Discharging Wastewater to the Sanitary Sewer

Guidelines for Completing an Application for a Wastewater Discharge Permit

Abbotsford Mission
Water & Sewer Services

Discharging Wastewater to the Sanitary Sewer

Abbotsford Mission
Water & Sewer Services

Guidelines for Completing an Application for a Wastewater Discharge Permit

This document provides information for new or existing businesses about obtaining a wastewater discharge permit with the City of Abbotsford or the District of Mission. A wastewater discharge permit allows your business to discharge industrial/commercial wastewater to the sanitary sewer system in accordance with the following municipal bylaws:

- City of Abbotsford Sewer Rates and Regulations Bylaw (No. 2664-2017), Wastewater Discharge Permit Application
- District of Mission Sewer Bylaw (No. 5033-2009), Schedule "G" – Wastewater Discharge Permit Application

To obtain a wastewater discharge permit, you must fully complete a wastewater discharge permit application.

The application asks for a great deal of information on your business and its wastewater generation and disposal activities. To guide you in completing the application, we have prepared this document of instructions and examples. The document is divided into two parts: Part 1, which focuses on the application, and Part 2, which focuses on the attachments that accompany the application.

We have tried to make the application and instructions as clear and complete as possible. If you need further information, contact:

Source Control Program
Abbotsford/Mission Water & Sewer Services
32315 South Fraser Way
Abbotsford, BC V2T 1W7
Telephone: 604-853-2281
Facsimile: 604-557-1457

More information is also available on the City of Abbotsford (www.abbotsford.ca/SourceControl) and the District of Mission (www.mission.ca/SourceControl) websites.

Note: *This information is provided for convenience only and is not in substitution of applicable City of Abbotsford or District of Mission bylaws or Provincial or Federal codes, laws, or permits. It is your responsibility to ensure that any existing or proposed construction or other works complies with any applicable bylaws, codes, laws or permits.*

Table of Contents

PART 1 – WASTEWATER DISCHARGE PERMIT APPLICATION 1

- SECTION A – APPLICANT INFORMATION 1
- SECTION B – PROCESS DESCRIPTION 2
- SECTION C – WATER SOURCES & LOSSES 2
- SECTION D – WASTEWATER SOURCES 3
- SECTION E – OPERATING PERIOD 3
- SECTION F – FLOW INFORMATION 4
- SECTION G – WASTEWATER PRETREATMENT 5
- SECTION H – MONITORING POINT LOCATION 5
- SECTION I – SPILL PREVENTION AND CONTAINMENT 5
- SECTION J – WASTEWATER CLASSIFICATION AND QUALITY 5
- SECTION K – EXPANSION PLANS 7
- SECTION L – REQUIRED ATTACHMENTS 7
- SECTION M – REQUESTED PERMIT TERM 8
- SECTION N – DECLARATION 8

PART 2 – ATTACHMENTS FOR THE WASTEWATER DISCHARGE PERMIT APPLICATION 9

- FIGURE 1: EXAMPLE SCHEMATIC FLOW DIAGRAM FOR ATTACHMENT A 10
- FIGURE 2: EXAMPLE SITE LAYOUT FOR ATTACHMENT B 11

Part 1 – Wastewater Discharge Permit Application

This part of the document gives detailed instructions for completing each section of the wastewater discharge permit application. Thoroughly review these instructions before attempting to complete the application.

Some of you may be applying for a permit before you begin discharging. In this case, you will be estimating the quantities requested in the permit application. You can base these estimates on your design engineer's sepcifications and on performances of similar industries or services.

For those already discharging, you can base most of your answers on the one year period prior to the application date and add any allowances for estimated growth over the next three years.

Section A – Applicant Information

Company Name: Enter the name of your business.

Business License # & Expiry Date: Enter the number and expiry date of your business license. If you are a new business and do not have a current business license, provide an estimated date that you will be applying for a business license.

Contact Name, Title, Email, Telephone, Facsimile, & Emergency Telephone: Enter the name, title, email address, telephone number, facsimile number and emergency telephone number for the person who is thoroughly familiar with the information reported in the application and who can be contacted by Source Control staff.

Site Address: Enter the full street address of the applicant building.

Mailing Address: If the business mailing address is the same as the site address, check the appropriate box and proceed to the next section. If the business mailing address is different from the site address, enter the full mailing address for the business.

Permit Application Information:

- ***Proposed New Discharge*** – Check this box if you are a new business setting up in Abbotsford or Mission.
- ***Permit Renewal*** – Check this box if you are applying for a wastewater discharge permit before your business's existing permit expires.
- ***Permit Amendment*** – Check this box if you are applying for an amendment to your existing business's wastewater discharge permit. Ensure to include a cheque covering the applicable amendment fees outlined in Schedule "D" of the City or District Bylaw.

Abbotsford Mission
Water & Sewer Services

- ***Proposed Short Term Discharge*** – Check this box if you are applying for a wastewater discharge permit for a short term temporary discharge. Examples of short term temporary discharges requiring wastewater discharge permits are municipal water main or storm sewer main flushing following repair or replacement, etc. ***Completion of Sections C (2), E, and K of the permit application may be omitted for this type of application if not applicable.***

- ***Existing Unpermitted Discharge*** – Check this box if your business was notified by City or District staff that you are required to obtain a wastewater discharge permit.

Date Permit Required: Enter the start date that you require the wastewater discharge permit to begin. This information is especially important for proposed short-term discharges.

Section B – Process Description

Nature of Business:

Briefly describe your business and include the following information:

- State your main activities or processes at the applicant building or site that produce wastewater. Example activities include metal finishing, battery manufacturing, dry cleaning, and food processing.

Raw Materials & Products/Byproducts Identification:

Indicate the raw materials used, or proposed to be used, in your process. Example of raw materials used include pounds of berries processed per day, number of eggs or chickens processed per day, volume of milk processed per day, amounts of chemicals, etc.

Indicate the products and byproducts produced, or proposed to be produced, in your process. Example products and byproducts produced include volume of wash wastewater produced per day, mass of waste products produced per day, amount of chemicals, etc.

Section C – Water Sources & Losses

Water Sources:

Indicate the average daily volume of water contributed from each water source listed in the table. If other sources of water are used, indicate the source and provide a daily volume of water contributed.

Water Losses:

Indicate whether any water will be lost to product or through processes (i.e. evaporation). If yes, describe how the water will be lost and provide amounts. For example, if your business uses a lot of water in manufacturing food products (i.e. soup, sauces, etc.) then you would note this and provide an estimate on how much water is lost to product on a daily basis (rough estimates are acceptable).

Section D – Wastewater Sources

Indicate the sources of wastewater in the table. Include information on whether the wastewater is formed continuously or in batches and what the expected daily volume of wastewater discharged to the sanitary sewer is. An example of a wastewater source would be wash water from a truck wash facility. This wastewater would be generated on a batch or continuous basis depending on the operation, and the daily volume of wastewater discharged would depend on how much water was used in the washing process.

Section E – Operating Period

Typical Operating Period:

Specify the typical operating period for your business. Include the number of hours per day, the number of days per week and the number of weeks per year.

Indicate whether the typical operating days for your business are Monday through Friday by checking the "yes" or "no" box. If your operating days are not Monday through Friday, place a check mark in the boxes corresponding to your operating days (i.e. if your business operates Tuesday to Saturday, you would place a check mark in the boxes for Tuesday, Wednesday, Thursday, Friday, and Saturday).

Specify the typical operating hours for your business using a percentage amount. For example, if your business only operates between the hours of 8:00am to 4:00pm, then you would indicate "100%" in the "08:00 to 16:00" box. If your business operates on a 24 hour basis, then you would indicate the percentage of operation within each time frame (i.e. 50% for 08:00 to 16:00, 40% for 16:00 to 24:00, and 10% for 0:00 to 08:00).

Seasonal Variations:

Indicate whether your business operates on a seasonal basis by checking the "yes" or "no" box. If your business operates on a seasonal basis, indicate the typical months of operation for your business. For example, if your business only operates from June to September, you would place a check mark in the boxes for June, July, August, and September.

If your business operates on a seasonal basis, indicate how your business will reduce operations during non-peak periods.

Section F – Flow Information

Specify the maximum daily discharge volume in litres (L) or cubic meters (m^3). You can estimate this number by determining 90% of the monthly water consumption for the month with the highest level of water usage. For example, see the below example calculation for determining the maximum daily discharge volume for a discharge of 5,000m^3 in the month of September.

Example Calculation:

90% of monthly water consumption= 90% x 5,000m^3 = 4,500m^3

There are 30 days in September, so

Maximum daily discharge volume = 4,500m^3 / 30 days = 150 m^3 / day

Specify the peak flow rate in litres per second (L/s). You can estimate this number by using the maximum daily discharge volume as determined above. For example, see the below example calculation for determining the peak flow rate.

Example Calculation:

From above, maximum daily discharge volume = 150 m^3 / day

Peak flow rate = $\frac{150\,m3}{day} \times \frac{1000\,L}{1m3} \times \frac{1day}{24hours} \times \frac{1hour}{60\,\min} \times \frac{1\min}{60s}$ = 1.74 L/s

Specify the maximum discharge duration including the maximum hours per day, maximum days per week, and maximum weeks per year that your business will be discharging.

Indicate what method is used, or will be used, for measuring volumes of wastewater discharged to the sanitary sewer from your business.

- If your business will be measuring the <u>actual</u> volume discharged to the sanitary sewer, you will most likely be using a magnetic flow meter or a Parshall flume for the volume determination. Check the appropriate box for the type of measurement system you will be, or are already using.

- If your business does not lose water to product or manufacturing processes, you will most likely be using the municipal water meter (at 90% of the readings) for the volume determination. Check the "Water Meter" box if this is type of measurement system you will be, or are already using.

Abbotsford Mission
Water & Sewer Services

Section G – Wastewater Pretreatment

Indicate any pretreatment devices or processes that your business is currently using, or proposing to use, to treat wastewater prior to discharge to the sanitary sewer. Ensure any pretreatment devices or processes are identified on the required schematic flow diagram and site layout (refer to Section L of the application for more information). If no pretreatment devices or processes are used, check the box beside "No Pretreatment".

Section H – Monitoring Point Location

Specify and describe the location of the monitoring point(s) for wastewater discharged to the sanitary sewer. Ensure each monitoring point is identified on the required site layout (refer to Section L of the application for more information).

Section I – Spill Prevention and Containment

Indicate whether your business has any provisions to prevent spills from entering the sanitary sewer by checking the "yes" or "no" box. If your business does have provisions, provide a brief description of the provisions in place.

Section J – Wastewater Classification and Quality

Prohibited Wastes:

Indicate whether any of the wastes listed in the prohibited wastes table are contained in, or will be contained in, wastewater discharged to the sanitary sewer by your business. Ensure "yes" or "no" is checked for each waste listed in the table. For wastes where "yes" is indicated, provide a brief description on the source and estimated volume of each waste discharged to the sanitary sewer. If possible, provide information regarding future plans for discontinuing discharge of this waste to the sanitary sewer. For example, if your business discharges cooling water to the sanitary sewer, you would check the "yes" box and provide additional information (on a separate page) regarding the source of the cooling water (i.e. used for cooling in manufacturing processes) and would provide an estimate on the monthly discharge volume for this waste. An example of future plans for discontinuing discharge of cooling water would be your business's plans to reuse the water in other processes or plans to redirect the discharge of the cooling water to the storm sewer.

Restricted Wastes:

Indicate whether any of the wastes listed in the restricted wastes table are contained in, or will be contained in, wastewater discharged to the sanitary sewer by your business. Ensure "yes" or "no" is checked for each waste listed in the table. If you are unsure if a restricted waste is contained or will be contained in your wastewater, then check the "unknown" box. For wastes where "yes" is indicated, provide a concentration or range for each waste under the "Before Pretreatment" and "After Pretreatment" column. If no pretreatment is performed by your business, then provide a concentration or range for each waste under the "After Pretreatment" column only.

Abbotsford Mission
Water & Sewer Services

Note: Concentration or ranges under the "After Pretreatment" column may be obtained by referring to historical monitoring data provided by the City or District either through the BOD & TSS Waste Program or through other monitoring programs in place.

If your business is a new business or has not been included in any City or District monitoring programs, you will be required to collect wastewater samples and submit them to an accredited laboratory for analysis. You only need to have the samples analyzed for the restricted wastes that you suspect are present in your wastewater. All costs associated with the collection and analysis of these samples are borne by the applicant.

Other Substances:

Indicate whether any of the substances listed in the other substances table are contained in, or will be contained in, wastewater discharged to the sanitary sewer by your business. Ensure "yes" or "no" is checked for each substance listed in the table. If you are unsure if a substance is contained or will be contained in your wastewater, then check the "unknown" box. For substances where "yes" is indicated, provide a concentration or range for each waste under the "Before Pretreatment" and "After Pretreatment" column. If no pretreatment is performed by your business, then provide a concentration or range for each waste under the "After Pretreatment" column only.

Note: Concentration or ranges under the "After Pretreatment" column may be obtained by referring to historical monitoring data provided by the City or District either through the BOD & TSS Waste Program or through other monitoring programs in place.

If your business is a new business or has not been included in any City or District monitoring programs, you will be required to collect wastewater samples and submit them to an accredited laboratory for analysis. You only need to have the samples analyzed for the substances that you suspect are present in your wastewater. All costs associated with the collection and analysis of these samples are borne by the applicant.

Hazardous Wastes:

Indicate whether your business's wastewater contains, or will contain, hazardous waste prior to or following treatment. Ensure a check mark is placed under "yes" or "no" for each question. If "yes" is indicated for either of the questions under the hazardous wastes table, you will need to provide additional information on a separate page including the provisions taken to comply with Column 3 of Schedule 1.2 of the provincial *Hazardous Waste Regulation*. You will also need to provide any supporting information and analytical data.

Section K – Expansion Plans

Indicate whether there are any process changes or expansions planned for your business during the next three years, which may result in a change in wastewater volume or quality. Indicate these changes or expansions by checking “yes” or “no”. If there are changes or expansions planned for your business, provide a brief description of the changes and how they will affect wastewater volume and quality. For example, if your business is planning on implementing a pretreatment system to neutralize wastewater pH then you would indicate this change by checking “yes”. You would also provide some general information on the pretreatment system you are planning to install including the estimated installment and operation dates.

Section L – Required Attachments

Attachment A – Schematic Flow Diagram:

Provide a schematic flow diagram illustrating your business’s production and process steps. The schematic flow diagram should be provided on a separate sheet and be no smaller than 8.5x11 inches and no larger than 11x17 inches. The diagram should include the following information:

- Each process that generates wastewater (each wastewater source should be numbered and clearly identified);
- Water/process water flow lines (each flow line should include a directional arrow to indicate flow direction);
- Wastewater flow lines (each flow line should include a directional arrow to indicate flow direction); and
- Sewer discharge points (all discharges to the sanitary sewer and storm sewer should be clearly identified).

Attachment B – Site Layout:

Provide a site layout illustrating the location of your business's activities and processes. The site layout should be provided on a separate sheet and be no smaller than 8.5x11 inches and no larger than 11x17 inches. The site layout should include the following information:

- Building outlines;
- Property lines;
- North arrow;
- Location of wastewater drainage, collection & pretreatment systems;
- Location of any continuous monitoring equipment (any pH meters, flow meters, etc. should be clearly identified);
- Location of monitoring point(s); and
- Location of sewer discharge point(s) (all discharges to the sanitary sewer and storm sewer should be clearly identified).

Section M – Requested Permit Term

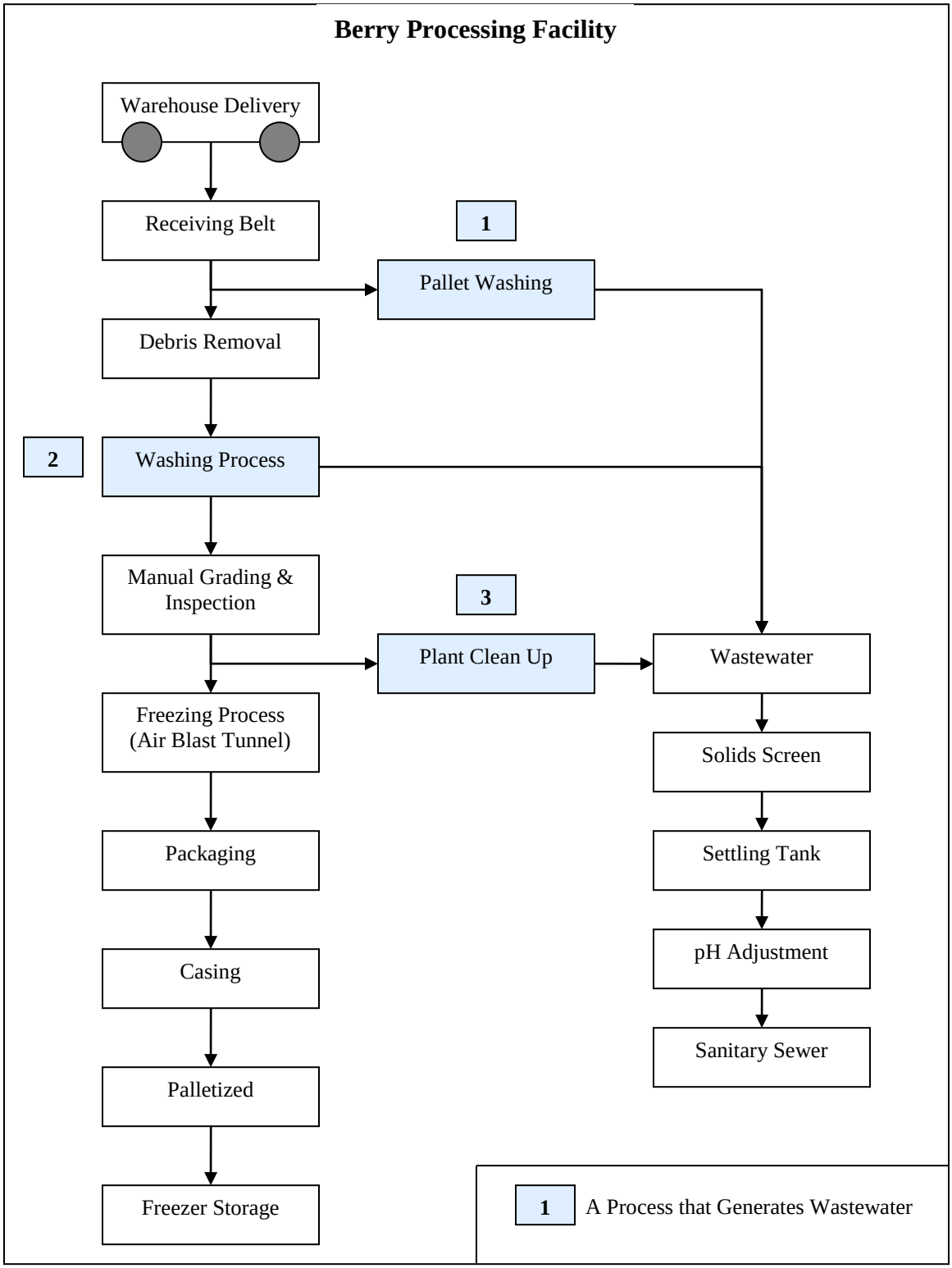
Indicate the length of tie that your business requires a wastewater discharge permit. In most cases, your business will require a permit for 365 days (or 1 year). If you are obtaining a wastewater discharge permit for a short-term discharge (i.e. water main replacement, sewer line replacement, etc.) then you will require the permit for less than 365 days. These types of short-term discharges generally require a wastewater discharge permit for "0-30 days" or "31-90 days".

Section N – Declaration

Complete the declaration section as indicated. The person who completed the application fills out the first box including their name, title, signature and date, and should be the same as the person listed under Section A – Applicant Information. Any questions or further correspondence from Source Control will be directed to the person who completed the application unless additional contact information is provided under the "Primary Contact Information" box. The "Primary Contact Information" section is generally left blank unless you wish to designate a different person as the primary contact regarding the permit.

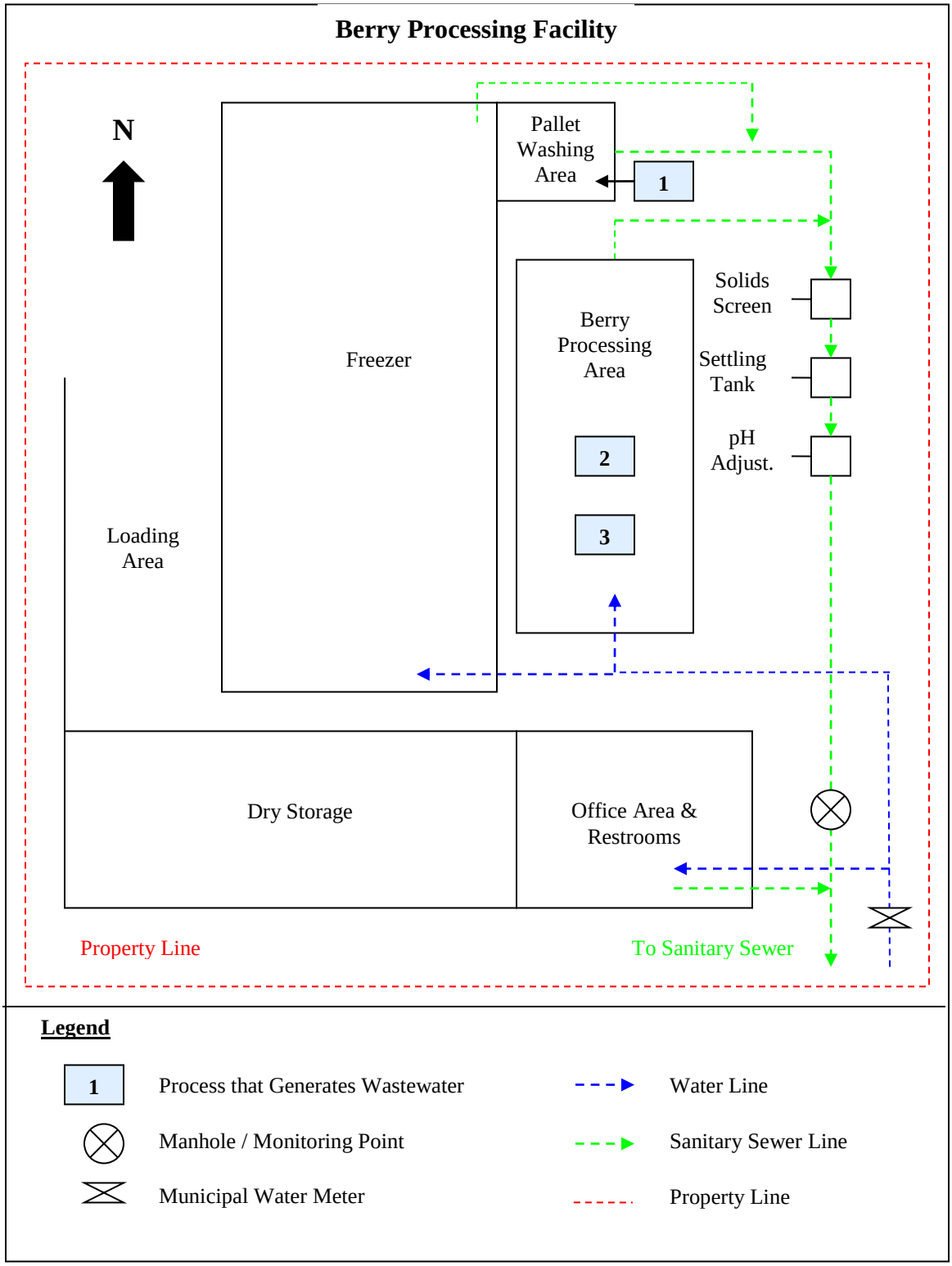
Part 2 – Attachments for the Wastewater Discharge Permit Application

Figure 1: Example Schematic Flow Diagram for Attachment A



Abbotsford Mission Water & Sewer Services

Figure 2: Example Site Layout for Attachment B



Abbotsford Mission Water & Sewer Services