

The City of Caldwell, Idaho

3rd Annual Municipal Separate Stormwater Sewer (MS4) Report

NPDES Permit No. IDS-028118

December 2011 to December 2012



Submitted to

United States Environmental Protection Agency

Storm Water Program

Region 10, Seattle, Washington

&

Idaho Department of Environmental Quality

Boise Regional Office

Boise, Idaho

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Report of Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature: Garret P. Nancolas Date: 3.20.13

Garret Nancolas, Mayor, City of Caldwell

Introduction

The Storm Water Management Program (SWMP) must cover six areas: Public Education and Outreach; Public Involvement/participation; Illicit Discharge Detection and Elimination; Construction Site Storm Water Runoff Control; Post-Construction Storm Water Management in New Development and Redevelopment; and Pollution Prevention and Good Housekeeping for Municipal Operations. This report is to cover the permit requirements and the status of each of the basic areas plus the monitoring requirements. The requirements are phased in over a four year period and by the end of the permit cycle all requirements will need to be completed. Because this is the second year of the permit many of the requirements are not required to be in effect. Preparations are being made in order to implement the requirements by their respective deadlines.

The Annual Report date in the permit was no later than January 15 of each year beginning in year 2011. However there was a petition for review of the permit by Pioneer Irrigation District. EPA reviewed the petition for review and in a letter dated November 18, 2009 stated that the entire Permit will become fully effective and enforceable 33 days after this notice is mailed. This changed the effective date from October 15, 2009 to December 21, 2009. Dates in the permit were from adjusted to reflect this change in the start of the permit.

Public Education and Outreach

Permit Requirements:

a) By December 21, 2011, the city must develop and implement an ongoing public education program to educate the community about the impacts of storm water discharges on local water bodies and the steps that citizens and business can take to reduce pollutants in storm water runoff.

b) By December 21, 2011 and at least twice per year thereafter, the city must distribute appropriate storm water educational materials to the target audience.

c) By December 21, 2011 and at least once per year thereafter, the city must update its stormwater information webpage with appropriate educational information.

Program Implementation

a) The city joined Partners for Clean Water in a bus and electronic billboard campaign to inform the public on keeping the river clean. Commuter busses that traveled from Caldwell to Boise every work day had their sides covered with the bill board. The City of Caldwell had one electronic sign at Cleveland and Linden with an electronic version of the bill board that was on the busses.

The City's Parks Department added two new dog cleanup stations to make a total of six dog cleanup stations along Indian Creek greenbelt. These added stations with a message about preventing pollution make it easier for the public to clean up after their pets.

b) The City's Storm Water Engineer gave a presentation at Vision Charter School on the need to be careful about what is poured down the storm drains with pamphlets distributed that illustrated the problems. He was able to recruit a group of students to mark storm drains in the area.

The city in conjunction with storm drain marking had the volunteers distributed door hangers in the area to inform the public of the marking program and let them know that things poured down the storm drain are not treated and are not allowed.

c) The webpage for stormwater was implemented on December 20, 2011. To inspect the site go to cityofcaldwell.com. Then choose government/City of Caldwell / Developmental Services/Engineering /stormwater. This site has a section for public involvement in cleaning up the community, public education on stormwater issues, a contact number for reporting illicit discharges and the newly adopted storm water ordinances. The site was updated this past year to include the 2nd annual report.

See CD 1 Appendix A- Public education

Public Involvement/Participation

Permit Requirements:

a) The city must comply with applicable State and local public notice requirements when implementing a public involvement/participation program.

b) The city must make all relevant SWMP documents and all Annual Reports required by this permit available to the public. By December 21, 2012, all SWMP documentation and Annual Reports must be posted online through its regularly maintained website.

c) The city must involve interested stakeholders in the development of the City's construction site runoff control program. The meeting schedule must be made know to the public, EPA and IDEQ through direct mail, email notification, and/or other locally appropriate means.

d) By December 21, 2011, and at least once a year thereafter, the city shall host a public meeting regarding the SWMP and progress to date.

e) At least once a year starting by December 21, 2009, the city shall organize, promote and participate in community Clean up Day(s)

f) By December 21, 2011, the city must organize and conduct a storm drain stenciling program. Within four years (by 12/21/13) of the effective date of the permit, at least 75% of storm drains throughout the city's jurisdiction must be stenciled.

Program Implementation

a) The city will and does comply with the public notice requirement when implementing a public involvement/participation program.

b) The web site has a section for public involvement with contact numbers and the 1st annual report of 2009-2010 and the 2nd annual report of 2010-2011 listed.

c & d) The City of Caldwell's P&Z Commission held a public meeting to present the new construction site runoff ordinances and to take public comment on the ordinance on December 3, 2012. Public comments were reviewed and modifications were made to the ordinances. The City Council voted on December 3, 2012 to approve the final version of the construction site runoff ordinances.

e) The staff from the City of Caldwell has helped to organized, promoted and participated in Boise River Sweep again this year. Boise River Sweeps was held on September 15, 2012 had 30 volunteers cleaned up the Lower Boise River for Eagle to the mouth near Parma. Many of these volunteers cleaned up Caldwell's City greenbelt along the Boise River and the adjacent parks as part of the Boise River Sweeps campaign. Over 8 cubic yards of trash were collected from 14 sites along the lower Boise River. This will be an annual event with the next Boise River Sweep scheduled for September 14, 2013. See CD 1 Appendix B: Community Cleanup

f) On April 14th, 2012 a group of students from Vision Charter School donated their time to mark around 100 Storm drains catch basins in the Caldwell area and placed door hangers with information on the importance of not allowing anything except stormwater down the drains. See CD 1 Appendix C: Storm drain marking

Illicit Discharge Detection and Elimination

Permit Requirements:

a) By December 21, 2012, the city must develop and implement a plan to detect and eliminate illicit discharges into their MS4, including roadways and associated drainage facilities, ditches, pipes, culverts, catch basins, and retention ponds in the permit area. This plan must include written spill response procedures for detection, identification of the source, and removal of non-storm water discharges from the MS4. This plan must address illegal dumping into the MS4, and include training for City staff on how to respond to reports of illicit discharges. The city must develop an information management database system to track the activities and actions of the program.

b) By December 21, 2012, the city must effectively prohibit non-storm water discharges into the MS4 through an ordinance. The city must implement appropriate enforcement procedures and actions, including a written policy of enforcement escalation procedures for recalcitrant or repeat offenders.

c) Through the ordinance set forth in the above section b, the city must prohibit any of the non-stormwater flows not meeting the requirements in the permit. The city must document to EPA in the Annual report any existing local controls or conditions placed on the types of non-storm water discharges in the permit.

d) By December 21, 2012, the city must update and complete its comprehensive MS4 map. At a minimum, the map(s) must show jurisdictional boundaries: the location of all City-owned or operated storm sewers, culverts, ditches, and other conveyances: the location of all inlets and outfalls: points at which the city's MS4 is interconnected with other MS4s: names and locations of all waters that receive discharges from those outfalls: locations of all city-owned or operated facilities, including all maintenance/storage facilities, and city-owned or private snow disposal sites. Location of all outfalls must also be provided in latitude and longitude, and the diameter of all outfalls must be provided with the map. The map must be available in electronic or digital format as appropriate. A copy of the completed map (s), as both a report and as an electronic file via Arc GIS format, must be submitted to EPA and IDEQ as part of the corresponding Annual Report.

e) By December 21, 2012, the city must begin an ongoing education program to inform users of the MS4, especially public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. This program must be conducted in concert with the public education requirement.

Permit Requirements:

f) By December 21, 2012, the city must begin dry weather field screening for non-storm water flows from all storm water outfalls. By December 21, 2014, at least 20% of the city's outfalls within the City Limits must be screened for dry weather flows. The screening should include field tests of selected parameters as indicators of discharge sources. The city must investigate any illicit discharge within fifteen days of its detection, and must take action to eliminate the source of the discharge within 45 days of the detection.

g) By December 21, 2012, the city must inventory all industrial facilities that discharge directly to the city's MS4 within the permit area and submit this inventory as part of the corresponding Annual Report. This inventory must include the names and address of the facility and the location of its outfall.

Program Implementation

a, b, & c) The city has passed a stormwater ordinance to make discharges to the city's stormwater systems that are not covered in our MS4 a violation. City crews have been trained to recognize and report any illicit discharge that they observe to the stormwater engineer. The city has an incident reporting form to be filled out on all reported illicit discharges and the Stormwater Engineer investigates any reported activity and recommends action.

d) The city has a current Arc GIS storm drain map of the city. This map is being upgraded to reflect the additional requirements under the permit. The outfall diameters are being verified when they are inspected for dry weather flows. Since the permit went into effect the city has incorporated an additional 52.58 acres. A DVD copy of the current city's storm water map is attached to this report. See CD 1 Appendix D: Stormwater Map

e) The city has joined Partners for Clean Waters for a regional approach to the education of the public. Their website has information to the public awareness of the effects of stormwater pollution. This will increase the number of radio and billboard advertisements to inform the public about stormwater.

f) The city's staff is using software called enterprise as a recording form and a tracking system for dry weather screening of stormwater outfalls. They have completed 36 field visits at this time. The city staff has investigated twelve illicit discharge complaints that it has been received this year. The staff investigated complaints the day they were received.

g) The city's staff has a working inventory of all industrial facilities that discharge directly to the city's MS4. See CD 1 Appendix E: List of *Industries connected to the City of Caldwell MS4*

Construction Site Storm Water Runoff Control

Permit Requirements:

a) By December 21, 2012, the city must implement and enforce a program to reduce pollutants in any storm water runoff to the MS4 from construction activities resulting in land disturbance of greater than or equal to one acre. This program must also include controls for pollutants in such storm water discharges from activities disturbing less than one acre, if that construction activity is part of a larger common plan of development or sale that disturbs one acre or more.

b) The city must provide appropriate information to representatives of proposed new development and redevelopment construction projects concerning the NPDES General Permit for Storm Water Discharges for Construction Activity in Idaho.

c) By December 21, 2012, the city must adopt an ordinance or other regulatory mechanism to the extent allowable under state or local law that requires all construction site operators to practice appropriate erosion, sediment and waste control. This ordinance or regulatory mechanism must include sanctions to ensure compliance.

d) By December 21, 2012, the city must publish and distribute requirements for construction site operators to implement appropriate erosion and sediment controls BMPs and to control waste (such as discharged building supplies, concrete truck washout, chemicals, litter and sanitary waste at a construction site) that may cause adverse impacts to water quality.

e) By December 21, 2012, the city must develop procedures for reviewing all pre-construction site plans for potential water quality impacts, including erosion and sediment controls, control of other wastes, and any other impacts according to the requirements of the law, ordinance, or other enforceable mechanism created to comply with adopted storm water runoff ordinances. These procedures must include provisions for receipt and consideration of information submitted by the public.

f) By December 21, 2012, the city must implement a program to receive, track, and review information submitted by the public regarding construction site erosion and sediment control complaints.

Permit Requirements:

g) By December 21, 2012, the city must develop and implement procedures for site inspection and enforcement of control measures established as required by ordinances and including a written policy of enforcement escalation procedures for recalcitrant or repeat offenders. By December 21, 2012, the city must inspect all construction sites in the permit area disturbing five acres or more for appropriate erosion/sediment/waste control practices at least once per construction season. By December 21, 2012, the city must also develop a written policy identifying how construction sites disturbing less than five acres will be prioritized for inspection.

h) The city must comply with the Construction General Permit and all relevant local requirements for erosion, sediment and onsite materials control on public construction projects. The city must ensure that all contractors working on behalf of the city are complying with the Construction General Permit and all relevant local requirements for erosion, sediment, and onsite materials control on construction projects. The city must incorporate specific language in all contracts ensuring appropriate storm water management on all public construction projects.

Program Implementation

a) The city council passed a construction activities ordinance on December 3, 2012 for projects disturbing greater or equal to one acre. Construction activities will be monitored till the NOT has been filed on a project.

The city's had the engineering firm of Brown and Caldwell presents a training class on the duties of an inspector on a SWPPP inspection. This class was attended by the city's Engineering Department inspectors and staff engineers. The model inspection report developed by EPA will be used by the inspectors. The NPDES General Permit is currently under EPA authority with the city to start the inspection and management on December 21, 2012 for all new projects that disturb an acre or more.

b) The city maintains a web site that allows developers to download the construction activities ordinance.

c) The new construction activity ordinance requires operators to implement appropriate erosion, sediment and waste control. This ordinance also contains penalties for non compliance.

d) Rather than the city publishing and distributing a set of BMPs, the city adopted as part of their construction activity ordinance, The Idaho Construction site Erosion and Sediment Control Field Guide. This guide is a product of a partnership of many organizations coordinated by the Idaho Small Business Development Center. This will allow a more uniform approach for the developers in the valley.

e) The city requires that any project that files an NOI must submit a copy of the SWPPP for review by the engineering department. A city inspector is then assigned to the project until a NOT is issued.

f) The city stormwater web site has a listed phone number to contact for any complains. The city has adopted the enterprise software that has a citizen call program for imputing information submitted by the public on any project. We can then link the call to any facility in the system.

g) At this time the new construction activity is low enough that the city can have the inspectors do site visits to all the current projects. This includes the over 5 acres and under 5 acres in size projects.

h) The city requires that the contractors file a NOI with EPA on all projects that meet the requirements of over one acre disturbed.

See CD 1 Appendix F: Construction site stormwater runoff control

Post-Construction Storm Water Management in New Development and Redevelopment

Permit Requirements:

a) By December 21, 2013, the city must implement and enforce a program to address post-construction storm water runoff from new development and redevelopment projects that disturb one acre and that result in discharge into the city's MS4 system. The program must ensure that controls are enacted that will prevent or minimize water quality impacts from newly developed or redeveloped areas.

b) By December 21, 2013, the city must adopt an ordinance to address post-construction runoff from new development or redevelopment projects.

c) By December 20, 2014 the city must ensure proper long term operation and maintenance of all permanent storm water management controls for newly developed project areas greater than one acre discharging into its MS4 area.

d) By December 20, 2014 the city must develop and implement a process for pre-construction plan review and inspection of permanent storm management control to ensure proper installation and appropriate long-term operation and maintenance.

e) By December 21, 2013, and at least once per year thereafter, the city must educate the development community about appropriate design, operation, and maintenance of storm retention facilities and vegetative practices to address post-construction storm water runoff from new development and redevelopment within the city's jurisdiction.

Program Implementation

a) The Caldwell Municipal Stormwater Management Manual addresses stormwater discharge on any project that adds over 1,000 square feet of impervious surface. This is much smaller than the one acre requirement in the permit.

b) The Caldwell Municipal Stormwater Management Manual was first adopted in 1996. The latest version was adopted in July 2009. This manual addresses the stormwater discharge from new development and redevelopment. See CD 1 Appendix G- Storm water manual

c) At this time the long term operation and maintenance of the newer developments are the responsibility of the private developers. The city's street department has a policy and procedure for inspecting and cleaning out catch basins in the older sections of town. A total of

311 catch basins were inspected and 311 were cleaned last year. A total of 0 sand and grease traps were inspected and cleaned. The city's street sweepers have swept 8,801 miles of city streets last year. The street department spent 0 man hours on snow removal and 80 man hours on spreading 350 tons of sand. See CD 1 Appendix H- Catch basin cleaning log

d) As part of obtaining building permit the developer must submit stormwater plans and calculation for approval to the building department. City inspectors insure that site construction is as per approved plans. Builders on individual lots in an approved subdivision are not required to submit a stormwater calculation if the original subdivision stormwater plans includes runoff from individual lots.

e) The city staff has been working with Partners for Clean Water to join with them on developing educational opportunities for the development community.

Pollution Prevention and Good Housekeeping for Municipal Operations

Permit Requirements:

a) By December 21, 2013 the city must develop and implement an operation and maintenance program intended to prevent or reduce pollutant runoff from municipal operations. This program must address municipal activities occurring within the permit area with the potential for negative storm water related water quality impacts, including; the use of sand and road deicers; fleet maintenance and vehicle washing operations; street cleaning and maintenance; grounds/park and open space maintenance operations; building maintenance; solid waste transfer activities; water treatment plant operations; storm sewer system maintenance; municipal golf course maintenance; and snow disposal site operations and maintenance.

b) By December 21, 2013 and once a year thereafter, the city must develop and conduct appropriate training for municipal employees relative to best maintenance practices for protection of water quality. This training must be conducted at least once per year and address the activities in item a) above.

c) By December 21, 2013 the city must prepare and implement storm water pollution prevention plans for the city' fleet maintenance/street department site and waste water treatment plant.

Program Implementation

a) The city has finished a street sweeper cleanout station. This station will allow the city's street sweepers to discharge their loads. All waste water from cleanup will be sent to the municipal sanitary sewer system. All collected waste will be drained and then transported to an approved landfill site. This station also has a 26x60 foot pressure wash bay for cleaning even the largest city vehicles. The water from this is also sent to the municipal sanitary sewer. The street department has one vacuum truck that is now being used to clean catch basins throughout the city and 4 sweeper trucks for cleaning the gutters.

b) The city's staff held a series of meetings last year with municipal employees that primary duties require working outdoors. This training covered background information on stormwater runoff a total of 149 city employees participated. Elements of the training were the Rain check DVD and a quiz. The city staff planned to hold annual training events for municipal employees. See CD 1 Appendix I: Municipal Stormwater Training

c) A new street department maintenance building was erected in 2012. The new maintenance building site has on site retention facilities that do not connect to the city's storm water system.

The City of Caldwell Waste Water Treatment Plant was run by a private company under contract with the city. That contract was terminated in September and the city has taken over the responsibility for the plant's operation. The design and upgrades to the Waste Water Treatment Plant has always been the city's responsibility. The Waste Water Treatment Plant is designed and has been built with on site retention facilities that do not connect to the city's separate storm water system.

Discharges to Water Quality-Impaired Receiving Waters

Permit Requirements:

- a) The city must conduct storm water discharge monitoring starting December 21, 2012.
- b) The city must determine whether storm water discharges from any part of the MS4 contribute pollutants of concern, either directly or indirectly, to the Boise River and associated tributaries. Pollutants of concern are total phosphorus, sediment, and E. coli.
- c) The city's Annual Report must include a description of how the activities of each of the minimum control measures are targeted by the city to control the discharge of pollutants of concern, and ensure to the maximum extent practice that the MS4 discharges will not cause or contribute to the excursion above the applicable Idaho water quality standards. This discussion must specifically identify how the city will evaluate and measure the effectiveness of the SWMP to control the discharge of pollutants of concern. For those activities identified requiring multiple years to develop and implement, the city must provide updates on progress to date. The city must submit this description of the SWMP implantation to EPA and IDEQ as part of the first Annual Report and update it annually in subsequent Annual Reports.

Program Implementation

a) The City of Caldwell has submitted a Monitoring Plan and Quality Assurance Plan in December, 2010. The current monitoring locations for the MS4 permit are: Boise River- sampling site is the storm drain manhole at 10th Ave and the east bound freeway entrance, Indian Creek- sampling site is the outfall pipe on 12th Ave Indian Creek Bridge, Mason Creek- sampling site is a pond 0.3 mile west of Ward Road on Skyway Drive. A fourth site also for Mason Creek is located in the Delaware Park 1 subdivision and is a detention pond with a 12 inch discharge pipe.

The City of Caldwell only had 5 rain fall events that qualified under the requirements of a prediction of 50% chance of 0.10 inches of rain fall in 24 hours during the May –October time period. The first qualifying event was a snow event with delayed runoff so no sample could be collected. The rain event in June would have been the second for the May –June sampling period, this left only three opportunities to collect samples. All three opportunities were used to collect samples but that left the city short one sample. During the dry summer months it was not uncommon to have over 800 hours between storms and then only have a few hundredths of an inch of rainfall. Many times is not enough runoff to generate any discharge at our

monitoring sites. The city's staff continued to monitor storms and on November 24, 2012 they were able to sample a fourth storm. This storm came in slowly and in the first two hours only 0.04 inches of rain fell. This was barely enough to create runoff at the 12th Ave – Indian Creek outfall. The entire flow was collected for over two minutes to obtain enough water for a sample to send to the laboratory for testing. The Skyway Drive site had zero discharge during the first two hours of the storm so a sample was not collected. The drain ditch that the subdivision on Skyway Drive discharged into was sampled to get a background on the non-irrigation period non-urban discharge. A separate excel sheet is attached that shows the rainfall from March through December.

The results of the sampling from our three official sites showed E coli ranged from 13 to >2,400 MPN/100mL , Nitrogen ranged from 1.36 to 5.12 mg/L , Total P ranged from 0.24 to 2.63 mg/L , and TSS ranged from <3 to 118 mg/L. The Skyway Drive site represents the newer subdivisions and only two events actually generated enough runoff to allow samples to be taken within the first two hours of the storms start. The fourth site pond did partially fill with storm water but it never reached a depth that allowed any storm water to be discharged into Mason Creek drainage this year.

The subdivisions built meeting the City of Caldwell stormwater design are generating a reduction both in volume and concentration levels in the pollutions of concern discharging to the waters of the United States. The results of monitoring for the pollutions of concerns are listed in the annual report. See CD 1 Appendix J: Monitoring Plan and Quality Assurance Plan-monitoring results

b) The city is a member of the Lower Boise Watershed Council and the council has been holding regular meetings with Idaho Department of Environmental Quality (DEQ). These meetings are to work on TMDL's for the Lower Boise River on the pollutions of concern.

c) The City of Caldwell staff has looked to expand the Public Education and Outreach segment of its permit by joining with Partners for Clean Water. This increase in funding has helps increase the number of people the message will reach.

The city has targeted Public involvement by increase in presentations give to school groups over the previous years. This has lead to an increased over the years of participation of community members involved storm drain stenciling.

The City of Caldwell staff just started the illicit discharge detection this last permit cycle. The outfall monitoring has not uncovered any illicit discharges at this time. The city continues to promote public awareness though its actives with Partners for Clean Water.

The City of Caldwell staff has worked to implement a construction site storm water runoff control this past year. The city has initiated training of staff in preparation of inspection requirements the ordinance.

The Post-Construction storm water management in new development and redevelopment is being worked on by city staff in preparation of the December 21, 2013 deadline.

The city of Caldwell staff initiated a training program on BMPs for city employees working outdoors during the first year of the permit and has made it an annual training. Each department has developed a stormwater pollution prevention and spill response plan that is reviewed annually.

CD1

Appendix A-Public Education

Appendix B- Community Cleanup

Appendix C- Storm drain Marking

Appendix D- Stormwater map

Appendix E- List of industries connected to city of Caldwell MS4

Appendix F- Construction Site Stormwater runoff control

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Appendix H- Catch basin Cleanout log

Appendix I –Municipal Stormwater Training

Appendix J- Monitoring Plan and Quality Assurance Plan-Monitoring results