

Storm Water Management Program

Provo City



CONTACT INFO

Main Office: (801) 852-6700

Carlos Garcia

stormwater@provo.org

Hotline: 311

HOURS

Monday - Thursday

7:00AM - 6:00PM

LOCATION

Public Works Office

1377 S 350 E

Provo, UT 84606

Introduction

Executive Summary

This document comprises Provo City's Storm Water Management Program (SWMP). This program was developed as a result of Phase II of the National Pollutant Discharge Elimination System (NPDES) Program ordered by the United States Environmental Protection Agency (EPA), as detailed in the Utah Division of Water Quality (DWQ) general permit for discharges from small municipal separate storm sewer systems (MS4). The Provo City Storm Water Management Program provides an overview of the Phase II requirements and outlines the City's efforts to plan, develop, implement, and enforce a SWMP that will satisfy Phase II requirements. The basic goals of the SWMP are to reduce the discharge of storm water pollutants to the maximum extent practicable, to protect downstream waters from adverse quality and quantity impacts, and to promote behavioral changes by the public to reduce water quality impacts associated with pollutants in storm water runoff and illicit discharge.

Brief Overview of Provo City

Provo City incorporates approximately 44 square miles and is bordered by Orem City to the north, Springville City to the south, the Wasatch Mountains to the east, and Utah Lake to the west.

Provo's population, in the 2010 census, was 112,488. It is anticipated that the current population is approximately 118,000. Included in this population are students that attend Brigham Young University and Utah Valley University.

The City is diverse in residential, commercial, industrial, and agricultural development. Brigham Young University has a large campus located in east-central Provo. Provo City is also the host city for Utah County and Utah State governmental facilities.

Most of Provo City lies below 5,000 feet in elevation with the average annual rain fall being about 20".

There are areas of sensitive lands defined throughout the City for which there are special provisions for proposed development. The sensitive lands are generally defined as areas with geological hazards and areas with a high water table, see Appendix A-1.

Existing Facilities

Provo City operates a Municipal Separate Storm Sewer System (MS4). This system consists mostly of gravity-flow conveyance facilities constructed within the rights-of-way of public streets that discharge into the Provo River or Utah Lake. Parts of the storm drainage system are old, undersized, and function at limited capacity. Other parts of the system are newly installed and sized to accommodate future upstream growth. The total mileage of in-place storm drain conveyance pipes 18" or larger is approximately 130. The western portions of the City are relatively flat and do not greatly favor gravity-flow systems. The City maintains 8 storm water lift stations. The steep mountain slopes to the east of the City create a potential for debris flows during a storm event. Several large basins have been constructed to capture these potential flows. Public and private retention and detention systems are installed throughout the City to minimize peak flows to the conveyance system by controlling discharges and infiltrating storm runoff into the ground.

Much of the storm water in Provo City flows directly into the existing storm drainage network. However, there are many storm drainage systems that are integrated with irrigation systems. During a storm, certain irrigation ditches may contain both irrigation water and storm runoff, causing the banks of the ditch to be more prone to flooding. For the past decade, integrated systems have been discouraged and several existing integrated systems have been separated and/or eliminated.

For the past two decades, Provo City has required residential developers to install adequate storm drainage systems throughout their subdivisions. These include curb and gutter, curb face inlets, storm drain piping, and retention/detention facilities.

Water Quality Concerns

Program Overview

In 1990 the Environmental Protection Agency (EPA) passed federal storm water regulations that mandated municipalities to change their traditional storm water runoff management techniques. The EPA passed the responsibility to the States who then wrote the Municipal Separate Storm Sewer System (MS4) Permit. There are two different Phases that a municipality can be permitted under, the City of Provo meets the Phase II criteria for the MS4 Permit set by the State of Utah. The main requirements of the MS4 permit are:

- Public Education and Outreach on Storm Water Impacts
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination (IDDE)
- Construction Sites Storm Water Runoff Control
- Long-term Storm Water Management in New Development and Redevelopment
- Pollution Prevention and Good Housekeeping for Municipal Operations

These requirements are explained in more detail in each section. This Storm Water Management Plan (SWMP) addresses the requirements put forth by the MS4 permit. The information provided within the SWMP will address how Provo City will conform to the requirements set by the MS4 Permit. This management plan will follow that same format as the MS4 permit.

Public Education and Outreach on Storm Water Impacts

4.2.1

Provo City Storm Water participates in multiple programs and trainings. The City of Provo programs include: Utah Count Storm Water Coalition education program (surveys taken every 5 years and flyers sent out quarterly); The Fourth and Fifth Grade Education Program (presentations on Provo Public Works and swag handouts with ‘Only Rain in the Drain’ logo); Community/Outreach Program (newsletters/magazines available online and Provo Storm Water website with flyers on pet waste, pool dewatering, lawn and garden waste, disposal of drugs, and automotive cleaning and maintenance); City Employee Annual Training (Illicit Discharge Detection and Elimination (IDDE) training videos provided by Accena Group.); Contractor Storm Water Pollution Prevention Plan (SWPPP) and Long-term Storm Water informational videos are also available and provided by Accena Group. By participating in many different programs and trainings Provo City reaches a wide range of people.

4.2.1.1

Provo City has created many informational documents that are located on the Storm Water website. These documents provide information describing the potential impacts from storm water discharges; methods for avoiding, minimizing, reducing and/or eliminating the adverse impacts of storm water discharge; and the actions individuals can take to improve water quality, including encouraging participation in local environmental stewardship activities.

4.2.1.2, 4.2.1.3

Provo City provides educational information in many different ways. The majority of the educational content on water quality can be found on the Provo Storm Water website. Topics on protecting water quality include: lawn care, automotive care, disposal of pool water, pet waste, and etc. These topics are also discussed with citizens when a potential or an actual illicit discharge occurs in their immediate area. The Storm Water website also includes information and links from the EPA on urban runoff, construction and storm water, and safe drinking water. Provo City Public Works also utilizes the social media platform, Facebook, for education posts on various water quality topics. Using social media helps Provo City reach the general public along with local businesses. Newsletters are also a resource that Provo City uses for educational outreach. These newsletters are created quarterly and can be found on Provo’s website.

4.2.1.4 (4.2.4)

Documentation is provided through the Provo City website to engineers, construction contractors, developers, development review staff, and land use planners concerning the development of storm water pollution prevention plans (SWPPP). Documents such as Storm Water Quality and Erosion Control Manual, IDDE Manual, Storm Drainage System Design and Management Manual, Public Works Department Development Guidelines, and Public Works Department Development and Design Standards. As part of the development review and project approval process, SWPPP plans are required to be submitted for a preliminary review. SWPPPs prepared by contractors and/or engineers will be under review and not approved unless they meet the standards set by the City of Provo. For projects that do not

meet the criteria for a SWPPP are required to fill out and sign Provo City's Acknowledgment of Prohibited Discharges form before any city permits are issued. Having this information located on the Provo City website will allow everyone who would like to know more about SWPPPs and BMPs to find the information quickly.

4.2.1.5

Provo City Storm Water staff provides training on Illicit Discharge Detection and Elimination (IDDE) annually to City employees. This training also includes discussions and education on how City employees can minimize impacts to water quality during their work at the City and what to do if they see an illicit discharge occurring.

4.2.1.6

Provo City Community Development and Public Works review staff are given training on Low Impact Development (LID) practices, green infrastructure practices, and specific requirements for post-construction control and associated Best Management Practices (BMPs). This training is conducted at least annually during a regular Monday or Wednesday design review committee meeting. Holding the training on a regularly scheduled meeting will help make sure that training is provided and constantly updated as new information is found.

4.2.1.7

Provo will participate in the Utah County Storm Water Coalition survey, which is sent out every five years to help determine effectiveness of programs throughout Utah County. In conjunction with the Utah County Storm Water Coalitions survey, Provo City will provide documentation on illicit discharge reports to show that more citizens are aware of what can and can't go into the storm drain. By reviewing the number of reports submitted to the City, it can be determined if people are more aware of what is going to their storm drain. If numbers decrease, Provo City will strategize how to better inform the citizens of the City.

4.2.1.8

Throughout the years the City of Provo has observed and witnessed how certain BMPs for public education and outreach have either excelled or failed. Through this observation the City of Provo has decided to use the programs that are listed in section 4.2.1. Provo City participates in many different programs and trainings. Having so many different options for learning and understanding helps many different people learn about water quality and storm water operations.

Public Involvement / Participation

4.2.2.1-3

Provo City will post on Facebook or other social media accounts when the SWMP is ready for review and published to the Storm Water website. Comments can be submitted to Danielle Nixon at stormwater@provo.org.

Illicit Discharge Detection and Elimination

4.2.3

Provo City's Illicit Discharge Detection and Elimination (IDDE) program is detailed in this document in Appendix B and is available online on the Storm Water web page.

4.2.3.1

The Storm Water Division and GIS Administrator will maintain a current storm sewer system map. The map will include the location of all municipal storm and sewer outfalls with the names and locations of all State waters that receive discharges from those outfalls, storm drain pipes, and other storm water conveyance structures within the MS4.

4.2.3.2, 4.2.3.2.1

Provo City Code Title 18.02.020. prohibits illicit discharge: "It is unlawful for any person to cause or allow the discharge into a water body or storm drainage system, either directly or indirectly, of any substance not composed entirely of storm water or an exempted discharge listed..." Provo City Illicit Discharge Detection and Elimination Manual will be available to the public through the Provo City website.

Provo City Code Title 18.02.050. Enforcement, Penalties and Abatement: "The Public Works Director, or his designee, shall have the authority to issue notices of violation, stop work orders, and to impose civil penalties for any violation of this Title, Provo City Code..."

Provo City Storm Water personnel have legal authority to detect, investigate, eliminate and enforce against non-storm water discharges, including illegal dumping into the MS4. Provo City code can be found online at provo.municipal.codes.

4.2.3.3, 4.2.3.3.1, 4.2.3.3.2, 4.2.3.3.3, 4.2.3.3.4

Provo City Illicit Discharge Detection and Elimination Manual is a written plan to detect and address non-storm water discharges into Provo City storm sewer systems and outfalls. The IDDE manual will be used for locating and listing priority areas that are likely to have illicit discharges, field inspections of areas considered a priority area, and dry weather screening. A list of priority areas that are within the City limits is in the process of being created. This list will be updated as needed. Dry weather screening of outfalls will be inspected at least once during the five year permit term. If the City discovers or suspects that a discharger may need a separate UPDES Permit, the City will notify the Director, stated

within the MS4 permit, within 30 days.

4.2.3.4

Standard operating procedures for tracing the source illicit discharges is located in the Provo City IDDE Manual. Procedures for illicit discharge tracing are, but not limited to, visually inspecting manholes/catch basins, sampling flowing discharge, and mobile camera inspection. A copy of Provo City's IDDE Manual is located in the Appendix of this document.

4.2.3.5, 4.2.3.5.1

Provo City hotline is 311, to which either the public or city employee can report an illicit discharge. The dispatcher compiles the information provided and forwards the information to the engineer or field technician on call. The IDDE Manual provides standard operation procedures (SOPs) for evaluating how the discharge will be removed. When a call is received from dispatch or 311, storm water staff will investigate to determine if there is an illicit discharge. If there is an illicit discharge, storm water staff will take steps to document the occurrence and the actions taken to absolve the illicit discharge.

4.2.3.6, 4.2.3.6.1

SOPs and documentation have been created for responding to, and ceasing an illicit discharge. Documentation also includes steps to take after the illicit discharge has been cleaned up such as enforcement. As soon as an illicit discharge or illegal dumping is found Provo City notifies the violator of the required immediate cessation of the illegal act. Reports will be kept of all illicit discharges and potential discharges will be noted in an IDDE journal.

4.2.3.7, 4.2.3.8

The City of Provo outreach program will inform public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste. Newsletters with water quality information are posted online quarterly. During the fall, leaf bags are provided for leaf collection. Provo City supports Utah County's program that provides services for collecting household hazardous wastes.

4.2.3.9, 4.2.3.9.1, 4.2.4.4.5

The Provo City website, provo.org, provides phone numbers for contacts within Storm Water and a hotline number, 311, is provided in bright red to the public for reporting spills and other illicit discharges. The public can call 311 and will be provided with more information or will be put in contact with the correct personnel. Calls will be tracked and a record kept for all calls received, all follow-up actions taken, and any feedback received from public education efforts. A report form for the personnel to fill out and for tracking purposes is located in the IDDE manual. Written response procedures can be found in Provo City's IDDE manual. SOPs for spill response is also located within the IDDE manual.

4.2.3.10

As part of the IDDE Manual there is an evaluation of the IDDE program and its effectiveness. The assessment will include a database for mapping, tracking of the number and type of spills or illicit discharges, and a record of inspections conducted. Provo City keeps an IDDE journal to keep track of

illicit discharges and potential discharges. Provo is working on creating a map of the past illicit discharges and their location.

4.2.3.11, 4.2.4.5

The City of Provo uses the Accena Group IDDE training program. Training is for all staff, contracted staff, and other responsible entities. Annual training includes IDDE identification, investigation, termination, cleanup, and reporting of illicit discharges including spills, improper disposal, and illicit connections. Along with training videos and a quiz, Storm Water staff will provide further training on what employees and staff can do in their jobs to protect water quality. Accena Group will also provide a way to track all employees that have completed the training.

4.2.3.12

Provo City will provide documentation upon request for further study of potentially concerning non-storm water discharges.

Construction Site Storm Water Runoff Control

4.2.4.1

During the development review and building permit review process, it will be determined if a Storm Water Pollution Prevention Plan (SWPPP) is necessary. Provo City Title 18 requires that all construction sites that are greater than or equal to one acre are required to obtain a UPDES Storm Water General Permit from the State of Utah. Title 18 also requires residential sites that are less than an acre, were subdivided after 1992, never had a home on the lot, and part of larger common plan of development or sale which collectively disturbs land greater than or equal to one acre, obtain a UPDES Storm Water Common Plan of Development Permit from the State of Utah. Projects that do not meet any of the previously mentioned requirements are required to sign an Acknowledgment of Prohibited Discharges (APD). The APD provides information on ways to prevent illicit discharge on construction sites.

4.2.4.1.1, 4.2.4.1.2, 4.2.4.1.3

The City of Provo's Title 18 section 18.03.030, titled Storm Water Pollution Prevention Plan (SWPPP) states: "Any project, subdivision, development, or other land grading activity that disturbs one (1) acre (or greater) of land within Provo City or projects that disturb less than one (1) acre that are part of a larger common plan of development shall be required to submit a storm water pollution prevention plan. If the grading activity is part of a project that is subject to the Provo City development review process, the SWPPP shall be submitted as part of the review process. Land disturbances that are not subject to the development review process shall submit the SWPPP to the Public Works Director, or the Director's designee..." Section 18.03.050 Access to Inspect Temporary and Permanent Storm Water Controls "The Public Works Director or the Director's designee shall have the right to access any project, subdivision, development, or other land grading activity that is required to submit and implement a SWPPP to ensure compliance ..."

4.2.4.2, 4.2.4.2.1, 4.2.4.2.2, 4.2.4.4, 4.2.5.2-.1

Provo City Code Title 18 details an enforcement strategy that Provo City inspectors and Enforcement Officers will address and follow when enforcement is needed. Standard operating procedures (SOPs) for escalating enforcement is located in the IDDE manual which is located in Appendix B of this document. SOPs include specific processes and sanctions to minimize the occurrence of, and obtain compliance from violators which shall include appropriate escalating enforcement procedures and actions. An SOP for documenting and tracking enforcement actions is located in Appendix B of this document and is provided to Provo City inspectors and Enforcement Officers.

4.2.4.3, 4.2.4.3.1, 4.2.4.3.2, 4.2.4.3.3

The Storm Water Department has created SOPs, located in Appendix A, which outline Provo City's process for reviewing site designs before and after construction. The SOPs will be provided to City personnel. Pre-construction review of Storm Water Pollution Prevention Plan (SWPPP) will be required on sites that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development. This will ensure that all plans are complete and in compliance with State and City of Provo's regulations. Provo City requires all contractors with a General Construction or a Common Plan of Development permit to upload and update their SWPPP information and complete their inspection reports if possible on compliancego.com. ComplianceGo is a site that Provo City uses for inspection reports and as a free resource for all construction projects in Provo. All projects proposed in Provo City are required to go before the Planning Commission. Planning Commission is open for public comments.

A list of high priority sites, fines, and requirements made by the city will be provided to the contractor before construction. Construction sites that have site slope of 20% or more, projects 50 acres or greater, construction in wetlands, proximity to receiving water bodies, and past record of non-compliance by the operators of the construction site will be considered as a high priority site and inspected bi-monthly.

4.2.4.4

Provo City SOPs for construction site inspection and enforcement is located in the Appendix A-3 of this document. Provo City Ordinance Title 18.02.050 states: "Enforcement Authority. The Public Works Director, or the Director's designee, shall have the authority to issue notices of violation, stop work orders and to impose civil penalties for any violation of this Title." Internal SOPs for enforcement will be available upon request.

4.2.4.4.1, 4.2.4.4.2

Monthly inspections will take place on construction sites that disturb one acre or greater as well as sites that are less than one acre and are part of a common plan of development. Inspectors will become qualified by completing and passing a training course approved by the MS4 permit. The qualified inspectors will use forms found on the ComplianceGo website to complete their inspections. Inspections will include pre-construction, construction, and post construction. During the pre-construction meetings with Provo City staff and contractors, Provo City Storm Water staff will inform the contractor or owner on the requirements of closing out their SWPPP. The requirements to close out a SWPPP is; site is 70% stabilized, all construction BMPs are removed, site is clean (road and gutters), and Notice of

Termination (NOT) has been filed with the State of Utah.

4.2.4.4.3, 4.2.4.4.4, 4.2.4.4.5

Sites that meet the requirements set out in this document will be inspected twice a month. Provo City uses an online program called ComplianceGo.com. This program is paid for by Provo City and is free for all construction sites to use while working in Provo City.

During an inspection, if corrective action is needed the inspector will inform the contractor and follow-up with the contractor during the next inspection. If corrective action has not been made the inspector will issue a Notice of Violation and will escalate enforcement until corrective actions are completed on site and on their ComplianceGo site page.

4.2.4.5

All staff will be trained internally upon hire. All staff doing SWPPP inspections will be trained during the first three months following their hire or as soon as training becomes feasible. In addition, internal training for public works, review and inspection staff will be conducted annually with IDDE Training.

4.2.4.6

Records will be kept for projects disturbing greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale. The records will include site plan reviews, SWPPPs, inspections and enforcement actions.

Long-Term Post-Construction Storm Water Management in New Development and Redevelopment

4.2.5.1-1.4

The City of Provo has updated city code 18.03.020 and 18.03.040 as of January 2020. Within code 18.03.020 Provo City has adopted the Storm Drainage System Design and Management Manual (Design Manual) to help engineers and developers understand water quality standards and design requirements of the storm drainage system. Provo City retention standard (established March 1st, 2020) requires that all new development projects, disturbing greater than or equal to one acre or part of a common plan of development or sale which collectively disturbs land greater than or equal to one acre, must retain to the 80th percentile rainfall event. Redevelopment projects (those replacing or improving impervious surfaces on a developed site) must provide either a net gain to onsite retention or a net reduction to impervious surface. Redevelopment projects increasing the impervious surface by greater than 10% must retain the net increase in the volume associated with the 80th percentile rainfall event. Chapter 11 of the Design Manual provides more detailed requirements for the retention standard set by section 4.2.5.1.2 of the MS4 permit. These requirements are for any new or redeveloped projects that are disturbing greater than or equal to one acre or are part of a larger common plan of development. Post

construction controls, such as snouts, are required on all projects to help minimize impacts to water quality. Designs for long-term BMPs and their installation, operation, and maintenance standards can be found in the design manual in addition to Provo City's Standards and Specifications 2021.

All new development and redevelopment that disturb greater than or equal to one acre, including projects less than an acre that are part of a larger common plan of development or sale will be required to review their project for Low Impact Development (LID). Within Provo City Storm Water Design Manual, Appendix G, is the Storm Water Quality Report Template. This template is for engineers and developers to use to help determine the use of LID on their project and to determine if LID or retention is feasible on site based on the conditions set by the MS4 permit. Provo has provided standard BMP details for rain gardens, bioretention cells, bioswales, infiltration basins, infiltration trench, and vegetated strips. If a site cannot feasibly install LID on their site each engineer and/or developer must still fill out the Storm Water Quality Report Template and provide rationale as to why they cannot install LID or other water quality BMPs on their site.

A Private Utility Maintenance Agreement may be used in special circumstances under the direction of the Provo City Public Works Director or Their Designee. A copy of the current Private Utility Maintenance Agreement is located in Appendix C of this document.

4.2.5.2-2.5

The City of Provo has updated city code (18.03.040) as of January 2020 that will require long-term post-construction storm water controls at new development and redevelopment sites that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development. Enforcement for post-construction storm water management will follow the same procedures that are set up in Provo City's Code Title 18. Provo City SOP for escalating enforcement can be found in the IDDE manual located in the Appendix of this document. Documentation for the requirements for long-term storm water management can be found in the Design Manual Chapter 11. Permanent structural BMPs will be inspected once during installation by a qualified personal or Provo City Engineering Inspectors. A qualified inspector will also verify that long-term BMPs were constructed as designed. Inspections and maintenance will be conducted as needed, but at the very least every other year by owner/operator through Provo City code 180.03.040 requirements. MS4 inspections will be performed once every five years as per the MS4 permit. A copy of the inspection form that will be used will be created and added to the Appendix of this document once created.

4.2.5.3-3.2

Provo City requires the Storm Water Quality Report template to be filled out with each new development or redevelopment project that meets the qualifications for long-term storm water management or Low Impact Development (LID). The template is provided to engineers and developers in Provo's Storm Water Design Manual. Provo City reviews all new development and redevelopment projects that disturb land greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale. During each review, Provo City engineers determine if the project meets water quality standards set by the City, and that any long term storm water management measures are met.

4.2.5.4-5

Provo City will keep an inventory of known post-construction storm water structures as of March 1st 2020 for new and redevelopment sites. Inventory includes both private and public sites within Provo City. As information for sites change, the inventory will be updated. Training for plan review, annual maintenance inspections, and enforcement will be conducted, at least, annually.

Pollution Prevention / Good Housekeeping for Municipal Operations

4.2.6.1

A detailed list of all City owned or operated facilities will be provided in Appendix A-2 of this document. The list of owned and operated facilities will be updated as needed. The determination for “High Priority” facilities is located in Appendix A-2 of this document.

4.2.6.2, 4.2.6.3

The Provo City Storm Water team has reviewed and determined which City owned facilities have the most potential to discharge pollutants to storm water systems. The assessment used is a ranking system from 1-5. One meaning the site has a low risk of discharging pollutants and five meaning the site has a great risk of discharging pollutants. There are six categories on which the facilities are ranked: urban pollutants, improperly stored materials, activities outside, proximity to water, poor housekeeping, past discharge of pollutants. If a facility has an overall number of 12 or higher they are considered a “High Priority” Facility. To see the spreadsheet of rankings given to each facility please see the Appendix and the IDDE manual. BMPs will consist of good housekeeping and additional BMPs will be but in place if it becomes necessary for the high priority facility.

4.2.6.4

High priority facilities have Storm Water Pollution Prevention Plans (SWPPP) created. These SWPPPs are located on the ComplianceGo website that Provo City has an active contract with.

4.2.6.5, 4.2.6.5.1, 4.2.6.5.2, 4.2.6.5.3

Monthly visual inspections will be conducted on high priority facilities that are City owned. A monthly log will keep track of visual inspections. If there is evidence of spills or other potential pollutants, the pollutant must be immediately cleaned up and a report completed.

Provo City Storm Water Inspectors will conduct semi-annual comprehensive inspections of “high priority” facilities, including all storm water controls. Inspections will be documented and recorded with ComplianceGo.

Annual visual inspections during the wet season will be obtained once per year. Because of the work hours and other hindrances, if a rain event occurs during working hours, inspections will be done on the high priority sites to observe the discharge to the storm drain. If problems are observed it will be

documented within the report and a solution to fix the problem will be proposed. Inspection records will be kept with ComplianceGo. SOPs for monthly, semi-annually, and discharge inspections will be located in Appendix A-2 of this document.

4.2.6.6-4.2.6.6.1

SOPs have been created for permittee-owned or operated offices, police and fire stations, pools, parking garages, and other permittee-owned or operated buildings or utilities. SOPs for spill prevention plans, waste management, and other maintenance activities will be created. SOPs will be developed for parks and open spaces, vehicle and equipment, roads, highways, and parking lots, storm water collection and conveyance systems, and other facilities and operations. SOPs will be available through any of the following manuals: Illicit Discharge Detection and Elimination Manual, Storm Water Quality and Erosion Control Manual, and Storm Water Management Plan.

4.2.6.6.2

SOPs for road and parking lot sweeping and storm drain system maintenance have been created. SOPs include inspection, cleaning and repair of storm water drainage systems and structures. Provo City prioritizes areas throughout the city to sweep and perform storm drain maintenance, weather permitting.

4.2.6.6.3

Street sweeping debris and storm drainage waste and debris is disposed of in drying beds located in the Provo City wastewater treatment plant. Once the debris has dried and only solid material is left, materials are taken to the nearest landfill to be disposed. If hazardous or other material that cannot be disposed of in a normal landfill, said material will be disposed of in accordance to local, state, and federal laws.

4.2.6.6.4

Wash stations, wash garages, and car wash coupons are provided to all Provo City employees to use with their vehicles or equipment. All water from these facilities discharge to the sewer system.

4.2.6.6.5

A spill prevention plan SOP is in place. Training for IDDE and spill prevention is conducted yearly with the fire department.

4.2.6.6.6

An inventory of all floor drains located in permittee-owned or operated buildings will be created and kept current. SOPs for heavy equipment and material storage areas has been created. All SOPs will be made available to all on the Provo City website either within this document, the IDDE manual or the Erosion Control manual.

4.2.6.7

Provo city will perform maintenance on their own systems.

4.2.6.8-1

The City of Provo is working with FEMA, the Core and other consultants to determine if existing flood controls need to be updated or additions added. More information about the determination of these structures will be provided with these studies are concluded.

4.2.6.9

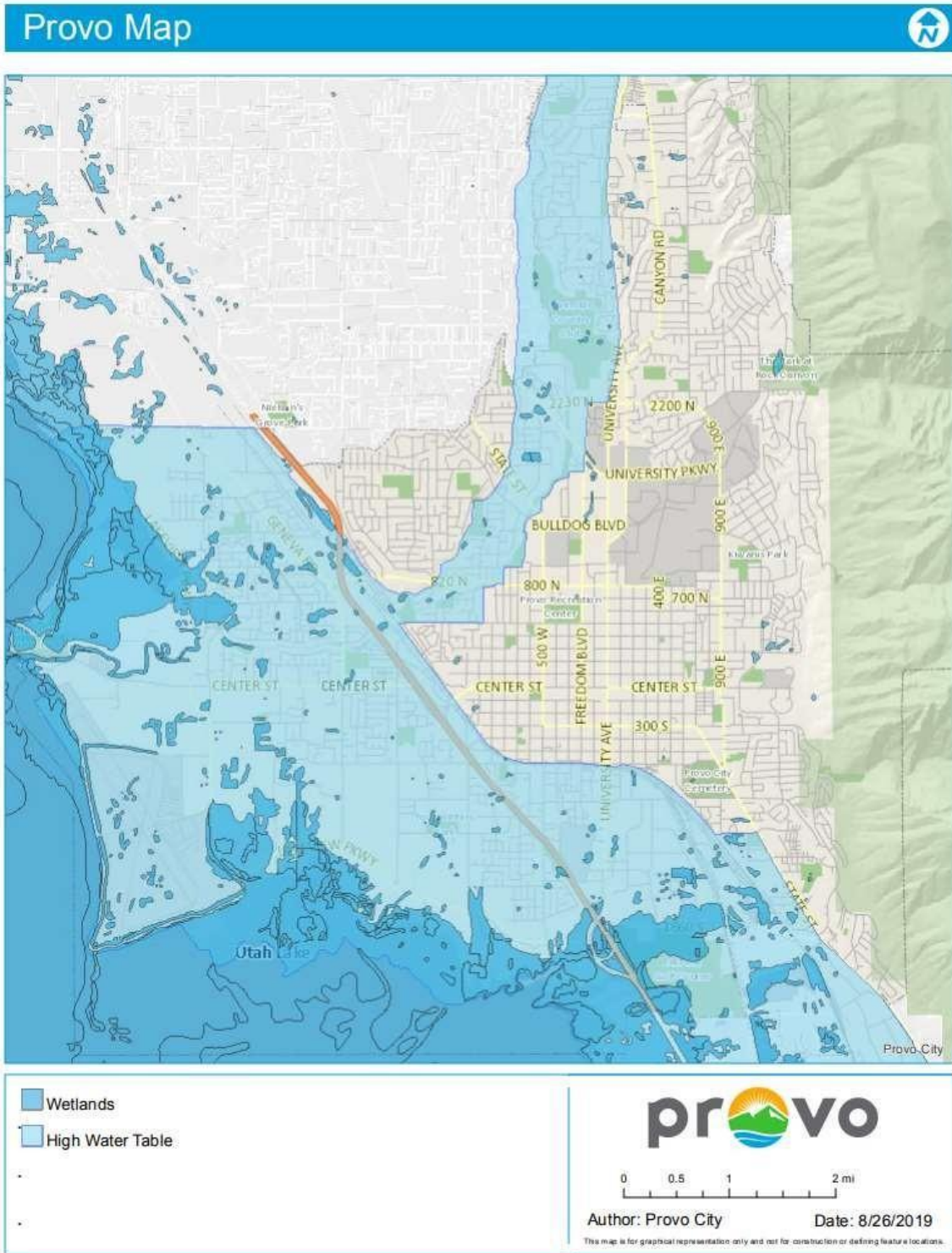
As part the overall master plan for the City of Provo there are plans in place to update or retrofit sites that negatively impact water quality.

4.2.6.10

As part of the annual IDDE training with Provo City employees the training will address the importance of water quality. It will also address the requirements of the MS4 permit and what they can do day to day to help protect water quality. Records of all trainings will be kept and follow up trainings will be provided as needed.

Appendix A

A-1 – Map of Sensitive Lands



A-2 – Provo City Facilities

Department	Location Name	Address	Urban Pollutants	Improperly Stored	Activities Outside	Prox to water	poor housekeeping	discharge of pollutants	Rank	High Priority
7 Gen./Admin	Academy Square Library	550 North University Ave	1	0	0	0	0	1	2	NO
8 Gen./Admin	Bayview Landfill Storage & Maintenance Building	Section 17, Township 9 S	5	0	3	3	0	0	11	NO
9 Gen./Admin	Utility Garage	700 N 200 W	0	0	0	0	0	0	0	NO
10 Gen./Admin	Train Station	301 W 600 S	0	0	0	0	0	0	0	NO
11 Gen./Admin	Fleet Building	400 E 1400 S	5	0	3	3	0	2	13	YES
12 Gen./Admin	Public Works Building	1325 S 300 E	2	1	3	5	1	2	14	YES
1 Fire	Fire Station #1	80 S 300 W	2	0	0	0	0	0	2	NO
2 Fire	Fire Crash Building	1100 S 3110 W Airport	0	0	3	0	0	3	6	NO
3 Fire	Fire Station #3	601 W Columbia Lane	2	0	0	5	0	0	7	NO
4 Fire	Fire Training Building	603 W Columbia Lane	3	0	4	5	0	3	15	YES
5 Fire	Fire Station #2	2737 N Canyon Road	2	0	0	1	0	0	3	NO
6 Fire	Fire Station #4	95 S 2050 W	2	0	0	2	0	0	4	NO
7 Fire	Fire Station #5	275 South 700 East	2	0	0	0	0	0	2	NO
1 Parks	Bicentennial Park Pavilion	1400 S 1600 E	1	0	1	1	0	1	4	NO
2 Parks	Big Springs Park Fixed Assets	5464 East South Fork Road	1	0	1	5	0	1	8	NO
3 Parks	Bridal Veil Park	Provo Canyon	1	0	1	5	0	1	8	NO
4 Parks	Canyon Glen	Provo Canyon	1	0	1	5	0	1	8	NO
5 Parks	Caterville Park	2400 North Caterville Road	1	0	1	1	0	1	4	NO
6 Parks	Exchange Park Restrooms	700 W 900 N	1	0	1	5	0	1	8	NO
7 Parks	Foodprinter Park Restroom	1300 W 1150 S	1	0	1	2	0	1	5	NO
8 Parks	Fort Utah Pavilion/Skate Park	200 North Geneva Road	1	0	1	5	0	1	8	NO
9 Parks	Harbor Park	800 North 2450 West	1	0	1	3	0	1	6	NO
10 Parks	Harmon Park	200 South 500 East	1	0	1	0	0	1	3	NO
11 Parks	Kiwanas Park	820 North 1100 East	1	0	1	0	0	1	3	NO
12 Parks	Lions Park	1280 North 950 West	1	0	1	4	0	1	7	NO
13 Parks	Maeser Park	451 East 600 South	1	0	1	1	0	1	4	NO
14 Parks	Memorial Park	800 East Center Street	1	0	1	0	0	1	3	NO
15 Parks	North Park	500 N 500 W	1	0	1	3	0	1	6	NO
16 Parks	Neighborhood Park	230 South 1060 East	1	0	1	0	0	1	3	NO
17 Parks	Paul Ream Wilderness Park	1600 W 1500 N	1	0	1	5	0	1	8	NO
18 Parks	Pioneer Park	550 W 100 S	1	0	1	1	0	1	4	NO
19 Parks	Provost Park	620 S 1000 E	1	0	1	0	0	1	3	NO
20 Parks	Powerline #1 Park	500 West 1400 South	1	0	1	2	0	1	5	NO
21 Parks	Riverside Park	1260 W 600 N	1	0	1	5	0	1	8	NO
22 Parks	River View Park	4620 N 300 W	1	0	1	5	0	1	8	NO

Department	Location Name	Address	Urban Pollutants	Improperly Stored	Activities Outside	Pox to water	poor housekeeping	discharge of pollutants	Rank	High Priority	Notes
12	Water Reclamation Skippy Bay Lift Station	2995 W Boat Harbor	0	0	0	0	0	0	0	0	NO
13	Water Reclamation Ferric Chloride Bldg Dosing Station	1500 S 300 W	0	0	0	0	0	0	0	0	NO
14	Water Reclamation Ferric Dosing Station (Plant)	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
15	Water Reclamation Biosolids De-water Bldg (Plant)	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
16	Water Reclamation WRP Equipment G (Plant)	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
17	Water Reclamation Power Distribution (Plant)	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
18	Water Reclamation Headworks Bldg (Plant)	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
19	Water Reclamation Power Pump Station #2		0	0	0	0	0	0	0	0	NO
20	Water Reclamation Impure Station		0	0	0	0	0	0	0	0	NO
21	Water Reclamation Blower Bldg	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
22	Water Reclamation Chloring Bldg	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
23	Water Reclamation Power Dewater Bldg	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
24	Water Reclamation SEC Dewater Bldg	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
25	Water Reclamation ARI Water Pump House	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
26	Water Reclamation Influent Pump	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
27	Water Reclamation Trickling Filter Bldg	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
28	Water Reclamation Thickenor Pump Bldg	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
29	Water Reclamation Filter Building	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
30	Water Reclamation Operations Building	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
31	Water Reclamation Bayview Landfill Storage & Maintenance Building	Section 17, Township 9 S	0	0	0	0	0	0	0	0	NO
32	Water Reclamation SEC Clarifier Pump Station		0	0	0	0	0	0	0	0	NO
33	Water Reclamation Power Pump Station #1		0	0	0	0	0	0	0	0	NO
34	Water Reclamation Collections Equip. Bldg	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
35	Water Reclamation Collections Bldg	1685 S East Bay Blvd	0	0	0	0	0	0	0	0	NO
1	Energy Administration Energy Building	800 N 200 W	0	0	0	0	0	0	0	0	NO
2	Energy Energy Building (Boiler Bldg)	251 W 800 N	0	0	0	0	0	0	0	0	NO
3	Energy Power Plant Bldg & Equip.	700 N 200 W	0	0	0	0	0	0	0	0	NO
30	Energy Geothermal Power Facility	Cove Fort	0	0	0	0	0	0	0	0	NO
31	Energy Office and Shop	Cove Fort	2	2	1	0	0	0	5		NO
32	Energy Generator Bldg	Cove Fort	0	0	0	0	0	0	0	0	NO
41	Energy Cable Company Building	520 S 1600 W	0	0	0	0	0	0	0	0	NO

of High Priority 5

High Priority Facilities

This section shall serve as the description of assessment and prioritization processes of Permittee-owned or operated facilities as required in Section 4.2.6.2. and 4.2.6.3. of the permit. This process was completed in the Fall of 2018.

As required by Section 4.2.6.1., the initial step for this process was to compile a current list of city-owned and operated facilities. This was accomplished through cooperation with the Facilities Department of the city. Each facility was assessed for its potential to discharge urban pollutants. This assessment was governed by general knowledge of facility operations and some visual only site inspections. Each site was given a ranking of 0-5 with 5 being the highest risk for urban pollutant discharge. These are recorded in a spreadsheet.

Once the list of facilities was created and each one evaluated for potential for pollutant discharge, the process was continued for the several attributes listed in Section 4.2.6.3. for a “high priority” facility. These categories were: pollutants stored on site, improper storage, outside activities, proximity to Provo River and Utah Lake, housekeeping practices, and discharge of pollutants. Each of the facilities was given a value from 0 to 5 based on judgement and some visual inspections. The scores from these several categories were summed to give a total ranking. The maximum value would have been 30.

It was decided that any facility with a ranking above 12 would be considered a high priority site that would be subject to the requirements described in Sections 4.2.6.4. and 4.2.6.5. According to this process the follow facilities are high priority: Fleet Building, Public Works Building, Fire Training Building, Parks Building and East Bay Golf Maintenance Shop. Their scores and ranking are shown below.

Facility Name	Address	Urban of Pollutants	Improperly Housekeeping Pollutants	Activities Stored	Prox to Outside	Poor	Discharge water	Rank
Fleet Building	400 E 1400 S	5	0	3	3	0	2	13
Public Works Building	1325 S 300 E	2	1	3	5	1	2	14
Fire Training Building	603 W Columbia Lane	3	0	4	5	0	3	15
Parks Building	1417 S 350 E	5	2	3	5	3	2	20
East Bay Golf Maint. Shop	607 E 1896 S	3	1	1	5	2	1	13

High Priority Facility Inspections

Monthly Visual Inspections:

1. Use a weekly log to keep track of visual inspections.
2. Visual inspections should be done once a week.
 - a. Walk the perimeter of the facility first
 - b. Walk the inside of the perimeter
 - c. Things to look for/inspect:
 - i. Are storage areas being cleaned?
 - ii. Is there any oil or other chemicals sitting outside and not in their proper place?
 - iii. Has a spill recently happened?
 1. Has it been cleaned up?
3. If there is anything that is out of place or needs to be cleaned up:
 - a. Store items properly
 - b. Clean up any spills
 - c. Create a report

Semi-Annual Comprehensive Inspections:

4. Use a facility inspection report found on [ComplianceGO](#).
5. Inspections need to be completed every 3 months.
6. Inspect/look for but not limited to:
 - a. Waste storage areas/dumpsters

- b. Maintenance and vehicle refueling
 - c. Material storage and handling areas
7. Record inspection in ComplianceGO.

Annual|visual observation of storm water discharge:

8. Inspections must be completed every 3 months and during a rain event or snow melt.
- a. If this is not possible, inspect 4 times during the wettest season.
9. Inspect the all the storm water inlets/other storm water discharges first.
10. Inspect/look for but not limited to:
- a. Color
 - b. Smell
 - c. Sheen
 - d. Foaming
 - e. Turbidity
 - f. Vegetation growth
 - g. Is there soot or soil built up around the inlet or being discharged?
 - i. Follow back to source.
 - ii. Cease/prevent further discharge of soot or soil.
11. Record inspection in ComplianceGO.

A-3– Construction Inspections

Pre-construction Inspection:

Pre-Inspection:

1. Project must go through a development review for sites that are larger than 1 acre.
 - a. Sites, part of a common plan or less than one acre, are required to have a review by city staff before any permit is issued.
2. Review SWPPP and plans for construction.
 - a. Follow SWPPP review SOP
3. For site that are an acre or more conduct pre-construction meeting.
4. Located all Storm Water features in the area/ potential hazards.

Inspection:

1. Go to site and review landscape and surrounding features.
2. Will their location for a stabilized entrance work and be long enough?
3. Are any inlets located on site but not on the SWPPP map?
4. Review SWPPP again with the following inspection.

UPDES SW Inspection Evaluation Form for SWPPP

Page:1

	YES	NO	N/A
SWPPP PRE-SITE REVIEW INFORMATION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
01 - Has a pre-construction review of the SWPPP been conducted by the appropriate municipal agency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02 - Are contact names and telephone numbers listed in the SWPPP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03 - Does the SWPPP have an estimate of the area to be disturbed, a sequence of construction activities, the SW runoff coefficient for after completion, a description of the soil types, controls for discharges from (asphalt/concrete) batch plants if any, show wetland areas, and have a description of the nature of the construction activity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04 - Does the SWPPP and site map show erosion and sediment controls placement & details (e.g. erosion blankets, mulch, slope drains, check dams, sediment basins, grass-lined channels, fiber rolls, sediment traps, silt fence, inlet protection, curb cut-back, dust control, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05 - Does the SWPPP and the site map show and describe good housekeeping controls (e.g., track out pad, street sweeping, material storage, construction waste containment and removal, sanitary waste, concrete washout pits, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06 - Are post-construction elements included in the SWPPP? (i.e., grass swales, detention basins, vegetated filter strips, infiltration, depression storage, landscaping/xeriscaping, discontinuous concrete or hard surface SW conveyance, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07 - Does the SWPPP address endangered species and historic preservation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
08 - Is the SWPPP signed by a responsible corporate officer with the certification statement (see permit part 5.16.c.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
09 - Does the SWPPP include a site map showing storm drains, slopes/surface drainage patterns, SW discharge points, construction boundaries, limits of disturbance, surface waters (name of receiving water), structural controls, and does it define/explain non-structural controls?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 - Are the NOI and a copy of the State permit in the SWPPP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



SWPPP Construction Inspection Procedure

- *Storm Water Pollution Prevention Plan construction inspection procedure is when a municipal employee enters construction sites to make sure they are in compliance with the either the General Construction permit or the Common Plan Permit.*

Site Visits and Reports:

1. Inform site contact of visit.
2. Find/review SWPPP making sure that the following items, at least, are up to date:
 - a. Site plans
 - b. Contractor inspections
 - c. Corrective action log
 - d. Site map
3. Make sure SWPPP sign is on site and it has a permit number and contact number on the sign.
4. When on site, first inspect the outside perimeter then the inside.
5. Inspect all BMP's, which include but is not limited to:
 - a. Washout(s)
 - b. Dumpster(s)
 - c. Portable toilet(s)
 - d. Inlet protection(s)
 - e. Trackout pad(s)
 - f. Silt fence/erosion control(s)
 - g. Note: on inspections be clear with which BMP's need to be replaced or repaired
6. Take pictures of all items that are not in compliance.
7. Do a closing interview with site contact.

8. When filling out inspection report provide action items and the timeframe in which to complete them.
9. Complete report on [ComplianceGO](#) with pictures taken during inspection. See below form used for report.
10. Once inspection and report is completed, send report/findings to the responsible party.
11. Inspections will occur monthly or twice a month if the site is a high priority.

Priority Construction Sites

- *"priority construction site" means a construction site that has potential to threaten water quality when considering the following factors: soil erosion potential; site slope; project size and type; sensitivity of receiving waterbodies; proximity to receiving waterbodies; non-storm water discharges and past record of non-compliance by the operators of the construction site. – Per MS4 permit 7.36*

Priority construction site if any of the following apply:

1. Site has extreme erosion potential or high slope (i.e. slopes over 20%)
2. Wetlands on site and will need to be protected.
3. If the project is over 50 acres in size.
12. Site activities are within 50 feet of receiving body of water. (i.e. Provo River, Utah Lake, Provo Bay)

UT SWPPP Compliance Inspection Form

YES NO N/A

- 01 - Is the SWPPP on site and accessible, or is the SWPPP location posted in an obvious place and reasonably accessible (in a short time)?
- 02 - Are erosion control, sediment control, and good housekeeping BMPs installed on the site as shown in the SWPPP?
- 03 - Has the SWPPP been updated to reflect the NOI permit and current site conditions (modifications dated and initialed on site map, new BMPs on site map, discontinued BMPs crossed off site map, new BMP details and spec's in SWPPP, SWPPP amendment log, etc)?
- 04 - Are on-site inspections being performed and recorded by a qualified person on a weekly or bi-weekly basis, reporting items required by permit? (Inspector name and qualifications, weather, problems/repairs, corrective action, new BMPs, removed BMPs, discharges, etc.)
- 05 - Have all corrective action items from previous inspections been addressed and documented within the time frame allotted by the inspector?
- 06 - Are SW flows entering and leaving the construction site controlled, managed, or diverted around the site? (e.g. perimeter controls, berms, silt fence, upgradient boundary diversion, down gradient boundary sediment control, etc.)
- 07 - Is the site FREE from evidence of sediment discharge such as mud flows or soil deposits from the construction site in downstream locations?
- 08 - Is the site FREE from evidence of vehicles tracking soil off the construction site?
- 09 - Is the site FREE from soil, construction material, landscaping items, or other debris piled on impervious surfaces (roads, drives) that could be washed with SW to a storm drain or water body?
- 10 - Is the site in good condition with NO need to repair, maintain, or improve erosion control BMPs (temporary stabilization, erosion blankets, mulch, vegetated strips, rip rap, surface roughening, pipe slope drain, dust control, etc.)?
- 11 - Is the site in good condition with NO need to repair, maintain, or improve sediment control BMPs (silt fence, check dams, fiber rolls, sediment trap/basin, inlet protection, waddles, straw bails, curb cut-back, etc.)?
- 12 - Is the site in good condition with NO need to repair, maintain, or improve good housekeeping controls (clean track out pad, sweeping, construction materials management, litter/trash contro, port-o-potties staked down, fueling areas, concrete washout out area, proper curb ramps, spill prevention, etc.)?

13 - Is the site FREE from disturbed areas that have not had construction activities for 14 to 21 days without stabilization? (except snow or frozen ground)?

14 - Are all places where BMPs are needed installed with proper BMPs or are all BMPs no longer needed removed?

- EPA 3560-3 SEV**
- Code Violation:**
- DOR11 - Discharge without a permit
 - DOR18 - Failure to apply for a Notice of Termination
 - BOR12 - Failure to conduct inspections
 - BOC17 - Failure to develop any or adequate SWPPP/SWMP
 - BOC18 - Failure to implement SWPPP/SWMP
 - BOR41 - Failure to maintain records
 - COR11 - Failure to monitor
 - BR19B - Failure to properly operate and maintain BMPs
 - BR19A - Failure to properly install/implement BMPs
 - EOR16 - Failure to submit required report (non-DMR)
 - AOR22 - Narrative effluent violation
 - DOR12 - Failure to submit required permit information
 - AOR12 - Numeric effluent violation
 - BOR42 - Violation of a milestone in an order

- Inspection Code**
- Reason for Inspection and Weather Information:**
- Please indicate below if this inspection is for SW Sampling or SW Non-Sampling.
 - Please indicate below the reason for this inspection: (A) Scheduled; (B) Complaint/Tip; (C) Random
 - Please document below: (1) The weather information at the time of inspection; (2) Date of last known rain event; (3) Duration of rain event with approximate rainfall (inches).

complianceGO - Inspection Guide

UT SWPPP Compliance Inspection Form

Page:3

- Inspection Start/Stop Time and Communication:**
- Please indicate the START and STOP time for this inspection.
 - Indicate who you talked with during the inspection and what entity they represented. If a message was left, indicate who the message was left with, what entity they represent and the time of the message.

Post Construction Inspection:

Inspection:

1. Discuss with the contractor what their schedule is for completing construction.
 - a. All construction needs to be completed for Notice of Termination to be confirmed
2. If all construction has been completed follow the below inspection.
3. Go to the State website and confirm termination for the Notice of Intent.

UTMS4 NOT Final Inspection

	YES	NO	N/A
01 - Has ownership of the site changed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02 - Has the site been properly stabilized according to the UPDES Permit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03 - Has all waste, materials, and equipment been removed from the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04 - Have all BMPs that are not meant to stay on the site following construction been removed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05 - Have all potential pollutants been removed from the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06 - Has the site been properly cleaned up?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07 - If applicable, have the post construction BMPs been inspected and post construction maintenance plan been implemented?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
08 - Has the Notice of Termination (NOT) for this site been filed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
09 - Will the Notice of Termination (NOT) be confirmed with the state by the MS4?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Information:

Notes:

Notes:

Escalating Enforcement

- Escalating enforcement is enforcement that over time increases in severity and penalty.

Enforcement occurs when a person or persons caused illicit discharge, illegal discharge/dumping and/or did not comply with City code or city requested direction.

Construction Sites:

1. If two consecutive inspections show non-compliance with the General Construction or Common Plan Permit a Notice of Violation (NOV) will be given to the responsible party. Non-compliance is any open action items, from previous site inspections, that have not been completed on site in the time assigned to the action item. (See copy of NOV form at end of document.)
 - a. If the Notice of Violation has corrective actions that have not been corrected within the time period, fines will be assessed to the responsible party. Fine schedule is below and subject to changes at the direction of the Public Works Director or Their designee.
2. If the responsible party already has received a NOV from the City on the same infractions fines will be immediately assessed.
3. Examples of non-compliance but are not limited to:
 - a. A large amount of dirt and dust accumulated on the road.
 - b. Portable toilet tipped over.
 - c. Concrete wash out not in designated washout.
 - d. Inlet protections not in place and dirt and other debris accumulated in or around inlet.
 - e. Vehicle track out not in place and track is occurring.
 - f. Action items not closed out in a timely manner on [ComplianceGO](#).

Illicit Discharges/Illegal Dumping:

1. Unintentional discharges will be given a verbal warning.
 - a. If the discharge occurs again with the same responsible party as before, a Notice of Violation will be given.
 - b. If a third incident occurs responsible party will be given a second NOV with action items and fines. Fine amount will be assessed on a case by case bases. Fines will range from \$50-\$1000.
 - c. Example of unintentional discharges:
 - i. Oil cap breaking and oil leaking into gutter.
 - ii. Dropped paint can.
 - iii. Vehicle accident.
2. Intentional discharges will be given an automatic written warning with the possibility of a Notice of Violation with action items. Depending on the severity, a fine may be issued for first intentional discharge. Fine amount will be assessed on a case by case bases. Fines will range from \$50-\$1000.
 - a. If there is a second occurrence another NOV will be assessed along with a fine.
 - b. If there is a third occurrence criminal action will be taken on the responsible party.
 - c. Example of intentional discharges:
 - i. Pouring old gas/oil into the storm drain
 - ii. Storing hazardous materials in the street.
 - iii. Pouring anything that is not water, rain water, or snowmelt into the storm drain.

Fine Schedule for General Construction or Common Plan of Development Permit:

Violation:	Common Plan		General Construction	
	First Tier Fine	Second Tier Fine	First Tier Fine	Second Tier Fine
Dirt in streets, sidewalks, gutters	\$50	\$100	\$100	\$200
SWPPP Sign	\$50	\$100	\$100	\$200
Inlet protection (per inlet)	\$50	\$100	\$100	\$200
Expired permit (past 60 day grace)	\$50	\$100	\$100	\$200
Inspections	\$100	\$200	\$200	\$400
Concrete washout	\$100	\$200	\$200	\$400
Empty dumpster/ clean up trash	\$50	\$100	\$100	\$200
Silt fence needs repair	\$50	\$100	\$100	\$200
BMP's not installed as per SWPPP map or details and specs	\$50	\$100	\$100	\$200
Stake toilets	\$50	\$100	\$100	\$200
Materials stored on impervious surface	\$50	\$100	\$100	\$200
Missing documents	\$100	\$200	\$200	\$400
Action items not being closed out by responsible person.	\$50	\$100	\$50	\$100

Appendix B

ILLICIT DISCHARGE DETECTION AND ELIMINATION MANUAL

OPERATED BY



Revised April 2019

Introduction

Illicit Discharge Detection and Elimination (IDDE)

Allowable Non-Storm Water Discharges

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated pumped ground water
- Discharge from portable water sources
- Foundation drains
- Air conditioning condensation
- Irrigation water, springs
- Water from crawl space pumps
- Footing drains
- Lawn watering
- Flows from riparian habitats and wetlands
- De-chlorinated swimming pool discharges
- Street wash water
- Residential building wash waters without

The United State Environmental Protection Agency (USEPA) defines an illicit discharge as any discharge to a Small Municipal Separate Storm Sewer System (MS4) that is not composed entirely of storm water or the allowable non-storm water discharges listed to the left.

Provo City storm drains discharge to the Provo River, Provo Bay, and Utah Lake without going through a treatment plant. Therefore, it is particularly important that only storm water is discharged to the storm drains and that illicit discharges are eliminated from the system. The General Permit for Small MS4s requires that an IDDE program be developed by the regulated municipalities.

This manual describes the procedures to be used to detect and eliminate illicit discharges within the Provo City storm drain system. This document is a living document, and changes will be made from time to time to keep the procedures up-to-date. The guidance contained herein results in an effective IDDE program that fulfills the intent of the General Permit of Small MS4s.

Section 1.1 provides a description of various types of illicit discharges that may be present. The next sections address additional steps to creating an effect IDDE program: locating priority areas within a community (Section 1.2), mapping of the storm drain system (Section 1.3), detecting illicit discharges (Section 1.4), tracing the illicit discharge back to its source (Section 1.5), removing the illicit discharge (Section 1.6). Section 1.7 provides an approach to evaluating the overall IDDE program. Provo City standard operating procedures (SOPs) and other documents related to IDDE are located in the Appendices.

If you see an illicit discharge, it is your responsibility to contact the Provo City 311 Hotline.

Household Hazardous Waste

Provo City provides a hazardous waste collection day every spring. Date and location are updated annually on Provo City's website. (provo.org)

For days other than the hazardous waste collection day, citizens can visit Southern Utah Valley Solid Waste District to dispose of their household hazardous wastes.

1.1 TYPES AND SOURCES OF ILLICIT DISCHARGES

Illicit discharges are often categorized according to frequency, which provides information about the source and helps determine which tracing techniques may be useful in locating the discharge. Provo City Code 18.02 details what is prohibited to be discharged into the City system. Provo City code prohibits obstructions and interferences, illicit discharges, storage and littering, etc. The following three categories provide a good basis for defining illicit discharges:

Common examples of illicit discharges in Provo Utah:

Leaves being raked into the storm drain.
Dirt being transferred from a construction site to the roadway.
Garbage left in the street or blowing into the storm drain.
Wash water running

1. Transitory Illicit Discharges Typically one-time events resulting from spills, breaks, dumping, or accidents. Transitory illicit discharges are often reported by a citizen through the Provo City 311 Hotline, or following observation by a municipal employee during regular duties. Because they are not recurring, they are the most difficult to identify, trace, and remove. The best method to reduce transitory discharges is through general public education, education of municipal response personnel, tracking of discharge locations, and enforcement of Chapter 18.02 – Storm Water Discharges, Provo City Code.
2. Intermittent Illicit Discharge Occur over a period of time (several hours per day, or a few days per year). Intermittent discharges can result from legal connections to the storm drain system, such as a legal sump pump connection that is illegally discharging anything other than groundwater. Intermittent discharges can also result from activities such as drum washing in exterior areas. These types of discharges are more likely to be discovered, and are less difficult to trace and remove, but can still present significant challenges. These discharges can have large or small impacts on Provo River and Utah Lake, depending on the volume of discharge and the pollutant content.
3. Continuous Illicit Discharges Typically the result of a direct connection from a sanitary sewer, overflow from a malfunctioning septic system, inflow from a nearby subsurface sanitary sewer that is malfunctioning, or an illegal connection from a commercial or industrial facility. Continuous discharges are usually easiest to trace and can have the greatest pollutant load.

It is also important to consider land use when looking for illicit discharges. Table 1-1 provides a list of conditions and activities that may produce transitory and intermittent discharges, along with associated sources and land use. Table 1-2 lists possible sources of continuous discharges and their associated land use.

If you see an illicit discharge, it is your responsibility to contact the Provo City 311 Hotline.

TABLE 1-1

Land Use	Likely Source Locations	Condition or Activity that Produces Discharge
RESIDENTIAL	<ul style="list-style-type: none"> <input type="checkbox"/> Apartments <input type="checkbox"/> Multi-family <input type="checkbox"/> Single family detached 	<ul style="list-style-type: none"> <input type="checkbox"/> Driveway cleaning <input type="checkbox"/> Dumping/spills (e.g., leaf litter and RV/boat holding tank effluent) <input type="checkbox"/> Equipment/vehicle wash-downs <input type="checkbox"/> Septic system maintenance <input type="checkbox"/> Swimming pool discharges
COMMERCIAL	<ul style="list-style-type: none"> <input type="checkbox"/> Campgrounds/RV parks <input type="checkbox"/> Car dealers/rental car shop <input type="checkbox"/> Car washes <input type="checkbox"/> Laundry/Dry cleaning <input type="checkbox"/> Gas stations/auto repair shops <input type="checkbox"/> Marinas <input type="checkbox"/> Nurseries <input type="checkbox"/> Oil change shops <input type="checkbox"/> Restaurants <input type="checkbox"/> Swimming pools 	<ul style="list-style-type: none"> <input type="checkbox"/> Building maintenance <input type="checkbox"/> Dumping/spills <input type="checkbox"/> Landscaping/grounds care <input type="checkbox"/> Outdoor fluid storage <input type="checkbox"/> Parking lot maintenance <input type="checkbox"/> Vehicle fueling <input type="checkbox"/> Vehicle maintenance/repair <input type="checkbox"/> Wash-down of greasy equipment and grease traps.
INDUSTRIAL	<ul style="list-style-type: none"> <input type="checkbox"/> Auto recyclers <input type="checkbox"/> Beverages and brewing <input type="checkbox"/> Construction vehicle washout <input type="checkbox"/> Distribution centers <input type="checkbox"/> Food processing <input type="checkbox"/> Garbage truck washouts <input type="checkbox"/> Marinas, boat building and repair <input type="checkbox"/> Metal plating operations <input type="checkbox"/> Paper and wood products <input type="checkbox"/> Petroleum storage and refining <input type="checkbox"/> Printing 	<ul style="list-style-type: none"> <input type="checkbox"/> Industrial process water or rinse water <input type="checkbox"/> Loading and un-loading area wash-downs <input type="checkbox"/> Outdoor material storage
MUNICIPAL	<ul style="list-style-type: none"> <input type="checkbox"/> Airports <input type="checkbox"/> Landfills <input type="checkbox"/> Maintenance depots <input type="checkbox"/> Municipal fleet storage areas <input type="checkbox"/> Ports <input type="checkbox"/> Public works yards <input type="checkbox"/> Streets and highways <input type="checkbox"/> Golf courses <input type="checkbox"/> Schools 	<ul style="list-style-type: none"> <input type="checkbox"/> Building maintenance (power washing) <input type="checkbox"/> Dumping/spills <input type="checkbox"/> Landscaping/grounds care <input type="checkbox"/> Outdoor fluid storage <input type="checkbox"/> Parking lot maintenance (power washing) <input type="checkbox"/> Road maintenance <input type="checkbox"/> Emergency response <input type="checkbox"/> Vehicle fueling <input type="checkbox"/> Vehicle maintenance/repair <input type="checkbox"/> Vehicle washing

TABLE 1-2 LAND USES, LIKELY SOURCE LOCATIONS AND ACTIVITIES THAT CAN PRODUCT <u>CONTINUOUS</u> ILLICIT DISCHARGES	
LAND USE	CONDITION OR ACTIVITY THAT PRODUCES DISCHARGE
RESIDENTIAL	<input type="checkbox"/> Failed sanitary sewer infiltrating into storm drain <input type="checkbox"/> Sanitary sewer connection into storm drain <input type="checkbox"/> Failed septic systems discharging to storm drain system
COMMERCIAL/ INDUSTRIAL	<input type="checkbox"/> Failed sanitary sewer infiltrating into storm drain <input type="checkbox"/> Process water connections into storm drain <input type="checkbox"/> Sanitary sewer connection into storm drain
MUNICIPAL	<input type="checkbox"/> Failed sanitary sewer infiltrating into storm drain <input type="checkbox"/> Sanitary sewer connection into storm drain
SOURCE (TABLES)	1-1 and 1-2): Modified from Illicit Discharge Detection and

Elimination: A Guidance Manual for Program Development and Technical Assessments, Center for Watershed Protection, 2004, p. 12, Table 2.

1.2 PRIORITY AREAS

Provo City evaluates different areas of the City to determine sites and/or areas that have a high potential for illicit discharges. Provo City’s ranking system can be seen in Figure 1. To determine the ranking of an outfall, a number of factors are taken into consideration. First, the type of land use is considered. For example, the potential for industrial areas to have an illicit discharge that would be detrimental to State water bodies is higher than residential areas. Other considerations that are taken are the age or development, if the receiving waters are impaired, the number of outfalls in one area, number or frequency of illicit discharges/ illegal dumping upstream of the outfall, and a septic system within the region of an outfall. The list of priority areas is kept electronically and all high priority outfalls are inspected annually. To obtain the list, please contact the Storm Water Division of Provo Public Works at (801)-852-6700. Provo City storm water employees will evaluate and revise this process as illicit discharges occur and are removed, or as development changes throughout the City see section 1.7 for more information.

Figure 1

Provo City Priority Area Ranking System

IDP Factor (Illicit Discharge Potential)		IDP
High		3
Moderate		2
Low		1

Illicit Discharge or Illegal Dumping		IDP
High (1 <= year of occurrence)		3
Moderate (1> and <5 years from occurrence)		2
Low (5 => years without incident)		1

Impaired Water discharge		IDP
Yes		3
No or No Data		0

Density of outfalls (1 mile circumference, in stream alignment)		IDP
<=10		1
>11-19		2
>20		3

Type of use		IDP
Industrial		3
Commercial		2
Mixed use		1.5
Residential		1

Age of development		Avg. age	IDP
development 1849-1951		68-170	3
development 1952-1991		28-67	2
development 1992- to current		27-0	1

Septic system within outfall region		IDP
Yes		3
No or No data		0

1.3 SYSTEM MAPPING

The Provo City storm drain system is available to City employees on the GIS Home map (gishome.provo.org). The storm drain mapping can also be accessed directly from the City's GIS database for employees using ArcGIS. For quick reference of all the outfalls located in Provo City boundaries, see Figures 2 and 3 below. Printed maps of the storm drain network can also be obtained from the Public Works Public Services Division.

During and after construction, Public Works engineering inspectors and surveyors survey storm drain pipes, catch basins (inlets), and other storm water structures. The Public Works department then adds these new storm drains to the database and GIS Home. If you think storm drain data is either missing or incorrect in the mapping, you can contact Scot Allen at (801) 852-6721.

Figure 2

Provo City Outfall Area Map 1

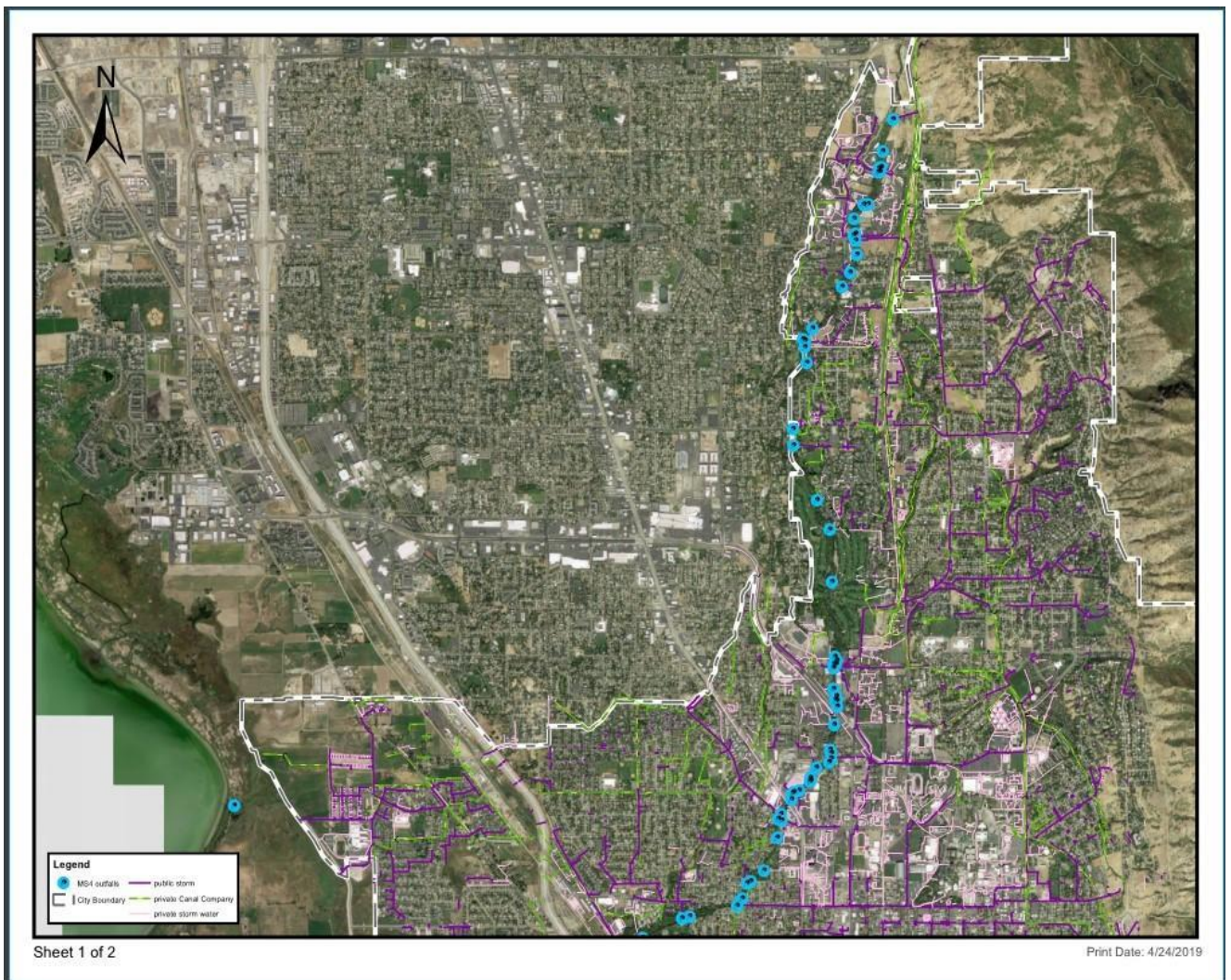
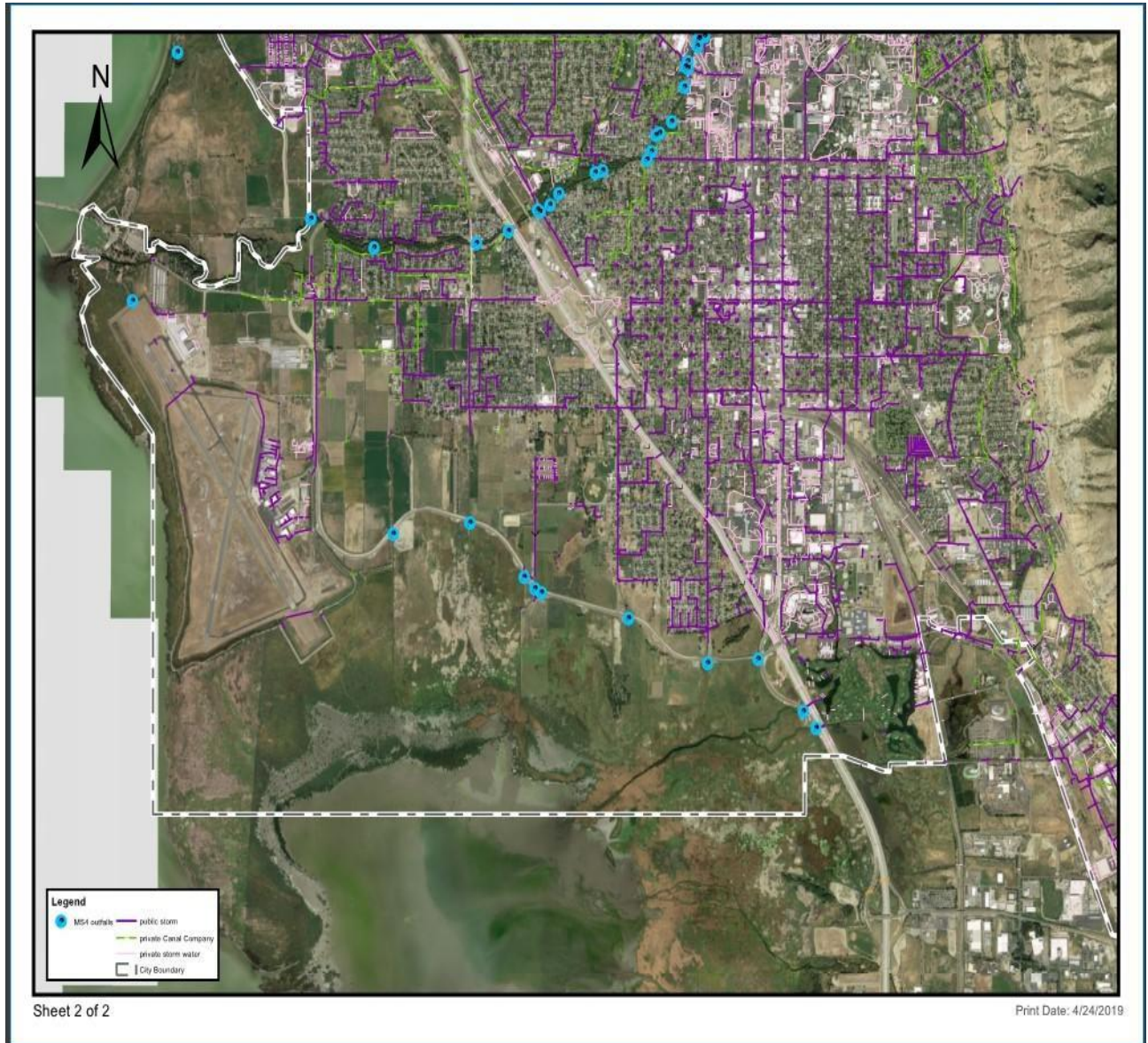


Figure 3

Provo City Outfall Area Map 2



1.4 DETECTION

Provo City uses different detection techniques to determine where and when illicit discharges are occurring.

1.4.1 Dry Weather Outfall Inspections

The Provo Outfall Inspection Form (see Appendix A) can be used both as an initial inspection during survey for mapping, and should be used for regular long-term dry weather inspections to detect continuous and intermittent discharges. Regular inspection of each storm drain system will be performed at least once every 5 years with high priority areas inspected annually. The form should also be completed whenever there is evidence of an illicit discharge, such as significant flow during dry weather, the presence of raw sewage indicator, staining, or residue, is observed.

1.4.2 Opportunistic Inspections

Provo City Public Works crews regularly conduct their regular duties in and around the storm drain system. Crews should keep a look out for illicit discharges as they work. If an employee observes evidence of an illicit discharge during a non-routine inspection, they should collect as much information about the potential illicit discharge as possible, then contact the Storm Water team or 311 so corrective actions can be taken. It is important to collect as much information as possible at the time of initial observation because of the likelihood that a discharge may be transitory or intermittent. Initial identification of the likely or potential sources of the discharge is also very important.

1.4.3 Citizen Call-In Inspections

Provo City hotline for all citizen call-ins is 311. The call information is then forwarded to storm water personnel who will then begin an investigation. Once all of the information has been collected and a solution found, the ticket item is closed out. For call-ins not made through the 311 system, a journal is kept for all potential and actual illicit discharges that occur within the city limits.

1.4.4 Septic System Inspections

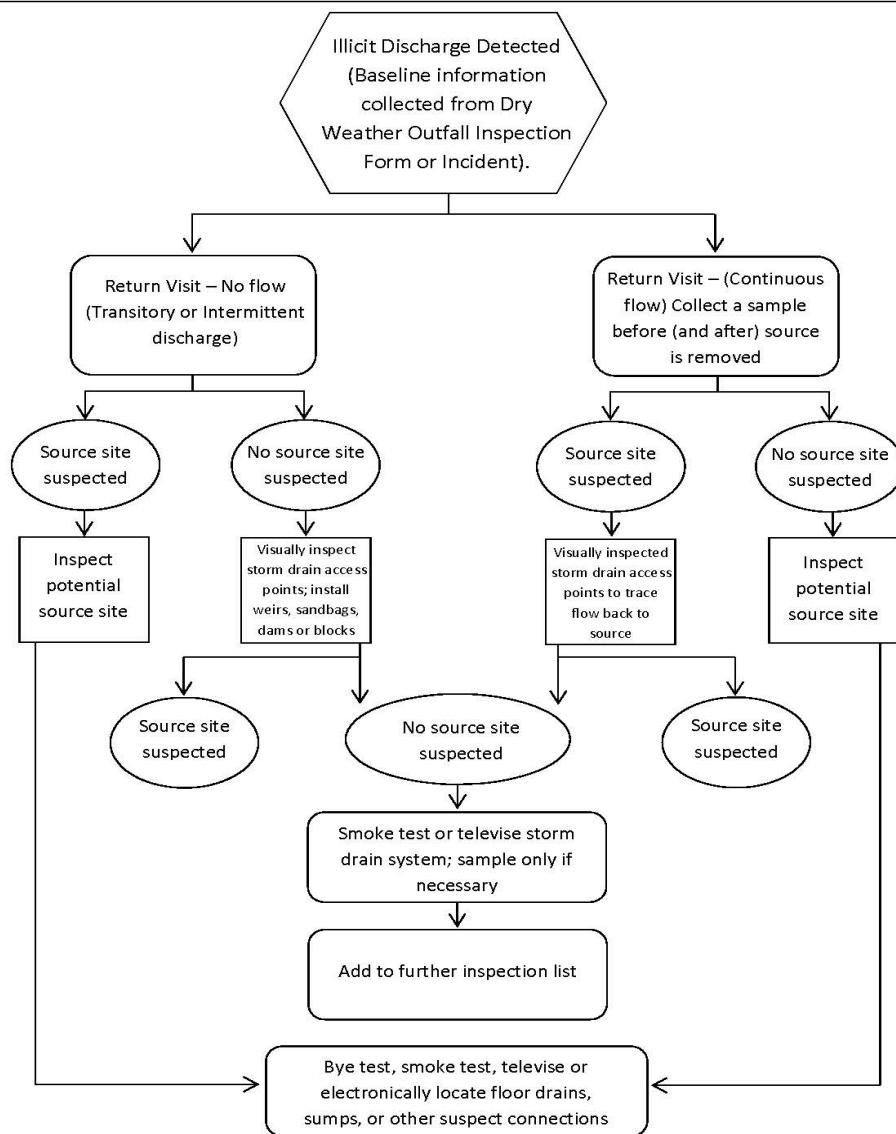
As Provo City ages, old structures tend to degrade. This is often the case with septic systems. Provo City has kept track of the systems still in Provo City. Indicators of septic system failures include wet areas on the ground or disagreeable odors near the leach field. If municipal personnel observe these indicators near a leach field, they should coordinate with their local health officer to initiate enforcement, which is primarily to have the owner repair the septic system (or connect to a sanitary sewer).

1.5 TRACING ILLICIT DISCHARGES

Once an illicit discharge has been reported or detected through an inspection, the next step is to locate the source. Selection of tracing techniques will depend on the type of illicit discharge detected, the information collected during initial discovery and observation (whether through an inspection by a municipal employee or through a citizen call-in), and the resources/technology available. A single technique may be used or several techniques may need to be combined to identify the source of the discharge. Figure 1-1 presents a flow chart for a method of selecting tracing techniques that can be applied to the two categories of potential illicit discharges: (1) present at the location (where the illicit discharge was initially reported), and (2) continuous discharges (where upon returning to the site a continuous flow is present and the flow may be more easily traced to the source). Each of these circumstances is described below.

1. Transitory or Intermittent Discharges: These conditions may occur as a result of an inspection or a citizen complaint. While initial information may have been collected regarding the potential illicit discharge, a return trip may show that the discharge was either intermittent or transitory (e.g., no flow is present upon return to the site). The investigation techniques that should be used will depend on whether or not a potential source location is identified during the initial observation:
 - o Potential Source Identified: If a potential source for the illicit discharge was initially identified, steps should be taken to investigate the potential source site, such as inspecting the site and storm drain system in the vicinity of the site. If floor drains, sumps, or other suspect discharge locations are observed during this inspection, dye testing, electronic location of subsurface pipes, or televising may be used. These techniques should definitively show whether the suspect site was the source of the illicit discharge.
 - o Potential Source Unidentified: If no source site is suspected, and only the general area of the illicit discharge is known, it may be possible to trace the evidence of the illicit discharge by visual inspection of the storm drain access points. If this catch basin/manhole inspection technique is not fruitful, some intermit steps could be taken to try to trap water from an intermittent discharge. For example, placing booms within the manhole sections, sand bagging, damming or block testing of selected storm drain access points can help reveal the source of the discharge. If these techniques have no positive result (no water pools behind the weir or sand bag), the discharge was likely transitory (one time only), and it may not be possible to determine its origin.
2. Continuous Discharge: Tracing continuous discharges is typically more fruitful than tracing transitory or intermittent discharges. The primary difference between tracing a transitory or intermittent discharge and tracing a continuous discharge is that sandbagging and weirs are not required for a continuous discharge. Visual observation of the system access points should reveal where the flow is coming from. Just as for tracing a transitory or intermittent discharge, if visual inspections are not fruitful in identifying the source and the original report was severe or gross pollution, then another form of detection should be used.

**FIGURE 1-1
FLOW CHART TO SELECT TRACKING TECHNIQUES**



1. **Visual Inspection at Manholes/Inlets:** This tracing technique is typically used when there is no suspected source site. It is the most cost effective and efficient method of tracing. Structures should be systematically inspected starting at the initial detection location, gradually working upstream through the system. If the crew is tracking a continuous discharge, the inspections may be relatively easy, and the flow can be tracked back to its source. If the crew is attempting to track a transitory or intermittent discharge, the crew should make the following observations depending on the information provided from the initial identification: color and clarity of any discharge, staining or deposits on bottom of the structure; oil sheen, scum or foam on any standing fluids in sump of structure; odors, staining or deposits on inlet pipes and outlet pipes.

Depending on what the crew is looking for, and what they find, they will progressively inspect additional structures until either a potential source is found, or no further evidence is found. If no further evidence is found the crew may elect to further assess some of the structures by installing sandbags or other damming devices to determine if the discharge recurs. Crews should use standard safety procedures when conducting these inspections such as cone placement and safety vests in traffic areas, confined space entry techniques (if entry is necessary), steel-toed boots, etc. The crew should follow the standard operating procedures of removing the discharge which is located in Appendix A.

2. Sandbagging or Damming: Sandbagging and damming is typically only conducted when the discharge flow has ceased since initial detection. Application of this technique will show whether the discharge is one time only (no water pools behind the sandbag or dam) or intermittent (water pools behind the sandbag). If the discharge is part of a continuously flowing system, the placement of booms at intermittent locations can also help determine where the illicit discharge is occurring.
3. Dye Testing: Dye testing is typically conducted when a potential source site has been identified, and the crew is trying to determine whether the site has floor drains or other locations that connect and discharge to the storm drain system. Permission to access the site must be obtained before dye testing can be conducted. The crew should review available sanitary sewer and storm drain maps before conducting the dye testing. The dye testing procedure consists of two steps: (1) discharging the dye into the suspect location, and (2) opening nearby storm drain and sanitary sewer manhole covers to determine where the dye discharges too.
4. Televising: Televised video inspections are a useful technique when an illicit connection or infiltration from a nearby sanitary sewer is suspected, but little evidence of the illicit discharge remains behind. This is completed by inserting a remote camera into the storm drain and recording the information provided through the camera.

1.6 REMOVING ILLICIT CONNECTIONS AND DISCHARGES

Provo City Ordinance 18.02.020 states that “It is unlawful for any person to cause or allow the discharge into a water body or storm drainage system, either directly or indirectly, of any substance not comprised entirely of storm water or an exempt discharge...” Exempt discharges can be found in Provo City Ordinance 18.02.020. During the event of an illicit discharge or illegal dumping, Provo City storm water crew will either remove the illicit discharge, require the responsible party to hire a third party to remove the illicit discharge, or require the responsible party to pay a fine for the cost of Provo City removing the illicit discharge. Provo City supervises all removals of the illicit discharge from the system to ensure that cleaning is done correctly. Verbal or written education will be given to the offending party. If an illicit discharge is found, the Illicit Discharge Hotline Tracking Sheet will be filled out and saved electronically. Notice of Violation will be given to those causing illicit discharge with a purpose. Provo City enforcement information can be found in Ordinance 18.02.050. Provo City enforcement SOP for illicit discharge and tracking sheet can be found in Appendix A.

1.7 EVALUATING THE PROGRAM

Provo City will evaluate their IDDE program at the end of each reporting year to assess if it is effective and efficient and to identify where improvements should be made. Once the evaluation is complete steps will be taken to try and better the system for the next year. Table 1-4 is a worksheet that Provo City will use to evaluate the following components:

1. Priority Areas: Are the priority areas initially identified still appropriate? Considerations should include reviewing the priority worksheet to assess if any changes have occurred since the initial evaluation was completed (such as: Have additional illicit discharges been discovered in any of these areas? Has a new priority list come out naming new waterbodies as impaired?)
2. Detection Program: Is the detection program effective? Documenting the number of illicit discharged detected by the various detection mechanisms (inspections, citizen call-ins, opportunistic inspections).
3. Tracing Techniques: What tracing techniques were generally used? What tracing techniques were generally effective? In how many instances were visual inspections of the area sufficient to identify the source of the illicit discharges? Were there any times the equipment necessary to effectively trace an illicit discharge was not used because it was not available, or was too costly to obtain?

<p>INSTRUCTIONS: THIS WORKSHEET IS FOR PROGRAM MANAGERS TO EVALUATE THEIR IDDE PROGRAM</p>
<p>Fill in the names of the priority areas in your community List any factors that have changed since their initial prioritization (i.e. have additional illicit discharges been discovered in these areas, has a new priority list come out naming new water bodies as impaired, etc.) Circle the applicable recommended change Fill in the number of illicit discharges identified and subsequently resolved for each detection mechanism used Fill in the different tracing techniques that were used (visual, sampling, sandbagging, OBM, dye/smoke testing, televising), and check whether they were effective or ineffective for each applicable detection mechanism that they were used for. If the method was ineffective, comment on why it was ineffective and how it could be improved Note any additional comments or recommended changes</p>

TABLE 1-4

IDDE PROGRAM EVALUATION WORKSHEET

PRIORITY AREAS	LIST ANY FACTORS THAT HAVE CHANGED SINCE INITIAL PRIORITY WAS SET	RECOMMENDED CHANGE (CIRCLE ONE)	
		LEAVE PRIORITY SAME	RE-EVALUATE
A		LEAVE PRIORITY SAME	RE-EVALUATE
B		LEAVE PRIORITY SAME	RE-EVALUATE
C		LEAVE PRIORITY SAME	RE-EVALUATE

DETECTION PROGRAM PRIORITY AREAS	# MAPPING INSPECTIONS		# LONGER TERM INSPECTIONS		# CITIZEN COMPLAINTS		# OPPORTUNISTIC INSPECTIONS	
	IDENTIFIED	RESOLVED	IDENTIFIED	RESOLVED	IDENTIFIED	RESOLVED	IDENTIFIED	RESOLVED
A								
B								
C								
TRACING TECHNIQUES USED	EFFECTIVE	INEFFECTIVE (COMMENT BELOW)	EFFECTIVE	INEFFECTIVE (COMMENT BELOW)	EFFECTIVE	INEFFECTIVE (COMMENT BELOW)	EFFECTIVE	INEFFECTIVE (COMMENT BELOW)

Comments/Recommended Changes

SOURCE: MODIFIED FROM ILLICIT DISCHARGE DETECTION AND ELIMINATION: GUIDANCE MANUAL FOR PROGRAM DEVELOPMENT AND TECHNICAL ASSESSMENTS, CENTER FOR WATERSHED PROTECTION, 2004, P. 53, TABLE 15.

Incident ID				
Responder Information				
Call taken by:		Call Date:		
Call time:		Precipitation (inches) in past 24-48 hours:		
Reporter Information				
Incident time:		Incident date:		
Caller contact information (optional)				
Incident Location (complete one or more below)				
Latitude or Longitude (or other coordinate system)				
Stream address or outfall #:				
Closest street address:				
Nearby landmark:				
Primary Location		Secondary location		
Stream Corridor (in or adjacent to stream):		Outfall	In-stream flow	Along banks
Upland Area (land not adjacent to stream):		Near storm drain	Near other water source (storm water, pond, wetland, etc.)	
Narrative description of location:				
Upland Problem Indicator Description				
Dumping	Oil/Solvent/Chemicals	Sewage		
Wash water, suds, etc.	Other:			
Stream Corridor Problem Indicator Description				
Odor	None	Sewage	Rancid/Sour	Petroleum (gas)
	Sulfide (rotten eggs; natural gas)	Other		
Appearance	"Normal"	Oil Sheen	Cloudy	Suds
	Other			
Floatables	None	Sewage (toilet paper)	Algae	Dead Fish
	Other			
Narrative Description of Problem Indicators				

Suspected Violator (name, personal or vehicle description, license plate #, address, etc.)

APPENDIX A

ILLICIT DISCHARGE DETECTION AND ELIMINATION SOPs AND FORMS

Figure 6

Provo City Illicit Discharge/Illegal Dumping Flow Chart



STANDARD OPERATING PROCEDURES FOR:	
A.1 Dry Weather Inspections	
PURPOSE OF SOP:	Dry weather inspections of outfalls are a primary means of detecting illicit discharges and identifying any necessary maintenance or repairs. To provide supervisor and field crew with a punch list of things to remember during regularly scheduled inspections.

Always

- o Before starting your inspection determine when the last rain event occurred in the area of the intended outfall.
 - o If a rain event has occurred within the last 24 hours and more than .1 inches determine another date to perform a dry weather inspection.
 - o If no rain event within 24 hours, then proceed to area of inspection.
- o For inspections, follow the Provo Outfall Inspection form found on ComplianceGo. Take pictures to keep track of changes year to year.
- o Characterize and record observations on basic sensory and physical indicators (e.g. odor, color, oil sheen). For examples see pictures below.
- o If an illicit discharge is encountered (such as raw sewage, paint, etc.), follow the procedure below.
- o Analyze inspection results for effectiveness of the IDDE Program
- o Perform more frequent inspections on outfalls with suspected illicit discharges and/or high priority areas. Refer to high priority outfall map.
- o High priority outfalls (based off of priority areas (see MS4 permit 4.2.3.3.1)) will be inspected annually. (See High Priority Areas above.)
- o All outfalls will be inspected within a 5-year time period, equaling to 20 percent of the outfalls being inspected annually.

Whenever possible

- o Check the outfall’s dimensions, shape, and component material and add it to the Provo City Outfall form.
 - o Perform inspections of all the outfalls at least once per permit cycle (long term).
 - o Identify and label the outfall with a unique identifier. Example: “PR-31140R”.
- o If a dry weather flow is present at the outfall, and the flow does not appear to be an obvious illicit discharge (e.g., flow is clear, odorless, etc.), attempt to identify the source of the flow (intermittent stream, etc.) then document the discharge for future comparison.
- o Identify the source of the discharge

Never

- o Never put yourself in danger.
- o Never enter private property without permission.

<p>PROCEDURES TO FOLLOW IF ILLICIT DISCHARGE IS DETECTED:</p> <p>Use the Provo Outfall Inspection Form to document observations. Visually inspect general area for possible sources. Take photos.</p>
--

Examples of possible contaminants (there are many more) that could be discharged:

- a. Odor: Gas can have an odor that will last for hours after discharge
- b. Oil sheen: oil can cause a sheen in the water



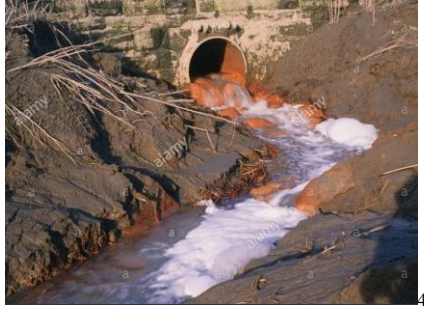
- c. Biological Elements: Sewage from RVs or illegal connections



- d. Floatables: Trash and other debris



e. Foam: Detergents and soaps



f. Vegetation: Extra vegetation can be caused by fertilizers



g. Stains on outfall: Could mean that someone dumped paint or other chemicals down the drain.
down the drain.



STANDARD OPERATING PROCEDURES FOR:	
A.2 Wet Weather Inspection	
PURPOSE OF SOP:	To provide supervisor and field crew with a punch list of things to remember during regularly scheduled inspections.

Always

- o Conduct inspections during a flow event, or as close to a rain event as possible (no longer than 6 hours)
- o Characterize and record observations on basic sensory and physical indicators (e.g. odor, color, oil sheen). See above pictures for reference.
- o If an illicit discharge is encountered (such as raw sewage, paint, etc.) follow the procedure below.
- o All outfalls will be inspected within a 5-year time period, equaling to 20 percent of the outfalls being inspected annually.
- o For inspections follow the Provo Outfall Inspection form found on ComplianceGo. Take pictures to keep track of changes year to year.

Whenever Possible

- o Identify and label the outfall with a unique identifier. For example, "PR-31140R".
- o Check the outfalls dimensions, shape, and component material using the GPS data dictionary with existing site name in the data dictionary

Never

- o Never enter private property without permission.
- o Never put yourself in danger.

PROCEDURES TO FOLLOW IF ILLICIT DISCHARGE IS DETECTED:

Use the Provo Outfall Inspection Form to document observations.
 Visually inspect general area for possible sources.
 Take photos.

STANDARD OPERATING PROCEDURES FOR:		
A.3 Private Storm Water Facility Inspection		
PURPOSE OF SOP:	To provide supervisor and field crew with a punch list of things to remember during regularly scheduled inspections.	

Always

- o Conduct inspections once in a 5-year period.
- o Characterize and record observations on basic sensory and physical indicators (e.g. odor, color, oil sheen). See above pictures for reference.
- o If an illicit discharge is encountered (such as raw sewage, paint, etc.) follow the procedure below.
- o Contact property owner before entering property.

Whenever Possible

- o Check the outfalls dimensions, shape, and component material and GPS site for mapping purposes.

Never

- o Never enter private property without permission.
- o Never put yourself in danger.

PROCEDURES TO FOLLOW IF ILLICIT DISCHARGE IS DETECTED:

Use the Provo Outfall Inspection Form to document observations.
 Visually inspect general area for possible sources.
 Take photos.

STANDARD OPERATING PROCEDURES FOR:	
A.4 Detention and Retention Inspection	
PURPOSE OF SOP:	To provide supervisor and field crew with a punch list of things to remember during an above ground and below ground inspection of detention and retention facilities

Always

- o Inspect facility for deficiencies such as cracks in sealed areas and ground stripped bare where grass was.
- o Observe if detention or retention basin is being maintained properly.
 - Is there an abnormal amount of sediment in the basin?
 - Is there trash with in the basin?
- o Characterize and record observations on basic sensory and physical indicators (e.g. odor, color, oil sheen). See above pictures for reference.
- o If an illicit discharge is encountered (such as raw sewage, paint, etc.) follow the procedure below.
- o Contact property owner before entering property.

Whenever Possible

- o Check the outfalls dimensions, shape, and component material and GPS site for mapping purposes.

Never

- o Never enter private property without permission.
- o Never put yourself in danger.

PROCEDURES TO FOLLOW IF ILLICIT DISCHARGE IS DETECTED:

Use the Provo Outfall Inspection Form to document observations.
Visually inspect general area for possible sources.
Take photos.

STANDARD OPERATING PROCEDURES FOR:		
A.5 Wetland Area Inspection		
PURPOSE OF SOP:	To provide supervisor and field crew with a punch list of things to remember.	

Always

- o Wetland Area inspections can be done in conjunction with some outfall inspections.
- o Visually inspect area for overgrowth, dead animals, and other unusual activities.
- o Characterize and record observations on basic sensory and physical indicators (e.g. odor, color, oil sheen). See above pictures for reference.
- o If an illicit discharge is encountered (such as raw sewage, paint, etc.) follow the procedure below.

Whenever Possible

- o Contact property owner before entering property.

Never

- o Never enter private property without permission.
- o Never put yourself in danger.

STANDARD OPERATING PROCEDURES FOR:	
A.6 IDDE: TRACING ILLICIT DISCHARGES	
PURPOSE OF SOP:	To provide a quick reference list of items to keep in mind during tracing activities to efficiently and systematically identify the source of an illicit discharge.

Always

- o Review/consider information collected when illicit discharge was initially identified (Incident Tracking Sheet or Provo City Outfall Inspection Form).
- o Survey the general area/surrounding properties to identify potential sources of the illicit discharge as a first step.
- o Trace illicit discharges using visual and scent inspections of upstream points.
 - o Pop upstream manholes.
 - o Look into inlets to see if there are stains or smells not normally associated with inlets.
- o Document tracing results for future reference.

Whenever Possible

- o Use weirs, sandbags, dams, or optical brightener monitoring traps to collect or pool intermittent discharges during dry weather.
- o Smoke test or televise the storm drain system to trace high priority, difficult to detect illicit discharges.
- o Dye test individual discharge points within suspected buildings.
- o If the source cannot be found, add the location to a future inspection program
- o Collect bacterial samples of flowing discharges to confirm/refute illicit discharge.
- o Contact property owner before entering private property.

Never

- o Never put yourself in danger.

STANDARD OPERATING PROCEDURES FOR:	
A.7 IDDE: REMOVING ILLICIT DISCHARGES	
PURPOSE OF SOP:	Proper removal of an illicit discharge will ensure it does not recur. Using legal methods for the removal will minimize the municipality's liability. Under ordinance 17.03.020, Notice of Violations can be administered. This sop provides an overview of illicit discharge removal procedures.

Always

- o Follow Provo City IDDE and SWPPP Violations Response Procedure
- o Determine who is financially responsible to determine who is responsible for the costs of removing the illicit discharge.
- o Suspend access to storm drain if threats of death or serious physical harm to humans or the environment are made.
- o Repair/correct cause of discharge if municipality is responsible.
- o If illicit discharge has reached the system, plug the farthest downstream line and clean out line with a vacuum truck.
- o If illicit discharge is in a continuously flowing facility, place booms at entrance and exit locations and replace as needed.
- o Review the information in Section 1.4 and 1.5 of this document for reference on other ways of finding and removing illicit discharges and illegal dumping.

Whenever Possible

- o Issue a Notice of Violation. Use Public Works Notice of Violation form.
- o Collect a confirmatory sample after the removal. Seek technical assistance from NHDES, if needed.

Never

- o Never repair/correct cause of discharge on private property until directed to do so by the appropriate municipal authority.
- o Never put yourself in danger

TABLE A-2
COMMON STORMWATER POLLUTANTS, SOURCES AND
IMPACTS

POLLUTANT	SOURCE	IMPACT
Sediment	Construction sites; eroding stream banks and lakeshores; winter sand and salt application; vehicle/boat washing; agricultural sites.	Destruction of plant and fish habitat; transportation of attached oils, nutrients, and other pollutants; increased maintenance costs due to flooding
Nutrients (phosphorus, nitrogen)	Fertilizers; malfunctioning septic systems; livestock, bird & pet waste; vehicle/boat washing; grey water; decaying grass and leaves; sewer overflows; leaking trash containers, leaking sewer lines.	Increased potential for nuisance or toxic algal blooms; increased potential for hypoxia/anoxia (low levels of dissolved oxygen which can kill aquatic organisms).
Hydrocarbons (petroleum, compounds)	Vehicle and equipment leaks; vehicle and equipment emissions; pesticides; fuel spills; equipment cleaning; improper fuel storage & disposal.	Toxic to humans and aquatic life at low levels.
Heavy Metals	Vehicle brake and tire wear; vehicle/equipment exhaust; batteries; galvanized metal; paint and wood preservatives; fuels; pesticides; cleaners.	Toxic at low levels; drinking water contamination.
Pathogens	Livestock, bird and pet wastes; malfunctioning septic systems; sewer overflows; damaged sanitary lines.	Risk to human health; leading to closure of shellfish areas and swimming areas; drinking water contamination.

IDDE and SWPPP Violations Response Procedure



1. Record report information on "Illicit Discharge Hotline Incident Tracking Sheet" before responding.
 - a. Responder Information
 - b. Reporter Information
 - c. Incident Location
2. Respond to incident location.
 - a. Locate reported discharge.
 - b. Inspect and describe on form.
 - c. Take photos of the discharge, collection system components, etc.
3. Contact Storm Water Maintenance if they are needed to help contain the discharge.
4. Contact Violator
 - a. "I'm _____ from Provo City Storm Water Division"
 - b. "We're responding to a report of (illicit discharge/stockpiling in the street or gutter/SWPPP violation)."
 - c. There are city codes governing storing of materials and discharge to the system.
 - i. No stockpiling material in any street, gutter or portion of the storm water collection system.
 - ii. It is illegal to discharge anything that is not comprised storm water into the storm water collection system.
 - d. So we need you to _____.
 - e. Enforcement Options.
 - i. Return Visits
 1. When and Why.
 - ii. Notices of Violation
 - iii. Fines
 - f. "If you have any questions, please feel free to contact the Storm Water Division of Provo City Public Works. We'd be happy to help."
 - g. "Thank you. Have a nice day."
5. Complete the form with all information.
 - a. Narrative
 - b. Photos
6. Save completed form.
 - a. Q:\Public Works\StormWater\UPDES\MS4 Permit Tracking Log\, year of reporting, IDDE

Incident ID				
Responder Information				
Call taken by:		Call Date:		
Call time:		Precipitation (inches) in past 24-48 hours:		
Reporter Information				
Incident time:		Incident date:		
Caller contact information (optional)				
Incident Location (complete one or more below)				
Latitude or Longitude (or other coordinate system)				
Stream address or outfall #:				
Closest street address:				
Nearby landmark:				
Primary Location		Secondary location		
Stream Corridor (in or adjacent to stream):		Outfall	In-stream flow	Along banks
Upland Area (land not adjacent to stream):		Near storm drain	Near other water source (storm water, pond, wetland, etc.)	
Narrative description of location:				
Upland Problem Indicator Description				
Dumping	Oil/Solvent/Chemicals		Sewage	
Wash water, suds, etc.	Other:			
Stream Corridor Problem Indicator Description				
Odor	None	Sewage	Rancid/Sour	Petroleum (gas)
	Sulfide (rotten eggs; natural gas)	Other		
Appearance	"Normal"	Oil Sheen	Cloudy	Suds
	Other			
Floatables	None	Sewage (toilet paper)	Algae	Dead Fish
	Other			
Narrative Description of Problem Indicators				
Suspected Violator (name, personal or vehicle description, license plate #, address, etc.)				

Provo Outfall Inspection

	YES	NO	N/A
01 - Is this inspection an initial inspection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02 - Is the area FREE from receiving rain of at least 0.1 inches of rain fall in the last 24 hours?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03 - Is the outfall FREE from having a flow coming out of it?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04 - Is the outfall FREE from having an odor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05 - If discharge is present, is the water clear and FREE from any color?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06 - Is the outfall FREE from having suspended solids/turbidity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07 - Is the outfall FREE from having any floatables?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
08 - Is the outfall FREE from having any deposits/stains?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
09 - Is the outfall FREE from having any biological elements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 - Is the outfall FREE from having any vegetation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 - Is the outfall FREE from having any damage to the structure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 - Is the outfall FREE from having an oil sheen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 - Is the outfall FREE from having foam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 - Is the outfall FREE from needing further action?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 - Have photos of the outfall been taken?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 - Is the outfall marked with a proper sign?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 - Is the Outfall FREE from visible flow? If not, detail detail depth of flow.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 - Is the Outfall submerged? If the outfall is submerged detail in the notes measurement from flow line to top of water (ft)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Outfall Location,
Time of Screening,
Pipe Diameter, and
Nature of Discharge:**

**Water Quality
Parameter
Measurements:**

**Probable Sources of
Discharge:**

APPENDIX B

POLLUTION PREVENTION AND GOOD HOUSEKEEPING

STANDARD OPERATING PROCEDURES FOR:	
B.1 Catch Basin Cleaning	
PURPOSE OF SOP:	To protect storm water by maintaining the ability of catch basins to trap sediments, organic matter, and litter. This reduces clogging in the storm drain system as well as the transport of sediments and pollutants into receiving water bodies.

Always:

- o Inspect catch basins for structural integrity and evidence of illicit discharges during cleaning.
- o If contamination is present (sewage or oil), stop cleaning, determine the source of the contamination, determine what is needed to clean up the contamination, report to supervisor, and clean up contamination.
- o Provide information of what catch basins were cleaned. Give information to GIS manager for tracking purposes.

Whenever Possible

- o Inspect catch basin at least annually, during catch basin cleaning. These forms will need to be kept for record keeping.
- o Perform street sweeping on an appropriate schedule to reduce the amount of sediment, debris and organic matter entering the catch basins, which in turn reduces the frequency with which they will need to be cleaned.

STANDARD OPERATING PROCEDURES FOR:	
B.2 Storm Drain System Repair and Maintenance	
PURPOSE OF SOP:	To protect storm water by replacing or repairing components of the storm drain system on a regular basis to prevent a failure of the storm drain system.

Always

- o Practice preventative maintenance for cracks, leaks, and other conditions that could cause breakdowns in the system by identifying problems during maintenance.
 - Catch basin cleaning
 - Outfall inspections
- o Repair defective structures or equipment identified during an inspection as soon as possible.
- o Document inspections, cleanings and repairs and report them to Provo Storm Water Department.
- o Use appropriate erosion and sediment control practices when performing repairs.

Whenever Possible

- o Practice preventative maintenance for pipes by televising:
 - Prior to reconstruction of roadways, or
 - On a regular schedule beginning with high priority areas.
 - Or track all televising of sewer lines by the sewer department.
- o Research and implement new technology that will improve the overall performance of the storm drain system
- o Perform street sweeping on a regular basis to reduce the amount of sediment, debris and organic matter entering the storm drain system, which in turn reduces the frequency with which the system will need to be cleaned.

Never

- o Never allow defective equipment or structures to go unrepaired.

STANDARD OPERATING PROCEDURES FOR:	
B.5 Storage, Disposal, and Handling of Chemicals	
PURPOSE OF SOP:	To protect storm water by properly storing and disposing of fertilizers and pesticides (herbicides and fungicides). Because storm drain water is not part of a wastewater treatment system, discharge of these chemicals flow untreated into ponds, lakes, rivers, streams, estuaries, and bays.

Always

- o Store chemicals in high, dry locations, according to manufacturer's specifications and applicable regulations
- o Clearly label secondary containers
- o Properly dispose of chemicals and other substances according to manufacturer's specifications and applicable regulations
- o Regularly inspect chemicals and other substance storage areas for leaks and spills
- o Clean up spills and leaks to prevent the chemicals from reaching the storm drain system.
- o Train employees annually on Illicit Discharge for proper disposal practices.
- o Maintain Material Safety Data Sheets (MSDS) for all chemicals used.
- o Make sure that all employees know the location of the MSDS.
- o Properly label containers

EPA defines a pesticide as any substance intended for preventing, destroying, repelling, or mitigating any pest. Pest can include insects, animals, unwanted plants, fungi, bacteria, etc. The term

Whenever Possible

- o Store chemicals in enclosed areas or in covered impervious containment, preferably in a locked cabinet.
- o Order fertilizers and pesticides for delivery as close to time of use as possible to reduce amount stored at facility
- o Order only the amount needed to minimize excess or obsolete materials requiring storage and disposal
- o Use all herbicides or pesticides appropriately to minimize the amount of chemicals requiring disposal

Never

- o Dispose of chemicals or other substances in the storm drain.
- o Never leave unlabeled or unstable chemicals in uncontrolled locations.

STANDARD OPERATING PROCEDURES FOR:	
B.6 Lawn Care	
PURPOSE OF SOP:	To protect Storm Water by using proper mowing, watering, and fertilizing techniques. Proper mowing and irrigation techniques will reduce organic matter and other pollutants from entering the storm drain system and water bodies.

Always

- o Mow only as low as needed for the area's intended use.
- o Water at appropriate times (when no rain is forecasted and in cooler times of the day).
- o Manage leaves, clippings, and compost so that runoff does not enter storm drain system or water bodies.
- o Store, use, and dispose of all fertilizers, pesticides, and contaminated wastes according to manufacturer's specifications and applicable regulations.
- o Check 5-day weather forecast to avoid fertilizing before heavy rain or during a drought.
- o Ensure that pesticides and fertilizers are only applied by personnel certified to do so.

Whenever Possible

- o Mulch grass clippings using a mulching mower.
- o Fill gas tanks in a controlled location.
- o Avoid combined products such as weed and feed, which do not necessarily target specific problems at the appropriate time.
- o Use alternative or environmentally friendly products.
- o Pull weeds by hand or mechanically.
- o Spot treat affected areas only instead of entire location

Never

- o
- o Never dump gas, waste or contaminated water down storm drains.
- o Never refuel or change the mower oil near storm drains
- o Never leave mower running in one location (to prevent burning and over-cutting of vegetation.)

STANDARD OPERATING PROCEDURES FOR:		
B.7 Vehicle and Equipment Storage		
PURPOSE OF SOP:	To protect storm water from petroleum products that may drip or leak from vehicles and equipment being stored or from dirt and sediment that accumulate in the storage areas.	

Always

- o Inspect parking areas for stains/leaks on a regular basis.
- o Use drip pans or adsorbents for leaking vehicles (provide labeled location to empty and store drip pans)
- o Address any known leaks or drips as soon as possible
- o Clean up spills

Whenever Possible

- o Store vehicles inside where floor drains have been properly connected
- o Store vehicles on paved areas, and street sweep on a regular basis to remove drips/leaks/dirt, and dispose of street sweepings properly
- o Maintain vehicles to prevent leaks.

Never

- o Never store leaking vehicles over a storm drain.

<p>Related References</p> <p>- USEPA National Menu of BMPs</p>

STANDARD OPERATING PROCEDURES FOR:	
B.8 Vehicle and Equipment Washing	
PURPOSE OF SOP:	To protect storm water using proper washing techniques, proper washing locations, and proper disposal of was water for heavy and light-duty vehicles and equipment.

Always

- o Discharge to a municipal sanitary sewer.
- o Wash fewer than 30 vehicles per week and discharge to the ground surface if:
 - Good Best Management Practice Rules are used,
 - The discharge is registered through UPDES permitting, and
 - The wash water:
 - Is not from power washing, steam cleaning, engine cleaning, or undercarriage cleaning,
 - Does not contain soaps or other products which contain regulated contaminants, and
 - Does not discharge to surface water.
- o Wash other equipment (i.e. garbage trucks) in wash bays that are covered and discharge to the sewer.

Whenever Possible

- o Use a commercial car wash for light duty vehicles
- o Obtain and use drain guards (filter inserts) or grease traps to catch sediments, petroleum products, etc.
- o Minimize water and soap use when washing or rinsing vehicles.

Never

- o Never perform engine or undercarriage washing outside.
- o Never wash vehicles over a storm drain or near drinking water wells
- o Discharge wash water to surface water.

<p>Related References</p> <p>- DEQ Department of Environmental</p>

STANDARD OPERATING PROCEDURES FOR:	
B.9 Vehicle and Equipment Fueling	
PURPOSE OF SOP:	To prevent storm water contamination originating from vehicle and equipment fueling.

Always

- o Fuel carefully to minimize drips to the ground surface.
- o Maintain clean fuel dispensing areas using dry cleanup methods.
- o Clearly label and tag all valves to reduce human error.
- o Have adsorbent spill cleanup kits and materials available at fueling areas.
- o Immediately clean up spills and properly dispose of contaminated soil and cleanup materials
- o When fueling small equipment from portable containers, fuel in designated area away from storm drains and water bodies.

Whenever Possible

- o Install a canopy or roof over aboveground storage tanks and fuel transfer areas.
- o Regularly inspect fueling equipment for corrosion and structural failure, cracks in foundations, and with asphalt, add a protective coating to create an impervious surface, inspect regularly, and street sweep quarterly at a minimum.
- o Protect storm drains from fueling areas using berms and dikes.

Never

- o “Top off” fuel tanks (post signs to remind employees).
- o Hose down or bury a fuel spill.

<p>Related References</p> <p>- USEPA National Menu of BMPs</p>

STANDARD OPERATING PROCEDURES FOR:	
B.10 Spill Cleanup	
PURPOSE OF SOP:	To protect storm water by educating employees on proper spill cleanup procedures, state reporting requirements, and preventative actions.

Always

- o Stop the source of the spill, if possible to safely do so.
- o Contain any liquids, if possible to safely do so.
- o Contact the storm water department or call 311.
- o Cover the spill with absorbent material such as kitty litter, sawdust, or oil absorbent pads. Properly dispose of absorbent once used. Do not use straw or water!
- o Petroleum spills involve, but are not limited to: crude oil, gasoline, heating oil, various fuel oils, lubricating oil, hydraulic oil, and asphaltic residuals.
- o Report spill if:
 - The spill is greater than 25 gallons, or
 - The spill cannot be immediately contained, or the spill and/or contamination cannot be completely removed within 24 hours, or
 - There is an impact or potential impact to ground/surface water
 - IF IN DOUBT, REPORT THE SPILL
- o Contact Provo City Fire Department (911) if hazardous materials spills involve non-oil spills that pose a threat to human health or the environment, such as chemical releases.
- o Report any discharge of hazardous waste immediately, (within one hour) to local emergency officials [Provo Fire Department and Storm Water Department], then contact the Provo City Emergency Management Agency.
 - Contact information for Provo Fire Department 801-852-6300 or (911)
 - Contact information for Provo Emergency Management Agency (801) 852-6321
- o For spills that are hazardous, petroleum, radiological, and/or may affect the water quality of State Waters, report spill to Provo City Fire, Provo City Storm Water (801) 852-6700 and the Utah Department of Environmental Quality (801) 536-4123
- o Keep a spill kit in areas where petroleum or hazardous materials are stored.
- o Train employees in spill response procedures and equipment annually.
- o Deploy containment booms if spill could potentially reach a storm drain or water body.
- o Position mats to contain drips from equipment or vehicles until they can be repaired.
- o Even if you did not cause the spill you should report the spill.

Whenever Possible

- o Seal the floor with paint to prevent absorption of fluids into concrete.
- o Install low-level or low-pressure alarms and/or cut-off systems on hydraulic equipment

Never

- o Never wash a spill into a storm drain or a water body.

STANDARD OPERATING PROCEDURES FOR:	
B.11 Garbage Storage	
PURPOSE OF SOP:	To protect storm water from contamination by properly storing garbage. Garbage and leachate can be transported by storm water and enter the storm drain system and receiving water bodies.

Always

- o Cover rubbish bins to keep rubbish and leachate in and wind and rain out.

Whenever Possible

- o Store garbage containers beneath a covered structure or inside to prevent contact with storm water.
- o Install berms, curbing or vegetation strips around storage areas to control water entering/leaving storage areas.
- o Locate dumpsters on a flat, concrete surface that does not slope or drain directly into the storm drain system.
- o Locate dumpsters and trash cans in convenient, easily observable areas.
- o Provide properly-labeled recycling bins to reduce the amount of garbage disposed.
- o Inspect garbage bins for leaks regularly, and have repairs made immediately by responsible party.
- o Keep bins free of improperly discarded trash.
- o Provide training to employees to prevent improper disposal of general trash.
- o Minimize waste by purchasing recyclable products that have minimal packaging.
- o Request/use dumpsters without drain holes.

Never

- o Never place hazardous waste in a dumpster or trash bin.
- o Never place gasoline-contaminated wastes in a rubbish bin (but small quantities of adsorbents form virgin oil spills are acceptable).
- o Never place oil-contaminated materials that release free draining oil into a rubbish bin.

Related References

- USEPA National Menu of BMPs

STANDARD OPERATING PROCEDURES FOR:		
B.12 General Facility Housekeeping		
PURPOSE OF SOP:	To protect storm water by maintaining a clean, organized facility.	

Always

- o Keep open areas clean and orderly.
- o Pick up litter.
- o Remove unused scrap/junk materials.
- o Store Hazardous materials as specified by the manufacturer

Whenever Possible

- o Store materials and wastes inside or under cover if outside.
- o Substitute less or non-toxic materials for toxic ones.
- o Perform a routine cleaning of the facility.
- o Inspect facility (exterior, parking areas, etc.) for stains.

Related References

- USEPA National Menu of BMPs

STANDARD OPERATING PROCEDURES FOR:	
B.13 Street Sweeping	
PURPOSE OF SOP:	To remove sediment, debris and other pollutants from streets, parking areas, and paved surfaces through regular, properly timed sweeping schedules.

Always

- o Sweep all publicly accepted paved streets and parking lots at least once per year as soon as possible after snowmelt.
- o Dispose of street sweepings properly in the drying beds at Provo Public Works.
- o Keep data logs on the mileage of street sweeping conducted each year.

Whenever Possible

- o Start at the “top” of town and work down.
- o Sweep downtown areas more frequently
- o Sweep in locations that generate debris, such as construction entrances, sand/salt loading areas, vehicle fueling areas, and vehicle and equipment storage areas on an as needed basis.
- o Maintain street sweeping equipment for maximum effectiveness.
- o Clean catch basins after streets are swept.

Never

- o Never store street sweepings in areas where storm water could transport fines to the storm drain system or a water body.
- o Never purposely sweep into the storm drain system.

STANDARD OPERATING PROCEDURES FOR:	
B.14 Snow Disposal	
PURPOSE OF SOP:	To protect storm water by minimizing the impact of snow piles which contain sand, salt, and trash and which generate concentrated releases of pollutants during spring snowmelt conditions.

Always

- o Identify sensitive ecosystems prior to disposal and avoid snow disposal in these areas.
- o Store snow at least 25 feet from the high water mark of a surface water.
- o Store snow at least 75 feet from any private water supply, at least 200 feet from nay community water supply, and at least 400 feet from any municipal wells.
- o Install a double row of silt fence or equivalent barrier securely between the snow storage area and the high water mark, and inspect periodically throughout the winter season.
- o Clear debris in storage area each year prior to snow storage use.
- o Clear all debris in snow storage area and properly dispose of no later than April 15 or immediately after snowmelt occurs of each year the storage area is in use.

Whenever Possible

- o Select storage locations that do not drain into surface waters and where environmental impacts of spring melt are minimal
- o Store snow on areas that are well above the groundwater table on a flat, vegetated slope.
- o Avoid disposal on pavement, concrete, and other impervious surfaces.
- o Do not pile snow in wooded areas, around trees or in vegetative buffers.
- o Divert run-on of water from areas outside the snow piles
- o Use less harmful deicers such as calcium magnesium acetate, potassium, or organic deicers such as Magic Salt.

Never

- o Never dispose of snow in wetlands, lakes, streams, rivers, or near drinking water sources.
- o Never store snow in well-head protection areas.

STANDARD OPERATING PROCEDURES FOR:	
B.15 Deicing Material Storage	
PURPOSE OF SOP:	To protect storm water by properly storing deicing materials. Sand, salt and other deicing materials used during winter can be transported by runoff into the storm drain system and eventually into water bodies if not stored properly.

Always

- o Locate sand/salt piles and deicing fluid tanks on flat, impervious sites that are easily protected from overland runoff and away from surface waters.
- o Store sand salt/sand in storage shed.

Whenever Possible

- o Contain wash water from trucks used for salting and sanding in a holding tank for disposal or discharge into sanitary sewers.
- o Locate deicing material stockpiles and tanks at least 100 feet from streams and flood plains.
- o Contain storm water runoff from areas where salt is stored by using buffers to diffuse runoff before entering water bodies.
- o Use diversion berms to minimize run-on to storage areas.
- o Cleanup “truck tracks” after storm events.

Never

- o Never dispose of wash water from sanding and salting trucks into the storm drain system, a water body, or septic system drain fields.

STANDARD OPERATING PROCEDURES FOR:		
B.16 Road and Parking Lot Maintenance		
PURPOSE OF SOP:	To remind municipal employees of tasks they should do during road and parking lot maintenance	

Always

- o When potholing, collect all old and new asphalt scraps. Dispose of them in the Public Works Asphalt disposal area for recycling purposes.
- o Concrete should be recycled in the same way as asphalt.
- o When painting parking lots or roads, only do so during dry weather.
- o When crack sealing, be sure to sweep up the debris after completion.
- o When repaving, sweep curb and gutters for excess asphalt.
- o If spills occur during any maintenance event, clean up immediately.

Never

- o Never store street sweepings in areas where storm water could transport debris to the storm drain system or a water body.
- o Never purposely sweep excess asphalt into the storm drain system.
- o Never pour paint down the storm drain.

Illicit Spill/Dumping Prevention and Response

-Spill/dumping prevention is a way to conduct certain activities so an illicit discharge does not occur. Spill/dumping response occurs when a citizen or city employee discovers or spills something down the or close to the storm drain.

Spill/Dumping Prevention:

1. Keep all containers closed and stored in an enclosed area or have a secondary containment for containers in case of leaks.
2. Material such as salt will be stored in a container or in an enclosed area to prevent discharge. Sweep around containment when the salt is being used.
 - a. Keep material in its proper storage area. Never store material near a storm drain inlet or on impervious area that does not have an erosion control BMP surrounding the material.
3. Never hose down a spill into the Storm Drain. Use absorbents that are dry and dispose of the absorbents into a solid waste dumpster or trash.
4. In shop areas, make sure there are spill kits and know where they are located.

Response if it is not within the storm sewer system:

1. If material is not hazardous and has not reached the storm drain system, clean up with spill absorbent and sweep up after 24 hours or before a rain event.
 - a. Contact Carlos Garcia (801) 852-6733 to document the spill .

Response if the contaminant enters the storm system:

1. If there is not running water or rain event, plug end of storm drain where the contaminate hasn't reached. Rinse pipe with water and suck up and dispose of properly in drying beds at Provo Public Works Yard.
 - a. Contact Carlos Garcia (801) 852-6733

Contact Procedure:

1. At all times:
 - a. If material is hazardous or over 25 gallons, spill/dumping needs to be reported to UDEQ Water Quality Emergency Spill Reporting Line (801) 536-0200 or (801) 536-4123. See UDEQ's website for more contact information.
2. After hours:
 - a. 311 for citizens
 - i. Dispatch (911) if material is hazardous.
 - b. Storm water crew on call
 - i. Storm water crew member will inform Carlos Garcia of spill/dumping for reporting.
3. During work hours:
 - a. 311, storm water team, or dispatch for employees and citizens.
 - b. If storm water team hasn't been notified, contact Richard Snyder (801) 852-7777, Hadley Spivey (801) 852-7722, or Carlos Garcia (801) 852-6733.

APPENDIX C

Escalating Enforcement

- Escalating enforcement is enforcement that over time increases in severity and penalty.

Enforcement occurs when a person or persons caused illicit discharge, illegal discharge/dumping and/or did not comply with City code or city requested direction.

Construction Sites:

1. If two consecutive inspections show non-compliance with the General Construction or Common Plan Permit a Notice of Violation (NOV) will be given to the responsible party. Non-compliance is any open action items, from previous site inspections, that have not been completed on site in the time assigned to the action item. (See copy of NOV form at end of document.)
 - a. If the Notice of Violation has corrective actions that have not been corrected within the time period, fines will be assessed to the responsible party. Fine schedule is below and subject to changes at the direction of the Public Works Director or Their designee.
2. If the responsible party already has received a NOV from the City on the same infractions fines will be immediately assessed.
3. Examples of non-compliance but are not limited to:
 - a. A large amount of dirt and dust accumulated on the road.
 - b. Portable toilet tipped over.
 - c. Concrete wash out not in designated washout.
 - d. Inlet protections not in place and dirt and other debris accumulated in or around inlet.
 - e. Vehicle track out not in place and track is occurring.
 - f. Action items not closed out in a timely manner on [ComplianceGO](#).

Illicit Discharges/Illegal Dumping:

1. Unintentional discharges will be given a verbal warning.
 - a. If the discharge occurs again with the same responsible party as before, a Notice of Violation will be given.
 - b. If a third incident occurs responsible party will be given a second NOV with action items and fines. Fine amount will be assessed on a case by case bases. Fines will range from \$50-\$1000.
 - c. Example of unintentional discharges:
 - i. Oil cap breaking and oil leaking into gutter.
 - ii. Dropped paint can.
 - iii. Vehicle accident.
2. Intentional discharges will be given an automatic written warning with the possibility of a Notice of Violation with action items. Depending on the severity, a fine may be issued for first intentional discharge. Fine amount will be assessed on a case by case bases. Fines will range from \$50-\$1000.
 - a. If there is a second occurrence another NOV will be assessed along with a fine.
 - b. If there is a third occurrence criminal action will be taken on the responsible party.
 - c. Example of intentional discharges:
 - i. Pouring old gas/oil into the storm drain
 - ii. Storing hazardous materials in the street.
 - iii. Pouring anything that is not water, rain water, or snowmelt into the storm drain.

Fine Schedule for General Construction or Common Plan of Development Permit:

Violation:	Common Plan		General Construction	
	First Tier Fine	Second Tier Fine	First Tier Fine	Second Tier Fine
Dirt in streets, sidewalks, gutters	\$50	\$100	\$100	\$200
SWPPP Sign	\$50	\$100	\$100	\$200
Inlet protection (per inlet)	\$50	\$100	\$100	\$200
Expired permit (past 60 day grace)	\$50	\$100	\$100	\$200
Inspections	\$100	\$200	\$200	\$400
Concrete washout	\$100	\$200	\$200	\$400
Empty dumpster/ clean up trash	\$50	\$100	\$100	\$200
Silt fence needs repair	\$50	\$100	\$100	\$200
BMP's not installed as per SWPPP map or details and specs	\$50	\$100	\$100	\$200
Stake toilets	\$50	\$100	\$100	\$200
Materials stored on impervious surface	\$50	\$100	\$100	\$200
Missing documents	\$100	\$200	\$200	\$400
Action items not being closed out by responsible person.	\$50	\$100	\$50	\$100

Appendix E

When Recorded, Please Return to:
Provo CITY Recorder
351 West Center
Provo, UT 84606

Parcel No. [Click here to enter text.](#)

PRIVATE UTILITY MAINTENANCE AGREEMENT

THIS AGREEMENT entered into this [Click here to enter text.](#) day of [Click here to enter text.](#), 20[Click here to enter text.](#) by and between PROVO CITY CORPORATION, hereinafter referred to as CITY, and [Click here to enter text.](#) hereinafter referred to as OWNER, currently located at [Click here to enter text.](#)

WITNESSETH

WHEREAS, OWNER has, or desires, to construct water, sewer, and/or storm drain mains together with water service connections, sewer laterals, and/or storm drain laterals on private property, the legal description of said property being described as follows:

Subdivision Plat or Property Address: [Click here to enter text.](#)

Description of Property/Utilities or Metes and Bounds Description: [Click here to enter text.](#)

NOW, THEREFORE, the parties mutually covenant and agree as follows:

1. That OWNER will maintain the said water, sewer, and storm water utilities where situated on private property as private utilities connected to public collection and distribution systems in accordance with Provo CITY Ordinance 10.02.060, 10.03.050, and 18.03.060.
2. It shall be the sole responsibility of the OWNER to keep the said private water, sewer, and storm drain utilities in good repair.
3. It shall be the responsibility of the OWNER to inspect the private storm drain system on an annual basis, and to remove floatables, silt, and other debris at the sole expense of the OWNER. The OWNER will grant access to the City to periodically inspect the private storm drain system. The OWNER shall submit inspections to the CITY via email. stormwater@provo.org
4. It shall be the responsibility of the OWNER to inspect private sewer systems every five years via TV camera and keep record of each inspection. The OWNER shall submit inspections to the CITY via email. sewer@provo.org
5. Repairs to and maintenance of said private utilities shall be at the expense of the OWNER and shall be performed by the OWNER when requested by the CITY. Should OWNER fail to make such repairs upon notice by the CITY, said repairs may be made by the CITY and OWNER shall be billed for the cost thereof.
6. This AGREEMENT shall absolve the CITY from any responsibility for maintenance or repair of said private water, sewer, and storm drain utilities.
7. That OWNER will notify CITY 24 hours prior to reconstruction or repair of culinary water, sewer, and storm water lines on the private property described (refer to city code 15.11.040 regarding contact requirements in the event of an emergency) regarding said reconstruction or repair and that the CITY will be allowed to inspect the repair and take the precautions necessary to insure the integrity, quality, and functionality of CITY sewer and water systems during said repair.
8. OWNER agrees to indemnify, defend and hold harmless the CITY, and any subsidiary or affiliate of the CITY, and its officers, agents, representatives and employees from and against all claims, damages, losses, liabilities, including but not limited to attorneys' fees, arising out of or resulting from OWNER's use, misuse, management, or mismanagement of water, sewer, and/or storm water utilities under the aforementioned terms of this agreement
9. It is the intent of the parties that this Agreement run with the land and that it will be recorded so that future buyers will know their obligations under the Agreement.

[Signatures on following pages]

OWNER:

PROVO CITY CORPORATION:

Owners Authorized Representative
Click here to enter text.

Name and Title (Printed)
Click here to enter text.

Date

Public Works Director
Click here to enter text.

Name and Title (Printed)
Click here to enter text.

Date

OWNER NOTARIZATION

STATE OF UTAH)
)SS
COUNTY OF UTAH)

On the _____ day of _____, AD. 20____, _____
the
signer() of the above Agreement, _____ in number, personally appeared before me, the undersigned
Notary Public, in and said County of Utah said State Of Utah, , who duly acknowledge to me that she/he/they
signed it freely and voluntarily and for the purposes therein mentioned as the owner or authorized
representative of owner of said property.

Notary Public

My Commission Expires: _____

Residing in: _____

CITY NOTARIZATION

STATE OF UTAH)
)SS
COUNTY OF UTAH)

On the _____ day of _____, AD. 20____, _____
the
signer() of the above Agreement, _____ in number, personally appeared before me, the undersigned
Notary Public, in and said County of Utah said State Of Utah, , who duly acknowledge to me that she/he/they
signed it freely and voluntarily and for the purposes therein mentioned.

Notary Public

My Commission Expires: _____

Residing in: _____

Reference:

1. "Issues & Problems in Puget Sound." Washington State Department of Ecology - Issues & Problems, ecology.wa.gov/Water-Shorelines/Puget-Sound/Issues-problems.
2. "Lesson 2a: Pollution Discharge Permits." River Network, River Network, 12 Nov. 2015, www.rivernetwork.org/connect-learn/resources/cwa-course/npdes/.
3. Protection Agency, US Environmental. "Aquatic Trash Prevention." Wwww.epa.gov, www.epa.gov/sites/production/files/2015-11/documents/trash_free_waters_great_practices_mid-atlantic_final_10-30-15.pdf.
4. Limited, Alamy. "Stock Photo - River Pollution from Outfall." Alamy, www.alamy.com/stock-photo-river-pollution-from-outfall-22402136.html.
5. Associated Press. "Indiana Developer Faces A Growing Geothermal Water Bill." News - Indiana Public Media, indianapublicmedia.org/news/indiana-developer-faces-growing-geothermal-water-bill-133754/.
6. "Slide Tabs Testing." SGS AXYS, www.axysanalytical.com/slide-tabs-testing/.