



**Private Stormwater Management Facility
Operation and Maintenance (O&M) Manual**

for:

All Privately Owned Stormwater Facilities

Located at:

Alpine City

Prepared for:

Operators & Owners of Private Stormwater Facilities

Prepared by:

Alpine City

Adopted this day of April 8, 2013

by: 
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**Private Stormwater Management Facility
Operation and Maintenance (O&M) Manual**

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Private Stormwater Management Facility Operation and Maintenance (O&M) Manual

I. Compliance with Stormwater Facility Maintenance Requirements

All property owners are responsible for ensuring that stormwater facilities installed on their property are properly maintained and that they function as designed. In some cases, this maintenance responsibility may be assigned to others through special agreements. The maintenance responsibility for a stormwater facility may be designated on the subdivision plat, the site development plan, and/or within a maintenance agreement for the property. Property owners should be aware of their responsibilities regarding stormwater facility maintenance. This document shall be referenced in all Stormwater Facilities Maintenance Agreements within Alpine City.

II. Inspection & Maintenance – Annual Reporting

Requirements for the inspection and maintenance of stormwater facilities, as well as reporting requirements are included in this Private Stormwater Management Facility Operation and Maintenance (O&M) Manual.

Verification that the Stormwater facilities have been properly inspected and maintained; submittal of the required Inspection and Maintenance Forms and Inspector qualifications shall be provided to Alpine City on an annual basis. The annual reporting form shall be provided to Alpine City prior to July 15th of each year.

Copies of the Inspection and Maintenance forms for each of the stormwater facilities are located in Appendix B and C. A standard annual reporting form is provided in Appendix D. Each form shall be reviewed and submitted by the property owner or property manager to Alpine City.

Property owners are not required to provide Inspection and Maintenance Reports for stormwater facilities that have been agreed to be maintained by Alpine City. These reports will be generated through Alpine City's inspection & maintenance program.

III. Preventative Measures to Reduce Maintenance Costs

The most effective way to maintain your water quality facility is to prevent the pollutants from entering the facility in the first place. Common pollutants include sediment, trash & debris, chemicals, dog wastes, runoff from stored materials, illicit discharges into the storm drainage system and many others. A thoughtful maintenance program will include measures to address these potential contaminants and will save money and time in the long run. Key points to consider in your maintenance program include:

- Educate property owners/residents to be aware of how their actions affect water quality, and how they can help reduce maintenance costs.
- Keep properties, streets and gutters, and parking lots free of trash, debris, and lawn clippings.
- Ensure the proper disposal of hazardous wastes and chemicals.
- Plan lawn care to minimize the use of chemicals and pesticides.
- Sweep paved surfaces and put the sweepings back on the lawn.
- Be aware of automobiles leaking fluids. Use absorbents such as cat litter to soak up drippings – dispose of properly.
- Re-vegetate disturbed and bare areas to maintain vegetative stabilization.
- Clean out the upstream components of the storm drainage system, including inlets, storm sewers and outfalls.
- Do not store materials outdoors (including landscaping materials) unless properly protected from runoff.

IV. Access and Easements

All stormwater management facilities located on the site have both a designated access location as well as a maintenance easement. For site specific access and easement locations, refer to the Stormwater Facilities Maintenance Agreement for the site.

V. Safety

Keep safety considerations at the forefront of inspection procedures at all times. Likely hazards should be anticipated and avoided. Never enter a confined space (outlet structure, manhole, etc) without proper training or equipment. A confined space should never be entered without at least one additional person present.

If a toxic or flammable substance is discovered, leave the immediate area and contact the local Sheriff at 911.

Potentially dangerous (e.g., fuel, chemicals, hazardous materials) substances found in the areas must be referred to the local Sheriff's Office immediately for response by the Hazardous Materials Unit. The emergency contact number is 911.

Vertical drops may be encountered in areas located within and around the facility. Avoid walking on top of retaining walls or other structures that have a significant vertical drop. If a vertical drop is identified within the pond that is greater than 48" in height, make the appropriate note/comment on the maintenance inspection form.

If any hazard is found within the facility area that poses an immediate threat to public safety, contact the local Sheriff's Office immediately.

VI. Field Inspection Equipment

It is imperative that the appropriate equipment is taken to the field with the inspector(s). This is to ensure the safety of the inspector and allow the inspections to be performed as efficiently as possible. Below is a list of the equipment that may be necessary to perform the inspections of all Stormwater Management Facilities:

- Protective clothing and boots.
- Safety equipment (vest, hard hat, confined space entry equipment).
- Communication equipment.
- Operation and Maintenance Manual for the site including stormwater management facility location maps.
- Clipboard.
- Stormwater Facility Maintenance Inspection Forms (See Appendix B).
- Manhole Lid Remover
- Shovel.

Some of the items identified above need not be carried by the inspector (manhole lid remover, shovel, and confined space entry equipment). However, this equipment should be available in the vehicle driven to the site.

VII. Inspecting Stormwater Management Facilities

The quality of stormwater entering the waters of the state relies heavily on the proper operation and maintenance of permanent best management practices. Stormwater management facilities must be periodically inspected to ensure that they function as designed. The inspection will determine the appropriate maintenance that is required for the facility.

A. Inspection Procedures

All stormwater management facilities are required to be inspected by a qualified individual at a minimum of once per year. Inspections should follow the inspection guidance found in the Standard Operating Procedure (SOP) for the specific type of facility. (Appendix A of this manual).

B. Inspection Report

The person(s) conducting the inspection activities shall complete the appropriate inspection report for the specific facility. Inspection reports are located in Appendix B.

The following information explains how to fill out the Inspection Forms:

General Information

This section identifies the facility location, person conducting the inspection, the date and time the facility was inspected, and approximate days since the last rainfall. Property classification is identified as single-family residential, multi-family residential, commercial, or other.

The reason for the inspection is also identified on the form depending on the nature of the inspection. All facilities should be inspected on an annual basis at a minimum. In addition, all facilities should be inspected after a significant precipitation event to ensure the facility is draining appropriately and to identify any damage that occurred as a result of the increased runoff.

Inspection Scoring

For each inspection item, a score must be given to identify the urgency of required maintenance. The scoring is as follows:

- 0 = No deficiencies identified.
- 1 = Monitor – Although maintenance may not be required at this time, a potential problem exists that will most likely need to be addressed in the future. This can include items like minor erosion, concrete cracks/spalling, or minor sediment accumulation. This item should be revisited at the next inspection.
- 2 = Routine Maintenance Required – Some inspection items can be addressed through the routine maintenance program (See SOP in appendix A). This can include items like vegetation management or debris/trash removal.
- 3 = Immediate Repair Necessary – This item needs immediate attention because failure is imminent or has already occurred. This could include items such as structural failure of a feature (outlet works, forebay, etc), significant erosion, or significant sediment accumulation. This score should be given to an item that can significantly affect the function of the facility.
- N/A This is checked by an item that may not exist in a facility. Not all facilities have all of the features identified on the form (forebay, micro-pool, etc.).

Inspection Summary/Additional Comments

Additional explanations to inspection items, and observations about the facility not covered by the form, are recorded in this section.

Overall Facility Rating

An overall rating must be given for each facility inspected. The overall facility rating should correspond with the highest score (0, 1, 2, 3) given to any feature on the inspection form.

C. Verification of Inspection and Form Submittal

The Stormwater Management Facility Inspection Form provides a record of inspection of the facility. Inspection Forms for each facility type are provided in Appendix B. Verification of the inspection of the stormwater facilities, the facility inspection form(s), and Inspector Qualifications shall be provided to Alpine City on an annual basis. The verification and the inspection form(s) shall be reviewed and submitted by the property owner or property manager.

Refer to Section II of this Manual regarding the annual reporting of inspections.

VIII. Maintaining Stormwater Management Facilities

Stormwater management facilities must be properly maintained to ensure that they operate correctly and provide the water quality treatment for which they were designed. Routine maintenance performed on a frequently scheduled basis, can help avoid more costly rehabilitative maintenance that results when facilities are not adequately maintained.

A. Maintenance Categories

Stormwater management facility maintenance programs are separated into three broad categories of work. The categories are separated based upon the magnitude and type of the maintenance activities performed. A description of each category follows:

Routine Work

The majority of this work consists of scheduled mowings and trash and debris pickups for stormwater management facilities during the growing season. This includes items such as the removal of debris/material that may be clogging the outlet structure well screens and trash racks. It also includes activities such as weed control, mosquito treatment, and algae treatment. These activities normally will be performed numerous times during the year. These items can be completed without any prior correspondence with Alpine City; however, completed inspection and maintenance forms shall be submitted to Alpine City for each inspection and maintenance activity.

Restoration Work

This work consists of a variety of isolated or small-scale maintenance and work needed to address operational problems. Most of this work can be completed by a small crew, with minor tools, and small equipment. These items require prior correspondence with Alpine City and require that completed maintenance forms be submitted to Alpine City for each maintenance activity.

Rehabilitation Work

This work consists of large-scale maintenance and major improvements needed to address failures within the stormwater management facilities. This work requires consultation with Alpine City and may require an engineering design with construction plans to be prepared for review and approval. This work may also require more specialized maintenance equipment, surveying, construction permits or assistance through private contractors and consultants. These items require prior correspondence with Alpine City and require that completed maintenance forms be submitted to Alpine City for each maintenance activity.

B. Maintenance Personnel

Maintenance personnel must be qualified to properly maintain stormwater management facilities. Inadequately trained personnel can cause additional problems resulting in additional maintenance costs.

C. Maintenance Forms

The Stormwater Management Facility Maintenance Form provides a record of maintenance activities. Maintenance Forms for each facility type are provided in Appendix C. Maintenance Forms shall be completed by the contractor completing the required maintenance items. The form shall then be reviewed by the property owner or an authorized agent of the property owner and submitted on an annual basis to Alpine City.

Refer to Section II of this Manual regarding the annual reporting of inspections and maintenance activities performed.

APPENDIX A
Standard Operating Procedures (SOP) for each facility type



STREETS/STORM DRAIN – Catch Basins

Description: This section contains information on the cleaning of catch basins in the storm drain system. This includes the processes of disposal of excess waste and the record keeping of the amounts of waste collected.

Applicability: Cleaning catch basins or storm drains.

1. Preparation:
 - a. Clean off sediment and trash off grate.
 - b. Do visual inspection on outside of grate.
 - c. Make sure nothing needs to be replaced.
 - d. Do inside visual inspection to see what needs to be cleaned.

2. Process
 - a. Clean catch basin using manual or mechanical means.
 - b. For manual means, place removed material in a location protected from potential runoff.
 - c. Place spoils in vehicle for transport to disposal area.
 - d. Dispose of spoils in an approved location for dewatering if necessary.
 - e. For mechanical cleaning use a high powered vac truck to removed sediment. When sediment is removed use a high pressure washer to clean any other sediment out of catch basin.
 - f. After catch basin is clean, send the rodder of the vac truck downstream to clean pipe and pull back sediment that might have moved down stream of the catch basin.

3. Clean-up
 - a. When vehicle is full of spoils take them to a contained area for drying.
 - b. After drying, put it into a dump truck and take it to the landfill.



4. Documentation
 - a. Keep logs of the date and number of catch basins cleaned. Record employees involved with the activity.
 - b. Record the estimated amount of waste collected from each catch basin.
 - c. Keep any notes or comments of any problems.



STREETS/STORM DRAIN – Curb Painting

Description: This section contains information on the painting of curbs and how to protect the drainage system from hazardous wastes. The use of BMP's in case of accidents and spills is recommended. This also includes the processes of disposal, clean up, and record keeping of any paint entering into the storm drain system.

Applicability: Curb Surface painting.

1. Preparation
 - a. Calculate the amount of paint required for the job
 - b. Use water based paints if possible.
 - c. Determine whether the wastes will be hazardous or not and the required proper disposal of said wastes
 - d. Determine locations of storm drain inlets and sewer inlets that may need to be protected. If possible, prepare surfaces to be painted without generating wastewater; eg. Use sandblasting and or scraping.
 - e. If using a pressure washer to remove loose paint, place filter fabric or containment devices at entrances to storm drains or natural waterways to collect materials. (i.e. place geotextile beneath catch basin grates, use curb dyke)
 - f. Use a citrus-based paint remover whenever possible, less toxic than chemical strippers
2. Process
 - a. Paint curb.
 - b. Prevent over-spraying of paints and/or excessive sandblasting
 - c. Use drip pans and drop clothes in areas of mixing paints and painting
 - d. Store latex paint rollers and brushes in air tight bags to be reused later with the same color.
 - e. Have available absorbent material and other BMP's ready for an accidental paint spill.
3. Clean-up
 - a. Paint out brushes and rollers as much as possible. Squeeze excess paint from brushes and rollers back into the containers prior to cleaning them.



- b. Pour excess paint from trays and buckets back into the paint can containers and wipe with cloth or paper towels. Dispose of the towels according to the recommendations on the paint being used.
 - c. Rinse water-based paint brushes in the sink after pre-cleaning. Never pour excess paint or wastewater from cleanup of paint in the storm drain.
 - d. Cleanup oil based paints with paint thinner. Never clean oil based brushes in a sink or over a storm drain. Filter solvents for reuse if possible and/or store in approved drum for recycling.
4. Documentation
- a. Report any discharges into storm drain system



STREETS/STORM DRAIN – Culvert and Storm Water Pipe Cleaning

Description: This section contains information on the cleaning of storm drain culverts and pipes. This also includes what methods to use to remove sediment and debris from the structure. A record keeping procedure is also outlined for tracking the cleaning process.

Applicability: Cleaning of Culverts and Pipes.

1. Preparation:
 - a. Clean sediment and trash off inlet to culvert/storm water pipe.
 - b. If possible do visual inspection of inside of culvert/storm water pipe.
 - c. Look for cracks, missing or broken pieces in the walls/sides of structure.
 - d. Do inside visual inspection to see what needs to be cleaned.

2. Process
 - a. Clean using a high powered vac truck, cleaning the sides of the structure and sucking out sediment on the bottom.
 - b. Send high powered hose down culvert and pull back any sediment.
 - c. Clean inlets and outlets.
 - d. Move truck down to next storm drain.

3. Clean-up
 - a. When vac truck is full of sediment take it to current designated containment area.
 - b. When evaporates are dry, clean it up with a backhoe, put it into a dump truck and take it to the landfill.

4. Documentation
 - a. Keep logs of culverts/storm water pipes wells cleaned.
 - b. Record the amount of waste collected.
 - c. Keep any notes or comments of any problems.



STREETS/STORM DRAIN – Sumps and Injection Wells (Includes Underground Storm Water Detention Structures)

Description: This section contains information on the cleaning of storm drain sumps and injection wells. This also includes what methods to use to remove sediment and debris from the structures. A record keeping procedure is also outlined for tracking the cleaning process.

Applicability: Cleaning of Sumps and Injection Wells.

1. Preparation:
 - a. Clean sediment and trash off inlet to sump/injection well.
 - b. Determine how water is supposed to drain from the structure and assess the ability of the structure to allow water to drain as designed.
 - c. If possible do visual inspection of inside of sump/injection well.
 - d. Look for cracks, missing or broken pieces in the walls/sides of structure.
 - e. Do inside visual inspection to see what needs to be cleaned.

2. Process
 - a. Clean using a high powered vac truck, cleaning the sides of the structure and sucking out sediment on the bottom.
 - b. Remove fine sediments that might inhibit the drainage of water if the structure is designed such that the water drains out the bottom.
 - c. Clean those places where to water drains if the structure is designed to drain out the sides of the sump/injection well.
 - d. Clean inlets and overflow outlets.

3. Clean-up
 - a. When vac truck is full of sediment take it to current designated containment area.
 - b. When evaporates are dry, clean it up with a backhoe, put it into a dump truck and take it to the landfill.



4. Documentation
 - a. Keep logs sumps and injection wells cleaned.
 - b. Record the amount of waste collected.
 - c. Keep any notes or comments of any problems.



STREETS/STORM DRAIN – Detention Ponds

Description: This section contains information on the maintenance and cleaning of storm drain detention ponds and structures. This also includes what methods to use to remove sediment and debris from the structure. A record keeping process is also outlined for maintenance.

Applicability: Maintenance of detention structures.

1. Preparation:
 - a. Remove any sediment and trash from grates.
 - b. Do a visual inspection to make sure grates are in good shape and everything is in good working order.
 - c. Pull grates, inspect inside of structures/boxes/pipes.

2. Process
 - a. Provide outlet protection where feasible to minimize the amount of debris that might leave basin during cleaning process.
 - b. If necessary, clean basin by using backhoe to remove silt and sediment off the bottom
 - c. Place all sediment into a dump truck.
 - d. Clean structures as described for in cleaning catch basins SOP.

3. Clean-up
 - a. Haul and dump sediment at the landfill.

4. Documentation
 - a. Keep logs of number of detention basins cleaned including date, estimated quantity of material, individuals involved in cleaning, and a description of the type of debris removed.
 - b. Record the estimated amount of waste collected.
 - c. Keep any notes or comments of any problems.



STREETS/STORM DRAIN – Creek Maintenance

Description: This section contains information on the maintenance and preservation of natural water courses including creeks and streams. This also includes identifying what maintenance needs to be done and the method of how it will be accomplished. Record keeping is necessary in stream maintenance.

Applicability: Maintaining any creek or stream.

1. Preparation
 - a. Monitor streams on a regular basis (Annually).
 - b. Maintain access to stream channels wherever possible.
 - c. Identify areas requiring maintenance.
 - d. Determine method of maintenance that will be least damaging to the channel.
 - e. Determine what manpower or equipment will be required.
 - f. Obtain necessary permits as required by the Army Corp. of Engineers or State Engineers Office.
 - g. Identify access and easements to area requiring maintenance.

2. Process
 - a. Follow requirements of permits as applicable.
 - b. Use techniques to minimize disruption to the stream bank or channel
 - c. Install clean materials free of pollutants and contaminants.
 - d. Place removed materials in an area upland of the water course to prevent them from re-entering the channel.

3. Clean-up
 - a. Stabilize all disturbed soils.
 - b. Haul all debris or sediment removed from area to current designated containment area.
 - c. Remove all tracking from paved surfaces near maintenance site, if applicable.



4. Documentation
 - a. Keep log of actions performed including date and individuals involved.
 - b. Record the amount of materials removed or imported.
 - c. Keep any notes or comments of any problems.
 - d. Use “before” and “after” photographs to document activities as applicable.



STREETS/STORM DRAIN – Canal / Ditch Maintenance

Description: This section contains information on the maintenance and preservation of canals. This also includes identifying what maintenance needs to be done and the method of how it will be accomplished. Record keeping is necessary in canal maintenance.

Applicability: Maintaining canal or irrigation ditch.

1. Preparation
 - a. Monitor canals annually and maintain as needed.
 - b. Establish maintenance responsibilities with irrigation company boards and operators.
 - c. Identify areas requiring maintenance with irrigation company annually at a minimum.
 - d. Identify access and easements to canal area.
 - e. Establish procedures for removal of material from canal maintenance. Including stockpiling of material removed or hauling methods.
 - f. Determine what man power or equipment will be required.

2. Process
 - a. Perform maintenance as outlined in agreement with irrigation company
 - b. Install clean materials free of pollutants and contaminants.
 - c. Place removed materials in an area upland of the watercourse to prevent them from re-entering the channel.
 - d. Haul material away to current designated stockpile area.

3. Clean-up
 - a. Stabilize all disturbed soils.
 - b. Haul all debris or sediment removed from area to approved dumping site.
 - c. Remove all tracking from paved surfaces near maintenance site, if applicable.



4. Documentation
 - a. Keep log of actions performed including date and individuals involved.
 - b. Record the amount of materials removed or imported.
 - c. Keep any notes or comments of any problems.
 - d. Use “before” and “after” photographs to document activities as applicable.

APPENDIX B
Inspection Form(s)



CATCH BASIN / MANHOLE / SUMP INSPECTION FORM

Date: _____

Subdivision/Business Name: _____ Inspector: _____

Subdivision/Business Address: _____

Weather: _____

Date of Last Rainfall: _____ Amount: _____ Inches

Property Classification: Residential Multi Family Commercial Other: _____
(Circle One)

Reason for Inspection: Routine Complaint After Significant Rainfall Event
(Circle One)

INSPECTION SCORING - For each facility inspection item, insert one of the following scores:
0 = No deficiencies identified 2 = Routine maintenance required
1 = Monitor (potential for future problem) 3 = Immediate repair necessary
N/A = Not applicable

FEATURES

Catch Basin Location _____

1.) Grate

- Blocked
 - Damaged
 - Missing
 - Other
- _____

2.) Basin

- Sediment/Debris Accumulation
- Concrete Damage
- Woody Growth/Weeds Present
- Approximate % Full

Inspection Summary / Additional Comments: _____

OVERALL FACILITY RATING (Circle One)

- 0 = No Deficiencies Identified 2 = Routine Maintenance Required
- 1 = Monitor (potential for future problem exists) 3 = Immediate Repair Necessary

This inspection form shall be kept indefinitely and made available to Alpine City upon request.



EXTENDED DETENTION BASIN (EDB) INSPECTION FORM

Date: _____

Subdivision/Business Name: _____ Inspector: _____

Subdivision/Business Address: _____

Weather: _____

Date of Last Rainfall: _____ Amount: _____ Inches

Property Classification: Residential Multi Family Commercial Other: _____
(Circle One)

Reason for Inspection: Routine Complaint After Significant Rainfall Event
(Circle One)

INSPECTION SCORING - For each facility inspection item, insert one of the following scores:
0 = No deficiencies identified 2 = Routine maintenance required
1 = Monitor (potential for future problem) 3 = Immediate repair necessary
N/A = Not applicable

FEATURES

1.) Inflow Points

- Riprap Displaced
- Erosion Present/Outfall Undercut
- Sediment Accumulation
- Structural Damage (pipe, end-section, etc.)
- Woody Growth/Weeds Present

2.) Forebay

- Sediment/Debris Accumulation
- Concrete Cracking/Failing
- Drain Pipe/Wier Clogged (not draining)
- Wier/Drain Pipe Damage

3.) Trickle Channel (Low-flow)

- Sediment/Debris Accumulation
- Concrete/Riprap Damage
- Woody Growth/Weeds Present
- Erosion Outside Channel

4.) Bottom Stage (Micro-Pool)

- Sediment/Debris Accumulation
- Woody Growth/Weeds Present
- Bank Erosion
- Mosquitoes/Algae Treatment
- Petroleum/Chemical Sheen

5.) Outlet Works

- Trash Rack/Well Screen Clogged
- Structural Damage (concrete, steel, subgrade)
- Orifice Plate(s) Missing/Not Secure
- Manhole Access (cover, steps, etc.)
- Woody Growth/Weeds Present

6.) Emergency Spillway

- Riprap Displaced
- Erosion Present
- Woody Growth/Weeds Present
- Obstruction/Debris

7.) Upper Stage (Dry Storage)

- Vegetation Sparse
- Woody Growth/Undesirable Vegetation
- Standing Water/Boggy Areas
- Sediment Accumulation
- Erosion (banks and bottom)
- Trash/Debris
- Maintenance Access

8.) Miscellaneous

- Encroachment in Easement Area
- Graffiti/Vandalism
- Public Hazards
- Burrowing Animals/Pests
- Other

Inspection Summary / Additional Comments: _____

OVERALL FACILITY RATING (Circle One)

- 0 = No Deficiencies Identified 2 = Routine Maintenance Required
- 1 = Monitor (potential for future problem exists) 3 = Immediate Repair Necessary

This inspection form shall be kept indefinitely and made available to Alpine City upon request.



STORM DRAIN PIPE(S) INSPECTION FORM

Date: _____

Subdivision/Business Name: _____ Inspector: _____

Subdivision/Business Address: _____

Weather: _____

Date of Last Rainfall: _____ Amount: _____ Inches

Property Classification: Residential Multi Family Commercial Other: _____
(Circle One)

Reason for Inspection: Routine Complaint After Significant Rainfall Event
(Circle One)

INSPECTION SCORING - For each facility inspection item, insert one of the following scores:

0 = No deficiencies identified

2 = Routine maintenance required

1 = Monitor (potential for future problem)

3 = Immediate repair necessary

N/A = Not applicable

FEATURES

PIPE LABEL/LOCATION _____

1.) Pipe

___ Blocked

___ Damaged

___ Deteriorating in any way

___ Other

Inspection Summary / Additional Comments: _____

OVERALL FACILITY RATING (Circle One)

0 = No Deficiencies Identified

2 = Routine Maintenance Required

1 = Monitor (potential for future problem exists)

3 = Immediate Repair Necessary

This inspection form shall be kept indefinitely and made available to Alpine City upon request.

APPENDIX C
Maintenance Form(s)



CATCH BASIN / MAHOLE / SUMP MAINTENANCE FORM

Subdivision/Business Name: _____ Completion Date: _____

Subdivision/Business Address: _____ Contact Name: _____

Maintenance Category: Routine Restoration Rehabilitation
(Circle All That Apply)

MAINTENANCE ACTIVITIES PERFORMED

STRUCTURE LOCATION & DESCRIPTION _____

ROUTINE WORK

- ___ MOWING AROUND INLET OR OUTLET
- ___ TRASH/DEBRIS REMOVAL
- ___ OUTLET WORKS CLEANING (TRASH RACK/WELL SCREEN)
- ___ WEED CONTROL (HERBICIDE APPLICATION)
- ___ MOSQUITO TREATMENT
- ___ ALGAE TREATMENT

RESTORATION WORK

- ___ SEDIMENT REMOVAL
- ___ EROSION REPAIR
 - ___ INFLOW POINT
 - ___ OUTFLOW POINT
- ___ VEGETATION REMOVAL/TREE THINNING
- ___ REVEGETATION
- ___ JET-VAC/CLEARING DRAINS
 - ___ OUTLET WORKS
 - ___ INFLOWS

REHABILITATION WORK

- ___ EROSION REPAIR
 - ___ INFLOW POINT
- ___ STRUCTURAL REPAIR
 - ___ INFLOW

OTHER _____

ESTIMATED TOTAL MANHOURS: _____

EQUIPMENT/MATERIAL USED: _____

COMMENTS/ADDITIONAL INFO: _____



EXTENDED DETENTION BASIN (EDB) MAINTENANCE FORM

Subdivision/Business Name: _____ Completion Date: _____

Subdivision/Business Address: _____ Contact Name: _____

Maintenance Category: Routine Restoration Rehabilitation
(Circle All That Apply)

MAINTENANCE ACTIVITIES PERFORMED

ROUTINE WORK

- MOWING
- TRASH/DEBRIS REMOVAL
- OUTLET WORKS CLEANING (TRASH RACK/WELL SCREEN)
- WEED CONTROL (HERBICIDE APPLICATION)
- MOSQUITO TREATMENT
- ALGAE TREATMENT

RESTORATION WORK

- SEDIMENT REMOVAL
 - FOREBAY
 - TRICKLE CHANNEL
 - INFLOW
- EROSION REPAIR
 - INFLOW POINT
 - TRICKLE CHANNEL
- VEGETATION REMOVAL/TREE THINNING
 - INFLOW(S)
 - TRICKLE CHANNEL
 - UPPER STAGE
 - BOTTOM STAGE
- REVEGETATION
- JET-VAC/CLEARING DRAINS
 - FOREBAY
 - OUTLET WORKS
 - INFLOWS

REHABILITATION WORK

- SEDIMENT REMOVAL (DREDGING)
 - BOTTOM STAGE
 - UPPER STAGE
- EROSION REPAIR
 - OUTLET WORKS
 - UPPER STAGE
 - BOTTOM STAGE
 - SPILLWAY
- STRUCTURAL REPAIR
 - INFLOW
 - OUTLET WORKS
 - FOREBAY
 - TRICKLE CHANNEL
- OTHER _____
- _____
- _____

ESTIMATED TOTAL MANHOURS: _____

EQUIPMENT/MATERIAL USED: _____

COMMENTS/ADDITIONAL INFO: _____



STORM DRAIN PIPE MAINTENANCE FORM

Subdivision/Business Name: _____ Completion Date: _____

Subdivision/Business Address: _____ Contact Name: _____

Maintenance Category:	Routine	Restoration	Rehabilitation
(Circle All That Apply)			

MAINTENANCE ACTIVITIES PERFORMED

PIPE LABEL/LOCATION _____

ROUTINE WORK

- MOWING AROUND INLET OR OUTLET
- TRASH/DEBRIS REMOVAL
- OUTLET WORKS CLEANING (TRASH RACK/WELL SCREEN)
- WEED CONTROL (HERBICIDE APPLICATION)
- MOSQUITO TREATMENT
- ALGAE TREATMENT

RESTORATION WORK

- SEDIMENT REMOVAL
- EROSION REPAIR
 - INFLOW POINT
 - OUTFLOW POINT
- VEGETATION REMOVAL/TREE THINNING
 - INFLOW(S)
 - TRICKLE CHANNEL
 - UPPER STAGE
 - BOTTOM STAGE
- REVEGETATION
- JET-VAC/CLEARING DRAINS
 - FOREBAY
 - OUTLET WORKS
 - INFLOWS

REHABILITATION WORK

- EROSION REPAIR
 - INFLOW POINT
 - OUTFLOW POINT
- STRUCTURAL REPAIR
 - INFLOW
 - OUTLET WORKS
 - PIPE

OTHER _____

ESTIMATED TOTAL MANHOURS: _____

EQUIPMENT/MATERIAL USED: _____

COMMENTS/ADDITIONAL INFO: _____

APPENDIX D
Annual Inspection and Maintenance Submittal Form



Annual Inspection and Maintenance Reporting Form
for
Stormwater Facilities

(This form to be submitted to Alpine City prior to July 15 of each year)

Date: _____

To: Alpine City
Attn: Jed Muhlestein, P.E.
20 N. Main
Alpine, UT 84004

Re: Certification of Inspection and Maintenance; Submittal of forms

Property/Subdivision Name: _____

Property Address: _____

Contact Name: _____

I verify that the required stormwater facility inspections and required maintenance have been completed in accordance with the Stormwater Facilities Maintenance Agreement and the Private Stormwater Facility Operation and Maintenance (O&M) Manual associated with the above referenced property.

The required Stormwater Facility Inspection and Maintenance forms are hereby provided.

Name of Party Responsible for Inspection
& Maintenance

Property Owner

Authorized Signature

Signature