



OPERATIONS & MAINTENANCE DEPARTMENT

PUBLIC WORKS – OPERATIONS & MAINTENANCE – 520 EXPENDITURES BY CATEGORY:

	Actuals FY 2006	Actuals FY 2007	Estimated FY 2008	Budget FY 2009	% Var	Budget FY 2010	% Var
Salary and Benefits	2,494,784	2,573,328	2,647,977	2,866,007	8%	2,866,007	0%
Operating Expense	453,269	570,202	672,941	807,803	20%	807,803	0%
Capital Expenditures	1,218	883,253	9,561	200	-98%	200	0%
Carryovers	208,845	270,634	243,949	-	-100%	-	0%
PROG EXPENDITURES TOTAL	3,158,116	4,297,417	3,574,428	3,674,010	3%	3,674,010	0%

FUNDING SOURCE SUMMARY

General Fund-Revenue	3,158,116	4,297,417	3,574,428	3,674,010	3%	3,674,010	0%
PROG FUNDING SOURCE TOTAL	3,158,116	4,297,417	3,574,428	3,674,010	3%	3,674,010	0%
Authorized Full-time Equivalents	59	59	59	58	2%	58	0%

Road Maintenance Program

PURPOSE:

Through various maintenance methods that are applied cyclically dependent upon infrastructure type, road service life is extended until major reconstruction or replacement is needed. Bernalillo County has 724 road miles that require routine maintenance and emergency repair to enhance and promote public highway safety and user welfare. Roads maintained include dirt, gravel, asphalt pavement, and bridge crossings.

SERVICES PROVIDED:

Street, highway, and road maintenance includes road surface grading, base repair, street sweeping, shoulder repair, ditch cleaning and reshaping, culvert installation and repair, pothole patching, crack sealing, chip sealing, surface oiling, machine mowing, concrete sidewalk repair, remove and install asphalt curb, remove and install concrete curb, spot surface asphalt repair and replacement, asphalt overlay, asphalt surface treatment, paving fabric application, street cut repairs, road ice and snow removal. Additional services are weed and litter removal by inmate labor provided through Metropolitan Detention Center Community Services, also known as the Bernalillo County Clean Team, BCCT.

PROGRAM HIGHLIGHTS AND MAJOR ACCOMPLISHMENTS:

- Legislative grant funding in the amount of \$1,888,000 was secured during the 2006 grant year enabling road construction improvements to 19 roads throughout the County that were included in the STB Program.
- An additional \$1,752,000 of paving projects were completed using '06-'08 CIP GO Bonds for local roads, and encompassed 16 roads throughout the County.
- Paving improvements extended the service life of the roads and reduced the levels of maintenance required for them.
- The improvements allowed maintenance efforts to be redirected for maintenance of other County maintained roads.
- 724 maintained miles were certified to the State as the County's most accurate measure of the roads maintained.
- Every maintained mile of roadway in the County area was inspected during the year and its condition noted for maintenance scheduling.

Operations & Maintenance Dept. – Road Maintenance Program

COUNTY GOAL: Bernalillo County will provide residents with safe, efficient well maintained County infrastructure and transportation networks.

DEPARTMENTAL OBJECTIVES:

The goal of the Road Maintenance Program is to provide timely and appropriate maintenance of streets and bridges to prolong the useful life of the facilities and reduce maintenance and rehabilitation cost.

FY09

- Inspection of every road to identify stability, settling, cracking, faulting, disintegration, presence of vegetation, and water accumulation performed annually.
- Records of infrastructure condition to be maintained and used in tracking maintenance and operating costs to maximize life expectancy of the infrastructure.
- Response to all work orders requests within 10 days.
- Use of automated maintenance management system to schedule maintenance activities.
- Resurface 10 lane miles of paved surface.
- Grading and shaping 1100 lane miles.
- Crack sealing 20 lane miles.
- Shoulder maintenance of 500 lane miles.
- 200 lane miles bar ditch cleaning and shaping
- Quarterly sweeping of all major and minor arterials.

FY10

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- Quarterly sweeping of all major and minor arterials.
- Use of BCCT Community Service Program to maintain public thoroughfares.
- Integration of the current pavement management system (PMS) goal of '08 covering every maintained road in the County to both ERP and to develop a CIP prioritization for existing paved roadways similar to the existing unpaved roadway priority system.
- The objective is to successfully schedule all work orders during the calendar year for completion, with priority assigned to those work orders that involve higher degrees of benefit to public highway safety.

PERFORMANCE DATA:

Performance Measures	Actual FY 2006	Actual FY 2007	Estimated FY 2008	Target FY 2009	Target FY 2010
Road miles inspected	717	718	724	724	724
Work order response within 10 days	100%	100%	100%	100%	100%
Road lane-miles graded	802	1,351	1,100	1,100	1,100
Road miles shoulder repair	784	638	500	500	500
Road miles deicing/snow removal	9,051	16,849	5,000	5,000	5,000



OPERATIONS & MAINTENANCE DEPARTMENT

Traffic Engineering

PURPOSE:

Traffic Engineering maintains and updates traffic control infrastructure in accordance with established engineering guidelines and principles. Policy, design guidelines, and placement recommendations for traffic control devices are established in accordance with the Manual on Uniform Traffic Control Devices (MUTCD). The Institute of Transportation Engineers (ITE) and the American Association of State Highway and Transportation Officials (AASHTO) disseminate other standards, methodologies, and design guidelines to ensure that maintenance and new construction activities comply with proven traffic engineering standards and principles. The County adheres to the established principles to provide the users of Bernalillo County Roads with the highest level of mobility, safety, and reasonable access to businesses and residences.

SERVICES PROVIDED:

The Traffic Engineering Program operates and maintains the County's traffic control devices and also provides input on the design of new traffic control devices that will become the County's maintenance responsibility. Program personnel maintains and inspects approximately 19,400 traffic signs, 55 warning beacons, 51 traffic signals along 12 major urban arterials, roadway striping along approximately 278 miles of roadway, 702 traffic calming devices in numerous residential areas, approximately 13 miles of roadside barriers, and 223 County owned streetlights. The Program administers engineering studies for the installation of traffic calming devices and oversees the associated construction activities. Meetings with neighborhood groups are conducted to increase the public's knowledge of traffic calming measures and to inform the neighborhood groups of the County's role and policies related to this activity. To ensure safe traffic control through construction work zones in the unincorporated area, the Program administers and enforces the Traffic Control Barricading Ordinance.

PROGRAM HIGHLIGHTS AND MAJOR ACCOMPLISHMENTS:

- With the completion of the Isleta Phase II project the Traffic Engineering Program is able to control all of the signals along the Isleta corridor from one master controller located at the intersection of Rio Bravo and Isleta. Fiber optic interconnect of the traffic signals was also installed as part of this project. This allows the Traffic Engineering Program to efficiently coordinate the traffic signals from Rio Bravo Boulevard to Lopez Road and provide progression along the Isleta corridor. Signal progression along this corridor contributes to the overall efficiency of the transportation system and improved safety.
- As a measure to improve night road safety, appearance and convenience, internally illuminated street names signs were installed at all signalized intersections along Bridge Boulevard from La Vega to Old Coors and at the intersections of Isleta Blvd. and Lopez Rd. and Isleta Blvd. and Arenal. Illuminated street name signs improve sign visibility and legibility at further distances and in all conditions which helps reduce the attention manner required to find street names and gives motorist more time to plan their reactions at intersections.
- Improvements to the sign inspection routine were made to simplify the process which allows the sign technicians to run the inspections in a more expeditious and safe manner. This was done by obtaining input from each of the sign technician and modifying each route. Each of the 19,400+ traffic control signs are inspected approximately twice every quarter to ensure signage is in place and in compliance with the Manual on Uniform Traffic Control Devices (MUTCD) on all County maintained roadways.
- Intersection improvements were made at 2nd St. and El Pueblo NW which included a west bound right turn lane, upgraded signal controller and replacement of the old inductance loop detection with a video detection system. These improvements were made as a result of the increased traffic due to the Rail Runner station to improve the overall efficiency and operation of the intersection.

Operations and Maintenance Department-Traffic Engineering

COUNTY GOAL: Bernalillo County will provide residents with safe, efficient well maintained County infrastructure and transportation networks.

DEPARTMENTAL OBJECTIVES:

FY09

- Traffic Engineering is work order and inspection oriented. Work orders for maintenance and repairs are generated from public requests, department requests, and inspection activities. The program's goal is to provide inspection and maintenance to traffic control devices located on the County's transportation infrastructure to enhance traffic safety and improve traffic flow efficiency. The program's objectives are to provide maintenance functions for signs, signals, barricading, speed humps, pavement markings, guardrail, and street lights.
- To achieve the objectives, productivity is evaluated from measured performance of the following activities:
- Inspection of traffic control signage performed quarterly
- Inspection of roadway striping and pavement markings annually
- Inspection of traffic calming devices annually
- Number of speed studies completed within 15 days of request
- Inspection of guardrail and highway markings is conducted annually
- Inspection of traffic signals and warning beacons is conducted monthly
- Respond to all work order requests within 4 days
- Complete major traffic studies within 30 days
- Initial response time of 1 hour or less to arrive at a reported problem intersection and verify and identify the problem
- Response time of 4 hours or less to repair or reinstall damaged high priority signage such as stop or yield signs
- Records of infrastructure condition and maintenance performed to be maintained and used in tracking maintenance and operating costs

FY10

- The program's objectives of providing maintenance functions for signs, signals, barricading, speed humps, pavement markings, guardrail, and street lighting for FY08 will be evaluated for effectiveness based on results and manpower allocation.
- Operation and maintenance activities of the road traffic network are to be coordinated with Fire, Sheriff, emergency services and flood control agencies.
- Continuous application of the One Call System to avoid line breaks and disruption to the service during construction activities.
- Use of automated maintenance management system to track and account for material stocks
- Use of inventory/work order management system to track and account for material stocks
- Record of infrastructure inspection is maintained and updated quarterly
- Trim vegetation from traffic control signage to provide adequate visibility

PERFORMANCE DATA:

Performance Measures	Actual FY 2006	Actual FY 2007	Estimated FY 2008	Target FY 2009	Target FY 2010
95% Work Orders Completed w/in 4 days	96.5%	95.7%	93.4%	95%	95%
200% Traffic Control Signage Inspected QTRLY*	-*	-*	135%	200%	200%
50 Miles of Roadway Striping Completed	108	5305	34	50	50
100% Traffic Calming Devices Inspected and Maintained Annually*	-*	-*	55%	100%	100%
100% Speed Studies Completed w/in 15 day of request*	-*	-*	67%	100%	100%
100% Guardrail Inspected Annually*	-*	-*	37%	100%	100%
612 Traffic Signal Inspections Annually	588	554	291	612	612
100% County Owned and Maintained Street Lights Inspected Annually*	-*	-*	94%	100%	100%

* Performance Measure was not being recorded.



OPERATIONS & MAINTENANCE DEPARTMENT

Storm Drainage Maintenance Program

PURPOSE:

The program provides the systematic maintenance of the County's storm drainage infrastructure. Drain systems include thirteen storm water lift stations that provide out-fall for surface drainage systems including side ditches, catch basins and other inlets into storm water conduits that collect and transport drainage to discharge areas and retention ponds. Structural, operational and functional maintenance includes the protection and repair of these drainage systems to keep them sound, unobstructed and operating at full capacity to reduce flooding, destructive erosion and road surface weakening.

PROGRAM HIGHLIGHTS AND MAJOR ACCOMPLISHMENT:

FY2006/2007

- Maintenance of storm drainage systems occurred at levels projected and planned for that kept all systems functional and ready for operation.
- New storm infrastructure was mapped onto the GIS network including construction projects on Lyons Boulevard, Isleta Phase 1A, Modesto Avenue, Atrisco Boulevard and North ABQ Acres.
- Two detention ponds, 2.55 miles of storm sewer lines, 45 man holes, 85 drop inlets and 950 feet of new culverts were added to the storm drainage system inventory.

SERVICES PROVIDED:

Systematic operation and maintenance of storm drainage infrastructure including storm water detention and retention ponds, mechanical ditch and channel cleaning, cleaning of catch basins and similar drainage structures, underground pipe inspection and flushing, culvert cleaning, installation and repair of miscellaneous concrete structures, and storm water lift station operation and maintenance.

FY2007/2008

- Maintenance of storm drainage systems occurred at levels projected and planned for that kept all systems functional and ready for operation.
- Storm infrastructure from new construction projects that was mapped onto the GIS network included Isleta Phase 2, Maryetta Drive and Remington Estates.
- Three lift stations, five detention ponds, 4.94 miles of storm sewer lines, 105 manholes and 156 drop inlets were added to the storm drainage system inventory.
- The Storm Drainage Program participated in the BC Continuity Of Operations Plan drill.

COUNTY GOAL: Bernalillo County will provide residents with safe, efficient well maintained County infrastructure and transportation networks.

DEPARTMENTAL OBJECTIVES:

FY09

- Our primary goal is to provide a quality storm drainage maintenance program to achieve minimal flooding where drainage infrastructure exists and rapid dissipation of storm waters.
- Our objectives include the updating of the storm drainage infrastructure inventory as new infrastructure is constructed so that these components can be included in the maintenance plan for systematic maintenance. Also, we will continue our participation in the plan review of storm drainage construction projects to offer comments on design issues from a maintenance perspective.
- Regular and routine maintenance in addition to responsive service is accounted for in the quality program through various work tasks in the maintenance plan. These activities include inspection and maintenance of channels, storm sewer systems, drainage fence, drainage inlets and outfall points, high pressure flushing of storm sewers and culverts, mowing of detention ponds and rights of way and the operation and maintenance of storm water pump stations.
- The Storm Drainage Program will continue our efforts toward the full realization and implementation of the ERP/SAP project.

Operations & Maintenance Department-Storm Drainage Maintenance

FY10

- An increase in crew size and additional equipment will be required in future years to meet the growing demand for maintenance of storm drainage infrastructure as it is constructed. New drainage system installations occurring and planned will necessitate an increase in staff and equipment to perform the work that will enable constructed systems to function and operate as designed. As the infrastructure increases, a more sophisticated storm water system management will be required for its long term operation and maintenance. Funding maintenance activities and replacing drainage system components as they wear out and fail will be required in much larger amounts than can be accommodated in the current budget. Several funding sources that may be considered include property taxes, sales taxes, impact fees and en-

terprise funds. By treating storm water systems as an enterprise and establishing a storm water utility, funds can be raised through user fees to pay for operation and maintenance, which can also include NPDES program elements, an un-funded Federal mandate for the County. Storm water utility rates are often proportional to the user's man-made impervious surfaces. This method has been accepted as a means of determining the user's contribution to water runoff from their site. Fees also can include components covering the costs of administration, planning and capital projects. National average monthly residential rates fall predominantly in the \$2 to \$4 range. This enterprise method should be considered to fund the future maintenance need.

PERFORMANCE DATA:

Performance Measures	Actual FY 2006	Actual FY 2007	Estimated FY 2008	Target FY 2009	Target FY 2010
Inspection/Maintenance of all Open Channels	100%	100%	100%	100%	100%
Lift Station readiness for storm events	100%	100%	100%	100%	100%
Inspection/Maintenance of all Drainage Inlets and Outlets	50%	50%	50%	50%	100%
Inspection/Maintenance of all Storm Sewer Systems and Culverts	50%	50%	50%	50%	100%
Inspection/Maintenance of all Drainage Fencing	100%	100%	100%	100%	100%
Inspection/Maintenance of all Drainage Ponds	100%	100%	100%	100%	100%