

CITY OF REDDING ANNUAL NPDES REPORT

July 1, 2009, to June 30, 2010

The General Permit for the Discharge of Storm Water from Small Municipal Separate Storm Sewer Systems was issued to the City of Redding on August 3, 2005.

A. PERMITTEE INFORMATION

1. Permittee (Agency Name): City of Redding
2. Contact Person: Barry Tippin, P.E.
Assistant City Manager/Municipal Utilities Director
3. Mailing Address: P.O. Box 496071
4. City, State, and Zip Code: Redding, CA 96049-6071
5. Contact Phone Number: 530-225-4067
6. WDID No.: 5A45MSW2002
7. No additional geographical areas have been added to the MS4 since submission of the Storm Water Quality Improvement Plan (SWQIP)
8. The City of Redding is subject to the Design Standards contained in Attachment 4 of the General Permit.

B. REPORTING PERIOD

This report contains narrative documentation of the City of Redding's progress on the SWQIP efforts from July 1, 2009, through June 30, 2010.

C. EXECUTIVE SUMMARY

The 2009-2010 fiscal year completed the fifth year of the City of Redding's five-year implementation period under the General Permit for the Discharge of Storm Water from Small Municipal Separate Storm Sewer Systems. The permit was submitted in March of 2003 and issued to the City of Redding on August 3, 2005. Following the issuance of the permit, work tasks as defined within the permit submittal were undertaken by various departments within the City of Redding. While all departments will likely play some part in the overall permit goals, the principal Departments charged with the implementation and monitoring of the requirements are Development Services, Transportation and Engineering, and Municipal Utilities.

Within the report, actions taken relative to public education regarding storm water and the need to eliminate pollutants include signing of area creeks and streams, partnering with local service organizations and schools to label storm water inlets, establishment of a construction standard to place identification markers at each newly constructed inlet, articles within department newsletters and participation in community events such as the annual City of Redding Energy Fair, Whole Earth and Watershed Festival, Family Science Nights, Education for students and teachers and supplying information and handouts.

Additionally, public meetings before the Redding City Council are done to provide information to elected officials and solicit public comment. These meetings are also televised for those within the community that are unable to attend the meetings. Community creek clean-up, including the Sacramento River Trail in the fall of 2009 and year round Churn Creek clean-ups with the Stillwater Churn Creek Watershed Alliance. Additional community cleaning efforts have been planned for implementation during the fall of 2010 along the Sacramento River Trail. These along with storm water detention projects, such as the Clover Creek Preserve, further enhance stream corridors.

The City of Redding continues with developer and City staff outreach to further generate awareness of storm water pollution which may occur during their construction activities. This is being done through construction standard modifications, ordinance updates, specific inspection toward storm water impacts which may occur

during the development of the infrastructure and/or construction of buildings and conditioning of development plans.

As indicated, this report is for the fifth year of a five-year implementation program. The NPDES Coordinator position was retained during the 2007-2008 fiscal year to overview program implementation. That person is responsible for the overall coordination of the plan activities between the city departments and enhanced public education through classroom and service group presentations. This along with continued efforts implemented to date form the basis for a long term improvement to the condition of the water corridors within the community and improved overall water quality.

D. MINIMUM CONTROL MEASURES

1. Public Education and Outreach

BMP	Description	Status					
		Implemented	Not Implemented	Modified	Effective	Unknown	Not Effective
Public Education I: General Public and Target Sector Outreach							
PE I-A: Public Survey	Survey was developed and conducted and continues to provide information for determining focus for SWQIP program requirements.	√			√		
PE I-B: Storm Drain Labeling	The City has previously sponsored a volunteer storm drain labeling program and required new development to implement labeling programs.	√			√		
PE I-C: Event Participation	Participate in community events where storm water educational material can be presented and distributed.	√			√		
PE I-D: Multi-Ethnic Outreach	Translate and reprint educational materials in languages appropriate for addressing non-English speaking demographics.	√				√	
PE I-E: Clean Water Business Partners	Inspect restaurants and car wash facilities for compliance with wastewater and storm water codes and BMP's. Address mobile wash companies, carpet cleaners and landscapers regarding storm water pollution concerns and develop listing of other industries of concern.	√			√		
PE I-F: Mass Mailing	Develop mass mailing flyer or include storm water quality message in existing flyers for distribution with utility billings.	√			√		
PE I-G: Storm Water Website	Develop a storm water section on the City website.	√				√	
PE I-H: Media Campaigns	Develop multimedia campaigns and partnerships to target large sector of the population. Explore opportunities and funding for radio, newspaper, television and billboard ads.	√			√		
PE I-I: Service Club Presentations	Develop presentation and make presentation to service clubs educating and instructing them on how they can assist or participate.	√			√		
PE I-J: Pet Waste Control	Post pet waste information and collection bags at public trails.	√			√		

PE I-K: Waste Recycling	Develop and distribute educational materials that explain the benefits of waste recycling. Record and report the amounts of recycled materials.	√			√		
PE I-L: Stream Corridor Identification	The City of Redding installs stream corridor identification signs where applicable to educate the public.	√			√		
Public Education II; School Outreach							
PE II-A: Classroom Visits	The City currently conducts classroom education to elementary, middle and high school students for storm water quality messages, water conservation, watershed protection, solid waste disposal and recycling	√			√		
PE II-B: Storm Water Quality Curricula	Provide storm water quality-specific instructional units to K-12 grade schools to encourage teacher to include a science unit on storm water quality or storm water management.	√			√		
Public Education III: Public Official Outreach							
PE III-A: City Council Update	City Council will be updated at a minimum frequency of once per year with progress and status reports for the Comprehensive Storm Water Management Plan, including information on Storm Water Quality Improvement Plan section. Additionally, issue papers are sent to Council on a regular basis to ensure they are informed of the concerns and challenges faced by the program.	√			√		
PE III-B: Departmental Outreach	Encourage department administration to participate in public events that include water quality improvement education or benefit water quality. Encourage department managers to support employee participation in such events. Develop SWPPP's at City facilities.	√			√		
PE III-C: Employee Outreach	Publish storm water quality message in departmental newsletters.	√			√		
Public Education IV: Regional and Statewide Outreach							
PE IV-A: Redding Area Storm Water Task Force	Continue participation in the Redding Area Storm Water Task Force to share information, goals, concerns and issues.	√			√		
PE IV-B: Additional Outreach Activities	Continue to look for opportunities to develop and foster relationships with volunteer organizations, other agencies, regional groups, statewide groups and other parties interested in improving storm water quality.	√			√		

a. BMPs

I. General Summary

PE I-A: Public Survey

Previously, in the annual reporting period of 2008-2009 the Public Survey was developed, distributed and results were tabulated and published in the newsletter, *The Water Cooler*.

PE I-B: Storm Drain Labeling

Redding Municipal Utilities continues the labeling of storm drain inlets to educate the public about runoff flows and potential pollution concerns. Previously, each inlet was labeled with the name of the stream or creek to where that particular drainage system discharged. The new labels states "No Dumping - Drains to Sacramento River". The City has also included in their construction standards the requirement of all new development to have storm drain markers. The City has modified the labels. Instead of the vinyl marker a metal marker will be utilized to reduce fading and damage. City of Redding crews will install replacement markers found missing during annual inlet inspections. New markers will be placed on new inlets constructed as a part of development.

PE I-C: Event Participation

November 18, 2009 Redding Municipal Utilities Storm Water Division and WGR presented and co-hosted "The Got SWPPP" workshop for engineers, professional landscapers and construction companies, City employees from Oroville, Red Bluff, Corning, City of Shasta, Marysville, Eureka, Tehama County and Shasta County employees attended.

Topics covered included: The New Construction General Permit, Storm Water Violation, Low Impact and Hydromodification, Sustainability and Green Design featuring the Redding Library Green Roof, Lessons Learned from Another Phase II City.

Water Utility Staff participated in the City-sponsored "Got SWPP" workshop November 18 2009. A presentation on Water Conservation, Sustainability and the State Model Water Efficient Landscape Ordinance was given to approximately 60 attendees.

October 3, 2009 the City participated in the Community Creek Cleanup, with more than 500 local participants including numerous community organizations, neighborhood groups and City employees. During the event volunteers removed tons of invasive plant species, which included Ailanthus and Himalayan Blackberries. It was a multi jurisdictional event with the City of Redding participating along with Shasta County.

Organizations including the Redding Rotary, California Conservation Corps, Neighbors of Churn Creek, California Coastal Commission, The Ocean Conservancy, Shasta Roots 'n shoots, Shasta Land Trust, Western Shasta Resource Conservation District, Boy Scout troops and many others worked alongside local businesses donating heavy equipment and labor to complete the arduous work. The California Coastal Commission donated T-shirts for the volunteers. Several volunteers brought their own chain saws. Chippers were donated to chip the plants. The chipped vegetation was applied to the area as mulch.

October 8, 9, and 10, 2009 City of Redding Municipal Utilities held a No Drugs Down the Drain pharmaceutical collection event at the Solid Waste Transfer Station Household Hazardous Waste Collection Facility. A total of 466 pounds of non-controlled pharmaceuticals were collected and hauled for incineration to help keep these chemicals out of our wastewater treatment plant and the Sacramento River.

October 20, 2009 World Monitoring Day Sacramento River Assessment and Sampling Event. City of Redding participated with the Churn Creek Stillwater Watershed Alliance Group, Fish and Game and CH2MHILL. Seven sites were assessed and sampled in the Sacramento Watershed.

March 10, 11 and 12, 2010 City of Redding NPDES Coordinator and the Water Conservation Specialist co-hosted and participated in the Salmonoid Conference held at the City of Redding Convention Center. The City of Redding featured an information booth with educational materials for the participants. Approximately 250 people attended.

March 24, 2010 Environmental Education Workshop for Teachers was hosted by The City of Redding NPDES Coordinator and the Water Conservation Specialist along with the Western Shasta Resource Conservation District, California Regional Environmental Education Community (C.R.E.E.C), Shasta Health Academic and Recreation Enrichment (S.H.A.R.E.), Whiskeytown Environmental School, National Park Service, CH2MHILL and Turtle Bay. This collaborative effort of local professionals provided resource education to approximately 60 educators from the Redding area. The focus of the Water presentation centered on understanding the complex nature of water and water rights in the North State as a precursor to understanding the need for water conservation efforts. The Stormwater presentation provided curriculum to the teachers for conducting environmental education relating to pollution prevention. The teachers participated in a hands on demonstration, building an aquifer. The Storm Water presenter explained the lesson and significance to

preventing pollution to our waterways. As part of the workshop, an Educational Resource Catalog was developed. The catalog contains the resources (books, CDs, DVDs, posters etc.) available to educators as well as descriptions of presentations that City staff are available to give in a school or public setting. resources, handouts, CD's, maps, California State Standards teaching curriculum for teachers in Shasta County. Sixty teachers attended the workshop ranging in grades preschool – High School, which encompasses 4,462 students.

April 24, 2010 City of Redding Municipal Utilities held a No Drugs Down the Drain pharmaceutical collection event at the Whole Earth and Watershed Festival at City Hall. A total of 661 pounds of material (including packaging) was collected at the two events. Due to the expense of hauling and incineration, pills were removed from bottles and packaging during the April event. Bottles and packaging comprised 35.5% of the 195.1 pounds collected that day. Extrapolating this number to the total, 426 pounds of non-controlled pharmaceuticals were kept out of our landfill, wastewater treatment plant and the Sacramento River.

April 24, 2010: Whole Earth and Watershed Festival was held at Redding City Hall and Sculpture Park. In addition to the 60 exhibitors participating, the City of Redding Municipal Utilities attended and educated the public. Water Conservation Staff handed out Water-wise Gardening CDs and demonstrated to the public how to read their water meter and their water bill, and how to check for leaks at the meter. The Industrial Waste Division staffed a No Drugs Down the Drain collection booth where 125 pounds of non-controlled pharmaceuticals were collected for proper disposal. The Solid Waste Division educated the public about which items are acceptable for recycling, and encouraged the public to reuse products. Solid Waste also informed the public about compost and the household hazardous waste program. Magnets and pencils were handed out with a recycling message. Cal Recycle shared the booth with Solid Waste Division and exhibited items made from recycled materials, and gave away bottle openers, coin purses, soda can toppers – which were all made from 100% recycled materials. The Stormwater Division featured the Enviroscope Diorama educating the public about the separate systems of storm drains from sewer lines and how to ensure that pollutants do not enter the storm drains. Stormwater also handed out pet-waste bags and had participants fill out a pledge to pick up after their pet, a variety of brochures were available for the public regarding information of how to prevent pollution and protect our waterways. Several thousand people attended.

May 13, 2010: The Redding Municipal Utilities was represented by the Storm Water (NPDES Coordinator) Division at the North Woods Discovery School Family Science Night. The Storm Water Division utilized the Enviroscope Diorama to explain the division of storm drains and sewer lines and how to prevent pollution from entering our waterways. The effects of pesticides, fertilizers, soaps and household cleaning products on salmon eggs and chicken eggs were demonstrated in a visual presentation. Participants created individual aquifers and were introduced to a dramatization of how one drop of pollution is capable of contaminating all sources of water - surface water and groundwater.

June 13, 2010, February 6, 2010 and November 1, 2009: Churn Creek Road Clean Up was successfully completed by the Stillwater Churn Creek Watershed Alliance and the City of Redding Storm Water Division. The City of Redding Solid Waste Division picked up over 300 pounds of trash.

June 19, 2010: Redding Municipal Utilities (Water, Wastewater, Storm Water, Solid Waste, Storm Drain, Engineering Divisions) and Redding Electric Utility annually sponsor an Energy Fair at which water conservation, pollution prevention regarding storm water, recycling, and proper storm water drainage practices and energy conservation are highlighted. This outreach is accomplished through the use of display boards illustrating BMPs, distribution of brochures, providing handouts, having interactive kids games, demonstrating energy efficiency and water conservation measures, highlighting recycling programs, distributing a water-wise gardening interactive CD, water bottles, and having participation by more than 50 vendors displaying energy efficient and water conserving appliances. Displays included demonstration of the Car Wash Kit Program, newly initiated by the City of Redding. The demonstration enlightened the public to the benefits of recovering car wash water by observing the constructed storm drain catch basin, which diverted water to the sanitary sewer or to landscape rather than to the storm drain. Pet waste bags were handed out and information distributed informing the public that cleaning up after your pet is the law. Brochures highlighting storm water-related BMP's, including pet-waste disposal and fundraiser car washing were handed out to the public. Water and Electric Conservation Staff partnered with a local landscape professional to design a booth which demonstrated water-wise landscaping principles including plant

selection, efficient irrigation practices, and new irrigation technology. A rainwater harvesting system and the irrigation system were both powered by solar technology. Water-wise Gardening CDs were given away to interested attendees. In addition, a water-wise shower display was used to visually demonstrate how much water is saved using newer showerheads versus older water-guzzling shower heads. Customer Service Staff was on hand to help people learn how to read their water meter and check for leaks around their home. The storm drain system was available for viewing on a computer program. The Wastewater Collection Department included a display highlighting the televising of the City sewer system. Pictures depicting the wastewater treatment plant were available for viewing and glass jars containing raw influent to the treated effluent explained treatment. Binder was available which highlighted rate increases, and what the monies are utilized for. Industrial Waste had a demonstration sink and pipes, to inform the public about the complications relating to grease and how a grease interceptor operates. The event is attended by more than 4,500 members of the community.

City Departments attending included Electric, Municipal Utilities, City Clerk, Transportation and Engineering, Housing, Development Services, Parks and Airports. Individual participants included Electric Utility Director, Municipal Utility Director, Electric Program Manager, Director of Engineering and Transportation, Airport General Manager, Municipal Utility Manager, Water Manager, Water Conservation Specialist, Industrial Waste Supervisor, NPDES Coordinator, Electric Major Account Representatives, Wastewater Collection Supervisor, and more than 25 other water, wastewater, electric, solid waste, storm drain, and administrative employees.

June 30, 2010 City of Redding NPDES Coordinator co-partnered with the Western Shasta Resource Conservation District Coordinator to perform Benthic Macro-Invertebrate sampling and creek assessment at Cow Creek, along with the Stillwater Churn Creek Watershed Alliance participants. The group collected 10 samples at ten different locations, performed chemical analysis and took measurements of the creek. The purpose is to assess the health of the creek and the watershed in regards to pollutants and contaminants.

PE I-D: Multi-Ethnic Outreach

Pollution Prevention Brochures for BMP's (Best Management Practices) in English associated with storm water issues have been developed by the NPDES Coordinator. The printed pollution prevention brochures for BMP are available in English and Spanish, include the topics of Auto Cleaning, Pet Care, Food Facility, and Swimming Pools.

The Redding Municipal Utilities also provides English and Spanish language flyers promoting less toxic alternative to pesticides and yard care products at Orchard Supply Hardware (OSH) as part of their Our Water Our World (OWOW) campaign.

PE I-E: Clean Water Business Partners

Redding Municipal Utilities conducted inspections of approximately 359 restaurants and car/truck wash facilities to minimize Sanitary Sewer Overflows (SSO's) and commercial washing activities that discharge to the storm drain. Of the 359 facilities inspected, 240 were oil and grease interceptors at restaurant/food facilities, 22 were grease trap inspections in food facilities, 81 were sand and oil interceptors at car and truck wash facilities. Stormwater inspections are routinely conducted at our 11 permitted Industrial User facilities. A total of 483 total inspections were done, including initial and follow-up inspections. Inspections and interceptor pumping activities are recorded in our Linko Fats Oils and Grease (FOG) database. Additionally, Redding Municipal Utilities (now Public Works) has developed a comprehensive list of approximately 2000 businesses slated for stormwater inspections over the next two to three years.

PE I-F: Mass Mailing

The storm water quality message and pollution prevention BMP informational brochures have been distributed at the Whole Earth Day and Watershed Festival, City Energy Fair, Environmental Education Teachers Workshop, the Salmonid Conference and have been distributed to the Northwoods Discovery School Science Fair during instruction about pollution prevention. *The Water Cooler* Newsletter which has been created by the Water Conservation Specialist and the NPDES Coordinator, has been distributed to the residents of Redding through utility billing every quarter.

PE I-G: Storm Water Website

The Storm Water web site has been developed by the NPDES Coordinator. The web site is included within the Municipal Utilities section of the City of Redding website.

PE I-H: Media Campaigns

City of Redding's Industrial Waste Division, the NPDES Coordinator and the Water Utility have worked with KRCR Channel 7 to air three 30 second television commercials which address water conservation, SSO prevention and storm water pollution prevention. The MMC/SRWP *Pollution Solution* is still being aired for storm water pollution prevention, in addition to *The Clog* for SSO prevention and a *Casa Blanca* spinoff for water conservation. Additionally, Redding Municipal Utilities ran ads on various radio stations, including Results Radio and Redding Radio networks, KLXR and KCNR. There are four 60 second radio ads that run periodically throughout the day. The Utilities anticipate recording new radio and TV ads for next year's PSA's that will focus on outdoor water conservation, SSO prevention and Solid Waste issues. The radio ads are titled: *This is Your Drain*, *Pollution Solution*, a *Cool Hand Luke* spinoff and most recently the *Talking Fish*, specifically targeting storm water pollution prevention. PSA's are included on a CD with this report and an example air time schedule is attached. The Wastewater Utility plans to run an ad campaign highlighting the importance of infrastructure financing in the coming year.

Solid Waste placed full color ads in two local high school sports booster posters and a banner at Big League of Dreams advertising used motor oil recycling.

PE I-I: Service Club Presentations

Redding Municipal Utilities Storm Water Division and WGR presented and co-hosted "The Got SWPPP" workshop for engineers, professional landscapers and construction companies, City employees from Oroville, City of Shasta, Marysville, Eureka, Tehama County and Shasta County employees attended. Presentations have been made to Elementary, Middle and High School teachers and students on pollution prevention BMP's regarding storm water topics.

The NPDES Coordinator is actively involved with the Stillwater Churn Creek Watershed Alliance and has shared information and services.

The Water Utility was approached by The Leos Club, a Lions Club International sponsored youth group to participate in EPA Water Sense Fix A Leak Week in March 2010. Leos Club members distributed flyers in an older neighborhood offering free leak detection tests to residents. The following week, the youth group returned accompanied by Water Utility Staff who turned off domestic the water supply, read meters, checked for leaks and shared tips with residents. This was a successful partnership in which the City supported a youth group effort to become actively involved in their community.

Solid Waste did two presentations regarding recycling; one to a local Boy Scouts group, which reached 18 boy scouts and 12 parents. The other Solid Waste presentation highlighting the recycling program was given to Leadership Redding, given to 30 adults.

PE I-J: Pet Waste Control

Redding Municipal Utilities continues to coordinate with the City Community Services Department to insure pet waste stations are considered for all new and proposed trails and other facilities where pets are permitted.

PE I-K: Waste Recycling

The City's Solid Waste Utility operates various recycling and waste diversion programs that help keep products out of the waste stream and the storm drain system. The City of Redding currently offers 39 waste diversion programs, many of which are available to all residents of Shasta County - not just City of Redding residents. Among those programs are: curbside recycling, curbside green waste recycling, commercial cardboard and office paper recycling, scrap metal recycling, drop-off recycling, composting, and seasonal recycling programs such as Christmas tree recycling, leaves and phone book recycling. Materials that are recycled by the City of Redding include the following: aluminum cans, plastics #1-#2, newspaper, office paper, mixed paper, cardboard, tin cans, glass, scrap metal, mattresses, electronics, televisions and computer monitors. Solid Waste redesigned the brochure that outlines most of the services and has been sent out to all new customers. A full color magnet to help people remember what items can go in their curbside carts has also been created and handed out to customers.

PE I-L: Stream Corridor Identification

Through the interaction of the Redding Rotary Club, the City of Redding has provided identification signing of creeks traversing public streets. This action is to further educate the public of their existence and the importance to maintain clean waterways.

PE II -A: Classroom Visits

Redding Municipal Utilities NPDES Coordinator has conducted classroom visits educating students from pre-school through college on stormwater issues, pollution prevention BMP's and has conducted related activities.

Manzanita School	9/11/2009	90 third grade students
Manzanita School	9/25/2009	90 third grade students
Farm City Days	9/30/2009	450 third grade students
School of the Arts	3/9/2010	90 fourth/fifth combination and fifth/sixth combination grades
California Conservation Corporation	5/5/2010	30 College students Age 18-25 years old

City of Redding NPDES Coordinator, the Water Conservation Specialist, staff from Redding Electric Utility and Shasta College partnered in a pilot High School Education Outreach campaign. The NPDES Coordinator demonstrated by utilized the Enviroscape Diorama to explain the division of storm drains and sewer lines and how to prevent pollution from entering our waterways. The effects of pesticides, fertilizers, soaps and household cleaning products on salmon eggs and chicken eggs were demonstrated in a visual presentation. The Water Conservation Specialists' focus was to impart an awareness of where our water comes from and how much water we utilize in our daily lives. This was presented through an interactive power point addressing water use in the world, how much water is used to manufacture a variety of products and how students can conserve water. The students were mainly ninth grade Earth Science students. Approximately 1,000 High School students were taught.

Enterprise High School 4/30/2010 Shasta High School 5/14/2010 Foothill High School 5/21/2010.

PE II-B: Storm Water Quality Curricula

Redding Municipal Utilities has prepared lesson plans for specific target age groups on the importance of storm water quality which meets the California State standards and has taught students and teachers.

PE III-A: Annual City Council Update

Information regarding the efforts of the Storm Drain Utility continue to be provided to the City Council.

PE III-B: Department Outreach

Between 45-50 employees of different Divisions of Redding Municipal Utilities have actively coordinated, shared information and participated in several events including: the Got SWPPP Event, Community Creek Clean-Up, the No Drugs Down the Drain Event, Salmonoid Conference, Environmental Education Teachers Workshop, the Whole Earth and Watershed Festival, Energy/Conservation Fair. Twenty-three City employees are members of the California Water Environmental Association (CWEA). The Municipal Utilities Staff regularly attends meetings of the California Municipal Utilities Association, Association of California Water Agencies, Water Resource Managers of Shasta County, Redding Area Water Council, and the California Water Environmental Association (CWEA). Storm water employees belong to The California Storm Water Quality Association (CASQA). The Water Utility Manager is a board member of American Water Works Association (AWWA) Region 1 and the Vice President of the Redding Area Water Council.

Information is also provided through division/department newsletters.

PE III-C: Employee Outreach

Storm Water Quality articles have been prepared for inclusion in City departmental newsletters. These articles are currently being included in the Municipal Utilities' divisions newsletters (*Curbside and The Water Cooler*) and in the other City Departments' newsletters.

PE IV-A: Redding Area Storm Water Task Force

This group was originally formed for the purpose of pursuing an area-wide permit. Once it was determined each agency would be permitting individually, focus was redirected. At such time as activity resumes or formalization of the task force takes place, the City of Redding will again consider participation.

PE IV-B: Additional Outreach Activities

The City of Redding NPDES Coordinator and the Water Conservation Specialist have joined the Environmental Education Working Group to pool resources and work together as a group to reach students, teachers and the public regarding issues of pollution prevention, water conservation, and other environmental topics regarding our watershed. The other group members are the Western Shasta Resource Conservation District, CH2MHILL, Whiskeytown National Park Service, CREEC and SHARE.

The City also partners with Turtle Bay Exploration Park. The arboretum hands out CD's on water wise landscaping. During the last calendar year, Turtle Bay Exploration Park hosted approximately 130,000 visitors.

Redding Municipal Utilities employees are actively involved with the Stillwater-Churn Creek Watershed Alliance Group, to provide information and education regarding pollution prevention.

Redding Municipal Utilities provides flyers promoting less toxic alternative to pesticides and yard care products at Orchard Supply Hardware (OSH) as part of their Our Water Our World (OWOW) campaign

An Integrated Regional Water Management group itself, the Redding Area Water Council made a decision to become part of a much larger effort that consists of six counties. Several meetings were held over the course of the year to determine the extent of participation and governance options. Final decisions regarding participation and appointments to both the Governing Board and Steering Committee will be made in the next fiscal year.

Adopt-A-Street is a popular program that is supported by Solid Waste. Bags, pickers and vests are supplied and the bagged trash is picked up and disposed of by the utility

Many city employees participate and attend presentations and meetings sponsored by the American Water Works Association (AWWA), California Water Environmental Association (CWEA), Water Environmental Federation (WEF), Central Valley Clean Water Association (CVCWA), The California Stormwater Quality Association (CASQA), California Municipal Utilities Association (CMUA), Solid Waste Association of North America (SWANA), Association of California Water Agencies (ACWA), the Redding Area Water Basin Council (RAWC), and the Water Resource Managers of Shasta (WRMS).

ii. Status of Measurable Goals

PE I-A Public Survey	The Stormwater Quality Program Survey was developed and sent out to the residents of the City of Redding in the utility bills. The results were calculated and published in the quarterly publication <i>The Water Cooler</i> .
PE I-B Storm Drain Labeling	Exceeding proposed measurable goal of 200 inlets per year.
PE I-C Event Participation	Major community events exceeded the years goals. The events included: City sponsored Got SWPPP Workshop, Community Creek Clean Up, No Drugs Down the Drain, World Monitoring Day- River Assessment and sampling, Salmonoid Conference, Environmental Education Workshop for Teachers, Whole Earth and Watershed Festival, Northwoods Discovery School Family Science Night, Stillwater Churn Creek Watershed Alliance Churn Creek Clean Up, Energy/Conservation Fair, Benthic Macro-Invertebrate Assessment and sampling.

PE I-D Multi-Ethnic Outreach	Brochures have been developed and created and distributed in English and Spanish for stormwater pollution prevention BMP topics which include: Auto Cleaning, Pet Care, Food Facility, and Swimming Pools.						
PE I-E Clean Water Business	During the reporting period, 359 restaurants and car washes inspected for compliance with wastewater codes to minimize Sanitary Sewer Overflows which could impact storm water conveyances and reduce incidents of commercial washing activities which discharge to the storm drain. Of the 359 facilities inspected, 240 were oil and grease interceptors at restaurant/food facilities, 22 were grease traps in food facilities, 81 were sand and oil interceptor car and truck wash facilities. Our 11 permitted Industrial Dischargers are routinely inspected for Stormwater compliance. Inspections and interceptor pumping is recorded in our Linko FOG database. Additionally, Redding Municipal Utilities has developed a comprehensive list of approximately 2000 businesses slated for stormwater inspections over the next two years.						
PE I-F Mass Mailing	The Stormwater message continues to be received through mass mailings in the <i>Water Cooler</i> , the quarterly newsletter that is sent out in the utility billings.						
PE I-G Storm Water Website	The Stormwater Website has been developed and continues to be updated as necessary.						
PE I-H Media Campaigns	Stormwater, SSO prevention, and Water Conservation TV and radio commercials aired throughout 2009 and 2010. Solid Waste had used motor oil recycling ads in two local high school sports booster posters, and a banner at Big League of Dreams promoting used motor oil recycling.						
PE I-I Service Club Presentation	<p>Redding Municipal Utilities Storm Water Division and WGR presented and co-hosted "The Got SWPPP" workshop for engineers, professional landscapers and construction companies, City employees from Oroville, Corning, Red Bluff, City of Shasta, Marysville, Eureka, Tehama County and Shasta County employees attended. The NPDES Coordinator is actively involved with the Stillwater Churn Creek Watershed Alliance and has shared information and services. City of Redding Municipal Utilities participated in World Monitoring Day - sampled, analyzed and presented results at the Stillwater Churn Creek Watershed Alliance Meeting. The Storm Water Division presented at the Stillwater Churn Creek Watershed Alliance Group on pollution prevention and the watershed. The Water Utility supported the Leos Club, a Lions Club International sponsored youth group to participate in EPA WaterSense Fix A Leak Week in March 2010. Leos Club members distributed flyers in an older neighborhood offering free leak detection tests to residents. The following week, the youth group returned accompanied by Water Utility Staff who turned off domestic the water supply, read meters, checked for leaks and shared tips with residents. This was a successful partnership in which the City supported a youth group effort to become actively involved in their community.</p> <p>Solid Waste gave two presentations on recycling.</p> <table border="0"> <tr> <td>Boy Scout Troop, 421</td> <td>2/4/2010</td> <td>18 boy scouts, 12 parents</td> </tr> <tr> <td>Leadership Redding</td> <td>5/6/2010</td> <td>30 adults</td> </tr> </table>	Boy Scout Troop, 421	2/4/2010	18 boy scouts, 12 parents	Leadership Redding	5/6/2010	30 adults
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Leadership Redding	5/6/2010	30 adults					

PE I-J Pet Waste Control	The decorative waste bag dispensers previously installed along the existing Blue Gravel Mine and Canyon Creek Trails in west Redding by a local Boy Scout continue to be utilized. The dispensers are unique in that they accommodate plastic grocery sacks that trail users can restock, ensuring the longevity of the dispensers as they are not dependent on City crews to restock with a particular brand of bags. The pet waste dispensers at the trail head on Sunflower Drive continues to be successful. The pet dispenser located on the south end of the bridge at Turtle Bay Sundial Bridge serves the new trail extension from the museum south along the river to Highway 44.
PE I-K Waste Recycling	As of reporting year 2008, the State changed how our waste diversion is calculated. It has been changed from a percentage to a pounds/person/day value. As of our most recent report, our target rate, based on population, was 6.4. Our actual rate was 5.5, which means that we were .9 pounds/person/day lower than the State target.
PE I-L Stream Corridor ID	The stream corridor identifications have been accomplished.
PE II-A Classroom Visits	Redding Municipal Utilities has conducted classroom visits educating students from pre-school through College on storm water issues, pollution prevention BMP's and conducted related activities, such as, creek field trips.
PE II-B Storm Water Curricula	Lesson plans meeting California state requirements have been prepared for specific target age groups on the importance of storm water quality and distributed to educators.
PE III-A Annual City Council Update	The City Council is provided with information on the Storm Water Program.
PE III-B Departmental Outreach	Between 45-50 employees of different Divisions of Redding Municipal Utilities have actively participated in the Got SWPPP Event, Community Creek Clean-Up, the No Drugs Down the Drain Event, Salmonid Conference, Environmental Education Teachers Workshop, the Whole Earth and Watershed Festival, Energy/Conservation Fair, and and. Twenty-three City employees are members of the California Water Environmental Association (CWEA). The Municipal Utilities Staff regularly attends meetings of the California Municipal Utilities Association, Association of California Water Agencies, Water Resource Managers of Shasta County, Redding Area Water Council, and the California Water Environmental Association (CWEA). Storm water employees belong to The California Storm Water Quality Association (CASQA). The Water Utility Manager is a board member of American Water Works Association (AWWA) Region 1 and the Vice President of the Redding Area Water Council.
PE III-C Employee Outreach	Newsletter articles have been developed and included in the Municipal Utilities' divisions newsletters <i>Curbside</i> and the <i>Water Cooler</i> including storm water, pollution prevention and water conservation articles.
PE IV-A Storm Water Task Force	NA

PE IV-B Additional Outreach

The City of Redding NPDES Coordinator and the Water Conservation Specialist have joined the Environmental Education Working Group to pool resources and work together as a group to reach students, teachers and the public regarding issues of pollution prevention, water conservation, and other environmental topics regarding our watershed. The other group members are the Western Shasta Resource Conservation District, CH2MHILL, Whiskeytown National Park Service, CREEC and SHARE.

The City also partners with Turtle Bay Exploration Park. The arboretum hands out CD's on water wise landscaping. During the last calendar year, Turtle Bay Exploration Park hosted approximately 130,000 visitors.

Redding Municipal Utilities employees are actively involved with the Stillwater-Churn Creek Watershed Alliance Group, to provide information and education regarding pollution prevention.

The City also partners with Turtle Bay Exploration Park. The arboretum hands out CD's on water wise landscaping. During the last calendar year Turtle Bay Exploration Park hosted approximately 130,000 visitors.

Redding Municipal Utilities employees are actively involved with the Stillwater-Churn Creek Watershed Alliance Group.

Redding Municipal Utilities provides flyers promoting less toxic alternatives to pesticides and yard care products at Orchard Supply Hardware (OSH) as part of their Our Water Our World (OWOW) campaign.

An Integrated Regional Water Management group and the Redding Area Water Council became part of a six county effort. Several meetings have determined the extent of participation and governance options. Final decisions regarding participation and appointments to both the Governing Board and Steering Committee will be made in the next fiscal year.

Many city employees participate and attend presentations and meetings sponsored by the American Water Works Association (AWWA), California Water Environmental Association (CWEA), Water Environmental Federation (WEF), Central Valley Clean Water Association (CVCWA), The California Stormwater Quality Association (CASQA), California Municipal Utilities Association (CMUA), Solid Waste Association of North America (SWANA), Association of California Water Agencies (ACWA), the Redding Area Water Basin Council (RAWC), and the Water Resource Managers of Shasta (WRMS).

iii. Appropriateness

PE I-A Public Survey	Program elements are appropriate.
PE I-B Storm Drain Labeling	Program elements are appropriate
PE I-C Event Participation	Program elements are appropriate.
PE I-D Multi-Ethnic Outreach	Program elements are appropriate.
PE I-E Clean Water Business	Restaurants and car washes are an appropriate target for storm water BMP's and are currently part of the annual inspection program. Redding Municipal Utilities conducted inspections at 359 restaurants and car/truck

wash facilities to minimize Sanitary Sewer Overflows (SSO's) and commercial washing activities that discharge to the storm drain. Using business license listings, Redding Municipal Utilities has developed a comprehensive list of approximately 2000 additional businesses, including auto service facilities, landscapers and carpet cleaners (among others) slated for stormwater inspections and/or outreach over the next two to three years.

PE I-F Mass Mailing	Content of messages are appropriate.
PE I-G Storm Water Website	Program elements are appropriate.
PE I-H Media Campaigns	TV commercials and Radio announcements are appropriate. Sports booster posters and banner are appropriate.
PE I-I Service Club Presentations	Presentations are appropriate.
PE I-J Pet Waste Control	Program elements are appropriate.
PE I-K Waste Recycling	Redding maintains existing recycling programs and develops new programs as needed. Programs target materials that can be recycled efficiently and new material types and markets are identified on an ongoing basis. The City has shown strong growth in the tonnage of recyclables collected through the City's programs.
PE I-L Stream Corridor ID	Program elements are appropriate.
PE II-A Classroom Visits	Classroom visits are appropriate.
PE II-B Storm Water Curricula	Storm Water curricula are appropriate.
PE III-A Annual City Council Update	Program elements are appropriate.
PE III-B Departmental Outreach	Program elements are appropriate.
PE III-C Employee Outreach	Program elements are appropriate.
PE IV-A Storm Water Task Force	Positive venue for sharing of information, goals, concerns and issues related to storm water. Participation will resume upon reactivation or formalization of the group.
PE IV-B Additional Outreach	Outreach through participation in the Environmental Education Working Group, partnering with Turtle Bay, the Stillwater-Churn Creek Watershed Alliance Group, the Our Water Our World flyer Information and the Integrated Regional Water Management Group are all appropriate.

iv. Effectiveness

PE I-A Public Survey	The Storm Water Quality Survey was effective as 2,863 responses were received.
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PE I-B Storm Drain Labeling	Program continues to receive public participation, heightened awareness and positive public feedback. City residents alert staff when they observe that labels have become damaged or removed and request replacement.
PE I-C Event Participation	The Energy/Conservation Fair is extremely effective. Attendance continues to be high with attendees numbering greater than 4,500. The vendors particularly appreciate the event as it gives them an opportunity to showcase a variety of appliances and systems that are energy and water efficient. This is an annual event that has taken place for the last 8 years and is a signature event for the municipal utilities. Many positive comments came from participating residents. The Whole Earth Watershed Festival was very successful where several thousand residents participated. No Drugs Down the Drain brought in 122 people, many who requested another collection day in the future. The City of Redding sponsored Community Creek Clean Up, had over 500 participants, and the Stillwater Churn Creek Watershed Alliance Churn Creek Clean Up, were both hugely successful and provided an avenue for education about pollution prevention. The Northwoods Discovery School Family Science Night was the second year of attendance. Education on storm water pollution prevention was received by students, parents and teachers. Farm City Days taught 450 third graders about Storm water issues and pollution prevention. Environmental Education Workshop for Teachers ultimately will reach 4,462 students. The Benthic Macro Invertebrate Sampling and Creek Assessment effectively educated the adult members of the Stillwater Churn Creek Watershed Alliance Group.
PE I-D Multi-Ethnic Outreach	Brochures on pollution prevention in Spanish have been developed, completed and distributed.
PE I-E Clean Water Business	Reducing storm water discharges from restaurants and car washes and other businesses will reduce grease, oil, soap, odors and organic loads to local waterways. The effectiveness of these and additional business category BMP's will continue as inspection and distribution of pollution prevention BMP brochures continue.
PE I-F Mass Mailing	The <i>Water Cooler</i> Newsletter has been effective as indicated by the positive responses.
PE I-G Storm Water Website	The website will be determined as effective as it becomes more interactive.
PE I-H Media Campaigns	The Storm water Pollution Prevention, SSO, Water Quality and Solid Waste TV and Radio commercials are effective; as, positive feedback has been received. Print ads in the Sports Booster posters will be discontinued as there is no indication that they are effective.
PE I-I Service Club Presentations	Water Utility and Storm Water presentations have been effective.
PE I-J Pet Waste Control	The Pet Waste Bags have proved to be effective as the bags have been utilized and replenished. The amount of pet waste present is considerably less along the Blue Gravel Mine and Canyon Creek Trails in west Redding and in Benton dog Park, and on the trail at Sunflower Drive and at the Turtle Bay Sundial bridge trail.

PE I-K: Waste Recycling	Redding currently boasts a waste diversion rate in excess of the state-mandated 50%. In Fiscal Year 2009/10, the City's recycling programs generated 11,840.30 tons of recyclables; this amount includes commercial recycling, voluntary drop-off and curbside weights less the trash. The City's composting facility received and processed 16,158.10 tons of green waste in the same reporting period, which includes residential and commercial self-haul and curbside collection.
PE I-L: Stream Corridor ID	There have been comments received from the public acknowledging awareness of the stream identification signage.
PE II-A Classroom Visits	Classroom visits have been effective as indicated by positive responses, and request to return in the 2010-2011 school year.
PE II-B Storm Water Curricula	Storm water curricula has been effective, as positive feedback has been received by the educators.
PE III-A Annual City Council Update	Update to City Council have been well received.
PE III-B Departmental Outreach	The City has a group of dedicated, involved employees that are active and willing participants in a wide variety of civic and professional organizations and events as has been previously stated.
PE III-C Employee Outreach	Initial employee response has been effective and positive with the <i>Curbside</i> and the <i>Water Cooler</i> newsletters.
PE IV-A Storm Water Task Force	NA
PE IV-B Additional Outreach	Through the efforts of the Environmental Education Working Group, the Environmental Education for Teachers Workshop was very successful. Turtle Bay arboretum continues to request CD's on water wise landscaping. The Stillwater Churn Creek Watershed Alliance Group continues to clean up the Churn Creek area and to educate and participate in the group. Our Water Our World (OWOW) flyers are regularly restocked. The Integrated Regional Water Management Group has effectively been created and have regular meetings.

v. Proposed Modifications

PE I-B Storm Drain Labeling	Continue to incorporate the new type of labeling marker to reduce repladement.
PE I-H Media Campaigns	See attached revision to Implementation Schedule.
PE I-I Service Club Presentations	Service Club presentations will be made to a variety of organizations regarding the Community Creek Cleanup and Pollution Prevention message.
PEI-J Pet Waste Control	Pet waste dispensers will continue to be maintained.

b. RESULTS OF INFORMATION COLLECTED/ANALYZED

PE I-A Public Survey	The Storm water Quality Program Survey was developed, distributed, and tabulated. Pollution Prevention education continues to be geared to indicated areas.
PE I-E: Clean Water Business	Restaurants and car washes are responding to correction notices to maintain wastewater pretreatment devices and reduce washing activities that drain to storm sewers. The sewer collection crew have noticed less grease in some of the "hot spot" (high grease concentration) locations.
PE I-K: Waste Recycling	The City's recycling programs generated 11,840.30 tons of recyclables in Fiscal Year 2009/10. The City's composting facility received and processed 16,158.10 tons of green waste, which includes residential and commercial self-haul and curbside collection in Fiscal Year 2009/10.
PE III-C Employee Outreach	Staff has received many comments from employees on how informative and timely the storm drain articles have been and how they are sharing the information with others.
PE IV-B: Additional Outreach	Outreach through participation in the Environmental Education Working Group was received by sixty teachers and encompasses 4,462 students. The Stillwater-Churn Creek Watershed Alliance Group has adopted and cleans up the Churn Creek Road area four times per year. Turtle Bay Exploration Park hands out water wise landscaping CD's to visitors. Turtle Bay had 130,000 visitors last year.

c. PROPOSED STORM WATER ACTIVITIES FOR NEXT REPORTING CYCLE

PE I-B Storm Drain Labeling	Incorporate replacement of damaged and missing labels with new modified labels.
PE I-D Multi-Ethnic Outreach	Continue to develop and distribute BMP's in non-English educational materials as funding and needed dialects are defined.
PE I-E Clean Water Business	Continue restaurant and car wash inspections. Expand inspections to more types of business groups. Develop mailing lists for outreach and e-mail lists of businesses to reduce costs of future communications.
PE I-F Mass Mailing	Continued distribution of storm water quality information in the <i>Water Cooler</i> publication.
PE I-G Storm Water Website	The web site will continue to expand and develop.
PE I-H Media Campaigns	More air time will be purchased for TV and radio advertisement featuring Storm water, Water Conservation, Industrial Waste, and Solid Waste. Banner at Big League of Dreams will be continued.
PE I-I Service Club Presentations	Continue storm water educational presentations to service groups. Presentations are planned addressing water conservation and storm water pollution prevention BMP's.
PE I-J Pet Waste Control	Ensure new trails will include pet waste information and disposal bags.

PE I-K Waste Recycling	Solid Waste Utility staff will continue to incorporate a direct storm water message into printed materials when the next brochure modifications are undertaken. Likewise, a link to the City's Storm Water Division will be updated on the Solid Waste Utility's web site.
PE I-L Stream Corridor ID	Continue to coordinate placement of signs with volunteer organizations as requested.
PE II-A Classroom Visits	Continue to educate pre-school through college age students on pollution prevention BMP's and storm water concerns.
PE II-B Storm Water Curricula	Continue to obtain curricula materials and write lesson plans for target age groups.
PE III-A Annual City Council Update	Continue to provide City Council with updated information.
PE III-B Departmental Outreach	Continue to provide Department managers and employees with updated information and opportunity to participate in events.
PE III-C Employee Outreach	Continue to write storm water related articles in the employee newsletter <i>The Curbside</i> and the quarterly publication <i>The Water Cooler</i> .
PE IV-A Storm Drain Task Force	N/A
PE IV-B Additional Outreach	Continue active participation with the Environmental Education Group. Continue to partner with Turtle Bay arboretum. Active participation and outreach will continue with the Stillwater-Churn Creek Watershed Alliance group. Continue placement of less toxic alternative flyers at OSH. Continue participation in the Integrated Regional Water Management Group.

2. Public Involvement and Participation

BMP	Description	Status					
		Implemented	Not Implemented	Modified	Effective	Unknow	Not
Public Participation and Involvement							
PP I-A: Public Meetings	Public meetings will be held to encourage citizen participation and allow additional viewpoints to be considered for incorporation in subsequent modifications to the SWQIP.	√			√		
PP I-B: Community Water Body Cleanups	Allow citizens to participate in the cleanup of different water body drainage areas under direction of City departments and watershed groups.	√			√		

PP I-C: Pet Waste Control	Post signage and make containers available to City Trials to encourage pet owners to police their own pet waste.	√			√		
Watershed Stewardship							
WS I-A: Clover Creek Preserve	Clover Creek preserve is a multi-function facility initially proposed to provide flood control to protect downstream residents. The project has been designed to include wetland, park and water quality features in addition to flood control.	√			√		
WS I-B: Flood Control and Drainage Projects	City flood control and drainage projects will incorporate restoration and habitat improvement features, as feasible.	√			√		
WS I-C: Strategy and Work Plan	Develop a strategy and work plan for additional watershed projects. Stillwater-Churn Creek Watershed.	√			√		
WS I-D: Prioritize Projects	Local creeks will be assessed and opportunities/needs for future watershed improvement projects will be ranked.	√			√		

a. BMPs

I. General Summary

PP I-A: Public Meetings

With regard to providing annual public meetings for citizen comment, annual updates are provided during City Council meetings. These meetings are advertised and allow for public input following staff presentations. These updates are intended to continue on an annual basis. In this manner, the City Council and citizens are hearing the same presentations and have access to the same information on which decisions are made regarding on-going and future programs.

PP I-B: Community Water Body Cleanups

City of Redding employees, Shasta County employees and residents, Shasta and Simpson College students and a variety of organizations and private citizens participated in the cleanup along the Sacramento River, removing Himalayan Blackberries and Ailanthus. Stillwater Churn Creek Watershed Alliance continues clean ups at Churn Creek road, providing information on pollution prevention.

PP 1-C: Pet Waste Control

Redding Municipal Utilities continues to coordinate with the City Community Services Department to insure that pet waste stations are considered for all new and proposed trails and other facilities where pets are permitted.

WS I-A: Clover Creek Preserve

The Clover Creek Preserve project has been completed. This project was funded through a combination of State of California grant funds, Redevelopment Agency funds and Storm Drain Utility developer fees. The project provides for the detention of storm waters during peak storm durations to minimize flooding impacts downstream. This project is used as an example for future public or private detention areas.

WS I-B: Flood Control and Drainage Projects

The initial findings of the consultant updating the storm drain master plan, Churn Creek Basin, are that regional detention is not a viable alternative. The consultant is conducting further analysis of existing conveyance system upgrades

WS I-C: Strategy and Work Plan
N/I

WS I-D: Prioritize Projects
N/I

ii. Status of Measurable Goals

PP I-A Public Meetings	Consistently scheduled and advertised public meeting.
PP I-B Community Water Body Cleanups	Tons of illegally dumped materials have been removed including an abandoned automobiles. Illegal campsites with their subsequent contamination have been removed from this area. Non- native plants, namely the Himalayan Blackberry and Ailanthus were removed.
PP 1-C Pet Waste Control	Decorative waste bag dispensers previously installed by a local Eagle Scout along the existing Blue Gravel Mine and Canyon Creek Trails in west Redding are being utilized. The 4 dispensers installed along the 2 mile combined trail system accompanied by City-maintained trash receptacles continue to be utilized also. These dispensers accommodate plastic grocery sacks that trail users can restock, ensuring the longevity of the dispensers as they are not dependent on City crews to restock with a particular brand of bags. The scouts also installed two dispensers in Benton Dog Park to reduce litter from stray bags as the one dispenser in the park tends to be depleted quickly. The pet waste dispensers at the trail head on Sunflower Drive continues to be successful. The pet waste dispenser located on the south end of the bridge at Turtle Bay Sundial Bridge is being utilized.
WS I-A: Clover Creek Preserve	Clover Creek Preserve is completed and in operation.
WE I-B: Flood Control and Drainage Projects	Individual drainage basin review is on-going. Projects will be developed as a result of information developed during the basin master planning and input received from field crew observations.
WS I-C: Strategy and Work Plan	N/I
WS I-D: Prioritize Projects	N/I

iii. Appropriateness

PP I-A Public Meetings	Program elements are appropriate.
PP I-B Community Water Body Cleanups	The community water body cleanups are appropriate and beneficial to the environment.
PP 1-C Pet Waste Control	Program elements are appropriate.
WS I-A Clover Creek Preserve	The project is appropriate to minimize downstream flooding concerns on Clover Creek.

WE I-B Flood Control/Drainage Projects	This ongoing effort to analyze storm impacts along the various drainage basins with the City of Redding is important and is planned to be in future year work plans.
WS I-C Strategy and Work Plan	N/I
WS I-D Prioritize Projects	N/I

iv. Effectiveness

PP I-A Public Meetings	The overall effectiveness of the public meetings are unknown. The meetings do provide a forum to distribute information regarding storm water. By utilizing the City Council meeting for this effort, the information is also broadcast as a part of the televised City Council meetings.
PP I-B Community Water Body Cleanups	The removal of the non-native plants has enhanced the habitat for the native species such as the California Poppy and the Elderberry. The citizens have expressed their appreciation for this activity. Churn Creek clean up is effective in removing debris.
PP 1-C Pet Waste Control	The decorative waste bag dispensers installed along the Existing Blue Gravel Mine and Canyon Creek Trails in west Redding are being utilized. The four dispensers which were installed along the 2 mile combined trail system are being utilized. The two dispensers in Benton Dog Park are being utilized. The pet waste dispensers at the trail head on Sunflower Drive continues to be successful. The pet waste dispenser located on the south end of the bridge at Turtle Bay Sundial Bridge continues to be utilized.
WS I-A Clover Creek Preserve	The project will be effective in detaining storm water to minimize flooding opportunities.
WS I-B Flood Control/Drainage Projects	Projects which are identified and constructed which reduce the opportunities of flood conditions are a worthwhile effort which will continue.
WS I-C Strategy and Work Plan	N/I
WS I-D Prioritize Projects	N/I

v. Proposed Modifications

PP I-A Public Meetings	No modifications are currently proposed.
PP I-B Community Water Body Cleanups	Establish communications and obtain assistance from the Anderson Cottonwood Irrigation District in continuing this work upstream.
PP 1-C Pet Waste Control	No modifications are currently proposed.
WS I-A Clover Creek Preserve	No modifications are currently proposed.
WS I-B Flood Control/Drainage Projects	No modifications are currently proposed.

WS I-C: Strategy and Work Plan	No modifications are currently proposed.
WS I-D: Prioritize Projects	Work task will be ongoing instead of just a onetime ranking.

b. RESULTS OF INFORMATION COLLECTED/ANALYZED

PP I-A Public Meetings	N/I
PP I-B Community Water Body Cleanups	The cleaned up watershed area is now more open and visible to the general public. Law enforcement indicates a decrease in activities associated with the transient camps including dumping and fires.
PP 1-C Pet Waste Control	Pet waste stations have been utilized and will be placed as new trails are developed.
WS I-A Clover Creek Preserve	N/I
WS I-B Flood Control/Drainage Projects	N/I
WS I-C Strategy and Work Plan	N/I
WS I-D Prioritize Projects	N/I

c. PROPOSED STORM WATER ACTIVITIES FOR NEXT REPORT CYCLE

PP I-A Public Meetings	Continue to advertise and hold public meetings where opportunities are available for the exchange of storm water quality information and public participation.
PP I-B Community Water Body Cleanups	Continue discussion with neighborhood groups and major property owner for opportunities for corridor clean-up events.
PP 1-C Pet Waste Control	Ensure new trails include pet waste information and disposal bags.
WS I-A Clover Creek Preserve	Project completed no further action.
WS I-B Flood Control/Drainage Projects	Completion of the Churn Creek Basin Master Plan update.
WS I-C Strategy and Work Plan	Develop list of projects.
WS I-D Prioritize Projects	Local creeks to be assessed for watershed improvement projects with ranking.

3. Illicit Discharge Detection and Elimination

BMP	Description	Status					
		Implemented	Not Implemented	Modified	Effective	Unknown	Not Effective
Illegal Discharge I: Ordinance Enforcement							
IDE I-A: Ordinance Enforcement	Review and revise, as necessary, ordinance pertaining to grading and storm water quality. Develop and implement administrative enforcement procedures.	√				√	
IDE I-B: Agency Coordination/Database	Program staff ensures that all agencies involved spill response are aware of storm water regulations and work together to minimize release of discharges.	√			√		
Illegal Discharge II: Spill Response							
IDE II-A: Website Reporting	An illegal discharge reporting form will be made available on the City storm water website that will automatically notify storm water personnel of a reported discharge.		√				
IDE II-B: Telephone Reporting	Develop and set up a 24-hour telephone procedures for receiving and responding to reports of illicit discharges. Currently, the Industrial Waste Division responds to calls during business hours.	√			√		
IDE II-C: Spill Response	Department of Municipal Utilities or Fire Department will have trained response personnel available 24 hours to respond to spills and prevent releases to receiving waters.	√			√		
Illegal Discharge III: Illicit Discharge Prevention							
IDE III-A: Storm Drain Stenciling	The City program requires all new development to label storm drain inlets.	√			√		
IDE III-B: Hazardous Waste Collection	Continue to promote the availability of household hazardous waste disposal efforts.	√			√		
IDE III-C: Waste Oil Collection	Continue to support the used oil recycle program performed by the Solid Waste Division.	√			√		
IDE III-D: Illicit Connection Detection	The Illicit Connection Detection activity will be performed primarily as a coordinated effort between GIS and the activities associated with the City-wide Storm Drain Master Plan. Additional efforts are included in the City of Redding Storm Drain Utility Maintenance and Operations Plan during regularly scheduled inspection of storm drain outfalls and catch basins.	√			√		
IDE III-E: Illicit Connection Elimination	Identification by field staff or Storm Drain Master Plan consultant of apparent illicit connections or abnormal discharges as part of routine drainage system maintenance or system evaluation will be pursued by mechanism provided by ordinance.	√			√		

a. BMPs

I. General Summary

IDE I-A: Ordinance Enforcement

Modifications to the Municipal Code and the implementation of ordinance modifications continue to be reviewed by various departments within the City of Redding. We expected additional revisions to be developed and submitted for public comment over the past fiscal year. However, budget and staffing reductions have placed this task on hold. The revisions will likely include additional reference to administrative enforcement procedures.

IDE I-B: Agency Coordination/Database

With regard to those agencies/departments which respond to spills, information has been made available related to the need to minimize the release of discharges into the storm water channels. This is an on-going information activity.

IDE II-A: Web site Reporting

N/I

IDE II-B: Telephone Reporting

The Industrial Waste Division responds to stormwater complaints during regular business hours.

IDE II-C: Spill Response

There are presently 25 active and trained members of a Hazardous Materials (HAZMAT) Response Team within the Municipal Utilities Department. Among their duties are to participate with the Shasta Cascade HAZMAT Response Team in responding to HAZMAT incidents in the greater Redding area.

IDE III-A: Storm Drain Stenciling

Redding Municipal Utilities continues its effort of labeling storm drain inlets to educate the public about runoff and potential pollution concerns. Each inlet is to be labeled with the new style, which states "No Dumping – Drains to Sacramento River". The City has also included in their construction standards the requirement of all new development to implement the labeling program. During this reporting period, the type of label has been modified from vinyl to metal. This should reduce fading and vandalism.

IDE III-B: Hazardous Waste Collection

The Solid Waste Utility maintains a public education and outreach program to educate residents about the need for proper disposal of household hazardous wastes (HHW), which includes pesticides, waste oil and oil filters, antifreeze, paint, batteries, household chemicals, etc. The program focuses on disseminating information through the following means: 1) participation in public events such as the City's Energy Fair; 2) Mass mailing to the target audience by including articles regarding hazardous waste disposal in the Solid Waste Utility's quarterly newsletter, *Waste Stream*, which is distributed to more than 24,500 residential customers; 3) Maintaining a web site where information is kept up-to-date and which provides links to other outside agency sources for information on hazardous waste disposal, safer alternatives, the availability of Certified Used Oil Collection Centers. 4) Distributing Household Hazardous Waste brochures to users of the City's Transfer Station and customers identified as having prohibited hazardous waste products through the Transfer Station's load check program; 5) HHW/prohibited item 'tag system' whereby refuse collection drivers who encounter hazardous waste products in garbage, green waste or recycling carts leave an information tag on the offending cart along with a household hazardous waste brochure which directs the homeowner to the proper disposal outlet. These are all methods used to promote the availability of the City's Household Hazardous Waste facility and to educate the public about the need for proper disposal.

IDE III-C: Waste Oil Collection

The Solid Waste Utility maintains a public education and outreach program to educate residents about the need for proper disposal of used motor oil and oil filters. The program focuses on disseminating information

through the following means: 1) participation in public events such as the City's Energy Fair; 2) Mass mailing to the target audience by including articles regarding used oil and oil filter disposal in the Solid Waste Utility's quarterly newsletter, *Waste Stream*, which is distributed to more than 24,500 residential customers; 3) Maintaining a web site where information is kept up-to-date and which provides links to outside agency sources for information on used oil and oil filter disposal and the availability of Certified Used Oil Collection Centers; 4) Distributing Household Hazardous Waste brochures, which include a message about used motor oil and oil filters, to users of the City's Transfer Station and customers identified as having prohibited hazardous waste products through the Transfer Station's load check program; 5) HHW/prohibited item 'tag system' whereby refuse collection drivers who encounter used motor oil or oil filters in garbage, green waste or recycling carts leave an information tag on the offending cart along with a household hazardous waste brochure which directs the homeowner to the proper disposal outlet; 6) the use of mass media (newspaper advertising) to promote the availability of Certified Used Oil Collection Centers and the City's Household Hazardous Waste Facility. These are all methods used to promote the availability of the City's options for proper disposal of used motor oil and oil filters and to educate the public about the need for proper disposal.

IDE III-D: Illicit Connection Detection

Redding Municipal Utilities is continuing to inspect the storm water drainage pipe system and televising all new development prior to acceptance by the City. Approximately 10,000 feet of sewer mains were thoroughly inspected utilizing closed circuit television (CCTV) to insure their condition were such as to prevent blockages and overflows of wastewater in the watershed areas.

IDE III-E: Illicit Connection Elimination

Redding Municipal Utilities is monitoring the system closely through routine/regularly scheduled inspection and consistent follow-up on any reports or field findings.

ii. Status of Measurable Goals

IDE I-A Ordinance Enforcement	On-going. The original program indicated a completion of the tasks. Due to staffing and budget considerations there is a need to include an on-going review of the ordinance.
IDE I-B Agency Coordination/Database	On-going. The original program indicated a completion of the tasks. There is a need to include an on-going review of information dissemination within the program.
IDE II-A Website Reporting	N/I
IDE II-B Telephone Reporting	Procedures are in effect.
IDE II-C Spill Response	The HAZMAT Response Team continues with its monthly training schedule, monthly equipment checks, and quarterly training exercises.
IDE III-A Storm Drain Stenciling	Exceeds proposed measurable goal of 200 inlets per year.
IDE III-B Hazardous Waste Collection	Since the adoption of the City's Household Hazardous Waste Element in 1996, the City of Redding has undertaken a public education program to promote the need for proper disposal of household hazardous waste and the availability of the City's disposal programs. All public education elements have been modified to address the effect of illegal disposal of household hazardous waste on the ecosystem. The tasks are complete and the status of the program is ongoing.
IDE III-C Waste Oil Collection	Since the adoption of the City's Household Hazardous Waste Element in 1996, the City of Redding has undertaken a public education program to promote the need for proper disposal of

used motor oil and oil filters. All public education elements have been modified to address the effect of illegal disposal of motor oil and oil filters on the ecosystem. The tasks are complete and the status of the program is ongoing.

IDE III-D Illicit Connection Detection

On-going.

IDE III-E Illicit Connection Elimination

On-going.

iii. Appropriateness

IDE I-A Ordinance Enforcement

This is an appropriate effort.

IDE I-B Agency Coordination/Database

This is an appropriate effort.

IDE II-A Website Reporting

N/I

IDE II-B Telephone Reporting

This is an appropriate effort

IDE II-C Spill Response

Program elements are appropriate.

IDE III-A Storm Drain Stenciling

Program elements are appropriate.

IDE III-B Hazardous Waste Collection

The methods used by the Solid Waste Utility are appropriate as they reach the intended target audience (residential customers) through a variety of methods: direct mail, internet, face-to-face, and at public events.

IDE III-C Waste Oil Collection

The methods used by the Solid Waste Utility are appropriate as they reach the intended target audience (residential customers) through a variety of methods: direct mail, internet, newspaper advertising, face-to-face, and at public events.

IDE III-D Illicit Connection Detection

This is an appropriate effort.

IDE III-E Illicit Connection Elimination

This is an appropriate effort.

iv. Effectiveness

IDE I-A Ordinance Enforcement

Ordinance review within departments continues to be effective.

IDE I-B Agency Coordination/Database

Agency/department response to spills communication is effective.

IDE II-A Website Reporting

Web site information is available to the public effectively.

IDE II-B Telephone Reporting

The Industrial Waste Division responds to stormwater complaints. Businesses are telephoned to stop any discharges and a follow-up inspection is done. BMP handouts are given to perpetrators.

IDE II-C Spill Response

All personnel are trained to the HAZMAT Specialist Level. The team possesses all manner of equipment and materials for effective response to HAZMAT incident in the greater Redding area.

IDE III-A Storm Drain Stenciling

Program continued to receive public participation, heightened awareness and positive public feedback. City residents are

now alerting staff when they see a label that has become damaged or removed and are requesting replacement.

IDE III-B Hazardous Waste Collection Redding's Household Hazardous Waste facility has seen significant increases in usage in the following areas since the facility was constructed and permitted in 1997. In the fiscal year 2009/2010, the amount of Household Hazardous Waste collected was 200,724.4 lbs. The customer count for the year was 4,412. Also collected were 994 quarts of sharps, 12,519.0 lbs. of batteries, and 5,354.2 lbs. of fluorescent lights (light tubes and light bulbs). This data provides positive feedback that the City's outreach efforts are effective.

IDE III-C Waste Oil Collection Redding's Household Hazardous Waste facility has seen dramatic increases in the collection of used motor oil and oil filters since the facility was constructed and permitted in 1997. The facility, which acts as a non-certified used oil collection center accepts oil and filters from residential customers throughout Shasta County. The oil and oil filters are accepted free-of-charge, and the customers are not paid for the oil. In fiscal year 2009/2010, the amount of used motor oil collected was 4,307.3 gallons, and approximately 1,722 oil filters were collected. This data provides positive feedback that the City's outreach efforts are effective.

IDE III-D Illicit Connection Detection Program elements are effective.

IDE III-E Illicit Connection Elimination Program elements are effective.

v. Proposed Modification

IDE I-A Ordinance Enforcement Established to on-going review.

IDE I-B Agency Coordination/Database Establish to an on-going review.

IDE III-B Hazardous Waste Collection The only proposed modifications are to incorporate a direct storm water message into the City's written publications and public presentations for future use. This has already begun. In the Fall issue of the Utility's solid waste and recycling division's newsletter, the *Waste Stream*, an article on storm water was included that educated customers about simple steps they can take to reduce the impact of storm water discharge in the rainy season. The *Waste Stream* newsletter in the Fall 2009 also featured an article on how to properly dispose of unwanted or expired pharmaceuticals as well as providing information about the No Drugs Down the Drain event which was held in October, 2009.

b. RESULTS OF INFORMATION COLLECTED/ANALYZED

IDE III-B Hazardous Waste Collection From FY 2008/2009 to FY 2009/2010, the amount of HHW collected annually at the Household Hazardous Waste facility has decreased from approximately 227,192 lbs To 200,724.4 lbs. Customer count decreased slightly from 4,505 customers per year to 4,412 customers.

IDE III-C Waste Oil Collection There were 5,259 gallons of waste oil collected in FY 2008/2009. 4,307.3 gallons of waste oil were collected in FY 2009/2010, indicating a decrease of 951.7 gallons. 2,205 oil

filters were collected in FY 2008/2009 and a slight decrease was indicated in FY 2000/2010 with 1,722 oil filters collected.

c. PROPOSED STORM WATER ACTIVITIES FOR NEXT REPORTING CYCLE

IDE I-A Ordinance Enforcement	Review of ordinance and administrative enforcement modification needs.
IDE I-B Agency Coordination/Database	Continue information interaction.
IDE II-A Website Reporting	Incorporate storm water reporting on the web site.
IDE II-B Telephone Reporting	Continue to respond to calls during business hours.
IDE II-C Spill Response	The HAZMAT team will continue to train, equip, and to respond to HAZMAT incidents.
IDE III-A Storm Drain Stenciling	Continue placement of the new labels for this BMP.
IDE III-B Hazardous Waste Collection	Solid Waste Utility staff will incorporate a direct storm water message into printed household hazardous waste and used oil materials when the next brochure modifications are undertaken. Likewise, a link to the City's Storm Water Division will be included on the Solid Waste Utility's web site.
IDE III-C Waste Oil Collection	Solid Waste Utility staff will continue to stress the effects of illegal disposal of used motor oil and oil filters on the storm drain system and the ecosystem.

4. Construction Site Storm Water Control

BMP	Description	Status					
		Implemented	Not Implemented	Modified	Effective	Unknown	Not Effective
Construction I: Outreach and Education							
CE I-A: Developer Outreach	Educate and provide guidance to the construction and development community.	√			√		
CE I-B: City Staff Outreach	Educate and provide guidance to City staff on local and state requirements and new technology.	√			√		
Construction II: Ordinance and Standards							
CE II-A: Update Ordinance	Review and revise ordinance as necessary to provide mechanism for enforcement of provisions of this plan.	√			√		
CE II-B: Revise Standards	Evaluate and revise erosion, sediment, and pollution control standards and specifications as necessary.	√			√		

Construction III: Inspection and Enforcement						
CE III-A: Entitlement Review	Ensure projects adequately address requirements during CEQA process by reviewing and commenting on storm water quality improvement features.	√			√	
CE III-B: Plan Review & Approval	Ensure that all projects utilize BMPs to address erosion, sediment, and pollution control requirements through development approval process and municipal procedures by requiring each project to have adequate erosion control plans and, if necessary, show proof of coverage under State Construction General Permit.	√			√	
CE III-C: Inspection	Continue to inspect construction sites for adequate erosion, sediment, and pollution control measures.	√			√	
CE III-D: Record Keeping	The City will develop a database for tracking inspection and violations on construction sites.			√		√

a. BMPs

I. General Summary

The goal of the Construction Site Storm Water Runoff Control Element is to reduce the discharge of storm water pollutants to the maximum extent practicable by requiring construction sites to reduce sediment in onsite runoff and to require construction sites to reduce other pollutants such as litter and concrete wastes through good housekeeping procedures and proper waste management.

ii. Status of Measurable Goals

CE I-A: Developer Outreach

The goal of the developer outreach is to generate awareness of storm water pollution by educating people about the storm drain system and its relationship to the health of local waterways. Changing the behavior patterns through education and encouragement of active participation in water pollution prevention and let the contractor know what steps they can take to reduce pollutants in storm water runoff. Current City review of new development applications emphasizes the importance of considering storm water pollution control and after construction of the project. Examples of successful storm water systems are presented to the developers to aid them in preparation of new development.

CE I-B: City Staff Outreach

Continued awareness of design and construction practice in urban areas of the State which have been permitted under NPDES II for years has given City staff the ability to recommend to developers and contractors techniques and methods to consider when attempting large grading operations and development near creeks and stream beds. Reception of these recommendations has been mixed and a on-going effort to raise awareness within the development community is continuing through pre application, plan check and construction phases of new developments. This includes occasional workshops, direct mailings on active projects, advisory information in newsletters, and training sessions with agencies and key local players in the development industry. In 2008 the Development Services Department developed a draft manual for distribution to contractors and builders titled, "Storm Water Pollution Prevention Practices for Contractors and Builders". The package outlines best management practices needed to comply with City of Redding NPDES requirements for small construction sites. Following internal review and final authorization, the manual will be shared with construction industry representatives, and it will become the foundation for education, and permit compliance.

CE II-A: Update Ordinance

A review of the City's grading ordinance was completed in year 2005 with an eye towards strengthening the language to help obtain compliance with the Phase II NPDES requirements. A committee was established

that brought together people from the development community, construction contractors, the Builder's Exchange and Regional Water Quality Control Board. Language was modified in the current ordinance to reflect the new organization in the City and to acknowledge sediment control is of primary concern with storm water discharge from newly graded sites. Time frames for beginning and ending approved grading operations without proper erosion and sediment control measures were adjusted. In addition, the grading window was shortened and any grading outside this window will need close scrutiny and approval by the City Engineer before grading may begin. Current language which requires all developments of one acre or more to have a SWPPP reviewed by the State Regional Water Control Board prior to beginning grading operations was kept in place. The grading ordinance revision addressing specific requirements and responsibilities including administrative actions for non-compliance, was approved by the City Council in Fall of 2006.

CE II-B: Revise Standards

The guide used by the City of Redding for construction activity pollution control methods has been an aid to communicating to the developer the need to prepare for implementing storm water control devices. Common standards are revised as needed per project if necessary to obtain the desired outcome. A revision to the City Construction Standards which address erosion control methods was completed in spring of 2007. The City has developed a draft small construction site erosion and sediment control manual for distribution to contractors and builders titled "Storm Water Pollution Prevention Practices for Contractors and Builders". The package outlines best management practices needed to comply with the City of Redding NPDES requirements for small construction sites, particularly during the building construction. Following internal final authorization and adoption of legal authority for implementation, the manual and related construction standards will become the foundation for education, and permit compliance.

CE III-A: Entitlement Review

All project applications which require grading are reviewed by the Planning and Land Development for consistency with the City Grading Ordinance, Flood Plain development and Storm Water Council Policy 1806, and the City of Redding Erosion and Sediment Control Standards Design Manual. Project applications are determined to be complete if they can address all of these requirements and are conditioned for full compliance consistent with the City's state-approved NPDES permit. Objectives for the 2010-11 budget year include the following, subject to funding authorization by the City Council:

- Implementation of expanded NPDES enforcement consistent with the State NPDES permit.
- Coordination of NPDES enforcement efforts with other City departments.
- Provision of training to staff.
- Development and distribution of brochures and handouts clarifying the requirements of NPDES for the public and contracting community.

CE III-B: Plan Review and Approval

Erosion and Sediment Control Plans – Fully entitled project plans prepared by a qualified professional are received by the City of Redding Land Development, Plan Check section. Minimum submittal requirements before beginning plan check are extensive and include a Drainage Report, Grading and Utility plan sheets, SWPPP and a Notice of Intent for Construction Activity number Issued by the RWQCB. The plan check incorporates the Drainage Report recommendations and conditions of approval requirements to determine the adequacy of the engineered plans for the project. Many times it requires several plan check cycles to obtain an approval of a set of engineered set of land development plans and issuance of a grading permit. All grading permits and land development construction approvals, incorporated minimum water quality BMP's appropriate to the scale, impact potential, and location of the project. (See also II-B, above).

CE III-C: Inspection

Each construction project, both private land development and public works, has an inspector assigned to it. The inspector monitors the site for erosion, sediment and pollution control. Inspectors issue warnings or stop notices to projects not in compliance. Inspectors receive annual training from sources outside the City and also get on-the-job training. Projects that do not respond to warnings from Inspectors or Construction Managers are elevated to Director of Public Works, Building Official or other appropriate authority for enforcement action.

Each year commencing in September, special inspections are commenced on all active construction sites to gain compliance with NPDES and City grading and runoff control requirements for site winterization. Multiple inspections are made, and enforcement actions are taken as necessary to insure compliance prior to October 15. In 2009, an estimated 14 special inspections were conducted, and 11 inspections were conducted in 132 NPDES/SWPPP inspections at 15 City of Redding capitol improvement project sites were made in the 2009/2010 Fiscal period of time.

CE III-D: Record Keeping

The task of creating data tracking procedures is underway and is scheduled for completion in 2011, as a component of the implementation of the comprehensive project and development activity tracking system. The process will involve updating inspection forms to allow for the transfer of data from the inspectors for the creation of an Inspection and Enforcement data base to track project inspections and violations. A database has been developed within the City of Redding's (COR's) Code Enforcement function to capture complaints of grading or other potential water quality violations. The database is used to track compliance effects through the administrative hearing process. Access to this database is limited to Code Enforcement staff. With adoption of the COR Budget effective July 1, 2009, funding was provided for the implementation of the comprehensive project and permit tracking system which will link permitting, inspection and monitoring activities across functional areas. The cost of this system is \$1.3 million dollars, with completion of initial implementation on target for April 2011.

iii. Appropriateness

The process used by the City is appropriate for obtaining the results of and compliance with this permit.

iv. Effectiveness

The process used by the City is effective and continues to be modified as needed to meet the current and changing needs and regulations governing water quality management.

v. Proposed Modifications

Revisions to implementation schedules (see Program Implementation Schedule).

Due to a lack of resources, the time line was extended for developing a paper trail for reporting (CE-III D). A database has been developed within the City of Redding's Code Enforcement function to capture complaints of grading or other potential water quality violations. This database is used to track compliance efforts through the administrative hearing process. Access to this database is limited to Code Enforcement staff.

With the adoption of the COR 2009-2010 Budget effective July 1, 2009, funding was provided for the implementation of a comprehensive project and permit tracking system which will link permitting, inspection and monitoring activities across functional areas. The cost of this system is \$1.3 million dollars, with completion of initial implementation on target for April 2011.

b. RESULTS OF INFORMATION COLLECTED/ANALYZED

Field observations during 2009 indicate the same level of compliance as achieved in the previous three years on all active construction sites. Continued monitoring, and ongoing implementation efforts including adequate funding are needed to achieve goals of the City SWQIP.

c. PROPOSED STORM WATER ACTIVITIES FOR NEXT REPORTING CYCLE

Obtain City Council approval of Storm Water Quality Management Ordinance, and continue updates of existing BMPs and standards. Seek funding for additional staff training, dedicated staffing, public outreach efforts, inspections, and completion of public education materials on water quality management for construction sites. Revisions to implementation schedules as needed (see Program Implementation Schedule).

A major revision to the City’s Subdivision Ordinance and the “Standard Conditions of Approval for Development Projects” which has been presented to the Planning Commission and will be referred by the Planning Commission to the City Council for adoption in Fall 2010. This Ordinance includes substantial new provisions regarding the design of new development relative to NPDES compliance, including the following new ordinance areas:

- I. 17.60.050 *Connections with the Natural Environment*. This new section requires natural features such as rivers/creeks, scenic-view corridors, preserved open-space areas, and other notable natural features be integrated and connected efficiently into the project design as supported by General Plan policy to protect natural areas and water quality.
- II. 17.60.060 *River/Stream Setbacks*. This new section replaces existing 17.32.100 *River/Stream Setback*. The new language references standards now provided in Chapter 18.48 of the Zoning Code that establish appropriate setbacks from active stream banks and riparian vegetation to protect natural areas and water quality.
- III. 17.60.070 *Storm Drains and Flood Protection*. This new section replaces existing 17.32.070 *Land Subject to Inundation*, 17.38.020 *Storm Drainage*, and 17.38.070 *Storm Drains*. The new language references floodplain development standards for subdivisions established in Chapter 18.51 of the Zoning Code, requires proper conveyance and easements as needed for project-related storm flows, includes provisions for stormwater detention/retention, and provides design criteria for detention/retention basins, all based in General Plan policy.
- IV. 17.60.080 *Utilities-General*. This new section replaces various utility-related sections in existing Chapter 17.38 *Improvement Requirements*. The intent of the new language is to simplify and consolidate basic utility design needs for subdivisions, while referencing adopted City Construction Standards and existing Redding Municipal Code (Titles 14 and 16) requirements to provide specific utility-design and implement construction standards. These provisions allow for the integration and application of BMPs that may be required by the Storm Water Quality Ordinance.

5. Post-Construction Storm Water Management

BMP	Description	Status					
		Implemented	Not Implemented	Modified	Effective	Unknown	Not Effective
New Development and Redevelopment I: Technical Assistance							
NDE I-A: Developer Assistance	The City continues to offer assistance and guidance to developers to ensure that appropriate water quality controls are incorporated into new developments.	√			√		
NDE I-B: City Staff Assistance	Assistance is available for City project managers designing new city facilities, and development staff review. Provide training in new design requirement to all staff involved in review of projects where storm water quality BMPs may be required. Establish standard condition(s) of approval to require water quality BMPs on private developments.	√			√		

New Development and Redevelopment II: Design Standards						
NDE II-A: Revise Standards	Local urban runoff design standards for both regional and on-site control measures will be reviewed, revised or established to optimize pollutant removal to the MEP. Design standards will include, as a minimum, all the BMPs listed in Attachment 4 of the State of California General Permit Appendix J.	√			√	
NDE II-B: BMP Research	Existing, alternative, and innovative control measures are evaluated through literature reviews and BMP studies.	√			√	
New Development and Redevelopment III: Regional Storm Water Controls						
NDE III-A: Development Review Process	The City requires all development to submit drainage studies that assure local numeric design standards are met. Such studies will include BMP criteria in addition to flood control criteria. Regional facilities are begin pursued with the next revision of the Storm Drain Master Plan.	√			√	
NDE III-C: Record Keeping	The City is developing a database of regional storm water controls to document size, pollutant removal, maintenance, design criteria, and other key data. The system will also record enforcement, complaints and violations, and will assist in monitoring conditions of approval on new development related to water quality .	√		√		√
New Development and Redevelopment IV: On-Site Storm Water Control						
NDE IV-A: Development Review Process	The City will require commercial and multifamily developments to incorporate source and structural controls in accordance to design standards and BMP criteria. Note: Industrial development will be required to obtain an Industrial NPDES permit as follows in the Industrial Element section.	√			√	
NDE IV-B: Maintenance Protocols	As the last resort in enforcement of maintenance of private storm water quality BMPs, the City of Redding may, if appropriate, perform maintenance under code enforcement procedures.	√				√
NDE IV-C: Record Keeping	The City is developing a database system which will document storm water controls to document size, pollutant removal, maintenance, design criteria, and other key data. The system will also record enforcement, complaints and violations, and will assist in monitoring conditions of approval on new development related to water quality.	√		√		√
NDE IV-D: Ordinance Enforcement	Review and revise municipal code as necessary to provide legal authority and enforcement mechanism to require construction and maintenance of On-Site Storm Water Quality Control BMPs.			√		√

a. BMPs

I. General Summary

The goal of the Post-Construction Storm Water Management is to reduce the discharge of storm water pollutants to the maximum extent practicable by requiring new developments to incorporate sediment control facilities and measures which are proven to reduce sediment in onsite storm water runoff.

ii. Status of Measurable Goals

NDE I-A: Developer Assistance

The City continues to offer assistance and guidance to developers and their engineering consultants to ensure appropriate storm water quality controls are incorporated into new developments to the degree that financial resources are available to support the activity. Successful methods are shared with the developer during the pre-application review of new projects. Continued outreach occurs through quarterly meetings with the City Engineer and engineering consultants to discuss new policies and standards for development in the City. In 2007, a series of special meetings were conducted involving City staff, private industry professionals including contracting and engineering representatives, and representatives from the RWQCB. The meetings served the purpose of reviewing coordination and inspection needs, including those associated with meeting water quality requirements. Such meetings are, and will continue to be, part of the COR outreach and training efforts to improve coordination and provide developer assistance in meeting SQWIP requirements.

NDE I-B: City Staff Assistance

The City has a cross section of employees from various backgrounds including contractors, Caltrans, and the private industry that helps provide for a balanced approach to solving Storm Water quality challenges. The City also utilizes private engineering firms throughout Northern California that help with the City's work load and specialize in technical solutions to today's stricter water quality standards. The City also encourages joint training with the construction/development industry and regulatory agencies so all parties can better understand new requirements as they are implemented. In 2007, a series of special meetings were conducted involving City staff, private industry professionals including contracting and engineering representatives, and representatives from the RWQCB. The meetings served the purpose of reviewing coordination and inspection needs, including those associated with meeting water quality requirements. Such meetings are, and will continue to be, part of the COR outreach and training efforts to improve coordination and service improvement.

Construction Managers, development review staff, and Inspectors attend annual Storm Water workshops to keep up with BMP requirements on an as available basis. Development Review staff also regularly meet on-site with developers, contractors, and regulatory agency professionals where possible, to gain hands on experience with real project challenges and assist in developing appropriate solutions.

NDE II-A: Revise Standards

Local urban runoff design standards for on-site control measures are reviewed with each project plan check submittal to determine adequacy and application to the specific project. Revisions are on-going to best fit each project. Current design standards follow the City of Redding Erosion and Sediment Control Standards Design Manual and the City Construction Standards.

NDE II-B: BMP Research

Literature received from various Societies and Associations such as ASCE and APWA, is reviewed and discussed. The methods described for Storm Water BMP's are weighed as to the effectiveness for application to development in the City.

NDE III-A: Development Review Process

The City requires all development to submit drainage studies that assure local numeric design standards are met. Discretionary review of projects incorporates a review of appropriate post-construction drainage improvements to address water quality, drainage, and erosion control needs. Final development plans are

required to reflect these measures. The City has completed a study of regional detention facility feasibility for the Churn Creek drainage basin. The study included review and recommendation of whether or not regional detention is economically viable and if so provide a plan for funding construction. The study determined that although regional detention may reduce flood risk downstream there are no reasonable means available to fund construction of such facilities and that assigning benefit on a parcel by parcel basis for the purpose of forming an assessment district would be impractical. The basis for this determination was that formation of the district would require a two thirds majority vote of the residents within the proposed district which would include City, County and the City of Shasta Lake residents. Although the Churn Creek Regional Detention Feasibility study indicated that regional facilities are not viable, all new development projects will be required to mitigate peak storm water flow increases via construction of individual project facilities, or larger facilities to address small combinations of projects. Such facilities will be required to incorporate water quality BMP's (both pre- and post- construction) intended to reduce conveyance of pollutants downstream in storm water runoff.

NDE III-B: Maintenance Protocols

Scheduled for completion following construction of Regional Detention Basins which are currently under study.

NDE IV-A: Development Review Process

Outreach to Other Agencies

By standard practice all tentative subdivision map applications are referred by the City to the State Regional Water Quality Control Board-Central Valley Region, the Department of Fish and Game, and the City Wastewater and Streets and Storm Drainage Divisions for review and recommendations. During the reporting period, 4 such subdivision applications were referred.

In addition to tentative map applications, by standard practice other substantive land development applications are referred to the City's Engineering Division and Wastewater Division for review and recommendation on water quality and wastewater treatment issues. It is estimated that 22 such referrals occurred during the reporting period.

Environmental Review

The City prepared and certified 12 Negative Declarations or Mitigated Negative Declarations on substantive land development applications during the reporting period. These environmental studies included an assessment of potential water quality impacts and application of mitigation measures beyond standard City and State regulations when deemed necessary.

One Environmental Impact Report for substantial land development applications was certified by the City during the reporting period. Each EIR includes a detailed analysis of potential water quality impacts and application of necessary mitigation.

Policy/Ordinance Implementation

Four tentative subdivision map approvals granted during the reporting period included creation of open space easements in accordance with General Plan Policies NR 10A and NR10C and Zoning Ordinance Chapter 18.48 to prohibit development on hillsides and within flood plains to protect watersheds from potential upland erosion impacts and other water quality threats.

Uniform application of City Council Policy 1806. This policy requires storm water detention facilities in all projects to, in part, provide sedimentation control prior to storm waters leaving the project site.

The City has required installation of two specialized storm water sediment control basins as part of the Autumn Glen Subdivision. The East Oaks subdivision has developed a natural swale/meadow for drainage outfall which acts as a filter for storm water discharge from the subdivision. Continued efforts are made to fit this types of features into all new developments as appropriate to maintain clean levels of storm water

discharge (examples include: Pioneer Park, Airpark Manor, and most recently approved in 2009-2010 Highland Park and Seven Bridges subdivisions). These subdivisions have developed a gabion system prior to natural drainage swales to help collect sediment and act as a filter for storm water discharge from the subdivision.

NDE IV-B: Maintenance Protocols

An update to the Administrative Citation Ordinance has allowed for fines and citations for various code violations and is the tool to use for enforcement of grading and storm water violations. A draft Storm Water Ordinance will include protocols for action under code enforcement procedures for water quality violations. Anticipated adoption is scheduled for 2010-2011. The implementation schedule has been modified to reflect this schedule.

NDE IV-C: Record Keeping

The task of creating data tracking procedures is underway and on schedule. Staff is in the process of updating inspection forms to allow for the transfer of data from the inspectors for the creation of an On-Site Storm Water Control database to document implementation of BMPs and updated standards. A database has been developed within the COR's Code Enforcement function to capture complaints of grading or other potential water quality violations. This database is used to track compliance efforts through the administrative hearing process. Access to this database is limited to Code Enforcement staff. With the adoption of the COR Budget effective July 1, 2009, funding was provided for the implementation of a comprehensive project and permit tracking system which will link permitting, inspection and monitoring activities across functional areas. The cost of this system is \$1.3 million dollars, with completion of initial implementation on target for April 2011.

NDE IV-D: Ordinance Enforcement

Review of the municipal code has been completed with an update to the Administrative Citation Ordinance. The Grading Ordinance revision was adopted in July 2007. The Grading Ordinance revision uses the Administrative Citation Ordinance as the method to impose substantial fines and liens on properties which are not in compliance with the ordinance. A new ordinance for storm water discharge is being drafted and a new subdivision ordinance is being considered for adoption by the Redding Planning Commission. Anticipated adoption of this Ordinance is Fall of 2010. Clearing, grading, and erosion-control plans and activities must be in full conformance with the Grading Ordinance. The final grading improvement plans must be consistent with the preliminary grading plan and any tree-preservation plans considered with the approved tentative map or development approval. Storm-drain facilities must be designed consistent with the requirements of City Construction Standards, the City of Redding Storm Water Quality Improvement Plan, and the City of Redding Phase II NPDES Permit from the California Regional Water Quality Control Board (Water Quality Order No. 2005-05-DWQ). Project design must incorporate Best Management Practices (BMPs) to minimize the polluting of storm water, both during construction and long-term. Should the maintenance costs of the long-term pollution-control measures exceed typical storm-drain-system costs, such costs must be borne by the project by way of a maintenance district, escrow account, or other such financing mechanism. The implementation schedule has been modified to reflect this schedule.

iii. Appropriateness

The process used by the City is appropriate for obtaining the results of and compliance with this permit.

iv. Effectiveness

The process used by the City is effective and continues to be modified to meet the current and changing development needs and Agency regulations.

v. Proposed Modifications

Revisions to implementation schedules (see Program Implementation Schedule).

Due to a lack of resources, the time line was extended for the following activities:

- NDE I-A Developing flyers
- NDE I-B On-going – Complete
- NDE III-C Developing protocol for addition of existing private facilities – pending ordinance adoption 2010/11.
- NDE IV-A Developing a review protocol and assigning staff for review – pending ordinance adoption 2010/11.
- NDE IV-B Developing protocol and inspection procedures – pending ordinance adoption 2007/08.
- NDE IV-C Assigning staff and developing a database (see above).

b. RESULTS OF INFORMATION COLLECTED/ANALYZED

Observations during 2009-10 indicate a continued increase in awareness and a greater level of compliance than achieved in previous years on all active plan reviews and projects. Continued monitoring, greater enforcement authority, and ongoing implementation efforts are needed to achieve goals of SWQIP. Substantial additional funding for NPDES implementation was unavailable because of General Fund budget reductions and reduced development activity. Funding shortfalls impacted multiple areas, including staff reductions, elimination of most staff training and the potential for dedicated staffing for NPDES. Budget reductions also eliminated the potential for expanded public outreach efforts, inspections, and completion of public education materials on water quality management for construction sites. Inspectors were provided some additional training regarding new NPDES permitting. The Department expanded implementation of the National Pollution Discharge Elimination System through CEQA mitigation monitoring requirements in project review and conditioning. This included coordinated CEQA analysis and project review and conditioning consistent with City’s state-approved NPDES permit.

c. PROPOSED STORM WATER ACTIVITIES FOR NEXT REPORTING CYCLE

Draft a new Storm Water Ordinance and seek City Council approval in the 2010-2011 FY. Objectives for the 2010-11 budget year include the following, subject to funding availability:

- Implementation of expanded NPDES enforcement.
- Expanded coordinatin of NPDES enforcement efforts with outside agencies.
- Provision of additional training to the public.
- Development and distribution of brochures and handouts clarifying the requirements of NPDES for the public and contracting community. Revisions to implementation schedules (see Program Implementation Schedule).

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6. **Pollution Prevention and Good Housekeeping for Municipal Operations**

BMP	Description	Status					
		Implemented	Not Implemented	Modified	Effective	Unknown	Not Effective
Municipal Operations I: Technical Assistance							
ME I-A: Municipal Facility SWPPPs	Conduct inspections to ensure compliance with SWPPPs and BMPs for the Transfer Stations, Corporation Yard, Clear Creek Wastewater Treatment Plant and Stillwater Wastewater Treatment Plant. Other City facilities will be evaluated as necessary. .	√			√		
ME I-B: Municipal Activity Surveys	Survey City departments on municipal activities that may contribute to target pollutants and general storm water pollutants.	√			√		
ME I-C: New Facility BMPs	Major new City facilities will be required to incorporate structural and nonstructural BMPs to reduce storm water pollutants to the system.		√	√			
ME I-D: Facility Inspection	Inspection and maintenance of municipal facilities.	√			√		
Municipal Operations II: Pollutant Removal Activities							
ME II-A: Street Sweeping	Continue street sweeping activities as outlined in Appendix G, City of Redding Storm Drain Utility Maintenance and Operations Plan.	√			√		
ME II-B: Drainage System Maintenance	Continue drainage system maintenance pursuant to the Storm Drain Utility Maintenance and Operations Plan and obtaining the appropriate permits from other regulatory agencies. This document addresses storm drain channel cleaning, street sweeping, and catch basin cleaning procedures and frequency.	√			√		
ME II-C: Structural Control Operation and Maintenance	Inspect and clean structural control devices such as settling and treatment facilities at regional detention basins and low-flow control measures to design functions are being maintained.		√				
Municipal Operations III: BMP Retrofit and Improvement Projects							
ME III-A: Retrofit of Existing Facilities	The drainage master planning effort in the Churn Creek Drainage Basin included the concept of addressing retrofitting of existing regional detention facilities with BMPs to address storm water pollution to the MEP.		√	√			

Municipal Operation IV: Employee Training Program						
ME IV-A: Employee Training Program	Attend tailgate meetings and conduct specific training sessions to provide City of Redding Storm Water Quality Improvement Program information on appropriate municipal control measures.	√			√	
ME IV-B: Employee Feedback Program	This program will formalize a system to receive feedback from all City employees regarding issues related to storm water management.	√			√	

a. BMPs

I. General Summary

ME I-A Municipal Facility SWPPPs

Storm Water Pollution Prevention Plans (SWPPP's) for the Solid Waste Transfer Station, Corporation Yard and Clear Creek Wastewater Treatment Plant were developed in 2007 and updated in 2008. The Stillwater Wastewater Treatment Plant SWPPP was developed in 1994 and updated in 2006. These facilities conduct regular inspections and storm water sampling throughout the wet weather season to validate the effectiveness of Best Management Practices (BMP's). Monitoring, inspection and recommended maintenance activities are conducted at the Municipal Facilities. These activities are overseen by the respective supervisors of the Municipal Facilities.

ME I-B Municipal Activity Surveys

The NPDES Coordinator created, distributed and collected surveys regarding storm water issues which were distributed through the intra-department newsletter *The Curbside* and the quarterly publication *The Water Cooler* distributed to the residents of Redding.

ME I-C New Facility BMPs

N/A

ME I-D Facility Inspection

All Municipal Facilities are being continually inspected regarding storm water issues.

ME II-A Street Sweeping

Approximately 833 curb miles of streets were maintained every four weeks in FY 2009/2010. A total of 1,261.52 tons of trash was collected in the FY 2009/2010 by the street sweepers. A link to a dedicated street sweeping page was added in 2005 to the Solid Waste Utility web site. The link includes information on why City streets are swept, a sweeping schedule and a link to the NPDES web site. The Utility also publishes a quarterly newsletter entitled the *WasteStream* which includes one article per year on street sweeping. The Utility also created a brochure entitled *Street Sweeping and Fall Leaves* which is direct mailed each Fall to neighborhoods that produce a large amount of leaves. This brochure is also available on the street sweeping page of the web site. Information on street sweeping is also available at public education events.

ME II-B Drainage System Maintenance

Drainage system maintenance is being performed in accordance with the Storm Drain Utility Maintenance and Operations Plan. The Utility continues to obtain the appropriate permits from the regulatory agencies. Solid Waste has installed special inlet baskets in all the storm drains. These baskets hold oil absorbent pads to help filter the run-off during the rainy season. These baskets and filters are cleaned weekly, or more often if needed, during the rainy season.

ME II-C Structural Control O & M

Development of inspection procedure criteria and the mirroring of that criteria in the hand-held devices utilized by the field crews has been completed. Initial inspections of these facilities is underway.

ME III-A Retrofit of Existing Facilities

The findings of the Churn Creek Drainage Basin suggests that development of regional detention basins is not cost effective. The consultant developed a final cost benefit analysis and update of the master plan project costs within the Churn Creek Drainage Basin.

Solid Waste is currently working with a consultant to draft our expansion plan. The first stage of the plan is to develop the adjacent property and move our truck parking. The plan includes the installation a of storm water drainage system that will prevent debris and hydrocarbons from entering the waterways. The EIR for the project is in progress. No construction date has been selected, but the project is a high priority.

ME IV-A Employee Training Program

Information is distributed to employees through tailgate meetings, quarterly management meetings, and departmental newsletters as necessary.

ME IV-B Employee Feedback Program

Employee feedback is encouraged as it can provide the basis for overall program enhancements or the scheduling of an identified problem.

ii. Status of Measurable Goals

ME I-A Municipal Facility SWPPPs	SWPPP’s developed at three City facilities.
ME I-B Municipal Activity Surveys	Survey has been created, distributed and collected through the intra-department newsletter.
ME I-C New Facility BMPs	N/A
ME I-D Facility Inspection	Municipal Facilities are being continually inspected regarding storm water issues.
ME II-A Street Sweeping	The City of Redding has developed and mailed educational brochures to residents informing them about street sweeping. The information is also available on the street sweeping web page. The status of this program is ongoing. Regular articles in the Utility’s newsletter address the importance of not placing leaves in the gutters for collection by a sweeper.
ME II-B Drainage System Maintenance	Goals are currently being met. Storm drain inlet filters are cleaned weekly or more often if needed during the rainy season.
ME II-C Structural Control O & M	Development of inspection procedure criteria and the mirroring of that criteria in the hand-held devices utilized by the field crews has been completed. Initial inspections of these facilities is underway.
ME III-A Retrofit of Existing Facilities	Consultant worked on the final cost benefit analysis and update of master plan project costs within the Churn Creek Drainage Basin. Solid Waste is working with a consultant on the expansion of the facility truck parking area on adjacent property and construction of corresponding storm water retention basin.
ME IV-A Employee Training Program	Information is received by employees through tailgate meetings, quarterly management meetings, and departmental newsletters as necessary.

ME IV-B Employee Feedback Program	Employee feedback is encouraged as it can provide the basis for overall program enhancements or the scheduling of an identified problem.
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iii. Appropriateness

ME I-A Municipal Facility SWPPPs	The goals are considered appropriate.
ME I-B Municipal Activity Surveys	The goals are considered appropriate.
ME I-C New Facility BMPs	The goals are considered appropriate.
ME I-D Facility Inspection	The goals are considered appropriate.
ME II-A Street Sweeping	The Utility has purchased and is using some of the most technologically advanced equipment available in the industry to perform street sweeping functions and is using direct mail, the internet, face-to-face and public events as methods to reach the intended audience.
ME II-B Drainage System Maintenance	The goals are considered appropriate measures to continue.
ME II-C Structural Control O & M	The goals are considered appropriate measures to continue.
ME III-A Retrofit of Existing Facilities	Based on the findings of the consultant analysis, it does not appear that retrofitting of existing facilities is cost effective. Therefore, this task will be dropped. Development of upgraded truck parking area is appropriate.
ME IV-A Employee Training Program	The goals are considered appropriate measures to continue.
ME IV-B Employee Feedback Program	The goals are considered appropriate measures to continue.

iv. Effectiveness

ME I-A Municipal Facility SWPPPS	The Municipal Facility SWPPS are effective.
ME I-B Municipal Activity Surveys	The surveys are effective as indicated by the responses received.
ME I-C New Facility BMPs	NA
ME I-D Facility Inspection	Facility inspections for storm water issues are effective.
ME II-A Street Sweeping	Customers who historically swept and left leaves in the gutter for collection by the sweepers have been directed to use yard waste carts offered through the Solid Waste's Yard Waste Collection Program. Solid Waste Utility customers can also bring their leaves to the transfer station at no charge during the leaf season (November through January). This information is available by brochure and on the street sweeping web site.
ME II-B Drainage System Maintenance	The Maintenance & Operations Plan has been very effective in clearly defining inventory, inspection and maintenance procedures. Staff continues to work diligently to meet the identified tasks and

related procedures. Storm drain inlet filters and basket cleaning schedule has been very effective.

ME II-C Structural Control O & M

Development of inspection procedure criteria and the mirroring of that criteria in the hand-held devices utilized by the field crews has been completed. Initial inspections of these facilities is underway.

ME III-A Retrofit of Existing Facilities

Based on the findings of the consultant analysis, it does not appear that retrofitting of existing facilities is cost effective. Therefore, this task will be dropped. Development of upgraded truck parking area for Solid Waste and corresponding storm water activities are planned.

ME IV-A Employee Training Program

The employee training program is effective.

ME IV-B Employee Feedback Program

Employee feedback program is effective.

v. Proposed Modifications

ME I-A Municipal Facility SWPPPs

SWPPPs will be modified as required with facility changes.

ME I-B Municipal Activity Surveys

No proposed modifications at this time.

ME I-C New Facility BMPs

As new facilities are constructed storm water BMPs will be implemented.

ME I-D Facility Inspection

Facility inspections regarding storm water will continue.

ME II-A Street Sweeping

No proposed modifications at this time.

ME II-B Drainage System Maintenance

No proposed modifications at this time.

ME II-C Structural Control O & M

Inspection of facilities will continue.

ME III-A Retrofit of Existing Facilities

Based on the findings of the consultant analysis, it does not appear that retrofitting of existing facilities is cost effective. Therefore, this task will be dropped.

ME IV-A Employee Training Program

Training will continue.

ME IV-B Employee Feedback Program

Employee feedback will continue.

b. RESULTS OF INFORMATION COLLECTED/ANALYZED

ME I-A Municipal Facility SWPPPs

SWPPP's have been developed, implemented and followed for three City facilities.

ME I-B Municipal Activity Surveys

Surveys have been received, tallied, and responded to.

ME I-C New Facility BMPs

NA

ME I-D Facility Inspection

Facilities are being inspected.

ME II-A Street Sweeping

There was an increase in tonnage collected by the sweepers. There was also an unmeasurable amount of leaves collected through the Yard Waste Collection Program that were previously

swept into the street and were collected by the sweepers. There are 833 curb/miles of roadways swept by the Solid Waste Utility. Two sweepers and two operators accomplish the street sweeping. The arterial routes are swept twice per week and residential streets are swept once per month. In addition some state highways through contractual agreements are swept also.

ME II-B Drainage System Maintenance	Inventory and inspection provided the following: 249.36 Miles of storm drain pipe 191.13 Miles of channels/ditches 22.31 Miles of maintained channels/ditches 10,253 Number of inlets 17.11% of inspected inlets requiring maintenance and/or cleaning 1,719 Number of outfalls 31.13% of inspected outfalls requiring maintenance and/or cleaning
ME II-C Structural Control O & M	Development of inspection procedure criteria and the mirroring of that criteria in the hand-held devices utilized by the field crews has been completed. Initial inspections of these facilities is underway.
ME III-A Retrofit of Existing Facilities	NA
ME IV-A Employee Training Program	Employees have received information through training.
ME IV-B Employee Feedback Program	Employees have been given feedback.

c. PROPOSED STORM WATER ACTIVITIES FOR NEXT REPORTING CYCLE

ME I-A Municipal Facility SWPPPs	Implement BMP's listed in SWPPPs where applicable.
ME I-C New Facility BMPs	New facilities will implement storm water BMPs.
ME I-D Facility Inspection	Facilities will continue to be inspected.
ME II-A Street Sweeping	No changes proposed at this time.
ME II-B Drainage System Maintenance	Continue to perform inspection and maintenance of facilities as identified in the Storm Drain Utility M & O Plan.
ME II-C Structural Control O & M	Complete development and implementation of the inspection procedures for detention facilities.
ME III-A Retrofit of Existing Facilities	Based on the findings of the consultant analysis, it does not appear that retrofitting of existing facilities is cost effective. Therefore, this task will be dropped. Development of upgraded truck parking area for Solid Waste and corresponding storm water activities are planned.
ME IV-A Employee Training Program	Continue to train employees.
ME IV-B Employee Feedback Program	Continue solicitation of feedback.

E. 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."

By: _____

Dated: September 15, 2010

Barry Tippin, P.E.
City of Redding /Assistant City Manager