FY 2014 - 2018 Capital Improvement Program Sewers and Storm Drains

Priority	Description	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
1	Preventive Maintenance - Sewer System FY 2011 - 2015 (76901)	3,850,954	2,250,954	800,000	800,000	0	0	0
2	Preventive Maintenance - Corrugated Metal Pipe Storm Drains FY 2011 - 2015 (76902)	1,100,000	700,000	200,000	200,000	0	0	0
3	Preventive Maintenance - Curbs and Gutters FY 2011 - 2015 (76903)	2,046,685	1,546,685	500,000	0	0	0	0
4	Storm Drain Structure Repairs and Improvements FY 2011 - 2015 (76904)	450,000	270,000	90,000	90,000	0	0	0
5	NPDES - Storm Water Pollution Prevention Program (76290)	2,670,000	1,820,000	350,000	250,000	250,000	0	0
6	Drainage Improvements on Streets with Flat Grades FY 2011 - 2015 (76905)	800,000	400,000	200,000	200,000	0	0	0
7	Rehabilitation of Arroyo Parkway Storm Drain from Holly Street to South City Limit (76538)	1,637,000	1,246,000	0	0	0	0	391,000
8	Sewer Capacity Upgrades - FY 2011 - 2015 (76906)	2,382,909	1,282,909	800,000	300,000	0	0	0
9	El Mirador Tract Storm Drain (76390)	917,400	610,302	0	0	0	0	307,098
Tota	al	15,854,948	10,126,850	2,940,000	1,840,000	250,000	0	698,098

Sewers and Storm Drains

Preventive Maintenance - Sewer System FY 2011 - 2015

76901

Priority 1	Project No 76901	o. Description Preventive Maintenance - Sewer System FY 2011 - 2015	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
	Private C	apital - 218 La Mirada Road	954	954	0	0	0	0	0
	Sewer Ma	aintenance and Construction Fund	3,850,000	2,250,000	800,000	800,000	0	0	0
	Total		3,850,954	2,250,954	800,000	800,000	0	0	0

Maintenance to Sewer System



DESCRIPTION: This project provides for the systematic repair, rehabilitation, or replacement of the City's sewer collection system. The system consists of 311 miles of sewer pipes ranging in size from 6-inch to 30-inch in diameter.

JUSTIFICATION: Although cleaned and maintained on a regular basis, the system is aged and suffers from a variety of defects. Pipes are subject to breakage from wear and tear, earthquake movements, improper installation, protruding house connections, and chemical corrosion.

SCHEDULE: Work will be conducted based on the findings of the yearly sewer inspection and evaluation.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Land Use Element by continuing to implement capital improvements which will maintain or rehabilitate infrastructure.

IMPACT ON THE NORTHWEST: Approximately 25 percent of this project is located in Northwest Pasadena which is an area that has been targeted for revitalization.

HISTORY: This project was created and received initial funding in FY 1990 as project number 76267. The project was segmented into five year increments starting in FY 2011. A new five year phase of this project will be created in FY 2016.

Sewers and Storm Drains

Preventive Maintenance - Corrugated Metal Pipe Storm Drains FY 2011 - 2015 76902

Priority 2	Project No. 76902	Preventive Maintenance - Corrugated Metal Pipe Storm Drains FY 2011 - 2015	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
	Sewer Ma	aintenance and Construction Fund	1,100,000	700,000	200,000	200,000	0	0	0
-	Total		1.100,000	700,000	200,000	200,000	0	0	0

Corrugated Metal Pipe



DESCRIPTION: This project provides for the inspection and systematic lining or replacement of portions of corrugated metal pipe (CMP) storm drains throughout the City. The City has 6,456 lineal feet of CMP storm drains that were installed from 1925 to 1953. Several of these drains are rusted and are in immediate need of repair.

JUSTIFICATION: The old corrugated metal pipes are an integral part of the City's storm drain system. Many of these pipes are in various stages of deterioration depending on their slope, age, and the type of soil surrounding them. Some of the CMPs have been televised to determine the extent of deterioration. Repair priorities will be based upon the need to protect each slope.

SCHEDULE: In FY 2014, repair or rehabilitation of failed pipes will continue based on the evaluation of the FY 2007 video inspection results.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan in that the City is almost fully built out and the drainage system elements, particularly older facilities, are subject to ongoing repair, replacement, or modification.

IMPACT ON THE NORTHWEST: Approximately five percent of this project is located in Northwest Pasadena which is an area that has been targeted for revitalization.

HISTORY: This project was created and received initial funding in FY 1995 as project number 76473. The project was segmented into five year increments starting in FY 2011. A new five year phase of this project will be created in FY 2016.

Sewers and Storm Drains

Preventive Maintenance - Curbs and Gutters FY 2011 - 2015 76903

Priority 3	Project N 676903	o. Description Preventive Maintenance - Curbs and Gutters FY 2011 - 2015	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
	Private C	apital	796,685	796,685	0	0	0	0	0
	Sewer Ma	aintenance and Construction Fund	1,250,000	750,000	500,000	0	0	0	0
	Total		2,046,685	1,546,685	500,000	0	0	0	0

Preventative Maintenance - Curbs and Gutter



DESCRIPTION: This project provides for the annual repair of broken or raised concrete curbs and gutters along City streets.

JUSTIFICATION: The curb and gutter system is an integral part of the City's drainage system by conveying surface runoff to the appropriate drainage structure. It also protects the streets from water seepage which will prevent early deterioration of the street surface. The majority of the necessary repairs are due to tree roots uplifting the curbs and gutters.

SCHEDULE: Curb and gutter repair will continue in advance of resurfacing streets as needed.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by encouraging a high level of maintenance of existing facilities. It also encourages quality public service through efficient management.

SPECIAL CONSIDERATION: Funding deficiencies do not allow for the repair of all needed curbs and gutter in advance of slurry seal.

IMPACT ON THE NORTHWEST: A portion of this project is located in Northwest Pasadena which is an area that has been targeted for revitalization.

HISTORY: This project was created and received initial funding in FY 1989 as project number 76358. The project was segmented into five year increments starting in FY 2011. A new five year phase of this project will be created in FY 2016.

Sewers and Storm Drains

Storm Drain Structure Repairs and Improvements FY 2011 - 2015

76904

Priority 4	Project No. 76904	Storm Drain Structure Repairs and Improvements FY 2011 - 2015	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
	Sewer Ma	aintenance and Construction Fund	450,000	270,000	90,000	90,000	0	0	0
	Total		450,000	270,000	90,000	90,000	0	0	0

Damaged Storm Drain



DESCRIPTION: This project provides for the repair of damaged storm drain structures and minor improvements of storm drain facilities at various locations throughout the City on an ongoing basis.

JUSTIFICATION: Existing damaged, substandard, or missing structures result in inefficient operation and create risk-prone facilities.

SCHEDULE: This is an ongoing project and work will be done on an as needed basis.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by encouraging a high level of maintenance of existing facilities. It also encourages quality public service through efficient management.

IMPACT ON THE NORTHWEST: Approximately 15 percent of this project is located in Northwest Pasadena which is an area that has been targeted for revitalization.

HISTORY: This project was created and received initial funding in FY 1990 as project number 76283. The project was segmented into five year increments starting in FY 2011. A new five year phase of this project will be created in FY 2016.

FY 2014 - 2018 Capital Improvement Program Sewers and Storm Drains

NPDES - Storm Water Pollution Prevention Program 76290

Priority 5	Project No. Description 76290 NPDES - Storm Water Pollution Prevention Program	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
•	Sewer Maintenance and Construction Fund	2,670,000	1,820,000	350,000	250,000	250,000	0	0
	Total	2.670.000	1.820.000	350,000	250 000	250,000	0	0

NPDES Catch Basin



DESCRIPTION: This project provides for the implementation of procedures and the installation of devices to prevent the pollution of storm water citywide. Various items of work will be done annually to comply with the schedule contained in the National Pollutant Discharge Elimination System (NPDES) permit and the trash and metal Total Maximum Daily Load (TMDL), including the continuation of the installation of the trash capture system and televising of larger storm drain pipes for illegal connections.

JUSTIFICATION: The NPDES permit issued by the Regional Water Quality Control Board requires the City to take steps necessary to reduce and/or eliminate pollution in storm water runoff. This project provides for the management, compliance and implementation of the permit.

SCHEDULE: In FY 2014, work will be done as needed to meet the conditions of the NPDES permit.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Land Use Element by continuing to implement capital improvements which will maintain or rehabilitate infrastructure.

IMPACT ON THE NORTHWEST: Portions of this project are located in Northwest Pasadena which is an area that has been targeted for revitalization.

HISTORY: This project was created and received initial funding in FY 2004. Construction of the first phase of catch basin modifications to comply with the Trash TMDL was completed in FY 2009. Construction of the second phase of catch basin modifications was completed in FY 2012.

Sewers and Storm Drains

Drainage Improvements on Streets with Flat Grades FY 2011 - 2015

76905

Priority 6	Project No. 76905	Drainage Improvements on Streets with Flat Grades FY 2011 - 2015	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
	Sewer Ma	aintenance and Construction Fund	800,000	400,000	200,000	200,000	0	0	0
	Total		800,000	400,000	200,000	200,000	0	0	0

Curb Drainage



DESCRIPTION: This project provides for drainage improvements on streets with flat grades throughout the City. The work involves the reconstruction of curb, gutter, and pavement as necessary to correct drainage problems.

JUSTIFICATION: Many streets in the City have flat longitudinal grades. The roots of street trees have uplifted the curb, gutter, and pavement on the streets creating areas of ponding water. Standing water is a serious health and safety nuisance requiring elimination.

SCHEDULE: In FY 2014, construction will be completed at the following locations:

- Arbor Street Grand Avenue to Orange Grove Boulevard
- Santa Barbara Avenue Lake Avenue to El Molino Avenue
- State Street Pasadena Avenue to Avoca Avenue
- Wyoming Street Lincoln Avenue to Mentone Avenue
- Villa Street Sierra Bonita Avenue to Allen Avenue
- Boston Court Lake Avenue to Mentor Avenue
- Claremont Street Sunset Avenue to Fair Oaks Avenue
- Kenneth Way Coniston Avenue to north end of Coniston Avenue
- Claremont Avenue Catalina Avenue to Wilson Avenue
- Ranch Top Road Hasting Ranch Drive to Carriage House Road
- Wellington Avenue Lida Street to Bryant Street
- Mentor Avenue California Boulevard to Cornell Avenue

RELATIONSHIP TO THE GENERAL PLAN: This project is consistent with the Public Facilities Element Objective 5 of the General Plan by continuing to implement capital improvements which will maintain or rehabilitate infrastructure.

IMPACT ON THE NORTHWEST: Portions of this project are located in Northwest Pasadena which is an area of the City that has been targeted for revitalization.

FY 2014 - 2018 Capital Improvement Program Sewers and Storm Drains Drainage Improvements on Streets with Flat Grades FY 2011 - 2015

76905

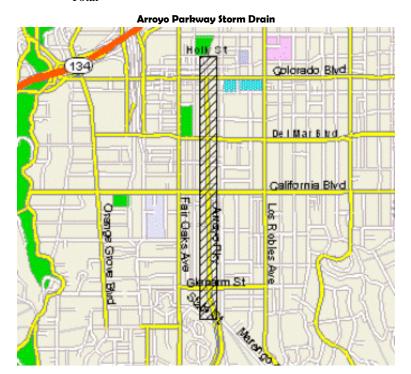
HISTORY: This project was created and received initial funding in FY 2005 as project number 76508. The project was segmented into five year increments starting in FY 2011. A new five year phase of this project will be created in FY 2016. In FY 2011, the following flat streets were designed and reconstructed: Wyoming Street - Forest Avenue to Lincoln Avenue; Las Lunas Street - Hill Avenue to Allen Avenue; and Loma Vista Street - Allen Avenue to Palo Verde Avenue. In FY 2012, the following flat streets were designed and reconstructed: Paloma Street - Hill Avenue to Allen Avenue; Elizabeth Street - Holliston Avenue to Hill Avenue; Pinehurst Drive - Wentworth Avenue to Hillcrest Avenue; Atchison Street - Los Robles Avenue to Madison Avenue; Pepper Street - Sunset Avenue to east end; La Mesa Place - Prospect Avenue to Armada Drive; and Del Monte Street - Arroyo Boulevard to Forest Avenue.

Public Works Department

Sewers and Storm Drains

Rehabilitation of Arroyo Parkway Storm Drain from Holly Street to South City Limit 76538

Priority 7	Project No. 76538	o. Description Rehabilitation of Arroyo Parkway Storm Drain from Holly Street to South City Limit	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
•	Sewer Ma	aintenance and Construction Fund	1,637,000	1,246,000	0	0	0	0	391,000
	Total		1.637.000	1.246.000	0	0	0	0	391,000



DESCRIPTION: This project provides for the repair of defects on the Broadway storm drain. The Broadway storm drain is a large, concrete arch storm drain in Arroyo Parkway between Holly Street and the south city limit.

JUSTIFICATION: An inspection of the Broadway storm drain in 2003 revealed numerous and significant defects such as extensive exposure and deterioration of reinforcement steel. Repair of the defects will ensure that the top of the storm drain does not deteriorate and collapse.

SCHEDULE: Construction of Phase III (from one manhole north of Glenarm Street to Glenarm Street) will be completed in FY 2014.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with Land Use Element Policy 7.4 by continuing to implement capital improvements which will maintain or rehabilitate infrastructure, including improvements related to upgrading the sewer system.

HISTORY: This project was created and received initial funding in FY 2006. Design of Phase I (Del Mar to one manhole north of Glenarm) was completed in FY 2008 and construction was completed in FY 2010. Design of Phase II from Del Mar Boulevard to Colorado Boulevard was completed in FY 2010, and construction was completed in FY 2011. Design of Phase III (from one manhole north of Glenarm to Glenarm) began in FY 2011 and was completed in FY 2013.

FY 2014 - 2018 Capital Improvement Program Sewers and Storm Drains Sewer Capacity Upgrades - FY 2011 - 2015 76906

Priority 8	Project No. Description 76906 Sewer Capacity Upgrades - FY 2011 - 2015	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
	Private Capital	232,909	232,909	0	0	0	0	0
	Sewer Facility Charge	1,950,000	850,000	800,000	300,000	0	0	0
	Sewer Maintenance and Construction Fund	200,000	200,000	0	0	0	0	0
	Total	2,382,909	1,282,909	800,000	300,000	0	0	0

Work on Villa Street



DESCRIPTION: This project provides for the replacement or repair of 8.5 miles of existing sewer pipes that are hydraulically deficient. This five year project will continue to address the remaining deficiencies at the following locations:

- 1. Sierra Madre Boulevard from Colorado Boulevard to Mohawk Street
- 2. Colorado Boulevard from Grand Oaks Avenue to 225 feet west of Sierra Madre Boulevard
- 3. Forest Avenue from Hammond Street to Everts Street
- 4. Parke Street from Garfield Avenue (west) to Garfield Avenue (east)
- 5. Villa Street from Wilson Avenue to Mar Vista Avenue
- 6. Hampton Road at Hastings Ranch Drive
- 7. Hastings Ranch Drive from Newhaven Road to 110 ft south of Newhaven Road
- 8. Del Mar Boulevard from Euclid Avenue to Los Robles Avenue
- 9. Colorado Boulevard from Hudson Avenue to Lake Avenue
- 10. Altadena Drive from Dudley Street to 77 feet south
- 11. Sierra Madre Boulevard from Medford Road to Hastings Ranch Drive
- 12. Sunset Avenue from 78 feet south of Glorieta Street to 22 feet southeast of Poplar Lane
- 13. North Garfield Avenue from Villa Street to Maple Street
- 14. Hill Avenue from Monte Vista Street to Maple Street
- 15. Hill Avenue from Orange Grove Boulevard to Monte Vista Street
- 16. Green Street from Mills Place to Fair Oaks Avenue
- 17. De Lacey Avenue from Valley Street to Orange Place
- 18. Orange Place from De Lacey Avenue to Fair Oaks Avenue
- 19. Del Mar Boulevard from Fair Oaks Avenue to Raymond Avenue
- 20. Annandale golf course sewer east of Patrician Way

FY 2014 - 2018 Capital Improvement Program Sewers and Storm Drains Sewer Capacity Upgrades - FY 2011 - 2015 76906

- 21. Nithsdale Road from San Rafael Avenue to San Miguel Road
- 22. Laguna Road from Lagunita Road to south of Hermosa Road
- 23. La Loma Road from Laguna Road to 150 feet west
- 24. Laguna Road from La Loma Road to 300 feet south
- 25. Laguna Road from La Loma Road to 600 feet north
- 26. Laguna Road from Burleigh Drive to San Rafael Avenue
- 27. Laguna Road from Hermosa Road to Arroyo Boulevard
- 28. Arroyo Boulevard from San Rafael Avenue to 68 feet south of Columbia Street
- 29. Arroyo Boulevard from 200 feet north of Bellefontaine Street to 888 S Arroyo Boulevard
- 30. South Marengo Avenue from 900 feet south of Euclid Avenue to 600 feet north of Los Robles Avenue
- 31. South Marengo Avenue from Euclid Avenue to 750 feet south
- 32. Green Street north from El Molino Avenue to Oak Knoll Avenue
- 33. Green Street south from Hudson Avenue to 220 feet west
- 34. Green Street south from Shoppers Lane to Mentor Avenue
- 35. Green Street south from west of Catalina Avenue to Hill Avenue
- 36. Michillinda Avenue from Mayfair Drive to Foothill Boulevard
- 37. Fair Oaks Avenue from Glenarm Street to State Street
- 38. Columbia Place from State Street to Columbia Street
- 39. Columbia Street from Pasadena Avenue to Columbia Place
- 40. Glenarm Street from Fair Oaks Avenue to Raymond Avenue
- 41. Glenarm Street from Marengo Avenue to 300 feet east
- 42. Fair Oaks Avenue from Arlington Drive to Glenarm Street
- 43. Los Robles Avenue from Alpine Street to Glenarm Street
- 44. Los Robles Avenue from 250 feet north of Alpine St to 500 feet north of Alpine Street
- 45. Fillmore Street from Los Robles Avenue to Oakland Avenue
- 46. California Boulevard from Madison Avenue to El Molino Avenue
- 47. Mentor Avenue from Cornell Road to 320 feet south
- 48. Linda Vista Avenue from Mira Vista Terrace to 400 feet north
- 49. Green Street south sewer east of Marengo Avenue
- 50. El Molino Avenue from 40 feet to 56 feet south of Villa Street
- 51. Hill Avenue from Villa Street to 426 feet south

JUSTIFICATION: The Master Sewer Plan (MSP) adopted by the City Council on January 22, 2007, identified specific improvements required to accommodate current and future demands on the system. The construction of these improvements will improve the reliability of the sewer system and reduce the need for extraordinary maintenance and monitoring of sewer segments that meet or exceed desirable operating levels.

SCHEDULE: In FY 2014, sewer capacity upgrades will be done at Green Street from Mills Place to Fair Oaks Avenue, and Michillinda Avenue from Mayfair Drive to Foothill Boulevard.

FY 2014 - 2018 Capital Improvement Program Sewers and Storm Drains Sewer Capacity Upgrades - FY 2011 - 2015 76906

7.8

RELATIONSHIP TO THE GENERAL PLAN: This project is consistent with the Public Facilities Element Objective 5 of the General Plan by continuing to implement capital improvements which will maintain or rehabilitate infrastructure.

IMPACT ON THE NORTHWEST: Portions of this project are located within Northwest Pasadena which is an area of the City that has been targeted for revitalization.

HISTORY: This project was created and received initial funding in FY 2008 as part of project number 76999 with a total estimated cost of \$16,295,330. This project was segmented into five year increments starting in FY 2011 as project number 76906. A new five year phase of this project will begin in FY 2016.

The following work has been completed since FY 2011:

- Los Robles Avenue 100 feet north of Parke Street to Villa Street COMPLETED FY 2011;
- Sierra Madre Boulevard Hastings Ranch Drive to Medford Avenue COMPLETED FY 2011:
- Villa Street Wilson Avenue to Mar Vista Avenue COMPLETED FY 2011;
- Garfield Avenue Villa Street to Maple Street COMPLETED FY 2011; and
- Parke Street Garfield Avenue (west) to Garfield Avenue (east) COMPLETED FY 2011
- Del Mar Boulevard from Euclid Avenue to Los Robles Avenue COMPLETED FY 2012;
- Altadena Drive from Dudley Street to 77 feet south COMPLETED FY 2012;
- Hill Avenue from Villa Street to 426' south COMPLETED FY 2012;
- Hasting Ranch Drive from Newhaven Road to 110 ft south of Newhaven Road -COMPLETED FY 2012;
- El Molino Avenue from Villa Street to 40 feet south of Villa Street COMPLETED FY 2012;
- Forest Avenue from Hammond Street to Everts Street COMPLETED FY 2013;
- Hill Avenue from Las Lunas Street to Villa Street COMPLETED FY 2013;
- Sunset Avenue from 78' south of Glorieta Street to 22' southeast of Poplar Lane COMPLETED FY 2013.

Public Works Department

FY 2014 - 2018 Capital Improvement Program Sewers and Storm Drains El Mirador Tract Storm Drain 76390

Priority Project No. Description 9 76390 El Mirador Tract Storm Drain	Total Estimated Costs	Appropriated Through FY 2013	Adopted FY 2014	Proposed FY 2015	Proposed FY 2016	Proposed FY 2017	Proposed FY 2018 and Beyond
Private Capital	610,302	610,302	0	0	0	0	0
Unfunded	307,098	0	0	0	0	0	307,098
Total	917,400	610,302	0	0	0	0	307,098



DESCRIPTION: The developer of the El Mirador Tract (No. 41465) did not complete all of the storm drain requirements for this subdivision. This project provides for the completion of the storm drain system per the Los Angeles County Public Works Department's standards, which includes construction of debris barriers, modification of debris basins and storm drains, and miscellaneous punch list work as well as easement preparation and processing.

JUSTIFICATION: Completion of this storm drain system will eliminate flooding during rainstorms and will control the potential debris resulting from a fire/flood cycle. This system will be maintained by the County when completed.

SCHEDULE: The current scope of this project will be reviewed by the Los Angeles County Public Works Department and a new cost estimate will be developed. Scheduling will depend upon the results of this review.

RELATIONSHIP TO GENERAL PLAN: This project is consistent with the Public Facilities Element of the General Plan by enhancing the delivery of a high level of public services as a means of maintaining or improving the City's urban environment and raising the quality of life for its residents. It is also consistent with the Mobility Element by providing drainage systems for new development.

HISTORY: This project was created in FY 1993. Through litigation, the City was awarded a judgment, and the private funds were received in FY 2000.