



CITY OF FILLMORE

CENTRAL PARK PLAZA
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October 10, 2007

California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

SUBJECT: COMMENTS ON THE 2ND DRAFT STORM WATER NPDES PERMIT
FOR VENTURA COUNTY

The City of Fillmore has serious concerns with the 2nd draft of the Storm Water NPDES permit. This draft Storm Water National Pollutant Discharge Elimination (NPDES) permit requires:

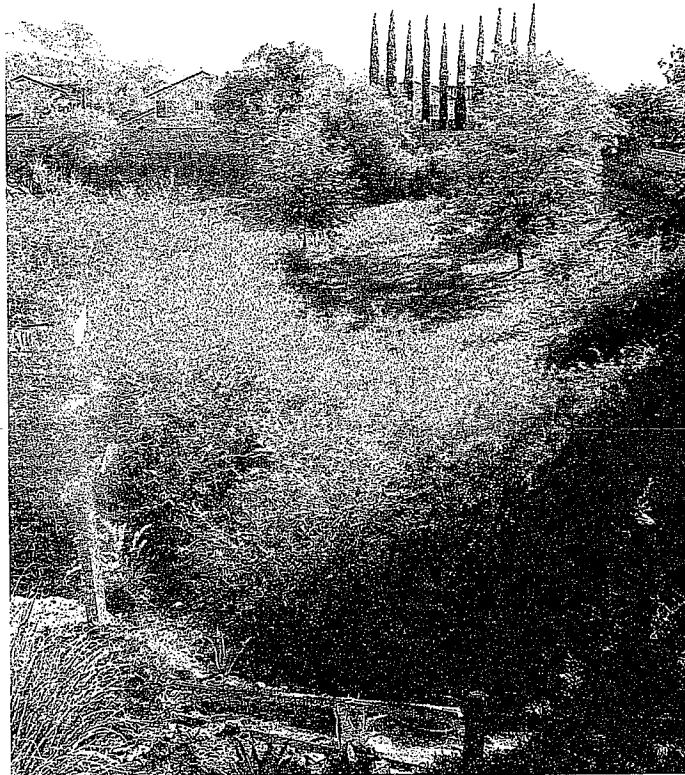
- Existing city storm drains and watersheds must have treatment installed within 2 years!
- All existing businesses must install treatment within 2 years!
- Automatic Mandatory Minimum Penalties for end of pipe violations if these treatment measures don't fully perform, \$3,000 ea. starting in 2010!
- Requires duplicate State NPDES permits for Public Works maintenance activities
- ~~Permanent treatment must be installed with street overlay projects, further diminishing gas tax monies for street resurfacing.~~
- Trash excluders must be installed downtown, around schools and in industrial areas.
- Monitoring for Nutrient TMDL is excessive and will cost \$16,000 per year
- The permit will cost Fillmore \$3,120,000 per year to implement and the City only receives \$16,000 per year in Storm Water Benefit Assessment revenues.
- The cost per home in Fillmore will be about \$820 per year!

ENVIRONMENTAL SOCIAL JUSTICE

In a short 5 year period the Los Angeles Regional Water Quality Control Board (RWQCB) is requiring the low income farm worker community of Fillmore to spend horrific amounts of money on water quality. The median income in some Fillmore neighborhoods is only \$33,000 per year while the Ventura County median income is about \$60,000 (See Exhibit B). The RWQCB has required upgrades to the sewage treatment system that cost the rate payers an additional \$900 per year. The Chloride TMDL is projected to cost the rate payers \$500 per year and now the Storm Water

NPDES draft permit threatens another \$820 per year per home. (See Exhibit A) The total cost for water quality is over a 5 year period is \$2,220 per year per home or 6.7% of the gross income of the poorer communities in Fillmore. This is essentially a 7% tax increase on the poorest in our society. These families earning \$33,000 per year don't have \$2,220 to pay for water quality improvements!

Fillmore has gone above and beyond the previous permits to achieve storm water treatment. For example in our existing detention basins serving existing development we have installed storm water treatment wetlands and have maintained them for the last 10-years. We also clean trash from the detention basins to prevent it from flowing out to the rivers. The permit is just now requiring cities to provide such treatment for existing urban uses.



FIRST STREET STORM WATER TREATMENT WETLAND
BUILT IN DETENTION BASIN SERVING EXISTING DEVELOPMENT
ABOVE AND BEYOND EXISTING PERMIT REQUIREMENTS

The Fillmore City Council has required storm water BMP's to be installed by all new development since 1993 regardless of project size limits allowed in the NPDES permit (except for individual single family residences). The first NPDES permit was issued in

1994 so Fillmore got a head start on the program and has gone further in requiring storm water treatment than the permit requirements.

Another indication of Fillmore's environmental concern is our solid waste diversion program. In 2006 Fillmore achieved 60% solid waste diversion!

The small size of Fillmore and our aggressive pursuit of the program should be considered by the Board when time frames and treatment measures are considered.

TREATMENT FOR EXISTING CITY

The largest concern in the permit is the requirement that all of the storm drain outlets larger than 36" meet the Municipal Action Levels (MALs) within two years of permit adoption and face mandatory minimum penalties. The photo below shows the areas of the City that must have treatment end of pipe and in watershed treatment installed by 2010 at a cost of about \$29,00,000. See Permit Page 29, Part 2 and also Page 30, Part 3.4. and Exhibit A.

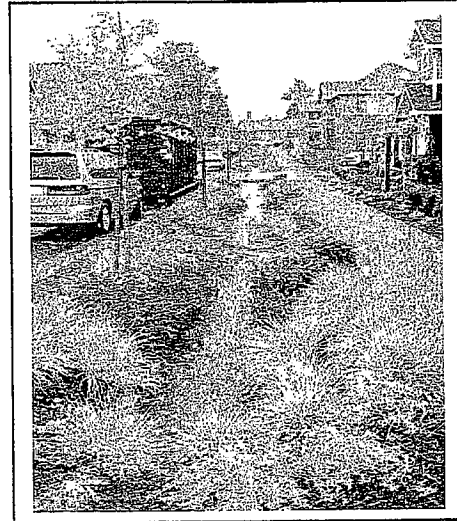
New development can provide storm water treatment by simply building smarter. But the existing city must reconstruct public and private infrastructure at great expense to achieve storm water treatment.



**STORM WATER TREATMENT AREAS BY NEW DEVELOPMENT
REMAINING AREAS ARE EXISTING CITY RESPONSIBILITY**

Fillmore has limited land available to provide adequate end of pipe treatment. Therefore to meet the MAL's we must install both end of pipe treatment devices such as extended detention basins, wetlands and in watershed devices such as bio-retention rain gardens.

The treatment in the watershed would mostly be in the public parkway or the front yards of private homes. This would require a significant amount of volunteer participation of many residents and be very expensive to implement. We will have to install about 16-miles of bio-retention rain gardens at a cost of \$11,500,000.



Achieving such a large treatment program will require Environmental Impact analysis, extensive public involvement. Fillmore would need 20 years to implement such an aggressive capital program. And even we could do such a program we don't have confidence that the BMP's would meet the MALs and expect to have to modify the BMP's per the iterative, test, modify process described in the permit in Part 3, 3 & 4 Page 30. This will also lead to automatic mandatory minimum penalties of thousands of dollars.

TREATMENT FOR EXISTING BUSINESSES

The permit requires mandatory BMP's businesses be installed within two years. Businesses in Fillmore are already suffering from the newly escalated sewer rates with one more rate hike due July 1, 2008. This permit will require them to spend thousands of additional dollars. During the same time frame of 2008 to 2012 their water bill will likely double because of the chloride TMDL. These costs will likely cause some businesses in Fillmore to shut down. In the past only new development has been required to install BMP's and they could meet the requirements relatively easily by sloping the parking lot to drain into a biofilter or setting grades so flow can be directed into a catch basin filter. With existing businesses it can be almost impossible to implement such measures without great expense. And business will have only two years to implement such structural changes. Page 41, Part 5.D.I.2.a , Tables 2 through 5.

DUPLICATE STATE CONSTRUCTION PERMITS FOR CITY MAINTENANCE WORK

In addition to this permit with its onerous implementation and reporting requirements the RWQCB is requiring the City to obtain duplicate State Storm Water Permits (CASGP) for City construction projects, long term maintenance projects such as pothole and sidewalk repair etc. and road maintenance projects such as street overlays. This a duplication of permitting effort to have permits with the LARWQCB and with Sacramento for the same work and will cause additional man hours to apply for and administer the duplicate permits as well as pay additional thousands of dollars in permit fees to the State. The small staff of Fillmore is already going to be overwhelmed attempting to implement this new permit without doing double work with these duplicate State permits. The requirements for duplicate permits should be eliminated. Page 71, 73 & 78 Part 5.G.I.1(c), 2(b), & 7(a).

FLOW CONTROL HYDROMODIFICATION NOT APPLICABLE TO FILLMORE

The mandatory hydromodification requirement also has negative impacts to the community of Fillmore. As you know the City is bounded on three sides by major rivers: Santa Clara River (108,000 CFS), Sespe Creek (135,000 CFS) and Pole Creek (6,000 CFS). The peak flows in the rivers prevent water from leaving the City so we have about 3 hours to empty the flood waters out of the City before the flap gates shut. It is critical that the detention basins be empty as the peak river flows pass so if there is a thunder storm during the peak the water can be held in the basin rather than in homes. With the mandatory hydromodification requirements our detention basins would have to be full instead of empty and the city would be at risk of flooding when peak river flows pass.

Also there is no logic of applying the hydromodification requirements to Fillmore because we are the downstream section of major rivers. How can a hydraulic impact occur to the Santa Clara or Sespe when a City discharge is overwhelmed three hours later by a flow that is 400 times larger? Part 5.E.III.3. Page 52

PERMANENT TREATMENT WITH STREET OVERLAY PROJECTS

Requiring the City to install permanent storm water treatment with street resurfacing projects is a duplication of the requirement to meet MALs within 2 years of permit adoption. It also diminishes limited street maintenance monies available to small cities. On many streets there are no storm drains and no available public Rights of Way in which to install treatment devices.

TRASH EXCLUDERS REQUIRED ON CATCH BASINS

Trash excluders are required to be installed in high trash areas such as commercial, industrial and around schools within one year of adoption. In some watersheds we will have effective end of pipe trash collection and do not want to install expensive high maintenance trash excluders. Since Fillmore does not have a Trash TMDL imposed the Board should allow the City to address the trash issue the way it sees best instead of prescribing a specific method such as "trash excluders in catch basins." Trash excluders are still under development and are very experimental. If the Board will allow the installation of trash excluders in Fillmore until the next

permit cycle their design will be better defined and installation and maintenance cost will have come down. Page 76 Part 5.G.I.5.(e).

MONITORING COSTS FOR NUTRIENT TMDL ARE EXCESSIVE

TMDL monitoring requires about 24 tests per year from each of the 8 major storm drains in the City (192 tests per year). This testing will cost about \$16,000 per year and never ends even if the testing determines the storm waters are not discharging nutrients. The City requests the testing be revised as follows:

1. Monitor two representative storm drains for wet and dry weather flow when the flow joins the flowing waters of the Santa Clara River or Sespe Creek. Provide 3 wet weather tests and monthly dry weather testing.

If unusually high nutrient levels are discovered with the testing Board staff has the ability to require more testing using Water Code 13267. Typically for 5 to 6 months of the year the dry weather flows do not join flowing water in the Santa Clara River or Sespe Creek but percolates into the ground within a few feet of the storm drain outlet. The nutrient TMDL relates only to surface water not ground water so monitoring should not be required when flows do not join with surface flow.

The 192 monitoring samples per year in this draft Storm Water NPDES permit drastically increases the Nutrient TMDL monitoring plan submitted by the City March 22, 2005 which requires 4 tests per year. Page 87 Part 6.IV.1.(b) and Part 7.V.1(b).

ADDITIONAL TIME TO MODIFY PROGRAM

~~With the limited staff in Fillmore it is difficult to make the magnitude of changes required in the permit to our ordinances and General Plan. Therefore we are requesting 3 years instead of one to modify storm water programs, codes, General Plan, etc.~~

DUPLICATE SANITARY SEWER OVERFLOW RESPONSE PLAN

This draft permit requires the City to provide a spill response plan for Sanitary Sewer Overflows (SSO's). This is a redundant requirement that is already contained in the NPDES and WDR permits for the Sewage System. Repeating this requirement in the Storm Water NPDES permit only means that the RWQCB will receive two notifications of the same spill and two reports must be submitted by the City for the same spill. The Sewage Treatment Staff is different from the Storm Water Pollution Staff and don't administer the Storm Water NPDES permit so this requirement doubles the effort and risk of reporting error when spills occur. If the Board needs two copies of the report they should handle that internally not require two City departments to make separate reports on the same event. Page 76 Part 5.G.I.5.(g).

PRESCRIPTIVE BEST MANAGEMENT PRACTICES

The permit provides a process for the City to appeal the prescriptive BMP's. But the State should not be prescribing the treatment processes in the first place. First: because the State assesses the City mandatory minimum penalties for failure of a State mandated BMP. Second:

The State doesn't know the local conditions nor the most economical way to achieve treatment.

If the State persists in prescribing BMP's then another exclusion needs to be added that reads:
"The RWQCB prescribed BMP will endanger life and property." Page 35, Part 5.A.2.

ILLEGAL EFFECTIVE DATE REQUIREMENT ON TRACT AND PARCEL MAPS

The permit establishes an effective date for the permit to regulate projects. This is in direct conflict with the State Map Act with regard to tract and parcel maps which are subject to State law existing at the time of application. The City is limited by State law and cannot implement this provision. Page 51, Part 5.E.II.3

RELIEF FROM PAYMENT TOWARDS STUDIES AND MONITORING

The permit currently requires small communities (Phase II size cities) to contribute to studies, plans and monitoring in the same proportion as larger cities (Phase I size cities). However under EPA Phase I and Phase II program Phase II communities are not required to perform such tasks. The Board could provide significant financial relief to small cities such as Fillmore by excluding them from paying for this work. This would not reduce the studies, plans or monitoring to be performed but would relieve small communities from having to pay for them.

We believe this is in the spirit of the establishment of the Phase I and Phase II program in that the larger communities would fund research and development and small communities would do implementation when costs have come down and effectiveness has increased. If the Board would excuse small communities this would save Fillmore \$4,000 per year on the existing permit. This is a large cost for Fillmore.

Fillmore is being required to implement storm water treatment measures far in excess of what is required for Phase II Communities. Fillmore is separated from other communities by miles of green belt and is truly a qualifying Phase II City. It would be quite appropriate for the permit to designate reduced requirements for Communities in Ventura County that qualify as Phase II Communities.

The City also strongly supports the joint comments made in the joint co-permittee letter submitted by the Ventura County Watershed Protection District.

Your consideration of these issues is greatly appreciated.

Very Truly Yours
CITY OF FILLMORE



Steve Conaway, Mayor

cc: Mrs. Tracy Egoscue, Executive Officer
City Council

EXHIBIT A

DRAFT 2008 NPDES PERMIT BUDGET

STORM WATER NPDES PERMIT BUDGET FOR NEW PERMIT 2008														
PAGE	PERMIT REFERENCE	Description of Task	EFFORT - Hours per year											
			First two years of Outside Purchases Materials Services ETC.	Ongoing Outside Purchases Materials Services ETC.	ENGINEER	FINANCE DIRECTOR	CITY ATTORNEY	PUBLIC WORKS	PLANNER	FIRE (Business Inspections)	BUILDING & SAFETY	PUBLIC INFORMATION OFFICER	FIRST TWO PERMIT YEARS TOTAL ITEM COST	FUTURE YEARS ONGOING COST TOTAL
22	Part 1.F.12	Install treatment BMP's on all 6 36" + storm drain outlets	\$ 14,025,200.00		\$ 123.00	\$ 111.00	\$ 250.00	\$ 61.00	\$ 86.00	\$ 74.00	\$ 59.00	\$ 65.00	\$ 15,190,600.00	
22	Part 1.F.12	Install treatment BMP's in within the existing City	\$ 13,341,081.60		6,000	200	40	500	1,000		300	200	\$ 13,381,381.60	
27	Part 1.B.1.(b)(10), Table 1	Police swimming pool discharges			4000	100	40	Included in capital cost	40		20	500	\$ 590.00	\$ 550.00
30	Part 4.B.3	Review and update Storm Water ordinance			24		16		10		5		\$ 8,127.00	
33	Part 4.C.1.(a)	Prepare and maintain annual storm water pollution budget			40	24	2	12	8	4	4	2	\$ 10,182.00	\$ 10,182.00
34	Part 4.E	Principal Permittee	\$ 100,000.00	\$ 30,000.00									\$ 100,000.00	\$ 90,000.00
34	Part 4.F.1.(a)	Committee Meetings			150			60	60	36		36	\$ 32,394.00	\$ 32,394.00
36	Part 5.C.1.1	Residential outreach program	\$ 600.00	\$ 300.00	12			20	12	12	12	100	\$ 12,448.00	\$ 12,448.00
39	Part 5.C.1.2(b)	Business Assistance Program	\$ 400.00	\$ 200.00	40					200			\$ 20,120.00	\$ 19,920.00
39	Part 5.D.1.1	Industrial Commercial Facilities			20					200			\$ 17,260.00	\$ 17,260.00
41	Part 5.D.1.2(a)	Force BMP's at Commercial Localities			200		8		200	40	40		\$ 46,520.00	\$ 46,520.00
46	Part 5.D.1.2(b)	Individual Inspections			40					40			\$ 7,880.00	\$ 7,880.00
47	Part 5.D.1.3 & 4	Progressive Enforcement BMP's for City Projects, Pool, P.O. Parking Lot, Promenade	\$ 100,000.00		120	8	100		100	100	100		\$ 96,300.00	\$ 89,300.00
51	Part 5.E.II.2(b)	Low Impact Development Formulation	\$ 10,000.00		100				20	20	4		\$ 14,286.00	
52	Part 5.E.II.2	Hydromodification	\$ 10,000.00		100				8				\$ 23,004.00	
56	Part 5.E.IV.1(a)	City BMP Maint. Cost on City Projects	\$ 240,000.00	\$ 40,000.00	100	8		850					\$ 305,038.00	\$ 105,038.00
57	Part 5.E.IV.2	BMP Tracking, Inspection & Enforcement	\$ 20,000.00		40	6	20	100					\$ 36,686.00	\$ 16,686.00
58	Part 5.E.IV.3	BMP Future Modifications	\$ 100,000.00	\$ 30,000.00	200	8	50	40	100				\$ 149,228.00	\$ 79,228.00
58	Part 5.E.IV.4	Alternative mitigation program	\$ 75,000.00	\$ 5,000.00	50	16	12		12				\$ 86,982.00	\$ 16,982.00
59	Part 5.E.IV.6	Technical Guidance manual			40								\$ 4,920.00	
60	Part 5.E.V.1.(a)	Update CEQA process			4		1		12				\$ 1,798.00	
61	Part 5.E.V.2.(a)	Update General Plan	\$ 10,000.00		80		4		100				\$ 29,640.00	
67	Part 5.F.I.6.(a)	Street Parking restrictions & BMP's	\$ 40,000.00	\$ 20,000.00	20			40					\$ 44,900.00	\$ 24,900.00
67	Part 5.F.I.7	Electronic Site Tracking System	\$ 15,000.00	\$ 5,000.00	20								\$ 17,460.00	\$ 7,460.00
68	Part 5.F.I.10.(a) & (b)	Refering violators to State	\$ 1,000.00	\$ 1,000.00	10		1		10				\$ 2,360.00	\$ 3,360.00
70	Part 5.F.I.10.(c)	Investigating Complaints	\$ 1,450.00	\$ 1,450.00	4			100	4	12	12		\$ 9,990.00	\$ 9,990.00
71	Part 5.G.I.1.(c)	State Permit for City Const.	\$ 18,000.00	\$ 18,000.00	10			300					\$ 37,530.00	\$ 37,530.00

EXHIBIT C



Data Set: Census 2000 Summary File 3 (SF 3) - Sample Data

Result contains 12 rows.

	P053001
	Households: Median household income in 1999
Ventura County, California	<i>VENTURA COUNTY AVE.</i> 59,666
Census Tract 3.01, Ventura County, California	49,683
Census Tract 3.02, Ventura County, California	42,269
Block Group 1, Census Tract 3.01, Ventura County, California	59,079
Block Group 2, Census Tract 3.01, Ventura County, California	53,000
Block Group 3, Census Tract 3.01, Ventura County, California	62,284
Block Group 4, Census Tract 3.01, Ventura County, California	49,423
Block Group 5, Census Tract 3.01, Ventura County, California	40,000
Block Group 1, Census Tract 3.02, Ventura County, California	51,250
Block Group 2, Census Tract 3.02, Ventura County, California	<i>UPPER MAIN ST.</i> 37,396
Block Group 3, Census Tract 3.02, Ventura County, California	<i>LOWER MAIN ST.</i> 32,935
Fillmore city, California	<i>CITY AVERAGE</i> 45,510

NOTE: A hyphen (-) indicates that data are not available for this geographic area for the selected data element (column) in your custom table. Please consult the Census 2000 Summary File 3 (SF 3) - Sample Data Technical Documentation (PDF 6.92MB) for more information.

EXHIBIT A

DRAFT 2008 NPDES PERMIT BUDGET

STORM WATER NPDES PERMIT BUDGET FOR NEW PERMIT 2008

PAGE	PERMIT REFERENCE	Description of Task	EFFORT - Hours per year											FUTURE YEARS ONGOING COST TOTAL		
			First two years of Outside Purchases Materials Etc.	Ongoing Outside Purchases Materials Services Etc.	ENGINEER	FINANCE DIRECTOR	CITY ATTORNEY	PUBLIC WORKS	PLANNER	FIRE (Business Inspections)	BUILDING & SAFETY	PUBLIC INFORMATION OFFICER	FIRST TWO PERMIT YEARS TOTAL ITEM COST			
73	5.G.1.2.(b)	State Permit for PW Maint. Yard	\$ 10,000.00	\$ 5,000.00	10			40							\$13,670.00	\$8,670.00
74	5.G.1.3.(a)	Divert Vehicle Wash Water to sewer	\$ 45,000.00		400	4		200			30				\$108,614.00	
74	5.G.1.4.(a)	Integrated Pest Management Program	\$ 30,000.00	\$ 5,000.00	20			100							\$38,560.00	\$13,560.00
74	5.G.1.4.(b)(7)	Implement alternate weed control strategies	\$ 67,000.00	\$ 10,000.00	10			4,000							\$12,230.00	\$255,230.00
75	5.G.1.5.(a)	Catchbasin designation			8			100							\$7,084.00	
76	5.G.1.5.(b)	Trash excluders at events	\$ 12,000.00	\$ 6,000.00	2			4							\$12,490.00	\$6,490.00
76	5.G.1.5.(c)	Trash cans at schools	\$ 5,000.00	\$ 500.00				150							\$14,150.00	\$9,650.00
76	5.G.1.5.(d)	Catchbasin Labels	\$ 600.00	\$ 300.00				50							\$3,650.00	\$3,350.00
76	5.G.1.5.(e)	Trash Excluders	\$161,700		400			100							\$217,000.00	
76	5.G.1.5.(f)	Quantify volumes cleaned from CB's			2			10							\$656.00	\$656.00
76	5.G.1.5.(g)	Spill Response Plan	\$ 2,000.00		10			40							\$5,670.00	
77	5.G.1.6.(b)	Road Maint. BMP's	\$ 4,000.00	\$ 2,000.00	4			70							\$8,762.00	\$6,762.00
77	5.G.1.7.(a)	State Permit for PW Maint.	\$ 10,000.00	\$ 5,000.00	10			40							\$13,670.00	\$8,670.00
79	5.G.1.10	Training			8	4	4	52	8	8	12				\$7,664.00	\$7,664.00
80	5.H.1.1	Illicit connection investigation	\$ 67,500.00		200	2		1,000							\$153,322.00	
80	5.H.1.2	Illicit connect public reporting			25			25							\$4,600.00	\$4,600.00
80	5.H.1.3	Illicit connect GIS, tracking system	\$ 25,000.00		100			100							\$43,400.00	\$18,400.00
82	5.I.	Reporting Program			200			100							\$30,700.00	
84	6.IV.(b)(1)	Wet weather monitoring	\$ 5,000.00	\$ 2,500.00	8			24							\$7,448.00	\$4,948.00
87	7.V.1.(b)(1)	Dry weather monitoring	\$ 12,000.00	\$ 6,000.00	8			56							\$16,400.00	\$10,400.00
SUB-TOTALS Cost per hour			\$ 28,553,551.60	\$ 193,250.00	\$1,875,627	\$42,180	\$74,500	\$505,263	\$151,008	\$48,544	\$32,627	\$54,470	838			
GRAND TOTALS			\$2,922,998	\$34,365,903	ON GOING ANNUAL COST =											

SUMMARY OF ANNUAL COSTS			
ONGOING ANNUAL COSTS	TOTAL ANNUAL COST	TOTAL MONTHLY COST	TOTAL COST IN FIRST TWO YEARS
\$987,098.00	\$2,233,849		\$34,366,903
\$233.45	\$ 821.30		
\$19.45	\$	\$ 68.44	

END OF PIPE TREATMENT FACILITIES**ENGINEERS ESTIMATE OF COST**

Prepared by: Bert J. Rapp, P.E. Public Works Director

Date: October 3, 2007

ITEM No.	DESCRIPTION	QTY.	UNIT	UNIT PRICE	TOTAL PRICE
1	Purchase 5 sites totaling 6 acres	6	AC	\$700,000	\$4,200,000
2	Clearing and Grubbing of Sites	5	LS	\$15,000	\$75,000
3	Storm Drain Diversion Structures	6	EA	\$30,000	\$180,000
4	24" Reinforced Concrete diversion pipes	3,800	LF	\$195	\$741,000
5	Pump Stations	4	EA	\$250,000	\$1,000,000
6	Electrical Service	4	EA	\$15,000	\$60,000
7	Earthwork - Cut and Fill	40,000	CY	\$20	\$800,000
8	Flood Protection Levee at Sunken Village	1.0	EA	\$1,000,000	\$1,000,000
9	Landscaping and Irrigation	10.8	AC	\$100,000	\$1,080,000
10	Trash Capture Screens	10	EA	\$25,000	\$250,000
11	Desilting Basins	20	EA	\$20,000	\$400,000
12	Site Access	5	EA	\$30,000	\$150,000
13	Interpretative Plaques, Storm Water Education	6	EA	\$3,000	\$18,000
14	Permits	8	EA	\$8,000	\$64,000
	SUBTOTAL =				\$10,018,000
	CONTINGENCY (20%) =				\$2,003,600
	Design Engineering and Construction Management (20%) =				\$2,003,600
	TOTAL =				\$14,025,200

**PARKWAY BIO-RETENTION RAIN GARDENS IN THE EXISTING CITY
ENGINEERS ESTIMATE OF COST**

Prepared by: Bert J. Rapp, P.E. Public Works Director

Date: October 3, 2007

Assume work will be performed in small segments as residents participate in the program

ITEM No.	DESCRIPTION	QTY.	UNIT	UNIT PRICE	TOTAL PRICE
COST PER 50' PARKWAY RAINGARDEN					
1	Cut Curb Opening & Replace with Gutter	4	LF	\$35	\$140
2	Concrete Curb Along Sidewalk	50	LF	\$30	\$1,500
3	Excavate 2' Replace with Fill Sand	24	CY	\$100	\$2,400
4	Sidewalk Bridge over Rain Garden	1	EA	\$1,000	\$1,000
5	Landscaping and irrigation	300	SF	\$2	\$600
	SUBTOTAL =				\$5,640
	CONTINGENCY (20%) =				\$1,128
	Design Engineering and Construction Management (20%) =				\$1,128
	TOTAL per 50' Section of Parkway Rain Garden =				\$7,896
<p>There are 32 miles of street in the untreated portion of the City. Parkway Bio-retention areas are needed to supplement the End of Pipe Treatment to meet MALs. Some of the treatment can be met with home owner installed rain gardens in thier front or back yards. Assume 25% of the length of the street must have Parkway Bio-retention. Therefore 16 miles of Parkway Bio-retention are assumed to be needed.</p>					
TOTAL for 16 miles of Parkway Rain Garden =		16	MILES	\$7,896	\$13,341,082

TRASH EXCLUDERS AND CLEANUP
ENGINEERS ESTIMATE OF COST
 Prepared by: Bert J. Rapp, P.E. Public Works Director
 Date: October 8, 2007

ITEM No.	DESCRIPTION	QTY.	UNIT	UNIT PRICE	TOTAL PRICE
1	Install Trash Excluder in Curb Opening Catchbasin	55	EA	\$2,100	\$115,500
2					
3					
4					
5					
	SUBTOTAL =				\$115,500
	CONTINGENCY (20%) =				\$23,100
	Design Engineering and Construction Management (20%) =				\$23,100
	TOTAL				\$161,700

Trash cleanup at storm drain outlets					
Item		Man Hours	Unit	Cost per Hour	Total
1	North Fillmore	3	HR	\$ 61.00	\$ 183.00
2	First Street & Meadowlark	4	HR	\$ 61.00	\$ 244.00
3	Blue Jay	3	HR	\$ 61.00	\$ 183.00
4	E Street	3	HR	\$ 61.00	\$ 183.00
5	Los Serenos	2	HR	\$ 61.00	\$ 122.00
6	D St.	3	HR	\$ 61.00	\$ 183.00
7	C St.	4	HR	\$ 61.00	\$ 244.00
8	B St.	4	HR	\$ 61.00	\$ 244.00
9	A St.	5	HR	\$ 61.00	\$ 305.00
10	Central Ave.	5	HR	\$ 61.00	\$ 305.00
11	Pole Creek	4	HR	\$ 61.00	\$ 244.00
	TOTAL PER STORM	40			\$ 2,440.00
	Assume 6 clean ups per year				\$ 14,640.00