

Town of Alta

Sanitary Sewer Management Plan

Introduction

The Town of Alta was incorporated in 1970 and provides sewage collection to residents of the Town with the exception of Albion Basin, a few cabins in the west Grizzly area, Powder Ridge and areas annexed in 1982 known as the “Blackjack Annexation”. This Sewer System Management Plan (SSMP) manual has been established to provide a plan and schedule to properly manage, operate, and maintain all parts of the sewer collection system to reduce and prevent sanitary sewer overflows (“SSOs”), as well as minimize impacts of any SSOs that occur. The Management for this entity recognizes the responsibility it has to operate the sewer system in an environmentally and fiscally responsible manner. As such, this manual will cover aspects of the collection system program necessary to provide such an operation. This manual may refer to other programs or ordinances and by reference may incorporate these programs into this manual.

Definitions

The following definitions are to be used in conjunction with those found in Utah Administrative Code R317. The following terms have the meaning as set forth:

- (1) "BMP" means "best management practice".
- (2) "CCTV" means "closed circuit television".
- (3) "CIP" means a "Capital Improvement Plan".
- (4) "DWQ" means "the Utah Division of Water Quality".

(5) "FOG" means "fats, oils and grease". This is also referred to as a Grease Oil and Sand Program(GOSI).

(6) "I/I" means "infiltration and inflow".

(7) "Permittee" means a federal or state agency, municipality, county, district, and other political subdivision of the state that owns or operates a sewer collection system or who is in direct responsible charge for operation and maintenance of the sewer collection system. When two separate federal or state agency, municipality, county, district, and other political subdivision of the state are interconnected, each shall be considered a separate Permittee.

(8) "SECAP" means "System Evaluation and Capacity Assurance Plan".

(9) "Sewer Collection System" means a system for the collection and conveyance of wastewaters or sewage from domestic, industrial and commercial sources. The Sewer Collection System does not include sewer laterals under the ownership and control of an owner of real property, and private sewer systems owned and operated by an owner of real property.

(10) "SORP" means "Sewer Overflow Response Plan"

(11) "SSMP" means "Sewer System Management Plan".

(12) "SSO" means "sanitary sewer overflow", the escape of wastewater or pollutants from, or beyond the intended or designed containment of a sewer collection system.

(13) "Class 1 SSO" (Significant SSO) means a SSO or backup that is not caused by a private lateral obstruction or problem that:

(a) affects more than five private structures;

(b) affects one or more public, commercial or industrial structure(s);

(c) may result in a public health risk to the general public;

(d) has a spill volume that exceeds 5,000 gallons, excluding those in single private structures; or

(e) discharges to Waters of the State of Utah.

(14) "Class 2 SSO" (Non-Significant SSO) means a SSO or backup that is not caused by a private lateral obstruction or problem that does not meet the Class 1 SSO criteria.

(15) "USMP" means the "Utah Sewer Management Program".

General SSO Requirements

The following general requirements for SSO's are stipulated in R317-801 and are included here as general information.

1) The permittee shall take all feasible steps to eliminate SSOs to include:

(a) Properly managing, operating, and maintaining all parts of the sewer collection system;

(b) training system operators;

(c) allocating adequate resources for the operation, maintenance, and repair of its sewer collection system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures in accordance with generally acceptable accounting practices; and,

(d) providing adequate capacity to convey base flows and peak flows, including flows related to normal wet weather events. Capacity shall meet or exceed the design criteria of R317-3.

(2) SSOs shall be reported in accordance with the requirements below.

(3) When an SSO occurs, the permittee shall take all feasible steps to:

(a) control, contain, or limit the volume of untreated or partially treated wastewater discharged;

(b) terminate the discharge;

(c) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water; and,

(d) mitigate the impacts of the SSO.

SSO Reporting Requirements

R317-801 stipulates when and how SSO's are reported. Following are those reporting requirements as of 04/23/2012.

SSO REPORTING. SSOs shall be reported as follows:

(1) A Class 1 SSO shall be reported orally within 24 hrs. and with a written report submitted to the DWQ within five calendar days. Class 1 SSO's shall be included in the annual USMP report.

(2) Class 2 SSOs shall be reported on an annual basis in the USMP annual report.

ANNUAL REPORT. A permittee shall submit to DWQ a USMP annual operating report covering information for the previous calendar year by April 30 of the following year.

Sewer Service Regulations Ordinance

The Town of Alta has Sewer Service Regulations Ordinance ("Ordinance") that has been adopted by the governing body. This Ordinance contains the following items as stipulated by Utah State Code R317-801:

1. Prohibition on unauthorized discharges,
2. Requirement that sewers be constructed and maintained in accordance with R317-3,
3. Ensures access or easements for maintenance, inspections and repairs,
4. Has the ability to limit debris which obstruct or inhibit the flow in sewers such as foreign objects or grease and oil,

5. Allows authorized employees or representatives to enter all properties for the purpose of inspection, and
6. Provides for enforcement of the provision of the Ordinance

The following elements are included in this SSMP:

- General Information
- Operations and Maintenance Program
- Sewer Design Standards
- Sanitary Sewer Overflow Response Plan
- Grease, Oil and Sand Interceptor Management Program
- System Evaluation and Capacity Assurance Plan
- SSMP Monitoring and Measurement Plan
- Sewer System Mapping Program
- Basement Backup Program [Optional]
-

This program is intended to be a guidance document and is not intended to be part of a regulatory requirement. As such, failure to strictly comply with documentation requirements is, in and of themselves, not a failure of the program's effectiveness. Documentation failures are intended to be identified during system self-audits and will be addressed as training opportunities. Significant system failures will be followed up with corrective action plans. This corrective action process will be implemented by all individuals involved in the SSMP program. Not all Town of Alta employees will necessarily be involved in the collection system operations. As such, not all employees will receive program training. Finally, although not a part of this SSMP program, The Town of Alta is an active participant in the Blue Stakes of Utah Utility Notification system. This system, regulated under title 54-8A of the Utah State Code, stipulates utility notification of all underground operators when excavation takes place. The intent of this regulation is to minimize damage to underground facilities. The Town of Alta has

a responsibility to mark their underground sewer facilities when notified an excavation is going to take place. Participation in the Blue Stakes program further enhances the protection of the collection system and reduces SSO's.

The Town of Alta

SSMP – General Information

This Sanitary Sewer Management Plan was adopted by the Alta Town Council on the _____ day of _____, 2015. The responsible representative(s), position and phone number Phone # SSMP is/are

Tom Pollard, Mayor – 801-243-0838

John Guldner, Town Administrator - 801-363-5105

Steve McIntosh, Sewer Operator - 801-330-3448

Description of Roles and Responsibilities

The following positions have the described responsibility for implementation and management of the specific measures as described in the SSMP.

The Town of Alta P. O. Box 8016, Alta, UT. 84092

Mayor

The Mayor is responsible for working with governance to assure sufficient budget is allocated to implement the SSMP, development of a capital improvement program and supervision of all staff.

Town Administrator

The Town Administrator is responsible for overall management of the sanitary sewer collection system and maintenance of the SSMP documentation.

Sewer Operator

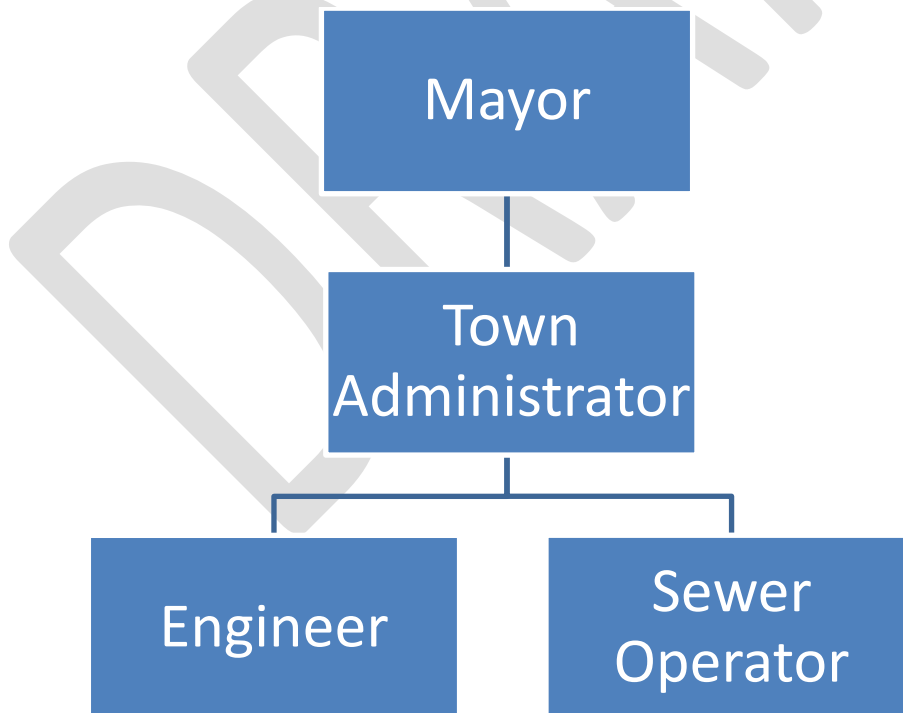
This individual is responsible for daily implementation of the SSMP. This includes maintenance activities, compliance with SORP requirements, maintenance of collection system mapping, and monitoring and measurement reporting requirements.

Engineer

This individual is responsible for the development and maintenance of collection system design standards,

Organization Chart

Below is the organization chart associated with the SSMP [this could be a large chart or just one person depending on organization size]:



Town of Alta

Operations and Maintenance Program

The Town of Alta has established this sanitary sewer system operations and maintenance program to ensure proper system operations, to minimize any basement backups or SSOs, and to provide for replacement, refurbishment, or repair of damaged or deteriorated piping systems. The combined maintenance program should insure that the environment and health of the public are protected at a reasonable cost for the end users. To this end, the following areas are described and included in this maintenance program

- System Mapping
- System Cleaning
- System CCTV Inspection
- Manhole Inspection
- Defect Reporting
- Damage Assessment

System Mapping

An up to date map is essential for effective system operations. The Town of Alta has assigned the mapping responsibility to the Superintendent who will prepare and maintain current mapping for the entire sanitary sewer system. Mapping may be maintained on either paper or in a graphical information system (GIS) or a combination of both. Current mapping is available at the following locations:

**Alta Town Office
Alta, Utah**

Should any employee identify an error in the mapping, they should document the error on a defect report and give it to the Operator.

System Cleaning

Sanitary sewer system cleaning is accomplished through various means and methods. The Town of Alta has established a goal to clean the entire system every five years. Based on experience over the past 20 years, this frequency significantly reduces the number of basement backups, controls grease problems and flushes any bellies in the system. In addition the Town of Alta has a listing of identified hot spots which are maintained at a higher frequency. Areas in the system which may have roots are mechanically rodded or hydraulically cut out and areas where restaurants are close together are hydraulically flushed with a high pressure jet truck. The following methods are employed to provide system cleaning:

Cottonwood Improvement Dist. Hydraulic Cleaning

Cottonwood Improvement Dist. Mechanical Rodding

Cleaning records are maintained at the Town of Alta P. O. Box 8016 Alta, UT. 84092. Contractors are required to provide cleaning records associated with their work. Cleaning history may also be entered into the GIS; however, this is not always necessary. Should the cleaning process identify a serious defect, the problem should be reported on a Defect Report Form. The Sewer Operator should be given the defect reports for further action. The defect report should be specific as to location and type of problem. A copy of the Defect Report Form is included at the end of this narrative section. A summary of cleaning activities shall be prepared annually by the Sewer Operator or designee. This summary will normally be presented to the Town Administrator who will present it to the Alta Town Council.

System CCTV Inspection

Closed Circuit TV inspections of the sanitary sewer system are used to assess pipe condition and identify problems or possible future failures which need current attention. The CCTV process also identifies the piping condition to allow for replacement prior to failure. Generally the Town of Alta will conduct CCTV inspection with its own staff, contractor or both. Inspections of the system will occur every 3 TO 5 years and hot spots annually or more frequently as time allows. This inspection frequency is based on the pipe aging process. As such, once the system has been inspected completely, change usually occurs gradually. CCTV will also be employed when a systems operation or capacity is questioned or when an SSO occurs. Any defects identified during the CCTV process should be reported on a Defect Report Form and the form should be given to the Town Administrator for possible repairs. Documentation of CCTV activities will be maintained at the Alta Town Office. When contractors are employed to inspect the sanitary sewer system they will be required to submit records for their work. The Sewer Operator will prepare an annual summary of CCTV completed for that calendar year.

Manhole Inspection

The Town of Alta schedules annual inspection of the sanitary sewer manholes (M/H). The M/H inspection involves the identification of foreign objects and surcharging that may be present. Crews inspecting the manholes will be given maps by the sewer operator who will monitor the progress and completeness of the inspection process. When a potential defect is identified the manhole should be flagged. Flagged manholes should be checked by an operator within several days to determine further action. If, during the inspection process, the inspection crew believes a problem is imminent, they should immediately cease inspecting and inform the Sewer Operator of the problem. A cleaning crew should be dispatched immediately to ensure correct system operations. All inspection records should be retained for documentation of work performed.

Defect Reporting

Defect Reports generated through the cleaning, CCTV inspection or manhole inspection programs will be prioritized for correction by the sewer operator or engineer. Any defects which have the potential for catastrophic failure and thus create a sanitary sewer overflow should be evaluated immediately and discussed with the Mayor and/or the Town Administrator for repair. Repair methods may include:

- Spot Excavation Repairs
- Spot Band Repairs
- Segment Excavation Replacements
- Segment Lining
- Manhole Rehabilitation

When a defect is not flagged for immediate repair, it should be considered for placement on the “hot spot” list. This will allow for vigilant maintenance to ensure failure and a subsequent

sanitary sewer overflow do not take place. Defect reports should be used in the budget process to determine what financial allocation should be made in the next budget year. The Town Administrator should include outstanding defects in the annual report.

Collection System Damage

Collection damage may occur as a result of multiple factors, some identified as a result of inspection activities and some identified as a result of damage by third parties such as contractors.

Damage Identification

The identification of system damage which may result in an SSO or basement backup is important to prevent environmental, public health, or economic harm. Identification of damage may be from either internal activities or external activities.

Internal activities which may result in the identification of damage include the following:

1. Collections Maintenance Activities
2. CCTV Inspection Activities
3. Manhole Inspection Activities

These three activities are discussed in this Maintenance Program and the identification of damage will result in the generation of a Defect Report. Generally, damage identification is an ongoing and continuous process.

External activities which identify damages include:

1. Contractor Notification of Damage
2. Directional Drilling Notification of Damage
3. Public Damage Complaints

All three of these notifications generally require immediate response. Staff should respond and evaluate the seriousness of the damage and the effect on the environment. Damages which include a release to the environment should be handled in accordance with the SORP. Damages which cause a basement backup should trigger the Basement Backup program. Damages which remain in the trench should be de minimis and do not require more action than the repair of the damage.

Whatever the cause of collection system damage, the response should be expeditious to prevent environmental or economic harm. Town of Alta staff should consider all damages an emergency until it is shown by inspection to be a lower priority.

Damage Response Actions

When damages occur in the collection system, the following actions help define the path staff should take. These action plans are not inclusive of all options available but are indicative of the types of response that may be taken.

Stable Damage

Inspection activities may show a system damage which has been there for an extended period of time. Such damage may not require immediate action but may be postponed for a period of time. When stable damage is identified and not acted upon immediately, a defect report should be prepared. If such a defect is identified and repaired immediately, a defect report is not needed. An example of stable damage could be a major crack in a pipeline or a severely misaligned lateral connection where infiltration is occurring.

Unstable Damage

Unstable damage is damage which has a high likelihood that failure will occur in the near future. Such damage may be a broken pipe with exposed soil or a line which has complete crown corrosion. In these cases, action should be taken as soon as there is a time, a contractor, materials and other necessary resources available. When such unstable damage is identified, if possible, consideration should be given to trenchless repairs which may be able to be completed quicker than standard excavation. Immediately after identification the Mayor and/or

Town Administrator should be contacted to review and take care of budget considerations.

Immediate Damage

When a contractor or others damage a collection line such that the line is no longer capable of functioning as a sewer, this immediate damage must be handled expeditiously. Such damage allows untreated wastewater to pool in the excavation site, spill into the environment or possibly backup into a basement. Under such conditions priority should be given to an immediate repair. Since excavation damage may be a result of contractor negligence or it could be a failure of the Town of Alta to adequately protect the line by appropriately following the Damages to Underground Utilities Statute 54-8A, priority should be given to effecting a repair and not to determining the eventual responsible party.

As can be determined from the above action plans, priority should always be preventing SSO's and attendant environmental damage, to prevent basement backups and financial impacts, and to prevent public health issues.

The Town of Alta

Sewer Design Standards

Design standards for the Town of Alta sanitary sewer are governed and reviewed by the Town of Alta engineer and in conjunction with the one or all of the following agencies or codes. Design standards are intended to be used in conjunction with Utah Administrative Code R317-3. Where a conflict exists between these two standards, the Administrative Code shall prevail.

Cottonwood Improvement

Salt Lake Valley Health Department

International Plumbing Code

International Building Code

The Town of Alta

Sanitary Sewer Overflow Action Plan

Whenever sanitary sewage leave the confines of the piping system, immediate action is necessary to prevent environmental, public health or financial damage from occurring. In addition, quick action is normally needed to mitigate damage which may have already occurred. For the purpose of this section, the following are part of the emergency action plan.

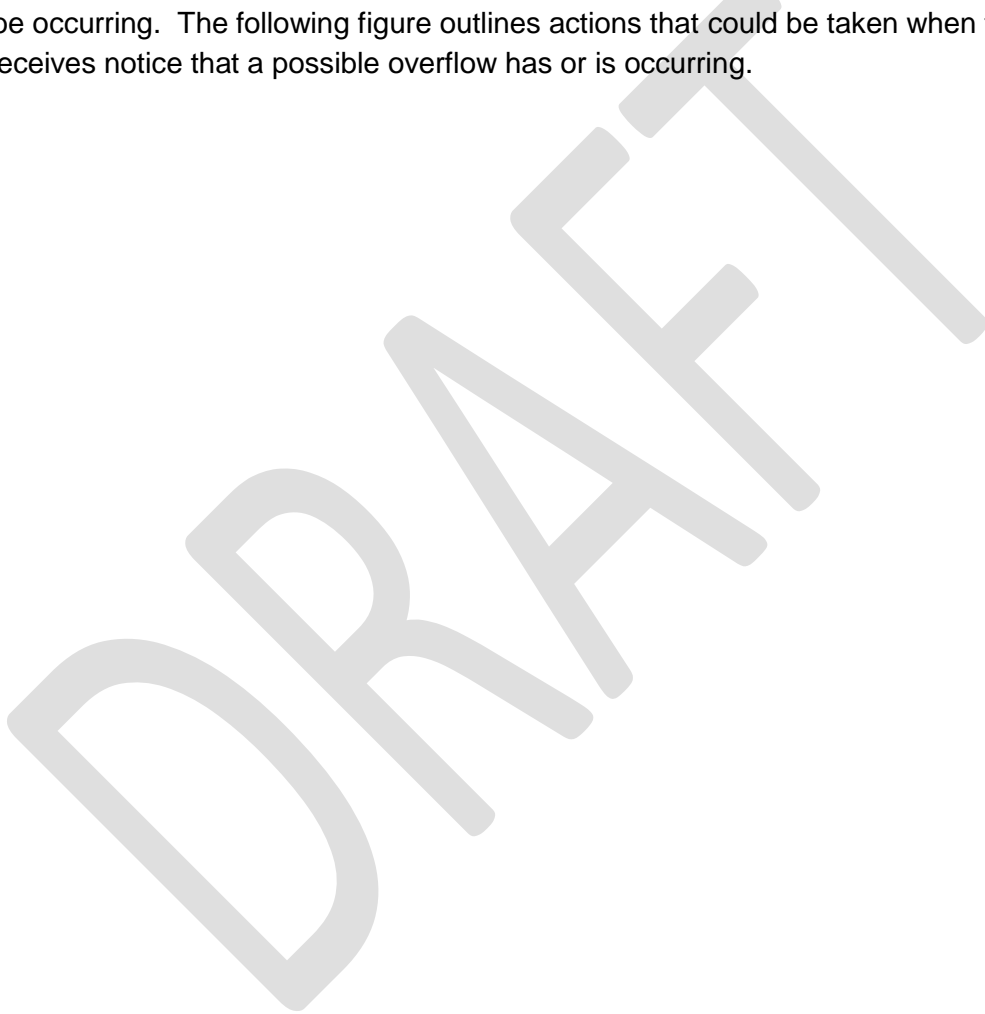
1. Basement backups
2. Sanitary sewer overflows
3. Sanitary sewer breaks which remain in the trench
4. Sewer lateral backups

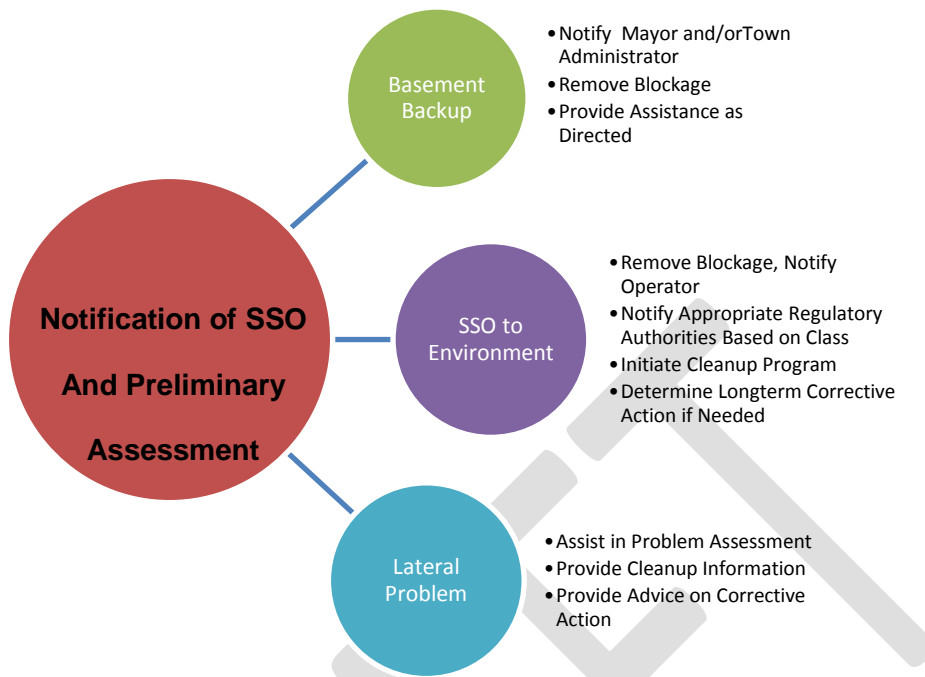
All of the above conditions are likely to cause some damage. Each should be treated as an emergency, and corrective actions taken in accordance with the Town of Alta directions. Items 1 & 2 above should be reported immediately based on whether they constitute a Class 1 or Class 2 SSO. As stated in the definition section of the SSMP Introduction, a Class 1 SSO is an overflow which affects more than five private structures; affects a public, commercial or industrial structure; results in a significant public health risk; has a spill volume more than 5,000 gallons; or has reached Waters of the State. All other overflows are Class 2 SSO's. All Class 1 SSO's should be reported immediately. Class 2 SSO's should be documented and reported in the annual SSMP report and included in the Municipal Wastewater Planning Program submitted to the State. Item 3 may be reported to the Salt Lake Valley Health Department ("health department") if, in the opinion of the responsible staff member there is potential for a public health issue. An example of where a public health issue may be present is when an excavator breaks both a sewer and a water line in the same trench. In such cases, the health department representatives should be contacted and the situation explained. If the health representative requests further action on the part of the Town of Alta staff should try and comply. If, in the opinion of the responsible staff member, the health department request is unreasonable, the Mayor and/or Town Administrator should be immediately notified. Care should always be taken to error on the side of protecting public health over financial considerations. When a basement backup occurs, the staff member responding should follow the Basement Backup Program procedures. Lateral backups, while the responsibility of the property owner, should also be

treated as serious problems. Care should be taken to provide advice to the property owner in such cases, but the property owner is ultimately the decision maker about what actions should be taken.

Response Activities

There are specific steps that should be followed once a notification is received that an overflow may be occurring. The following figure outlines actions that could be taken when the Town of Alta receives notice that a possible overflow has or is occurring.





General Notification Procedure

When a Class 1 SSO occurs specific notification requirements are needed. In such cases the following Notification procedure should be followed and documented. Failure to comply with notification requirements is a violation of R317-801.

Agency Notification Requirements

Both the State of Utah Division of Water Quality and the health department should be immediately notified when an overflow is occurring. Others that may require notification include local water suppliers, affected property owners and notification may be required to Utah Division of Emergency Response and Remediation if hazardous materials are involved. The initial notification must be given within 24 hours. However, attempts should be made to notify them as soon as possible so they can observe the problem and the extent of the issue while the problem is happening. A notification form is provided to document notification activities. After an SSO has taken place and the cleanup has been done, a written report of the event should be submitted to the State DEQ within five days (unless waived). This report should be specific and should be inclusive of all work completed. If possible the report should also include a

description of follow-up actions such as modeling or problem corrections that has or will take place.

Public Notification

When an SSO occurs and the extent of the overflow is significant and the damage cannot be contained, the public may be notified through proper communication channels. Normally the health department will coordinate such notification. Should the Town of Alta need to provide notification it could include press releases to the local news agencies, publication in an area paper, and leaflets delivered to home owners or citizens in the area of the SSO. Notification should be sufficient to insure that the public health is protected. When and if Federal laws are passed concerning notification requirements, these legal requirements are incorporated by reference in this document. In general, notification requirements should increase as the extent of the overflow increases.

Overflow Cleanup

When an overflow happens, care should be taken to clean up the environment to the extent feasible based on technology, good science and financial capabilities. Cleanup could include removal of contaminated water and soil saturated with wastewater and toilet paper, disinfection of standing water with environmentally adequate chemicals or partitioning of the affected area from the public until natural soil microbes reduce the hazard. Cleanup is usually specific to the affected area and may differ from season to season. As such, this guide does not include specific details about cleanup. The responsible staff member in conjunction with the State DEQ, the health department and the owner of real property should direct activities in such a manner that they are all satisfied with the overall outcomes. If, during the cleaning process, the responsible staff member believes the State or the County is requesting excessive actions, the Mayor and/or Town Administrator should be contacted.

Corrective Action

All SSO's should be followed up with an analysis as to cause and possible corrective actions. An SSO which is the result of grease or root plug may be placed on the preventative maintenance list for more frequent cleaning. Serious or repetitive plugging problems may require the reconstruction of the sewer lines. An overflow that results from inadequate capacity should be followed by additional system modeling and either flow reduction or capacity increase. If a significant or unusual weather condition caused flooding which was introduced to

the sanitary sewer system incorrectly, the corrective action may include working with other agencies to try and rectify the cross connection from the storm sewer to the sanitary sewer or from home drainage systems and sump pumps. Finally, should a problem be such that it is not anticipated to reoccur, no further action may be needed.

DRAFT

The Town of Alta

Grease, Oil and Sand Management Program

Purpose:

The requirements put forth in the Town of Alta's Sewer Service Regulations will provide a means to reduce interference with the collection system operation and pass through at the Cottonwood Improvement Treatment Plant. The requirements are set forth in Chapter 3, Section 8-3-12(C) as follows:

Grease, oil and sand interceptors shall be provided when liquid wastes containing floatable grease in excessive amounts, as specified herein, or flammable wastes, sand or other harmful ingredients are introduced into public sewers; except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by the state plumbing code, and shall be located as to be readily and easily accessible for cleaning and inspection. The owner shall be responsible for the proper removal and disposal by appropriate means of the captivated material and shall maintain records of the dates and means of disposal which are subject to review by the Town of Alta. Any removal and haling of the collected materials not performed by owner's personnel must be performed by currently licenses waste disposal firms.

Regulatory Authority:

Regulatory authority to implement this program is found in the Code of Federal Regulations in 40 CFR 403, General Pretreatment Regulations. State authority for the program is given in the Utah Administrative Code R317-8-8, Pretreatment. Local Authority is found in Title 8, Chapter 3: Sewer Service Regulations of the Alta Town Code.

List of Acceptable Entities That Recycle Oil and Grease

The following list of grease and oil recyclers should be given to all IU's who operate a grease trap. This list may not be all inclusive. Other recyclers may be used if it can be shown that they discharge of the waste appropriately.

Recycler	Phone Number	Address
Renegade Oil	801-973-7912	1141 S. 3200 W, SLC, Utah 84104
Bennett's		
Becks		
Bonneville Livestock		

DRAFT

Town of Alta

System Evaluation and Capacity Assurance Plan

The Town of Alta believes that one of the keys to preventing sanitary sewer overflows is to evaluate system capacity and to monitor flows throughout the system in order to ensure that capacities are not exceeded. Should a collection sub-system exceed the capacity of the pipes, the system will be immediately re-evaluated and corrective action taken. The following elements are all part of the Town of Alta's SECAP program.

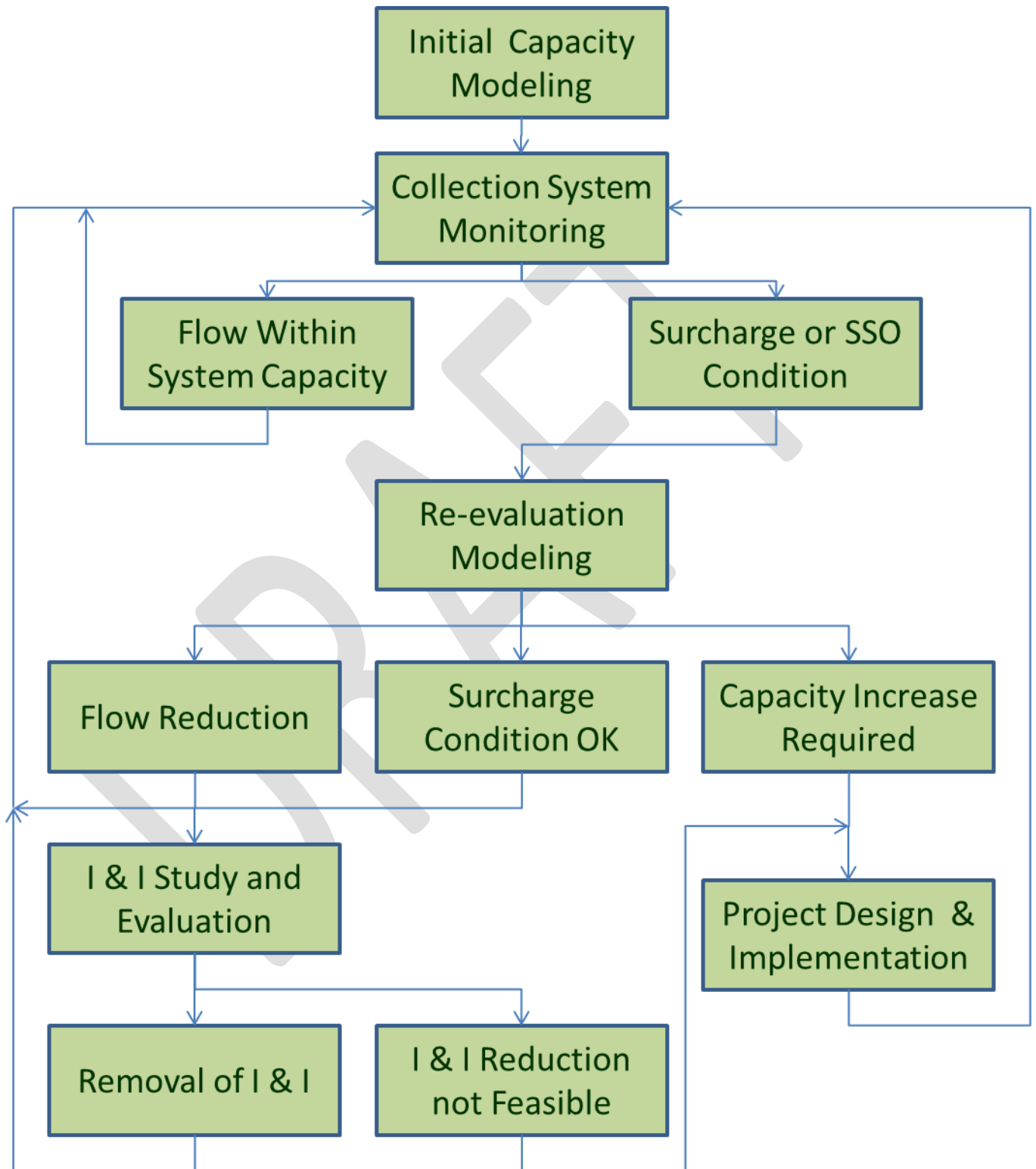
1. Initial Capacity Modeling and Master Planning
2. Flow Monitoring
3. Surge Flow Analysis

The actual implementation process associated with each of the elements above is shown in figure on the next page. This flow chart process forms the backbone of the SECAP.

Initial Capacity Evaluation

The Town of Alta has performed an analysis of the capacity of the Town of Alta collection system. The RE equivalent is based on typical Utah information and assumes the peaking factor will account for a reasonable amount of inflow and infiltration. If an area is known to have, or flow metering identifies, a significant amount of inflow and infiltration, additional evaluation will be needed. In these areas the capacity of an 8-inch pipe system may be significantly reduced below 400 RE.

SECAP Flow Chart



Flow Monitoring

The Town of Alta has a flow metering station in the Superior parking lot at the Snowbird Ski and Summer Resort. This metering station measures and records flow in “real time”. The system has alarming capability to measure high and low flows which can help determine over capacity and possible blockages. Flow metering is done prior to entering the collection system of S. L. Co. Service Area #3.

Surcharge Flow Analysis

If any private collection subsystem or sewer lateral is identified as having any of the following problems the system will be evaluated to determine future action. These problems are:

1. Sanitary Sewer Overflow to the Environment
2. Sanitary Sewer Break Remaining in the Trench
3. Basement Backup
4. Observed Subsystem Surcharging.

The flow evaluation may result in multiple conclusions, some of which may require further action. Possible conclusions and their further action are listed below. This list is not inclusive nor does it require the specific action detailed. These are given as possible examples and will be used by the superintendent to determine correct future action.

Flow Reduction Evaluation

Should excessive flows be identified during the surcharge analysis, the solution may be to proceed with an inflow and infiltration study with the ultimate goal of reducing flows. These flow reductions may be achieved by reconstruction of specific areas, internal spot repairs, pump connections from homes or storm water systems, and system grouting. Tools used in flow reduction may include extensive in line camera inspection, smoke testing, dye testing, and increased inspection or flow monitoring.

Foreign Objects or Obstructions

There are multiple foreign objects which may be found in sewers. These may include objects knocked into sewers during construction, illegally placed in sewer manholes, roots, grease and soaps, bellies in piping systems, etc. Each of these problems should be found during the backup investigation and a plan developed to insure the problem does not reoccur. Types of action may include increased cleaning frequency, spot repairs, greater pretreatment activity, lining of pipes, and other corrective actions which resolve the problem.

Allowable Surcharging

Some piping systems may be able to accept surcharges without creating problems. Such systems may be deep and surcharging occurs below the level of basements or manhole rims, or they may be in areas where there are no connections. In such cases the resolution of the observed surcharge may just be additional monitoring. The Town of Alta Sewer Dump Station is an example of a piping system.

The capacity evaluation should be expedited based on the impact of the problem on the environment and the possible repeat of the overflow/backup/surcharging. Details on prioritization are given in the next section.

Systems requiring additional capacity should be engineered for expansion by qualified staff or engineering consultants. Project design should be based on acceptable engineering standards and should comply with State of Utah regulations found in R317-3. Easements should be obtained, where needed and the design should include an analysis of other utilities in the vicinity. Design review should be done by the applicable regulatory agency, as appropriate. A design report should be prepared for each project. Where appropriate, the subsystem modeling may be substituted for the design report.

Finalized projects should be placed on the CIP.

System Improvement Prioritization

The priority for improvement should follow the following general guidelines:

High Priority Projects

When there is significant potential for sanitary sewer overflows, or frequent basement backups, the improvement should be considered a high priority and any available budget should be allocated to the project.

Medium Priority Projects

Where the problem is infrequent and the possibility exists that it may not repeat in the near future, the priority for correction is medium. Medium priority projects may be delayed until appropriate budget is available or the priority is adjusted to high priority. Should an SSO or basement backup repeat in the same area, the priority should be immediately revised.

Low Priority Projects

If the observed problem is infrequent, there is possibility that it may not repeat in the near future and the possibility that increased flow in the subsystem is low, the correct priority is low. Low priority projects will be placed in the budget process and evaluated against other needs. These projects will eventually be completed, but the work is not prioritized above plant and equipment needs.

Capital Improvement Plan

The CIP is part of the Town of Alta's budgeting process to insure sufficient revenue to address identified weaknesses in the sanitary sewer system. Items which have been identified as needing a structural fix are placed on the CIP list and the cost for each estimated. Sources of funding should be identified for all high priority projects so that SSO's or other failures do not re-occur. Forecasts of available funding for medium and low priority projects should be made to facilitate future revenue needs.

Town of Alta

SSMP Monitoring and Measurement Plan

Purpose:

The purpose of this plan is to provide appropriate monitoring and measurement of the effectiveness of the SSMP in its entirety.

Records Maintenance

The Town of Alta intends to maintain appropriate records on operations and maintenance of the sanitary sewer system to validate compliance with this SSMP. However, failure to meet standards set by State DWQ or other regulatory agency during an inspection does not constitute a violation of the SSMP. Rather, deficiencies identified during inspections should be viewed as an opportunity for improvement.

Operations Records

Operations records that should be maintained include the following:

- Daily cleaning records
- CCTV inspections records
- Manhole inspection records
- Hot spot maintenance list
- Spot repairs
- Major repairs
- System capacity information
- SSO or basement backup records including notification documents to appropriate agencies (call logs, etc.)
- Capital Improvement Plan

Records will be maintained by the Town of Alta in a central location. Records may be maintained either on an electronic record or as a paper record. The extent of the record should be sufficient to demonstrate the activity recorded was completed appropriately.

Performance Measurement

Periodically, but not less than annually, The Town of Alta should assess and audit the effectiveness of the elements of this SSMP. All elements should be reviewed for effectiveness as well as all records should be reviewed for completeness. An internal audit report should be prepared preferably annually but no less than once every five years which comments on the following:

- Success of the operations and maintenance program
- Success of other SSMP elements
- Adequacy of the SECAP evaluations
- Discussion of SSO's and the effectiveness of the response to the event including corrective action
- Review of Defect reports and adequacy of response to eliminate such defects
- Opportunities for improvement in the SSMP or in SSO response and remediation

The annual audit report need not be extensive or long. It should, however be sufficient to document compliance with the standards set in the SSMP. The audit reports should be maintained in accordance with the Town of Alta's records retention schedule.

SSMP Updates

When a plan deficiency is identified through an audit, inspection or plan review, and the deficiency requires an SSMP update, the plan may be updated at the discretion of the Mayor with advice of the engineer. SSMP updates should be recorded and maintained by Town Clerk.

SSO Evaluation and Analysis

At least annually in the internal audit and more frequently as needed, The Town of Alta will evaluate SSO trends based on frequency, location and volume. Trend evaluation will be empirical unless a large number occur sufficient to make a statistical analysis viable. If a trend is identified, a corrective action may be appropriate.

Public Communication and Outreach

The Town of Alta will reach out to the public about the development, implementation and performance of the SSMP. This communication may be accomplished by any of the following methods:

- Public hearings
- Public meetings
- Newsletters
- Direct mailing
- Other effective methods

The Town of Alta will accept comments, either written or verbal and will review such comments for applicability. Public interest may be difficult to generate, but should be sought, non-the-less.

Town of Alta

Sanitary Sewer System Mapping

The Town of Alta maintains records of the location and maintenance of the Sanitary Sewer System at the Alta Town Office. Mapping systems include:

- Computer based GIS system
- Paper based mapping system
- Trunkline maps and subdivision maps

It is possible to view records in print or digitally. Maps can be produced through our GIS system with advance notice by calling 801-363-5105. All requests are to be made to the Records Officer in the Town of Alta.

Policy on the Installation of Backflow Valves

Reference Regulatory Documents:

The following regulations are referenced in the establishment of this policy:

- Utah Code Title 15A-2-103(c). This code section adopts the 2009 edition of the International Plumbing Code.
- The 2009 International Plumbing Code, section 715 Sewage Backflow.

Town of Alta Policy:

- The State of Utah has adopted the International Plumbing Code(IPC) as its plumbing building standard;
- The Town of Alta is required to use State adopted codes such as the IPC as their statute for plumbing construction and installation;
- And the IPC requires the installation of a sewage backwater valve “where the overflow rim of the lowest plumbing fixtures are below the next upstream manhole in the public sewer.”

For new construction, the Town of Alta requires the installation of backwater valves as stipulated by the IPC already propagated for all new construction.