.9 Other Federal Departments or Third Party Groups

[If applicable, list federal departments or third party groups that may also have a determination requirement under s.82 or s.83 of *the IAA*. If a department/group other than DND is leading the environmental effects determination process it should be identified here.]

1.10 Contacts

1.10.1 Establishment Point of Contact

[Include contact information for the Decision-maker associated with the project (normally the project manager). Please include the name, position title, mailing address, phone number and e-mail address.]

a) Name, Rank, and Title:

b) E-mail Address:

c) Mailing address

d) Telephone number

1.10.2 Project OPI

[Include contact information for the Decision-maker associated with the project (normally the project manager). Please include the name, position title, mailing address, phone number and e-mail address.]

a) Name, Rank, and Title:

b) E-mail Address:

c) Mailing address

d) Telephone number

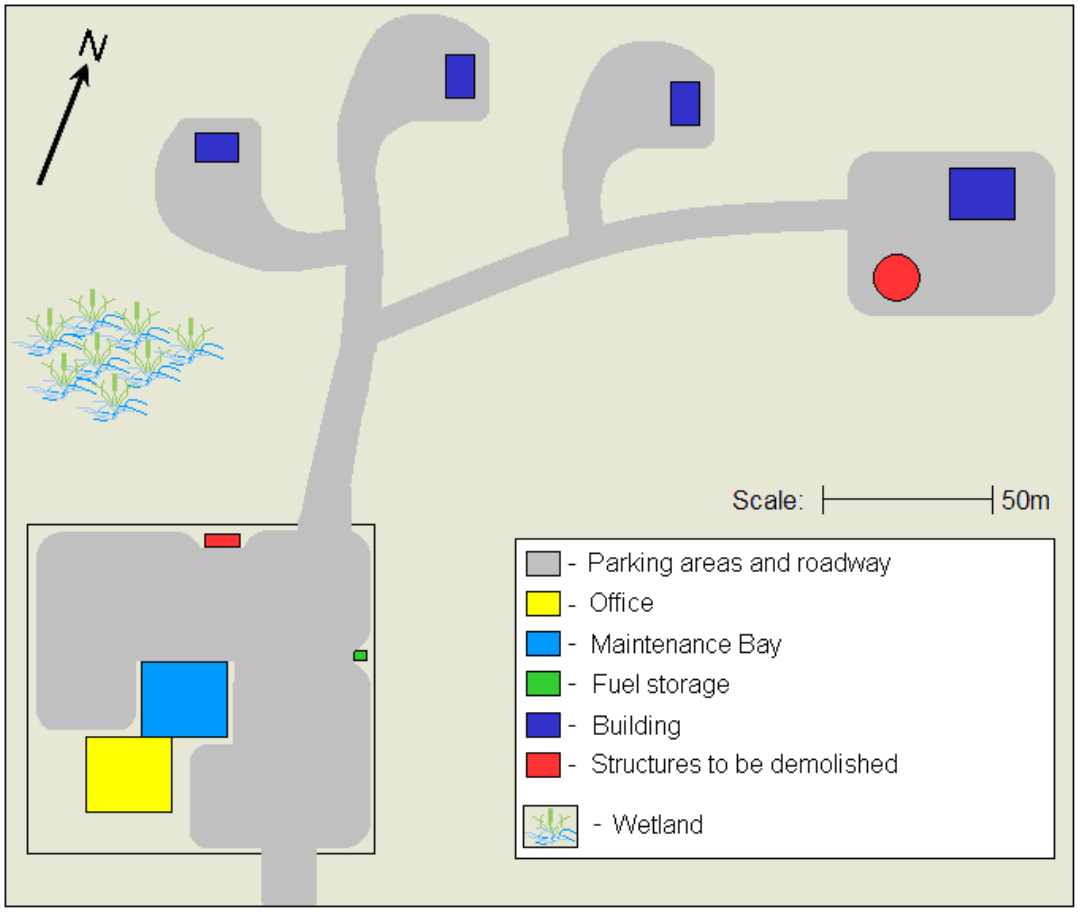
1.11 Other Reference Numbers (If Applicable)

[This section allows you to identify if there are any other reference numbers which have been assigned to the proposed project or which are relevant in the completion of this report (i.e., Provincial EIA, DND SEA). List reference numbers and identify the location of these reports, if applicable.]

Part 2. Environmental Effects Discussion

2.1 Description of Project Components, Project Schedule and Project Site

[List and describe the components of the Project throughout its full life span (e.g. phases of construction, aspects of operation) including the estimated start and completion dates. Provide sufficient detail for the public or a third party to understand what activity is being proposed. Site Layout drawings, if needed, can be inserted here or in an appendix.]



[Figure 2: Example drawing of site layout (Insert a detailed drawing for the Project's site)]

2.2 Identification of Valued Ecosystem Components (VECs)

[The Environmental Effects Matrix can be used to identify potential interactions between project components and identified VECs.

- In the left-hand column of the matrix, list the components of the Project identified in Section 2.1.
- Across the top of the matrix is a suggested list of VECs that should be considered. Please add any that may be relevant to the study area but were not included in this template.

Systematically examine each place where a project activity interacts with an environmental component and mark where there is a potential significant adverse effect.]

Table 1. Environmental Effects Matrix

PROJECT COMPONENTS Enter each component e.g. phases of construction, aspects of operation.	**VALUED ECOSYSTEM COMPONENTS (VEC)** *[modify as necessary]*																	
	PHYSICAL							BIOLOGICAL					SOCIAL AND CULTURAL					
	Atmosphere	Surface Water	Groundwater	Soils and Geology	Ambient Noise	…	…	Terrestrial Animals and Habitat	Aquatic Animals and Habitat	Vegetation	Species at Risk and Migratory Birds	…	Land Use	Parks and Recreational Areas	Population	Cultural Resources	Aboriginal / Traditional Activities	…

Legend: [*Blank*] = No Effect | [X] = Potential Significant Adverse Effect

2.3 Description of Valued Ecosystem Components

General Description

[Give a general description of the environment in the study area including surrounding land use, built environment and any historical or archaeological artifacts. Provide sufficient detail for the public or other third party to understand what the environmental conditions are on the proposed project site, noting any environmentally sensitive attributes in the region such as wetlands, watercourses, terrestrial or avian species/habitat etc.]

Valued Ecosystem Components (VECs):

[In Section 2.3.1 below, provide a description for, at minimum, each of the VECs for which an X appears in the matrix. Please note that description of effects is included in the interaction tables in Section 2.4 and should not be discussed]

2.3.1 Physical Components

i) Atmosphere

[Climatic norms for the Project site should be identified.

Where operations are expected to produce air quality impacts (e.g. dust, other airborne particulates, chemical vapours, greenhouse gases or odours), pre-existing sources of air contaminants in the local study area should be identified. Describe the potential human receptors. Where the Project could create air emissions, it should meet local, provincial and federal guidelines.]

ii) Surface Water

[Provide a description of surface water bodies and their proximity to the Project.]

[Include Wetland Mitigation from the RSO Annex DD – Wetland Mitigation for Land Use File Reviews]

iii) Groundwater

[Provide a description of groundwater sources on the Project site. Allocation/licensing issues should also be discussed.]

iv) Soils and Geology

[Information on soils should be provided including the type, agricultural capability, and distribution of soils. Use the Canadian Soil Classification System to identify soil type(s).

The geology of the Project site should be described. Where geological formations or features are expected to enhance or mitigate the effects of the Project, those components should be evaluated and described.]

v) Ambient Noise

[Inventory and summarize existing sources of noise in the study area. Determine the distances from the Project site to potential receptors (e.g. residential areas, schools, health care facilities).]

2.3.2 Biological Components

i) Terrestrial Animals and Habitat

[A general description of the fauna at the Project site must be provided. Where impacts are expected to affect animals, including birds, the species impacted should be identified, including Latin and common names. Information should also be provided on mature and interior forest habitat, where present.]

ii) Aquatic Animals and Habitat

[Identify any water bodies which may be considered aquatic habitat and identify fish species which may be present.

This applies to work being conducted in or near waterbodies that support fish that are part of, or that support a commercial, recreational or Indigenous fishery. To protect fish and fish habitat,

efforts should be made to avoid, mitigate and/or offset harm. Following the measures to avoid harm will help you comply with the *Fisheries Act*. An authorization may also be required under the *Fisheries Act.*]

iii) Vegetation

[A general description of the flora at the Project site should be provided. Where the Project is expected to impact native or other vegetation of value, the vegetation should be identified and inventoried, including both common and Latin names, and a map provided that shows the distribution in the area, including rare and endangered species (both provincial lists and species listed by the Federal Species at Risk Act).]

[Include on & off-site vegetation communities]

iv) Species at Risk and Migratory Birds

[Endangered flora or fauna, wildlife species and their ecosystems should be identified from the appropriate provincial endangered species database, the *Species at Risk Act*, and the *Migratory Birds Regulations*.

Based on the results of the database search and surveys conducted in the Project area, the potential for at-risk species to be present either at or near the site should be identified along with the habitat ranges of those species.

If the Project is likely to affect a listed wildlife species or its critical habitat then the Project OPI is required to notify the competent minister(s) '*in writing'* and '*without delay*' as per section 79(1) of the *Species at Risk Act*. Further information and a template notification letter are provided in the DND EIA Manual.

Also, if the Project involves an activity that may affect species at risk and the activity contravenes a general or critical habitat prohibition of the *Species at Risk Act* a permit or authorization may be required.

It is important to review this requirement early in the planning stages in order to avoid delays. For more information on species at risk permits please consult with the local environmental specialist staff.]

2.3.3 Social and Cultural Components

[The indirect effects of changes to socio-economic conditions caused by project activities should be considered. An example of an indirect socio-economic effect would be the loss of a water body for recreational swimming as a result of contamination. However, where appropriate, DND recommends the inclusion of both indirect and direct effects to socio-economic conditions within the DND EED Report. An example would be an increase in vehicular traffic experienced by local residents during construction and operation of the Project. As such, sections should be included that provide baseline information on the socio-economic components that may be affected, both directly and indirectly, by the Project.]

i) Land Use

[Describe existing, planned and adjacent land use.]

ii) Parks and Recreational Areas

[National and/or Provincial parks as well as tourist destinations, lakes and other common recreational areas that may be affected should be identified, including their proximity to the Project site.]

iii) Population

[Human populations surrounding the Project site should be identified in terms of their proximity to the site.]

iv) Cultural Resources

[Existing information on the presence or potential presence of any archaeological, cultural, or heritage resources should be summarized.]

v) Aboriginal/Traditional Activities

[Areas where Aboriginal peoples exercise Aboriginal or treaty rights (e.g. harvesting wildlife, plants or fish) or undertake licensed uses (e.g. traplines) should be identified through consultation with local Aboriginal peoples. Indicate if community or traditional knowledge was collected in conducting the EED.

To support in the consideration of whether a project will have any adverse impacts on the rights of the Indigenous Peoples, the OPIs should read the “Aide-Memoire for DND Employees and CAF Members on the Common Law Duty to Consult with Indigenous Groups” prepared by the Directorate General of Indigenous Affairs and complete the “Legal Duty to Consult Worksheet”. This process should be started in the early stage of project development to provide sufficient time to identify accommodation measures should it be determined that the project could negatively impact to established or potential Aboriginal or treaty rights.

Should it be determined that there is a potential the project could negatively impact potential or established Aboriginal or treaty rights or if there is uncertainty, the Decision-maker should seek advice from the Directorate General of Indigenous Affairs (DGIA) through its positional mailbox: Aboriginal-Autochtones@forces.gc.ca. When using the positional mailbox, Decision-makers should include in the subject line: DND Environmental Effects Determination- Advice on Indigenous Matters to alert them of the request.]

2.4 Project Effects and Associated Mitigation Measures

[Sections 82 and 83 of the *IAA* require that departments make a determination only with regards to likely significant adverse environmental effects of a project. Therefore entries in the interaction table need only be created for each VEC where there is a potential significant adverse effect due to an interaction with a project component. These interactions will have been marked in the Environmental Effects Matrix (Table 1, above).

Using Table 2 below, add a row for each VEC and follow these instructions for completing the rest of the interaction table.

Columns 2 and 3: Description of Potential Project Interaction with VEC

Project Component(s)

Name each project component that could potentially have a significant adverse effect on the VEC. Potential significant adverse effects would be those impacts that could typically diminish environmental quality, natural resources or features, or diminish the existing, or potential land use within a study area.

Each component of the Project that may produce potential significant adverse effects should be evaluated.

Description of Effects

Describe each effect and its relative significance on each VEC. In evaluating the significance of the effects, the following criteria should be considered and included in the interaction table(s):

- **Magnitude** – How heavily will the effect impact the environment and community?
- **Spatial Extent** – Over how large an area could the effect have an impact (immediate, local or regional area)?
- **Duration of Impacts** – How long could potential significant adverse effect(s) impact the environment and community (short term, long term)? Are they likely to be seasonal, intermittent or continuous?
- **Reversibility** – Could the potential effects of a project component be reversed once the effects have been stopped? Could the VEC be returned to its pre-existing (pre-project) state?

Column 4 – Mitigation Measures

For the purposes of this report, mitigation measures are defined as measures for "the elimination, reduction or control of the identified potential significant adverse effects of the Project, and includes restitution for any damage to the environment caused by such effects through replacement, restoration, compensation or any other means". Considering this, specify mitigation measures that can:

- **Eliminate** the threat/risk to a VEC completely (alternate approaches, different chemical/material used etc.);
- **Prevent /reduce** impacts of the threat/risk to a VEC (berms, training, pollution prevention equipment/technologies, etc.);
- **Respond** to the threat/risk to a VEC when it occurs (emergency response, clean up, etc.).

Where monitoring is required to ensure proper operation and minimize potential significant adverse effects, this should also be identified.

Column 5 – Are residual significant adverse effects likely?

Indicate whether significant adverse effects are likely after the described mitigation measures are implemented by entering a Yes or No response. The significance of residual environmental effects is defined below and should be used as a reference to quantify the expected level of

residual effect associated with implementing each mitigation measure for each project component. This evaluation forms the basis of the EED determination and will be used in selecting the outcome in Part 3 of this report.

Entering **No** indicates that residual adverse effects **are not** likely to be significant since:

- Potential residual effect(s) may result in a slight decline of the resource in the study area during the life of the Project. Research, monitoring and/or recovery initiatives would not normally be required; or
- Potential residual effect(s) may result in a slight decline of the resource in the study area during construction phase, but the resource should return to baseline levels.

Entering **Yes*** indicates that residual adverse effects **are** likely to be significant since:

- Potential effect(s) could threaten sustainability of the VEC and should be considered a management concern. Research, monitoring and/or recovery initiatives should be considered; or
- Potential effect(s) could result in a decline in the VEC to lower-than-baseline but stable levels in the study area after project closure and into the foreseeable future. Regional management actions such as research, monitoring and/or recovery initiatives may be required

* It is important to note that if it is determined that residual effects are likely to be significant, the Project will need to be referred through the chain of command to the Governor in Council for their determination on whether the Project is justified to proceed.]

[EXAMPLE OF INTERACTION TABLE:]

Table 2: Potential effects of the Project on each Valued Ecosystem Component (VEC) with mitigation measures

VEC(s) Affected	Project Component(s)	Description of Effects	Mitigation Measures (numbers appearing after a measure indicate the Project component(s) with which it is associated)	Are residual significant adverse effects likely?
Atmosphere	**1) Ignition and Burning**	Air quality will be negatively affected due to the smoke created. Smoke generated may present a health risk to workers or other people in the immediate area.	1) Burns will be attempted only during optimal conditions [Fine Fuel Moisture Code (FFMC), Initial Spread Index (ISI), Fire Weather Index (FWI), and wind are considered], and contained within the proposed areas by following the pre-approved procedures and protocols described in **Annex B.** 1) Staff managing the fire will wear appropriate respiratory protection. 1) Workers nearby will be notified of the potential reduction in air quality.	No
Soils	**1) Spill Suppression** **2) Firebreak construction**	Accidental fuel spills may occur during both ignition or suppression activities as equipment will be on-site. Petroleum based fuels and products can create soil contamination, put staff at risk of exposure and pollute wetlands. The construction of firebreaks (if required) will create exposed soils increasing the potential for soil erosion that could enter nearby wetlands. Increased suspended solids can have a detrimental effect on	1) Spills will be cleaned up and reported as per CFB Petawawa RSO's and BAI 6.007 Annex E. 2) Sediment control measures such as silt fences or sand bags must be placed in areas where there is a potential for surface runoff to aquatic receptors. A re-vegetation program will be implemented to limit exposed soils.	No

VEC(s) Affected	**Project Component(s)**	**Description of Effects**	**Mitigation Measures** (numbers appearing after a measure indicate the Project component(s) with which it is associated)	**Are residual significant adverse effects likely?**
		aquatic species in wetlands including mortality and sub-lethal effects.		

2.5 Indigenous Community Engagement

[This Section should include a description of the Indigenous community engagement that was conducted for the EED process. The engagement process should be thoroughly documented and a summary of the approach should be included here. If no Indigenous community engagement took place, provide a rationale as to why. The summary should include:

- A list of Indigenous groups who may be interested in/ or potentially affected by the proposed project;
- Description of the methodology used to select Indigenous groups to be contacted;
- Description of engagement activities carried out to date, including names of Indigenous groups/representatives and format of information sharing (e.g. open house, mail, telephone, media)
- List of issues, concerns, questions or input raised to date; and,
- Description of proponent responses and any proposed mitigation measures (to date and planned)
- Indicate if an assessment of the legal duty to consult has been undertaken and what conclusion was reached*****

For specific projects, DND may also have a duty to consult with Aboriginal peoples. This is true for projects which may have the potential to impact potential or established Aboriginal or treaty rights.]

To support in the consideration of whether a project will have any adverse impacts on the rights of the Indigenous Peoples, the Decision makers should read the “Aide-Memoire for DND Employees and CAF Members on the Common Law Duty to Consult with Indigenous Groups” prepared by the Directorate General of Indigenous Affairs and complete the “Legal Duty to Consult Worksheet”. This process should be started in the early stage of project development to provide sufficient time to identify accommodation measures should it be determined that the project could negatively impact to established or potential Aboriginal or treaty rights.

Should it be determined that there is a potential the project could negatively impact potential or established Aboriginal or treaty rights or if there is uncertainty, the Decision-maker should seek advice from the Directorate General of Indigenous Affairs (DGIA) through its positional mailbox: Aboriginal-Autochtones@forces.gc.ca. When using the positional mailbox, Decision-makers should include in the subject line: DND Environmental Effects Determination- Advice on Indigenous Matters to alert them of the request.

Once completed, the worksheet should be signed off by the Decision-maker and indicated whether advice was sought from DGIA in making this determination. The signed worksheet should be included as an annex to the EED Report to demonstrate that the requirement was considered. A copy of the EED report should be shared with DGIA.

Any additional efforts that were undertaken to possibly address impacts to potential or established Aboriginal or Treaty rights such as engaging Indigenous communities or gathering

Indigenous knowledge should be included in the EED Report and if such activities have occurred, Decision-makers should provide DGIA the opportunity to review the EED report before finalizing it.]

2.6 Public Participation

Projects triggered by the IAA are to be posted on the Canadian Impact Assessment Registry (CIAR) in order to allow the public to become aware and participate in the EIA of projects. Although it may have been determined that public consultation is not necessary, any comments provided from the information posted on the CIAR is to be included in the EED Report and include whether the project is able to address the comments and if so how.

The Decision maker will make a determination of whether public consultation is required. If no public consultation was undertaken, provide a rationale as to why it was not required.]

2.7 References and Expertise from Other Federal Government Bodies or Third Party Groups

[List and state the relevance of any applicable laws, regulations, policies, guidelines, SOPs, reports, etc. used to complete the DND EED Report.

1. List the federal departments that provided expertise which aided in conducting the EED.
2. List any third party groups that provided expertise which aided in conducting the EED.]

OPI Project File #:[Insert OPI Project file #]

Base File #:[Insert base file #]

EIA #:[Insert EIA #]
CIAR# [Insert CIAR#]

Part 3. Environmental Effects Determination

[Parts 1, 2 and a signed Part 3 of the DND EED Report must be submitted to ADM(IE) through the Portal.]

On the basis of this DND EED Report, it has been determined that the impact of this project on the environment is as follows: [double click on a checkbox to mark it with an X]

☐ Project is not likely to cause significant adverse environmental effects. The Project **can** proceed with application of the mitigation measures specified in the interaction tables in this report.

☐ The Project is likely to cause significant adverse environmental effects that cannot be mitigated. The project must not proceed and must be referred to Governor in Council through the appropriate chain of command before it can potentially proceed in its current state. Otherwise, changes to the project scope (parameters and/or site location) are recommended. This would require a new EDD be submitted through the Portal.

EED Report Prepared by: [Add signature blocks where necessary]:

Name: **Title:**

Signature Date (dd-mm-yyyy)

OPI Initials to validate information (optional)

EED Report Reviewed by: [This report should be reviewed by the local ESS. Add signature blocks where necessary]:

Name: **Title:**

Signature Date (dd-mm-yyyy)

EED Report Accepted and Approved by: [Add signature blocks where necessary]

The undersigned accepts the determination and recommendations of this environmental effects determination report. The undersigned also accepts the responsibility to incorporate the recommendations of the report into the Project design and implementation.

Name: **Title:**

Signature Date (dd-mm-yyyy)

OPI Project File #:[Insert OPI Project file #]
Establishment File #:[Insert Establishment file #]
EIA#:[Insert EIA #]
CIAR# (Insert CIAR#)

Department of National Defence (DND)

Abbreviated Environmental Effects Determination (AEED) Report

Project: [Insert Project Title]

Prepared by: [Insert name]

Date: [Date last modified]

Version: [Insert version number as appropriate]

[INSTRUCTIONS ARE PROVIDED AS TEXT BETWEEN BRACKETS, WITH A HIGHLIGHT. TO REMOVE THE HIGHLIGHTING, SELECT THE DESIRED TEXT AND PRESS CTRL + SPACE]

OPI Project File #:[Insert OPI Project file #]
Establishment File #:[Insert Establishment file #]
EIA#:[Insert EIA #]
CIAR# (Insert CIAR#)

Part 1. Project Information

1.1 Title of Proposed Project

[Insert title in both official languages) the Project Title should provide the public with an appreciation of what the project is undertaking, it should be unique and descriptive. For example Construction of a new Medical Centre at CFB Petawawa versus Construct a building.]]

1.2 Originating Directorate, Base, or Unit

[Identify whether this project is being undertaken by Department of National Defence or by another entity. Identify the group from which the proposed project is originating or is responsible for its overall coordination.] [Provide in both official languages]

1.3 Location of Proposed Project

[[Identify the specific Defence Establishment where the project will take place and the direction and distance of the Defence Establishment to the nearest community. Include the latitude and longitude as associated with the Defence Establishment. If outside a Defence Establishment identify the location where it will take place. Latitude and longitude of the Project location must be provided.-Satellite views (i.e. obtained from Google Earth) can be inserted here or provided in an annex.]

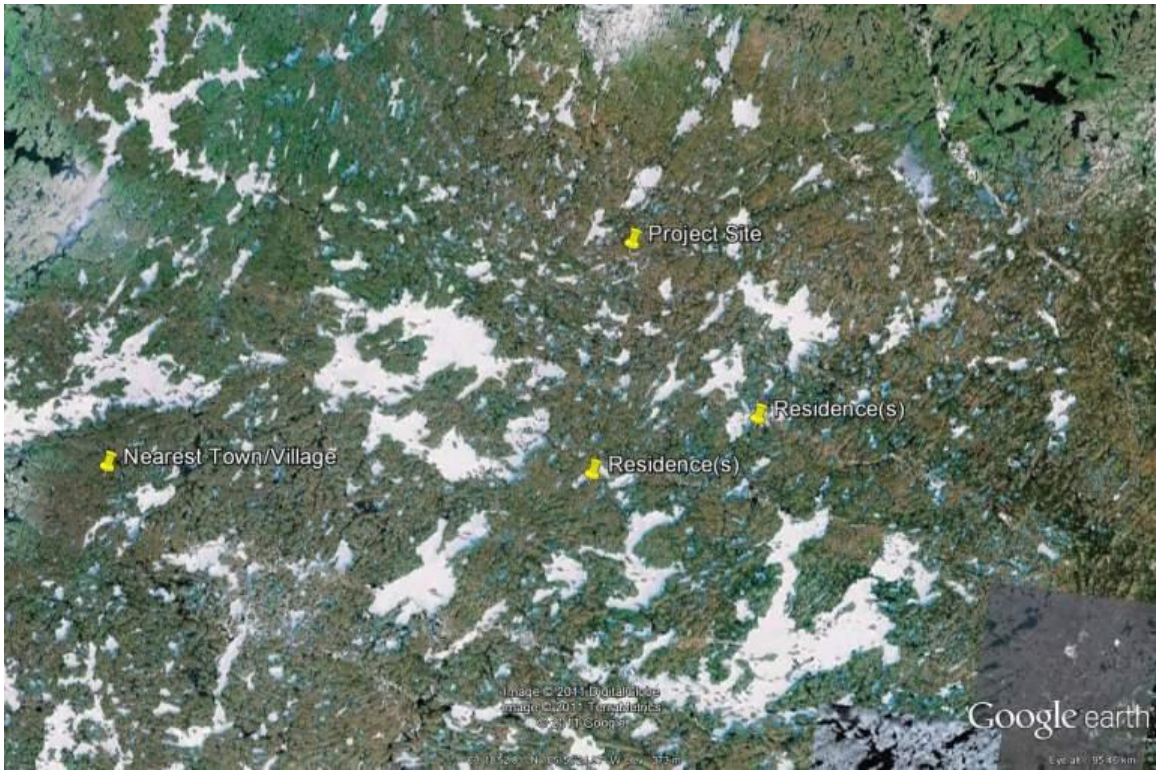


Figure 1. Example of the satellite view (Google Earth) of the location of the Project in reference to the nearest town. Please include a scale bar to indicate distances in meters or kilometers.]

1.4 Project Summary

[Provide in both official languages a short paragraph explaining the undertaking being proposed as part of the project. Provide a brief description of the proposed project throughout its full life span (e.g. construction, operation, site restoration).]

1.5 Applicability of DND EIA Directive

This project meets the definition of a project under s.82 or 83 of the *IAA* as it is to be carried out on federal lands or outside Canada and is in relation to a physical work. Therefore, an Environmental Effects Determination is required under section 67/68 before it can proceed.

This project is not found in the Ministerial Order: Designated Classes of Projects Order but is found in the DND Abbreviated Report Criteria; therefore an abbreviated report may be prepared.

1.6 AEED Start Date

[Provide the start date of the environmental effects determination process.] This is the date it was registered on the Canadian Impact Assessment Registry]

1.7 EIA number

[This number is provided by ADM(IE) after the Project has been submitted to the Defence EIA Portal.]

1.7.1 IAA Registry Number

[This number is provided by ADM(IE) after the Project has been submitted to the Defence EIA Portal and registered on the Canadian Impact Assessment Registry]

1.8 Provincial and Municipal Government Involvement

[If applicable, briefly describe the Provincial and Municipal government environmental requirements for the area in which the proposed project is to occur.]

1.9 Other Federal Departments or Third Party Groups

[If applicable, list federal departments or third party groups that may also have a determination requirement under s.82 or s.83 of *the IAA*. If a department/group other than DND is leading the environmental effects determination process it should be identified here]

1.10 Contacts

1.10.1 Establishment Point of Contact

[Include contact information for the Decision-maker associated with the project (normally the project manager). Please include the name, position title, mailing address, phone number and e-mail address.]

a) Name, Rank, and Title:

b) E-mail Address:

c) Mailing address

d) Telephone number

1.10.2 Project OPI

[Include contact information for the Decision-maker associated with the project (normally the project manager). Please include the name, position title, mailing address, phone number and e-mail address.]

a) Name, Rank, and Title:

b) E-mail Address:

c) Mailing address

d) Telephone number

1.11 Other Reference Numbers (If Applicable)

[This section allows you to identify if there are any other reference numbers which have been assigned to the proposed project or which are relevant in the completion of this report (i.e., Provincial EIA, DND SEA). List reference numbers and identify the location of these reports, if applicable.]

Part 2. Environmental Effects Discussion

2.1 Applicability of DND Abbreviated Report Criteria

This project is found in the DND Abbreviated Report Criteria Section [insert appropriate Section number, including associated text from the Criteria list].

Projects found in the DND Abbreviated Report Criteria policy are deemed to have minimal interaction with the environment and have environmental effects that are well understood. The required mitigation measures associated with these projects are commonly applied in similar situations; well understood and considered reliable; effective; aimed to avoid or reduce environmental effects; and when implemented no significant adverse effects are deemed likely.

2.2 Accepted Mitigation Measures and Monitoring

Projects falling under the DND ARC have accepted and commonly applied mitigation measures. Please provide a brief explanation justifying that the accepted mitigation measures remain adequate to avoid or reduce the environmental effects of your proposed project.

As support, you may reference a previously approved report with the same mitigation measures, such as a base standing order or any other local procedures which were put in place to minimize risk or impact. This is for the benefit of your ESS and assures that DND is doing their due diligence in regards to the environment.

Where monitoring is required to ensure proper operation and minimize significant adverse effects, this should also be identified

2.3 Indigenous Community Engagement

[DND may have a duty to consult with Aboriginal peoples. This is true for projects which may have the potential to impact potential or established Aboriginal or treaty rights.

To support the consideration of whether a project will have any adverse impacts on the rights of the Indigenous Peoples, Decision makers should read the “Aide-Memoire for DND Employees and CAF Members on the Common Law Duty to Consult with Indigenous Groups” prepared by the Directorate General of Indigenous Affairs and complete the “Legal Duty to Consult Worksheet”. This process should be started in the early stages of a project development to provide sufficient time to conduct Indigenous Consultation.

Should it be determined that there is a potential the project could negatively impact potential or established Aboriginal or treaty rights or if there is uncertainty, the Decision-maker should seek advice from the Directorate General of Indigenous Affairs (DGIA) through its positional mailbox: Aboriginal-Autochtones@forces.gc.ca. When using the positional mailbox, Decision-makers should include in the subject line: DND Environmental Effects Determination- Advice on Indigenous Matters to alert them of the request.

Once completed, the worksheet should be signed off by the Decision-maker and indicated whether advice was sought from DGIA in making this determination. The signed worksheet should be included as an annex to the AEED Report to demonstrate that the requirement was considered. A copy of the AEED report should be shared with DGIA.

Any additional efforts that were undertaken to possibly address impacts to potential or established Aboriginal or Treaty rights such as engaging Indigenous communities or gathering Indigenous knowledge should be included in the AEED Report and if such activities have occurred, Decision-makers should provide DGIA the opportunity to review the AEED report before finalizing it.]

2.4 Public Participation

Projects triggered by the IAA are to be posted on the Canadian Impact Assessment Registry (CIAR) in order to allow the public to become aware and participate in the EIA of projects. Comments provided from the information posted on the CIAR is to be included in the A EED Report and include whether the project is able to address the comments and if so how.

Part 3. <u>Environmental Effects Determination</u>

[Parts 1, 2 and a signed Part 3 of the DND AEED Report must be submitted to the local Establishment point of contact as is listed in Section 1.10.1 for submission to ADM(IE) in order for the determination to be registered on the Portal.]

OPI Project File #:[Insert OPI Project file #]
Establishment File #:[Insert Establishment file #]
EIA#:[Insert EIA #]
CIAR# (Insert CIAR#)

On the basis of this DND AEED Report, it has been determined that the impact of this project on the environment is as follows: [double click on a checkbox to mark it with an X]

☐ The Project is not likely to cause significant adverse environmental effects. The Project **can** proceed.

☐ The Project is likely to cause significant adverse environmental effects that cannot be mitigated. The project must not proceed and must be referred to Governor in Council through the appropriate chain of command before it can potentially proceed in its current state. Otherwise, changes to the project scope (parameters and/or site location) are recommended. This would require a new EDD be submitted through the Portal.

AEED Report Prepared by: [Add signature blocks where necessary]:

Name: **Title:**

Signature Date (dd-mm-yyyy)

OPI Initials to validate information (optional)

AEED Report Reviewed and Approved by: [This report should be reviewed by the local ESS. Add signature blocks where necessary]:

Name: **Title:**

Signature Date (dd-mm-yyyy)

AEED Report Accepted and Approved by: [Add signature blocks where necessary]

The undersigned accepts the determination and recommendations of this environmental effects determination report. The undersigned also accepts the responsibility to incorporate the recommendations of the report into the Project design and implementation.

Name: **Title:**

Signature Date (dd-mm-yyyy)

Company Logo/Name

CONFIRMATORY WILDLIFE SURVEY RESULTS

***Blue text provides completion instructions for each heading. Remove blue text when submitting NOI.

Attention: RSS Land Use Ops Group

Date: Provide date of submission

Results of Confirmatory Wildlife Survey

1. **Land User Name (company for which survey was conducted):**

2. **Date of Survey**: Provide the wildlife survey completion date and/or date range.

3. **Project # as assigned by the Base**: ensure the project number is placed here. It can be obtained from SIRC, RSS LU Ops Gp, or off of decision documents from the Base.

4. **Location**: Provide the site name/legal land description, UTMs and start/end locations, as applicable. A spreadsheet can be used as an enclosure.

5. **Purpose**: Provide details on why the survey was conducted, e.g., reference an approved project file number.

6. **Methods**: Reference Provincial or Federal survey protocols or describe methods used

7. **Results:** Provide survey observations within the wildlife observation data form based on Annex I (RSS LU Ops can provide upon request). Include SAR and non-SAR observations of individuals and features (e.g., nests, dens). If a wildlife feature is located that will delay or cause interruption with commencement/completion of land use, provide that result. If there are no observations or features to report, indicate as such.

8. **Recommendation Made to Land User**: Provide the recommended direction the Land User should take based on the survey results. Reference Provincial and/or Federal guidelines, as required.

Consultant Name, Credentials
Company Name
Position Title
Email
Phone number

ANNEX K
CFB SUFFIELD
RANGE STANDING ORDERS
2024 EDITION

FOR RANGE CONTROL USE ONLY: Range Safety Briefing Booked for

Date: _____Time: _____

Briefing Done By: _____ (signature)

DEPARTMENT OF NATIONAL DEFENCE, CANADIAN FORCES BASE SUFFIELD

REQUEST FOR RANGE AND TRAINING AREA (RTA) ACCESS APPROVAL

Name: _____ **Representing:** _____

(attach written list if more than 2 names)

_____ _____

Reason for access _____

Duration of access _____

Details of activities _____

_____

_____

Sponsor _____

Name	Position	Phone	Alternate contact #

NOTES:	*1. All non-communications related contracted agencies require G4 approval*
	2. All contracted agencies working on communications, and communications related support require G6 approval
	3. General visitors, SEAC, SGAC, miscellaneous groups require G3 approval
	4. RPOU(W) – Det Suffield OC for infrastructure construction or support.

APPROVING SIGNATURE(S): *(Any one of the below listed authorities **must** sign this form)*

	SIGNATURE	NAME / RANK (Legibly Printed):	DATE
G4			
G6			
G3			
RPOU(W) – Det Suffield OC			
Chief of Staff			
Base Commander			

Copies to: Approving authority, Sponsor, Visiting organization, Range Control (thru G3), and File

ANNEX L
CFB SUFFIELD
RANGE STANDING ORDERS
2024 EDITION

NATIONAL WILDLIFE AREA (NWA) ACCESS

Introduction

1. Access to the NWA is highly restricted and all personnel and Land Users operating in this area shall be in possession of a valid NWA access permit.

2. All those requiring access to this area must apply to CFB Suffield, using the permit application form at Appendix 1 to this annex. An example permit is provided at Appendix 2. Those accessing the NWA shall submit an Access Summary Report within 30 days of expiry of the permit (Appendix 3).

3. To ensure timely processing, applications must be submitted no later than 30 calendar days prior to the proposed start date for the activity. For questions regarding this process, please contact the RSS Bio Group at (403) 544-4011 x5184.

CFB SUFFIELD NATIONAL WILDLIFE AREA APPLICATION FOR ACCESS PERMIT

File No.:

Permit No.:

Pursuant to Section 4 of the *Wildlife Area Regulations* under the *Canada Wildlife Act,* and the Range Standing Orders, an Access Permit issued by CFB Suffield is required for all access and land uses conducted within the CFB Suffield National Wildlife Area.

APPLICANT INFORMATION

1. Primary Applicant

Name and Position:		
Organization:		
Address:		
Phone:	Fax:	Email:

2. Total number of people to be covered by the permit:
3. List additional names:

PROPOSED ACTIVITY

4. Title of Activity:	
5. Proposed Start Date:	Proposed End Date:
6. Purpose and brief description of the proposed activity: ☐ Attach a research proposal or project description as applicable, including detailed description of methodology.	
7. Location(s) (list UTM grid references where applicable): ☐ Attach a map depicting access requirements and extent of the proposed activity.	
8. Statement of Requirement to Access the NWA: (Sufficient rationale must be provided as to why access to the NWA is required (i.e., why not elsewhere?) If the activity relates to a species at risk with a federal or provincial recovery plan, outline how the proposed activity will support the goals of the recovery plan.)	

9. Describe the anticipated deliverables, with timelines for completion, and any other benefits that CFB Suffield would derive from the proposed activity:

10. Describe the type / size / number / amount and uses for all equipment and materials related to the activity.	
☐ Vehicles	
☐ ATVs	
☐ Aircraft	
☐ Research equipment	
☐ Permanent structure(s)	
☐ Temporary structure(s)	
☐ Generators	
☐ Fuel/chemical storage	
☐ Other_____	
☐ Other_____	
☐ Other_____	

11. Indicate the types of waste that will be generated and summarize the disposal methods:	
☐ Garbage	
☐ Grey water	
☐ Sewage	
☐ Industrial	
☐ Hazardous/Biological	
☐ Other _____	

12. Will the activity involve disturbing, handling, capturing, collecting, or killing wildlife, including plants?

☐ **NO**

☐ **YES** If Yes, indicate the species and numbers, and describe the methods:

13. Other required permits and authorizations: (*attach copies of all applicable documents*)

☐ Alberta Research Permit # _____ (Issued by Alberta Fish and Wildlife)
☐ Alberta Collection License # _____ (Issued by Alberta Fish and Wildlife)
☐ Alberta Animal Care Committee Protocol # _____ (Issued by Alberta Fish and Wildlife)
☐ *Species At Risk Act* permit # _____ (Issued by Canadian Wildlife Service)
☐ *Migratory Birds Convention Act* permit # _____ (Issued by Canadian Wildlife Service)
☐ Other _____ # _____ (Issued by:_____)
☐ Other _____ # _____ (Issued by:_____)

14. Indicate potential impacts of the activity on wildlife conservation within the NWA. Describe the nature and severity of the impacts, the measures that will be applied to mitigate the impacts, and the potential degree of residual impact.

IMPACT	DESCRIPTION	MITIGATION	RESIDUAL IMPACT
☐ Wildlife disturbance			
☐ Vegetation disturbance			
☐ Wetland disturbance			
☐ Soil disturbance			
☐ Groundwater			
☐ Surface water			
☐ Accidental fire			
☐ Sensory disruption			
☐ Air quality			
☐ Other_____			
☐ Other_____			

15. Describe the potential cumulative effects of the activity on the NWA:
16. Describe any planned follow-up studies and/or monitoring programs related to the activity:

17. _____

Applicant Signature Date

NOTES

- To ensure timely processing, an application should be submitted to the RSS Biology Group no later than 30 calendar days prior to the proposed activity start date.
- The signed application may be submitted by email to benjamin.taylor@forces.gc.ca, by fax to (403) 544-4345, or by mail to *Biology Group, G3 Range Sustainability Section, Canadian Forces Base Suffield, P.O. Box 6000 Station Main, Medicine Hat, Alberta, T1A 8K8*.
- The application must include all required supporting documentation and attachments. Missing or incomplete information shall delay review of the application.
- CFB Suffield is in no way obligated to issue requested permits, and reserves the right to cancel a permit at any time.
- An NWA permit alone does not grant access to the range. All individuals entering the NWA shall also obtain land use approval as stipulated in the Range Standing Orders, and a Range Safety Permit after attending a range safety briefing through Range Control.
- This permit does not remove the obligation for the applicant to obtain any other permit, licence, certificate, or authorization required under any other legislation.
- Inquiries about the NWA permitting process may be directed to the RSS Biology Group at (403) 544-4011 x5184.

FOR OFFICE USE ONLY

Date received:					
Application reviewed by:	_____ *(signature)*		_____ *(date)*	_____ *(printed name)*	
Permit issued:	☐ NO	☐ YES	No:		Date:
Permit Classification:	☐ Military	☐ Scientific	☐ Industrial	☐ Agricultural	☐ Other
Remarks:					

National Defence Défense Nationale

Canada

CFB SUFFIELD NATIONAL WILDLIFE AREA ACCESS PERMIT

Permit No. 20XX-XXX-###

IDENTIFICATION OF PERMIT HOLDER

Pursuant to Section 4 of the *Wildlife Area Regulations* under the *Canada Wildlife Act*, and Chapter 2, Part 6 of the Range Standing Orders, permission to access the CFB Suffield National Wildlife Area is hereby granted to:

(Full Name)
(Organization/Company)
(Address)
(Address)
(Contact Number)

This permit applies to individuals operating under the direction of the identified permit holders.

PERMITTED ACTIVITY

Access is granted for the following activity:

(Description of Activity)

Permit Classification: **Permit type**

PERMIT DURATION

Access for the purpose of the above-stated activity is granted for the following time period:

from: to:

PERMIT CONDITIONS

Conditions imposed on the above-stated activity are listed on the reverse of this document.

Attachments included? ☐ **NO** ☐ **YES** (# pages) *(All attachments constitute part of this permit.)*

Authority: _____ Date: _____

(Base Commander)

ACKNOWLEDGEMENT

I_____, the Permit Holder, understand and agree to comply with all permit conditions, as well as ensure that all individuals associated with the permitted activity are in compliance.

Signature:_____ Date: _____

(Permit Holder)

Witness: _____

This permit alone does not grant range access to CFB Suffield. All individuals entering the range must also attend a safety briefing through Range Control to obtain a Range Safety Permit. The NWA permit and Range Safety Permit must be kept available for presentation when operating on the range and NWA. Failure to present required permits when requested may result in removal from the Base and/or legal action. Base authorities retain the right to suspend access permits at any time.

PERMIT CONDITIONS

1. The Permit Holder shall at all times save harmless and indemnify the Permitter (Department of National Defence) against all claims, demands, actions, suits or other legal proceedings by whomsoever made or brought against the Permitter by reason or arising out of the conducting of said activity. Furthermore, the Permitter will not be liable to the Permit Holder for any loss or damages that may be sustained by the Permit Holder by reason or arising out of conducting the activity.

2. The Permit Holder shall comply with all relevant Federal and Provincial legislation and the CFB Suffield Range Standing Orders.

3. The Permit Holder shall conduct the activity in accordance with the approved Permit Application. Any additional activities or modifications to activities must be authorized by the Permitter prior to implementation, and may be subject to a separate permit and environmental assessment compliant with the *Impact Assessment Act*.

4. Any environmental incidents, chemical spills, species-at-risk observations, and wildlife (floral and faunal) incidents (hit by vehicle, found injured or dead, etc.) shall be reported to Range Control immediately.

5. All NWA access shall adhere to templated restrictions as set by Range Control. The Permit Holder shall liaise with Range Control prior to accessing the NWA to identify and avoid restricted areas.

6. Regardless of the expiry date of this permit, the Permit Holder shall be fully responsible for any required site clean-up and/or restoration related to the activity.

7. This permit is non-transferable.

8. This permit is issued in accordance with the Wildlife Area Regulations, and is not a permit for the purposes of any other legislation including the *Species At Risk Act*, *Migratory Birds Convention Act*, and *Fisheries Act*. Any activity that could impact upon a species at risk or its habitat, migratory birds, or on fish or fish habitat must be authorized separately in accordance with the applicable Act. The Permit Holder is responsible for obtaining all required federal and provincial wildlife research and collection permits, and/or other authorizations.

9. Access is hereby granted to individuals acting under the direction of the Permit Holder. It is the Permit Holder's responsibility to ensure all individuals: (1) obtain a range safety briefing prior to initial access to the Base; and (2) adhere to permit conditions.

10. [ACTIVITY SPECIFIC CONDITIONS – EXAMPLE: The Permit Holder may conduct visual surveys on foot for frogs within riparian habitats as per the survey location list registered with Range Control. No animals or animal parts may be captured or removed from the range. This activity will be conducted by CWS researchers performing other research activities in the NWA as per permit #2005-SCI-003.

11. The Permit Holder shall minimize extent of use of vehicles, and remain on existing roads and trails. Vehicle size and type must be commensurable with the activity. Travel off existing roads and trails to access survey locations may be conducted via ATV. All ATVs must be equipped with a fire extinguisher. When travelling off-road, sites of flushed ground nesting birds must be detoured around to avoid crushing potential nests.

12. The Permit Holder shall not access areas stipulated by the Permitter as out-of-bounds.

13. The Permitter may restrict access to all or portions of the NWA from time to time for military, safety, or environmental reasons. The Permitter reserves the right to impose out-of-bounds areas as required. Whenever possible, the Permitter shall endeavour to provide reasonable prior notice to the Permit Holder of such restrictions.

14. All equipment used and waste produced (e.g., flagging tape, pins, and stakes, personal garbage, etc.) shall be removed from the NWA upon conclusion of an activity.

15. Any fuel or chemicals shall be transported and stored with secondary containment.

CFB SUFFIELD NATIONAL WILDLIFE AREA
Access Summary Report

Pursuant to the conditions of a CFB Suffield National Wildlife Area (NWA) Access Permit, the Permit Holder must submit an Access Summary Report to the RSS Biology Group within 30 days of expiry of the permit. Inquiries regarding the reporting process may be directed to the RSS Biology Group at (403) 544-4011 x5184.

1. NWA Permit number	
2. Permit Holder	
3. Activity Title	
4. Date(s) of access	

5. How many times was the NWA accessed throughout the duration of the activity?	
6. How many people accessed the NWA throughout the duration of the activity?	

7. How many and what type of vehicles entered / were used within the NWA?:	
☐ Trucks:	
☐ ATVs:	
☐ Other:	

8. Were there any vehicle incidents (e.g., accidents, unexpected damage to terrain, POL spills, etc.)?	☐ YES ☐ NO
If YES, provide details, including UTM location(s):	

9. Were there any wildlife incidents (e.g., hit by vehicle, found injured or dead on range, etc.)?	☐ YES ☐ NO
If YES, provide details, including wildlife species and UTM location(s):	

10. Did you observe any potential sites of concern within the NWA? (e.g., garbage, disturbed vegetation and/or soil, damaged fences/signs, etc.)	☐ YES ☐ NO
If YES, provide details, including UTM location(s):	

11. Expected timeline for completion of reporting deliverables (summary report, recommendations, data, etc.):

12. General comments:

I declare that the information presented above is accurate to the best of my knowledge:

Signature: _____ Date: _____

(Permit Holder)

Please submit the completed report by _____. ***Attach additional pages if required.***

Submit by mail or fax to:

RSS Biology Group
CFB Suffield
P.O. Box 6000, Stn Main
Medicine Hat, AB T1A 8K8 Fax: (403) 544-4776

ACCESS TRAIL REPAIR REQUIREMENTS

1. Access repairs may be completed using a 1-day NOI as follows:

   a. existing trails with vegetation in the center of the two-strip tracks, and/or where rutting may have started, and/or where braiding/straddling potential exists shall adhere to the following procedures:

      (1) repair options: use of approved fill to include soil, gravel and/or rip/rap gravel, and no removal of existing vegetation; and

      (2) wildlife survey required during 1 May – 31 Aug where equipment and/or material will leave the existing track(s).

   b. existing trails where rutting exists causing braiding/straddling, and/or very little to no native vegetation on the center, and/or built-up trails/roads not related to the priority map at Annex C shall use the following procedures:

      (1) repair options: use of approved fill to include soil, gravel and/or rip/rap gravel, blading, conditioning, and no removal of existing vegetation; and

      (2) wildlife survey not required.

   c. trail repair widths shall not exceed the current widths or improve the trail (i.e., turning a dirt trail into a gravel road with subgrade work and ditches);

   d. material shall not be removed from outside the two-strip footprint to assist in repairs;

   e. trail closures related to braiding around low spots shall have one of the routes closed and marked to prevent further use; and

   f. submission requirements through the 1-day NOI shall include the normal submission requirements as presented in Annex M Appendix 2 and the location of the approved soil source that will be used.

2. Soil usage from on-Base sources such as, but not limited to built oil sites, borrow pits, require initial approval through the AFD process. Where the initial request was not made through the AFD process, a 15-day FA shall be submitted.

3. Best management practices should be considered when Land Users are completing repairs:

   a. removal of centre vegetation may occur if it is considered undesirable (e.g., pioneer weeds, crested wheatgrass);

   b. if braiding has occurred around a low spot and the soil is bare, material can be contoured back to pre-braiding condition but should not be used for repair of ruts/ trail elsewhere on the access; and

   c. if erosion has occurred and collected at a low spot, material can be collected regardless of width and returned to the eroded areas provided prairie sod below the eroded soil is left intact.

ANNEX N
CFB SUFFIELD
RANGE STANDING ORDERS
2024 EDITION

15-DAY FIELD AUTHORIZATIONS (FA) AND NOTIFICATION OF INTENT (NOI) TEMPLATES

Introduction

1. In accordance with Chapter 2, Part 6, Land Users shall submit 15-day FAs using the InfoPath document available upon request (image located in Appendix 1) and use the instruction at at Appendix 2 to guide the Land User.

2. One or more 1 or 2-day NOIs shall be submitted in accordance with Appendix 3.

3. All documentation shall be submitted to the LU Ops Gp by email at rangesustainability@forces.gc.ca.

4. Inquiries about the 15-day FA and NOI submission processes may be directed to the LU Ops Gp at (403) 544-4011 x5140 or rangesustainability@forces.gc.ca.

15-DAY FIELD AUTHORIZATION – IMAGE

Field Authorization

1	Project description			
2	Does this activity trigger the Impact Assessment Act (IAA)?	Yes ☐	No ☐	
3	Why or why not?			
4	If Yes to 1, which document is included	EED ☐	AEED ☐	
5	Date of Application (DD MMM YY)			
6	Applicant (Land User)		Name	
7	Land User Representative Name		Position/Title	
8	Email		Phone Number	
9	Activity/Project Name		Land Use Type	
10	Start Date (DD MMM YY)		End Date (DD MMM YY)	
11	Extent of Disturbance			
12	Original Construction Date		CFB Suffield File #	
13	Environmental Work completed in conjunction with a required AEED/EED	Yes ☐	No ☐	
14	Is Off-trail Vegetation and/or Ground Disturbance occurring?	Yes ☐	No ☐	
15	Will confirmatory wildlife sweeps be completed prior to activity commencement?	Yes ☐	No ☐	
16	If no to questions 14 and 15, provide justification			
16	A Survey or Site Plan is attached	Yes ☐	No ☐	
17	A Site/Pipeline List is attached	Yes ☐	No ☐	

15-DAY FIELD AUTHORIZATION – INSTRUCTIONS TO SUPPORT FORM

1. **Project Description**: Provide a description of the project including proposed access if applicable.

2. **Does this activity trigger the IAA**: Choose 'Yes' or 'No' based on the Flowchart EIA Process under Interim Direction for the Federal Lands provisions of the Impact Assessment Act_Sep19 and the RSO Chapter 2, Part 3. If 'No', move to question 2. If 'Yes', move to question 3.

3. **Why or Why Not**: If 'Yes', describe how the project meets the definition within the Act. If 'No', describe why using the flowchart and Ministerial Order - Designated Classes of Projects Order SOR_2019-323.

4. **Document included**: If 'Yes' to para 1, include which document will be part of the AFA submission; EED or AEED.

5. **Date:** Enter the date the application will be made to the Base.

6. **Applicant Name (Land User)**: Identify the Land User for the activity.

7. **Land User Representative & Position/Title:** Identify the Land User Representative or environmental consultant (company name) who will be performing the environmental work and/or associated with the development.

8. **Email & Phone Number**: Provide the email and phone number of the Land User Representative.

9. **Activity/Project Name & Land Use Type**: Provide the name of the project. Land Use Type is found in the RSO at Chapter 2 Tables 2-1 to 2-4. Choose the closest to the Land User project and provide it in the line.

10. **Start Date**: Provide estimated start date; a subsequent 1-day NOI will provide actual date.
End Date: Provide estimated end date; a subsequent 1-day NOI will provide actual date.

11. **Extent of Disturbance Location**: Provide estimated area that the disturbance will entail (e.g., 10 m x 15 m).

12. **Original Construction Date and/or CFB Suffield file number:** If the Land User is aware of any past approved projects associated with their application, place the known file number in this area.

13. **Environmental Work completed in conjunction with a required AEED/EED**: Indicate 'Yes' or 'No'. Remaining questions will assist in determining whether the Base will request further environmental work prior to approval.

14. **If Off-trail Vegetation and/or Ground Disturbance occurring**: Indicate 'Yes' or 'No'. Remaining questions will assist in determining whether the Base will request further environmental work prior to approval.

15. **Will confirmatory wildlife sweeps be completed prior to activity commencement**: Indicate ‘Yes’ or ‘No’. Remaining questions will assist in determining whether the Base will request further environmental work prior to approval.

16. **If no to question 14 and 15, provide justification**.

17. **A survey or site plan is attached**: Indicate ‘Yes’ or ‘No’.

18. **A Site/Pipeline List is attached**: Indicate ‘Yes’ or ‘No’.

NOI SUBMISSION FORMAT – 1-DAY

1. Land Users shall provide the following information (in Excel format) for each location submitted for a 1-day NOI:

   a. Base-issued project number (e.g., 16-0200)

   b. work start date

   c. work completion date (estimated)

   d. work completion date (actual)

   e. Land User (e.g., organization, company)

   f. contractor (if applicable)

   g. land use description

   h. Easting (UTM)

   i. Northing (UTM)

   j. UWID / CPA *(oil and gas Land Users only)*

   k. surface location *(oil and gas Land Users only)*

   l. well name *(oil and gas Land Users only)*

   m. battery *(oil and gas Land Users only)*

   n. site specific comments (as required)

2. An electronic NOI template file is available upon request from the Land Use Ops Group.

PERMIT #_____

ANNEX O
CFB SUFFIELD
RANGE STANDING ORDERS
2024 EDITION

DEPARTMENT OF NATIONAL DEFENCE – CANADIAN FORCES BASE SUFFIELD
RANGE AND TRAINING AREA (RTA) ACCESS PERMIT

1. Access is hereby granted to the undersigned, representing

Name (insert company name):
_____

to enter onto the CFB Suffield RTA, from _____ until _____

for the purpose of _____.

2. While on the Canadian Forces Base Suffield RTA the undersigned hereby agrees to be subject to the provisions of the *Defence Controlled Access Area Regulations*, the *Government Property Traffic Regulations*, the *Alberta Wildlife Act*, Canadian Forces Base Suffield Range Standing Orders, and other such controls as Canadian Forces Base Suffield may impose at any time. Failure to comply with these aforementioned controls and regulations may result in immediate revocation of this RTA Access Permit and prosecution in a court of law.

3. The recipient shall at all times indemnify and save harmless Her Majesty, Her officers, servants, agents, employees, and members of Her Canadian Forces from and against all claims and demand, loss, costs, damage, actions, causes of action, suits, or any other proceedings by whomsoever made brought, or prosecuted in any manner based upon, occasioned by, or attributed to the provision of this RTA Access Permit, or any action taken or things done or maintained by virtue hereof. (This paragraph is not applicable to DND employees ordered by their chain of command to work on the CFB Suffield RTA.)

4. The undersigned hereby agree that they have, to their satisfaction, been sufficiently informed of the inherent dangers of the RTA, and of the current Range Control and safety measures to permit them or any other persons or organizations as they may represent to use the RTA in reasonable safety.

5. The undersigned hereby agree, without exception, to the conditions described herein on behalf of him/herself and such other persons and organizations as they may represent.

First Name _____ **Last Name** _____
Cell # _____ **Email Address** _____
Company Name _____
Company Address _____ **City** _____
Province _____ **Postal Code** _____
Company Phone # _____ **Fax #** _____

Signature _____ **Date** _____

APPROVING AUTHORITY	**RANK**		**NAME**	
SIGNATURE				

SAFETY BRIEF GIVEN BY	**RANK**		**NAME**	
SIGNATURE				

PERMIT #_____

CFB SUFFIELD RTA – BASIC SAFETY INFORMATION

1. CFB Suffield is a military training base, meaning that there is live firing of military weapons, and rapid movement of combat vehicles. CFB Suffield is also a defense research facility; hence there are some ongoing dangerous activities. Those going onto the Range and Training Area (RTA) may face significant danger if they do not pay attention to the procedures governing area access, route regulations, and movement control.

2. THE USE OF ALCOHOL AND/OR DRUGS (OTHER THAN AS MEDICALLY PRESCRIBED) IS STRICTLY FORBIDDEN ON THE CFB SUFFIELD RTA. THOSE CAUGHT BREAKING THIS PROHIBITION SHALL BE REMOVED FROM THE RTA IMMEDIATELY, AND SHALL NOT BE PERMITTED TO RETURN.

3. All supervisors of visiting organizations are responsible for obtaining, reading, and understanding the CFB Suffield Range Standing Orders, and ensuring that their employees understand them as well. For example, SIRC is responsible for all Oil and Gas personnel on the RTA.

4. All movement on the RTA must be controlled through Range Control, DRDC (Alpha) net, SIRC (Alberta Zero), or (for select UK visitors) the BATUS Ops Room. Routes MUST be cleared through one of these movement control stations BEFORE any movement begins. Once route clearance has been provided, no deviation is permitted unless the new route has been cleared through the same movement control station. The Experimental Proving Ground (EPG), Oil Access Area and the National Wildlife Area (NWA) are all out of bounds without specific authority and prior clearance.

5. Maximum speed. ALL CFB Suffield roads have a maximum speed limit of 70 km/h. Range Control has the authority to reduce speed limits at any time in all or parts of the RTA (e.g., during times of inclement weather, reduced visibility). Range Control will broadcast advisories to range users when the speed limit changes in all or parts of the RTA. RTA users are encouraged to check with Range Control or their control station at any time to obtain driving condition reports. Despite the speed limit, RTA users must drive at speeds commensurate with the local conditions, provided that they never exceed the maximum limit of 70 km/h. When passing road maintenance vehicles, the maximum speed is 30 km/h. When passing marching troops, the speed limit is 10 km/h. Road speeds are monitored using radar.

6. The RTA has many sub-surface oil and gas wells and associated surface and sub-surface infrastructure. In addition, there are several experimental test sites in the EPG as well as military training infrastructure. RTA users must stay clear of all such sites, which do not relate specifically to their work duties.

7. Unexploded Ordnance (UXO) is a real threat throughout RTA, so all RTA users must be diligent. It is forbidden to touch or handle munitions, or unidentified objects encountered on the RTA. Report such objects immediately to Range Control, citing location, and a description in accordance with UXO reporting procedures.

8. All digging within the RTA must be authorized through Range Control a minimum of 48 hours in advance.

9. Road barriers or hazard signs are seldom used to indicate dangerous activities on the RTA. Rather, each movement control station as mentioned in paragraph 4 is aware of where dangerous activities are ongoing. RTA users must check with their applicable control station for up-to-date information on dangerous areas before entering the RTA.

10. There is no hunting (for animals or souvenirs) permitted within CFB Suffield RTA. RTA users are forbidden to remove anything they did not bring with them, and are to take out everything they brought in. As wildlife is abundant at CFB Suffield, it is especially important to not leave litter and garbage behind.

11. Grass fires occur frequently at CFB Suffield. They are DANGEROUS and MUST be avoided. Fire fighting and other emergency services can be obtained by contacting Range Control via phone at 544-4310, or by radio on channel 1. However; RTA users are encouraged first to contact their designated control station (paragraph 4) if possible.

12. The use of certain phrases on the radio indicates an emergency in progress (e.g., Pan Pan Pan, May Day, No Duff, 9-Liner, and Minimize). If any of these phrases are heard, RTA users must stay off the radio until Range Control announces a return to normal procedures. Those waiting for route clearance during this time must have patience while those with the emergency have unimpeded use of the radio.

PERMIT #_____

ANNEX P
CFB SUFFIELD
RANGE STANDING ORDERS
2024 EDITION

DEPARTMENT OF NATIONAL DEFENCE – CANADIAN FORCES BASE SUFFIELD
ESCORT RANGE AND TRAINING AREA (RTA) ACCESS PERMIT

1. Access ONLY while being escorted by an authorized individual is hereby granted to

Name: _____

to enter onto the CFB Suffield RTA, from _____ **until** _____

for the purpose of _____

2. While on the Canadian Forces Base Suffield RTA the undersigned hereby agrees to be subject to the provisions of the *Defence Controlled Access Area Regulations*, the *Government Property Traffic Regulations*, the *Alberta Wildlife Act*, Canadian Forces Base Suffield Range Standing Orders, and other such controls as Canadian Forces Base Suffield may impose at any time. Failure to comply with these aforementioned controls and regulations may result in immediate revocation of this RTA Access Permit and prosecution in a court of law.

3. The recipient shall at all times indemnify and save harmless Her Majesty, Her officers, servants, agents, employees, and members of Her Canadian Forces from and against all claims and demand, loss, costs, damage, actions, causes of action, suits, or any other proceedings by whomsoever made brought, or prosecuted in any manner based upon, occasioned by, or attributed to the provision of this RTA Access Permit, or any action taken or things done or maintained by virtue hereof. (This paragraph is not applicable to DND employees ordered by their chain of command to work on the CFB Suffield RTA.)

4. The undersigned hereby agree that they have, to their satisfaction, been sufficiently informed of the inherent dangers of the RTA, and of the current Range Control and safety measures to permit them or any other persons or organizations as they may represent to use the RTA in reasonable safety.

5. The undersigned hereby agree, without exception, to the conditions described herein on behalf of him/herself and such other persons and organizations as they may represent.

First Name _____ **Last Name** _____
Cell # _____ **Email Address** _____
Company Name _____
Company Address _____ **City** _____
Province _____ **Postal Code** _____
Company Phone # _____ **Fax #** _____

Signature _____ **Date** _____

APPROVING AUTHORITY	**RANK**		**NAME**	
SIGNATURE				

ESCORT WAIVER	Visitor must read and sign form, and must be escorted at all times by a person with a valid Range Safety Brief.

PERMIT #_____

CFB SUFFIELD RTA – BASIC SAFETY INFORMATION

1. Escorted individuals must, as a minimum, read the information listed below, and sign the waiver on the other side of this form, before they will be permitted access to the CFB Suffield RTA. Range Control will retain the original signed form, and a copy must be kept with the individual while on the RTA. Persons needing to work on the RTA independently must attend a safety briefing given by one of the movement control authorities listed at paragraph 6.

2. Escorted individuals MUST travel with and follow the instructions of their escort AT ALL TIMES.

3. CFB Suffield is a military training base, meaning that there is live firing of military weapons, and rapid movement of combat vehicles. CFB Suffield is also a defense research facility; hence there are some ongoing dangerous activities. Those going onto the Range and Training Area (RTA) may face significant danger if they do not pay attention to the procedures governing area access, route regulations, and movement control.

4. THE USE OF ALCOHOL AND/OR DRUGS (OTHER THAN AS MEDICALLY PRESCRIBED) IS STRICTLY FORBIDDEN ON THE CFB SUFFIELD RTA. THOSE CAUGHT BREAKING THIS PROHIBITION SHALL BE REMOVED FROM THE RTA IMMEDIATELY, AND SHALL NOT BE PERMITTED TO RETURN.

5. All supervisors of visiting organizations are responsible for obtaining, reading, and understanding the CFB Suffield Range Standing Orders, and ensuring that their employees understand them as well. For example, SIRC is responsible for all Oil and Gas personnel on the RTA.

6. All movement on the RTA must be controlled through Range Control, DRDC (Alpha) net, SIRC (Alberta Zero), or (for select UK visitors) the BATUS Ops Room. Routes MUST be cleared through one of these movement control stations BEFORE any movement begins. Once route clearance has been provided, no deviation is permitted unless the new route has been cleared through the same movement control station. The Experimental Proving Ground (EPG), Oil Access Area and the National Wildlife Area (NWA) are all out of bounds without specific authority and prior clearance.

7. Maximum speed. ALL CFB Suffield roads have a maximum speed limit of 70 km/h. Range Control has the authority to reduce speed limits at any time in all or parts of the RTA (e.g., during times of inclement weather, reduced visibility). Range Control will broadcast advisories to range users when the speed limit changes in all or parts of the RTA. RTA users are encouraged to check with Range Control or their control station at any time to obtain driving condition reports. Despite the speed limit, RTA users must drive at speeds commensurate with the local conditions, provided that they never exceed the maximum limit of 70 km/h. When passing road maintenance vehicles, the maximum speed is 30 km/h. When passing marching troops, the speed limit is 10 km/h. Road speeds are monitored using radar.

8. The RTA has many sub-surface oil and gas wells and associated surface and sub-surface infrastructure. In addition, there are several experimental test sites in the EPG as well as military training infrastructure. RTA users must stay clear of all such sites, which do not relate specifically to their work duties.

9. Unexploded Ordnance (UXO) is a real threat throughout RTA, so all RTA users must be diligent. It is forbidden to touch or handle munitions, or unidentified objects encountered on the RTA. Report such objects immediately to Range Control, citing location, and a description in accordance with UXO reporting procedures.

10. All digging within the RTA must be authorized through Range Control a minimum of 48 hours in advance.

11. Road barriers or hazard signs are seldom used to indicate dangerous activities on the RTA. Rather, each movement control station as mentioned in paragraph 4 is aware of where dangerous activities are ongoing. RTA users must check with their applicable control station for up-to-date information on dangerous areas before entering the RTA.

12. There is no hunting (for animals or souvenirs) permitted within CFB Suffield RTA. RTA users are forbidden to remove anything they did not bring with them, and are to take out everything they brought in. As wildlife is abundant at CFB Suffield, it is especially important to not leave litter and garbage behind.

13. Grass fires occur frequently at CFB Suffield. They are DANGEROUS and MUST be avoided. Fire fighting and other emergency services can be obtained by contacting Range Control via phone at 544-4310, or by radio on channel 1. However; RTA users are encouraged first to contact their designated control station (paragraph 4) if possible.

14. The use of certain phrases on the radio indicates an emergency in progress (e.g., Pan Pan Pan, May Day, No Duff, 9-Liner, Minimize). If any of these phrases are heard, RTA users must stay off the radio until Range Control announces a return to normal procedures. Those waiting for route clearance during this time must have patience while those with the emergency have unimpeded use of the radio.

GROUND DISTURBANCE CLEARANCE FORMS

Introduction

1. Land Users conducting ground disturbance shall obtain clearance per procedures detailed in RSO Chapter 2, Part 7.

2. This annex provides the dig liaison form (Appendix 1), dig liaison instructions (Appendix 2), and the dig permit application (Appendix 3).

DIG LIAISON

SER #:_____

PART 1 – Confirmation of Receipt of Land Use Approval

OPS RM:

Attached:
- **NOD** ☐
- **Non-Objection** ☐
- **Recognition Ltr** ☐
- **RP Auth Doc** ☐

Rank/Name	Signature of receipt	Date

PART 2 – Dig Liaison Request

Date/Time Requested: _____ **Requesting Unit:** _____

RV Date/Time/Loc: _____ **Call Sign at RV:** _____

Loc/Grids of Digging: _____ _____ _____

Description (*e.g., defensive position, culvert construction, etc.*) : _____

_____

Type of Digging/ Depth/Width _____

_____

Rank/Name of Requesting Unit/Land User OPI	Signature	Date

PART 3 – Dig Liaison

Representative On-site	Name /Rank:	Date:	Task completed at site/Comments	Signature:
O&G Land User (SIRC, Midwest Surveys)				
RPOU(W) (as required)				
DRDC (as required)				

Representative On-site	Name /Rank:	Date:	Task completed at site/Comments	Signature:
RSS (as required)				
Range Control				
Requesting Unit/Land User				

Part 4 – Authorization to Dig

Authorized: ☐ **Not Authorized:** ☐

Remarks:

Rank/ Name (RCO/ DRCO/Ops WO)	**Signature**	**Date**

Notes:
1. Confirm and mark with stakes/pin flags all underground facilities within 100 m of digging.
2. Stakes/Pin flags to be removed when excavation is filled in.
3. Any grid not cleared is to be scratched out and amended locations provided to Range Control and LU Ops Gp.
4. Ensure Ser # is entered into the range clean-up serial list.
5. Digging on road surfaces is prohibited.
6. Digging authority is valid for 30 days from RV date.

Distribution upon completion: Range Control Ops Room, G3 RSS Land Use Ops, Requesting Unit/Land User

INSTRUCTION FOR DIG LIAISON REQUEST FORM

1. The dig liaison form is required to support ground disturbance clearance processes from the RSO Chapter 2, Part 7. This instruction is intended to support the Unit/Land User requesting a dig liaison and the representatives that are on-site during the dig liaison.

2. Part 1 – Confirmation of Receipt of Land Use Approval:

   a. NOD – this is a Notice of Decision that has been signed by the Base Commander providing DND approval that the Land User may proceed with applicable post-approval range clearance steps;

   b. Non-objection – is a Base response (in the form of an email) for requests that fall under a 15-day Field Authorization;

   c. Recognition letter – for this process, the Recognition letter articulates to the military Land User that data has been captured and the military Land User can commence the post-approval range clearance steps; and

   d. OPS RM – Range Control Ops Room (RM) will sign Part 1 confirming that one of the three approvals (a-c as described above) has been received and is accompanied with the dig liaison request. The Ops Rm is the POC to carry the dig liaison process forward where contact is made to representatives electronically.

3. Part 2 – Dig Liaison Request:

   a. Date/Time Requested – this information provides the initial date and time of submission of the dig liaison form;

   b. Requesting Unit – provide the name of the unit or Land User requesting the dig liaison (e.g., BATUS, DRDC);

   c. RV Date/Time/Loc – provide the preferred date of the requested dig liaison (RV – rendezvous), the time in which the unit/Land User would like to meet, and the location. It is recommended that dig liaisons that may take numerous days to complete commence early in the day and proceed in a logical pattern to allow efficiencies for all representatives (e.g., if work is expected in Komati, start in Komati and then move back to the main RTA on the West side of the river);

   d. Call Sign at RV – this shall include the call sign of the unit/Land User that is requesting the dig liaison;

   e. Location/Grids of Digging – these are the locations/grids that were approved within Part 1 a-c. These can be attached as an Annex to support the main dig liaison form. Documentation submitted with the NOD or 15-day FA called the site list can be used; this provides legal land description, grids, and UTMs;

   f. Description – provide the project description to allow representatives to ensure potential impacted underground facilities are able to be sufficiently marked and/or to provide

representatives with the information to determine if their attendance is required (e.g., target pit, soil sample). Lengthy project descriptions can be attached as an Annex;

g. Type of Digging, Depth/Width – provide the type of equipment that will be used and the anticipated depth/width of the disturbance; and

h. Rank/Name of Requesting Unit/Land User OPI, Signature, Date – provide the name of the individual submitting the request, the signature, and date of the request.

i. **NOTE: the call sign at RV and/or Requesting Unit/Land User shall be on-site during the dig liaison to guide representatives to the proposed project area. OR, the Requesting Unit/Land User shall have locations marked in the field to allow representatives ease of finding the project area and ability to mark underground facilities appropriately.**

4. Part 3 – Dig Liaison:

a. Representatives on-site may include Oil and Gas (O&G) Land Users to mark O&G underground facilities, RPOU (W) if a dig permit zone is near or within the proposed project area, DRDC if the proposed project is located within the EPG or near any known DRDC OOB areas, and RSS to support DND projects or assist the military Land User in siting. Range Control will ensure the process of the dig liaison is completed as described in this document and will always be on-site during the dig liaison. The Requesting Unit/Land User is required to guide representatives to the project area(s) per 3i above;

b. Name/Rank – provide the printed name of the individual on-site;

c. Date – provide the date the representative was on-site;

d. Task completed at site/Comments – provide the conclusion that the representative had on the site. This may include but is not limited to that underground facilities were marked, no issues, an option that there is extra information attached, and/or the representative did not participate; and

e. Signature – all representatives present are required to sign the dig liaison document. If not on-site, representatives are required to provide an email to Range Control articulating why they were unable to attend or not present. Range Control will keep this document as part of the dig liaison process.

5. Part 4 – Authorization to Dig:

a. Authorized/Not Authorized – the signing authority will check the box of the decision determined;

b. Remarks – comments are added as required; and

c. Rank/Name, Signature, Date – The RCO/DRCO/Ops WO have authority to sign and therefore complete the dig liaison process. These individuals shall ensure the form has been completed in accordance with the RSO and this instruction. Where errors exist or questions are posed, Range Control will request more information from the requesting Unit/Land User and/or representatives.

Dig Permit Application

Requisition Information

Date of Request:

Project Number:

Project File (PF) Number:

Project Name:

Requested by:

Contact Info:

Date required (Add 14 days to Date of request):

Description:

Please see next page for the work area

Standard Operating Procedures for Dynamic Dig

1. Dynamic digging supports tactical scenarios-based training at company level or greater and may include defensive position trenches, minefield breaching that can include scraping/plowing and infrastructure crossing of man-made rivers, bridges, and fascines.

2. Dynamic digs do not allow for forward planning and are reactive to training requirements. Digging is essential for training troops and involves potential for line hits to underground oil and gas facilities if line locates do not occur.

3. Dynamic digging shall be discussed with the responsible military component prior to commencement of training. As this position will shift, this information will need to be provided through the military liaison at Range Control Operations Room. Personnel coordinating the dynamic portion of training shall have the most up to date Go/No-Go map. This map is available upon request through Range Sustainability Section (RSS).

4. Dynamic Dig Request: Hand Digging Only. The Land User shall submit a request for Dynamic Digging containing the following 3 days prior to the activity or as early as possible:

a. clearance through the RCO via email or meetings minutes to proceed without a dig liaison;

b. confirmation that the digging will be by hand; that the ground disturbance does not exceed 45cm in depth; and that the Go/No-Go map was used to determine locations;

c. LU Ops shall be notified via email (RangeSustainability@forces.gc.ca, karen.guenther@forces.gc.ca, sheri.mcnamara@forces.gc.ca) prior to the commencement of the dynamic dig (minimum 1 day notice) and include the general area of activity with map/grid square references); and

d. final 10 figure grids are to be forwarded to the LU Ops Gp upon completion of digging (within 48 hours).

5. An email response to the Land User will occur and follow-up with the requirement to provide points 5d from above.

6. Dynamic Dig Request: Mechanical Digging. Mechanical digging will require a dig liaison and the procedure to follow is listed below:

a. at least seven days prior to the activity, a warning order shall be provided to the RCO by the military unit via the Rge Coord Meeting to coordinate the participation of SIRC. If no weekly meeting is held, details to be submitted to Range Control as soon as they are known for Range Control coordination with SIRC;

b. LU Ops shall be notified via email (RangeSustainability@forces.gc.ca, karen.guenther@forces.gc.ca, sheri.mcnamara@forces.gc.ca) prior to the commencement of the dynamic dig (minimum 1 day notice) and include the general area of activity with map/grid square references). LU Ops will complete a review of the Go/No-Go Map and provide an email back to the Land User and Range Control;

c. after coordination with Range Control and SIRC, a dig liaison for all required ground disturbance areas is performed in the field which could occur within 24 hrs of the digging commencement. The dig liaison is signed by the RCO and digging commences; and

d. final 10 figure grids of the digging are forwarded to LU Ops upon completion (within 48 hour).

7. LU Ops will be responsible for record keeping and final assessment of cleanup and reclamation once the training area has cleared.

MILITARY UNIT AFTER-ACTION REPORTING

1. The User-Unit After Action Report must be completed by all military units and submitted to Range Control as soon as practicable after cessation of use of the RTA, and **before departing** from CFB Suffield. User units **will not be cleared** for departure from CFB Suffield until this report has been submitted and verified.

2. This report shall be used to ensure that user units have taken the necessary action to leave their assigned areas in a clean and safe condition and to compile data on RTA usage. This is also a unit's opportunity to provide feedback that may improve safety on the RTA (e.g., reporting any unsafe conditions that exist on the RTA such as washouts, dangerous intersections, downed road signs, etc.).

3. Cost sharing between BATUS and Canada at CFB Suffield is calculated based upon the mutual use of the RTA; therefore, it is imperative that units accurately report the **exact number** of soldiers that use the RTA on each training day at paragraph 5.

4. After each exercise serial, BATUS shall submit an After Action Report in accordance with the BATUS Range Standing Orders.

USER-UNIT AFTER ACTION REPORT

BIVOUAC IN-CLEARANCE

1. If the bivouac is in location for 24 hours or longer, at the time of March-In, the unit shall arrange for fire, hygiene, environment and safety inspections. Upon completion of these inspections ensure the appropriate signature is obtained below as proof of the inspection.

Fire Hall Rep:

_____ _____
Please print signature
Name, rank/appointment

PMED Tech:

_____ _____
Please print signature
Name, rank

Environmental O:

_____ _____
Please print signature
Name, rank/appointment

PART 1 - TRAINING AREA USAGE

1. Unit (and Exercise Name): _____

   a. Name of Exercise OIC: _____

   b. Name/s of RSO/s: _____

2. Dates: _____

3. Assigned Training Areas: _____

_____

4. Type of Usage: _____

_____

5. Range Usage Report - (The **EXACT** number for EACH category during the scheduled exercise/activity):

   a. # Of Pers (Total for **EACH DAY**): _____

6. # OF VEHICLES BY TYPE: (Total for Exercise)

   b. Wheeled: _____

   c. Tracked: _____

7. # OF KM TRAVERSED BY VEHICLE TYPE: (Total for Exercise)

   a. Wheeled: _____ km

   b. Tracked: _____ km

8. FUEL CONSUMED FROM BASE: (Total for Exercise)

   a. Diesel: _____L

   b. Gas: _____L

9. WATER CONSUMED FROM BASE: (Total for Exercise)

   a. _____L

10. Bivouac/Harbour/ Grid Reference Type Period of Use

Leaguer Areas:

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

11. Firing Points/
Defensive Positions:_____

_____

_____

_____

12. Target/Impact
Objective Areas: _____

_____

_____

_____

13. Unrepaired Damage,
Digging, etc.: _____

_____

_____

_____

PART 2 - RANGE CLEARANCE

14. REPORT OF AMMUNITION EXPENDITURE

a. Reporting of ammunition including blank and pyrotechnics except artillery.
NOTE: For artillery, see next table. This data is mandatory for input into CFRIS.

Lot/Batch	Wpn & Ammo Type	Quantity Issued	Quantity Expended
Example: IVI05C01-02	**Rifle 5.56mm C7 – CTG 5.56mm Blank**	**400**	**400**

b. Reporting of artillery ammunition and fuses. (Fuses must be matched with an ammo type, see first line as an example.)

Lot/Batch	Wpn & Ammo Type	Fuse Lot/Batch & Type	Quantity Issued	Quantity Expended
Example: CA-00C10-01	**Gun 105mm How 105mm PLDG**	**CA-97C02-01 Fuze M739**	**40**	**40**

15. Reporting of explosives. (Include lot/batch numbers of each type.)

Lot/Batch	Calibre/Nature	Quantity Issued	Quantity Expended
Example: PCE05J08-11	**CHG DML BLOCK C4 (1.25LB)**	**50**	**50**

16. Reporting of misfires**.** (Include lot/batch numbers for each.)

Quantity	lot/batch number	Calibre/Nature	Action Taken (marked or blown)	Loc of Misfire by GR Marker Description
Example: 1	**CA-05F11A01**	**SIM PROJ GB C1A1 (arty sim)**	**marked**	**WB 06533 01891 4 ft wood stake w/red marking**

17. Reporting of undestroyed UXO (i.e., UXO found but not caused by user units).

Number of Blinds/UXO's Found	Calibre/Nature (best guess)	Location by GR	Marker Description and/or Location description
Example: 1	**155mm HE**	**WB 12933 92691**	**4 ft wood stake w/white mine tape – Davies Corner**

18. Halon Releases:

Note: HALON is considered an environmentally harmful substance, and the Base is obligated by law to track and report all releases of halon into the environment.

TYPE	LOCATION	AMOUNT	NSN	ER#
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

19. General Comments: _____

_____

_____

20. I certify that I supervised the troops while the above activities were being performed and the statements made in this report are correct. Before leaving the RTA, I ensured my area(s) was/were free of live ammunition. I certify that all personnel and weapons have been inspected and that all personnel made an Ammunition Declaration before departing the RTA. I further certify that to the best of my knowledge, my area(s) is/are free of UXO except as noted in para 17.

_____ _____
(Date) (OIC Exercise)

21. I certify that the unit has adequately cleared the RTA.

_____ _____ _____
(Date) (Range Control Rep Printed Name) (Signature)

RANGE CONTROL COMMENTS ON CONDITION OF RANGE AND CLEAN-UP

_____

_____

_____

Signature:_____ _____
Ops WO Acknowledgement Date

RANGE CONTROL OPS WO COMMENTS

_____

_____

PART 3 – RANGE CONTROL OFFICER COMMENTS

_____

_____

Signature:_____ _____
RCO Acknowledgement Date

Distribution: Range Control Ops Rm (file copy), G3 Ops

REPORT FORMATS

1. The following report formats shall be applied to ensure that COMPLETE and TIMELY information is provided to Range Control. A failure to provide the required details may cause a delayed or incorrect response, which may compromise the health, safety, and security of Land Users and personnel.

PART 1 – ROUTE CLEARANCE

2. Route Clearance Request. All Land Users shall request clearance to move in the RTA through their appointed control station in accordance with the following:

a. identity of requesting user (call sign);

b. current location;

c. proposed route; and

d. intended destination.

e. sub-paragraphs b to d above may be delivered in one sentence. An example of a route clearance is as follows:

(1) Land User - "Range Control this is S12, route clearance over"

(2) Control Station - "S12, this is Range Control, Send, over"

(3) Land User - "Range Control, this is S12, Route Clearance from Base, North on Rattlesnake, East on Jackson to Ready Springs, over"

(4) Control Station – "S12, this is Range Control, Route Clearance from Base, North on Rattlesnake, East on Jackson to Ready Springs, your route is clear, over"

(5) Land User – "Range Control, this is S12, I confirm, my route is clear, out)

3. All Land Users shall ensure that they wait for their control station to confirm the proposed route is clear, PRIOR to moving. All Land Users shall acknowledge that the route is clear. All Land Users shall advise their control station when they have arrived at their destination.

4. Route clearance shall be sought from a control station for every move or deviation from an approved route. For movements within a template, route clearance shall be sought from the template controller.

PART 2 – EMERGENCY REPORTS

5. 9 Liner and Mist. Land Users requiring emergency medical support are to immediately contact their control station, OR Range Control through radio communication – using the prowords "9 Liner" and be prepared to provide the following info for the report:

a. Location of Casualties (grid loc of pickup site - 6-figure grid minimum, 10-figure grid ideal);

b. Identity of requesting Land User (call sign and frequency);

c. Number of patients by priority:
A-PRI 1. urgent 90 minutes or less;
B-PRI 2. priority 4 hours or less;
C-PRI 3. routine 24 hours or less

d. Special equipment required:
A-None;
B-B Hoist/Winch;
C-Vehicle extraction equipment; and/or
D-Ventilator.

e. Number of patients in the following conditions:
L-Litter/Stretcher;
A-Walking/Ambulatory; and/or
E-Escort (e.g., for patients of child age).

f. Age and gender of casualty(s)

g. Method of marking LZ/PZ
A-Panels
B-Pyro
C-Smoke
D- None
E- Other (specify)

h. Number of patients nationally/organization
A-DRDC
B-SIRC
C- BATUS
D-CDN Military
E-CIVILIAN
F-OTHER

i. Pickup zone (PZ) Terrain/Obstacles

j. <u>Example of 9 Liner</u>

(1) Land User - “Range Control this is S12, “9 LINER”

(2) Control Station - “S12, this is Range Control, Send, over”

(3) Land User - “ a. Grid 135 938,
b. S12
c. two patients priority 2
d. C – air evac
e. 1 x L
f. male age 35 (mid 30’s)
g. A-panel marker

h. E-1 x civilian
i. 9-Nil

MIST Report
M – Mechanism of injury (e.g., motor vehicle accident, explosion)
I – Type of injury (e.g., crushing, puncture, gun shot, burn)
S – Signs (e.g., pale, sweating, respiratory rate)
A-Airway
B-Breathing rate
C-Pulse
D-Conscious/unconscious
E-Other signs (e.g., allergies)

6. Once a “9 Liner and Mist ” has been received by Range Control, the Range Control Net will be cleared of normal comms traffic, MP Dispatch will be informed, who will source any medical support requirements. Comms traffic will remain minimized until the situation has been resolved.

7. Aircraft Distress Report (MAYDAY)

a. Mayday, Mayday, Mayday. Call sign to be reported three times;

b. position, heading and altitude;

c. type of emergency;

d. pilot’s intentions; and

e. number of personnel on board.

8. Aircraft Urgency Report (PAN)

a. Pan, Pan, Pan. Call sign to be reported three times:

b. position, heading and altitude;

c. type of urgency; and

d. pilot's intentions.

9. Crashed Aircraft Report (CRASHREP)

a. type and call sign of crashed aircraft;

b. grid reference of crash site;

c. time of crash;

d. number and type of personnel casualties;

e. type of ordnance on board;

f. brief description of incident;

g. current action and future intentions of reporting station;

h. state if aircraft is on fire;

i. state if aircraft is leaking fuel;

j. state whether persons are trapped on board;

k. state if aircraft is in water; and

l. state apparent degree of damage of aircraft.

PART 3 – STANDARD RANGE REPORTS

10. Range Fire Report

a. reporting Land User;

b. location of Land User;

c. grid reference, size, direction and speed of travel of fire;

d. wind and weather conditions;

e. terrain and vegetation description;

f. Land User actions and estimate of capability to control fire;

g. status of fire (once under control); and

h. when extinguished, extent of burned area.

11. Significant Incident Report (SIR)

a. date, time, location of incident;

b. description of incident;

c. particulars of key personnel/equipment involved including parent unit;

d. possible broader implications including future operations;

e. recommendations/proposed future action;

f. actual or probable media interest/involvement; and

g. names and points of contact or witnesses.

12. Wildlife Casualty Report

a. reporting Land User;

b. date, time, location of causality;

c. description of causality; and

d. reporting Land User action and/or recommendations.

13. Missing Person/Vehicle Report

a. reporting Land User;

b. description of missing person/vehicle;

c. last known location;

d. planned mission, route and timings of missing person/vehicle; and

e. reporting Land User recommendations.

14. Unsafe Range Condition Report

a. reporting Land User;

b. date, time, location of hazard discovery;

c. description of hazard;

d. how hazard is marked (obtain serial # from Range Control); and

e. reporting Land User recommendations.

15. Trespasser Report (Air or Ground)

a. reporting Land User;

b. date, time, location of trespass discovery;

c. description of trespasser (person, vehicle, aircraft);

d. direction, speed, and altitude of travel;

e. actions taken and intended by reporting Land User and

f. reporting Land User recommendations.

PART 4 – AMMUNITION RELATED REPORTS

16. Dud/UXO Report

a. reporting Land User;

b. date, time, grid references (10-figure) of discovery;

c. description of discovery (type, colour, shape, calibre, nature etc.);

d. how location is marked (obtain serial # from Range Control); and

e. reporting Land User recommendations (Priority – does the object pose an immediate danger to personnel or infrastructure?).

17. Ammunition Accident Report

a. military unit involved;

b. details of facilities, equipment and/or weapon involved;

c. location, date, time of occurrence;

d. description of occurrence;

e. particulars of persons injured or killed;

f. probable cause;

g. hazardous conditions created or remaining;

h. ammunition involved including lot number;

i. person designated to begin local investigation; and

j. intended steps for further investigation.

PART 5 – ENVIRONMENTAL REPORTS

18. Reportable Environmental Incidents. Reportable non-compliances and spills and releases shall follow the requirements in Chapter 4, Part 6 Section 1. All environmental incidents shall be submitted using the Environmental Incident Report (EIR) form from the 3 CDD Hazardous Material Spills and Releases DEnvr-01-006, included here as Appendix 1 to this Annex.

ENVIRONMENTAL INCIDENT REPORT (EIR)
Annex A to DEnvir-01-006

PART 1 INCIDENT DESCRIPTION
TO BE COMPLETED BY UNIT/ORGANIZATION

Report Originator Name & Rank: _____ **Contact Number**: _____

Unit/Organization: _____ **Position**: _____

A. Human Health Impacts					
Did the incident result in human health impacts or injuries? Yes ☐ No ☐ If yes, Notify Base General Safety Officer					
3 CDSB Det Mainland BC	Hazmat/GSO	CSN-5361131	3 CDSB Wainwright	BGSO	CSN-530-5207
3 CDSB Edmonton	BGSO	CSN-528-4708	3 CDSB Det Southern AB	Hazmat/GSO	CSN-529-3593
CFB Suffield	BGSO	CSN-520-4455	CFB Shilo	B GSO	CSN-258-3826
Briefly describe human health impacts or injuries:					

B. Incident Details			
Type of Incident (spill, release, dumping, destruction of habitat etc):			
Was Assistance Requested? If so, who and when? (e.g., Fire Hall, WFE, Range Control or other)			
Date Incident Occurred:	**Time Incident Occurred**:	**Date Incident Stopped**:	**Time Incident Stopped**:
Location of Incident:		**Describe the Weather Conditions**:	
Distance from Drainage or Floor Drains:		**Distance from Surface water**:	
Equipment Involved (Equipment Name, Type, and Serial # or Vehicle CFR):			
Describe what was going on when the incident occurred (include what, why and how):			

Summary of Response (details of response, containment, remediation or clean up initiated - include what, why and how):

Personnel Involved (Rank & Name)	**Unit/Organization**	**Section & Position**	**Contact**

Spills and Releases - Identify the Type of Product Spilled

- ☐ **POL:** _____ **TDG Class:** _____
- ☐ **Hazmat:** _____ **TDG Class:** _____
- ☐ **Halocarbon Refrigerant:** _____ ☐ **Halon Fire Ext Agent:** _____
- ☐ **Halocarbon non-Refrigerant:** _____ ☐ **Non-Halon Fire Ext Agent:** _____
- ☐ **Other Halocarbon:** _____ ☐ **AFFF/ PFAS Releases:** _____
- ☐ **Jettisoning from ship/aircraft:** _____ ☐ **Human Waste:** _____
- ☐ **Painting Products:** _____ ☐ **Other Contaminants:** _____

Quantity of Product Spilled:	**Quantity of Product Recovered**:	**Total quantity of Release**:
☐ Quantity is an estimate	☐ Quantity is an estimate	☐ Quantity is an estimate

PFAS Contaminant - Composition of Product from SDS	**Percentage of Composition**		**Volume of Composition (Quantity of release * %)**	
	Min	Max	Min	Max

Describe how the hazardous materials and other waste was or will be disposed of (including soil):

Are there continuing impacts of the Spill/Release?

When did or will remediation of the incident site occur?

PART 2: RECOMMENDATIONS, CORRECTIVE MEASURES AND PREVENTATIVE ACTIONS

To Be Completed By Local Env Office Staff

EIR Number:		**Date :**		**Priority Code:** (Circle)	Pri 1 High Med Low
Env O Name:		**Establishment:**			
Phone:		**E-mail:**			
Spill visited by local Env Staff? **Yes ☐ No ☐**	**Name and Position**:			**Date and time of Visit**:	
Recommended Corrective Measures (identified at notification of incident):				**Date to Complete**:	
Recommended Remediation Measures (identified at notification of incident, and/or during site visit):				**Date to Complete**:	
Recommended Preventative Measures (identified at notification of incident, during site visit and/or during spill incident review):				**Date to Complete**:	

FOLLOW UP
Were the corrective actions completed by the identified timeline? Yes ☐ No ☐
Were the remediation measures completed by the identified timeline? Yes ☐ No ☐
Were the preventative measures completed by the identified timeline? Yes ☐ No ☐
Env O comments:
If no further action is required B Env O Accepts the report and closes file. For unresolved issues, forward to the Unit/organization Commanding Officer (cc Chief E&S).

ENVIRONMENTAL INCIDENT REPORT (EIR)

PART 3: RECORD OF NOTIFICATION

To Be Completed By Local Env Office Staff

Notification or Database Entry		
Halocarbon Release 100kg or over BC – 1-800-663-3456 & FHR.PYR@ec.gc.ca AB – 1-800-222-6514 & ec.dale-rpn-enforcement-pnr.ec@canada.ca SK – 1-800-667-7525 & ec.dale-rpn-enforcement-pnr.ec@canada.ca MB – (204) 944-4888 & ec.dale-rpn-enforcement-pnr.ec@canada.ca ON – 1-800-268-6060 & rfh-2003-atl-fhr-2003-atl@canada.ca	☐ Verbal Report ☐ Written Report Notes:	Date: _____ Date: _____
Fisheries Violation BC – National 1-800-465-4336 BC – Prov Auth 1-877-952-7277 (Notify both) AB – Prov Auth 1-800-642-3800 SK – Prov Auth 1-800-667-7561 MB – Crime Stoppers 1-800-222-8477 ON – Prov Auth 1-877-847-7667	☐ Verbal Report ☐ Briefing Note ☐ Letter Notes:	Date: _____ Date: _____ Date: _____
Species at Risk or Migratory Birds Convention Act ec.enviroinfo.ec@canada.ca	☐ Briefing Note ☐ Letter	Date: _____ Date:
Federal/Provincial Spill Notification BC – Emergency Management 1-800-663-3456 AB – Min of Environment 1-800-222-6514 SK – Min of Environment 1-800-667-7525 MB – Dept. of Conservation 204-944-4888	☐ Verbal Report ☐ Written Report ☐ Verbal Report Notes:	Date: _____ Date: _____ Date: _____
Municipality or County Contacted Who: _____ Who:	☐ Verbal Report ☐ Written Report ☐ Received	Date: _____ Date: _____ Date:
Significant Incident Report	☐ Verbal/email Date: _____ ☐ Encrypted Email Date:	☐ Briefing Note Date: _____
DRMIS – Spill Reporting	☐ Submitted for Approval Date: _____ Notification Number: _____ ☐ Incident Reviewed / Rejected (Explain): ☐ Notification Withdrawn (Explain): **Follow on Action** ☐ Repair or corrective action required ☐ Halocarbon inspection required ☐ Endemic fault of equipment - Problem report	☐ Incident Reviewed / Approved
Non-conformance & Corrective Action Register (DLE) **Environmental Incident Tracker (Env)** **PFAS Release Report**	Finding ID # - _____ ☐ Entered ☐ Sent to Div	Date: _____ Date: _____ Date:

TEMPLATE OPENING AND CLOSING PROCEDURES

1. To conduct training or other activities at CFB Suffield, Template Controllers shall adhere to the procedures detailed in this annex.

PART 1 - COMMON TO ALL TEMPLATE TYPES

Movement of Vehicles and Personnel

2. Once a template is active, the Template Controller acts as the movement control station within the template. For travel of personnel and vehicles outside the template (e.g., movement of personnel back to base), route clearance shall still be sought through Range Control, or another authorized movement control station.

Template Access

3. RED and GREEN RESTRICTED templates prevent access to the template by any other Range User without permission from the Template Controller. In times of emergency, Range Control may order an immediate suspension of activities within the template to permit access by emergency personnel or vehicles. However, emergency personnel or vehicles shall not access the template until the Template Controller has confirmed to Range Control or another authorized movement control station that any potentially dangerous activities have been ceased (i.e., the template is at RED CHECK FIRE (for RED templates) or INACTIVE (for GREEN-RESTRICTED templates).

4. GREEN templates allow the Template Controller to act as a movement control station for training activities within the template. All other Land Users shall have access to the template under the control of their own movement control station and do not require authorization from the Template Controller to enter the template.

PART 2 – RED TEMPLATES

Opening Procedure

5. When a Land User is prepared to commence training, prior to turning a template RED, a Template Controller shall:

a. inform Range Control via radio thirty (30) minutes prior to turning the template. Range Control shall advise other Land Users and conduct a safety check. Templates shall not be permitted to go RED, if any users have personnel within the template;

b. conduct a physical sweep of the template area to confirm that no other users/call signs or oil and gas equipment are present prior to going live. Templates will not be permitted to go RED if any users have personnel, or oil and gas equipment are within the template;

c. be able to account for all the vehicles and personnel associated with the training assigned to the template. Range Control shall not authorize a template turning until the Template Controller can do so;

d. have in place all safety requirements (e.g. barriers, flags, etc.); and

e. at H-hour for template turn, conduct opening procedure in accordance with radio procedures for the applicable control station.

Temporary Cessation of Training

6. Once a Template Controller turns a template from RED to GREEN, it permits other Land Users to access the template area for the purposes of their activities. If a Template Controller does not wish to relinquish control of the ground, he/she must go to RED CHECK FIRE. RED CHECK FIRE means that ALL live-fire training has ceased, but the template could return to RED and recommence live-fire training at the Template Controller's discretion.

7. For a temporary cessation of training for an extended duration, Template Controllers shall ensure that they remain in the template to retain control of the ground.

8. Range Control shall be informed immediately when Template Controllers wish to go to RED CHECK FIRE and also when the Template Controller intends to go back to RED.

9. Some templates may be in place for several hours, or even days, depending on the needs of the training unit. Template controllers may cease training to conduct after action reports (AARs), forced rest, or logistical re-supply. As such, templates may be at RED CHECK FIRE for considerable periods of time before going RED again.

Closing Procedure

10. When a Land User wants to cease training, prior to turning a template GREEN, a Template Controller shall:

a. inform Range Control;

b. conduct a physical sweep of their template and police the area for live/blank ammunition, brass, and any ammunition salvage, which must be disposed of in accordance with environmental requirements;

c. verify that all fires within the template are extinguished and reported to range control immediately;

d. ensure that garbage is picked up and disposed of and the area is left tidy;

e. ensure all environmental damage is reported in accordance with environmental requirements and all dig locations have been properly filled in;

f. request inspection by Range Control and complete the Range User Unit - AAR located at Annex Q; and

g. upon completion of the above, request route clearance from Range Control to move back to Base.

11. When a Template Controller turns a RED Template to GREEN, it is assumed by Range Control that they are declaring that they have ceased their training activities and will no longer require the template (in effect, they are declaring an intent to turn the template to INACTIVE). As such, other Land Users shall have access to the template area and the Template Controller shall lose exclusive control of the ground. In this instance, movement control for activities in the template area shall revert to Range Control, or another authorized movement control station.

PART 3 – GREEN-RESTRICTED TEMPLATES

Opening Procedure

12. When a Land User is prepared to commence training, prior to turning a GREEN-RESTRICTED template ACTIVE, a Template Controller must:

a. inform Range Control via radio thirty (30) minutes prior to turning the template. Range Control shall advise other Land Users and conduct a safety check. GREEN-RESTRICTED templates shall not be permitted to go ACTIVE if any users have personnel within the template;

b. conduct a physical sweep of the template area to confirm that no other users or call signs are present in the template location. GREEN-RESTRICTED templates shall not be permitted to go ACTIVE if any users have personnel within the template;

c. be able to account for all the vehicles and personnel associated with the training assigned to the template. Range Control shall not authorize a template turning until the Template Controller can do so;

d. have in place all safety requirements (e.g. barriers, flags, etc.); and

e. at H-hour for template turn, conduct opening procedure in accordance with radio procedures for the applicable control station.

Temporary Cessation of Training

13. Once a Template Controller turns a template INACTIVE, it permits other Range Users to access the template area for the purposes of their activities. If the Template Controller does not wish to have personnel outside of their exercise enter the template, the template must remain GREEN-RESTRICTED ACTIVE.

14. For a temporary cessation of training for an extended duration, Template Controllers shall ensure that they remain in the template to retain control of the ground.

Closing Procedure

15. When a Land User wants to cease training, prior to turning a template INACTIVE, a Template Controller must:

a. inform Range Control;

b. conduct a physical sweep of their template and police the area for blank ammunition, brass and any ammunition salvage, which must be disposed of in accordance with environmental requirements;

c. verify that all fires within the template are extinguished;

d. ensure that garbage is picked up and disposed of and the area is left tidy;

e. ensure all environmental damage is reported in accordance with environmental requirements and all dig locations have been properly filled in;

f. request inspection by Range Control and complete the Range User Unit - AAR located at Annex Q; and

g. upon completion of the above, request route clearance from Range Control to move the back to base.

16. When a Template Controller turns a GREEN RESTRICTED template INACTIVE, they are declaring that they have ceased their training activities and will no longer require the template. As such, other Land Users shall have access to the template area and the Template Controller will lose exclusive control of the ground. In this instance, movement control for activities in the template area shall revert to Range Control, or another authorized movement control station.

PART 4 – GREEN TEMPLATES

Opening Procedure

17. When a Land User is prepared to commence training, prior to turning a GREEN template ACTIVE, a Template Controller shall:

a. be able to account for all the vehicles and personnel associated with the training assigned to the template. Range Control shall not authorize a template turning until the Template Controller can do so;

b. have in place all safety requirements (e.g. barriers, flags, etc.); and

c. at H-hour for template turn, conduct opening procedure in accordance with radio procedures for the applicable control station.

Temporary Cessation of Training

18. As GREEN templates permit other users to access the template, there is no requirement to change the template status during a temporary cessation of training. However, to retain control of the ground, Template Controllers shall keep the template ACTIVE, otherwise movement control will revert to Range Control or another authorized movement control station.

19. For a temporary cessation of training for an extended duration, Template Controllers shall ensure that they remain in the template to retain control of the ground.

Closing Procedure

20. When a Range User wants to cease training, prior to turning a template INACTIVE, a Template Controller must:

a. inform Range Control;

b. conduct a physical sweep of their template and police the area for blank ammunition, brass and any ammunition salvage, which must be disposed of in accordance with environmental requirements;

c. verify that all fires within the template are extinguished;

d. ensure that garbage is picked up and disposed of and the area is left tidy;

e. ensure all environmental damage is reported in accordance with environmental requirements and all dig locations have been properly filled in;

f. request inspection by Range Control and complete the Range User Unit – AAR located at Annex Q; and

g. upon completion of the above, request route clearance from Range Control to move the back to base.

21. When a Template Controller turns a GREEN template INACTIVE, they are declaring that they have ceased their training activities and will no longer require the template. As such, movement control for activities in the template area will revert to Range Control.

LASER SAFETY STANDING ORDERS

INTRODUCTION

1. Application. In accordance with applicable training directives, these orders apply to all users of lasers in the RTA.

2. Definitions

a. Laser. Laser is an acronym for "**L**ight **A**mplification by **S**timulated **E**mission of **R**adiation". Lasers are a family of devices that generate monochromatic electro-magnetic radiation within the ultraviolet, visible, and infrared spectrum. Lasers can be dangerous if operated without the necessary safety precautions. The light from the laser, which may be invisible to the eye, can cause temporary or even permanent blindness. Moreover, the extremely high voltage required to generate the laser pulse can cause electrocution;

b. Laser Operator. A laser operator is a person who is responsible for firing a laser;

c. Laser Supervisor. A Laser supervisor is a person who directly supervises the daily activities of laser operators and users and others who work with or around lasers;

d. Laser Safety Officer (LSO). An LSO is an authorized officer of the CAF, BATUS or civilian employee of officer status who is appointed by the Base Commander, Director of DRDC, visiting commanding officers or Commander BATUS, and has successfully completed the CAF Laser Safety Course or any equivalent course approved by the UK or NDHQ. The LSO is responsible for determining the full extent of laser hazards, and implementing effective protection programs for areas and facilities assigned to them;

e. Permissible Exposure Level (PEL). PEL is the level of laser radiation, which, when exceeded, could cause adverse biological effects;

f. Nominal Ocular Hazard Distance (NOHD). The NOHD is the distance beyond which the laser light from a particular laser system may be viewed by the unaided eye without harmful effects. This distance could be interpreted as a direct line of sight from the laser to the observer, or more commonly as the total distance from the laser to the target, and back to the eye of the observer. Note: In spite of the implications that lasers may be viewed directly beyond the NOHD distance, this practice should be avoided. Observers should especially avoid looking into the aperture of ANY laser, however weak;

g. Laser Hazard Distance. Same as for para 2.f. above, but includes additional safety distance required for viewing with magnifying optics. The Extended NOHD can be calculated simply by multiplying the NOHD distance by the power of the observation system used;

h. Diffuse Reflection. Reflection of laser light from a multi-layered object such as ground, trees, foliage, or any object that does not reflect an image. This is the safest surface at which to aim a laser. The reflection is strong enough to obtain a range reading, but there is very little reflected hazard, especially beyond the NOHD distance;

i. Specular Reflections. Reflection from a flat mirror-like surface such as glass, mirrors, water, snow, ice, or chrome objects. The primary criterion is if the object reflects an image it is specular. Laser beams reflected from specular surfaces are as hazardous as the direct beams;

j. Laser Secure. Lasers are considered "secure" when they are disconnected from their power source. The laser secure state means:

(1) for lasers with key locks, the key is turned to the "OFF" position; and

(2) for lasers without key locks, the on/off switch is turned to the "OFF" position.

k. Laser Armed. Lasers are considered armed when the key or the on/off switch has been switched to the “ON” position.

3. Background. The laser system, except for its inability to penetrate targets and absence of a trajectory, can be treated like a direct-fire line-of-sight weapon; thus the hazard control precautions taken for direct-fire weapons will provide most aspects of the safe environment required for laser use.

4. Classifications. Laser hazards are related to the classification of the laser as follows:

a. Class 1. Normally limited to very low-powered lasers or enclosed laser systems and not hazardous. Class 1 lasers will not be considered further in these orders;

b. Class 1M. Safe for unaided viewing but may be hazardous if magnifying optics are employed within the beam;

c. Class 2. Operate in the visible part of the spectrum. Deliberate eye exposure for longer than 0.25 sec may be hazardous but protection is afforded by the natural aversion response of the eye to bright light (blink reflex);

d. Class 2M. Operate in the visible part of the spectrum. Deliberate eye exposure for longer than 0.25 sec may be hazardous but protection is afforded by the natural aversion response of the eye to bright light. This group may be hazardous if magnifying optics are employed within the beam;

e. Class 3R. Accessible output power or radiant energy within five times the Accessible Emission Limit (AEL) of Class 1 and Class 2 lasers. Direct eye exposure may be hazardous but the risk is lower than for Class 3B lasers. Not capable of causing injury to the skin and cannot produce a hazardous diffuse reflection;

f. Class 3B. Can be of all wavelengths. Direct eye exposure is normally hazardous but viewing of diffuse reflections is generally safe. Unlikely to be a skin hazard; and

g. Class 4. Capable of causing serious injury to both eyes and skin, and may produce diffuse reflections that are hazardous to the eye. Can also cause combustion of flammable materials.

5. Hazards.

a. The lasers listed below are commonly used at CFB Suffield:

(1) BATUS:

RANGE FINDER	**NOHD**			**BEAM DIVERGENCE**
	NO FILTER	**10% FILTER**	**2% FILTER**	
(1) LP7	7,800m	No Filter	1,040m	2.0 mils
(2) TLS RUBY	25,000m	No Filter	No Filter	0.5 mils
(3) TLS NO YAG	5,617 m	No Filter	No Filter	0.5 mils
(4) L1A1	6,450 m	2,050 m	950 m	2.0 mils
(5) LTM	28,570 m	8,990 m	4,895 m (3%)	0.3 mils
(6) OSPREY	7,400 m	2,340 m	No Filter	0.5 mils
(7) TADS	118,200m	NIL	NIL	less than 5 mils

LEGEND:
- TLS – Tank Laser System
- LP7 – Laser Range Finder
- LTM - Laser Target Marker
- OSPREY - Arty Op Vehicle
- TADS – Apache Target Acquisition and Designation Sight

(2) CAF: Detailed safety information for all Canadian Land Forces laser systems may be found in B-GL-381-001/TS-001, (latest edition) Chapter 10, or in the technical manuals for each weapons system.

RESPONSIBILITIES

6. CFB Suffield Range Control. Range Control is responsible for:

a. safe allocation of ranges, training areas and air space for laser use;

b. performing as the laser safety advisor and coordinator for personnel in the areas and facilities assigned to them;

c. investigating and reporting laser accidents to higher HQ; and

d. ensuring that units using lasers have established laser safety plans, and qualified laser RSOs in accordance with the provisions set out in B-GL-381-001/TS-001 (dated 2017-03-20).

7. User Units. User units are responsible for:

a. formally assigning responsibilities to RSOs and laser supervisors;

b. provision of laser warning signs and dissemination of laser safety instructions to personnel;

c. in the case of Canadian Units, assigning officers who have successfully completed the CAF Laser Safety Course or equivalent;

d. evaluating the hazard potentials and providing adequate protective measures; and

e. investigating and reporting all laser accidents to CFB Suffield Range Control.

DANGER AREAS

8. Lasers shall not be fired at areas containing specular surfaces. Danger areas shall be considered free of specular surfaces when the following precautions have been taken:

a. the area around artificial targets has been physically cleared to a radius of 50 m prior to initial use of lasers against the targets;

b. target areas are scanned by the RSO or his representative prior to each firing of lasers and any apparent specular surfaces are covered or removed;

c. natural terrain features (hill, woods) such as would be engaged by artillery operations need not be physically cleared but shall be thoroughly scanned using binoculars; and

d. all specular objects are covered or removed from personnel who are in laser controlled areas (i.e., rings, watches, zippers, buttons, badges, etc.).

LASER TEMPLATING

9. Unless otherwise stipulated in the manuals for individual weapons, the following safety criteria shall be applied when constructing laser safety templates:

a. the firing arc shall be extended out from the planned firing point to the full NOHD or "Extended NOHD" distance throughout the left and right of arc. The full extent of the NOHD need not be applied if the laser beam can be terminated by a diffuse backstop such as a hill or trees;

b. a 15 mil beam divergence factor shall be added to each end of the planned firing arc;

c. a 10 mil buffer zone shall be added onto each end of the modified arc for supported lasers.

d. a 15 mil buffer zone shall be added onto each end of the modified arc for unsupported hand-held lasers

e. templates shall be applied horizontally and vertically; and

f. danger areas shall be defined by the danger area trace method using arc markers or by templating each target.

10. The following atmospheric effects may modify the NOHD and shall be considered when defining the laser danger area:

a. visible heat waves at ground level cause refraction and could increase the safety template by diverting the beam causing it to overshoot the intended target area.

b. fog, cloud, smoke or other particles in the air may scatter or absorb the laser beam and reduce its intensity; and

c. precipitation may scatter or absorb the laser.

SAFETY PRECAUTIONS

11. Accidental Discharge Precautions. The rules for preventing accidental firing are:

a. the laser shall be considered to be an unloaded weapon when in the "laser secure" state;

b. the laser shall be considered to be a loaded weapon with safety catch applied when it is in the "laser safe" state; and

c. lasers shall be placed in the "laser armed" state only when an order to fire has been issued.

12. Unattended Lasers. Lasers shall not be left unattended unless in secure state.

13. Warning Signs. Unit LSOs shall place warning signs on lasers and around laser danger areas. Range flags shall be used per normal range practices.

14. Aircraft/Airspace. Overflight of laser danger areas shall be restricted to an altitude equivalent to the maximum NOHD. In exercises involving use of lasers and aircraft, the RSO is responsible for briefing pilots and co-ordinating safe overflight of the area of the exercise.

15. Civilian Property. Under no circumstances shall lasers be fired when the NOHD extends outside the RTA boundary unless the beam is terminated by a diffuse backstop.

16. Presence of Explosives/Flammable Materials. Unpackaged bulk explosives or explosives not enclosed in metal casings shall not be exposed to direct laser beams.

ACCIDENT INVESTIGATION AND REPORTING

17. All accidents, accidental discharges, malfunctions, and potentially hazardous conditions on the RTA related to lasers shall be reported to Range Control and the unit LSO regardless of whether an injury or damage was sustained.

18. Appropriate investigation for Canadian units shall be carried out in accordance with Canadian policy.

FLAG PROCEDURES

19. Normal flag procedures shall be used with the tank laser:

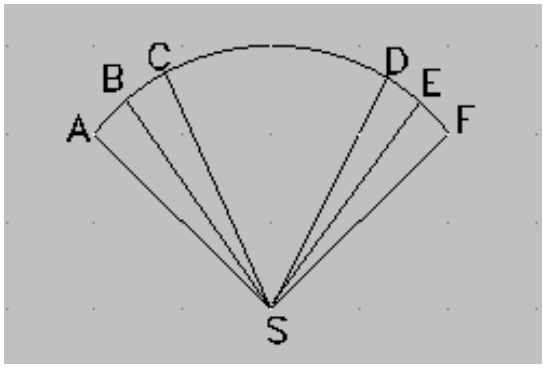
a. GREEN flag - LASER SAFE - NO FIRING; and

b. RED flag - LASER ON - FIRING PERMITTED.

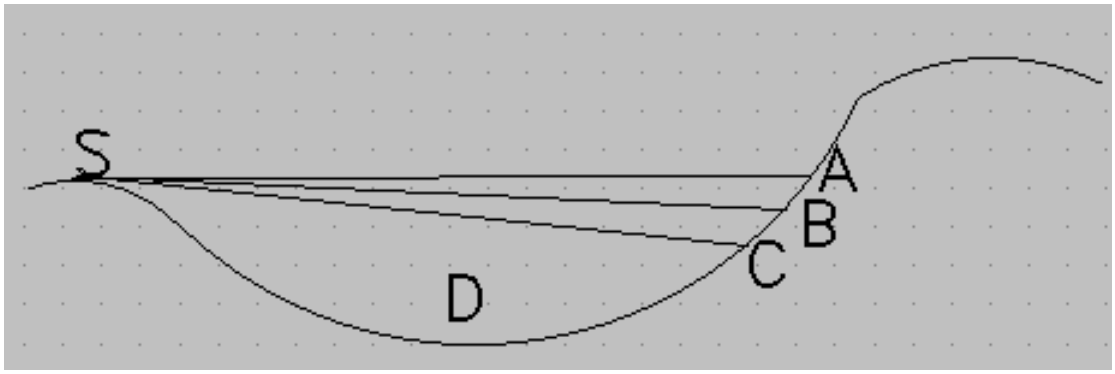
LASER TEMPLATES (not to scale)

20 Example 1 – Horizontal Arc Range

SCDS	Target area limit of fire
SCBS & SDES	Beam divergence
SABS & SEFS	Buffer zone
SAFS	Full danger area to extent of NOHD



LASER TEMPLATES (Not to scale)



21. Example 2 – Vertical Application (Sectional view):

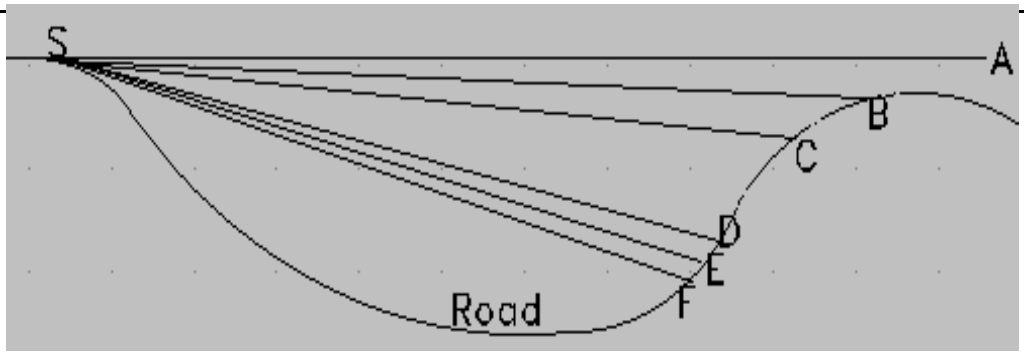
SC	Maximum elevation line of fire, beam will be diffused; therefore, full NOHD need not be applied
SCDS	Target area
SBCS	Beam divergence

SABS	Buffer zone
SADS	Full danger area

22. Example 3 – Vertical Application (Sectional View)

a. complete beam not stopped by backstop - NOHD must be applied.

b. if the distance from the road to line SF is greater than the height of a vehicle or person, then the road is considered safe.



CDS	Target area and limit of fire
SBCS and SDES	Beam divergence
SABS and SETS	Buffer zones
SAFS	Full danger area

SPEED POLICY

1. The large size of CFB Suffield requires that traveling time be a key consideration in all-administrative and tactical plans. Failure to account for the size of the range, often results in speeding when driving, which is the primary cause of fatalities at CFB Suffield. To that end, range speeds are routinely monitored by Range Control using vehicle patrols and radar guns. Use of this equipment shall be random in timing and location. Military Police shall also occasionally patrol the ranges.

RANGE CONTROL ACTIONS ON ENCOUNTERING A SPEEDING VEHICLE

2. For cases where drivers are obviously exceeding the speed limit, as shown by the data from the radar gun, the following actions shall be taken by the Range Control patrolmen:

a. where safety permits, the vehicle shall be pulled over;

b. the driver's name and license number shall be taken, along with the vehicle particulars, and the organization for which the driver is working;

c. the driver shall be informed of the current speed limit;

d. the driver's particulars shall be transmitted to Range Control to be added into the speeders database, and also to be checked for prior offenses; and

e. the incident shall be relayed to the driver's unit, and/or control station (e.g., BATUS, DRDC, SIRC, visiting unit HQ, etc).

RANGE CONTROL POLICY FOR ENFORCING SPEED RESTRICTIONS

3. The rule with offenders shall be: "The more serious the violation, the more serious the action."

a. Up to 20 kph over the speed limit: A CFB Suffield Traffic Violation report shall be filled out and copies shall be distributed to the violator's unit or controlling station (e.g., BATUS, DRDC, SIRC, visiting unit HQ, etc.) for further action; and

b. Over 20 kph above the speed limit: A CFB Suffield Traffic Violation report shall be completed with copies given as mentioned above. In addition, for DND drivers, copies shall be provided to the Military Police and to G4 Transport. At the moment of the offence, Range Control shall impose the following:

(1) First offence – automatic 14 days of no driving at CFB Suffield RTA;

(2) Second offence – 30 days of no driving at CFB Suffield RTA; and

(3) Third offence – no further access to the CFB Suffield RTA, with recommendations to the individual's superiors for a more general suspension from driving.

4. The above actions are designed to enhance safe use of RTA roads. None of these actions precludes any disciplinary or administrative action from being taken by the appropriate branch, unit, or organization to which the offender belongs.

FENCING STANDARD

Introduction

1. At CFB Suffield, barbed wire fencing is most commonly used to control the movements of cattle, prevent access to hazardous zones and areas undergoing reclamation, and to demarcate the Base boundary. Fences also create a significant barrier to wildlife, and can cause unnecessary death and injury to pronghorn, deer, and other wildlife. Fences can be designed and constructed for function and durability while being more permeable to wildlife.

Fence Construction Specifications

2. Fences shall be constructed in accordance with the following specifications:

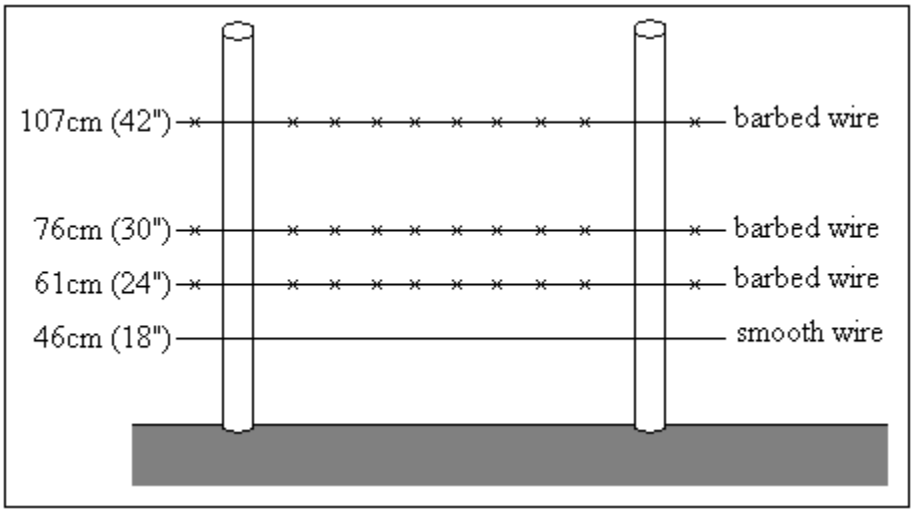
   a. fencelines shall be straight;

   b. fence posts shall be pressure treated, and a minimum of 2.13 m (7 feet) long and a minimum of 10 cm (4 inches) in diameter;

   c. fence posts shall be installed a maximum of 5 m (16.5 feet) apart;

   d. line posts shall be dug in or driven a minimum of 81 cm (32 inches) deep. Post length above ground shall be no greater than 1.4 m (4.5 feet). Tops shall not be cut off fence posts;

   e. wired fences shall be constructed with one strand of 12-12.5 gauge smooth wire fastened to the posts at a height of 46 cm (18 inches), and three strands of 12-12.5 gauge barbed or smooth wire fastened to the posts at heights of 61, 76 and 107 cm (24, 30 and 42 inches) (See figure below). The 31cm (12 inches) space between the top two wires reduces the risk of deer and elk of tangling their legs when jumping over the fence, and the smooth bottom wire allows safer passage for pronghorn under the fence.



f. a post shall be planted at each knoll-top or draw bottom to ensure the bottom wire stays at a maximum of 46 cm (18 inches) above ground. Dip posts must be “dead-manned”. Posts in low swampy areas shall have 1.3 cm x 61 cm (1/2 inch x 24 inch) rebar driven through a 1 cm (3/8 inch) drilled hole above the sharpened end of the post;

g. double-span braces shall be used at corners and gates;

h. anchor gate and corner posts shall be installed using 2.4 m (8 foot) x 12-15 cm (5-6 inch) posts driven 112 cm (44 inches) deep. They shall be braced horizontally and diagonally with a 3 m (10 foot) span;

i. the horizontal brace rails shall be a pressure treated 10x10 cm (4x4 inch) or a pressure treated 10 cm (4 inch) minimum diameter rail and centered 91 cm (36 inches) above the ground;

j. counter (diagonal) bracing shall be constructed with #9 gauge smooth wire, double and twisted. The counterbrace shall be located 5 cm (2 inches) above the ground to prevent corrosion of the wire. All twitch sticks used for counter bracing are to be pressure treated wood with a minimum 10 cm (4 inch) diameter. The twitch sticks shall rest against the horizontal brace rail on the opposite side of the barbed wire, and be wired in place with high tensile smooth wire;

k. line brace (anchor) panels shall be installed every 0.4 km (1/4 mile);

l. wire shall be tied off at all brace panels. Wire shall be wrapped twice around the tie off post;

m. five cm (2 inches) barbed staples shall be used. Staples should never be driven home. Always rotate the staple away from the slash cut side of the staple;

n. all wire gates shall have a minimum clearance of 46 cm (18 inches) between the ground and the bottom wire and must be 7.3 m (24 feet) long;

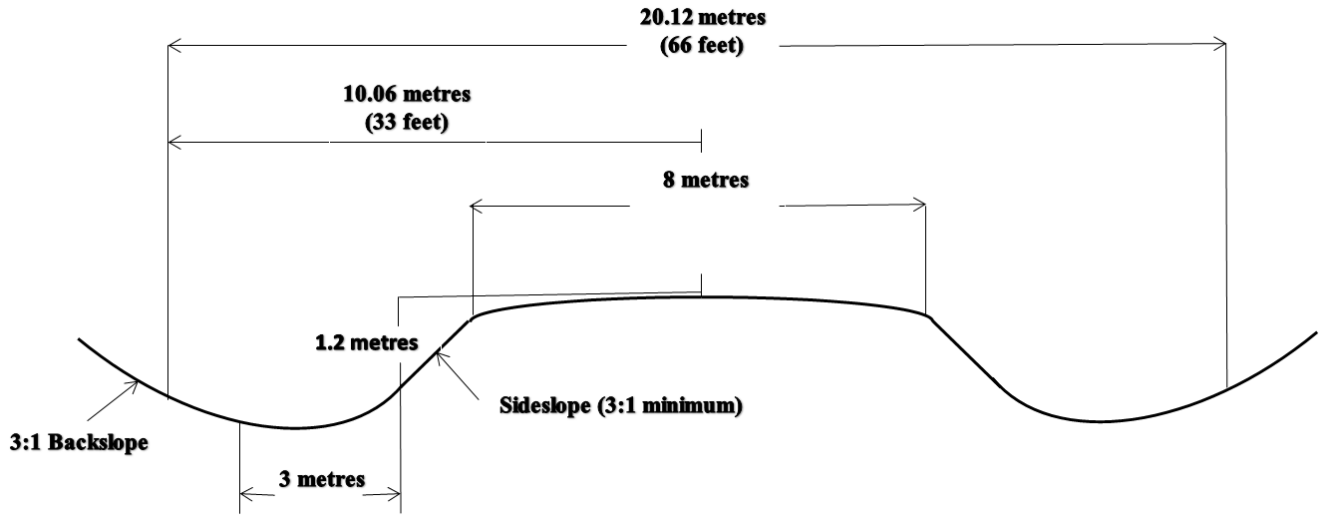
o. all metal gates shall have a minimum clearance of 46 cm (18 inches) between the ground and the bottom rail of the gate and shall be 9.8 m (32 feet) long (two 4.9 m/16 foot metal gates). Metal gates shall be hung on braced pipe;

p. fence cut repairs may include the construction of a wire gate, braced metal swinging gates, or spliced fence. If fence cuts are repaired as a fence rather than a gate, the wire shall be continuous and not tied off at braces constructed for the wire cut; and

q. no machinery shall be operated within 10 m (33 feet) of waterways or wetlands. Fences shall be hand built within this setback.

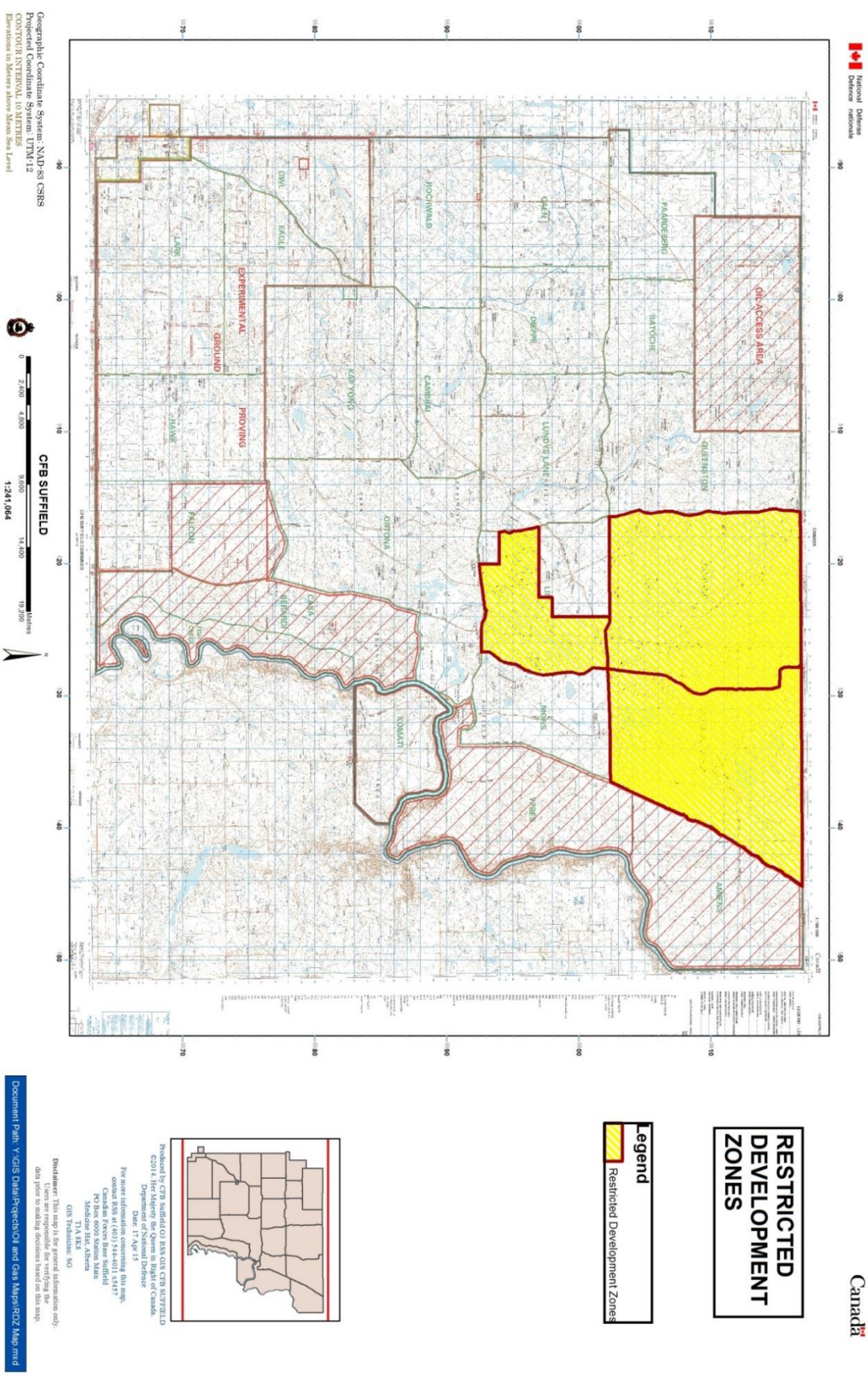
ANNEX X
CFB SUFFIELD
RANGE STANDING ORDERS
2024 EDITION

ROAD MAINTENANCE ALLOWANCE



ANNEX Y
CFB SUFFIELD
RANGE STANDING ORDERS
2024 EDITION

RESTRICTED DEVELOPMENT ZONES



FIREFIGHTING

Firefighting Priority System

1. CFB Suffield currently employs a system of firefighting priorities ranging from 1 to 4 with priority 1 being the most immediate concern. The priority areas are outlined on the Fire Control priority map at Annex Y, Appendix 1.

a. Priority 1 Fires. These fires typically include RTA perimeter boundaries and permanent infrastructure. The following actions shall be taken when a priority 1 fire occurs:

(1) all training in the area shall be placed on Red Check Fire or suspended;

(2) all available FOS assets shall be redirected to the area;

(3) all unit personnel shall be re-directed to the area to assist;

(4) the G3 Fire Services shall be deployed to the nearest access route to the fire;

(5) DRDC – SRC shall be made available and placed at Range Control, when requested;

(6) Military Police shall be dispatched to control traffic either on the Jenner Highway (884) or Scott's Road depending on location of the fire, if required;

(7) Range Maintenance shall be notified and prepared to assist with graders and the POL truck; and

(8) the Range Control water tanker (Silver Bullet) shall be on standby for on-scene replenishment of water tankers or stationary tanks.

b. Priority 2 Fires. These fires typically are adjacent to priority 1 areas, such as permanent infrastructure in the MTA and EPG, areas that have seen acute fire activity due to training, and the NWA. The following actions shall be taken when a priority 2 fire occurs:

(1) all training in the area shall be placed on Red Check Fire or suspended;

(2) unit personnel shall be directed to assist the Fire Leader with firefighting;

(3) the G3 Fire Services shall be placed on standby to assist;

(4) FOS assets shall be redirected if required; and

(5) the Fire Leader shall elevate priority of the fire, if required.

c. Priority 3 Fires. These fires occur in the OAA and portions of the MTA that are prone to frequent and self-limiting fires. The following actions shall be taken when a priority 3 fire occurs:

(1) all training in the area shall be placed on Red Check Fire or suspended;

(2) unit personnel shall be directed to assist the Fire Leader, as required

(3) FOS assets shall be directed to the area, as required; and

(4) the Fire Leader shall elevate priority of the fire, if required.

d. Priority 4 Fires. These fires are typically in areas of the MTA or EPG and pose no immediate threat to boundaries and permanent infrastructure. The following actions shall be taken when a priority 4 fire occurs:

(1) all training in the area shall be placed on Red Check Fire or suspended;

(2) unit personnel shall be directed to assist the Fire Leader, as required;

(3) FOS assets shall be directed to the area, as required; and

(4) the Fire Leader shall elevate priority of the fire, if required.

Firefighting Tactics

2. CFB Suffield is a Type 2 range made up of rough and uneven terrain. In order to mitigate the risk to personnel conducting firefighting operations, the following tactics are to be used:

a. during daylight operations, firefighting assets will fight fires from roads or black tracks whenever possible. Firefighting assets will only operate off-road if routes to the fire location have been verified clear by dismounted or pickup mounted assets, or if the fire is endangering personnel, equipment, and infrastructure of neighbouring landowners (Priority 1 or 2 fires). This will only be done under the discretion of the Fire Leader;

b. during night operations, fires will be fought from roads or black tracks only. In the event this is not possible, fires will be piqueted until such time as fighting from roads, or black tracks is possible;

c. due to the training and experience of the FOS, the FOS Comd is in command of ALL firefighting units upon his arrival. The only exceptions to this will be vehicle fires or when fires are within infrastructure throughout the RTA. In this situation, the Senior Fire Leader from the G3 Fire Services (Chief, Deputy Chief, or Platoon Commander) will act as the on-scene commander and FOS personnel will assist as required. The smoke from infrastructure and vehicle fires is toxic and should only be fought by a firefighter with the proper equipment. FOS personnel will not enter structures and remain upwind of infrastructure and vehicle fires;

d. to prevent delays to training as a result of fires not being actively fought by Range Control due conditions noted above, templates will be allowed to “Go Green”, only if the Fire Leader confirms to Range Control that he has control of the fire and will take responsibility for monitoring and controlling it from that point forward. This option is to be used in exceptional circumstances only;

e. at no time will fires be fought from the back deck of fire trucks. If mounted, FOS personnel will operate hoses or the bumper turret from the vehicle cab. If dismounted, FOS personnel will operate with the hose operator working from the ground;

f. the RCO, DRCO and FOS Comds are responsible for the development and annual review of firefighting tactics, techniques and procedures, in consultation with the G3 Fire Services Chief and DRDC – SRC Field Support Group (FSG) personnel; and

g. if deemed safe to do so, the FOS Comd has the authority to contain the vehicle fire from the upwind side of the fire, using the turret from a safe distance with foam and/or water. The primary intent of this effort should be the containment of secondary grass fires.

3. DRDC – SRC Firefighting. DRDC –SRC trials, activities and operations which have the potential of generating prairie fires shall have in attendance contracted EMT and ambulance, FSG firefighting crews, vehicles and equipment on-site equivalent to the expected hazard. It is possible that a fire may be caused or discovered by employees who are employed on trial sites or in areas when a FSG firefighting crew do not appear to be required and are not standing by on-site. Fires at any site within the EPG should be fought with the safety of all personnel as the primary concern, as unknown ordnance (both explosive and chemical filled) may be encountered throughout any areas of the EPG. All fires within the EPG, either with a FSG firefighting crew standing by on-site or not, shall both be treated as an emergency response situation as follows:

a. the On-Scene Controller (OSC) shall determine if the site is safe from trial or explosive hazards;

b. the OSC shall, when safely possible and in consultation with the on-site FSG firefighting crew immediately take action to fight the fire in accordance with FSG firefighting SOPs; and

c. the OSC will contact Alpha Net, if any further assets such as Range Control or Base Fire Hall assets, are required to assist.

Personal Protection Equipment (PPE)

4. All wildland firefighting personnel, without exception, shall wear the following PPE:

a. fire retardant and highly visible clothing,

b. CSA approved, water resistant safety boots;

c. wildland firefighting gloves;

d. wildland fire helmet;

e. eye protection goggles (BEWs); and

f. approved wildland firefighting respiratory protective device (RPD) that are fit tested by G3 Fire Services in accordance with the requirements of the National Defence Respiratory Protection Program.

5. Vehicles Fires with Ammunition on Board:

a. the Minimal Safety Distances (MSD) for a vehicle on fire that is carrying ammunition is set at 1600 m (1 mile) for Division 1.1 - A substance or article with a mass explosion hazard (e.g., explosives, type A); 1.2 - A substance or article with a fragment projection hazard, but not a mass explosion hazard (e.g., fireworks, type B); 1.3 - A substance or article which has a fire hazard along with either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard (e.g., sodium picramate); or 1.5 - A very insensitive substance which nevertheless has a mass explosion hazard like those substances in 1.1 (e.g. ethylene glycol monitrate solution):

(1) if fire reaches the cargo, isolate the vehicle for 2 km in all directions (Danger Template);

(2) let the fire burn when fire reaches cargo, as it may explode;

(3) initiate the evacuation of all personnel including emergency responders for a minimum of 1600 m in all directions;

(4) move people out of line of sight of the scene;

(5) keep unauthorized personnel away;

(6) stay upwind, uphill and/or upstream;

(7) do not move cargo or vehicle if cargo has been exposed to heat; and

(8) first responders must wear positive pressure self-contained breathing apparatus (SCBA).

b. the MSD for a vehicle on fire that is carrying ammunition is set at 500 m for Division 1.4 - A substance or article which presents no significant hazard. Explosion effects are package and no projection or fragments of appreciable size or range are to be expected. (e.g., fuses).

(1) in fire reaches the cargo, isolate the vehicle for 500 m in all directions (Danger Template);

(2) let the fire burn when fire reaches cargo, as it may explode;

(3) initiate the evacuation of all personnel including emergency responders for a minimum of 500 m in all directions;

(4) move people out of line of sight of the scene;

(5) keep unauthorized personnel away;

(6) stay upwind, uphill and/or upstream;

(7) do not move cargo or vehicle if cargo has been exposed to heat; and

(8) first responders must wear positive pressure SCBA.

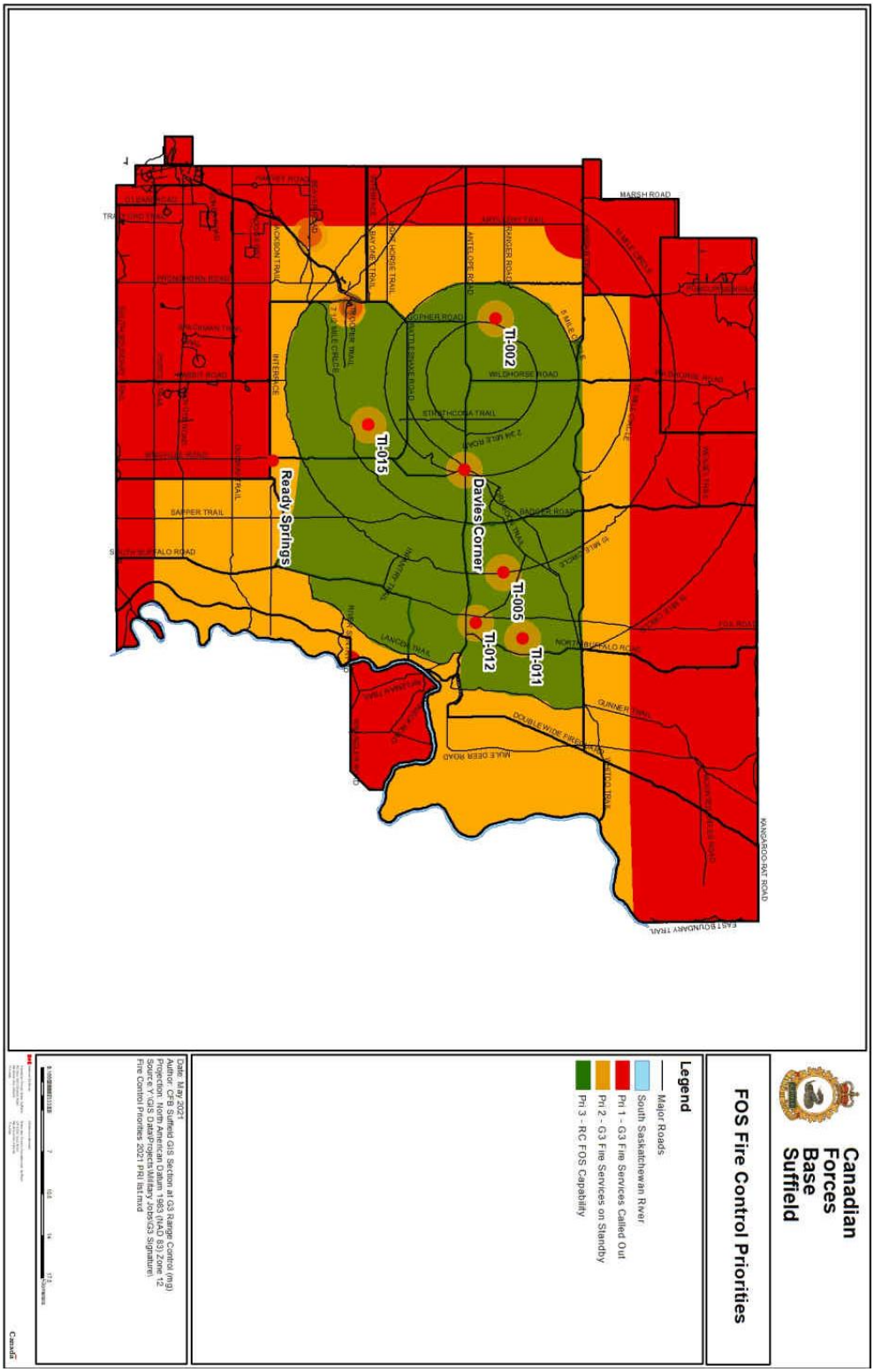
c. the Danger Templates will be adhered to until such time the area is deemed safe and the danger template can be reduced by:

(1) the Senior Canadian Ammunition Technician for Canadian or unknown natures of ammunition; or

(2) the on-scene Senior British Ammunition Technician for British natures of ammunition.

APPENDIX 1
ANNEX Z
CFB SUFFIELD
RANGE STANDING ORDERS
2024 EDITION

FIRE CONTROL PRIORITIES



APPENDIX 2
ANNEX Z
CFB SUFFIELD
RANGE STANDING ORDERS
2024 EDITION

FIRE RESPONSE TIMES IN FAIR WEATHER CONDITIONS

Distance	Time (Mins)	Range Control	Excon	Jackson/ Rattlesnak	Chaos Corners	Davies Corners	10 Mile / Bingville	10 Mile / Sambin	Jadex Jct	Fallon Jct	Wild Horse / 5 Mile	Wilson Jct.	Wells Jct	Stubbs Landing	Ophelia	OK Corral	White House	POL Roger	Jackson / Interface	Duckworth Coulee	Tower M17	10 Mile / Rabbit	10 Mile / Antelope	10 Mile / Infantry	Bahrantepe	Hussar / Badger	Telopan	Tower M12	Gate N32	Gate W6B	Gate W7	Gate W7A	Gate W9	Gate W12
TIME	DISTANCE	20	15	6	18	31	28	27	25	21	33	14	17	33	40	47	45	35	13	45	25	21	40	32	43	42	24	36	40	71	9	12	17	23
	Range Control	8	12	10	3	14	12	20	9	10	3	4	7	24	37	40	37	22	7	28	19	16	10	27	37	44	22	28	47	2	5	9	14	19
	Excon	23	3	15	13	24	22	19	12	13	20	6	8	26	33	36	23	20	4	23	30	11	13	20	41	37	15	20	40	13	13	14	17	22
	Jackson/ Rattlesnak	37	17	29	20	15	33	21	6	11	13	12	13	3	3	15	13	6	25	11	22	20	8	18	10	13	13	22	24	14	15	15	12	17
	Chaos Corners	34	14	23	14	16	7	7	13	11	15	12	13	26	34	36	23	14	20	26	36	10	23	21	37	41	25	33	39	23	25	28	34	32
	Davies Corners	33	21	20	21	23	7	23	24	21	27	21	20	33	37	40	36	23	20	26	36	11	8	18	19	11	29	40	47	30	37	35	42	33
	10 Mile / Bingville	30	10	20	13	7	23	24	5	8	8	11	9	9	18	21	20	14	20	11	15	26	14	16	11	17	7	14	30	21	24	21	15	21
	10 Mile / Sambin	25	11	16	14	12	25	32	5	12	7	7	5	13	22	25	25	14	16	14	13	23	18	26	21	21	3	11	35	18	20	17	12	17
	Jadex Jct	45	25	31	22	16	32	33	9	14	22	19	16	17	16	20	13	20	27	3	6	34	22	29	25	10	12	8	22	30	33	25	25	15
	Fallon Jct	17	3	9	6	20	16	23	13	8	22	3	3	13	30	32	31	12	9	22	21	16	26	33	29	26	10	18	37	11	12	10	19	23
	Wild Horse / 5 Mile	20	6	14	3	14	22	23	10	5	13	3	16	14	27	23	10	10	12	20	19	8	23	12	13	21	1	16	40	15	16	13	16	25
	Wilson Jct.	40	23	34	26	3	19	23	10	15	19	15	16	14	9	14	10	17	34	12	20	19	25	19	13	21	16	22	20	30	33	28	22	31
	Wells Jct	24	24	41	37	12	26	19	20	25	18	33	30	9	3	17	7	4	17	28	22	6	34	22	4	6	24	25	18	39	41	33	30	32
	Stubbs Landing	43	41	43	40	15	31	25	22	27	24	32	36	16	14	24	23	10	10	12	20	13	25	18	13	10	17	28	37	39	47	38	33	26
	Ophelia	57	38	43	41	15	31	25	22	27	24	35	32	16	8	8	6	22	40	24	25	37	13	19	13	10	17	28	23	45	45	45	36	34
	OK Corral	54	29	41	32	15	32	21	23	36	15	36	33	11	4	3	4	17	34	17	21	30	7	15	4	6	24	25	15	39	47	38	33	26
	White House	33	20	25	22	8	8	15	15	17	24	14	11	11	13	23	24	23	19	18	26	16	10	17	7	3	25	21	30	25	25	22	23	35
	POL Roger	15	7	8	4	29	18	23	18	16	32	10	13	32	33	47	40	23	19	35	21	8	33	30	31	35	25	27	45	10	11	17	16	24
	Jackson / Interface	47	27	29	24	12	28	35	12	16	3	25	22	13	19	27	22	20	33	20	18	31	35	31	25	12	19	11	25	33	36	28	24	18
	Duckworth Coulee	41	21	33	24	23	39	40	16	15	7	24	21	22	25	30	21	31	22	11	9	14	28	34	26	15	10	2	29	33	38	17	18	10
	Tower M17	24	10	15	7	22	7	14	29	32	38	13	16	25	32	40	34	15	9	34	35	24	26	25	3	14	21	28	45	16	20	21	25	33
	10 Mile / Rabbit	26	12	15	7	9	18	11	17	22	26	30	27	13	8	15	11	17	23	21	11	35	31	23	11	20	27	35	23	33	43	40	36	35
	10 Mile / Antelope	37	24	23	23	15	11	4	23	28	32	36	33	19	14	21	17	23	23	21	38	18	24	31	21	14	21	27	23	18	31	35	29	43
	10 Mile / Infantry	43	31	41	45	12	17	10	19	24	32	32	29	11	4	12	7	20	32	21	29	23	3	10	12	20	24	27	35	24	31	41	45	39
	Bahrantepe	26	26	48	40	15	43	23	19	24	12	32	23	24	7	12	3	20	41	10	18	33	15	22	10	26	25	21	40	15	16	13	16	25
	Hussar / Badger	43	26	48	40	15	43	23	19	24	12	32	23	24	7	12	3	20	41	10	18	33	15	22	10	27	23	28	40	13	14	16	19	25
	Telopan	28	14	21	17	16	28	31	8	3	15	11	8	19	28	32	23	33	31	13	2	12	23	25	13	27	10	3	34	25	31	34	28	36
	Tower M12	33	19	31	22	25	41	42	17	13	9	21	18	24	27	32	23	33	33	13	33	23	33	40	33	19	10	35	31	13	14	12	9	15
	Gate N32	64	44	56	47	27	46	55	35	40	26	48	45	24	22	27	18	35	54	23	33	52	25	32	25	15	38	35	56	37	40	41	36	38
	Gate W6B	8	16	4	15	33	27	34	24	20	35	13	18	38	53	45	45	29	11	33	37	19	16	33	45	52	30	35	30	25	25	22	15	10
	Gate W7	12	13	8	16	36	33	41	28	23	37B	15	18	39	47	53	50	29	15	40	41	26	45	52	51	47	26	39	60	4	3	5	8	12
	Gate W7A	17	15	13	18	34	32	33	25	20	36	12	15	37	51	58	43	26	20	33	23	25	44	51	46	48	19	27	61	3	5	10	15	15
	Gate W9	25	25	21	24	25	38	45	18	14	28	22	19	28	35	46	38	33	28	31	21	31	34	41	43	35	10	19	45	17	13	8	5	9
	Gate W12	34	34	30	33	34	47	54	30	25	18	30	33	37	37	42	33	42	37	21	12	40	43	50	46	30	19	10	45	26	22	17	9	

UNEXPLODED EXPLOSIVE ORDNANCE (UXO) PROCEDURES

UXO Marking

1. All Land Users shall report and mark any suspicious objects found on the RTA.

2. The following precautions shall be taken when a UXO is found and during the marking and reporting of UXO:

   a. do not disturb or touch the UXO;

   b. do not dig or drive stakes into the ground closer than 1 m from the UXO;

   c. do not paint or mark the UXO;

   d. do not step directly over the UXO;

   e. avoid casting a shadow on the UXO; and

   f. do not use radios, cell phones, or other transmitters within 15 m of the UXO.

3. The standard method for marking UXO is to use a 1.3 m red-topped wooden stake driven in the ground 1-2 m from the location of the UXO. Red-topped UXO marking stakes may be obtained from Range Control prior to entering the RTA. Recognizing that not all those reporting UXO will have red-topped stakes in their possession, UXO may be marked with anything handy, so long as the marking method is identified to Range Control in the initial report.

4. Weathering, wind action, erosion, or contact with vehicles or animals can frequently cause UXO markers stakes to be knocked over. Therefore, Land Users shall exercise caution when any stakes or flagging objects are encountered, even if lying on the surface, as these may indicate the presence of UXO nearby.

Reporting UXO to Range Control

5. When reporting a UXO to Range Control the following information shall be provided, as possible:

   a. location of the UXO, 10-figure grid reference and area name;

   b. type of UXO (e.g., projectile, mortar, rocket, grenade, etc.);

   c. nature of UXO (e.g., HE, smoke, illumination, suspect chemical, etc.);

   d. caliber of UXO (e.g., 60 mm, 81 mm, 105 mm, 155 mm, etc.);

   e. colour of UXO;

   f. whether or not the UXO poses an immediate risk to personnel or infrastructure;

g. how the UXO is marked. (Describe the actual marking method used. Do not state ‘red stake’ if a red stake was not used); and

h. name and/or call sign of the person reporting the UXO.

6. Range Control shall provide the reporting Land User with a blind serial number used to track the object from the moment it is first reported until it is eventually disposed of by removal or destruction. The Land User shall write the blind serial number on the marking stake or flagging object.

UXO Disposal

7. For conventional UXO (i.e., not chemical/suspect chemical ordnance), disposal shall be conducted in accordance with Appendix 1 to this annex.

8. For chemical/suspect chemical UXO, disposal shall be conducted in accordance with Appendix 2 to this annex.

UXO DISPOSAL PROTOCOL

1. The following personnel are authorized to conduct disposal of UXO:

   a. Base Ammunition Section personnel;

   b. DRDC – SRC Field Trials Officers (FTOs);

   c. DRDC – SRC Explosive Systems Exploitation Group (ESEG) personnel;

   d. BATUS 105 Squadron Ammunition Troop personnel;

   e. designated BATUS Safety Staff;

   f. British flyover explosive ordnance disposal (EOD) staff; and

   g. designated visiting unit safety staff.

2. Any ordnance or item discovered on the RTA that falls within the following calibres and descriptions shall be handled in accordance with the Chemical Warfare Convention and Chemical/Suspect Chemical UXO Protocol per Annex K Appendix 2. Under no circumstances is any excavation to occur on any suspect chemical munition item listed below:

   a. all 18 pdr, 20 pdr, 25 pdr, 88mm, 4.2” Mortars (British & American), 4.5”, and 5.5”;

   b. any 105mm or 155mm projectiles that cannot be positively identified as conventional munition;

   c. any other ordnance type whether it be mortars, rockets, A/C bombs, projectiles or any other item that cannot be positively identified as being a conventional munition; and

   d. any other objects that have been discovered and cannot be positively identified.

3. Base Ammunition Section personnel are authorized to conduct disposal of any positively identified conventional UXO within the MTA and EPG.

4. DRDC – SRC personnel are authorized to conduct disposal of any positively identified conventional UXO and any positively identified chemical UXO.

5. BATUS 105 Sqn Ammo Troop personnel are authorized to conduct disposal of any positively identified conventional UXO within the MTA with the following restrictions:

   a. Canadian guided missiles and missile components shall not be disposed of; and

   b. projectiles (shells) shall not be disposed of when identified as 25 Pdr (88 diameter) or 4.2" mortars (British and US) or projectile 155mm with double driving band.

6. Designated BATUS Safety Staff are authorized to conduct disposal of any positively identified conventional UXO within the MTA under the following circumstances;

a. the UXO is positively identified as British ammunition; and

b. the UXO was produced by the training activity for which they are acting as safety staff.

7. British flyover EOD personnel are authorized to conduct disposal of any positively identified conventional UXO within the MTA with the following restrictions:

a. guided missiles (any nationality) and missile components shall not be disposed of;

b. projectiles (shells) identified as 25 Pdr (88mm diameter) or 105mm and 4.2” mortars (British and US) shall not be disposed of; and

c. any UXO positively identified as being a Canadian munition shall not be disposed of.

8. Designated Visiting Unit Safety Staff are authorized to conduct disposal of any positively identified conventional UXO within the MTA that is positively identified as being produced by the training activity for which they are acting as safety staff.

9. All UXO shall be reported to Range Control to be recorded in CFRIS. The Base Ammunition Section is responsible for the routine clearance of reported UXO and shall update the CFRIS database for all UXO disposal/recovery operations.

10. All other organizations conducting the disposal of UXO or recovery of munitions scrap shall report to either Range Control or the Base Ammunition Section to ensure the CFRIS database is updated correctly. Prior to conducting disposal or recovery operations, units shall verify their reporting chain and the information that must be reported.

11. Units conducting disposal of UXO shall request an out-of-bounds template around the UXO, so that disposal can be conducted safely. This action is the same as opening a RED template, which is detailed in Chapter 3 and Annex Q. In this circumstance, the OIC of the disposal operation shall act as the Template Controller, with all the requirements and duties of that position. Only once the out-of-bounds template is established and the Template Controller has opened the Red Template with Range Control, shall disposal operations be conducted. The standard out-of-bounds template will be a 3 km by 3 km square-shaped template, centred on the UXO.

RANGE CONTROL UXO DISPOSAL PROCEDURE

1. Both Canadian and British Ops rooms will adhere to the following excerpt from the Canadian Range Control Ops SOPs when UXO disposals are being conducted.

2. BLOWING OF BLIND/UXO

a. when it is necessary to grant a requesting Land User permission to blow a blind, Range Control Ops will conduct the following procedure:

(1) confirm the template controller is a qualified and published RSO;

(2) request an exact 8 figure grid of the blind location and tell the c/s to wait;

(3) plot the location of the blind on the map board and place a 1160 metre safety zone around it in all directions, then increase this area to include the next closest grid line in all directions.

b. Range Control Ops room will receive the wind speed from the on-site FOS IC's Kestrel wind meter reading and then verify the Fire Index Level. Once on-site wind speed and Fire index level are confirmed the Ops room will consult the CFB Suffield UXO Destruction Risk Chart (DRC) (below). They will then pass this info to the Ops WO or higher IOT determine the required authority and co-ordinate with the FOS Comd to deploy Fire Crew(s) to the disposal template;

c. Range Control Ops room will radio or telephone Alberta 0 and the DRDC Alpha Operator giving the exact location of the templated area and ask: "Do you have anyone working in this location?"

NOTE: Alberta 0 and DRDC Alpha Operator must call back confirming presence or absence of personnel in the templated area. They must inform Range Control as soon as all pers have cleared the area.

d. after Alberta 0 and DRDC Alpha Operator confirm no one is in the templated area, Range Control Ops will broadcast the following message on the Range Control Net and low band if user units are on the block:

"All stations this is Range Control. There is a blind to be blown in the area of (name of area). Easting (west limit) to (east limit). Northing (south limit) to (north limit). This area is out of bounds until further notice."

e. Operators are to ensure that all C/S near the blind safety template acknowledge;

f. once confirmation is received that the area is clear, Range Control Ops will broadcast the following message on the Range Control Net:

"(EOD C/S) this is Range Control. Have you conducted a Face to Face with Fire Team Leader? Can you account for all your vehicles and call signs? Do you have

command of the ground? (Permission will only be granted when all conditions are satisfied).

"You have permission to go live."

NOTE: The face to face is conducted with the Range Safety Officer and the FOS Comd and/or OSC (Fire Team Leader) in order to confirm that the conditions are suitable for UXO destruction. The FOS rep conducting the face to face has the authority to, at any time, cease destruction of the blind (UXO) IAW the DRC, or if fire risks are deemed to be too great.

g. BATUS C/S's will conduct all UXO disposals IAW the procedure detailed above. When confirmation is received by Range Control Ops from Alberta 0 and the DRDC Alpha Operator that they have no one within the blind's template, Range Control Ops may grant authority to BATUS destroy the UXO. Once the UXO has been destroyed BATUS must inform the Range Control Ops;

h. when the requesting C/S confirms blind has been destroyed, the following will be broadcast the on the Range Control and low band net:

"All stations this is Range Control. The Blind in area (name of area) is now clear. I say again, the blind in area (name of area) is now clear."

i. ensure that all C/S near the templated area acknowledge; and

j. Ensure that Alberta 0 and DRDC Alpha Operator acknowledges by radio or phone.

UXO Destruction Risk Chart

CFB Suffield UXO Destruction Risk Chart

Fire Danger	Wind speed km/hr (including gusts) >30	25-30	20-25	15-20	10-15	0-10
Extreme	5	4	4	3	3	2
Very High	4	4	3	3	2	1
High	3	3	3	2	1	1
Moderate	3	2	2	1	1	1
Low	2	1	1	1	1	1
Nil	1	1	1	1	1	1

#1-5 = min number of fire fighting trucks required on site with a min of 2 pers per vehicle

Authority required to blow blind

	BComd	All risk levels require input from FOS Comd and/or OSC (Fire Tm leader).
	RCO/DRCO	
	RC Ops Room WO/Sup	

UXO Conditions Report

CFB SUFFIELD RANGE CONTROL UXO CONDITIONS REPORT

Date of Report 2018-06-29 11:55 Final Entry 2018-06-29 11:55

Position	Rank	Name
FOS Rep	Select...	
Priority Area	Select...	
Fire Index	Select...	
Temperature		°C
Wind Speed		Km/Hr
Wind Direction		
Weather Conditions		
Terrain Type		
UXO Type		
Assets Required		
Assets Available		
Reason for Destruction		

Is on Scene Commander comfortable with blowing the Blind Select...

Serial	DTG Logged	Description of Incident/Event	Action/Remarks
1	29-Jun-18 11:55		

Click here to enter a new event or incident

CHEMICAL/SUSPECT CHEMICAL UXO PROTOCOL

1. The presence of legacy chemical UXO presents a threat to RTA users. Confirmed or suspect chemical munitions and munition scrap are subject to heightened safety precautions and international regulations governing reporting and disposal. Chemical/suspect chemical UXO and munitions scrap shall be managed using the procedures outlined below.

Procedure

2. Initial Report. The initial report shall be handled in the same manner as for a normal UXO, except that the individual reporting the UXO shall identify the UXO as a suspect chemical UXO. Range Control shall enter the UXO information into CFRIS.

3. Notification. Range Control shall immediately inform the appropriate agency of the suspect chemical UXO and request that the UXO be investigated in accordance with the following:

a. The suspect chemical UXO is internal to the EPG. The matter shall be referred to the DRDC – SRC Field Trials Officer (FTO) or Explosive Systems Exploitation Group (ESEG); and

b The suspect chemical UXO is external to the EPG. The matter shall be referred to the Base Ammunition Section.

Internal to the EPG

4. DRDC – SRC FTO or ESEG personnel shall visually inspect the reported UXO. If the UXO is confirmed as a chemical/suspect chemical UXO, the FTO/ESEG personnel shall immediately inform Range Control and DRDC – SRC.

External to the EPG

5. A Base Ammunition Section technician shall visually inspect the reported UXO and gather the following information:

a. location of the ordnance item, RTA area, and 10-figure grid reference;

b. when the ordnance item was discovered;

c. how the ordnance item was discovered; and

d. what type of ordnance it is including distinguishing markings, colour code, and/or physical features.

6. The Base Ammunition Section technician shall take photographs of the UXO to include all distinguishing markings, colour code, and physical features and shall ensure the UXO is well marked.

7. All information and photographs shall be forwarded to DRDC – SRC. If the UXO does not pose an immediate hazard (i.e., is not located near occupied infrastructure, public routes, etc.), the UXO can be

reported to DRDC – SRC FTO/ESEG on the following work day. If the UXO poses an immediate hazard it shall be immediately reported to DRDC – SRC FTO/ESEG.

8. Once a UXO has been reported to Range Control as chemical/suspect chemical UXO, Range Control shall initiate Chemical Protocols.

Chemical Protocols

9. Out of Bounds (OOB) Area. An out-of-bounds (OOB) area shall be established around the UXO. This area, including all thru-roads shall immediately be placed OOB and all range users shall be informed. The OOB area shall be established using the following procedures:

a. a circle with a 2 km radius shall be placed around the UXO; and

b. the OOB area shall then be extended out in all direction to the next grid line creating a 5 km x 5 km square-shaped area, centred on the UXO.

10. Upon inspection of the item(s) by DRDC – SRC FTO's and/or ESEG personnel, the size of the OOB area may be adjusted on a case-by-case basis under the authority of DRDC – SRC Centre Director.

11. OOB Access. Once the OOB area has been established, access to the OOB area shall be granted under only the following circumstances:

a. DRDC – SRC and required support personnel evaluating the chemical/suspect chemical UXO;

b. DRDC – SRC and required support personnel conducting disposal operations of the chemical/suspect chemical UXO; and

c. DRDC – SRC personnel and/or Base Ammunition Section personnel evaluating other UXO reported within the OOB to ensure no other chemical/suspect chemical UXO are present. Disposal operations of conventional UXO found within the OOB shall not be conducted.

12. Reporting. Once chemical protocols have been initiated, Range Control shall provide the information to G3 Ops, who shall prepare a Significant Incident Report (SIR). DRDC – SRC shall report in accordance with memo Chemical Ordnance Discovered at CFB Suffield (File No. 11300-1 (HFOS)). The reports shall be sent up their respective chains of command. Both agencies shall provide each other an info copy of the report. Once NDHQ has been informed, notification shall take place between the Government of Canada and the Organization for the Prohibition of Chemical Weapons (OPCW) in the Hague.

13. Disposal. Unless immediate safety considerations dictate, all concerned shall await OPCW authority before proceeding any further. Upon reception of OPCW authority, the DRDC – SRC disposal team shall notify Range Control and DRDC – SRC Alpha Net of the proposed disposal day. On that day, the dimensions of the necessary disposal template shall be chosen by the Disposal Team Commander based upon the current meteorological conditions. This template shall be the largest size necessary to cover all disposal requirements. The team shall keep Range Control informed on the progress of this

activity, and specifically when perforation, destruction, and decontamination of the area are complete. A brief, written confirmatory report shall be distributed to key agencies, following completion of disposal operations. This information shall be used by Range Control to close off the data in its blinds register, and to send a supplementary SIR concluding the incident.

14. Assessment of Risk. An assessment of the risk posed by the item discovered shall be conducted, according to the following criteria:

a. No Hazard to Operations. Any container or munition that is suspected of containing, or known to contain, a chemical warfare agent, where the container or munition is not leaking and is verified not to contain explosives or energetics, shall normally be judged to pose NO HAZARD TO OPERATIONS; or

b. Hazard to Operations. Any container or munition that is suspected of containing, or known to contain a chemical warfare agent and is either leaking chemical warfare agent or suspected of containing, or is known to contain explosives or energetics, would normally be judged to pose a HAZARD TO OPERATIONS; or

c. Extreme Hazard to Operations. Any container or munition that is judged to pose a hazard to operations that is discovered in close proximity to active DND/CAF facilities or buildings, civilian property, or ongoing training or operations and must be destroyed without delay to protect military or civilian personnel or the public; would normally be judged to pose an EXTREME HAZARD TO OPERATIONS.

15. Destruction Methodology. Two principal methods are employed to destroy chemical and suspect chemical UXO:

a. Deliberate Destruction. The draining and neutralization of any chemical warfare agent under controlled conditions, followed by decontamination and destruction of the container in accordance with approved deliberate destruction procedures. Any item judged to pose NO HAZARD TO OPERATIONS shall normally be subject to deliberate destruction. The ordnance is to be transported to the Ammunition Compound or an appropriate hazardous material building at the Cameron Centre for secure storage until the ordnance can be drilled, sampled and drained; or

b. Emergency Destruction. The destruction under controlled field conditions of the item in accordance with DRDC – SRC chemical ordnance protocols. Any item judged to pose either a HAZARD or EXTREME HAZARD TO OPERATIONS shall normally be subject to emergency destruction. If the ordnance has an explosive hazard, it is considered a dud and shall not be moved. The method of disposal is to perforate, sample, and then counter-charge with a minimum of 45 kg (100 lbs) of explosives. If safety requires immediate disposal, the disposal action must be justified to and authorized by the DRDC – SRC Director and shall be assessed and reported in accordance with B-GL-381-003/TS-000 Operational Training, Part 3 - Range Clearance and Unexploded Explosive Ordnance (UXO) Activities (DRAFT).

Misidentification and Accidental Disposal of Chemical UXO:

16. If a chemical UXO is identified and disposed of using normal dud disposal techniques for conventional UXO, an OOB shall be established immediately upon determining an accidental disposal of chemical UXO has occurred.

17. The OOB area shall be established using the following procedures:

a. a circle with a 2 km radius shall be placed around the UXO; and

b. the OOB area shall then be extended out in all directions to the next grid line creating a 5 km x 5 km square-shaped area, centred on the UXO.

18. Anyone within the OOB shall evacuate immediately.

19. The personnel conducting the disposal operation shall shift focus to minimize/avoid contamination and to extricate themselves from the area. A detailed status report shall be provided to Range Control and DRDC – SRC.

20. DRDC – SRC shall immediately be contacted for advice on the size of the OOB area and subsequent disposal actions. DRDC – SRC FTOs shall enter the OOB area as soon as possible to conduct destruction and decontamination, as required.

Chemical/Suspect Chemical Munition Scrap

21. Any UXO determined to be chemical/suspect chemical munition scrap shall be managed using the procedures outlined below:

a. the chemical/suspect chemical munition scrap shall be reported, inspected and photographed in accordance with Paragraphs 3, 4, 5, & 6 of this Appendix 3 and Range Control shall establish an OOB area with a 2 km radius. Upon inspection of the item(s) by DRDC – SRC FTO's and/or ESEG personnel, the size of the OOB area may be adjusted on a case-by-case basis under the authority of DRDC – SRC Director;

b. all information and photographs shall be forwarded to DRDC – SRC FTOs and/or ESEG personnel; and

c. DRDC – SRC shall be responsible for the collection and/or disposal of the confirmed chemical munition scrap.

Recovered as Range Scrap

22. Any chemical/suspect chemical munition scrap that is inadvertently recovered during range sweep operations and transported to Stubbs Landing (Grid 14580 95515) shall be managed using the procedures outlined below:

a. as soon as potential chemical/suspect chemical munition scrap is located, salvage processing operations shall cease and the chemical/suspect chemical munition scrap shall remain “as-is, where-is”;

b. Range Control shall establish an OOB with a 2-km radius over the collection point. The OOB shall be out-of-bounds to all personnel except for DRDC – SRC FTOs and ESEG personnel. Upon inspection of the item(s) by DRDC – SRC FTOs and/or ESEG personnel, the size of the OOB area may be adjusted on a case-by-case basis under the authority of DRDC – SRC Director;

c. as a precaution, the senior ranking person at Stubbs Landing shall record the names of all personnel that may have inadvertently handled chemical/suspect chemical munition scrap;

d. all information and photographs shall be forwarded to DRDC – SRC FTOs and/or ESEG personnel; and

e. DRDC – SRC shall be responsible for the collection and/or disposal of the confirmed chemical munition scrap.

AMMUNITION COMPOUND STANDARD OPERATING PROCEDURE

References

A. C-09-005-002/TS-000 Ammunition and Explosives Safety Manual Volume 2 Storage and Facility Operations

Background

1. Prairie Storage Site Bldg 180 is a licenced ammunition storage magazine located within Experimental Proving Ground.

2. Prairie Storage Site is regularly utilized by exercising units from BATUS whose personnel have no training with regard to ammunition storage procedures or practices. These units conduct ammunition stock taking, consolidation, and repack at this location. The application of ammunition storage regulations, in accordance with ref A, would prevent these units from conducting the required operations. Conducting these operations at an austere location would reduce the level of explosive safety that can be achieved at Prairie Storage Site.

3. Ammunition operations conducted at Prairie Storage Site are broken down into two categories:

   a. ammunition Storage conducted by qualified ammunition personnel; and

   b. ammunition and Ammunition Salvage Processing conducted by exercising units.

4. This SOP will provide the guidelines that are to be adhered to when conducting these two categories of ammunition operations.

Ammunition Storage

5. Ammunition storage operations will normally be conducted by units with qualified ammunition personnel and all storage and handling regulations IAW ref A apply. Qualified ammunition personnel are:

   a. Canadian Ammunition Technicians;

   b. Qualified Canadian Unit Ammunition Representatives; and

   c. British Army Ammunition Technicians; and

   d. British Army 2nd Line Ammunition Supply Personnel.

Ammunition And Ammunition Salvage Processing – Exercising Units

6. The benefits of exercising units to conduct ammunition operations at Prairie Storage Site are:

   a. the facility provides lightning protection;

   b. the facility is secure;

c. the building provides lighting which allows ammunition operations to be conducted more effectively;

d. the building provides shelter which protects the ammunition from environmental conditions which improves the state of the ammunition;

e. some explosive safety policies and practices can be applied which would not be applied at austere locations; and

f. the operations are conducted at a known location allowing both Canadian and British ammunition personnel to conduct safety surveys.

7. These benefits provide for an overall higher standard of explosives safety than could be achieved at an austere location. The ammunition and ammunition salvage is in a better state which improves explosive safety in the ammunition compound once the ammunition is returned and ammunition personnel can conduct safety surveys which help to eliminate safety concerns before they are introduced to the ammunition compound.

Explosives Safety – Exercising Units

8. To enhance explosives safety the following actions will be taken by units utilizing the building and compound:

a. the gates located approximately 1000m east and west of Prairie Storage Site shall be closed when ammunition is present;

b. red flags will be raised at the gates indicating the presence of ammunition;

c. BATUS Range Control will be informed when ammunition is on site and will be informed when all ammunition has been removed. BATUS Range Control will inform Canadian Range Control so a restricted template may be put into effect and so FOS crews can take appropriate action in the event of a fire;

d. the Canadian Ammunition Section will be informed through the ammunition compound commissionaires at loc. 4806 when ammunition is on site and when all ammunition has been removed;

9. The following explosive safety regulations will be adhered to while exercising units are processing ammunition at Prairie Storage Site:

a. smoking is prohibited within the building and fenced compound at all times;

b. the use of open flame, stoves, lanterns, etc is prohibited within the building and fenced compound at all times;

c. personnel shall not inhabit Prairie Storage Site while ammunition and explosives are present at the facility;

d. ammunition and explosives shall never be left unattended at Prairie Storage Site;

e. personnel shall have communications with BATUS Range Control at all times either by radio or cell phone;

f. all personal weapons shall be unloaded prior to entering the fenced compound;

g. ammunition and explosives such as detonators, bulk explosives (PE-7), bulk propellant (155mm charge propelling, mortar increments) and white phosphorus shall not be left unpackaged;

h. white phosphorus ammunition shall be stored, processed and handled in the immediate vicinity of the White Phosphorus water barrel. The water barrel shall be full of water at all times and appropriate PPE shall be available;

i. ammunition that is electrically initiated or contain electro-explosive devices (electric detonators, electric igniters, L8 Series grenades) shall be stored in sealed metal containers;

j. damaged ammunition shall be segregated from serviceable ammunition. If there is any concern with regard to the safety of the damaged ammunition, the BATUS Ammo Troop shall be contacted immediately;

k. the Canadian Senior Ammunition Technician or his delegate will conduct explosive safety inspections of Prairie Storage Site not less than weekly; and

l. bulk dangerous goods other than ammunition and explosives such as fuel and oil shall not be stored within the fenced compound or building. A small quantity of dangerous goods such as spray paint may be stored providing they are stored in the Hazmat locker when not in use;

Firefighting

10. Two serviceable fire extinguishers shall be maintained in Bldg 180 at all times. All vehicles used for transporting ammunition and explosives shall be fitted with a serviceable fire extinguisher.

11. In the event of a fire the following action shall be taken:

a. raise the alarm by shouting “FIRE, FIRE, FIRE” to make all personnel in the area aware of the fire;

b. raise the alarm by contacting Range Control by radio or cell phone and requesting the range control firefighting crews and base fire department;

c. fight the fire using all available means if it is safe to do so. If the senior person present determines it is unsafe to fight the fire, evacuate all personnel and vehicles from the compound. Personnel shall evacuate down Beaver Road past either of the two gates (approximately 1000m). If possible personnel should be sent to both gates as FOS crews will likely respond from the east and the base fire hall from the west; and

d. personnel shall remain at the gates to advise firefighting personal of the types and quantities of ammunition located at Prairie Storage Site.

Ammunition Empties Group – Processing Salvage

12. Ammunition salvage operations shall be conducted IAW the briefings provided by Canadian and British Ammunition Personnel prior to the exercise.

13. The Ammunition Empties Group (AEG) can be requested to process ammunition salvage at Prairie Storage Site for return to the ammunition compound. When the AEG personnel are on site the following regulations shall be adhered to:

a. all ammunition salvage will be certified FFE prior to being handled by AEG personnel;

b. ammunition and explosives may remain at Prairie Storage Site; however there must be a clear segregation between ammunition and the ammunition salvage. Civilian general laborers are not permitted to work in close proximity to or handle ammunition and/or explosives;

c. ammunition must be stored in a safe manner, bulk explosives including HE and HESH shells and bomb, bulk propellant, and electrically initiated ammunition cannot be left unpackaged. Packages containing these items may be opened for inspection, stock taking and consolidation providing the ammunition is not left exposed and operations are conducted safely; and

d. small arms cartridges, pyrotechnics, practice grenade bodies and inert shot and shell (120mm DS Prac, 155mm Prac, etc) may be left unpackaged for inspection, stock taking and consolidation providing they do not pose a safety hazard.

14. The AEG supervisor is responsible for ensuring that ammunition operations are being conducted safely and that AEG personnel are not put at risk. If the AEG supervisor determines that an unsafe condition exists he will immediately try to resolve the situation at the lowest level with the personnel present. If the situation cannot be resolved the AEG personnel shall be removed from the hazard and the incident shall be reported to the Canadian Senior Ammo Tech.

FACILITY INSPECTION

15. Prior to the start of each exercise the Canadian Senior Ammunition Technician or his delegate shall conduct a site inspection to verify the following:

a. the gates, fence, building and lighting protection is serviceable;

b. the required fire extinguishers are present, have been inspected and are serviceable;

c. the WP water barrel is full of clean water, the WP First Aid instructions are posted and the required first aid kit, tools, and equipment are present;

d. the DND-1004 Explosives Storage Licence, Ammunition and Explosive Safety Inspection Record sheet, Fire Orders and Material Safety Data Sheets are posted on the notice board;

e. the salvage processing aid memoire is posted on the notice board; and

f. stock check the salvage lock up to verify a sufficient stock of buckles, cari-strap, metal banding and metal banding clips are available.

OPI

16. The OPI for this SOP is the Canadian Senior Ammunition Technician.

DISTRIBUTION

G4 Ammo
105 Sqn Ammo Tp
Bldg 180 PSS Notice Board

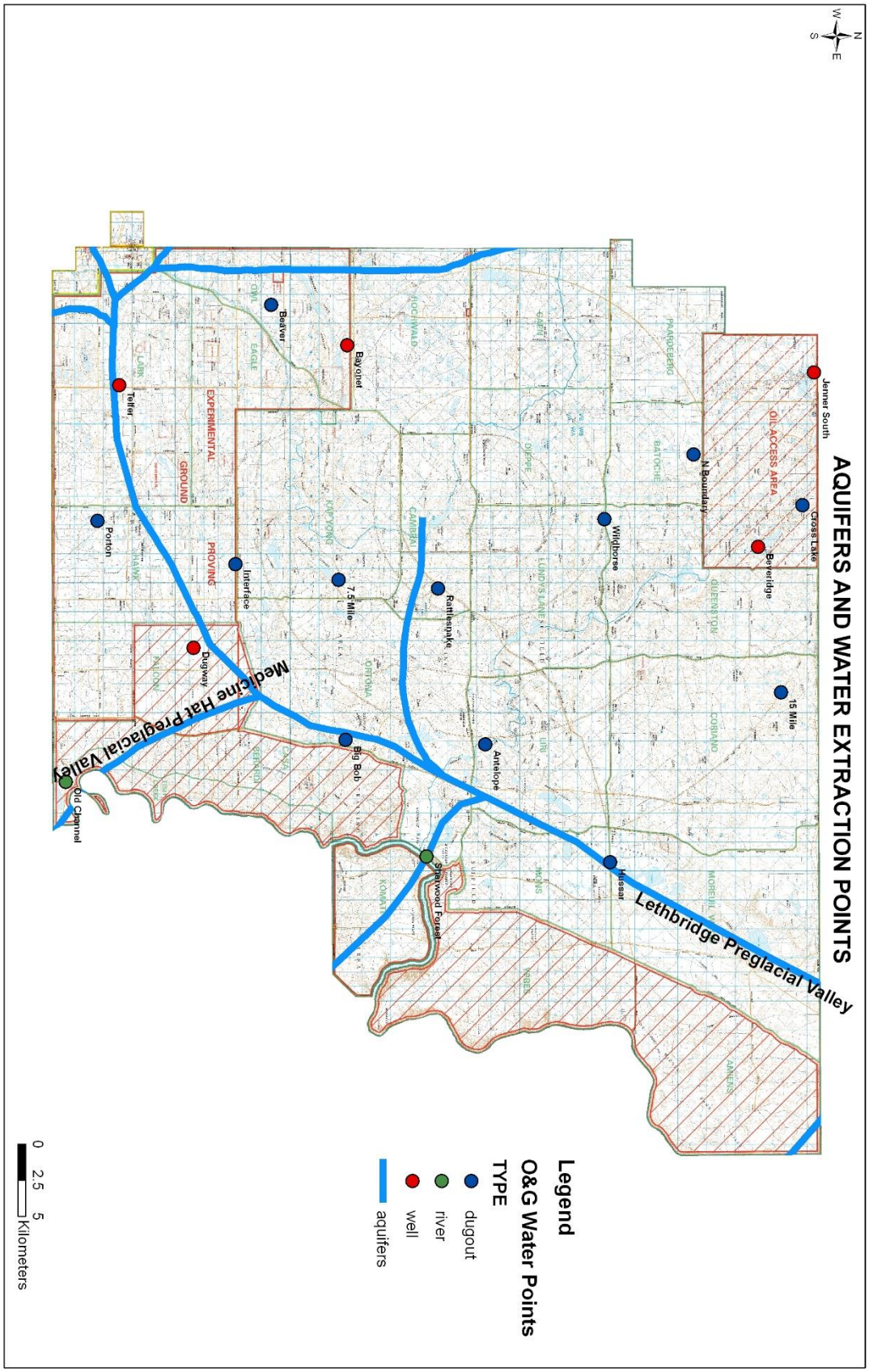

AQUIFERS AND WATER EXTRACTION POINTS
Jenner South
Cross Lake
Beveridge
15 Mile
Hussar
Sherwood Forest
Antelope
Big Bob
Rattlesnake
7.5 Mile
Interface
Bayonet
Beaver
Dugway
Old Channel
Telfer
Porton
Wildhorse
N Boundary
OIL ACCESS AREA
EXPERIMENTAL
PROVING
GROUND
Lethbridge Preglacial Valley
Medicine Hat Preglacial Valley
Legend
O&G Water Points
TYPE
dugout
river
well
aquifers
0 2.5 5
Kilometers

Table 1. Approved Waterpoints & Allowable Withdrawal Rates

Ser	Site	Type	Legal Land Descrpt	Easting	Northing	Vol at Full Capacity (m^3)	Capacity (%)	Drawn Down Rate (m^3/yr)	Comment
1	Antelope	dugout	12-6-18-5	522198	5593547	1540	100	2471	A water volume measuring pole is installed in the dugout. Water withdrawal is allowed until the dugout is at 50% of full capacity (770m^3)
						1078	70		
						770	50		
						462	30		
2	Bayonet	well	12-5-17-8	494648	5583951	2492	100		Water withdrawal can continue when the dugout is below 50% of full capacity (1246m^3).
						1744	70		
						1246	50		
						748	30		
3	Beaver	dugout	6-24-16-9	491750	5578743	2104	100	1837	Water withdrawal is allowed until the dugout is at 50% of full capacity (1052 m^3).
						1473	70		
						1052	50		
						631	30		
4	Beveridge	well	5-2-20-7	508360	5612618	2327	100		Water withdrawal can continue when the dugout is below 50% of full capacity (1164m^3).
						1629	70		
						1164	50		
						698	30		
5	Big Bob	dugout	12-6-17-5	512893	5583857	1327	100	534	Water withdrawal is allowed until the dugout is at 50% of full capacity (660 m^3).
						929	70		
						664	50		
						398	30		
6	Cross Lake	dugout	10-16-20-7	505594	5615691	1600	100	2079	Water withdrawal is allowed until the dugout is at 50% of full capacity (800 m^3).
						1120	70		
						800	50		
						480	30		
7	Dugway	well	4-4-16-6	515500	5573300	475	100		Alberta Environment and Parks licensed well. Water withdrawal can continue when the dugout is below 50% of full capacity (238m^3).
						333	70		
						238	50		
						143	30		

Ser	Site	Type	Legal Land Descrpt	Easting	Northing	Vol at Full Capacity (m^3)	Capacity (%)	Drawn Down Rate (m^3/yr)	Comment
8	Fifteen Mile	dugout	5-11-20-6	518579	5614144	653	100	376	Water withdrawal is allowed until the dugout is at 50% of full capacity (327 m^3).
						457	70		
						327	50		
						196	30		
9	Hussar	dugout	3-1-19-5	530371	5602254	1379	100	1535	Water withdrawal is allowed until the dugout is at 50% of full capacity (690 m^3).
						965	70		
						690	50		
						414	30		
10	Interface	dugout	13-11-16-7	509693	5576173	2409	100	2290	Water withdrawal is allowed until the dugout is at 50% of full capacity (1205 m^3).
						1686	70		
						1205	50		
						723	30		
11	South Jenner	well	10-16-20-8	496892	5615935	5975	100		Alberta Environment and Parks licensed well.
						4183	70		
						2988	50		
						1793	30		
12	N Boundary	dugout	13-19-19-7	502042	5608109	1870	100	1501	Water withdrawal is allowed until the dugout is at 50% of full capacity (935 m^3).
						1309	70		
						935	50		
						561	30		
13	Old Channel	river	4-4-15-5	524810	5664343	2730	100		Alberta Environment and Parks licensed well. Water withdrawal can continue when the dugout is below 50% of full capacity (1365m3).
						1911	70		
						1365	50		
						819	30		
14	Porton	dugout	3-16-15-7	506700	5566600	1621	100	1927	Water withdrawal is allowed until the dugout is at 50% of full capacity (810 m^3).
						1135	70		
						811	50		
						486	30		
15	Rattlesnake	dugout	15-25-17-7	511443	5590542	1406	100	1178	Water withdrawal is allowed until the dugout is at 50% of full capacity (703 m^3).
						703	50		
						422	30		

Ser	Site	Type	Legal Land Descrpt	Easting	Northing	Vol at Full Capacity (m^3)	Capacity (%)	Drawn Down Rate (m^3/yr)	Comment
16	7.5 Mile	dugout	5-1-17-7	510800	5583400	1286	100	1957	Water withdrawal is allowed until the dugout is at 50% of full capacity (643 m^3).
						900	70		
						643	50		
						386	30		
17	Sherwood Forest	river	13-24-17-5	529988	5589507	N/A	N/A		Alberta Environment and Parks controls the surface water and is responsible for the regulation and licensing of water withdrawals
18	Telfer	well	9-16-15-8	497300	5568100	4606	100		Alberta Environment and Parks licensed well.
						3224	70		
						2303	50		
						1382	30		
19	Wildhorse	dugout	3-4-19-7	506600	5601900	2267	100	959	Water withdrawal is allowed until the dugout is at 50% of full capacity (1134 m^3).
						1587	70		
						1134	50		
						680	30		

BRIEFING NOTE ON WETLAND BUFFER SETBACK DISTANCES FOR CFB SUFFIELD

Wetlands – Background

1. Setback distance between development activities/disturbances and a wetland provides a buffer that aids to protect ecosystem function, wetland health, as well as native species abundance and diversity. Wetlands at CFB Suffield exist within the valued ecosystem component of native mixed grass prairie. These wetlands provide the critical moist and semi-aquatic habitats used as breeding and foraging areas for aquatic & terrestrial birds, small mammals, amphibians, aquatic plants and ungulates (Adams *et al.* 1998), thus protecting another valued ecosystem component of native biodiversity.

2. A wetland in Alberta is defined as an area where the land is saturated with water long enough to promote wetland or aquatic processes as indicated by poorly drained soils, hydrophytic vegetation and various kinds of biological activity which are adapted to a wet environment (Alberta Environment 1994; Government of Canada 1991; Environment Canada 1987). Wetlands include natural or manmade water bodies that contain or convey water continuously, intermittently, or seasonally. The high water mark of the wetland is the boundary to the wetland and is distinguished by changes in the hydrology, soil structure and vegetation.

3. Wetlands are fragile, as their water source can easily be contaminated with chemicals or sediment. The vegetation and soil are easily disturbed by activity and due to limited amounts of rainfall in the Suffield area, regeneration of the water supply is slow, exacerbating the effects on wetland health (Castelle *et al.* 1992; Adams 1988).

4. Scientists generally agree that appropriate buffer widths (i.e., setback distances) are based on several variables including: existing wetland functions, values, and sensitivity to disturbance; buffer characteristics; land use impacts; and desired buffer functions (Castelle *et al.* 1992). Literature indicates that, in general, wetland buffers reduce land use impacts on wetlands by moderating the effects of storm-water runoff, including stabilizing soil to prevent erosion; filtering suspended solids, nutrients, and harmful or toxic substances; and moderating water level fluctuations. Buffers also provide essential habitat for wetland-associated species for use in feeding, roosting, breeding and rearing of young, and cover for safety, mobility, and thermal protection. Finally, buffers reduce the adverse impacts of human disturbance on wetland habitats including blocking noise and glare; reducing sedimentation and nutrient input; reducing direct human disturbance from dumped debris, cut vegetation, and trampling; and providing visual separation (Castelle *et al.* 1992).

Definition of Activity/Disturbance

5. Activity/Disturbance means (based on *Alberta Water Act* definition):

   a. placing, constructing, operating, maintaining, removing or disturbing works, maintaining, removing or disturbing ground, vegetation or other material, or carrying out any undertaking; and
   b. causes, may cause or may become capable of causing an effect on the wetland or buffer environment, including such activities that:

(1) alters, may alter or may become capable of altering the flow or level of water, whether temporarily or permanently;

(2) changes, may change or may become capable of changing the location of water or the direction of flow of water;

(3) causes, may cause or may become capable of causing the siltation of water or the erosion of any bed or shore of a water body;

(4) causes, may cause or may become capable of causing the contamination of water, soil or vegetation of either the 100-metre buffer or the wetland; and

c. causes, may cause or may become capable of causing changes to the native species abundance or diversity present.

Buffer or Setback Distance

6. The buffer or setback distance at CFB Suffield between wetlands and activities/ disturbances is currently set at 100 metres. This setback guideline is conservative and is designed to protect the integrity and health of the wetlands at CFB Suffield, as they are valued ecosystem components. Restricting activities within the 100-metre buffer zone protects the health and function of the wetlands. Probability of wetland contamination is minimized when a realistic buffer zone is used and continuance of native species abundance and diversity is maximized.

Exceptions

7. It is recommended that no exceptions be granted to allow development activity/disturbances within a wetland, but exceptions to the buffer guideline may be considered on a case-by-case basis that should be approved by the base in consultation with external stakeholders/experts (e.g., Canadian Wildlife Service). Application for an exception to the guideline must be made in writing at the time of initial lease application. Exceptions could include reducing the buffer zone for those wetlands considered less important to overall ecosystem function based on criteria such as size, distance to other wetlands, general health of the wetland, species abundance and diversity within the wetland and buffer area, as well as distance to existing disturbances.

8. Requesting exception to the 100-metre buffer would require providing scientific proof completed by an approved expert on the following:

a. There are no federal or provincial species at risk within the wetland or the 100-metre buffer area;

b. That the wetland and 100-metre buffer area have been surveyed for four complete and consecutive seasons (e.g., Spring, Summer, Fall and Winter) before development, including completion of a detailed inventory of species present and an assessment of wetland water quality and soil parameters. If the year in question were a drought year, then the development of proof would need to be extended to include the four seasons not impacted by drought conditions;

c. Following development within the buffer zone, a follow-up study is required to provide proof that the wetland was not contaminated and that sufficient restorative work has been completed to allow the initial species abundance and diversity to return within the shortest time frame possible. Base personnel are to inspect this work and ensure that agreements are in place, at initial lease application, and that those developing/disturbing the area will pay all costs associated with required restoration;

d. Wherever possible, development within the buffer areas should utilize currently disturbed areas and/or maximize currently existing features such as access roads and pipeline right-of-ways; and

e. Caution must be exercised to ensure that all buffer zones for species at risk are not impacted, whether the buffer zone is specifically for a wetland or not.

Wetland Buffer Setback Guideline Support

9. The wetland buffer setback distance guideline is based on the following specific references, which include government, scientific and industry sources: AEUB (2005); Herrera Env. Consult. Inc. (2005); *Public Lands Act (*2004); Castelle *et al.* (1992); Native Prairie Guidelines Working Group (2002); Alberta Fish & Wildlife (2001; 2004); Washington State Dept. Ecology (1997); Rogers *et al.* (1988); U.S. Corps of Engineers (1987); Milligan (1985).

Prepared by:	Dr. Jennifer Rowland, A/D Env S 4-3, (613) 996-4591
Reviewed by:	Chris Hough, A/D Env S, (613) 995-6529
Responsible Authority:	Holmer Berthiaume, A/DGE, (613) 995-0923
Date:	22 August 2006

Source Documents

Adams, G. D., Didiuk A. B and I. D. MacDonald. 1998. *Wetlands Component Report. Canadian Forces Base Suffield National Wildlife Area Wildlife Inventory*. Canadian Wildlife Service, Environment Canada Prairie and Northern Region.

AEUB. 2005. Alberta Energy and Utilities Board Directive 056. *Energy Development Applications and Schedules*, dated 12 September 2005 replaces Guide 56 dated October 2003.

Alberta Environment. 1994. *Focus on Wetlands*. 1994. Pub No I/934. 0-7785-2477-9.

Alberta Fish and Wildlife. 2004. *Conservation of Ephemeral Wetlands*. 13 September 2004. Draft (Richard Quinlan).

Alberta Fish and Wildlife. 2001. *Recommended Land Use Guidelines for Protection of Selected Wildlife Species and Habitat Within Grassland and Parkland Natural Regions of Alberta*. Draft 26 July.

Castelle, A.J., C. Conolly, M. Emers, E.D. Metz, S. Meyer, M. Witter, S. Mauermann, T. Erickson, S.S. Cooke. 1992. *Wetland Buffers: Use and Effectiveness*. Adolfson Associates, Inc., Shorelands and Coastal Zone Management Program, Washington Department of Ecology, Olympia. Pub. No. 92-10.

Environment Canada. 1987. The Canadian Wetland Classification System. Provisional edition Ecol. *Land Classification Series 21*. National Wetlands Working Group.

Government of Canada. 1991. *The Federal Policy on Wetland Conservation*.

Herrera Environnemental Consulting. Inc. 2005. *City of Belleview's Critical Areas Update: 2005 Best Available Science Review*, March 2005.

Milligan, D.A. 1985. *The Ecology of Avian Use of Urban Freshwater Wetlands in King County, Washington*. M.S. Thesis, Univ. of Washington, Seattle.

Native Prairie Guidelines Working Group. 2002. *Petroleum Industry Activity in Native Prairie and Parkland Areas. Guideline for Minimizing Surface Disturbance*. Jan 2002.

Public Lands Act. 2004. Chapter 6 Wetlands; *Instructions for Submission of Environmental Field Reports with Surface Disposition Applications Under the Public Lands Act*. 5 November 2004.

Rogers, Golden & Halpern Inc. 1988. *Wetland Buffer Delineation Method. Division of Coastal Resources*, New Jersey Department of Environmental Protection, CN 401, Trenton, New Jersey 08625. 69 pp.

U.S. Corps of Engineers. 1987. *Wetland Delineation Manual*. Environmental Laboratory Department of the Army Technical Report Y-87-1.

Washington State Department of Ecology. 1997. *Washington State Wetlands Identification and Delineation Manual*. Publication No. 96-94.

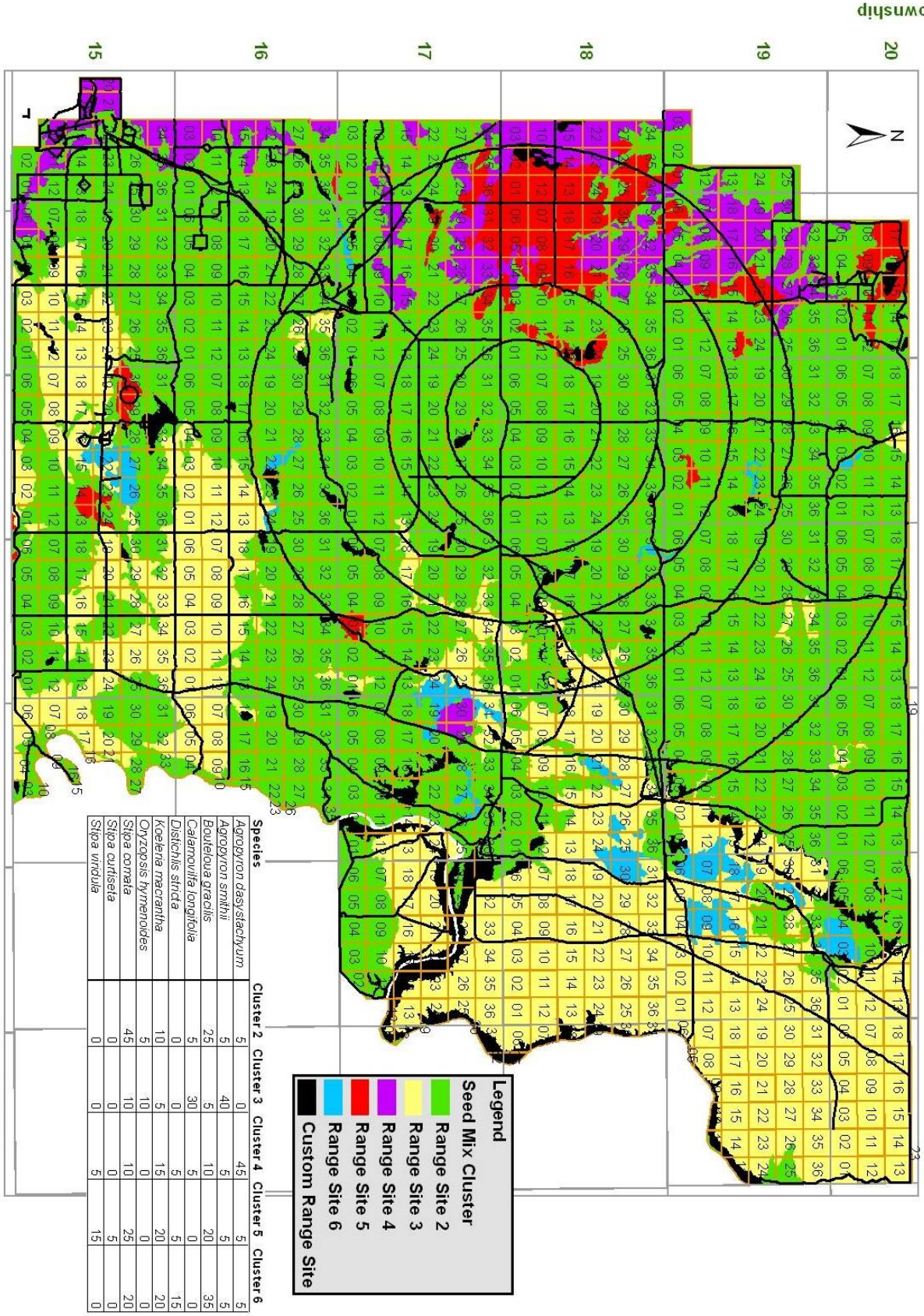
WETLAND MITIGATION FOR LAND USE FILE REVIEWS

Serial	Goals for Maintaining Ecological Function of Wetlands	Mitigation Considerations
1	Protection of Habitat: a. Reduce effects of stormwater runoff by stabilizing soil to prevent erosion; and filtering suspended solids, nutrients b. Natural shoreline protection from wave action and erosion c. Natural flood reduction and control, through water storage and retention d. Soil and water conservation e. Water recharge, providing natural purification and storage of freshwater for humans and wildlife f. Preservation of biodiversity and vitality of species g. Important source of oxygen and a vital element of natural evapotranspiration and climatic cycles h. Natural storage base for carbon i. Natural sinks for pollutants such as sulphur from acid rain an heavy metals j. Nutrient source for connected waters	i. **Dormant/Winter Drilling and Completions** – ensures vegetation has completed its lifecycle prior to impacts associated with new developments. Frozen ground is resistant to compaction and pulverization, retaining higher soil quality. Eliminating soil quality impacts preserves wetland functions associated with soil conservation. ii. **No Build Wellsites** – Eliminates soil quality reductions associated with soil handling. Retaining the full prairie sod layer throughout results in a more rapid recovery than a built site as the root systems of plants remain in place. Not disrupting root systems ensures pre-existing vegetation has first opportunity to recover and potential ingress of non-native or weedy vegetation is minimized, thereby retaining the habitat functional qualities associated with the vegetative community. iii. **Rapid interim reclamation and recovery**: (1) Wellsites – disturbed soil returned to pre-disturbance contours within one growing season. Minimizing the length of time topsoil is stored allows seed bank to remain viable and establish faster decreasing the possibility of effects to the wetland function and habitat. Natural recovery ensures less potential for undesirable weed species to encroach on site, further ensuring rapid recovery to similar habitat conditions; and (2) Pipelines – Construction practices are selected to ensure least amount of disturbed areas. Disturbed areas are rapidly returned (i.e. within weeks) to pre-disturbance contours and reclamation begins immediately. Through prairie resiliency and natural recovery (and the potential for erosion control measures like cover crops), right of ways rapidly return to pre-disturbance conditions during the operational phase. iv. **Utilization of existing well pads, rights-of-way or disturbance** – minimizes incremental acreage being occupied by new developments, which reduces potential fragmentation effects and retains larger undisturbed areas, preserving wetland habitat functional values in other locations. Consolidates potential impacts associated with noise or moving machinery. v. **Physical barrier blocking wetland** – the placement of a

Serial	Goals for Maintaining Ecological Function of Wetlands	Mitigation Considerations
		fence or other obstruction to ensure construction/operations remain outside of wetland. This will protect the wetland from disturbance. vi. **Caissons** – ensure any noise associated with infrastructure is muted, hides anthropogenic structures from the landscape and eliminates any unnatural movement, provides containment in the event of any release, and minimizes the perceived presence of predators (human operators) as they quickly move from their truck to below ground.
2	Protection of Wildlife: a. Habitat for wetland-associated species for use in feeding, roosting, breeding and rearing of young and cover for safety, mobility and thermal protection b. Habitats for waterfowl, flora, furbearers, reptiles and fish c. Refugia for rare and endangered species d. Preservation of biodiversity and vitality of species	i. **Dormant/winter construction** – outside active seasons when wildlife present. ii. **No build** – reduces loss of soil quality and preserves initial plant cover, resulting in rapid recovery allowing wildlife to use the site for foraging or other uses immediately after development. iii. **Rapid interim reclamation and recovery (only for use when wells and pipelines approved in conjunction)**: (1) Wellsites – disturbed soil returned to pre-disturbance contours within one growing season. Minimizing the length of time topsoil is stored allows seed bank to remain viable and establish faster decreasing the possibility of effects to the wetland function and habitat. Natural recovery ensures less potential for undesirable weed species to encroach on site, further ensuring rapid recovery to similar habitat conditions; and (2) Pipelines – Construction practices are selected to ensure least amount of disturbed areas. Disturbed areas are rapidly returned (i.e. within weeks) to pre-disturbance contours and reclamation begins immediately. Through prairie resiliency and natural recovery (and the potential for erosion control measures like cover crops), right of ways rapidly return to pre-disturbance conditions during the operational phase. iv. **Utilization of existing well pads, rights-of-way or disturbance** – eliminates the requirement for a new site, resulting in less incremental impacts from a new site. Noise and mechanical movement is consolidated, leading to fewer potential sources of wildlife displacement. Also consolidates operator movements.

Serial	Goals for Maintaining Ecological Function of Wetlands	Mitigation Considerations
3	Prevention of contamination (sedimentation, erosion, spills, etc): a. Reduce effects of stormwater runoff by stabilizing soil to prevent erosion; and filtering suspended solids, nutrients b. Natural shoreline protection from wave action and erosion c. Natural flood reduction and control, through water storage and retention d. Soil and water conservation e. Human disturbance -blocking noise and glare -reducing sedimentation and nutrient input -dumped debris, cut vegetation, and trampling -providing visual separation f. Reduce effect of stormwater runoff by filtering harmful or toxic substance g. Water recharge, providing natural purification and storage of freshwater for humans and wildlife	i. **Cover crop, Sediment fence** – ensures strategy in place to either prevent any potential sediments from moving off disturbed areas or intercept any sediments contained in surface flow to stop from entering wetland habitat. ii. **Berms** – reduce risk of overland water flow carrying sediments to wetland and decreasing function of habitat. Intercepts fluids if a resultant release occurs preventing contamination from moving off site. Can include human created rises (e.g., pipeline ditchline), roadways or access trails that divert contamination away from wetlands. iii. **Shut-offs/shacks** – system in place to generate alarm for operator call out or shut down well if fluid collects in a caisson or shack. Prevents contamination from reaching a wetland and decreasing function of habitat. iv. **Topography** – wetland is elevated over development or a natural intervening crest exists such that overland flow is not directed toward wetland. Flat topography - reduce risk of overland water flow carrying sediments to wetland and decreasing function of habitat. Stops or slows contamination. v. **No build sites and grassy buffers** – vegetation separating any disturbed areas ensures potential sediments are slowed and captured in the vegetative area, preventing flow into wetland. Sites drilled as “no build” are inherently level, lacking the sufficient slope that would be required to generate any sediment laden run-off. vi. **Existing disturbance** – consolidates developments, minimizing incremental contamination source points to wetlands and reduces risks associated with contamination or sedimentation to additional wetland habitats and wildlife. vii. **Physical barrier blocking wetland** – the placement of a fence or other obstruction to ensure construction/ operations remain outside of wetland. This will reduce risk to the wetland from human/machinery contamination. viii. **Caissons** – automatically create a containment volume that does not exist with above ground wells. Therefore, in the unlikely event of a spill, the containment acts to prevent contamination from reaching wetland areas and affecting function.

Seed Mixes for CFB Suffield, June 2004



Species	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
Agropyron dasystachyum	5	0	45	5	5
Agropyron smithii	5	40	5	5	5
Bouteloua gracilis	25	5	10	20	35
Calamovilfa longifolia	5	30	5	0	0
Distichlis stricta	0	0	5	5	15
Koeleria macrantha	10	5	15	20	20
Oryzopsis hymenoides	5	10	0	0	0
Stipa comata	45	10	10	25	20
Stipa curtiseta	0	0	0	5	0
Stipa viridula	0	5	15	15	0

Scale--1:300,000
UTM Zone 12 NAD83

SERIAL NUMBER:_____

PRIOR PERMISSION REQUEST (PPR)

***** [MILITARY AIRCRAFT] *****

AUTHORIZATION:_____

(RCO / DRCO / OPS WO)

Updated: Nov 2016

1.) **Collect the following information;**

2.) a. **Name of pilot/s**_____

b. **Call sign** _____

c. **Aircraft type and number (if applicable)** _____

d. **Unit / Address** _____

e. **Phone / Fax / Number/s** _____

g. **Detailed description of activity**_____

_____

_____

_____

h. **Specific location of activity**_____

_____

_____

i. **Date / Time of overflight** _____

3.) **Will the aircraft be landing?** ☐ Yes ☐ No

4.) **Issue pilot the Prior Permission Request Number in the space provided above.**

5.) **Ensure pilot is aware of any or all templates, DRDC restrictions, and any other pertinent information that may involve the date requested. Record all information accurately and neatly.**

**** Upon completion, fax / email copy to user and BATUS AAC ****

OPS ROOM SUPERVISOR:_____

SERIAL NUMBER:_____

Updated: Nov 2016

PRIOR PERMISSION REQUEST (PPR)

*** [CIVILIAN AIRCRAFT] ***

1.) **Email / Fax base map to pilot/s. Once returned, complete the following;**

2.) **AUTHORIZATION:**_____

(RCO / DRCO / OPS WO)

3.) a. **Name of pilot/s**_____

b. **Call sign**_____

c. **Aircraft type and number**_____

d. **Unit / Address**_____

e. **Phone / Fax / Number/s**_____

f. **Email Address**_____

g. **Detailed description of activity**_____

_____

_____

_____

h. **Specific location of activity** _____

_____

_____

i. **Date / Time of overflight** _____

4.) **Will aircraft be landing?** Yes ☐ No ☐

5.) **Issue pilot the Prior Permission Request Number in the space provided above.**

6.) **Ensure pilot is aware of any or all templates, DRDC restrictions, and any other pertinent information that may involve the date requested. Record all information accurately and neatly.**

**** Upon completion, fax / email copy to user and BATUS AAC ****

OPS ROOM SUPERVISOR:_____

AIR WEAPONS RANGES

PART 1 – GENERAL INFORMATION

1. CFB Suffield is designated as a tactical air weapons range to facilitate Close Air Support (CAS) or Fighter Ground Attack (FGA) in support of land tactical training, and is governed by orders for manned air weapons ranges in C-07-010-011/TP-000 Canadian Forces Air Weapons Ranges.

2. CFB Suffield has no dedicated Air Weapons Range. The presence of sub-surface oil and gas infrastructure prohibits the use of ground penetrating area munitions, unless specifically authorized by the CFB Suffield Base Commander. For units who wish to conduct training using air-delivered munitions, approval must be sought a minimum of 120 days in advance with terrain and target locations. Range Control will coordinate with the unit and Suffield Industry Range Control (SIRC) to identify and mitigate the presence of all potentially affected oil and gas infrastructure to support issuance of a temporary Air Weapons Range License.

3. There are no permanent Initial Points (IPs) or jettison areas designated. These will be selected and templated in accordance with the exercise situation in consultation with Range Control.

4. Terminal attack controllers (FAC/FAC(A)/JTAC/ABFAC), or the UK equivalent, shall be used to control the delivery of ordnance within the RTA. Qualified (combat-ready) FACs are authorized to control aircraft. Certified (limited combat-ready) FACs shall be supervised by a current Supervisory–FAC (SUPFAC).

Air Weapons Range Bookings

5. All air weapons exercises shall be authorized by the G3 independently of any associated ground activities. The user unit must submit a VUR (see Chapter 2, Part 2) including a PPR (see Chapter 5, Part 2), and the Canadian Forces Range Information System (CFRIS) trace a minimum of 120 days prior to the air weapons range exercise. Air weapons templates shall be approved by the RCO.

Communications

6. The Unit Air Range Safety Officer (Air RSO) shall be in radio communication with CFB Suffield Range Control, participating aircraft, the Suffield heliport, and the participating Forward Air Controllers (FACs) at all times during air weapons training exercises.

7. Range Control shall converse with the Air RSO only; however, all participating aircraft should monitor the Air Range Control Net.

Supervision

8. Safety regulations as noted in C-07-010-011/TP-000 Canadian Forces Air Weapons Ranges and the manuals applicable to the specific equipment being used shall be followed. Unit Commanders and their deputies are responsible for ensuring that all aircrew have read and understood orders prior to air exercises at CFB Suffield. Unit Commanders are also responsible for ensuring that all participating aircrew are current, or are under the supervision of aircrew current for the type of mission and weapon to be employed.

OIC Exercise for Air Weapons Ranges

9. An officer in command of the exercise (OIC Exercise) shall be appointed in writing by the Unit Commander and a copy of this appointment document shall be given to Range Control before commencement of training. The OIC Exercise will ensure adequate medical coverage is available.

PART 2 – RANGE SAFETY

Range Safety Officer (RSO)

10. Within the CF, a Land Force officer cannot be designated as an RSO for the delivery of air ordnance. As well, the captain of a firing aircraft cannot be designated an Air RSO. An Air RSO shall be qualified as one of the following:

a. airborne FAC;

b. TACP FAC (Pilot);

c. be an otherwise qualified pilot deployed on the ground; or

d. for BATUS FAC activities, all FACs must be BATUS Safety Staff.

11. BATUS AAC personnel, as appointed by their CO, may be designated as Air RSOs provided they are qualified to do so in the UK.

Range Safety Officer Responsibilities

12. All Air Weapons Range RSOs shall:

a. have a thorough knowledge of applicable orders, the type of mission, weapons to be employed, and applicable safety precautions and templates (including laser templates);

b. maintain radio contact with Range Control, or other control agency as authorized, and co-ordinate by radio, all air operations that take place on his/her assigned area of the range;

c. ensure that the delivery pilot is attacking the correct target prior to clearing that aircraft for a live or practice weapons delivery;

d. clear each aircraft on final approach to the target for live/practice ordnance delivery for each run;

e. ensure that all aircraft have ordnance switches in the “off” and “safe” position prior to exiting the template;

f. have in his possession a copy of the CFB Suffield RSOs and the applicable Monthly Range Calendar;

g. prior to live/practice ordnance delivery, ensure that the range and target areas are safe and secure and that all personnel are outside the range danger area as dictated by the appropriate ammunition, and laser danger area templates;

h. cancel any exercise when unusual conditions exist that, in his/her opinion, would constitute a hazard or render the exercise unproductive;

i. order the captain of any aircraft, which is being flown in a dangerous manner or in contravention of orders, to return to the aircraft's Base. In these cases, the particulars of the incident shall be reported to the GE ALO or RCO; and

j. ensure that the pilots of all aircraft under his control are aware of which areas of the range are not to be overflown.

Conduct of Air Weapons Range Exercises

13. Pilots shall ensure that the aircraft is not armed "hot" until it is manoeuvred onto "final" or at a point designated by the RSO.

14. All aircraft shall maintain two-way communications while inside the RTA. Live or practice air-to-ground ordnance shall not be fired without adequate two-way radio communication between the aircraft and the RSO. Each aircraft in a fighter formation shall obtain a "cleared hot" clearance before arming up and delivering ordnance. Each aircraft shall immediately go "switches safe" after weapons release.

15. Delivery aircraft shall either attack in formation per their unit SOPs, or maintain a minimum of 30 seconds between succeeding aircraft and the target.

16. The minimum altitudes for release and recovery for a particular delivery/weapon shall fall within the safety requirements as specified in the user unit's SOPs and applicable order for the weapons. Units unable to ensure minimum altitudes shall refuse any delivery for which they are not prepared.

17. The minimum altitude is 50 feet AGL during air ground delivery manoeuvring. In the event that aircraft are authorized to overfly areas of the Base not normally open for flying (i.e., OAA, EPG, or the NWA), the minimum altitude for flying over each of those areas shall be set by Range Control.

18. The weather ceiling minimum for the use of air-to-ground ranges shall be 1000 feet AGL, or 500 feet in excess of the apex altitude for the planned delivery, whichever is higher. The minimum visibility shall be three nautical miles (5.5 km).

19. Radio procedures shall be standard with the aircraft calling "in" on final, "off hot", or "off dry" after release and the "base" or "popping" as applicable to the pattern. Switches shall be acknowledged as being safe prior to leaving the range area.

20. Prior to undertaking any CAS/FGA exercise in support of BATUS-conducted training at CFB Suffield, representatives from the flying unit providing CAS/FGA shall conduct a liaison visit to BATUS and Range Control to become familiar with details of BATUS training exercises and Base SOPs.

Live Training

21. As authorized by the G3 ALO or AITA - Air/Avn in CFAO 9-20, a qualified Air to Ground Range Safety Officer (AGRSO) shall be present during all air-to-ground live fire activities, and shall be responsible for all safety matters. During live training the AGRSO shall:

a. have a thorough knowledge of Range Instruction, the type of mission, weapons to be employed, applicable safety precautions and templates, and thorough understanding of laser procedures if Laser Target Markers (LTMs) are being used;

b. maintain two way communications with the aircraft and coordinate air operations that take place in the air range;

c. ensure safety of both ground and airborne personnel;

d. ensure detailed coordination and control of air activities in the exercise areas;

e. have in his possession a copy of the RSOs, BFOs and applicable weapons publications;

f. in the event of an emergency, ensure the aircraft is “Switches Safe” on all armament switches, cease the exercise, and advise Range Control; and

g. if required, provide an “abort” or “stop” call to the aircraft, if the ground controller does not. For ordnance delivery, the RSO does not give the final clearance to the aircraft, which is the responsibility of the ground controller. However, in the event that the aircraft is outside of its mandatory attack heading or is unsafe in any other matter, the RSO shall act if the ground controller does not.

22. The use of forward air refueling points (FARPs) is mandatory for all live-fire aviation exercises.

Dry Training

23. All of the above restrictions apply equally to dry training except there is no requirement for a qualified Air RSO to be present. A qualified FAC Supervisor or Combat-Ready FAC are authorized to control aircraft during dry training.

PART 3 – WEAPONS AND AMMUNITION

24. The following restrictions apply:

a. weapons systems and ammunition that appear on the CFB Suffield Range License, as noted in CFRIS, are authorized for use in the RTA. Use of other weapons systems and associated ammunition shall be requested through the RCO. Requests of this nature should be addressed to Range Control a minimum of 120 days in advance to seek proper authorization and have the desired weapons system or ammunition type added to the Range License.

b. Weapons and ammunitions shall not be aimed or directed so as to cause damage to:

(1) personnel/vehicles;

(2) buildings;

(3) power lines;

(4) telephone booths/cables;

(5) wooded areas or lone trees;

(6) sand dunes; or

(7) bridges or other man made works.

PART 4 – TARGETS

Target Selection Process

25. When identifying CAS target areas, a liaison shall be conducted between interested parties, including Range Control, BATUS, SIRC, and, when applicable, DRDC or RPOU(W) Det Suffield. Target areas are to be assigned based on the tactical scenario, use of terrain, and the requirements for the danger area template. Once located, mitigation measures to minimize damage to oil and gas infrastructure shall be taken. The presence of oil and gas infrastructure shall not automatically disqualify an area as suitable for targeting.

26. Details to be considered are below:

a. the ground disturbance clearance protocol (see Chapter 2, Part 6) shall be applied and involve representatives from all interested parties;

b. when it is not possible to site targets or target arrays away from sub-surface infrastructure, SIRC will direct the shutdown of the selective oil and gas pipelines within the target array to minimize hazards;

c. in the event of an active pipeline being struck and damaged by a weapon system, an alarm will be activated by the oil and gas remote SCADA system. In such an event, Range Control shall provide access to SIRC as soon as is reasonable to enable the pipeline to be shut off; and

d. at the conclusion of air weapons training, SIRC shall direct oil and gas industry operators to conduct a surface detection inspection of the target areas to confirm that no leaks exist.

Targets

27. Visiting units shall provide targets, deploy them, and remove them from the range following training. Targets shall be made of wood, metal or a combination in such a way that they can be readily certified free from explosives (FFE) at the end of the practice. Vehicles shall not be used as targets. The areas around the targets shall be swept to clear up scrap from destroyed targets, and the locations shall be left, as much as possible, in the state they were previous to the exercise.

28. The tops of most CFB Suffield vehicles are navy blue or red. It is also common to see Field Fire Trucks (Red/White) and Heavy Equipment on the ranges (Yellow). These vehicles shall not be confused with targets.

29. The tops of most BATUS Control and Safety vehicles are painted red, white or yellow. These vehicles shall not be confused with targets.

PART 5 - OVERFLIGHT

Overflight Authority

30. When requesting impact areas, ricochet and overflight authority shall also be requested. Areas over which aircraft will fly while armed will be booked as “live” while other areas can be booked as “dry”. When requesting overflight, the planned height (AGL) shall be stated.

31. When a range area is requested and authorized as “live”, overflight includes authority to land aircraft and authority to deploy ground-based units for training purposes. Training by other organizations within the templated area will normally be excluded, unless permitted by the Template Controller.

32. When a range area is requested and authorized for “dry” overflight, that authority does not include authority to land aircraft. If dry training is to include touchdown or other ground use, this shall be specifically identified and authorized.

Overflight Altitude

33. All pilots and RSOs/FACs must be in possession of a current, signed Range Access Permit prior to carrying out air to ground weapons exercises. Overflight of restricted areas is prohibited unless authorized by the G3.

PART 6 – SUBSIDIARY INFORMATION

Ordnance Malfunctions

34. Aircraft with live hung-up weapons may attempt to release them over the target area. If they cannot be released, the aircraft shall return to home base. Helicopters with hung-up ordnance or jammed guns shall land at the FARP, or a pre-designated landing zone to have the problem cleared prior to landing at the heliport.

35. In the event of a runaway gun, the aircraft shall continue on the attack heading, and recover to a level altitude until the gun has “fired out.”

36. If a practice bomb hangs up and cannot be released on second attempt, the aircraft shall return to its home base. If the aircraft bomb dispenser is of the door variety, and the doors can be closed over the practice bombs, then the aircraft may proceed with its exercise.

37. In the event of jettisoning, accidental, inadvertent, or irregular release, or firing of any weapon from an aircraft, the pilot shall supply the information listed below to the RSO, the Suffield Tower, and home base immediately upon it becoming known. The RSO shall immediately inform Range Control of the details, with any impact the release had on the exercise. Data required is as follows:

a. time of occurrence;

b. height of aircraft at time of occurrence;

c. point of impact, if known, or general locality;

d. quantity and type of stores involved;

e. any apparent damage; and

f. if stores functioned.

Aircraft Incident

38. In the event of an emergency forced landing or bailout being imminent, the pilot of the aircraft shall declare an emergency and attempt to jettison "safe" his weapons over the target or ensure all armament switches are "safe". The RSO/FAC shall:

a. contact Range Control and provide information as noted in paragraph 37;

b. cease the exercise and order other aircraft to return to base;

c. go immediately to the scene of the occurrence to aid the survivors and to act as the On Scene Commander until relieved; and

d. maintain communications with Range Control.

Night Operations

39. Night operations for fixed wing and rotary wing aircraft are authorized in accordance with the following additional restrictions:

a. aircraft shall be equipped with a Thermal/FLIR targeting pod, NVG equipped pilots, or Laser Spot Tracker;

b. aircraft shall conduct dead-eye (visual) procedures only with aid of illumination from direct fire tracer or artillery/mortar/automatic grenade launcher/flare illumination;

c. the position of ground or airborne controller's (FAC/ABFAC) and/or the Forward Leading Edge of Own Troops (FLOT) when working with sub-units or formations shall be identified to the pilot prior to clearance being issued for ordnance delivery;

d. Type 2 FAC controls may be used during night operations; however, the ground/airborne controller shall receive a detailed target description and final attack heading from the pilot prior to clearing the aircraft "hot" to confirm target acquisition; and

e. either ground or airborne FACs are authorized to control aircraft at night, but shall have the corresponding equipment or resources to identify targets to aircraft equipped as stated

above. The FACs require either: IR pointers and NVGs, Laser Target Marker (LTM), Thermal Imager or the capability to use a mark (artillery or mortar illumination/smoke, direct fire with tracer, other IR or visual flare/smoke).

Range Clearance Certificate

40. Upon completion of an air to ground weapon exercise, the RSO/FAC is to note the location of unexploded ammunition, and complete the Visiting Unit – After Action Report noted in Annex P.

CFB Suffield RSO - Acronyms

AAC - Army Air Corps
AAR - After Action Report
ADM(IE) - Assistant Deputy Minister (Infrastructure and Environment)
Admin - Administration
ADP - Annual Development Plan
AE - Alberta Energy
AEED – Abbreviated Environmental Effects Determination
AEPA - Alberta Environment and Protected Areas
AER - Alberta Energy Regulator
AFAs - Applications for Activity
AFDs - Applications for Development
AGL - Above Ground Level
AMSL - Above Mean Sea Level
ANP - Artificial Nest Platforms
ARA - Activity Restriction Area
ASCC - Airspace Coordination Centre
ASL - Above Sea Level
ATVs - All-Terrain Vehicles
AUMs - Animal Unit Month
B Env O - Base Environmental Officer
BASF - Base Auxiliary Security Force
BATUS - British Army Training Unit Suffield
BERP - Base Emergency Response Plan
CA - Canadian Army
CA EMS - Canadian Army Environmental Management System
CAO - Canadian Army Order
CAF - Canadian Armed Forces
CASEVAC - Casualty Evacuation
CFB - Canadian Forces Base
CFRIS - Canadian Forces Range Information System
CLSF - Class F Airspace
CTTC - Counter Terrorism Technology Centre
CWD - Chronic Wasting Disease
CWS - Canadian Wildlife Service
DATs - Danger Area Templates
DCAAR - Defence Controlled Access Area Regulations
DDEED – Due Diligence Environmental Effects Determination
DFS - Directorate of Flight Safety
DIO SD Trg (Can) - Defence Infrastructure Organization Service Delivery Training (Canada)
DND - Department of National Defence
DPS - Disturbances Per Section
DRDC-SRC - Defence Research Development Canada – Suffield Research Centre
DRES - Defence Research Establishment Suffield
DRSOs - Daily Range Standing Orders
ECCC - Environment and Climate Change Canada
EED – Environmental Effects Determination
EIA – Environmental Impact Assessment
EIR - Environmental Incident Report

EMS – Environmental Management System
EPG - Experimental Proving Ground
FARPs - Forward Air Refuelling Points
FCA - Facility Crossing Agreement
FEHA - Ferruginous Hawk
FFE - Free From Explosive
FMA - Force Maintenance Area
FOB - Forward Operating Base
FOS - Field Operations Section
FSG - Field Support Group
FSWO - Food Services Warrant Officer
FUPs - Forming up Points
G3 Ops - G3 Operations
GCS - Ground Control Station
GIS - Geographic Information System
GVI - Grassland Vegetation Inventory
HazMat – Hazardous Material
H_2S - Hydrogen Sulfide
HFOS - Head of Field Operations Section
IAA – *Impact Assessment Act*
IFR - Instrument Flight Rules
IFSMR - Integrated Fire Service Management and Reporting
km/h - Kilometer per Hour
LLTR - Low Level Transit Routes
LU Ops Gp – Land Use Operations Group
MLBU - Mobile Laundry and Bath Unit
MOA - Memoranda of Agreement
MOU - Memoranda of Understanding
MSR - Main Supply Route
MTA - Manoeuvre Training Area
NATO - North Atlantic Treaty Organization
NBCC - National Building Code of Canada
NFAs - No Fire Areas
NFPA - National Fire Protection Association
NOIs - Notifications of Intent
NOFLY - No Fly Area
NOTAM - Notice to Airmen
NWA - National Wildlife Area
OAA - Oil Access Area
OIC - Officer in Charge
OOB - Out of Bounds Area
OPI - Office of Primary Interest
Ops - Operations
P Med Tech - Preventative Medicine Technician
PAA - Partial Assignment Agreement
PFRA - Prairie Farm Rehabilitation Administration
POL – Petroleum, Oils and Lubricants
PPE - Personal Protective Equipment
PPR - Prior Permission Request
RPPC – Real Property Planning Committee

R&D – Research and Development
RCA - Range Condition Assessment
RCO - Range Control Officer
RDC - Range Development Committee
RDZ - Restricted Development Zone
RMWO - Range Maintenance Warrant Officer
ROAs - Restricted Operations Areas
ROWs - Rights-of-Way
RPOU (W) - Real Properties Operations Unit (West)
RSO - Range Standing Orders
RSB - Range Safety Briefing
RSS - Range Sustainability Section
RTA - Range and Training Area
RTAI - Range and Training Area Inspection
RTAMO - Range and Training Area Management Officer
RTAMS - Range and Training Area Management System
SAR - Species at Risk
SARA - Species at Risk Act
SEAC - Suffield Environmental Advisory Committee
SGAC - Suffield Grazing Advisory Committee
SIRC - Suffield Industry Range Control
SNIC - Snow and Ice Control
SOPs - Standard Operating Procedures
SSSIs - Sites of Significant or Scientific Interest
STANAG - Standardization Agreement
SUAVs - Small Unmanned Air Vehicles
TDM - Temporary Deployable Magazine
UAS - Unmanned Aerial Systems
UTVs - Utility Terrain Vehicles
UXO - Unexploded Explosive Ordnance
VUR - Visiting Unit Request
WBGT - Wet Bulb Globe Temperature Index
WG – Working Group
WO - Warrant Officer