



Coastal GasLink
Pipeline Project

Socio-economic Effects Management Plan

CGL4703-CGP-SE-PLN-001

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Revision 2

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1.0 INTRODUCTION

1 Coastal GasLink Pipeline Ltd. (Coastal GasLink) is proposing to construct and
2 operate a natural gas pipeline from the area near the community of Groundbirch
3 (about 40 km west of Dawson Creek, British Columbia [BC]) to the proposed LNG
4 Canada Development Inc. (LNG Canada) liquefied natural gas (LNG) export facility
5 (LNG Canada export facility) near Kitimat, BC.

6 The proposed Coastal GasLink Pipeline Project (Project) involves the construction
7 and operation of:

- 8 • approximately 670 km of 48 inch (NPS 48) (1,219 mm) diameter pipeline
- 9 • metering facilities at the receipt and delivery points at up to three locations
- 10 • compressor stations at up to eight locations

11 The proposed Project will have an initial capacity of about 2 to 3 billion cubic
12 feet/day (bcf/d) (56 million cubic metres per day [mmcm/d] to 85 mmcm/d), with the
13 potential for expansion up to about 5 bcf/d (142 mmcm/d). The expansion scenarios
14 do not involve the construction of additional pipeline; only the number of compressor
15 stations would change.

16 The Project will also entail the development of temporary camps and other ancillary
17 sites to support construction. Ancillary facilities include access roads, construction
18 camps and temporary storage sites (e.g., stockpile sites, rail sidings, contractor
19 storage areas and borrow sites).

20 Ancillary facilities are closely tied to the logistics of construction and, therefore, the
21 precise locations of these facilities will be identified later in the detailed engineering
22 process so that they are appropriately located for construction. Timing for information
23 about expected locations of ancillary facilities is provided in Appendix A (Proposed
24 Timing of Project Information and Activities).

25 For further information about the Project, see Appendix B (Project Background) and
26 Appendix C (Potential Construction Camp Locations and Timing).

27 An Environmental Assessment Certificate (EAC) was issued to Coastal GasLink by
28 the BC Environmental Assessment Office (EAO) on October 23, 2014. The purpose
29 of the SEEMP is to satisfy Condition #24 of the Coastal GasLink EAC (BC EAO
30 2014), which states:

The Holder must develop and implement a Social and Economic Effects Management Plan (SEEMP). The Holder must develop the SEEMP in consultation with CSCD, and in consideration of the framework attached as Appendix B.

The SEEMP must include specific actions to address the following:

- implementation of mitigation set out in the Application (Section 12, Table 12-8 and Table 12-9 and Section 15, Table 15-17 and 15-21);
- effective consultation planning and implementation with affected Aboriginal Groups, local governments and service delivery agencies regarding effects related to community level infrastructure and services including water, waste (solid and liquid), health and social services;
- approach to designing and communicating programs related to employment and contracting opportunities, skills training and education;
- monitoring and reporting on the effectiveness of the mitigation set out in the Application and in the SEEMP; and
- if necessary, description of an adaptive management approach, including the implementation of alternative mitigation, to address unpredicted effects directly related to the Project.

The Holder is required to implement the SEEMP in consultation with CSCD upon the commencement of Construction activities until one year after Project Operations commence or as otherwise directed by EAO.

In order to allow for CSCD to review, comment and make a recommendation to EAO on whether to approve the plan, the Holder must provide the SEEMP to CSCD no less than 90 days prior to the Holder's planned date to commence Construction. The Holder must not commence Construction until the SEEMP has been approved by EAO.

Any amendments to the SEEMP as a result of the adaptive management approach must be developed in consultation with CSCD and approved by EAO prior to implementation, unless otherwise authorized by EAO.

1.1 PURPOSE

1 The purpose of the SEEMP is to engage identified parties in Coastal GasLink's
2 approach to implementing mitigation during construction to avoid or reduce potential
3 adverse socio-economic effects on regional and community infrastructure and
4 services as presented in the Application for an Environmental Assessment Certificate
5 (Application), and monitor and report on the effectiveness of the mitigation. Coastal
6 GasLink will use an adaptive management approach, where required, if monitoring
7 indicates that the mitigation is not achieving the predicted outcome, and include any
8 new or revised mitigation in its reporting. The SEEMP also describes Coastal
9 GasLink's plans to engage with identified groups during implementation of the
10 SEEMP, including the issues management and adaptive management approaches
11 during construction.

1.2 SCOPE

12 The SEEMP focuses on the adverse effects identified in Sections 12, 15.5 and 15.6 of
13 the Application for the following valued components during the Project construction
14 phase:

- 1 • economy
- 2 • employment and labour force
- 3 • community utilities and services
- 4 • transportation infrastructure and services

5 The Project construction phase is expected to extend over three years (Section 1.2 of
6 the Application) and will include clearing, soil handling, grading, trenching, welding,
7 testing, and cleanup and commissioning activities.

1.3 OBJECTIVES

8 The focus of the SEEMP is to describe the plan for implementing mitigation and the
9 approach to monitoring and reporting on the implementation and effectiveness of
10 mitigation on community-level infrastructure and services during the construction
11 phase of the project. The objectives of the SEEMP are to:

- 12 • Satisfy Condition #24 of the EAC Table of Conditions
- 13 • Ensure that Coastal GasLink continues to provide relevant Project information to
14 affected parties to facilitate planning needs.
- 15 • Ensure that Coastal GasLink continues to engage potentially affected parties
16 during monitoring activities, as outlined in Appendix D (Effectiveness Monitoring
17 Table).
- 18 • Record SEEMP engagement activities and comments and make them available on
19 request.
- 20 • Address identified issues in a timely manner in accordance with the issue
21 management process (see Section 3.4).
- 22 • Use an adaptive management approach if monitoring indicates that the mitigation
23 is not achieving the predicted outcome.

1.4 ROLES AND RESPONSIBILITIES

24 The SEEMP identifies the key roles and responsibilities for Coastal GasLink, the
25 EAO and the Ministry of Community, Sport and Cultural Development (MCSCD) in
26 developing and implementing the SEEMP.

1.4.1 Coastal GasLink

27 Coastal GasLink will be responsible for:

- 1 • developing the SEEMP based on guidance provided and to satisfy EAC Condition
- 2 #24
- 3 • engaging local governments, provincial agencies and Aboriginal groups affected
- 4 by Project construction, on the SEEMP, and providing opportunities for input
- 5 • documenting results of the engagement process, including concerns raised and
- 6 how they were addressed
- 7 • providing the SEEMP to the MCSCD for review and recommendation 90 days
- 8 before construction
- 9 • submitting the SEEMP to the EAO for approval
- 10 • implementing the approved SEEMP
- 11 • submitting the final SEEMP report to the EAO and MCSCD once Project
- 12 construction is complete
- 13 • seeking EAO approval for any SEEMP amendments
- 14 • submitting reports to the MCSCD and EAO, as required
- 15 • providing SEEMP reports to SEEMP contacts
- 16 • facilitating discussions about issues that may arise during SEEMP development
- 17 and implementation

1.4.2 EAO

18 The EAO is responsible for:

- 19 • reviewing MCSCD advice and reviewing the SEEMP for approval in a timely
- 20 manner
- 21 • ensuring compliance with the SEEMP condition, including enforcement, as
- 22 necessary
- 23 • considering and approving any amendments to the SEEMP
- 24 • receiving status reports and the final SEEMP report and posting them to the EAO
- 25 website

1.4.3 MCSCD

26 The MCSCD is responsible for:

- 27 • providing advice and guidance to Coastal GasLink
- 28 • providing advice and guidance on the SEEMP process
- 29 • providing single points of contact lists for local governments and provincial
- 30 agencies to Coastal GasLink

- 1 • receiving the SEEMP provided by Coastal GasLink
- 2 • ensuring the plan content reflects the SEEMP framework
- 3 • reviewing the Record of Engagement
- 4 • based on review and feedback, providing advice to the EAO regarding approval
- 5 of the SEEMP
- 6 • facilitating problem solving, if needed, during SEEMP development and
- 7 implementation
- 8 • receiving and monitoring SEEMP status and final reports
- 9

2.0 COMPLIANCE

1 Coastal GasLink’s compliance obligations for social and economic effects include
2 regulatory requirements, TransCanada policies and programs, and other relevant
3 management plans.

4 To meet compliance obligations, Coastal GasLink will ensure that:

- 5 • Coastal GasLink, its authorized representatives, contractors and subcontractors
6 understand the relevant regulatory requirements, TransCanada policies and
7 programs, and other relevant management plans.
- 8 • processes are in place that allow Coastal GasLink, its authorized representatives,
9 contractors and subcontractors to access proposed Project information to inform
10 decision making at the field level
- 11 • compliance is monitored and tracked

2.1 REGULATORY REQUIREMENTS

12 Coastal GasLink completed a comprehensive assessment of potential adverse effects
13 of the Project in accordance with the Application Information Requirements issued by
14 the EAO. An Application for an Environmental Assessment Certificate was filed for
15 screening with the EAO in January 2014, and for assessment in March 2014. The
16 review process continued through 2014, with the EAC being issued on October 23,
17 2014.

18 The regulatory requirement for the SEEMP is found in Condition #24 of the EAC
19 Table of Conditions. The SEEMP content is based on components identified in the
20 following regulatory documents:

- 21 • Application for an Environmental Assessment Certificate
 - 22 • Section 12 Economy
 - 23 • Section 15.5 Community Utilities and Services Effects Assessment
 - 24 • Section 15.6 Transportation Infrastructure and Services
- 25 • Condition #24 of the EAC Table of Conditions

2.2 TRANSCANADA POLICIES AND PROGRAMS

26 All TransCanada employees and contractors are subject to TransCanada policies. The
27 SEEMP interacts with and supports the TransCanada policies and programs listed
28 below. The mitigation presented in Appendix D aligns with TransCanada’s policies
29 and programs.

- 1 • Aboriginal Relations Policy
- 2 • Alcohol and Drug Policy
- 3 • Code of Business Ethics Policy
- 4 • Contractor Alcohol and Drug Policy
- 5 • Contractor Safety Management Program
- 6 • Disability Management Program
- 7 • Duty to Accommodate Policy
- 8 • Employee/Visitor/Contractor HS&E Orientation Program
- 9 • Employment Equity and Non-Discrimination Policy
- 10 • Harassment Free Workplace Policy
- 11 • Health, Safety and Environment Management System
- 12 • HS&E Commitment Statement (Appendix E)
- 13 • Incident Management System Program
- 14 • Motor Vehicle Operation Program
- 15 • Smoking Policy
- 16 • Stakeholder Engagement Commitment Statement
- 17 • Vehicle Fleet Policy (related to authorized driver responsibilities)
- 18 • Community Partnership Plan
- 19 • Education and Training Plan
- 20 • Local and Aboriginal Participation Plan

21 Development of the SEEMP is also informed by the Public Consultation Plan and the
22 Aboriginal Consultation Plan approved by the EAO in the Spring of 2013 (available
23 on EAO's website). These plans were designed to communicate information and
24 timelines for the Project and address how Coastal GasLink proposes to work with
25 identified stakeholders and Aboriginal groups. Both plans informed SEEMP
26 engagement communication methods (Section 3.3.1) and the Issues Management
27 Process (Section 3.4.2). Coastal GasLink will continue to work with SEEMP contacts
28 to understand concerns and provide information to address those concerns.

2.3 MANAGEMENT PLANS

29 Mitigation referred to in the SEEMP may have linkages to other management plans.
30 The Environmental Management Plan (EMP) includes the recommended

1 environmental management measures and commitments to be implemented to avoid
 2 or reduce potential adverse effects of construction of the Project.

3 The potential adverse effects identified in the Application for the social and economy
 4 valued components, and the alignment to additional plans, are shown in Table 2-1.

Table 2-1: Potential Adverse Effect and Management Plan Relationship

Valued Component	Potential Adverse Effect	Management Plan
Economy	Limited participation in contract opportunities	SEEMP
Economy	Alteration of existing community economic patterns	SEEMP Traffic Control Management Plan
Employment and Labour Force	Skilled labour shortage	SEEMP
Employment and Labour Force	Lack of time to train local workers for skilled positions	SEEMP
Community Utilities and Services	Increased demand on local emergency services	SEEMP Contractor Emergency Measures Plan Construction Emergency Response Plan Chemical and Waste Management Plan Spill Contingency Plan Fire Suppression Contingency Plan Traffic Control Management Plan
Community Utilities and Services	Increased demand on healthcare services	SEEMP Construction Emergency Response Plan Chemical and Waste Management Plan Spill Contingency Plan Fire Suppression Contingency Plan Traffic Control Management Plan
Community Utilities and Services	Increased demand on community social services	SEEMP

Valued Component	Potential Adverse Effect	Management Plan
Community Utilities and Services	Increase in waste flow to regional, landfill and transfer station sites, and wastewater treatment facilities	SEEMP Construction Emergency Response Plan Chemical and Waste Management Plan
Community Utilities and Services	Increased demand on community recreational facilities	SEEMP
Community Utilities and Services	Increased demand for education services	SEEMP
Community Utilities and Services	Increased demand on government services	SEEMP
Community Utilities and Services	Reduction in available rental housing and commercial accommodation	SEEMP
Transportation Infrastructure and Services	Increased traffic volumes from transportation of workers, supplies and equipment leading to decreased road safety	SEEMP Traffic Control Management Plan Access Control Management Plan
Transportation Infrastructure and Services	Increase in rail traffic resulting from the shipment of Project-related materials.	SEEMP
Transportation Infrastructure and Services	Increased air passengers in local and regional airports.	SEEMP
Transportation Infrastructure and Services	Disruption of movement on navigable waterways	SEEMP Construction Emergency Response Plan Access Control Management Plan Soil Erosion Contingency Plan

3.0 ENGAGEMENT

1 Coastal GasLink’s approach to engagement is grounded in TransCanada’s values,
2 policies and guiding principles. Coastal GasLink strives to engage early and often.
3 Engaging means listening, providing accurate information, and responding to
4 community interests in a prompt and consistent manner.

5 Coastal GasLink will continue to build on TransCanada’s 60+ years of experience
6 working with communities, Aboriginal groups and landowners near its projects.
7 Coastal GasLink understands the importance of sharing information and earning the
8 support and trust of local communities. Corporate values of integrity, collaboration,
9 responsibility and innovation guide Coastal GasLink’s commitment to engagement.

10 Coastal GasLink will engage regularly and openly, as described in Section 3.3, with
11 those affected by the Project, and strive to realize positive social and economic effects
12 locally and regionally. Coastal GasLink will consider the perspectives of people
13 affected by the Project, recognizing that diversity contributes to better decisions and
14 outcomes.

3.1 SEEMP CONTACTS

15 Below are lists of interested parties that Coastal GasLink expects to engage with
16 through a variety of engagement methods (see Section 3.3.1) during SEEMP
17 development and implementation.

3.1.1 Provincial Government and Agencies

- 18 • BC Emergency Health Services
- 19 • BC Environmental Assessment Office
- 20 • BC Oil and Gas Commission
- 21 • Ministry of Aboriginal Relations and Reconciliation
- 22 • Ministry of Advanced Education
- 23 • Ministry of Children and Family Development
- 24 • Ministry of Community Sport and Cultural Development
- 25 • Ministry of Education
- 26 • Ministry of Health – Health protection
- 27 • Ministry of Jobs, Tourism and Skills Training
- 28 • Ministry of Transportation and Infrastructure – Emergency Management BC
- 29 • Ministry of Justice – Police services

- 1 • Ministry of Justice – Victim Services
- 2 • Ministry of Natural Gas Development – Office of Housing and Construction
- 3 Standards and BC Housing
- 4 • Ministry of Social Development and Social Innovation
- 5 • Ministry of Transportation and Infrastructure
- 6 • Northern Health

3.1.2 Local Government

- 7 • City of Terrace
- 8 • District of Kitimat
- 9 • Regional District of Kitimat-Stikine
- 10 • Regional District of Bulkley-Nechako
- 11 • District of Vanderhoof
- 12 • District of Fort St. James
- 13 • Village of Fraser Lake
- 14 • Village of Burns Lake
- 15 • Town of Smithers
- 16 • District of Houston
- 17 • Fraser Fort George Regional District
- 18 • District of Mackenzie
- 19 • District of Chetwynd
- 20 • City of Prince George
- 21 • District of Tumbler Ridge
- 22 • City of Dawson Creek
- 23 • City of Fort St. John
- 24 • Peace River Regional District

3.1.3 Aboriginal Groups

- 25 • Blueberry River First Nations
- 26 • Dark House
- 27 • Doig River First Nation
- 28 • Haisla Nation

- 1 • Kitselas First Nation
- 2 • Lheidli-T'enneh First Nation
- 3 • McLeod Lake Indian Band
- 4 • Nadleh Whut'en First Nation
- 5 • Nak'azdli Band
- 6 • Nee-Tahi-Buhn Band
- 7 • Office of the Wet'suwet'en Hereditary Chiefs
- 8 • Saik'uz First Nation
- 9 • Saulteau First Nations
- 10 • Skin Tyee Nation (Skin Tyee First Nation)
- 11 • Stelat'en First Nation
- 12 • Ts'il Kaz Koh First Nation (Burns Lake Band)
- 13 • West Moberly First Nations
- 14 • Wet'suwet'en First Nation
- 15 • Yekooche First Nation

3.2 ENGAGEMENT RECORD

16 Coastal GasLink's SEEMP engagement records will follow the format presented in
 17 Figure 3-1. The SEEMP Development Engagement Record will be submitted to
 18 MCSCD and the EAO. A SEEMP Implementation Engagement Record summary will
 19 be submitted to MCSCD and the EAO with the status and final SEEMP reports.
 20

Organization	Date	Topics	Issues / Comments	Response by Coastal GasLink	Outstanding Issues and Process for Resolving	Other Comments

Figure 3-1: Engagement Record Template

3.3 PLAN IMPLEMENTATION ENGAGEMENT

21 Since June 2012, Coastal GasLink has implemented a wide range of public and
 22 Aboriginal engagement activities. The feedback received during this engagement has
 23 informed the Application and detailed engineering design and construction planning.

1 SEEMP engagement activities are informed by the frameworks presented in the
2 Public Consultation Plan and the Aboriginal Consultation Plan. These plans were
3 designed to communicate information and timelines for the Project and address how
4 Coastal GasLink proposes to work with identified stakeholders and Aboriginal groups.
5 EAC Condition #28 also references Aboriginal group engagement activities, such as
6 providing construction schedules. Together, the SEEMP, Public Consultation Plan,
7 Aboriginal Consultation Plan and EAC Condition #28 provide information sharing
8 and two-way engagement on the Project.

9 Based on the monitoring frequency presented in Appendix D (Effectiveness
10 Monitoring Table), Coastal GasLink will seek to engage local government, provincial
11 agencies and Aboriginal groups affected by Project construction twice a year during
12 construction to collect information for the required reporting. In addition, Coastal
13 GasLink will continue to be proactive and responsive throughout construction for
14 engagement opportunities with affected stakeholders and Aboriginal groups.

15 SEEMP engagement activities focus on two-way communication that provides
16 opportunities to strengthen relationships, share information, and monitor mitigation
17 implementation. SEEMP implementation engagement will include:

- 18 • providing relevant Project information to affected parties (see Appendix A,
19 Proposed Timing of Project Information and Activities)
- 20 • continuing ongoing two-way communication with SEEMP contacts to allow for
21 informed, effective and meaningful engagement on SEEMP implementation
- 22 • ensuring that SEEMP contacts have information on how to be involved in the
23 implementation of the SEEMP
- 24 • ensuring that SEEMP contact issues and concerns are gathered and understood
25 and responses are developed in implementing the SEEMP
- 26 • ensuring that SEEMP contacts are aware of how their input has shaped or
27 informed implementation

28 During SEEMP implementation, engagement will follow approaches presented in
29 Figure 3-2 (SEEMP Implementation Engagement).
30

1

SEEMP Implementation Engagement		
Engagement Topic	Direct Project Effects and Mitigation Identified in the Application	Issues and Concerns
Approach	<ul style="list-style-type: none"> • Monitoring (Sections 6.0 – 6.2) • Adaptive Management (Section 6.3) 	<ul style="list-style-type: none"> • Issues Management Process (Figure 3-3)

Figure 3-2: SEEMP Implementation Engagement

3.3.1 Methods

2 Coastal GasLink will continue its commitment to SEEMP engagement by
 3 implementing various communication methods (Table 3-1). Engagement will be
 4 suited to audience needs and will consider the following:

- 5 • demographics
- 6 • access to communication methods
- 7 • issue sensitivity
- 8 • resources (time and people)
- 9 • interested party preference for communication method

Table 3-1: Communication Methods

Method	Description
Website	Coastal GasLink has a dedicated website: www.coastalgaslink.com . The website is updated frequently to advertise events and report on public engagement activities. It features videos, photos, maps, a question form, a contractor sign-up form and a newsletter sign-up link.
Toll-free phone line	Coastal GasLink has a toll-free number: 1-855-633-2011 for the public to contact Project personnel directly. All calls will receive a timely response.
Telephone calls	Communicate directly with local governments, provincial agencies, Aboriginal groups and other interested parties to respond to questions and share information.
Email	Coastal GasLink has an email address that is monitored daily and questions are responded to in a timely manner: coastalgaslink@transcanada.com .

10

Table 3-1: Communication Methods (cont'd)

Method	Description
Brochures and Fact Sheets	Provide information on the Project's timeline, need, benefits, engagement practices, the regulatory process, safety, contact information and any further details, as necessary.
Maps	Show the geographic relationship of the Project to communities.
Individual and small-group meetings	Hold in-person meetings (see Appendix D), which will enable Coastal GasLink to build stronger relationships, by providing information and receiving feedback.
SEEMP Reports	Provide SEEMP contacts with bi-annual reports on SEEMP implementation and post the reports on the Coastal GasLink website for the public to access.
Coastal GasLink Project offices	Coastal GasLink has established a presence in the Project region by operating offices in Prince George, Fort St. John, Smithers and Vancouver. These offices will provide communities with a location to get Project information and meet with Coastal GasLink representatives.

3.4 ISSUES MANAGEMENT

2 Coastal GasLink's Issues Management Process will allow participants to directly
3 access Project personnel to address SEEMP issues in a timely fashion.

3.4.1 Identification of New Issues

4 Coastal GasLink will manage SEEMP concerns through dialogue to ensure they are
5 identified and addressed. Local governments, provincial agencies and Aboriginal
6 groups are encouraged to make contact with Coastal GasLink if a concern is
7 identified related to the Project SEEMP development and implementation. Issues can
8 be identified directly by telephone, email or mail to the identified Coastal GasLink
9 SEEMP representative:

10 Coastal GasLink toll-free number: 1-855-633-2011

11 Email: CoastalGasLink@TransCanada.com

12 Mail:

13 Vancouver Office:

14 #630, 609 Granville St.

15 Vancouver, BC, Canada V7Y 1G5

16 Calgary Office:

17 450 - 1st St. S.W.

18 Calgary, AB, Canada T2P 5H1

19 Issues identified will be addressed in alignment with Coastal GasLink's approved
20 Aboriginal Consultation Plan or Public Consultation Plan located on the EAO's
21 website. If an unpredicted adverse effect is shown to be directly related to
22 construction, the adaptive management process (Figure 6-2) may be implemented.

3.4.2 Process

1 Once a SEEMP issue is identified, Coastal GasLink will follow the Issues
2 Management Process shown in Figure 3-3.



Figure 3-3: Issues Management Process

4.0 POTENTIAL ADVERSE EFFECTS

4.1 ECONOMIC EFFECTS

1 The local economic setting of the proposed Project is important to understanding
2 where economic opportunities and potential adverse effects exist along the proposed
3 route. The following summarizes the potential adverse effects within the economy
4 and employment and labour force valued components as identified in Section 12 of
5 the Application.

4.1.1 Contracting and Procurement Expenditures

6 Limited participation in contract opportunities is an identified potential adverse effect
7 related to the proposed Project. Concerns include the size and complexity of
8 procurement contracts limiting the opportunities for local businesses to bid on work
9 packages. Small communities, including Aboriginal communities, are also concerned
10 that they may not have the infrastructure or resources to participate economically in
11 this major proposed Project.

12 With the application of the identified mitigation (Appendix D), no potential residual
13 adverse effects have been identified for contracting and procurement expenditures.

4.1.2 Employment and Labour Force

14 The potential adverse effect of a skilled labour shortage during construction was
15 identified and considered to be reversible in the short term.

16 Project construction, extending over a three-year period, is estimated to require 800 to
17 1,200 workers in each section. These workers will have specific skill sets for all
18 Project activities. The proposed Project will require a large skilled workforce for a
19 short period of time during the construction phase. During this phase, the proposed
20 Project has the potential to attract skilled labour away from existing industries,
21 leaving gaps and shortages in the skilled labour pool. Although it is difficult to
22 predict whether particular individuals will make the decision to keep their permanent
23 positions or offer their skills for temporary work, it is unlikely that many individuals
24 with permanent employment would leave their current positions for temporary work
25 during the construction phase.

26 With the implementation of the mitigation (Appendix D), the skilled labour shortage
27 is not considered to be significant. As identified in Section 12 of the Application,
28 there are no situations where a potential residual adverse effect on the employment
29 and labour force valued component is predicted to severely alter the existing
30 employment and labour force that cannot be technically or economically mitigated.

4.1.3 Community Economic Resilience

1 The proposed Project will require a large skilled workforce for a short period of time
2 during the construction phase. This may alter the existing community economic
3 patterns if workers shift their current employment to work on the proposed Project.
4 However, given the short-term nature of the construction phase, it is unlikely that
5 people with permanent employment will leave their existing positions for temporary
6 work. Some unemployed or underemployed workers may seek Project-related
7 employment.

8 With the application of the mitigation (Appendix D) for alteration of existing
9 community economic patterns, no potential residual adverse effects have been
10 identified.

4.1.4 Training and Education

11 A wide range of skilled workers is needed to construct a pipeline. For some of the
12 positions, previous pipeline construction experience is an important asset. However,
13 in other cases, skills from related industries are transferable (e.g., heavy equipment
14 operators). Some workers will be sourced locally and regionally, while others will
15 come from outside the region.

16 Community representatives have expressed concerns that if early communication
17 does not occur regarding Project needs, and types of professionals and workers
18 needed, communities will not have enough time to train local workers for the
19 appropriate skilled positions (Appendix D). With the application of mitigation
20 concerning the lack of time to train local workers for skilled positions, it is expected
21 that communities will have lead time to train local workers for skilled positions that
22 will be required and no residual adverse effects will be identified.

4.2 SOCIAL EFFECTS

23 Identifying the potential social effects of the Project on community and regional
24 infrastructure and services is important. The following summarizes the potential
25 adverse effects within the community utilities and services, and transportation
26 infrastructure and services valued components as identified in Section 15.5 and 15.6
27 of the Application.

4.2.1 Community Utilities and Services

28 The potential adverse effects on community utilities and services include the
29 following: emergency services, health care services, recreational facilities, waste
30 management facilities, housing and commercial accommodation, social services,
31 education services and government services.

1 The proposed Project will need a variety of community utilities and services during
2 the construction phase. Although the community and regional infrastructure and
3 services are well served in terms of utilities and services, capacity issues do exist in
4 some municipalities.

5 Increased demand on local emergency services, health care services, community
6 social services, community recreational facilities, education services, government
7 services, increase in waste flow to regional, landfill and transfer station sites, and
8 wastewater treatment facilities, and a reduction in available rental housing and
9 commercial accommodation were all identified as having potential adverse effects.

10 As presented in the Application, there are no situations where there is a permanent or
11 long-term potential residual effect or potential residual cumulative effect on
12 community utilities and services that cannot be technically or economically mitigated.

4.2.2 Transportation Infrastructure and Services

13 The potential adverse effects on transportation infrastructure and services include
14 increased traffic volumes from transportation of workers, supplies and equipment
15 leading to decreased road safety, increase in rail traffic resulting from the shipment of
16 Project-related materials, increased air passengers in local and regional airports, and
17 disruption of movement on navigable waterways.

18 The proposed Project will require the movement of workers, supplies and equipment
19 on local and regional road, rail and air networks during the construction phase of the
20 proposed Project. The railway network will be used, where practical, to transport
21 equipment and supplies to temporary stockpile sites near the proposed route, where it
22 will then be trucked to the construction area.

23 The proposed Project's contribution to an increase in traffic is anticipated to have a
24 potential effect on roads where concerns exist, such as Highway 97 (i.e., the Pine Pass
25 region), Highway 29 (i.e., near Chetwynd), Highway 16 (i.e., from Prince George to
26 Francois Lake), Highway 35, Colleymount Road, and Owen Lake and Morice River
27 forest service roads. Increased traffic from the proposed Project, in combination with
28 traffic from reasonably foreseeable developments, could affect the existing capacity
29 and decrease safety on these road segments.

30 Construction will also involve installing pipeline at navigable waterways by a
31 trenched (i.e., open cut or isolated) or trenchless crossing method. Temporary vehicle
32 crossings on navigable waterways may also be needed. If watercourse crossings are
33 constructed during peak user times, navigation could be disrupted for brief periods of
34 time.

1 As presented in the Application, there are no situations where there is a permanent or
2 long-term potential residual adverse effect or potential residual cumulative effect on
3 transportation infrastructure and services that cannot be technically or economically
4 mitigated.

5.0 MITIGATION

1 Mitigation is presented to avoid, reduce or control a project’s potential adverse effects
 2 identified as part of the EA process. A consolidated list of SEEMP mitigation linked
 3 to various monitoring elements can be found in the following format (Figure 5-1) in
 4 Appendix D (Effectiveness Monitoring Table).
 5

Valued Component						
Key Indicator						
Potential Adverse Effect	Regulatory Reference	Mitigation	Mitigation Time Frame	SEEMP Monitoring Frequency (minimum)	Monitoring Data	Monitoring Data Source and Input

Figure 5-1: Effectiveness Monitoring Table Template

6
 7 Specific actions to address implementation of mitigation are presented in Appendix F
 8 (Specific Actions for Implementing Mitigation) in the following format (Figure 5-2).
 9

Valued Component				
Key Indicator				
Potential Adverse Effect	Regulatory Reference	Mitigation	Mitigation Time Frame	Abbreviated List of Specific Actions for Coastal GasLink

Figure 5-2: Specific Actions for Implementing Mitigation Template

10

6.0 MONITORING

1 Coastal GasLink’s monitoring efforts link identified mitigation to time frames,
2 monitoring frequency, monitoring data and identified data sources, both internal and
3 external. A consolidated list of SEEMP mitigation and monitoring elements is
4 provided in Appendix D (Effectiveness Monitoring Table).

5 Monitoring enables Coastal GasLink to track and evaluate SEEMP objectives and
6 expected outcomes. It also assists with:

- 7 • collecting and tracking information on SEEMP implementation progress,
8 achievements and compliance with regulatory requirements
- 9 • supporting communication and reporting to the communities and government
- 10 • facilitating engagement with local governments, provincial agencies and
11 Aboriginal groups
- 12 • identifying the need to trigger the adaptive management process (Figure 6-2)

6.1 APPROACH

13 TransCanada’s requirements for performance tracking and monitoring provide a
14 framework in which projects are carried out. Flexibility will be important in Coastal
15 GasLink’s approach to monitoring given the duration of construction, the
16 approximately 670 km length of the Project corridor and the diversity of local
17 governments and Aboriginal groups.

18 Coastal GasLink will gather available existing information from organizations as it
19 monitors the implementation of mitigation outlined in Appendix D (Effectiveness
20 Monitoring Table). Coastal GasLink’s monitoring approach will include:

- 21 • monitoring twice a year throughout construction and one year post-construction
- 22 • engaging with relevant organizations per Appendix D (monitoring frequency and
23 monitoring data source and input columns)
- 24 • documenting engagement feedback and activities
- 25 • collecting data:
 - 26 • Qualitative (SEEMP contact feedback and engagement records)
 - 27 • Quantitative (information gathering from internal reports)

28 Coastal GasLink will incorporate qualitative methods in mitigation monitoring.
29 Coastal GasLink understands that monitoring mitigation described in the SEEMP is
30 often better carried out using qualitative methods. Qualitative methods, such as
31 observations and dialogue with affected parties, are expected to assist Coastal

1 GasLink in determining whether mitigation is effective or if adjustments need to be
2 made. Qualitative methods also provide opportunity for interactive dialogue to collect
3 feedback about site-specific or issue-specific situations and inform the decision of
4 follow-up actions or adjustments, if necessary.

5 Quantitative data considerations will also be part of monitoring. Coastal GasLink will
6 proactively collect quantitative data from a variety of internal information reports
7 outlined in Appendix D (monitoring data collection column). This data is collected
8 internally for the SEEMP but is also collected as part of regular business activities.
9 Quantitative data may assist qualitative methods in determining whether mitigation is
10 effective or needs adjustments.

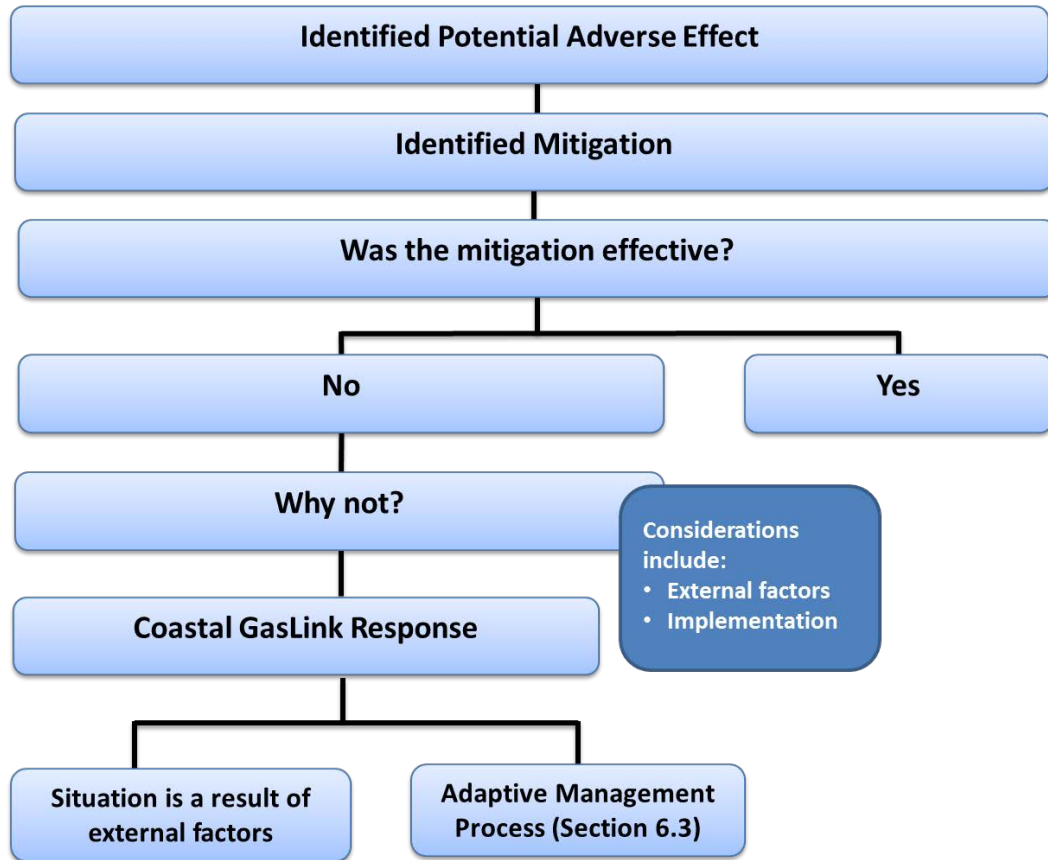
11 Appendix D (monitoring data collection column) includes both qualitative and
12 quantitative monitoring data collected by Coastal GasLink. Two common internal
13 data reports are the Diversity and Local Spending Data report and Incident Reports
14 and Statistics. Internal data collection, such as Diversity and Local Spending Data,
15 provides statistics on items such as local and Aboriginal spending, workforce
16 diversity and community investment spending. Data collected from internal Incident
17 Reports and Statistics include incident severity, type of incident, location, time of day
18 and cumulative statistics on incident frequency rates. The internal Incident Reports
19 also include qualitative data, such as incident details, causes and recommendations
20 for corrective action.

21 Local governments, provincial agencies and Aboriginal groups may support
22 monitoring by collecting local data and participating in ongoing discussions with
23 Coastal GasLink on implementing mitigation. Coastal GasLink is responsible for
24 monitoring; however, responsibility for mitigation monitoring information may be
25 shared.

6.2 MONITORING MITIGATION EFFECTIVENESS

26 Coastal GasLink carried out studies to establish the baseline information from which
27 reasonable predictions of the potential adverse effects of the proposed Project were
28 made for the Application. Baseline information was compiled and presented in the
29 Application's Social Technical Report (Appendix 2M) and the Economic Technical
30 Report (Appendix 2N).

31 Coastal GasLink's approach to monitoring seeks to understand mitigation
32 effectiveness in avoiding or reducing the potential adverse effects presented in the
33 Application. Flexibility in monitoring the mitigation allows for adjustments to occur
34 in the monitoring approach. Figure 6-1 describes Coastal GasLink's monitoring
35 mitigation effectiveness approach.



1

Figure 6-1: Monitoring Mitigation Effectiveness Approach

6.3 ADAPTIVE MANAGEMENT

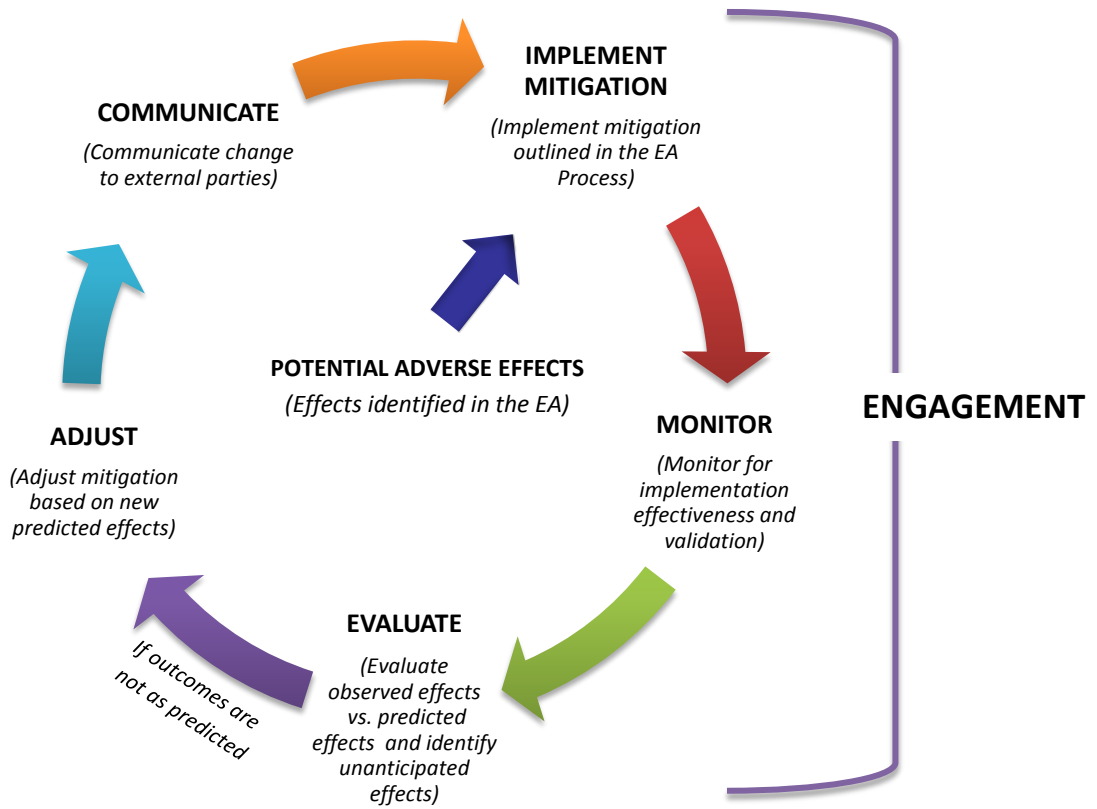
2
3
4
5
6

Coastal GasLink will use an Adaptive Management Process (Figure 6-2) in situations where monitoring (see Appendix D) results indicate that outcomes are not as predicted. Mitigation may need to be modified or new mitigation may need to be developed to address unexpected potential adverse effects on regional and community infrastructure and services.

7
8
9

Affected parties will continue to be engaged in dialogue throughout the Process. If a previously unidentified issue arises during construction, affected parties will be engaged in the Issues Management Process described in Section 3.4.2.

10



1

Figure 6-2: Adaptive Management Process

2

7.0 REPORTING

1 Reporting is an important communication tool that Coastal GasLink will use to
2 inform local government, provincial agencies and Aboriginal groups on the status of
3 SEEMP implementation during construction. The content of the reports will depend
4 on the frequency of mitigation and monitoring strategies outlined in the SEEMP.

7.1 REQUIREMENTS

5 Coastal GasLink is responsible for developing and submitting SEEMP reports
6 directly to the EAO, MCSCD and SEEMP contacts. Reporting will be transparent and
7 will include:

- 8 • implemented mitigation
- 9 • adjustments made to mitigation
- 10 • Project information communicated to SEEMP contacts during reporting period
- 11 • engagement activities

12 SEEMP status reports will be publicly available with a final report submitted within
13 two years after construction is completed. The final report will include a table of the
14 SEEMP mitigation status, as well as a narrative about SEEMP implementation.

7.2 REPORT TEMPLATE DEVELOPMENT

15 Status reporting templates and a final report template are outlined in Appendix G
16 (Report Templates). The templates include the project status, engagement, economic
17 and social effects activities and mitigation effectiveness, and adjustments and changes
18 to SEEMP implementation. The final report will include reporting on the SEEMP
19 process and a mitigation implementation status table. Reporting templates may be
20 adjusted based on feedback and as SEEMP implementation progresses.

21 The MCSCD and the EAO may request additional SEEMP status reporting outside of
22 the identified templates and structure. Coastal GasLink will continue to collaborate
23 with the MCSCD and the EAO to ensure that reporting templates and schedules meet
24 regulatory requirements.

7.3 REPORTING TOOLS

25 Coastal GasLink will send reports electronically to EAO, MCSCD and SEEMP
26 contacts. Print copies of SEEMP reports will also be available to SEEMP contacts
27 who request them. All reports will be posted on the Coastal GasLink website with a

1 print copy made available to the public, on request. In addition to email and print, the
2 final SEEMP report will also be submitted to the MCSCD and the EAO for posting
3 on their websites.

4 Coastal GasLink is available at any time to engage further on questions or issues,
5 including those regarding SEEMP reporting.'

7.4 REPORTING SCHEDULE

6 During the construction phase, SEEMP status reports will be available semi-annually
7 in alignment with summer and winter construction seasons. The final report will be
8 available within two years after construction is completed.

8.0 GLOSSARY

1

Application	Application for an Environmental Assessment Certificate
BC	British Columbia
Coastal GasLink	Coastal GasLink Pipeline Ltd.
EA	environmental assessment
EAC	Environmental Assessment Certificate
EAO	Environmental Assessment Office
EMP	Environmental Management Plan
HS&E	Health, Safety and Environment
LNG	liquefied natural gas
LNG Canada	LNG Canada Development Inc.
MCSCD	Ministry of Community, Sport and Cultural Development
NPS	nominal pipe size
Project	Coastal GasLink Pipeline Project
SEEMP	Socio-economic Effects Management Plan

2

Appendices – Contents

1	Appendix A	Proposed Timing of Project Information and Activities
2	Appendix B	Project Background
3	Appendix C	Potential Construction Camp Locations and Timing
4	Appendix D	Effectiveness Monitoring Table
5	Appendix E	TransCanada’s Health, Safety and Environment Commitment
6	Appendix F	Specific Actions for Implementing Mitigation
7	Appendix G	Report Templates

Appendix A

Proposed Timing of Project Information and Activities

1

1

1 The following information is subject to having contractors in place and a positive final investment
2 decision (FID).
3

Training and Education Information	Q1, 2014 – ongoing
Employment and Contracting Information	Q3, 2013 – ongoing
Camp Location Information	Minimum 3 months before construction
Camp Schedule and Occupancy Information	Minimum 3 months before construction
Waste and Water Management Information	Minimum 3 months before construction
Emergency Response Planning Information	Minimum 3 months before construction
Ancillary Facility Location Information	Minimum 3 months before construction
Estimated Final Investment Decision	2016
Prime Contractor Introduction Meetings	3 months before construction
Application for Municipal Temporary Use Permits	3 to 4 months before site-specific preparation
Clearing and Access Activity	After FID
Construction ¹ Activity	After FID – 4 years

4

5 ¹ The construction phase includes pre-clearing, surveying, clearing, topsoil conservation,
6 surface material salvage, grading, trenching, testing and post-construction reclamation for the
7 proposed pipeline and associated facilities.

Appendix B

Project Background

Coastal GasLink Pipeline Ltd. (Coastal GasLink) is proposing to construct and operate a natural gas pipeline from the area near the community of Groundbirch (about 40 km west of Dawson Creek, British Columbia [BC]) to the proposed LNG Canada Development Inc. (LNG Canada) liquefied natural gas (LNG) export facility (LNG Canada export facility) near Kitimat, BC.

The proposed Coastal GasLink Pipeline Project (Project) involves the construction and operation of:

- approximately 670 km of 48 inch (NPS 48) (1,219 mm) diameter pipeline
- metering facilities at the receipt and delivery points at up to three locations
- compressor stations at up to eight locations

The proposed Project will have an initial capacity of about 2 to 3 billion cubic feet/day (bcf/d) (56 million cubic metres per day [mmcm/d] to 85 mmcm/d), with the potential for expansion up to about 5 bcf/d (142 mmcm/d). The expansion scenarios do not involve the construction of additional pipeline; only the number of compressor stations would change.

The Project will also entail the development of temporary camps and other ancillary sites to support construction. Ancillary facilities include access roads, construction camps and temporary storage sites (e.g., stockpile sites, rail sidings, contractor storage areas and borrow sites).

Ancillary facilities are closely tied to the logistics of construction and, therefore, the precise locations of these facilities will be identified later in the detailed engineering process so that they are appropriately located for construction.

Coastal GasLink has and will draw on TransCanada's expertise, experience and resources in the course of designing, constructing and operating the proposed Project. TransCanada is a leader in the responsible development and reliable operation of North American energy infrastructure, including natural gas pipelines, power generation and gas storage facilities. Having owned and operated Canada's largest natural gas pipeline system for more than 60 years, TransCanada has an established track record for operational excellence and has developed and maintained relationships with landowners, Aboriginal groups and other stakeholders across its pipeline system.

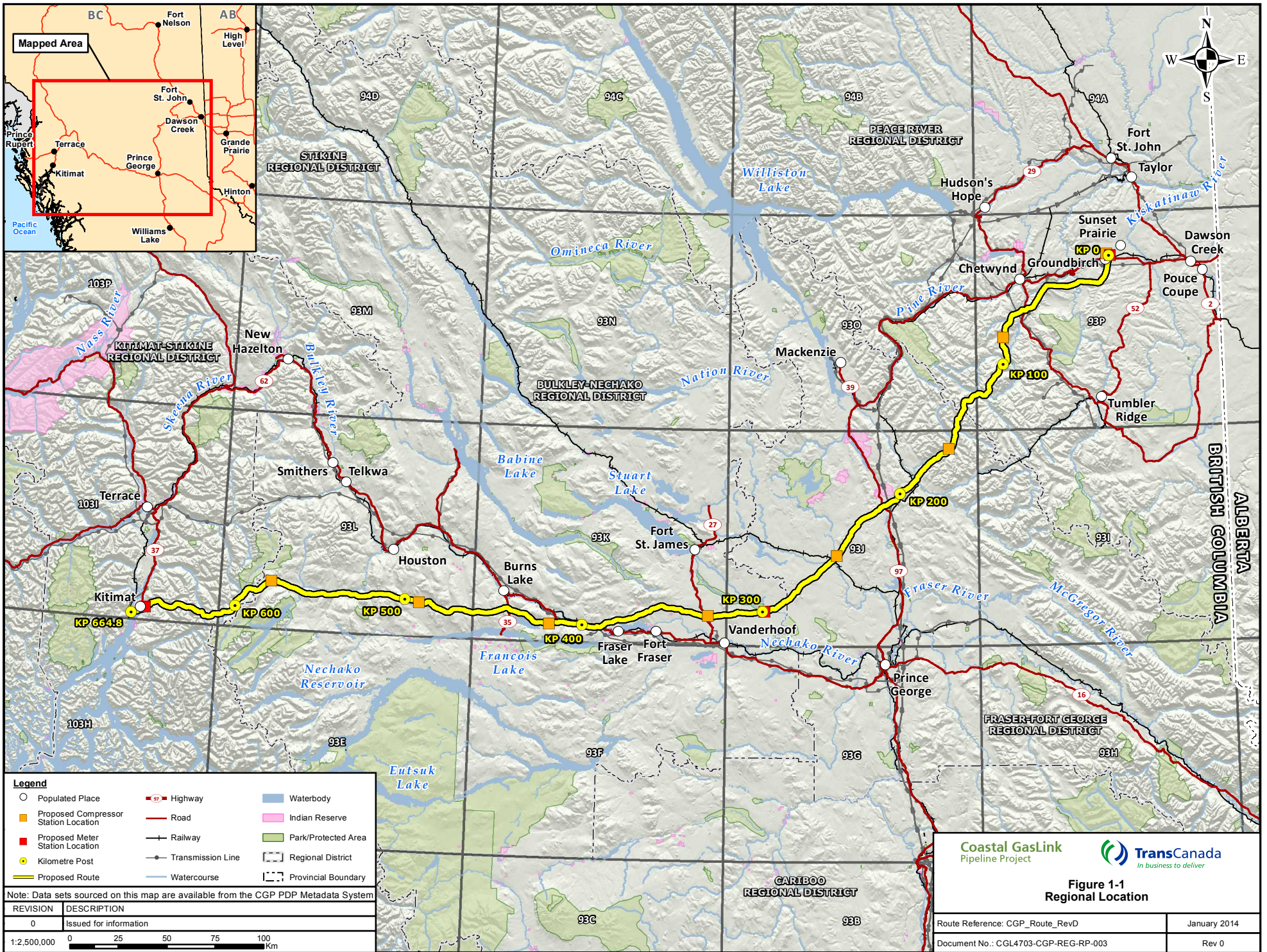
TransCanada operates one of the most sophisticated pipeline systems in the world. TransCanada's network of about 65,000 km of wholly owned and 11,500 km of partially owned natural gas pipelines connects virtually every major natural gas supply basin and market in North America. TransCanada transports 15 billion ft³ (bcf) (424.8 million m³ [mmcm]) of natural gas per day, which is about 20% of the natural gas consumed in North America. TransCanada continually explores new ways to help producers reach their markets.

Quick Facts

- Natural gas pipeline
- Project announced June 5, 2012
- Runs from Dawson Creek to Kitimat, BC
- Coastal GasLink Pipeline Project will connect natural gas resources (shale gas) primarily from northeast B.C. and elsewhere in the Western Canada Sedimentary Basin to LNG Canada's proposed liquefied natural gas export facility
- Approximately 670-km corridor
- Current route maps show the proposed Coastal GasLink route as presented in our 2014 application to the BC Environmental Assessment Office
- An Environmental Assessment Certificate was issued by the BC Environmental Assessment Office on October 23, 2014
- 48-inch pipe, with an initial capacity of 2-3 billion cubic feet per day

Appendix C

Potential Construction Camp Locations and Timing



Legend

- Populated Place
- Proposed Compressor Station Location
- Proposed Meter Station Location
- Kilometre Post
- Proposed Route
- Highway
- Road
- Railway
- Transmission Line
- Watercourse
- Waterbody
- Indian Reserve
- Park/Protected Area
- Regional District
- Provincial Boundary

Note: Data sets sourced on this map are available from the CGP PDP Metadata System

REVISION	DESCRIPTION
0	Issued for information

1:2,500,000

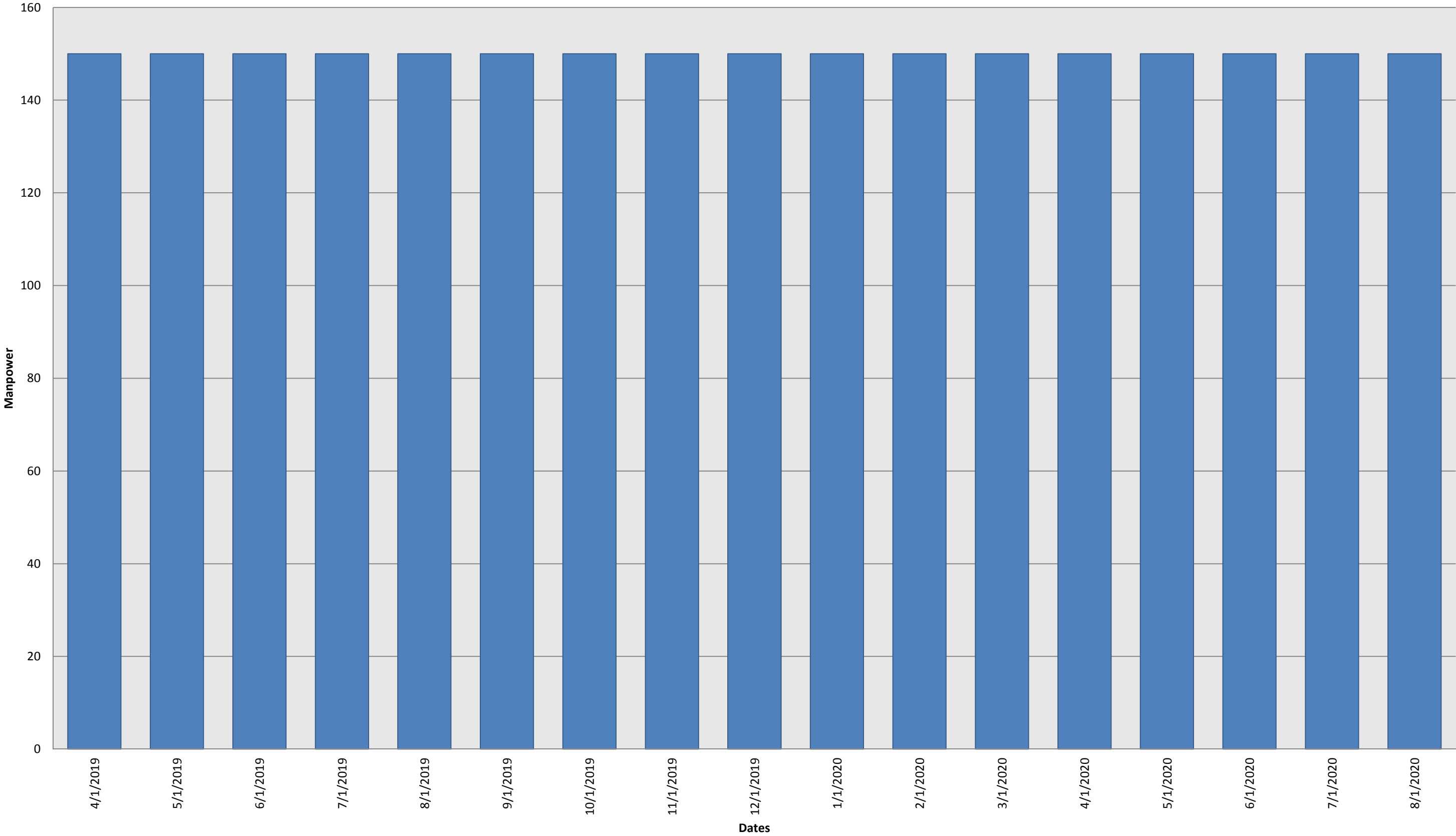
Coastal GasLink
Pipeline Project

TransCanada
In business to deliver

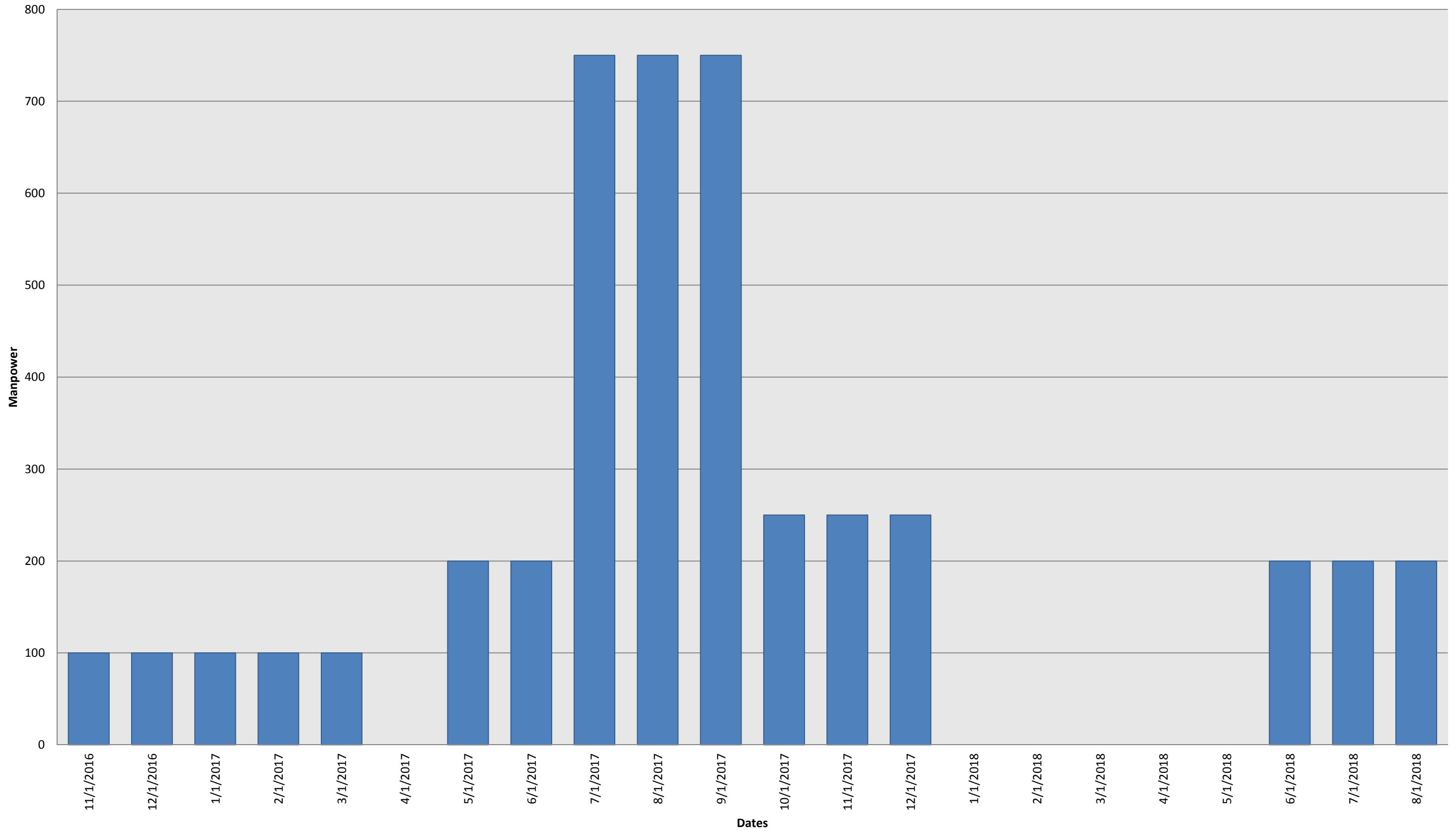
Figure 1-1
Regional Location

Route Reference: CGP_Route_RevD	January 2014
Document No.: CGL4703-CGP-REG-RP-003	Rev 0

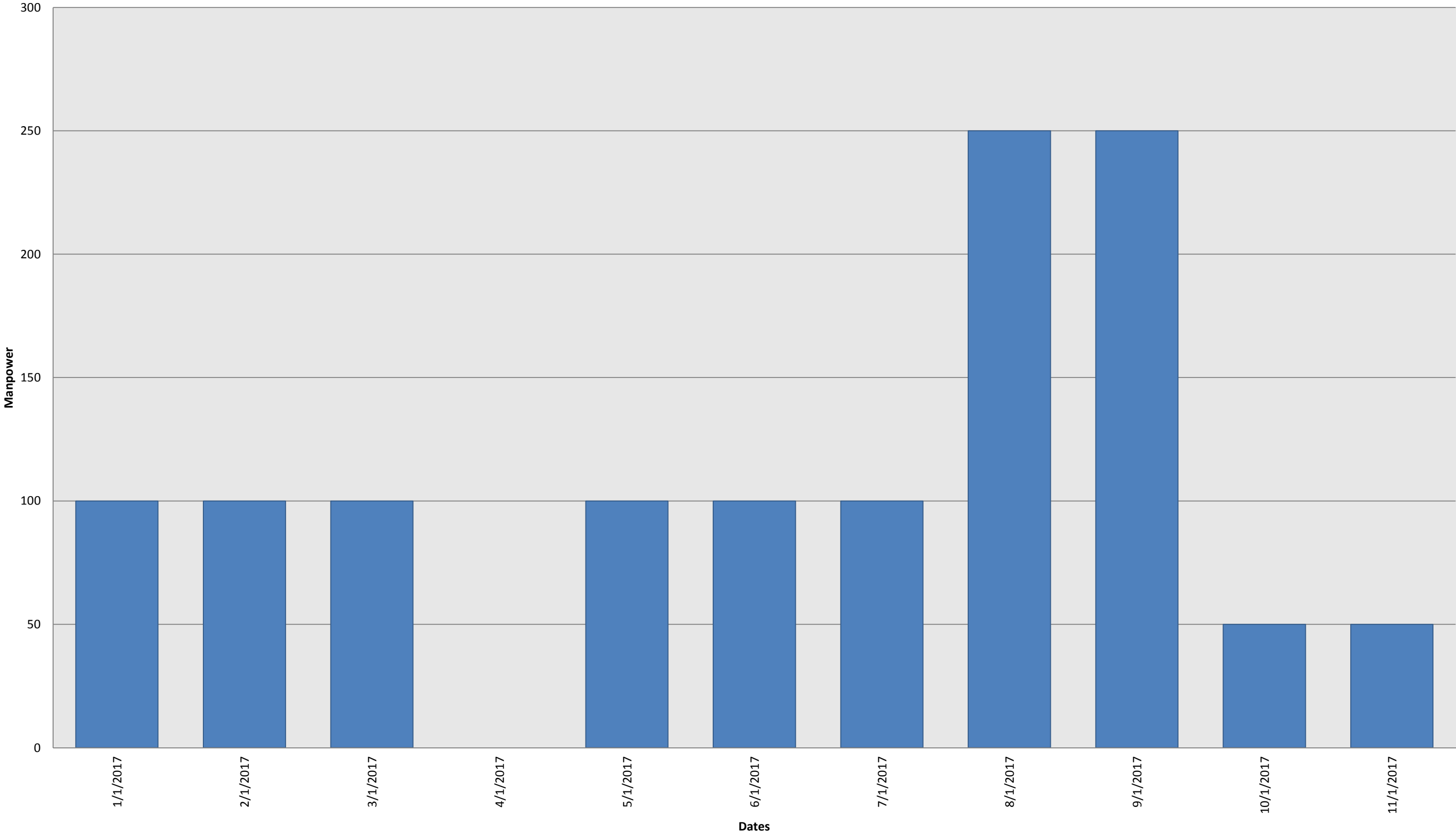
Wilde Lake Camp (Dawson Creek)



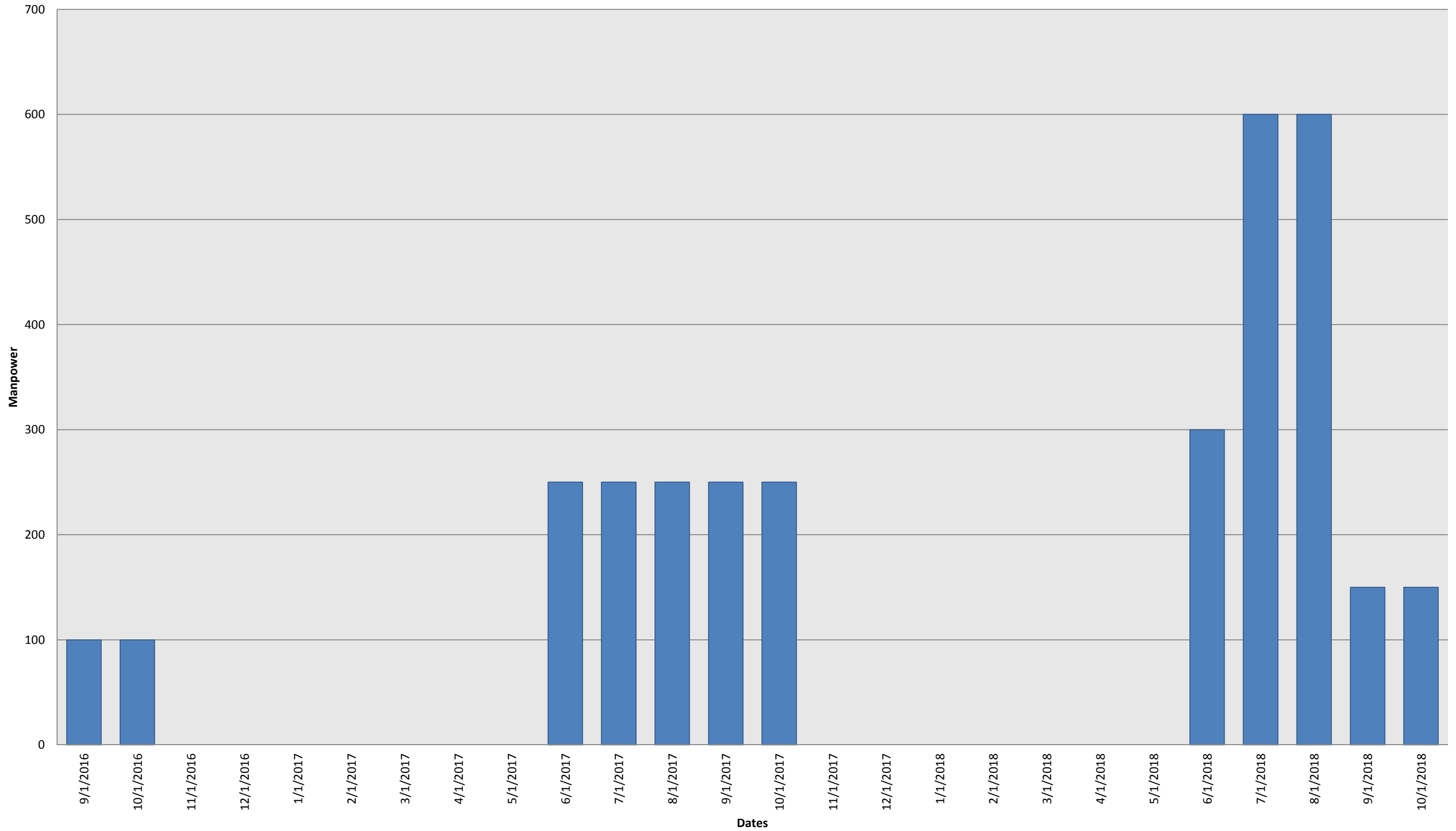
Chetwyd Camp (Chetwynd)



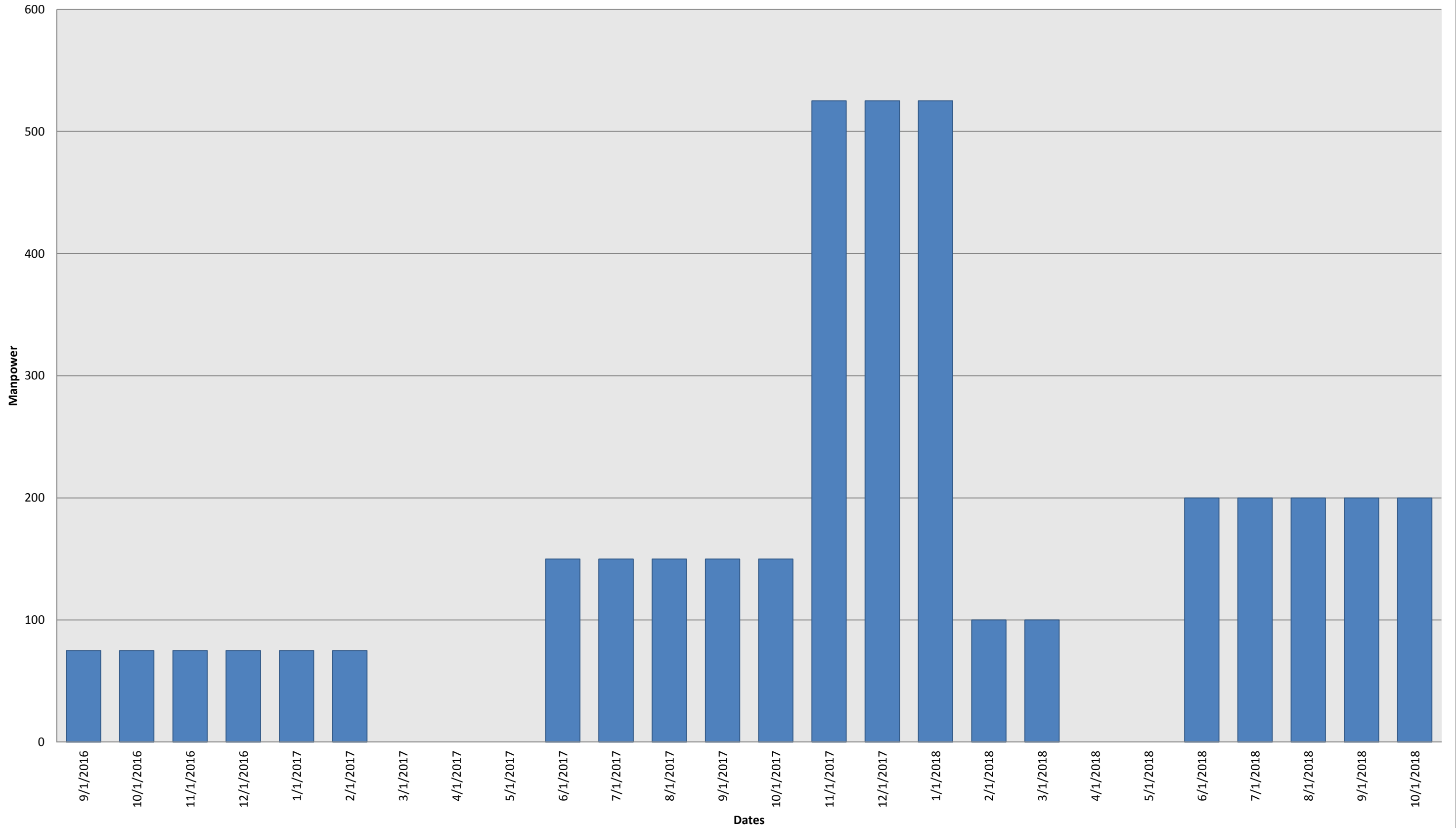
Main 1B Camp (Chetwynd)



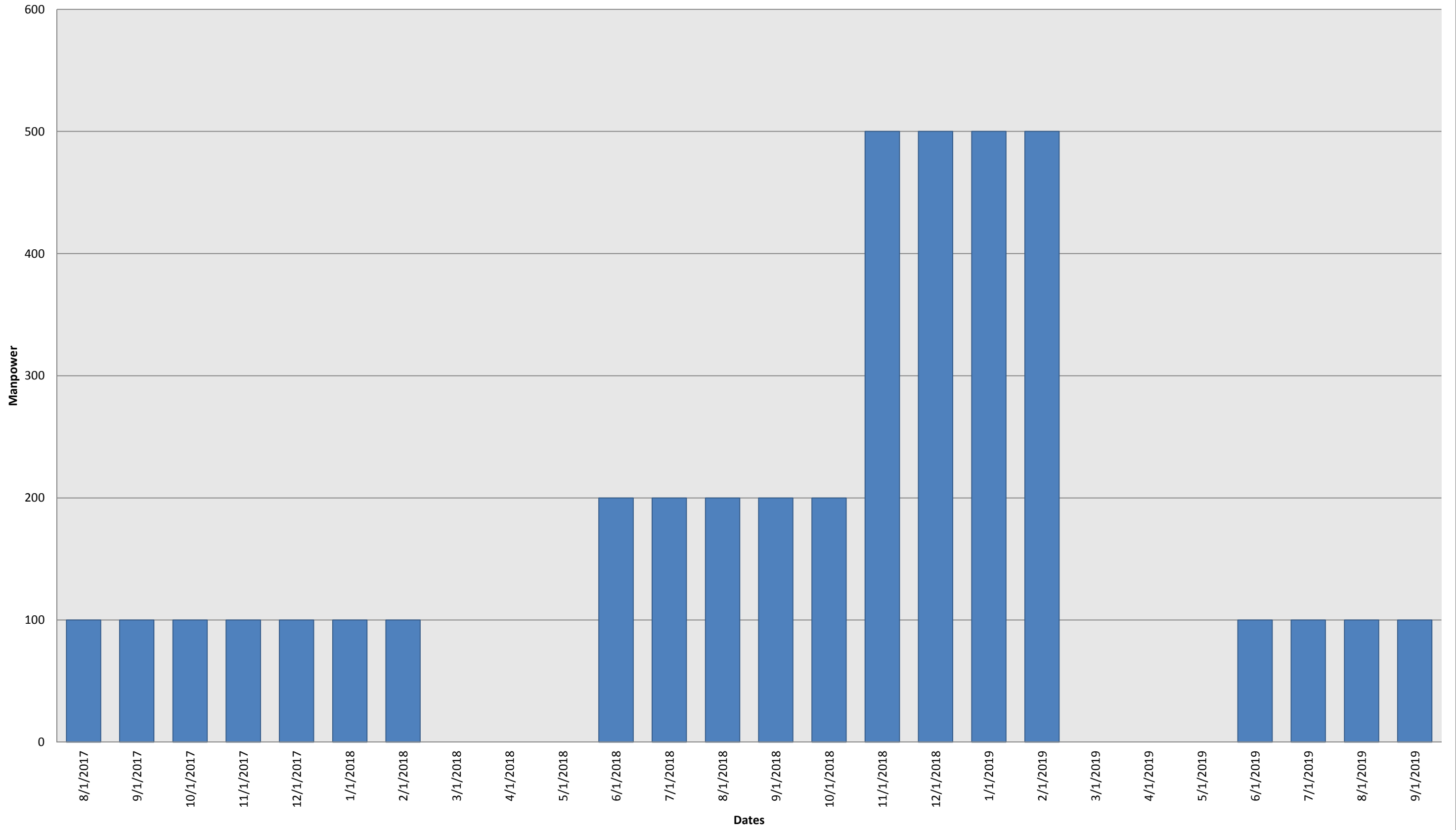
Main 2B Camp (Tumbler Ridge)



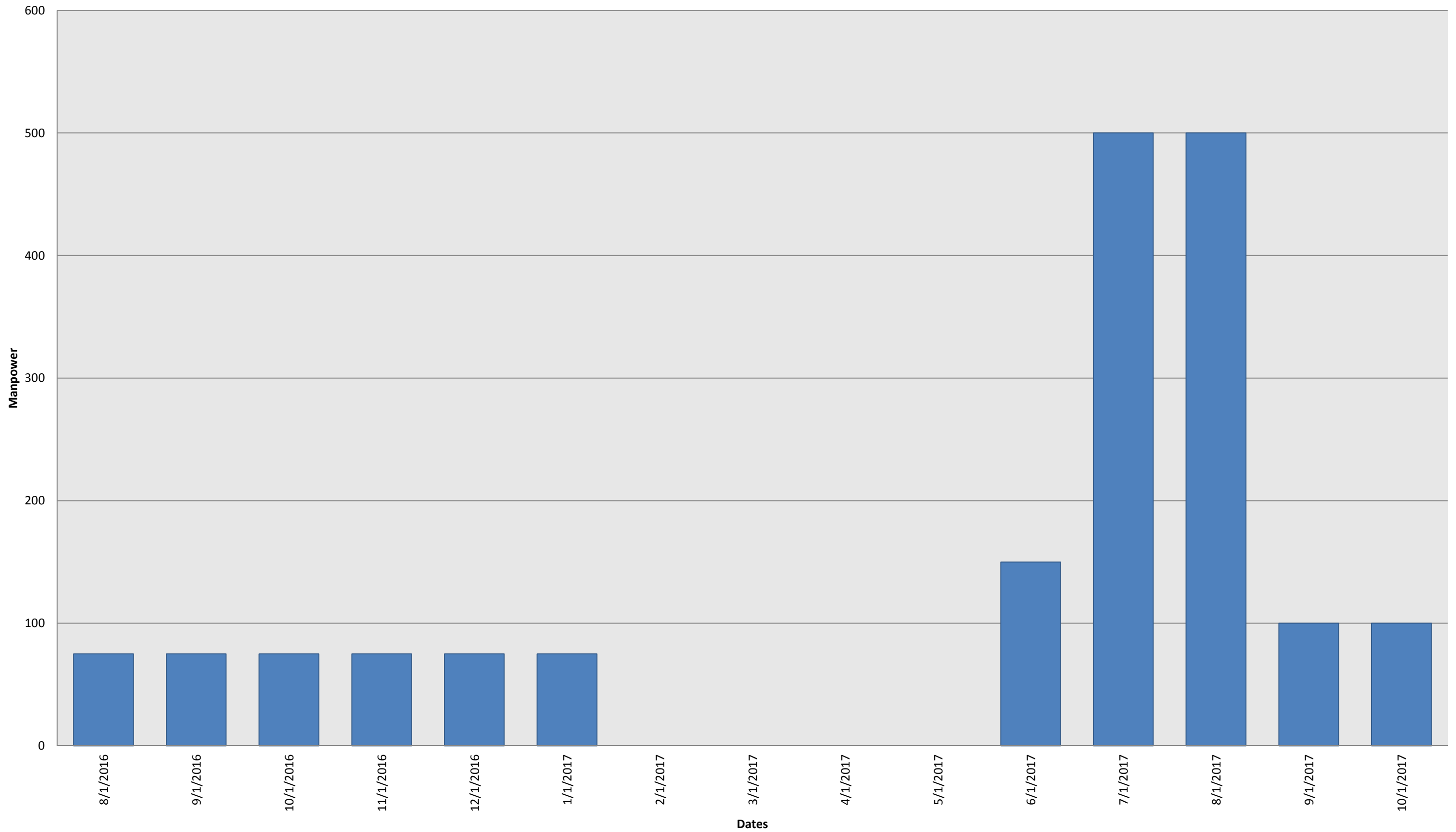
Main 4A Camp (Mackenzie)



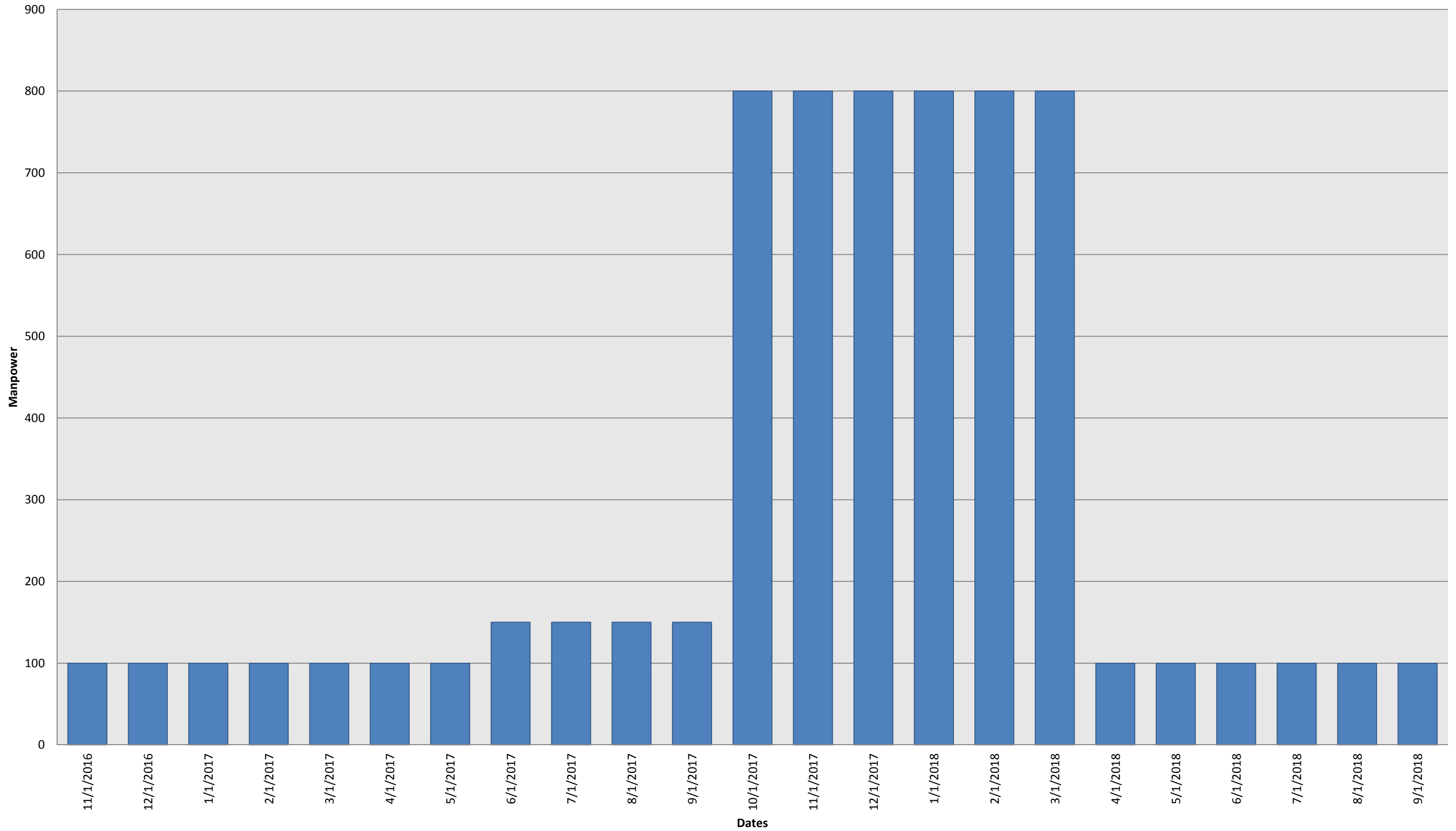
Main 5B Camp (Prince George)



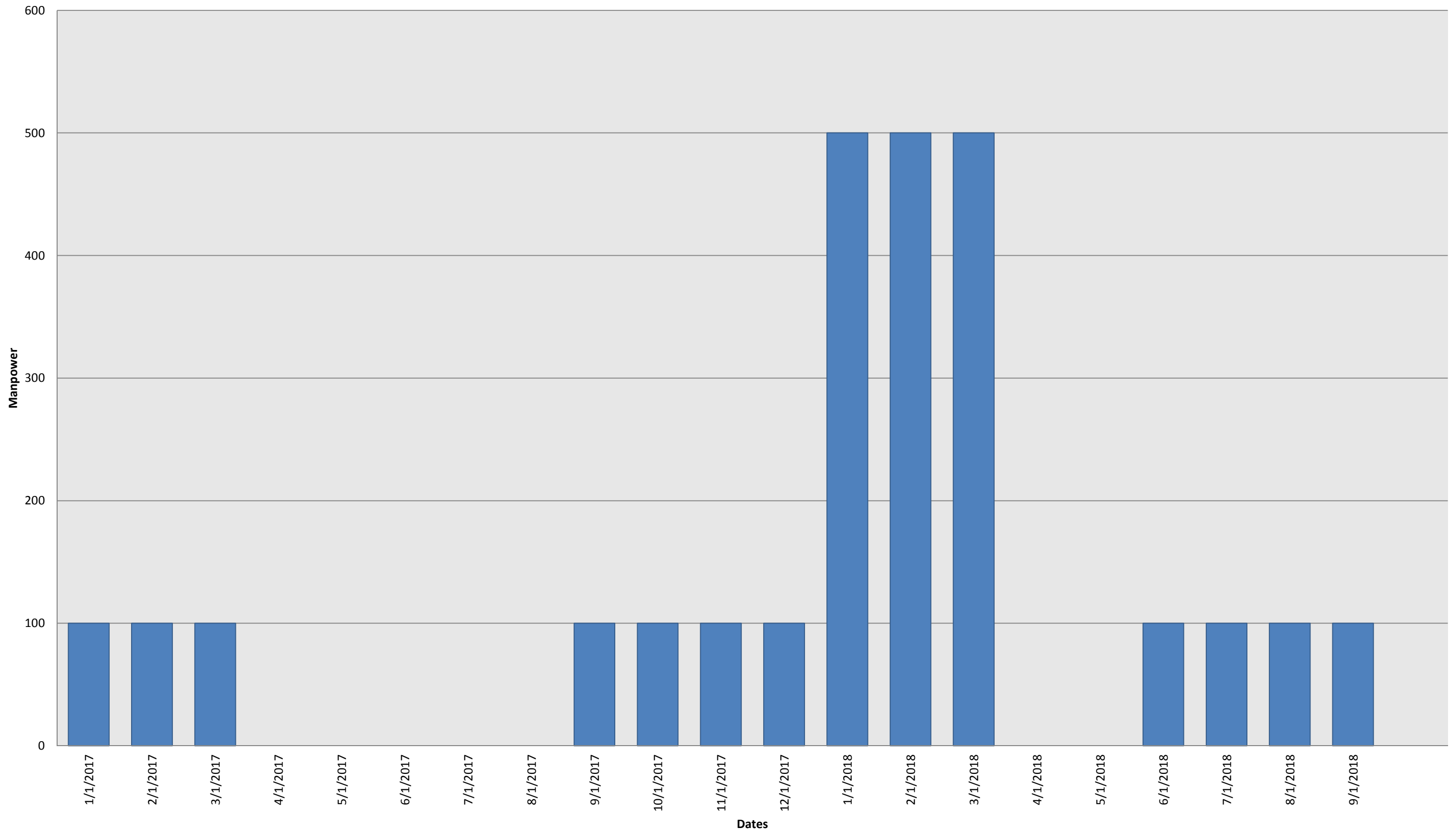
Vanderhoof Camp (Vanderhoof)



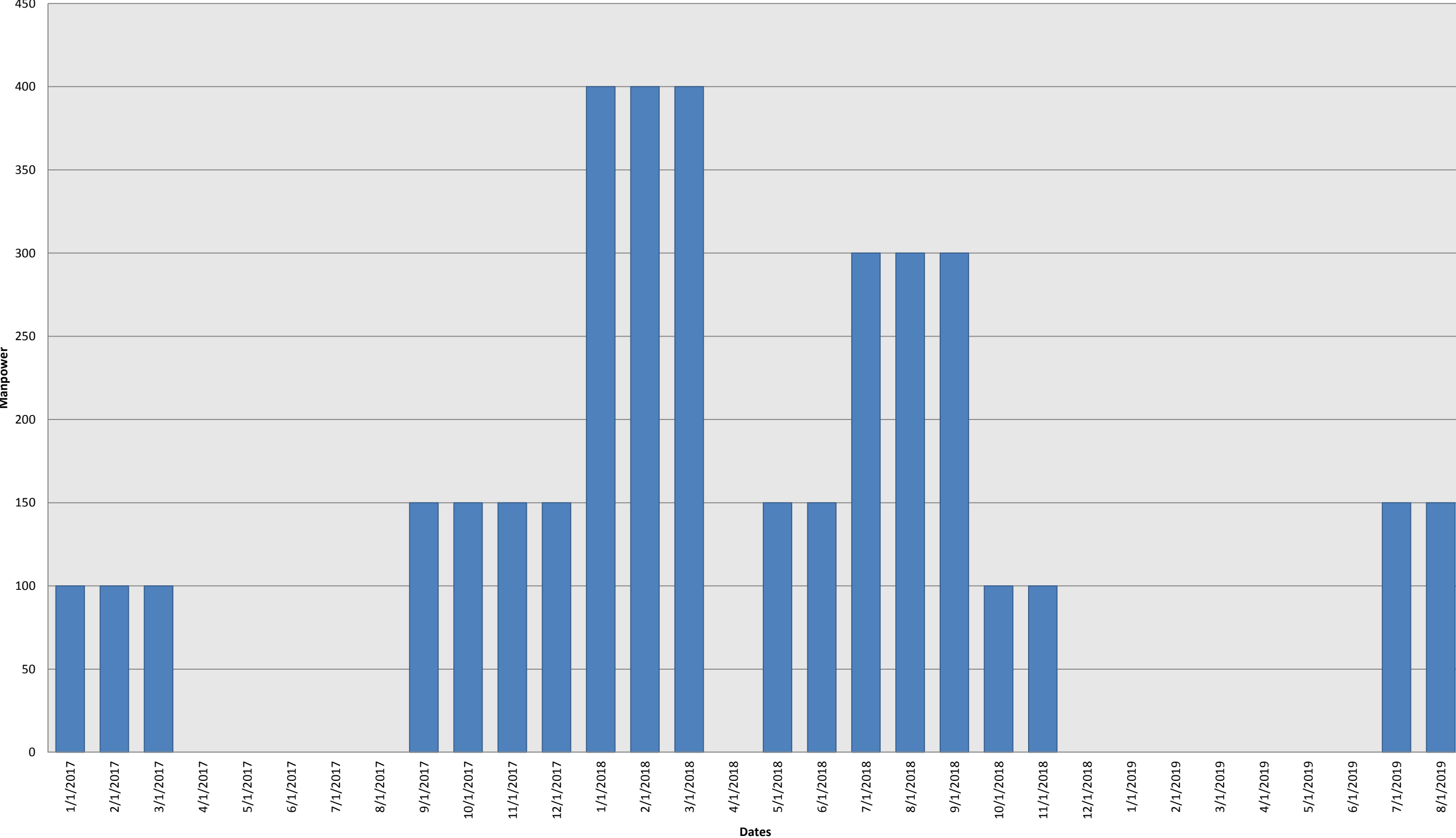
Lejac Camp (Fraser Lake)



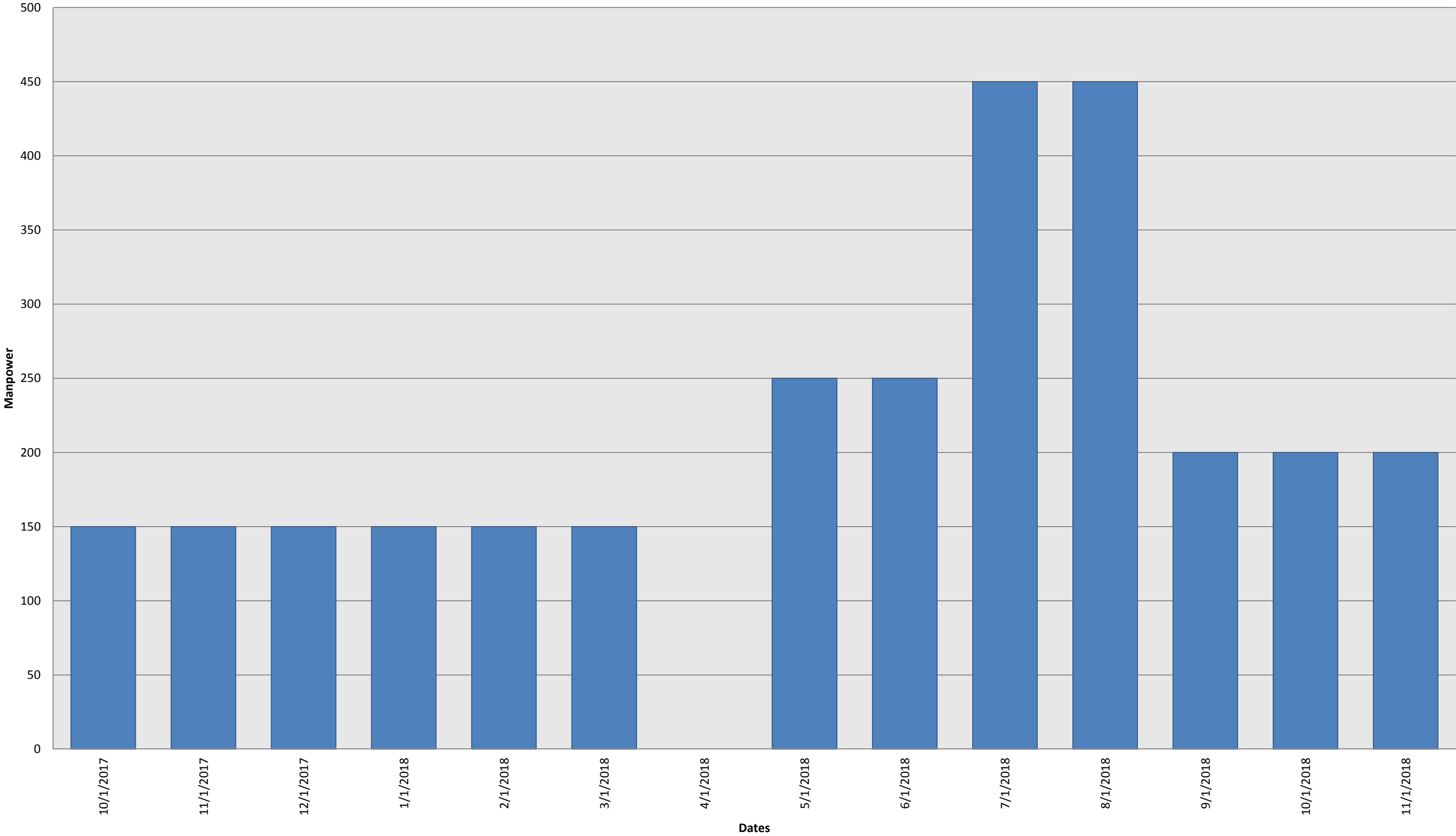
Tchesinkut Lake Camp (Burns Lake)



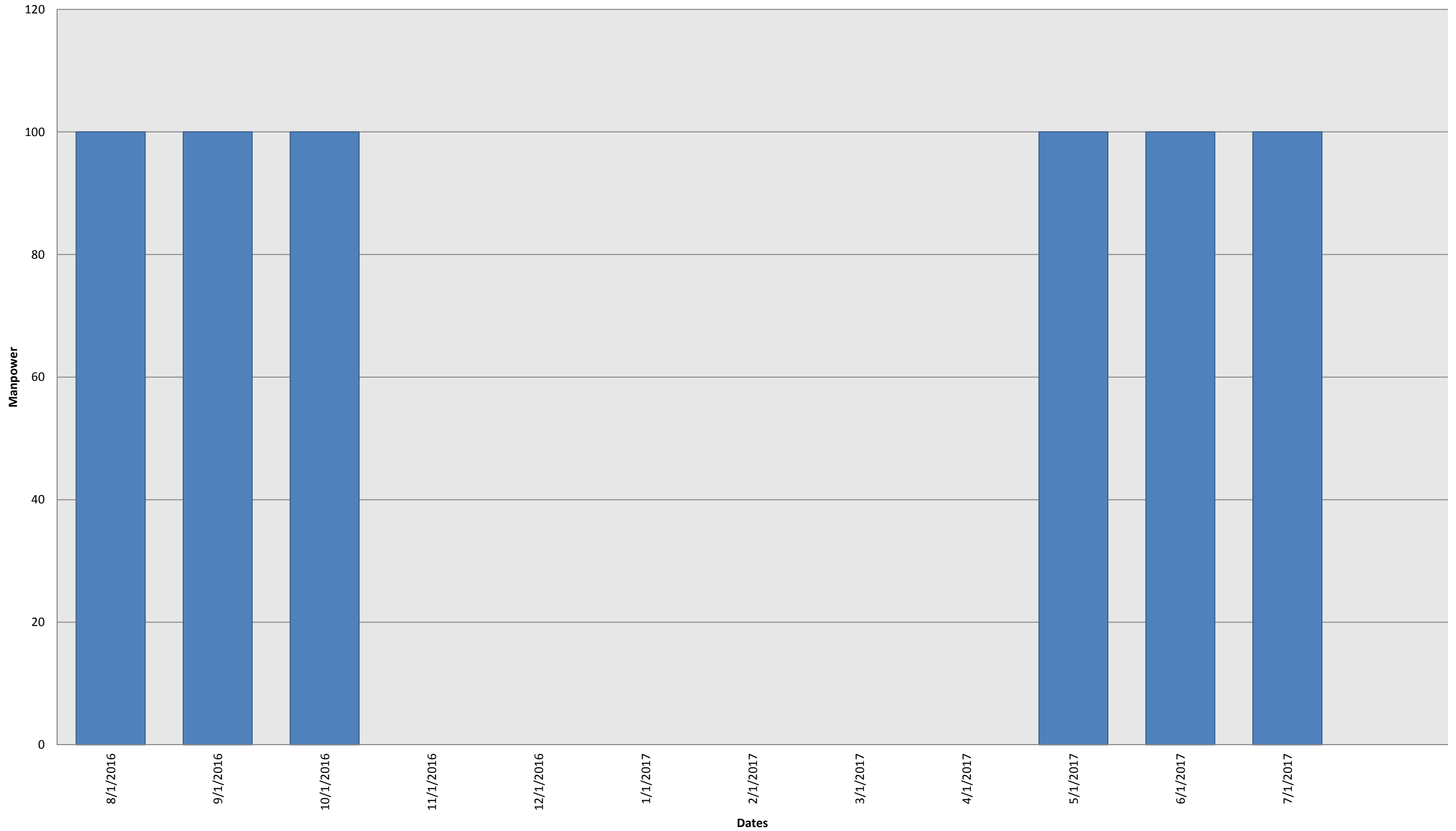
Main 8 Camp (Houston)



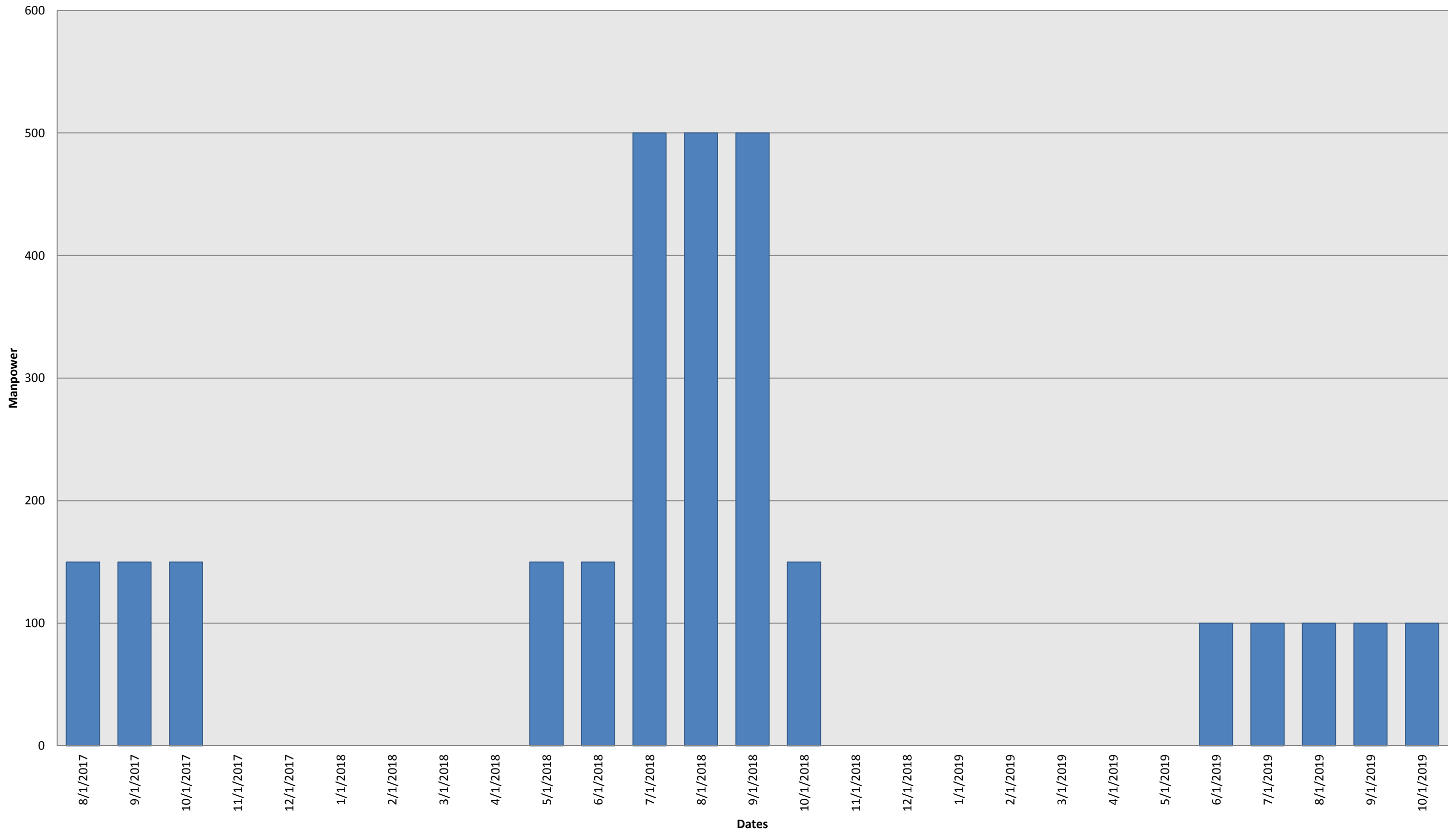
Main 9 Camp (Houston)



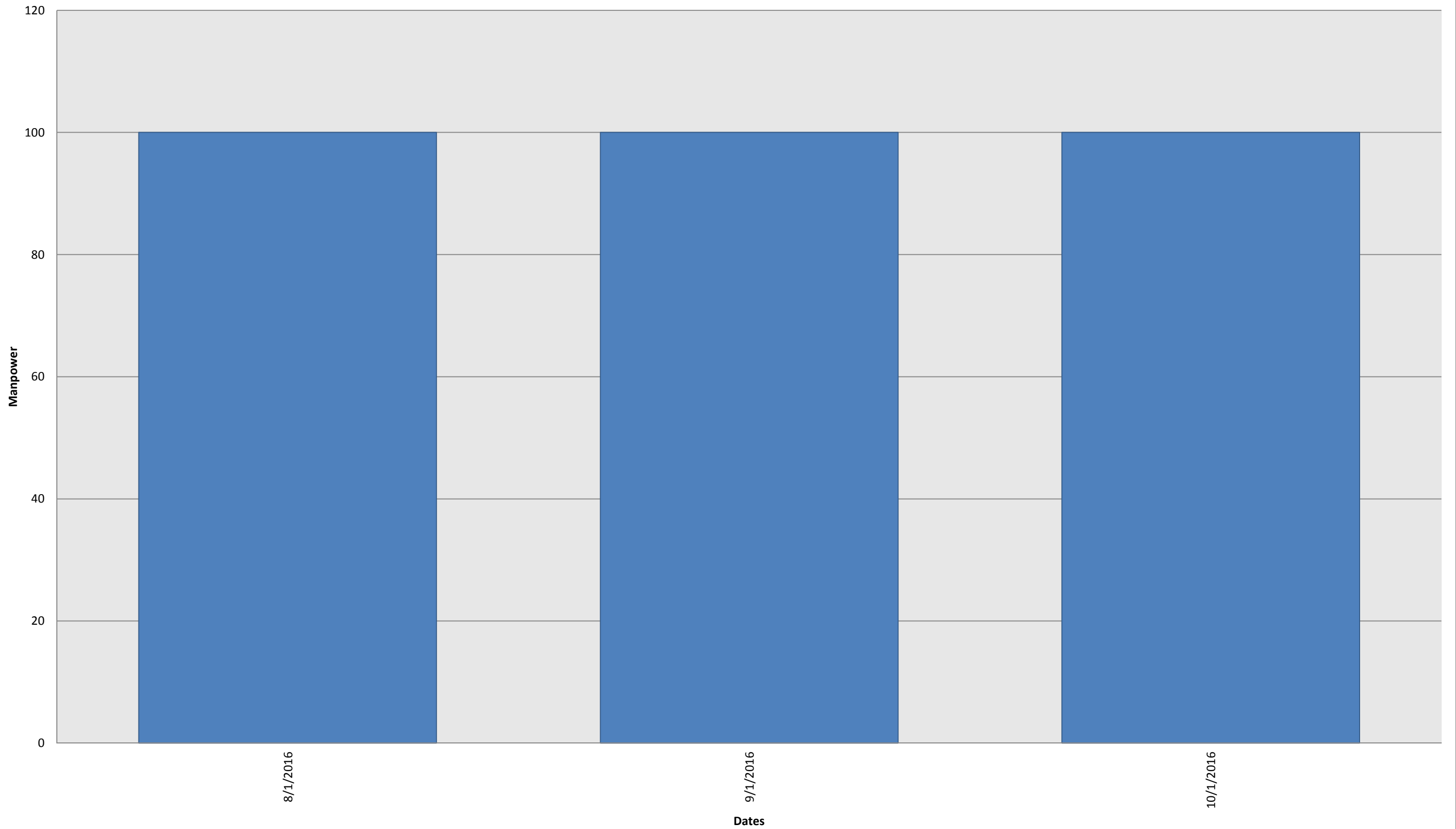
Main 9A Camp (Houston)



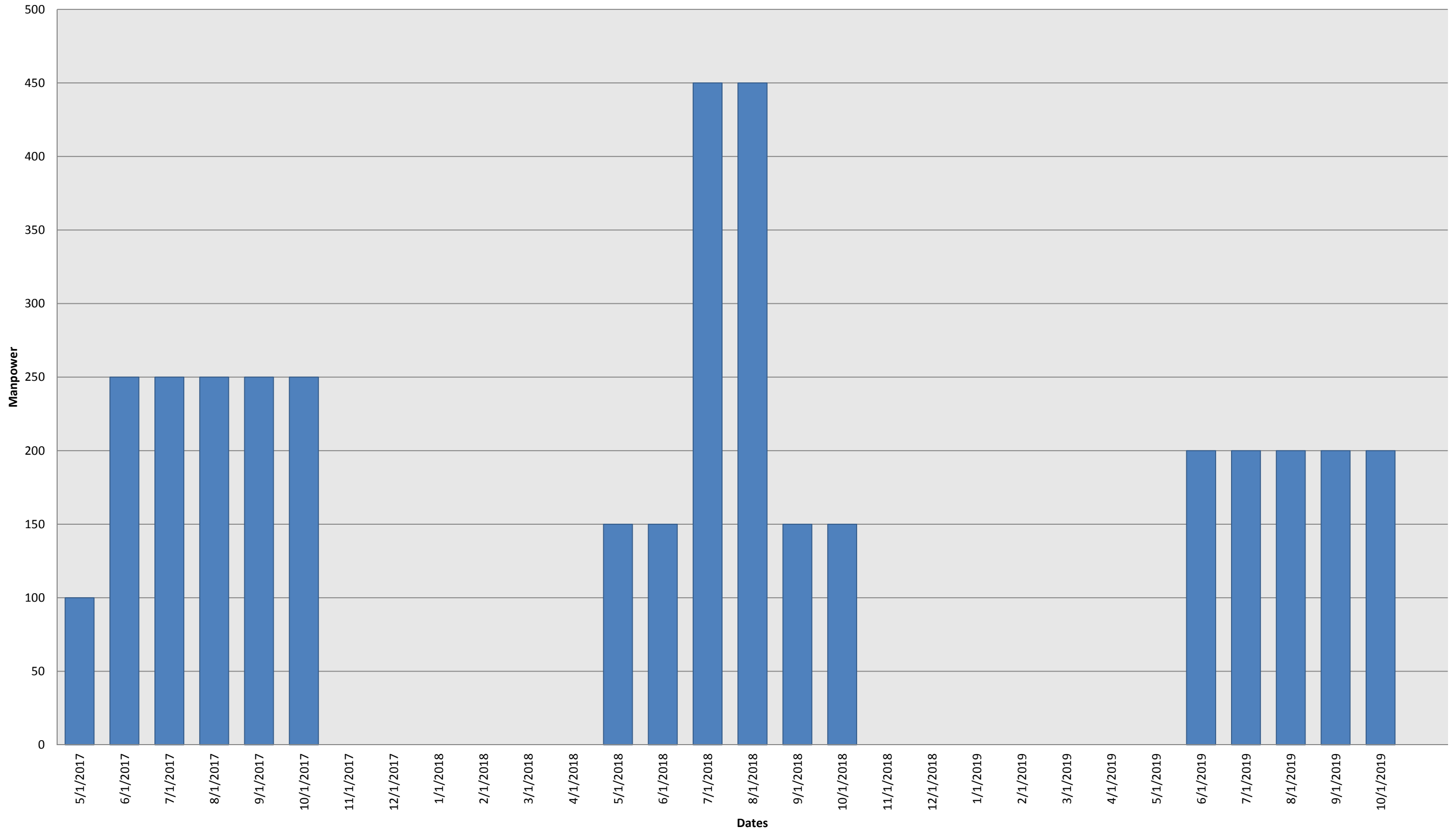
P2 Camp (Houston)



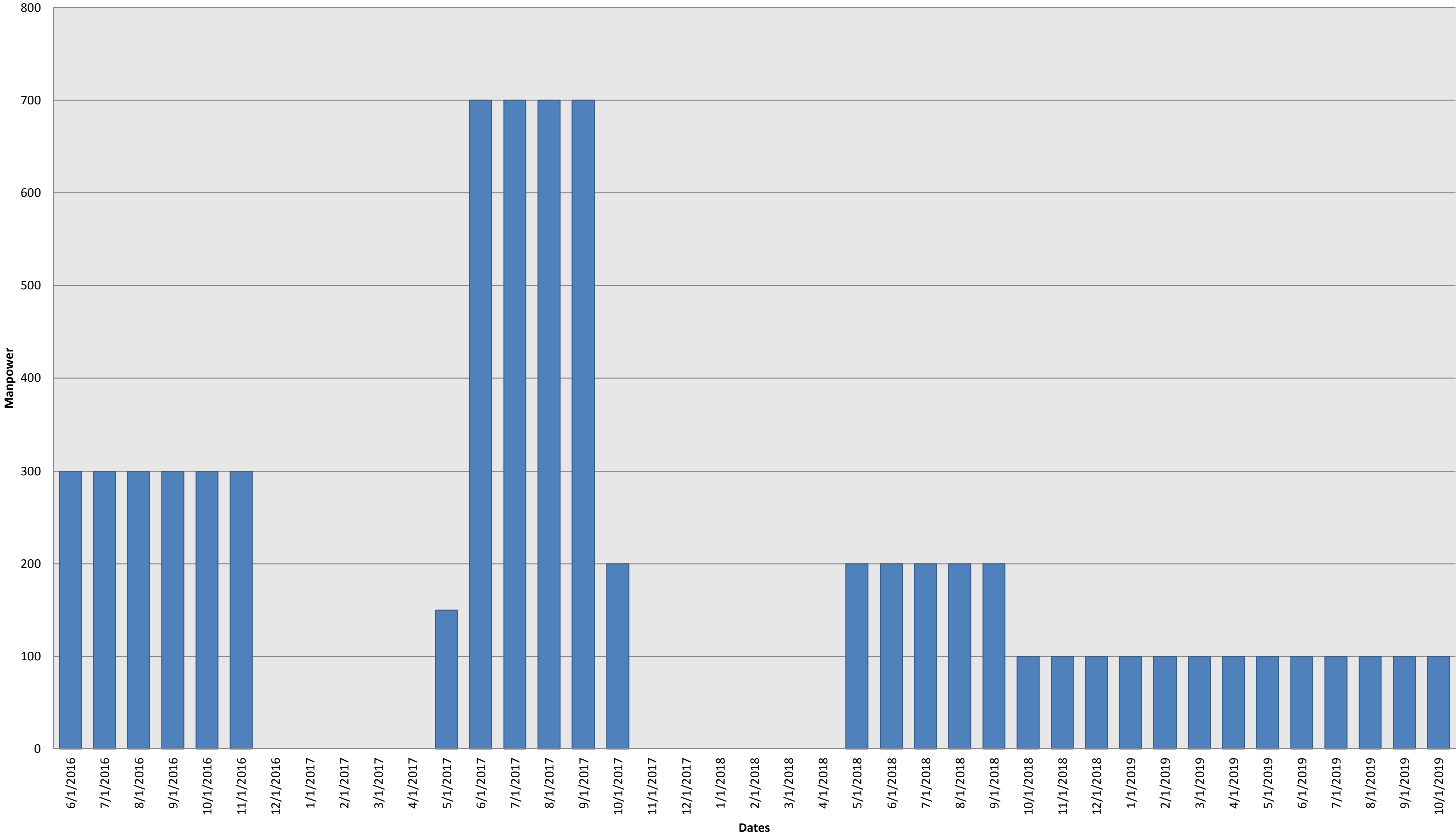
Main 10A Camp (Kitimat / Terrace)



P4 Camp (Kitimat / Terrace)



Kitimat MS Camp (Kitimat)



Appendix D
Effectiveness Monitoring Table

Appendix D: Effectiveness Monitoring Table

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	SEEMP MONITORING FREQUENCY ^{3,4} (minimum)	MONITORING DATA ⁵	MONITORING DATA SOURCE AND INPUT
VALUED COMPONENT: ECONOMY						
<i>Key Indicator: Contracts and Procurement Expenditures</i>						
<i>Limited participation in contract opportunities</i>	<i>EA Table 12-8</i>	<ul style="list-style-type: none"> Implement a procurement strategy that provides opportunities for qualified Aboriginal and local contractors 	Construction Preparation / Construction	Semi-annual	Diversity and Local Spending Data	Aboriginal Groups Chambers of Commerce Coastal GasLink
	<i>EA Table 12-8</i>	<ul style="list-style-type: none"> Continue discussions with economic development representatives from Aboriginal and local communities to communicate Project requirements, potential contract opportunities and related qualifications (i.e., insurance, safety, required personnel, skills, certifications, experience, equipment, materials, etc.) 	Construction Preparation / Construction	Semi-annual	Engagement Records	Local Governments Aboriginal Groups Coastal GasLink
	<i>EA Table 12-8</i>	<ul style="list-style-type: none"> Continue discussions with economic development representatives from Aboriginal and local communities to identify qualified Aboriginal and local businesses interested in providing relevant goods and services 	Construction Preparation / Construction	Semi-annual	Engagement Records Vendor List Review	Local Governments Aboriginal Groups Chambers of Commerce Coastal GasLink
<i>Key Indicator: Community Economic Resilience</i>						
<i>Alteration of existing community economic patterns</i>	<i>EA Table 12-8</i>	<ul style="list-style-type: none"> Communicate the Project schedule and identify the short term nature of Project construction activities to local economic development organizations to manage expectations 	Construction Preparation / Construction	Semi-annual	Engagement Records	Local Governments Chambers of Commerce Aboriginal Groups Coastal GasLink

¹Coastal GasLink is responsible for implementing mitigation presented in the SEEMP.

²Construction includes one year after Project operations commence.

³Coastal GasLink will continue to engage local government, provincial agencies and Aboriginal groups affected by Project construction during implementation of the SEEMP and based on the monitoring frequency presented in this table.

⁴During the construction phase, SEEMP status reports will be available semi-annually. The final report will be available within two years after construction is completed.

⁵Internal monitoring data collected by Coastal GasLink and external SEEMP Contact feedback about effectiveness of mitigation collected from stakeholders and Aboriginal groups during engagement activities.

Appendix D: Effectiveness Monitoring Table

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	SEEMP MONITORING FREQUENCY ^{3,4} (minimum)	MONITORING DATA ⁵	MONITORING DATA SOURCE AND INPUT
	<i>EA Table 12-8</i>	<ul style="list-style-type: none"> Adhere to the Traffic Control Management Plan to reduce construction related traffic and corresponding potential adverse effects on local business operations 	Construction	Semi-annual	Internal Incident Reports and Statistics Health and Safety Audits Equipment Flow Data Inspection Monitoring Data SEEMP Contact Feedback	BC Ministry of Transportation and Infrastructure Local Governments RCMP Coastal GasLink
VALUED COMPONENT: EMPLOYMENT AND LABOUR FORCE						
<i>Key Indicator: Employment</i>						
<i>Skilled labour shortage</i>	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Implement the Coastal GasLink training program to enable unemployed or underemployed individuals to develop Project specific employment skills and seek Project employment. 	Construction Preparation / Construction	Semi-annual	Education and Training Spending Data Education and Training Partnership Reports SEEMP Contact Feedback	Post-secondary Educational Partners Employment Services Coastal GasLink
	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Provide the Project schedule to economic development organizations and post-secondary institutions to inform them of peak workforce demands 	Construction Preparation / Construction	Semi-annual	Engagement Records	Local Governments Aboriginal Groups Local Educational Institutions

¹Coastal GasLink is responsible for implementing mitigation presented in the SEEMP.

²Construction includes one year after Project operations commence.

³Coastal GasLink will continue to engage local government, provincial agencies and Aboriginal groups affected by Project construction during implementation of the SEEMP and based on the monitoring frequency presented in this table.

⁴During the construction phase, SEEMP status reports will be available semi-annually. The final report will be available within two years after construction is completed.

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POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	SEEMP MONITORING FREQUENCY ^{3,4} (minimum)	MONITORING DATA ⁵	MONITORING DATA SOURCE AND INPUT
						Employment Services Coastal GasLink
	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Ensure alternative sources of skilled workers are in place to avoid disruption of the local employment market 	Construction Preparation / Construction	Semi-annual	Engagement Records SEEMP Contact Feedback Diversity and Local Spending Data	Local Governments Chambers of Commerce Aboriginal Groups Employment Services Coastal GasLink
	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Communicate with economic development organizations to confirm existing employment conditions in communities and the broader region before executing the employment strategy 	Construction Preparation / Construction	Semi-annual	Engagement Records SEEMP Contact Feedback	Local Governments Chambers of Commerce Aboriginal Groups Northern Health Employment Services Coastal GasLink
	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Monitor the success of the Coastal GasLink training program 	Construction	Semi-annual	Education and Training Spending Data Education and Training Partnership Reports SEEMP Contact	Educational Partners Employment Services Coastal GasLink

¹Coastal GasLink is responsible for implementing mitigation presented in the SEEMP.

²Construction includes one year after Project operations commence.

³Coastal GasLink will continue to engage local government, provincial agencies and Aboriginal groups affected by Project construction during implementation of the SEEMP and based on the monitoring frequency presented in this table.

⁴During the construction phase, SEEMP status reports will be available semi-annually. The final report will be available within two years after construction is completed.

⁵Internal monitoring data collected by Coastal GasLink and external SEEMP Contact feedback about effectiveness of mitigation collected from stakeholders and Aboriginal groups during engagement activities.

Appendix D: Effectiveness Monitoring Table

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	SEEMP MONITORING FREQUENCY ^{3,4} (minimum)	MONITORING DATA ⁵	MONITORING DATA SOURCE AND INPUT
					Feedback	
	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Follow-up with economic development organizations and community representatives to confirm employment conditions in communities and the broader region 	Construction Preparation /	Semi-annual	Engagement Records SEEMP Contact Feedback	Local Governments Chambers of Commerce Aboriginal Groups Northern Health Employment Services Coastal GasLink
<i>Key Indicator: Training Opportunities</i>						
<i>Lack of time to train local workers for skilled positions</i>	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Confirm Project workforce needs well in advance of Project construction with economic development organizations, employment centres and educational institutions 	Construction Preparation / Construction	Semi-annual	Engagement Records SEEMP Contact Feedback	Local Governments Aboriginal Groups Local Educational Institutions Employment Services Coastal GasLink
	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Provide opportunities for qualified workers currently apprenticing to obtain trades certification during Project construction. 	Construction	Semi-annual	Diversity and Local Spending Data SEEMP Contact Feedback	Contractors Employment Services Coastal GasLink
	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Develop and implement a training program focused on developing Project specific skills. Short term workforce readiness training directly related to the proposed Project will focus on: 	Construction Preparation / Construction	Semi-annual	Education and Training Spending Data Education and	Educational Partners Employment Services

¹Coastal GasLink is responsible for implementing mitigation presented in the SEEMP.

²Construction includes one year after Project operations commence.

³Coastal GasLink will continue to engage local government, provincial agencies and Aboriginal groups affected by Project construction during implementation of the SEEMP and based on the monitoring frequency presented in this table.

⁴During the construction phase, SEEMP status reports will be available semi-annually. The final report will be available within two years after construction is completed.

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		<ul style="list-style-type: none"> ○ assessing and identifying gaps ○ determining proper skills development ○ developing processes to help local residents obtain construction related employment 			Training Partnership Reports	Coastal GasLink
VALUED COMPONENT: COMMUNITY UTILITIES AND SERVICES						
<i>Key Indicator: Emergency Services</i>						
<i>Increased demand on local emergency services</i>	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> ● Adhere to all WorkSafe BC safety standards on work sites during construction and operations. Contact with service provider will be established before construction and documented through the contractor's Emergency Measures Plan 	Construction	Quarterly	Engagement Records Internal Incident Reports and Statistics Health and Safety Audits Inspection Monitoring Data	Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> ● Adhere to Coastal GasLink Emergency Response Plan (ERP) for proposed Project related emergencies 	Construction	Quarterly	Internal Incident Reports and Statistics Health and Safety Audits Inspection Monitoring Data	Coastal GasLink

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	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with local emergency service providers, fire departments and RCMP detachments throughout the proposed Project construction and operations phases to provide proposed Project construction schedules and maps and to identify issues such as staffing requirements, access needs and emergency evacuation routes 	Construction	Semi-annual	Engagement Records SEEMP Contact Feedback	Emergency / Fire Services RCMP Northern Health BC Ambulance Local Governments Regional Districts Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Provide key proposed Project personnel contact information, construction schedules, and proposed Project maps with access routes to RCMP detachments, fire departments and ambulance service providers 	Construction	Semi-annual	Engagement Records	Local Governments Regional Districts Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> During worker and Contractor orientation sessions, reinforce the importance of respectful conduct when in communities 	Construction	Semi-annual	Orientation Session Information	Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Adhere to TransCanada's Health, Safety and Environment Commitment in Appendix E of the Social Technical Report (Appendix 2 M of the Application) 	Construction	Quarterly	Internal Incident Reports and Statistics Health and Safety Audits Inspection Monitoring Data	Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Ensure Prime Contractors submit and adhere to safety plans that address emergency procedures 	Construction	Quarterly	Internal Incident Reports and Statistics Health and Safety	Coastal GasLink

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					Audits Inspection Monitoring Data	
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Ensure that the proposed Project will be staffed with sufficient numbers of emergency medical personnel with appropriate certifications, supplies and conveyance requirements based on numbers of workers, hazard risk at the work sites and proximity to medical facilities. 	Construction	Semi-annual	Health and Safety Audits Inspection Monitoring Data	Northern Health Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Supervisory personnel will be on site at all times during drilling, reaming and pullback operations to ensure that emergency response measures will be implemented immediately and effectively. Coastal GasLink will also assign inspection personnel to the site during all phases of watercourse drilling 	Construction	Quarterly	Health and Safety Audits Inspection Monitoring Data	Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Implement mitigation outlined in Section 21 of the Application, Accidents or Malfunctions 	Construction	Semi-annual	Review mitigation tracking for Section 21 as applicable	Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Adhere to the Chemical and Waste Management Plan, Spill Contingency Plan, Fire Suppression Contingency Plan, Adverse Weather Contingency Plan and Traffic Control Management Plan in the EMP (Appendix 2 A of the Application) 	Construction	Semi-annual	Internal Incident Reports and Statistics Health and Safety Audits Inspection Monitoring Data	Local Governments Regional Districts Coastal GasLink
	<i>EA Table 15-18,</i>	<ul style="list-style-type: none"> Communicate with local emergency services, including police, 	Construction	Semi-annual	Engagement	Emergency / Fire

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	15-20, 15-22 and 15-24	fire and ambulance services, three months before construction, regarding known reasonably foreseeable future development and activities (Appendix 3-A, EA), to understand and address potential overlaps and potential issues with increased demand on existing local emergency services, including police, fire and ambulance services.	Preparation / Construction		Records SEEMP Contact Feedback	Services RCMP Local Health Services Northern Health Local Governments Regional Districts Coastal GasLink
<i>Key Indicator: Health Care Services</i>						
<i>Increased demand on health care services</i>	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Continue to communicate with local and regional health care providers before proposed Project construction activities to identify potential service gaps and issues. 	Construction Preparation / Construction	Semi-annual	Engagement Records SEEMP Contact Feedback	Local Health Services Northern Health First Nations Health Authority Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Discuss with health care providers the use of health care facilities during pre-construction to determine the capacity and capabilities of health care facilities and also determine any concerns or expectations on the part of facility managers. 	Construction Preparation / Construction	Semi-annual	Engagement Records SEEMP Contact Feedback	Local Health Services Northern Health Northwest Regional Hospital District Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Adhere to Coastal GasLink emergency response procedures outlined in the ERP. 	Construction	Quarterly	Internal Incident Reports and Statistics Health and Safety Audits	Coastal GasLink

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					Inspection Monitoring Data	
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Adhere to TransCanada’s Health, Safety and Environment Commitment in Appendix E of the Social Technical Report (Appendix 2 M of the Application). 	Construction	Quarterly	Internal Incident Reports and Statistics Health and Safety Audits Inspection Monitoring Data	Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Follow all WorkSafe BC safety standards on work sites during construction. 	Construction	Quarterly	Internal Incident Reports and Statistics Health and Safety Audits Inspection Monitoring Data	Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Ensure Prime Contractors submit and adhere to safety plans that address emergency procedures. 	Construction	Quarterly	Internal Incident Reports and Statistics Health and Safety Audits Inspection Monitoring Data	Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Ensure that the proposed Project will be staffed with sufficient numbers of emergency medical personnel with appropriate certifications, supplies and conveyance requirements based on numbers of workers, hazard risk at the work sites and proximity to medical facilities. 	Construction	Semi-Annual	Health and Safety Audits Inspection Monitoring Data	Coastal GasLink

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	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Supervisory personnel will be on site at all times during drilling, reaming and pullback operations to ensure that emergency response measures will be implemented immediately and effectively. Coastal GasLink will also assign inspection personnel to the site during all phases of drilling of the watercourse 	Construction	Quarterly	Internal Incident Reports and Statistics Health and Safety Audits Inspection Monitoring Data	Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Implement mitigation outlined in the Application, Section 21 	Construction	Semi-Annual	Review mitigation tracking for Section 21 as applicable	Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Adhere to the Waste Management Plan, Spill Contingency Plan, Fire Suppression Contingency Plan, Adverse Weather Contingency Plan and Traffic Control Management Plan in the EMP (Appendix 2 A of the Application) 	Construction	Semi-Annual	Internal Incident Reports and Statistics Health and Safety Audits Inspection Monitoring Data	Local Governments Regional Districts Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Ensure senior medical providers are available in the field to provide medical care if a worker needs treatment 	Construction	Quarterly	Internal Incident Reports and Statistics Health and Safety Audits Inspection Monitoring Data	Coastal GasLink
	<i>EA Table 15-18,</i>	<ul style="list-style-type: none"> Ensure first-aid personnel are available in the construction 	Construction	Quarterly	Internal Incident	Coastal GasLink

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	15-20, 15-22 and 15-24	camps for emergencies, and available at the appropriate times to accommodate workers who require medical treatment			Reports and Statistics Health and Safety Audits Inspection Monitoring Data	
	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> Outfit the first-aid room with proper equipment and running water as outlined in the WorkSafe BC regulations 	Construction	Quarterly	Health and Safety Audits Inspection Monitoring Data	Coastal GasLink
	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> Ensure medical staff requirements are based on WorkSafe BC ratios of work activity, number of workers and distance (i.e., time) from nearest medical centre 	Construction	Quarterly	Health and Safety Audits Inspection Monitoring Data	Coastal GasLink
	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> Communicate with local and regional health care providers three months before construction, regarding known reasonably foreseeable future development and activities (Appendix 3-A), to understand and address potential overlaps and potential issues with increased demand on health care services 	Construction Preparation / Construction	Semi-annual	Engagement Records SEEMP Contact Feedback	Local Health Services Northern Health First Nations Health Authority BC Ambulance RCMP Northwest Regional Hospital District Coastal GasLink
Key Indicator: Social Services						
Increased demand on community social	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> Continue to communicate with local and regional social service providers to confirm current community social service 	Construction Preparation /	Semi-annual	Engagement Records	Local Governments

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<i>services</i>	<i>15-24</i>	issues.	Construction		SEEMP Contact Feedback	Aboriginal Groups Local Health Services Northern Health RCMP Local Victim Services Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> • Provide key personnel for the proposed Project with contact information and construction schedules for local and regional social service providers 	Construction	Semi-annual	Engagement Records	Local Governments Aboriginal Groups Local Health Services Northern Health RCMP Local Victim Services Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> • Adhere to TransCanada’s Health, Safety and Environment Commitment in Appendix E of the Social Technical Report (Appendix 2 M of the Application) 	Construction	Quarterly	Internal Incident Reports and Statistics Health and Safety Audits Inspection Monitoring Data	Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> • House the proposed temporary workforce in construction camps and develop appropriate construction camp policies. Provide the following amenities: <ul style="list-style-type: none"> ○ recreational facilities and activities such as exercise 	Construction	Semi-annual	Camp Residency Data Camp Policies Review	Coastal GasLink

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		equipment (e.g., weights) and electronics (e.g., television and movies) <ul style="list-style-type: none"> ○ telephone and internet access 				
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> ● Communicate with local community social services three months before construction, regarding known reasonably foreseeable future development and activities (Appendix 3-A), to understand and address potential overlaps and potential issues with increased demand on community social services 	Construction Preparation / Construction	Semi-annual	Engagement Records SEEMP Contact Feedback	Local Governments Aboriginal Groups Local Health Services Northern Health RCMP Local Victim Services Coastal GasLink
<i>Key Indicator: Waste Management Facilities</i>						
<i>Increase in waste flow to regional landfill and transfer station sites, and wastewater treatment facilities</i>	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> ● Coastal GasLink will confirm the capacity of local and regional facilities to accept waste and recycling before construction of the proposed Project. 	Construction Preparation / Construction	One-time and as requested by local governments	Engagement Records SEEMP Contact Feedback Waste and Water Volumes and Capacity Data	Regional Districts Local Governments Aboriginal Groups Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> ● Adhere to Coastal GasLink's Chemical and Waste Management Plan in the EMP (Appendix 2 A of the Application) 	Construction	Semi-annual	Internal Incident Reports and Statistics Health and Safety Audits Inspection Monitoring Data	Coastal GasLink

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	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> All waste materials will be disposed of according to federal and provincial legislation, and municipal and regional regulations, as required 	Construction	Quarterly	Inspection Monitoring Data	Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> All staff of the proposed Project with waste management and hazardous materials responsibilities will be educated according to regulatory requirements specific to the proposed Project. All personnel shall understand their responsibilities for proper handling, identification, documentation and storage of wastes and hazardous materials 	Construction	Quarterly	Health and Safety Audits	Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> An appropriate number of portable toilets shall be made available to ensure each crew has ready access to washroom facilities. The facilities will be serviced and cleaned regularly, and adequately secured. All site personnel are to use portable toilets 	Construction	Quarterly	Inspection Monitoring Data	Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Each construction site will be equipped with adequate garbage receptacles for solid non-hazardous wastes and debris. These materials will be collected, as required, and disposed of at approved locations. Food wastes will be stored in animal proof (bear-proof) containers and transported to an appropriate landfill site 	Construction	Quarterly	Inspection Monitoring Data	Regional Districts Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Receptacles for recycling various products (e.g., paper and aluminum) will be available at proposed Project construction yards and camps and will be hauled to appropriate recycling 	Construction	Quarterly	Inspection Monitoring Data	Regional Districts Coastal GasLink

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		depots				
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with local and regional landfill, transfer station and wastewater treatment operators to identify service gaps and resulting issues 	Construction Preparation / Construction	Semi-annual	Engagement Records SEEMP Contact Feedback Waste and Water Volumes and Capacity Data	Regional Districts Local Governments Aboriginal Groups Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with local and regional waste facilities three months before construction, regarding known reasonably foreseeable future development and activities (Appendix 3-A, EA), to understand and address potential overlaps and potential issues with increase in waste flow to regional landfill and transfer station sites and wastewater treatment facilities 	Construction Preparation / Construction	Semi-annual	Engagement Records SEEMP Contact Feedback Waste and Water Volumes and Capacity Data	Regional Districts Local Governments Aboriginal Groups Coastal GasLink
<i>Key Indicator: Recreational Facilities</i>						
Increased demand on community recreational facilities	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Continue to communicate with municipal recreation facility operators to confirm the proposed Project construction and workforce schedules to ensure municipal recreational service providers have sufficient notice regarding possible increased use. 	Construction	Semi-annual	Engagement Records	Local Governments Recreational Facilities Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Ensure workers will have access to recreational facilities in the construction camps where they reside during the construction phase. These facilities will include exercise equipment within the camp and access to electronics will be 	Construction	Semi-annual	Camp Plan Review	Coastal GasLink

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		available (e.g., television, movies).				
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with municipal recreational facility operators to identify service gaps and resulting issues 	Construction	Semi-annual	Engagement Records SEEMP Contact Feedback	Local Governments Recreational Facilities Coastal GasLink
<i>Key Indicator: Education Services</i>						
<i>Increased demand for education services</i>	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with educational and training service providers well in advance of proposed Project construction regarding schedules, workforce, skills requirements and expected demands 	Construction Preparation / Construction	Annual	Engagement Records	Local Post-secondary Institutions Coastal GasLink
<i>Key Indicator: Government Services</i>						
Increased demand on government services	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with government agencies well in advance of proposed Project construction regarding schedules, workforce and expected demands. Government agencies and services used will be specified when proposed Project details are finalized 	Construction Preparation / Construction	Semi-annual	Engagement Records	Provincial Government Agencies Regional Districts Local Governments Aboriginal Groups Coastal GasLink
<i>Key Indicator: Housing and Commercial Accommodation</i>						

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POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	SEEMP MONITORING FREQUENCY ^{3,4} (minimum)	MONITORING DATA ⁵	MONITORING DATA SOURCE AND INPUT
<i>Reduction in available rental housing and commercial accommodation</i>	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with hotel associations, commercial accommodation providers (i.e., campgrounds, hotels and motels, RV parks) and Chambers of Commerce when proposed Project construction schedules are known to ensure accommodation providers are able to plan for increased activity. 	Construction	Semi-annual	Engagement Records	Chambers of Commerce Hotels/Motels Local RV Parks Aboriginal Groups Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with community representatives to assess the current housing availability and options for hosting worker's families 	Construction Preparation / Construction	Semi-annual	Engagement Records SEEMP Contact Feedback	Local Governments BC Housing Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> If accommodations are reserved for personnel of the proposed Project, and are determined not to be needed, request that the Contractor release the rooms 	Construction	Annual	Contractor Orientation Information	Coastal GasLink
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with hotel associations, commercial accommodation providers (i.e., campgrounds, hotels and motels, RV parks) and Chambers of Commerce three months before construction, regarding known reasonably foreseeable future development and activities (Appendix 3-A), to understand and address potential overlaps and potential issues with a reduction in available rental housing and commercial accommodation 	Construction Preparation	Semi-annual	Engagement Records SEEMP Contact Feedback	Chambers of Commerce Hotels/Motels Local RV Parks Aboriginal Groups Local Governments Regional Districts Coastal GasLink
VALUED COMPONENT: TRANSPORTATION INFRASTRUCTURE AND SERVICES						
<i>Key Indicator: Traffic</i>						
<i>Increased traffic volumes from</i>	<i>EA Table 15-25,</i>	<ul style="list-style-type: none"> Implement the Traffic Control Management Plan in the EMP (Appendix 2A of the Application) and the Access Control 	Construction	Semi-annual	Internal Incident Reports and	Local Governments

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²Construction includes one year after Project operations commence.

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⁴During the construction phase, SEEMP status reports will be available semi-annually. The final report will be available within two years after construction is completed.

⁵Internal monitoring data collected by Coastal GasLink and external SEEMP Contact feedback about effectiveness of mitigation collected from stakeholders and Aboriginal groups during engagement activities.

Appendix D: Effectiveness Monitoring Table

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	SEEMP MONITORING FREQUENCY ^{3,4} (minimum)	MONITORING DATA ⁵	MONITORING DATA SOURCE AND INPUT
<i>transportation of workers, supplies and equipment leading to decreased road safety</i>	<i>15-27 and 15-31</i>	Management Plan.			Statistics Health and Safety Audits Equipment Flow Data Inspection Monitoring Data	Regional Districts Coastal GasLink
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Before construction activities, use community media outlets such as newspapers and radio stations, and email updates to announce the location and schedule of construction activities 	Construction	Semi-annual	Aboriginal and Public Relations Activities Data	Coastal GasLink
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Confirm the proposed Project construction schedule and road crossing procedures with BC Ministry of Transportation and Infrastructure staff before construction activities 	Construction Preparation / Construction	Semi-annual	Engagement Records	BC Ministry of Transportation and Infrastructure Coastal GasLink
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Communicate with RCMP detachments to define traffic safety concerns and mitigation before proposed Project construction 	Construction Preparation / Construction	Semi-annual	Engagement Records SEEMP Contact Feedback	RCMP Coastal GasLink
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Coastal GasLink will transport pipe materials to the proposed Project area by rail, where off-loading (rail sidings) are available and where practical. 	Construction	Annual		Local Governments Regional Districts RCMP Coastal GasLink
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Access points to the ROW will be flagged and signed to discourage public use 	Construction	Semi-annual	Inspection Monitoring Data	Coastal GasLink
	<i>EA Table 15-25,</i>	<ul style="list-style-type: none"> Construction personnel will be transported between 	Construction	Semi-annual	Equipment Flow	Coastal GasLink

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Appendix D: Effectiveness Monitoring Table

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	SEEMP MONITORING FREQUENCY ^{3,4} (minimum)	MONITORING DATA ⁵	MONITORING DATA SOURCE AND INPUT
	15-27 and 15-31	construction yards, construction camps and the construction site by multi-passenger vehicles, to the extent practical, to reduce vehicle traffic			Reports	
	EA Table 15-25, 15-27 and 15-31	<ul style="list-style-type: none"> Motorized vehicle traffic, including all-terrain vehicle (ATV), ARGO and snowmobile traffic, will be confined to the approved route, access roads or trails except where specifically authorized by the appropriate regulatory authority 	Construction	Semi-annual	Inspection Monitoring Data	Regional Districts Coastal GasLink
	EA Table 15-25, 15-27 and 15-31	<ul style="list-style-type: none"> Vehicles will be limited to travel on the access roads for which they are designed. Most vehicles are able to turn around within the width of the construction ROW. Stringing trucks require extra turning radius. Consequently, approaches to the pipeline ROW or existing public roads will be wider when used for stringing trucks. Where turnarounds are needed on the ROW, extra space will be necessary on the travel side of the ROW. Previously disturbed areas will be used for this purpose, where practical 	Construction	Semi-annual	Inspection Monitoring Data	Coastal GasLink
	EA Table 15-25, 15-27 and 15-31	<ul style="list-style-type: none"> Efforts to control off-road vehicle use will be coordinated with the appropriate authorities and conducted until the ROW has been satisfactorily reclaimed. All proposed Project-related vehicles will follow applicable traffic, road-use and safety laws 	Construction	Semi-annual	Internal Incident Reports and Statistics Health and Safety Audits Inspection Monitoring Data SEEMP Contact Feedback	RCMP Coastal GasLink
	EA Table 15-25,	<ul style="list-style-type: none"> Communication with communities where known traffic issues 	Construction	Semi-annual	Engagement	Local

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Appendix D: Effectiveness Monitoring Table

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	15-27 and 15-31	exist once the proposed Project schedule is confirmed			Records	Governments Aboriginal Groups RCMP Local emergency service providers BC Ministry of Transportation and Infrastructure Regional Districts Coastal GasLink
	EA Table 15-25, 15-27 and 15-31	<ul style="list-style-type: none"> Communication with forest licensees to address cumulative road use issues 	Construction	Semi-annual	Engagement Records SEEMP Contact Feedback	Forest Licensees Coastal GasLink
<i>Increase in rail traffic resulting from the shipment of Project-related materials</i>	EA Table 15-25, 15-27 and 15-31	<ul style="list-style-type: none"> Communicate with CN Rail to confirm rail capacity, siding availability, schedules, and potential issues related to shipping pipe materials by rail. 	Construction Preparation / Construction	Annual	Engagement Records	CN Rail Coastal GasLink
	EA Table 15-25, 15-27 and 15-31	<ul style="list-style-type: none"> Work with community representatives to identify suitable stockpile sites for pipe material, where practical. Specific selection would consider proposed Project requirements, access roads and general site conditions 	Construction Preparation	Annual	Engagement Records SEEMP Contact Feedback	Local Governments Aboriginal Groups Regional Districts Coastal GasLink
<i>Increased air passengers in local and regional airports</i>	EA Table 15-25, 15-27 and 15-31	<ul style="list-style-type: none"> Communicate with local and regional airport authorities of proposed Project construction activities to inform them of proposed Project schedules 	Construction Preparation Construction	Semi-annual	Engagement Records	Airport Authorities Coastal GasLink
	EA Table 15-25,	<ul style="list-style-type: none"> Before construction activities, use community media outlets such as newspapers and radio stations to announce the 	Construction Preparation	Semi-annual	Aboriginal and Public Relations	Coastal GasLink

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POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	SEEMP MONITORING FREQUENCY ^{3,4} (minimum)	MONITORING DATA ⁵	MONITORING DATA SOURCE AND INPUT
	15-27 and 15-31	location and schedule of construction activities to avoid impacts on access to air travel by residents	Construction		Activities Data	
<i>Key Indicator: Navigability Of Waterways</i>						
<i>Disruption of movement on navigable waterways</i>	EA Table 15-25, 15-27 and 15-31	<ul style="list-style-type: none"> Adhere to watercourse crossing mitigation outlined in Section 7 of the Application 	Construction	Semi-annual	Review mitigation tracking for Section 7 as applicable	Coastal GasLink
	EA Table 15-25, 15-27 and 15-31	<ul style="list-style-type: none"> Obtain necessary approvals under Navigable Waters Protection Act, as required 	Construction Preparation / Construction	Annual	Permit Tracking Data	Coastal GasLink
	EA Table 15-25, 15-27 and 15-31	<ul style="list-style-type: none"> Make the Project construction schedule and location maps available to recreational user groups and other members of the public to avoid conflict with planned activities 	Construction	Semi-annual	Engagement Records	RCMP Regional Districts Coastal GasLink
	EA Table 15-25, 15-27 and 15-31	<ul style="list-style-type: none"> If directed by the appropriate regulatory authority, install warning signs along the banks both upstream and downstream of the crossing to caution users of a navigational hazard, where appropriate 	Construction	Semi-annual	Internal Incident Reports and Statistics Health and Safety Audits Inspection Monitoring Data	Coastal GasLink
	EA Table 15-25, 15-27 and 15-31	<ul style="list-style-type: none"> Discuss with TC to ensure that appropriate procedures were used for navigable waterway crossings 	Construction	Annual	Engagement Records SEEMP Contact Feedback	Transport Canada Coastal GasLink

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Appendix E

TransCanada's Health, Safety and Environment Commitment

TransCanada's Health, Safety and Environment Commitment Statement

GUIDING PRINCIPLE

The executive leadership team, management and employees at TransCanada are committed to being an industry leader in Health, Safety and Environmental practices, to maintaining a safe and healthy workplace, and to protecting the environment. We believe excellence in Health, Safety and Environmental practices is vital to the well being of all people everywhere and essential to all aspects of our global business.

The following principles guide and measure our corporate goals and objectives in Health, Safety and Environment:

- We conduct our business so it meets or exceeds all applicable laws and regulations and minimizes risk to our employees, the public and the environment;
- We are committed to continuously improving our Health, Safety and Environment performance;
- We continually promote employee safety on and off the job;
- We believe all occupational injuries and illnesses are preventable;
- We respect the diverse environments and cultures in which we operate;
- We endeavor to do business with companies and contractors which share our Health, Safety and Environment commitment and we regularly assess their performance;
- We use our influence with companies in which we have partial ownership, to meet our Health, Safety and Environment commitment;
- We support open communication between TransCanada and the public; and we work with the scientific community, policy makers and public interest groups who research, develop and implement standards for Health, Safety and Environmental protection.
- We encourage reporting of all Health, Safety and Environment related hazards, potential hazards, incidents and near-hits. We take every report seriously, investigate to identify facts and ensure immunity for good-faith reporting of all incidents and issues.

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Appendix F

Specific Actions for Implementing Mitigation

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Appendix F: Specific Actions for Implementing Mitigation

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	ABBREVIATED LIST OF SPECIFIC ACTIONS FOR COASTAL GASLINK
VALUED COMPONENT: ECONOMY				
<i>Key Indicator: Contracts and Procurement Expenditures</i>				
<i>Limited participation in contract opportunities</i>	<i>EA Table 12-8</i>	<ul style="list-style-type: none"> Implement a procurement strategy that provides opportunities for qualified Aboriginal and local contractors. 	Construction Preparation / Construction	Develop a local and Aboriginal procurement strategy.
				Provide the successful Prime Contractors with a list of the community-affiliated contractors to consider for work opportunities on the proposed Project.
				Gather and report relevant Aboriginal spend information that Coastal GasLink has collected for the proposed Project.
	<i>EA Table 12-8</i>	<ul style="list-style-type: none"> Continue discussions with economic development representatives from Aboriginal and local communities to communicate Project requirements, potential contract opportunities and related qualifications (i.e., insurance, safety, required personnel, skills, certifications, experience, equipment, materials, etc.). 	Construction Preparation / Construction	Conduct information sessions with specific groups to explain Coastal GasLink's contracting practices.
				Inform local groups after the prime contract is awarded.
	<i>EA Table 12-8</i>	<ul style="list-style-type: none"> Continue discussions with economic development representatives from Aboriginal and local communities to identify qualified Aboriginal and local businesses interested in providing relevant goods and services. 	Construction Preparation / Construction	Build a database of information about Aboriginal and local contractors.
Designate specific services for Aboriginal contractors and communicate that information.				
<i>Key Indicator: Community Economic Resilience</i>				
<i>Alteration of existing community economic patterns</i>	<i>EA Table 12-8</i>	<ul style="list-style-type: none"> Communicate the Project schedule and identify the short term nature of Project construction activities to local economic development organizations to manage expectations. 	Construction Preparation / Construction	Communicate information about the Project schedule to local economic development organizations.
				Communicate information about Project construction activities to local economic development organizations.
	<i>EA Table 12-8</i>	<ul style="list-style-type: none"> Adhere to the Traffic Control Management Plan to reduce construction related traffic and corresponding potential 	Construction	Implement the Traffic Control Management Plan.

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POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	ABBREVIATED LIST OF SPECIFIC ACTIONS FOR COASTAL GASLINK
		adverse effects on local business operations.		
VALUED COMPONENT: EMPLOYMENT AND LABOUR FORCE				
<i>Key Indicator: Employment</i>				
<i>Skilled labour shortage</i>	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Implement the Coastal GasLink training program to enable unemployed or underemployed individuals to develop Project specific employment skills and seek Project employment. 	Construction Preparation / Construction	Implement the Coastal GasLink training program.
	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Provide the Project schedule to economic development organizations and post-secondary institutions to inform them of peak workforce demands. 	Construction Preparation / Construction	Provide the Project schedule to economic development organizations.
				Provide the Project schedule to post-secondary institutions.
	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Ensure alternative sources of skilled workers are in place to avoid disruption of the local employment market. 	Construction Preparation / Construction	Implement the Coastal GasLink training program.
	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Communicate with economic development organizations to confirm existing employment conditions in communities and the broader region before executing the employment strategy. 	Construction Preparation / Construction	Contact economic development organizations to confirm existing employment conditions in communities and the broader region.
	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Monitor the success of the Coastal GasLink training program. 	Construction	Collect information from Education and Training Partners about program implementation.
<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Follow-up with economic development organizations and community representatives to confirm employment conditions in communities and the broader region. 	Construction Preparation /	Contact economic development organizations to confirm existing employment conditions in communities and the broader region.	
<i>Key Indicator: Training Opportunities</i>				
<i>Lack of time to train local workers for skilled positions</i>	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Confirm Project workforce needs well in advance of Project construction with economic development organizations, employment centres and educational institutions. 	Construction Preparation / Construction	Communicate information about Project workforce needs to economic development organizations, employment centres and educational institutions in advance of Project

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POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	ABBREVIATED LIST OF SPECIFIC ACTIONS FOR COASTAL GASLINK
				construction.
	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Provide opportunities for qualified workers currently apprenticing to obtain trades certification during Project construction. 	Construction	Discuss apprenticeship opportunities for qualified workers during Project construction with Prime contractors.
	<i>EA Table 12-9, 12-11 and 12-13</i>	<ul style="list-style-type: none"> Develop and implement a training program focused on developing Project specific skills. Short term workforce readiness training directly related to the proposed Project will focus on: <ul style="list-style-type: none"> assessing and identifying gaps determining proper skills development developing processes to help local residents obtain construction related employment 	Construction Preparation / Construction	Develop and implement a training program focused on developing Project-specific skills and short-term workforce readiness training directly related to the proposed Project. Program includes assessing and identifying gaps, skills development, and a process to help students obtain construction-related employment.
VALUED COMPONENT: COMMUNITY UTILITIES AND SERVICES				
<i>Key Indicator: Emergency Services</i>				
<i>Increased demand on local emergency services</i>	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Adhere to all WorkSafe BC safety standards on work sites during construction and operations. Contact with service provider will be established before construction and documented through the contractor's Emergency Measures Plan. 	Construction	Meet WorkSafe BC safety standards on work sites during construction.
				Ensure the contractor's Emergency Measures Plan includes contact information for emergency service providers.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Adhere to Coastal GasLink Emergency Response Plan (ERP) for proposed Project related emergencies. 	Construction	Adhere to Emergency Response Plan (ERP).
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with local emergency service providers, fire departments and RCMP detachments throughout the proposed Project construction and operations phases to 	Construction	Provide Project construction schedules and maps to local emergency service providers, fire departments and RCMP detachments at least 3 months prior to construction.

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Appendix F: Specific Actions for Implementing Mitigation

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	ABBREVIATED LIST OF SPECIFIC ACTIONS FOR COASTAL GASLINK
		provide proposed Project construction schedules and maps and to identify issues such as staffing requirements, access needs and emergency evacuation routes.		Contact local emergency service providers, fire departments and RCMP detachments at least 3 months prior to construction to communicate information on Project schedules and maps.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Provide key proposed Project personnel contact information, construction schedules, and proposed Project maps with access routes to RCMP detachments, fire departments and ambulance service providers. 	Construction	Provide RCMP, Fire Departments and Ambulance Service providers with key Project personnel contact information, construction schedules, and Project maps with access routes.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> During worker and Contractor orientation sessions, reinforce the importance of respectful conduct when in communities. 	Construction	Communicate importance of and clarify Coastal GasLink expectations for respectful conduct during worker and contractor orientation sessions.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Adhere to TransCanada’s Health, Safety and Environment Commitment in Appendix E of the Social Technical Report (Appendix 2 M of the Application). 	Construction	Communicate TransCanada’s Health, Safety and Environment Commitment and requirements for its implementation to all Project personnel and contractors.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Ensure Prime Contractors submit and adhere to safety plans that address emergency procedures. 	Construction	Ensure Prime Contractors submit safety plans acceptable to Coastal GasLink that address emergency procedures.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Ensure that the proposed Project will be staffed with sufficient numbers of emergency medical personnel with appropriate certifications, supplies and conveyance requirements based on numbers of workers, hazard risk at the work sites and proximity to medical facilities. 	Construction	Meet WorkSafe BC safety standards on work sites during construction.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Supervisory personnel will be on site at all times during drilling, reaming and pullback operations to ensure that emergency response measures will be implemented immediately and effectively. Coastal GasLink will also assign inspection personnel to the site during all phases of watercourse drilling. 	Construction	<p>Supervisory personnel are on site at all times during drilling, reaming and pullback operations.</p> <p>Assign inspection personnel to the site during all phases of watercourse drilling.</p>

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Appendix F: Specific Actions for Implementing Mitigation

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	ABBREVIATED LIST OF SPECIFIC ACTIONS FOR COASTAL GASLINK
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Implement mitigation outlined in Section 21 of the Application, Accidents or Malfunctions. 	Construction	Implement mitigation as described in Section 21.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Adhere to the Chemical and Waste Management Plan, Spill Contingency Plan, Fire Suppression Contingency Plan, Adverse Weather Contingency Plan and Traffic Control Management Plan in the EMP (Appendix 2 A of the Application). 	Construction	Adhere to the Chemical and Waste Management Plan. Adhere to the Spill Contingency Plan. Adhere to the Fire Suppression Contingency Plan. Adhere to the Adverse Weather Contingency Plan. Adhere to the Traffic Control Management Plan.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with local emergency services, including police, fire and ambulance services, three months before construction, regarding known reasonably foreseeable future development and activities (Appendix 3-A, EA), to understand and address potential overlaps and potential issues with increased demand on existing local emergency services, including police, fire and ambulance services. 	Construction Preparation / Construction	Provide Project construction schedules and maps to local emergency service providers, fire departments and RCMP detachments at least 3 months prior to construction. Contact local emergency service providers, fire departments and RCMP detachments to clarify current context at least 3 months prior to construction.
<i>Key Indicator: Health Care Services</i>				
<i>Increased demand on health care services</i>	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Continue to communicate with local and regional health care providers before proposed Project construction activities to identify potential service gaps and issues. 	Construction Preparation / Construction	Contact local and regional health care providers at least 3 month before Project construction activities.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Discuss with health care providers the use of health care facilities during pre-construction to determine the capacity and capabilities of health care facilities and also determine any concerns or expectations on the part of facility managers. 	Construction Preparation / Construction	Contact local and regional health care providers at least 3 month before Project construction activities to discuss current capacity and capabilities of health care facilities.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Adhere to Coastal GasLink emergency response procedures outlined in the ERP. 	Construction	Adhere to the Emergency Response Plan (ERP).

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Appendix F: Specific Actions for Implementing Mitigation

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	ABBREVIATED LIST OF SPECIFIC ACTIONS FOR COASTAL GASLINK
	15-24			
	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> Adhere to TransCanada’s Health, Safety and Environment Commitment in Appendix E of the Social Technical Report (Appendix 2 M of the Application). 	Construction	Communicate TransCanada’s Health, Safety and Environment Commitment and requirements for its implementation to all Project personnel and contractors.
	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> Follow all WorkSafe BC safety standards on work sites during construction. 	Construction	Meet WorkSafe BC safety standards on work sites during construction.
	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> Ensure Prime Contractors submit and adhere to safety plans that address emergency procedures. 	Construction	Ensure Prime Contractors submit safety plans acceptable to Coastal GasLink that address emergency procedures.
	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> Ensure that the proposed Project will be staffed with sufficient numbers of emergency medical personnel with appropriate certifications, supplies and conveyance requirements based on numbers of workers, hazard risk at the work sites and proximity to medical facilities. 	Construction	Meet WorkSafe BC safety standards on work sites during construction.
	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> Supervisory personnel will be on site at all times during drilling, reaming and pullback operations to ensure that emergency response measures will be implemented immediately and effectively. Coastal GasLink will also assign inspection personnel to the site during all phases of drilling of the watercourse. 	Construction	<p>Supervisory personnel are on site at all times during drilling, reaming and pullback operations.</p> <p>Inspection personnel assigned to the site during all phases of watercourse drilling.</p>
	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> Implement mitigation outlined in the Application, Section 21. 	Construction	Implement mitigation as described in Section 21.
	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> Adhere to the Waste Management Plan, Spill Contingency Plan, Fire Suppression Contingency Plan, Adverse Weather Contingency Plan and Traffic Control Management Plan in the EMP (Appendix 2 A of the Application). 	Construction	<p>Adhere to the Chemical and Waste Management Plan.</p> <p>Adhere to the Spill Contingency Plan.</p> <p>Adhere to the Fire Suppression Contingency Plan.</p>

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²Construction includes one year after Project operations commence.

Appendix F: Specific Actions for Implementing Mitigation

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	ABBREVIATED LIST OF SPECIFIC ACTIONS FOR COASTAL GASLINK
				Adhere to the Adverse Weather Contingency Plan.
				Adhere to the Traffic Control Management Plan.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Ensure senior medical providers are available in the field to provide medical care if a worker needs treatment. 	Construction	Ensure appropriate senior medical providers are available in the field during construction.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Ensure first-aid personnel are available in the construction camps for emergencies and available at the appropriate times to accommodate workers who require medical treatment. 	Construction	Ensure appropriate first-aid personnel are available in the construction camps while camps are occupied.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Outfit the first-aid room with proper equipment and running water as outlined in the WorkSafe BC regulations. 	Construction	Ensure the first-aid room has proper equipment and running water as outlined in the WorkSafe BC regulations.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Ensure medical staff requirements are based on WorkSafe BC ratios of work activity, number of workers and distance (i.e., time) from nearest medical centre. 	Construction	Ensure medical staff requirements are based on WorkSafe BC ratios of work activity, number of workers and distance (i.e., time) from nearest medical centre.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with local and regional health care providers three months before construction, regarding known reasonably foreseeable future development and activities (Appendix 3-A), to understand and address potential overlaps and potential issues with increased demand on health care services. 	Construction Preparation / Construction	Contact local and regional health care providers at least 3 month before Project construction to clarify current context.
<i>Key Indicator: Social Services</i>				
<i>Increased demand on community social services</i>	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Continue to communicate with local and regional social service providers to confirm current community social service issues. 	Construction Preparation / Construction	Contact local and regional social service providers at least 3 months prior to construction to clarify current context.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Provide key personnel for the proposed Project with contact information and construction schedules for local and 	Construction	Provide key Project personnel contact information for local and regional social service providers.

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Appendix F: Specific Actions for Implementing Mitigation

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	ABBREVIATED LIST OF SPECIFIC ACTIONS FOR COASTAL GASLINK
	15-24	regional social service providers.		
	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> Adhere to TransCanada’s Health, Safety and Environment Commitment in Appendix E of the Social Technical Report (Appendix 2 M of the Application). 	Construction	Communicate TransCanada’s Health, Safety and Environment Commitment and requirements for its implementation to all Project personnel and contractors.
	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> House the proposed temporary workforce in construction camps and develop appropriate construction camp policies. Provide the following amenities: <ul style="list-style-type: none"> recreational facilities and activities such as exercise equipment (e.g., weights) and electronics (e.g., television and movies) telephone and internet access 	Construction	House temporary workforce in construction camps. Ensure appropriate camp policies are developed and communicated. Provide the following amenities in work camps: recreational facilities, recreational activities, telephone access and internet access.
	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> Communicate with local community social services three months before construction, regarding known reasonably foreseeable future development and activities (Appendix 3-A), to understand and address potential overlaps and potential issues with increased demand on community social services. 	Construction Preparation / Construction	Contact local and regional social service providers at least 3 months prior to construction to confirm current context.
<i>Key Indicator: Waste Management Facilities</i>				
<i>Increase in waste flow to regional landfill and transfer station sites, and wastewater treatment facilities</i>	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> Coastal GasLink will confirm the capacity of local and regional facilities to accept waste and recycling before construction of the proposed Project. 	Construction Preparation / Construction	Contact Regional Districts to confirm the current capacity of local and regional facilities to accept waste and recycling before construction to inform camp planning.
	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> Adhere to Coastal GasLink’s Chemical and Waste Management Plan in the EMP (Appendix 2 A of the Application). 	Construction	Adhere to the Chemical and Waste Management Plan.
	EA Table 15-18, 15-20, 15-22 and 15-24	<ul style="list-style-type: none"> All waste materials will be disposed of according to federal and provincial legislation, and municipal and regional 	Construction	Track waste volumes by type and location.

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Appendix F: Specific Actions for Implementing Mitigation

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	ABBREVIATED LIST OF SPECIFIC ACTIONS FOR COASTAL GASLINK
	15-24	regulations, as required.		Confirm waste disposal sites.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> All staff of the proposed Project with waste management and hazardous materials responsibilities will be educated according to regulatory requirements specific to the proposed Project. All personnel shall understand their responsibilities for proper handling, identification, documentation and storage of wastes and hazardous materials. 	Construction	Track waste volumes by type and location.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> An appropriate number of portable toilets shall be made available to ensure each crew has ready access to washroom facilities. The facilities will be serviced and cleaned regularly, and adequately secured. All site personnel are to use portable toilets. 	Construction	Portable toilets have a cleaning schedule.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Each construction site will be equipped with adequate garbage receptacles for solid non-hazardous wastes and debris. These materials will be collected, as required, and disposed of at approved locations. Food wastes will be stored in animal proof (bear-proof) containers and transported to an appropriate landfill site. 	Construction	<p>Construction site is equipped with garbage receptacles for solid non-hazardous wastes and debris.</p> <hr/> <p>Food waste is stored in animal proof (bear-proof) containers.</p>
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Receptacles for recycling various products (e.g., paper and aluminum) will be available at proposed Project construction yards and camps and will be hauled to appropriate recycling depots. 	Construction	Receptacles for recycling various products are available at Project construction yards and camps.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with local and regional landfill, transfer station and wastewater treatment operators to identify service gaps and resulting issues. 	Construction Preparation / Construction	Contact local and regional landfill, transfer station and wastewater treatment operators to determine if there are service gaps. If service gaps are identified, work with operators to address the issue.

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Appendix F: Specific Actions for Implementing Mitigation

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	ABBREVIATED LIST OF SPECIFIC ACTIONS FOR COASTAL GASLINK
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with local and regional waste facilities three months before construction, regarding known reasonably foreseeable future development and activities (Appendix 3-A, EA), to understand and address potential overlaps and potential issues with increase in waste flow to regional landfill and transfer station sites and wastewater treatment facilities. 	Construction Preparation / Construction	Contact with local and regional waste facilities 3 months prior to construction to clarify current capacity.
<i>Key Indicator: Recreational Facilities</i>				
Increased demand on community recreational facilities	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Continue to communicate with municipal recreation facility operators to confirm the proposed Project construction and workforce schedules to ensure municipal recreational service providers have sufficient notice regarding possible increased use. 	Construction	Contact municipal recreation facility operators to share information about Project construction and workforce schedules and follow-up with appropriate response should issues be identified.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Ensure workers will have access to recreational facilities in the construction camps where they reside during the construction phase. These facilities will include exercise equipment within the camp and access to electronics will be available (e.g., television, movies). 	Construction	Provide the following amenities in work camps: recreational facilities, recreational activities, telephone access and internet access.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with municipal recreational facility operators to identify service gaps and resulting issues. 	Construction	Contact municipal recreation facility operators to confirm existing recreational facility conditions in communities and the broader region.
<i>Key Indicator: Education Services</i>				
<i>Increased demand for education services</i>	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with educational and training service providers well in advance of proposed Project construction regarding schedules, workforce, skills requirements and expected demands. 	Construction Preparation / Construction	Contact educational and training service providers prior to construction to communicate information on Project schedules, workforce, skill requirements and expected demands.
<i>Key Indicator: Government Services</i>				

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Appendix F: Specific Actions for Implementing Mitigation

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	ABBREVIATED LIST OF SPECIFIC ACTIONS FOR COASTAL GASLINK
Increased demand on government services	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with government agencies well in advance of proposed Project construction regarding schedules, workforce and expected demands. Government agencies and services used will be specified when proposed Project details are finalized. 	Construction Preparation / Construction	Contact government agencies prior to construction to communicate information on Project schedules, workforce and expected demands for government services.
<i>Key Indicator: Housing and Commercial Accommodation</i>				
<i>Reduction in available rental housing and commercial accommodation</i>	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with hotel associations, commercial accommodation providers (i.e., campgrounds, hotels and motels, RV parks) and Chambers of Commerce when proposed Project construction schedules are known to ensure accommodation providers are able to plan for increased activity. 	Construction	Contact Chambers of Commerce to communicate information on Project construction schedules at least 3 months prior to construction.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with community representatives to assess the current housing availability and options for hosting worker's families. 	Construction Preparation / Construction	Contact community representatives to gather information about the current housing availability and options for hosting worker's families.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> If accommodations are reserved for personnel of the proposed Project, and are determined not to be needed, request that the Contractor release the rooms. 	Construction	Request that our Contractors release rooms not required.
	<i>EA Table 15-18, 15-20, 15-22 and 15-24</i>	<ul style="list-style-type: none"> Communicate with hotel associations, commercial accommodation providers (i.e., campgrounds, hotels and motels, RV parks) and Chambers of Commerce three months before construction, regarding known reasonably foreseeable future development and activities (Appendix 3-A), to understand and address potential overlaps and potential issues with a reduction in available rental housing and commercial accommodation. 	Construction Preparation	Contact Chambers of Commerce with updated information about the Project construction schedules at least 3 months prior to construction.

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Appendix F: Specific Actions for Implementing Mitigation

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	ABBREVIATED LIST OF SPECIFIC ACTIONS FOR COASTAL GASLINK
VALUED COMPONENT: TRANSPORTATION INFRASTRUCTURE AND SERVICES				
<i>Key Indicator: Traffic</i>				
<i>Increased traffic volumes from transportation of workers, supplies and equipment leading to decreased road safety</i>	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Implement the Traffic Control Management Plan in the EMP (Appendix 2A of the Application) and the Access Control Management Plan. 	Construction	Adhere to the Traffic Control Management Plan. Adhere to the Access Control Management Plan.
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Before construction activities, use community media outlets such as newspapers and radio stations, and email updates to announce the location and schedule of construction activities. 	Construction	Before construction activities, use community media outlets to announce the location and schedule of construction activities.
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Confirm the proposed Project construction schedule and road crossing procedures with BC Ministry of Transportation and Infrastructure staff before construction activities. 	Construction Preparation / Construction	Confirm the Project construction schedule and road crossing procedures with BC Ministry of Transportation and Infrastructure staff before construction activities.
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Communicate with RCMP detachments to define traffic safety concerns and mitigation before proposed Project construction. 	Construction Preparation / Construction	Contact the RCMP detachments to confirm existing traffic safety conditions in communities and the broader region.
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Coastal GasLink will transport pipe materials to the proposed Project area by rail, where off-loading (rail sidings) is available and where practical. 	Construction	Transport pipe materials to the Project area by rail, where off-loading (rail sidings) is available and where practical.
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Access points to the ROW will be flagged and signed to discourage public use. 	Construction	Access points to the ROW will be flagged and signage will be used to discourage public use.
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Construction personnel will be transported between construction yards, construction camps and the construction site by multi-passenger vehicles, to the extent practical, to reduce vehicle traffic. 	Construction	Plans are made for construction personnel to be transported between construction yards, construction camps and the construction site by multi-passenger vehicles.
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Motorized vehicle traffic, including all-terrain vehicle (ATV), ARGO and snowmobile traffic, will be confined to the 	Construction	Communicate to all Project personnel that motorized vehicle traffic, including ATV, ARGO and snowmobile traffic are

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Appendix F: Specific Actions for Implementing Mitigation

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	ABBREVIATED LIST OF SPECIFIC ACTIONS FOR COASTAL GASLINK
		approved route, access roads or trails except where specifically authorized by the appropriate regulatory authority.		confined to the approved route, access roads or trails except where specifically authorized by the relevant regulatory authority.
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Vehicles will be limited to travel on the access roads for which they are designed. Most vehicles are able to turn around within the width of the construction ROW. Stringing trucks require extra turning radius. Consequently, approaches to the pipeline ROW or existing public roads will be wider when used for stringing trucks. Where turnarounds are needed on the ROW, extra space will be necessary on the travel side of the ROW. Previously disturbed areas will be used for this purpose, where practical. 	Construction	Communicate to contractors during orientation sessions that vehicles are limited to travel on the access roads for which they are designed.
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Efforts to control off-road vehicle use will be coordinated with the appropriate authorities and conducted until the ROW has been satisfactorily reclaimed. All proposed Project-related vehicles will follow applicable traffic, road-use and safety laws. 	Construction	Communicate expectations to drivers of Project-related vehicles during orientation sessions that they are required to follow applicable traffic, road-use and safety laws.
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Communication with communities where known traffic issues exist once the proposed Project schedule is confirmed. 	Construction	Contact local governments prior to construction to communicate information on Project schedules.
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Communication with forest licensees to address cumulative road use issues. 	Construction	Communicate with forest licensees to address current context for cumulative road use issues.
<i>Increase in rail traffic resulting from the shipment of Project-related materials</i>	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Communicate with CN Rail to confirm rail capacity, siding availability, schedules, and potential issues related to shipping pipe materials by rail. 	Construction Preparation / Construction	Communicate with CN Rail to confirm rail capacity, siding availability, schedules, and potential issues related to shipping pipe materials by rail.
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Work with community representatives to identify suitable stockpile sites for pipe material, where practical. Specific 	Construction Preparation	Through ongoing consultation and permitting requirements, gather input about suitable stockpile sites for pipe material.

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Appendix F: Specific Actions for Implementing Mitigation

POTENTIAL ADVERSE EFFECTS	REGULATORY REFERENCE	MITIGATION ¹	MITIGATION TIME FRAME ²	ABBREVIATED LIST OF SPECIFIC ACTIONS FOR COASTAL GASLINK
		selection would consider proposed Project requirements, access roads and general site conditions.		
<i>Increased air passengers in local and regional airports</i>	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Communicate with local and regional airport authorities of proposed Project construction activities to inform them of proposed Project schedules. 	Construction Preparation Construction	Contact local and regional airport authorities to share information about the Project construction activities and schedules.
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Before construction activities, use community media outlets such as newspapers and radio stations to announce the location and schedule of construction activities to avoid impacts on access to air travel by residents. 	Construction Preparation Construction	Before construction activities, use community media outlets to announce the location and schedule of construction activities.
<i>Key Indicator: Navigability Of Waterways</i>				
<i>Disruption of movement on navigable waterways</i>	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Adhere to watercourse crossing mitigation outlined in Section 7 of the Application. 	Construction	Adhere to watercourse crossing mitigation outlined in Section 7 of the Application.
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Obtain necessary approvals under <i>Navigable Waters Protection Act</i>, as required. 	Construction Preparation / Construction	Obtain necessary approvals under the <i>Navigation Protection Act</i> .
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Make the Project construction schedule and location maps available to recreational user groups and other members of the public to avoid conflict with planned activities. 	Construction	Before construction activities, use community media outlets to announce the location and schedule of construction activities.
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> If directed by the appropriate regulatory authority, install warning signs along the banks both upstream and downstream of the crossing to caution users of a navigational hazard, where appropriate. 	Construction	Comply with applicable requirements of the <i>Navigation Protection Act</i> .
	<i>EA Table 15-25, 15-27 and 15-31</i>	<ul style="list-style-type: none"> Discuss with TC to ensure that appropriate procedures were used for navigable waterway crossings. 	Construction	Comply with applicable requirements of the <i>Navigation Protection Act</i> .

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²Construction includes one year after Project operations commence.

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Appendix G
Report Templates

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SEEMP Status Report Template

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Executive Summary

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Adjustments and Changes

Appendix A: Mitigation Implementation Status Table