

**Bernalillo County**  
**2005-2006 Annual Report: National Pollutant Discharge**  
**Elimination System (NPDES)**

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## **Executive Summary**

The United States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) permit program mitigates water pollution by regulating point sources that discharge pollutants into waters of the United States under the authority of the Clean Water Act. Industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. Bernalillo County's stormwater is discharged directly to the Rio Grande through its stormwater sewer system and because of this has been designated a Municipal Separate Storm Sewer System (MS4)<sup>1</sup> and must apply for a discharge permit.

The County's NPDES program implements federal regulations that were promulgated by EPA in December 1999. These regulations, in part, called for small MS4s, such as Bernalillo County, to submit a Storm Water Quality Management Plan (SWQMP) that describe how the County will reduce the discharge of pollutants to the "maximum extent practicable," protect water quality, and satisfy appropriate water quality requirements of the Clean Water Act.

Bernalillo County applied for a permit in March of 2003 and has yet to be issued a permit by EPA. The EPA recently reissued the request for permit applications. Bernalillo County will resubmit its application to apply for a NPDES permit by the April 1, 2007 deadline.

The County has viewed this interim period as preparation for when the EPA issues a permit for small MS4 activities. This voluntary reporting period allows the County the opportunity to refine its SWQMP and identify funding requirements and seek the necessary funding to implement a comprehensive program prior to being issued a Permit.

Bernalillo County Public Works began working with the other County divisions in early 2000 to establish a SWQMP. Each department/section within the County determined what Best Management Practices (BMPs) they would implement in order to reduce the amount of pollutants entering the storm water runoff. Along with these BMPs, goals were established as way of measuring progress toward reaching those goals. The County departments/sections that participate in complying with the NPDES regulations include Public Works (Operations and Maintenance, Storm Drainage Section, Technical Services, and Water Resources), Animal Control, Solid Waste, Zoning, Building, Planning and Environmental Health, Parks and Recreation, and Fleet and Facility Management.

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<sup>1</sup> A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): Owned and operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act (CWA) that discharges to waters of the United States; Designed or used for collecting or conveying stormwater; Which is not a combined sewer; and Which is not part of a publicly owned treatment works (POTW). [40 CFR 122.26(b)(8)].

## **National Pollutant Discharge Elimination System Phase II Regulations for Municipal Separate Storm Sewer Systems**

The County's NPDES program implements federal regulations that were promulgated by the EPA in December 1999. These regulations, in part, called for small MS4s, such as Bernalillo County, to submit a SWQMP that describe how the County will reduce the discharge of pollutants to the maximum extent practicable<sup>2</sup>, protect water quality, and satisfy appropriate water quality requirements of the Clean Water Act.

Operators of regulated small MS4s must have permit coverage no later than March 10, 2003<sup>3</sup>. The NPDES storm water program requires, operators of large, medium and regulated small MS4s to seek authorization to discharge pollutants under a NPDES permit. Small MS4 Storm Water Program operators are required to:

- Apply for NPDES permit coverage
- Develop a storm water management program which includes the six minimum control measures
- Implement the storm water management program using appropriate storm water management controls or best management practices (BMPs)
- Develop measurable goals for the program
- Evaluate the effectiveness of the program

Listed below are the six minimum control measures that operators of regulated small MS4s must incorporate into storm water management programs. These measures are expected to result in significant reductions of pollutants discharged into receiving water bodies.

- Public Education and Outreach
- Public Participation/Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post-Construction Runoff Control
- Pollution Prevention/Good Housekeeping

These six minimum control measures comprise the SWQMP. The SWQMP seeks to keep pollutants such as fertilizers, oil, grease, toxic chemicals, sediment, bacteria, nutrients from pet waste and faulty septic systems from entering storm water runoff. Each minimum control measure is carried out by implementing best management practices (BMPs). These BMPs have goals and a means of measuring whether or not the goals have been met.

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<sup>2</sup> A standard for water quality that applies to all MS4 operators regulated under the NPDES program. Since no precise definition of MEP exists, it allows for maximum flexibility on the part of MS4 operators as they develop and implement their programs to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of pollutants.

<sup>3</sup> Bernalillo County submitted the required documents in March 2003 in accordance with the federal deadline. EPA – Region 6 Office has not issued a final general permit as of 2006.

## 2005 – 2006 Goal Activities

### *Public Education and Outreach & Public Participation/Involvement*

The Public Works Division (PWD) - Water Resources Program (WRP) is responsible for the majority of the public education and outreach and public participation/involvement BMPs in the SWQMP. These practices include ensuring that the County complies with the MS4 Permit regulations, drafting and revising the County's Storm Water Ordinance, and informing the public about the County's Storm Water Program.

Various approaches have been used in our effort to educate and involve the public about the County's stormwater initiatives. Several departments have assisted the WRP in this outreach effort.

- Solid Waste & Environmental Health departments organize mini-cleanups and distribute education materials about the proper disposal of Household Hazardous Waste at these events.
- Animal Control has a role in reminding the public that they are responsible for cleaning up after their pet. Information about pet waste and its impact on storm water is attached to each permit or license that the County dispenses.
- Environmental Health educates the public on proper septic system maintenance.
- Environmental Health informs restaurant owners of the impact of the improper disposal of grease and oil on storm water with each permit renewal application.
- The Water Resources Program organized two trainings aimed at the construction industry.
  - The Best of the BMPs: Application, Implementation, and Maintenance. Approximately 25 people attended this session held on May 2, 2006.
  - How to Write and Implement a Stormwater Pollution Prevention Plan. Approximately 45 people attended this session held on August 15, 2006.
- The Water Resources Program with the assistance of the Public Information Office organized a television and radio media outreach campaign on the abatement of stormwater pollution & illegal dumping abatement. The media campaign was scheduled to coincide with the monsoon season and both the radio and television campaigns spots ran concurrently during the months of July and August 2006. The television ads ran approximately 534 times and the radio ads ran approximately 640 times. The approximate cost of this public outreach campaign was sixty thousand dollars.
- The Water Resources Program hosted an informational booth at a local xeriscape conference on stormwater quality issues.
- The Water Resources Program presented information to several neighborhood organizations on:
  - The mission and objectives of the WRP focusing on the goal of improving stormwater quality.
  - Information on the Middle Rio Grande Microbial Sources Tracking Assessment Report<sup>4</sup> and how it affected each particular neighborhood area.

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<sup>4</sup> Prepared for the NMED, AMAFCA, and Bernalillo County by Parsons Water & Infrastructure Inc, October 2005.

### ***Illicit Discharge Detection and Elimination***

The Bernalillo County Wastewater Ordinance requires property owners whose property line is within 200 feet of available sewer lines to connect within one year of sewer becoming available. Partners in Improving and Protecting the Environment, (PIPE), is a program developed by Bernalillo County that provides financial assistance to help qualifying individuals connect to sewer, or replace failing septic systems in areas where sewer is not available.

The PWD - Technical Services Department (TSD) Valley Utilities Project involves the construction of infrastructure so that Valley residents have access to sewer and public drinking water supply systems as well. These programs seek to reduce the number of households using septic tanks, thereby decreasing the potential for pollutants from faulty systems to impact storm water. The WRP also developed a systems-wide map to assist in the detection of illicit discharges from unregulated sources into the storm drain system.

Environmental Health in conjunction with the Solid Waste Department sponsors the Household Hazardous Waste (HHW) events. The collection and proper disposal of these wastes helps to ensure that potential storm water pollutants, such as used oil, anti-freeze, paint, etc., do not end up in our storm drains. During the 2005-2006 fiscal year ten<sup>5</sup> HHW events were held in various locations throughout Bernalillo County. Environmental Health also issues waste water permits insuring that the waste water systems are properly installed decreasing the potential for pollutants from faulty systems to impact stormwater.

The PWD - Storm Drain Maintenance Section (SDM) inspects the County's storm drains regularly and will investigate dry weather flows and try to determine their source. This activity plays a vital role in detecting and mitigating illicit discharges into the County's storm drainage system. This is of particular importance in areas where stormwater drains directly to the Rio Grande River. In an effort to educate the public that some storm drains convey the runoff directly to the Rio Grande River the SDM section has marked these storm drains with bright stenciled signs in hopes of mitigating the amount of litter and other materials that may be dumped into storm drains.

### ***Construction and Post-Construction Site Runoff Control***

The Technical Services Department is responsible for managing the Public Works Division construction projects, such as the Valley Utilities Project and the reconstruction of Isleta Boulevard. Construction activities that disturb one acre or more are regulated by a NPDES permit that specifically targets construction activities. The NPDES permit for Construction Activities, which EPA issues, is separate from the Small MS4 Permit.

NPDES Permit for Construction Activities requires developers/contractors to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). A SWPPP details how the developer/contractor will prevent pollution from the construction site from entering stormwater during and after construction. The Engineering Section of TSD designs and implements or

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<sup>5</sup> Table I: Abandoned Waste Collection and Table II: HHW Collection

contracts for the design and implementation of SWPPPs for County initiated projects that must comply with the NPDES Permit for Construction Activities requirements.<sup>6</sup>

Development and Review staff within the TSD is responsible for overseeing the implementation of the NPDES Construction Permit activities for the public sector, which includes developers/contractors that want to build within the County. Development and Review staff reviews SWPPPs from the private sector and inspects their sites during and after the construction projects.<sup>7</sup>

Zoning, Building and Planning Department BMPs are centered on promoting cluster developments, encouraging developers to reduce the amount of impervious cover, encouraging development within existing neighborhoods and commercial settings, as well as supporting low density residential planning areas where appropriate. These planning techniques are used in combination or individually as methods to improve stormwater quality.

- Approximately five cluster developments have been approved in the north and south valley areas within the last 15 months.
- Approximately six road width variances which reduced the road width from the required standard width of 24 feet were approved formally. However, Public Works has granted other informal variance requests for road width reductions, approximately 20 – 30. These variances would primarily be a reduction in road width from 24 feet to 20 feet.
- A drainage impact fees ordinance was enacted as an incentive to reduce the amount of impervious surface.
- The Zoning Ordinance has not yet been amended to include Transfer of Development Rights. This may be a possible goal for fiscal year 2006-2007
- Evaluating nodal areas as defined by area plans is currently underway; however the Isleta Corridor Plan and the Mountain View Sector plan are not yet adopted. This is anticipated to happen in early 2007.
- Large lot zoning exists in the East Mountain Area.
- One dwelling unit per acre zoning exists in the Southern portion of the South valley and has been reinforced by recent amendments to the Southwest Area Plan.

### ***Pollution Prevention/Good Housekeeping***

The PWD Road Maintenance Section is responsible for maintaining the County's roads. The RMS protects stormwater quality by minimizing the amount of sediment and trash that gets into storm water drains that flow directly to the Rio Grande. BMPs for the RMS involve mowing the shoulders of the roads and reducing the amount of grading done along these sections, thereby reducing the amount of sediment entering stormwater runoff. A mower attachment that increased the cut width of the existing tractor was purchased and improved the mowing efficiency. A cover for salt used in road maintenance activities was built. This newly built covered storage area will keep the salt dry and out of surface and/or groundwater.

The Storm Drainage Section oversees the inspection and maintenance of all the County's culverts, retention ponds, lift stations, storm inlets/outlets, and channels. This section also

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<sup>6</sup> Table III: TSD Activities

<sup>7</sup> Table III: TSD Activities

minimizes the amount of sediment and trash that gets into the stormwater drains that flow directly into the Rio Grande through their general maintenance efforts. A mowing attachment was also purchased for this section to reduce the amount of grading done, thereby reducing the amount of sediment entering stormwater runoff.

The Parks and Recreation Department (PRD) maintains large sections of mixed use land and open space that are available for use by the public. PRD implements BMPs to control what enters the stormwater system by reducing runoff from sprinkler and irrigation systems, providing additional trash containers and pet waste receptacles at County facilities, as well as installing low water use landscaping, where appropriate. PRD staff is regularly trained on application methods of pesticides and fertilizers that will reduce the amount of material that may infiltrate stormwater.

The Fleet Section of the Fleet and Facilities Management Department maintains the County's vehicles and their BMPs focus on ensuring that hazardous materials/wastes such as used oil, oil filters, and antifreeze are disposed of properly. Facility Management's sole BMP is to notify the appropriate department when any potential problems are detected during the inspection of the exterior of a building that they maintain.

## **Recommendations for 2006 – 2007**

The Water Resources Program uses the Storm Water Quality Management Plan<sup>8</sup> as its comprehensive guidance document. The SWQMP describes how the County will reduce the discharge of pollutants to the “maximum extent practicable,” protect water quality, and satisfy appropriate water quality requirements of the Clean Water Act. Bernalillo County Public Works began working with the other County divisions in early 2000 to establish a SWQMP. Each department/section within the County determined what Best Management Practices (BMPs) they would implement in order to reduce the amount of pollutants entering the storm water runoff. Along with these BMPs, goals were established as way of measuring progress toward reaching those goals. The County departments/sections that participate in complying with the NPDES regulations include Public Works (Operations and Maintenance, Storm Drainage Section, Technical Services, and Water Resources), Animal Control, Solid Waste, Zoning, Building, Planning and Environmental Health, Parks and Recreation, and Fleet and Facility Management.

Each year several goals from the SWQMP are selected to be developed as funding allows. The following goals have been selected for fiscal year 2006 – 2007:

- Expand programs to monitor and evaluate stormwater runoff and baseline conditions. Prepare a draft document describing stormwater quality in Bernalillo County and identify any trends.
- Develop accurate basin & sub-basin maps for storm drainage basins in Bernalillo County.
- Evaluate the creation of a stormwater utility for Bernalillo County. Prepare a position paper on utility pros & cons.
- Continue implementation of NPDES Phase II program, in particular public education & outreach.
- Distribute household hazardous waste information to areas that drain directly from County facilities to the Rio Grande.
- Prepare 05-06 Annual report for NPDES program.

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<sup>8</sup> Appendix A: Bernalillo County Stormwater Quality Management Plan

## Appendix A: Bernalillo County Stormwater Quality Management Plan

### BERNALILLO COUNTY NATIONAL DISCHARGE ELIMINATION SYSTEM PHASE II STORM WATER QUALITY MANAGEMENT PLAN

PRACTICE AREA	DEPARTMENT	BEST MANAGEMENT PRACTICE	GOAL	MEASUREMENT
Public Outreach/Education	PWD-TP	Educate the general public on storm water issues via appropriate media, including brochures, flyers, pony panels, etc.	Promote better public awareness of stormwater issues as part of the public education and outreach requirements of the permit.	Distribute information to the public via civic events, environmental fairs, office distribution, etc.
Public Outreach/Education	PWD -O & M	Storm drains will be marked to indicate that they drain to the river.	Promote better public awareness of stormwater issues as part of the public education and outreach requirements of the permit.	Affix approximately 1000 storm drain markers to county property.
Public Outreach/Education	PSD - AC	Inform pet owners and pet related business of impact of pet waste on storm water.	Promote better public awareness of stormwater issues as part of the public education and outreach requirements of the permit.	Approximately 6000 licenses/permits per year. The application will contain information on the impact of pet waste.
Public Outreach/Education	CSD-BZP/EH	Septic System/Alternative Systems (Training and Outreach).	Certification of all waste water evaluators in state (200) and educate public on proper septic system maintenance.	Number of waste water evaluators receiving certification and number of flyers/brochures distributed to public.
Public Outreach/Education	CSD-BZP/EH	Inform restaurant owners of impact of improper disposal of grease and oil on storm water.	Promote better public awareness of stormwater issues as part of the public education and outreach requirements of the permit.	Approximately 450 permits are issued to restaurant owners per year. Permit will include information on BMPs for proper disposal of grease and oil.
Public Outreach/Education	PWD-SW	Increase awareness of storm water issues at Household Hazardous Waste Collection Center.	To prevent the improper disposal of household hazardous waste and to notify the public of the impact of improper disposal on storm water.	Increase amount of household hazardous waste delivered to collection center.
Public Outreach/Education	PWD-TP	Provide information on stormwater quality and BMPs to the public on the County Webpage.	Maintain Stormwater Quality Information on the County website.	Number of visitors/Number of email questions/contacts from website.
Public Outreach/Education	CSD - PR	Provide receptacles for plastic bags for pet waste collection.	Make receptacles available at 4 facilities where the need has been observed.	Reduction in pet waste observed by staff.
Public Outreach/Education	CSD - PR	Install signs reminding pet owners to pick up after their pets.	Add signs at one facility a year.	Reduction in pet waste observed by staff.
Public Involvement	PWD-TP	Seek public participation in review and revision of the SWQMP.	Conduct public meetings annually to seek input on the plan.	Minimum of two meetings per year.
Public Involvement	PWD-TP	Seek public participation in review and revision of the SWQMP.	Maintain Stormwater Quality Information on the County website.	Number of visitor to stormwater quality information section of the website.
Public Involvement	PWD-TP	Comply with applicable state federal and local laws for public notice.	Compliance with laws.	Number of violations or complaints regarding public notice compliance.
Illicit Discharge Detection and Elimination	PWD-SW	Residential Waste Collection System Expansion.	Provide curbside collection in the North and South Valley.	Number of new accounts/year.

<b>PRACTICE AREA</b>	<b>DEPARTMENT</b>	<b>BEST MANAGEMENT PRACTICE</b>	<b>GOAL</b>	<b>MEASUREMENT</b>
Illicit Discharge Detection and Elimination	PWD-SW	Expand County Recycling Program for: used motor oil, steel and aluminum cans, cardboard and newspapers	Provide Transfer Station Facilities for these items	Tonnage of recycling collected.
Illicit Discharge Detection and Elimination	PWD-SW	Green Waste Recycling Program.	Provide Green waste Collection in the North Valley.	Number of truckloads of ground waste delivered to composting facility.
Illicit Discharge Detection and Elimination	PWD-SW	Expand County Transfer Station Capabilities.	Increase the number of residents who use these facilities.	Number of visits per station per year.
Illicit Discharge Detection and Elimination	PWD-SW	Increase awareness of household hazardous waste collection events.	Increase mailings/notification of collection events.	Increase volume of material collected.
Illicit Discharge Detection and Elimination	CSD-OEH	Control Illegal Dumping.	Decrease incidents of illegal dumping.	Decrease in number of complaints of illegal dumping.
Illicit Discharge Detection and Elimination	PWD-O&M	Inspect channels	Number of miles inspected per year.	16 mile/year
Illicit Discharge Detection and Elimination	PWD-TS	Valley Utilities Project -- provide sewer connections to the South and North Valley.	Make sewer available to an average of 100 households per year.	Number of available connections provided.
Illicit Discharge Detection and Elimination	PWD-TP	Develop and maintain a system map.	Map updated annually and provided with annual reports.	Map updated annually.
Illicit Discharge Detection and Elimination	PWD-TP	Sewer Connections/Partners in Protection of the Environment (PIPE).	Average 84 Sewer/Drinking Water Connections per year.	Number of Sewer/Drinking Water Connections.
Illicit Discharge Detection and Elimination	PWD-SW	Household Hazardous Waste Collection Events.	To prevent the improper disposal of household hazardous waste.	Increase number of household hazardous waste collected at events from four to eight as funding becomes available.
Illicit Discharge Detection and Elimination	CSD-OEH	Septic System/Alternative Systems.	400 waste water permits issued annually.	Number of waste water permits issued annually.
Construction Site Storm Water Runoff Control	CSD-BZP	Assist PW in identifying problems with construction phase BMPs.	BPZ inspectors to notify PWD inspectors of potential construction phase BMP compliance issues.	Number of contacts to PWD per number of sites.
Construction Site Storm Water Runoff Control	PWD-TS	Implement Construction NPDES Phase II Requirements by Ordinance.	Revise existing ordinance.	Ordinance is revised.
Construction Site Storm Water Runoff Control	PWD-TS	Implement Post Construction NPDES Phase II Requirements by Ordinance.	Revise existing ordinance.	Ordinance is revised.

<b>PRACTICE AREA</b>	<b>DEPARTMENT</b>	<b>BEST MANAGEMENT PRACTICE</b>	<b>GOAL</b>	<b>MEASUREMENT</b>
Construction Site Storm Water Runoff Control	PWD-TS	Inspection of one-acre or larger disturbed areas.	Inspect projects with one acre disturbed area intermittently during construction and at completion for proper installation of post construction BMPs.	Number of inspections and the number of problems identified.
Construction Site Storm Water Runoff Control	PWD-TS	Coordinate with other County departments on enforcement of ordinances and monitoring of BMPs.	Formalize process of notification of Technical Services inspectors by inspectors from other departments.	Number of referrals and the number of inspections where problems are identified.
Construction Site Storm Water Runoff Control	PWD-TS	Train inspectors in proper installation of construction phase BMPs.	Train 75% of Public Works inspectors annually.	Percentage of inspectors trained annually.
Construction Site Storm Water Runoff Control	PWD-TS	Train contractors in installation of construction phase BMPs.	Offer one training per year to contractors.	Number of trainings per year.
Construction Site Storm Water Runoff Control	PWD-TS	Hold workshops for County design engineers on construction and post construction BMPs.	Train 75% of engineers annually.	Percentage of engineers and EITs trained annually.
Construction Site Storm Water Runoff Control	PWD-TS	Hold workshops with consultant design engineers on construction and post construction BMPs.	Conduct one training per year to design engineers and contractors.	Number of trainings per year.
Construction Site Storm Water Runoff Control	PWD-TS	Ensure compliance of County construction projects with one acre or greater disturbed area.	Inspect projects with one acre or greater disturbed area periodically during construction for proper installation of BMPs.	Number of problems identified per project.
Construction Site Storm Water Runoff Control	PWD-TS	Incorporate post construction BMPs into design and construction of County facilities, one acre or greater disturbed area.	Develop design standards for County projects.	Incorporate appropriate BMPs into all County design requirements.
Post Construction Storm Water Management in New Development and Redevelopment	CSD-BZP	Promote/encourage cluster development.	Use existing subdivision ordinance to allow for cluster development and increase number of cluster developments by 20%.	Percentage increase in cluster development.
Post Construction Storm Water Management in New Development and Redevelopment	CSD-BZP	Promote/encourage development to reduce impervious cover.	Allow variances for certain roadway standards to reduce impervious cover.	Number of variances granted.
Post Construction Storm Water Management in New Development and Redevelopment	CSD-BZP	Base drainage impact fees on amount of impervious surface.	Reduce impervious cover. Diminished disturbed areas.	Reduction in drainage impact fees per project.
Post Construction Storm Water Management in New Development and Redevelopment	CSD-BZP	Utilize Transfer of Development Rights.	Amend the Zoning Ordinance to include TDR criteria.	Development and implementation of a TDR ordinance.

<b>PRACTICE AREA</b>	<b>DEPARTMENT</b>	<b>BEST MANAGEMENT PRACTICE</b>	<b>GOAL</b>	<b>MEASUREMENT</b>
Post Construction Storm Water Management in New Development and Redevelopment	CSD-BZP	Encourage development within existing neighborhood and commercial nodes.	Adopt plans and policies which encourage utilization of existing commercial and residential infrastructure in identified areas.	Evaluate nodal areas as defined by the plans.
Post Construction Storm Water Management in New Development and Redevelopment	CSD-BZP	Support/adopt low density residential planning areas where appropriate.	Adopt large lot zoning.	Evaluate level of development (dwelling units per acre).
Pollution Prevention/Good Housekeeping	PWD- FM	Facility Management will notify the appropriate department when they observe problems or potential problems around the exterior of buildings they maintain.	Reduce stormwater quality concerns by identifying and correcting problems or potential problems.	Number of work orders requested and corrected.
Pollution Prevention/Good Housekeeping	PWD-O&M	Mow the shoulders of the roads instead of grading.	Reduce the amount of disturbed area on roadways where vegetation exists by increasing the number of road miles mown from 200 to 300.	Number of miles mown.
Pollution Prevention/Good Housekeeping	PWD-O&M	Cover road salt storage areas in the urbanized area.	Keep salt dry and out of surface and/or groundwater.	Construct a cover for the facilities.
Pollution Prevention/Good Housekeeping	PWD-O&M	Clean Roadways	Sweep 75 miles of Roadway quarterly	Number of road miles swept
Pollution Prevention/Good Housekeeping	PWD-O&M	Inspect channels	Inspect 16 miles of channel per year.	Number of miles/year inspected.
Pollution Prevention/Good Housekeeping	PWD-O&M	Clean and Reshape Channels.	Remove 1500 cubic yards (c.u.) of debris per year.	Cubic yards per year of debris removed, or documentation that removal was not required.
Pollution Prevention/Good Housekeeping	PWD-O&M	Inspect and Clean Storm Water Ponds.	Remove 960 cubic yards of debris from storm water ponds annually.	Cubic yards per year of debris removed, or documentation that removal was not required.
Pollution Prevention/Good Housekeeping	PWD-O&M	Inspect and Clean Storm Inlet/Outlet Structures.	Inspect and clean 450 structures per year.	Number of structures inspected and cleaned per year.
Pollution Prevention/Good Housekeeping	PWD-O&M	Inspect Storm Sewers -- to inspect integrity of the system and also identify any dry weather flows.	Inspect 15 miles of storm sewer per year.	Miles per year inspected and dry weather flows identified.
Pollution Prevention/Good Housekeeping	PWD-O&M	Clean Storm Sewer Lines	Clean 10,000 feet of storm sewer per year.	Number of feet of storm sewer cleaned per year.
Pollution Prevention/Good Housekeeping	PWD-O&M	Inspect Culverts	Inspect 1,200 culverts every year.	Number of culverts inspected per year.
Pollution Prevention/Good Housekeeping	PWD-O&M	Clean/Flush Culverts	Clean and flush 420 culverts per year.	Number of culverts cleaned and flushed per year.

<b>PRACTICE AREA</b>	<b>DEPARTMENT</b>	<b>BEST MANAGEMENT PRACTICE</b>	<b>GOAL</b>	<b>MEASUREMENT</b>
Pollution Prevention/Good Housekeeping	PWD-O&M	Storm Water Lift Station Maintenance	Spend 240 hours per year maintaining storm water lift stations.	Number of hours per year spent maintaining lift stations.
Pollution Prevention/Good Housekeeping	PWD-O&M	Training in appropriate safety, best management practices, regulations and other area as needed.	56 Hours per year.	Hours of training per staff member.
Pollution Prevention/Good Housekeeping	PWD-O&M	Construct/Maintain a containment area for vactor truck debris.	Contain 10 to 20 loads per year for disposal.	Loads contained for removal.
Pollution Prevention/Good Housekeeping	PWD-Fleet	Spills on shop floors captured using dry chemicals and stored in collection containers.	Prevent runoff of water and petroleum-based products by review of procedures and daily observation.	Number of incidents of runoff noted.
Pollution Prevention/Good Housekeeping	PWD-Fleet	Used oils are captured and recycled	Recycle 100% of used motor oil.	Volume and percentage of motor oil recycled.
Pollution Prevention/Good Housekeeping	PWD-Fleet	All used antifreeze is captured and recycled.	Recycle 100% of used antifreeze.	Volume and percentage of antifreeze recycled.
Pollution Prevention/Good Housekeeping	PWD-Fleet	All oil filters are drained, crushed and metal is recycled	Recycle 100% of used oil filters	Number/ pounds of used oil filters recycled.
Pollution Prevention/Good Housekeeping	PWD-Fleet	On site drainage traps are maintained and pumped	Traps will be cleaned	Clean traps three times per year
Pollution Prevention/Good Housekeeping	PWD-Fleet	Parts cleaners are reusable/recycled fluids	Continue to use water based parts cleaners	Annual inspection of cleaning devices and products.
Pollution Prevention/Good Housekeeping	PWD-Fleet	Staff is reviewed annually on use of hazardous chemicals and environmental practices.	100% of involved staff reviewed annually.	Documentation of review of staff
Pollution Prevention/Good Housekeeping	PWD-TP/TS	Storm Water Quality Structural BMPs.	Identify priorities and Install structural BMPs for stormwater facilities and County property.	Number of projects identified, and the number constructed.
Pollution Prevention/Good Housekeeping	CSD-PR	Reduce fertilizer applications on park facilities.	Reduce fertilizer usage by 10%.	Reduction in fertilizer per acre/number of times per year applied.
Pollution Prevention/Good Housekeeping	CSD-PR	Use herbicides with short residual life at lowest effective concentration.	Use appropriate herbicides.	Verify that herbicides are suitable for conditions through description of herbicides utilized.
Pollution Prevention/Good Housekeeping	CSD-PR	Move sprinkler heads away from curbs.	Reduce water usage and runoff from irrigation systems.	Move sprinklers at two facilities a year.
Pollution Prevention/Good Housekeeping	CSD-PR	Put paths around perimeter of parks to reduce runoff to street.	Reduce water usage and runoff from irrigation systems.	Install paths at a total of seven parks, one facility every year.
Pollution Prevention/Good Housekeeping	CSD-PR	Install low water use landscaping where appropriate.	Install xeriscape landscaping around parks and recreation facilities where appropriate.	Number of facilities where xeriscape is added/installed. The goal is three facilities in the next five years.

<b>PRACTICE AREA</b>	<b>DEPARTMENT</b>	<b>BEST MANAGEMENT PRACTICE</b>	<b>GOAL</b>	<b>MEASUREMENT</b>
Pollution Prevention/Good Housekeeping	CSD-PR	Educate employees in plant science so that plants are cared for properly, without excess fertilizer or water.	Seminar training for 100% of involved employees.	Annual training of all full-time employees through TVI program.
Pollution Prevention/Good Housekeeping	CSD-PR	Reduce turf areas where appropriate	Reduce runoff from irrigation systems by replacing turf areas with xeriscape.	Number of square feet converted to xeriscape from irrigated turf.
Pollution Prevention/Good Housekeeping	CSD-PR	Use short (syringe) cycles of watering instead of heavier water programs to eliminate runoff into streets and arroyos.	Reduce runoff from irrigation systems to less than three events per facility per year.	Number of runoff events reported at the facility by the public or by staff.
Pollution Prevention/Good Housekeeping	CSD-PR	Use reduced pressure on irrigation system to reduce over-spray and misting.	Reduce runoff from irrigation systems to less than three events per facility.	Number of runoff events reported at the facility by the public or by staff.
Pollution Prevention/Good Housekeeping	CSD-PR	Provide training and orientation to new employees through an employee handbook.	Increase employee awareness of best management practices and other job requirements.	Develop and distribute orientation packet to new employees.
Pollution Prevention/Good Housekeeping	CSD-PR	Train employees in irrigation repair, installation and operation.	Seminar training for 100% of full-time employees.	Annual training of all involved employees through TVI program.
Pollution Prevention/Good Housekeeping	CSD-PR	Utilized licensed journeymen irrigation specialists when appropriate.	Ensure that qualified staff is overseeing the irrigation systems.	All supervisors must have JMS-6 license.
Pollution Prevention/Good Housekeeping	CSD-PR	Provide additional trash containers at park facilities.	Keep trash off of the grounds, roadways and drainage facilities by providing 18 additional trash containers per year.	New containers provided, and tonnage of trash collected.
Pollution Prevention/Good Housekeeping	CSD-PR	Provide on-site lift dumpsters at park facilities.	Keep trash off of the grounds, roadways and drainage areas by providing one lift dumpster to one facility every year.	New containers provided, and tonnage of trash collected.
Pollution Prevention/Good Housekeeping	CSD-PR	Install enclosed trash containers.	Keep trash off of the grounds, roadways and drainage facilities, by providing 5 new garbage containers that are inaccessible to dogs and storm events per year.	New containers provided, and tonnage of trash collected.
Pollution Prevention/Good Housekeeping	CSD-PR	Pick up trash daily from park facilities.	Keep trash off of the grounds, roadways and drainage areas by collecting trash from facilities daily, and monitoring the volume of trash collected.	Tonnage of trash collected.
Pollution Prevention/Good Housekeeping	CSD-PR	Improve grades on turf areas to eliminate runoff into streets and arroyos.	Retrofit turf areas where needed to reduce runoff.	One retrofit a year
Pollution Prevention/Good Housekeeping	CSD-PR	Install silt boxes and cobblestone at runoff exits into arroyos.	Reduce runoff at facilities that drain to arroyos.	Complete the two required retrofits.
Pollution Prevention/Good Housekeeping	CSD-PR	License/certify employees in 3-B herbicide spraying, including sprayer calibration, solutions and concentrations, laws and ethics through Dept of Ag. Program.	Ensure that 75% of involved full-time employees are fully trained in proper pesticide use.	Certify 90% of staff that might be involved in herbicide application annually.
<b>PRACTICE AREA</b>	<b>DEPARTMENT</b>	<b>BEST MANAGEMENT PRACTICE</b>	<b>GOAL</b>	<b>MEASUREMENT</b>

<b>PRACTICE AREA</b>	<b>DEPARTMENT</b>	<b>BEST MANAGEMENT PRACTICE</b>	<b>GOAL</b>	<b>MEASUREMENT</b>
Permit Compliance and Monitoring	PWD-TP	Monitor compliance with SWPPP.	Meet BMP goals.	Annual Reports and Plan Revisions.
Permit Compliance and Monitoring	PWD-TP	Review development of a comprehensive stormwater ordinance.	Determine if additional ordinance language is required to fully implement SWPPP.	After the first permit period is almost completed, County staff will evaluate the adequacy of existing authority and may recommend changes.
Permit Compliance and Monitoring	PWD-TP	Coordinate potential stormwater quality monitoring program.	Determine if stormwater quality monitoring is necessary to comply with SWPPP, and develop such a program if necessary.	During this permit period staff will gather information on the need for monitoring data and develop a program for such data where needed.

## 2005-2006 Costs Associated with Implementing the Bernalillo County Storm Water Quality Management Plan

Department or Section	Labor	Equipment	Contractor Costs	Other
PWD - RMS	\$ -	\$ -	\$ -	\$ -
PWD - SDS	\$54,287.18	\$45,480.10	\$	\$
PWD - TSD	\$2,650.00	\$ -	\$36,169.34	\$ -
PWD - WRS	\$ -	\$ -	\$ -	\$ -
PWD – FFM	\$ -	\$ -	\$ -	\$ -
Animal Control	\$ -	\$ -	\$ -	\$ -
Solid Waste	\$ -	\$ -	\$ -	\$ -
ZBP & EH	\$ -	\$ -	\$ -	\$ -
Parks & Rec	\$ -	\$ -	\$ -	\$ -
Totals	\$ -	\$ -	\$ -	\$ -

PWD – WRS: Public Works Division - Water Resources Section  
 PWD – SDS: Public Works Division – Storm Drainage Section  
 PWD-TS: Public Works Division –Technical Services Dept.  
 PWD – SW: Public Works Division – Solid Waste Dept.  
 PWD – FFM: Public Works Division – Fleet/Facility Management Dept.

CSD – EH: Community Services Division - Office of Environmental Health  
 CSD – ZPB: Community Services Division - Zoning, Building, and Planning  
 CSD – PR: Community Services Division - Parks and Recreation  
 PSD – AC: Public Safety Department - Animal Control  
 PWD – RMS: Public Works Division – Road Maintenance Section

**Table I: Abandoned Waste Collection**

Type of Waste Collected	Service Provider	Cost	Comments
Used Oil	Rinchem, Inc.	\$617.00	4 @ 55 gallon Drums
Used Oil	Rinchem, Inc.	\$409.00	2 @ 55 gallon Drums
Lead Batteries	Rinchem, Inc.	\$140.00	1 pallet (Batteries collected from residence in the East Mountain Area)
4 Drums Labeled Corrosive (Empty Drums)	Rinchem, Inc.	\$300.88	Investigation revealed that the drums were empty
2 Drums of diesel, gas, water and oil mixture	Rinchem, Inc.	\$962.00	Drums were located on a County owned property.

<b>Total Budget Jun 30, 2005 - July 1, 2006:</b>	\$9,299.53
<b>Total Cost YTD:</b>	\$2,428.88
<b>Remaining Funds:</b>	<u>\$6,870.65</u>

**Table II: Household Hazardous Waste Collection**

Date	Location	Address	Amount of HHW Collected (pounds)	Households	Service Provider	Cost
13-Aug-05	South Valley Polo Grounds	7001 Coors Blvd., SW	2,609	11	Rinchem, Inc.	\$1,970.00
01-Oct-05	East Mountains	25 Frost Rd., Sandia Park	3,141	28	Rinchem, Inc.	\$2,960.00
22-Oct-05	South Valley Mountain View Community Center	201 Prosperity, SE	787	9	Rinchem, Inc.	\$1,630.00
29-Oct-05	East Mountain	25 Frost Rd., Sandia Park	2,067	27	Rinchem, Inc.	\$2,890.00
22-Apr-06	South Valley	3912 Isleta Blvd., SW	3,243	28	Rinchem, Inc.	\$2,950.00
06-May-06	South Valley	2525 Los Padillas, SW	2,260	16	Rinchem, Inc.	\$1,900.00
20-May-06	East Moubtain	805 Barton Rd.	4,861	45	Rinchem, Inc.	\$4,000.00
27-May-06	East Mountain	10838 Hwy 337	4,277	40	Rinchem, Inc.	\$4,350.00
10-Jun-06	South Valley	Condershire & Mead, SW	1,229	9	Rinchem, Inc.	\$1,830.00
24-Jun-06	North Valley	9521 Ri Grande, NW	2,665	20	Rinchem, Inc.	\$2,600.00

**Total HHW Waste Collected (pounds):**  
**27,139**

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**Total Budget Jun 30, 2005 - Jul 1, 2006** \$50,000.00

**Total Cost Year to Date** \$27,080.00

**Remaining Funds** \$22,920.00

**Table III: Technical Services Activities**

Project	Design (Consultant)	Design (County)	Cons Cost (Contractor)	Cons Inspection (County)
Maryetta	\$0.00	\$0.00	\$11,500.00 4th Quarter	
Iseta 2			\$6,819.34 1st Quarter	
Golf Course	\$0.00	\$0.00	\$1,600.00 1st Quarter	\$500.00 1st Quarter
Foothill Bridge	\$0.00	\$0.00	\$7,750.00 2nd Quarter	\$500.00 1st Quarter
			\$7,750.00 3rd Quarter	
Edith	\$500.00 4th Quarter			
Modesto Diversion	\$0.00	\$0.00	\$0.00	\$0.00
SVDWP Transmission Pipeline	\$0.00	\$750.00 2nd Quarter		
		\$750.00 3rd Quarter	\$250.00 4th Quarter	\$150.00 4th Quarter
<b>Subtotals</b>	<b>\$500.00</b>	<b>\$1,500.00</b>	<b>\$35,669.34</b>	<b>\$1,150.00</b>

Subtotals for  
 Contrator 500+3566.34 \$36,169.34  
 Subtotal for  
 Labor 1500+1150 \$2,650.00