

**City of Carlsbad**

**Storm Water Pollution Protection Program**

**Regulatory Fee Study Report**

**September 12, 2003**

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## **Executive Summary**

In compliance with the City's National Pollutant Discharge Elimination System (NPDES) permit, the City was tasked with developing mechanisms to provide permanent financing for the costs to implement its Storm Water Pollution Prevention Program. Two years ago a City storm water financing team (financing team), comprised of members from the Finance Department, City Attorney's Office and Public Works MSA, was established to develop and pursue viable financing alternatives. Last year the team oversaw the preparation of a Storm Water Pollution Prevention Program Alternative Financing Mechanism Study Report. The recommendations of the report were presented to the City Leadership Team to obtain direction on which financing alternative to pursue.

The Leadership Team subsequently recommended a two phased financing strategy. The first phase envisioned development of some form of utility and/or solid waste service rate increases and the establishment of new fees for the review and inspection of construction and business related Storm Water Pollution Prevention Plans (SWPPP's). The second phase of the strategy envisions the formation of a Storm Water Utility and establishment of a new citywide storm water utility fee.

This Regulatory and Fee Study Report was prepared by the City financing team in satisfaction of the first phase of the Leadership Team's strategy. After a considerable amount of research and analysis of the alternatives, the financing team recommends adoption of a new rate structure for the solid waste service program to recoup the majority of the Storm Water Pollution Prevention Program costs together with establishment of a new development processing fee to fund the review and inspection of construction related SWPPP's.

Research done by the financing team supports a conclusion that nearly all the pollutants of concern to the Environmental Protection Agency regarding storm water discharges are classified as solid waste by definition found within existing State law and local ordinance. (See Public Resources Code Section 40191; Carlsbad Municipal Code Sections 6.08.010A (6)(8)(13)(18) (22)(26)). The Carlsbad Municipal Code (CMC) defines "solid waste services" as "the collection, transport, and disposal of solid waste and designated recyclables, including yard waste, from residential, commercial, and industrial generators." (CMC 6.08.010(23). Therefore the costs to remove transport and dispose of such wastes is a legitimate solid waste program expenditure recoverable through the collection of fees assessed to solid waste service users throughout the City. Solid waste service fees can be increased by an approving City Council resolution adopted at a duly notice public hearing (CMC 6.08.180).

Furthermore, refuse collection service fees are excluded from the voting provisions of Proposition 218. (Ca. Const. Art. XIII C, D). Specifically, California's Constitution, Article XIID, Section 6(c), excepts new or increased "fees or charges for sewer, water and refuse collection services" from the broad voter approval requirements of this Article.

This report includes supporting facts and findings for allocating storm water pollution prevention program activity costs between solid waste service users and non-users. Activities involving the removal, transport and disposal of solid waste pollutants deposited on public streets and within City rights-of-way are apportioned to solid waste service users based upon their respective percentage of usage of the City's public street network. This percentage was calculated by dividing the number of lane miles required to exclusively serve the circulation needs of local land uses by the total number of lane miles of streets within the City.

Costs for pollution prevention activities associated with City owned drainage facilities and the general administration of the storm water program are apportioned to solid waste service users based upon their proportionate share of the solid waste deposited within the City's drainage collection system. In this manner, only users of developed property, that contribute to the storm water solid waste pollutant loading over and above normal undeveloped levels of loading, pay their fair share of drainage facility cleanup and program administration costs. The remaining share of facility maintenance and storm water program administrative costs attributable to undeveloped properties will continue to be paid from the City's General Fund until such time as the properties develop or the City establishes a storm water utility.

After determining a fair share allocation of storm water costs attributable to solid waste service users for each storm water program activity, it was necessary to spread the costs between residential and commercial service users based upon their respective contribution to the solid wastes deposited within the City's storm drainage system. For all but one of the applicable storm water pollution prevention program activities, the apportionment of the fair share costs between residential and commercial service users was made using the ratio of total annual curbside service fee revenues between residential and commercial solid waste service customers. This ratio roughly approximates the ratio of solid waste generated by residential and commercial service users that finds its way into the City's storm drainage collection system. The one storm water pollution prevention activity cost not apportioned in this manner was for the business related SWPPP inspection program. Since the business related SWPPP inspection program is exclusive to commercial users, 100% of the costs for this activity were spread to commercial solid waste service users.

This methodology of allocating and spreading costs resulted in a residential user solid waste rate increase of approximately 13.4% or \$1.95 per month per residential customer. The currently monthly charge for residential curbside service is \$14.52. The increase to commercial rate payers calculates to approximately 15.1%. To put this in more perspective, a commercial ratepayer with two - 3 cubic yard bins emptied twice weekly would see a monthly increase of approximately \$41 from \$274.38 to \$315.81. The total amount of revenue generated from the proposed rate increase to solid waste service users would be approximately \$1.3 million dollars per year. All revenues generated from the increase in solid waste service fees recommended in this report will be placed in a specific storm water pollution prevention fund to be used solely for the purpose of storm water pollution prevention.

This report also presents a fee study analysis justifying imposition of a new processing fee to fund the City's staff review and inspection of construction related Storm Water Pollution

Prevention Plans (SWPPP's). A construction related SWPPP is an NPDES-required document that developers submit to the City that outlines the developer's plan to stem and prevent storm water pollution from leaving the construction site. The report recommends establishment of separate plan review and inspection fees for each of three different categories of development - single family detached, multi-family attached and mobile home and, commercial/industrial. For the two residential project categories, the proposed fee includes a base rate for the first lot/unit with a reduced rate for subsequent lots/units. Commercial and industrial developments will pay a uniform charge per lot. The proposed plan is to require payment of the review fee concurrent with the initial submittal of the SWPPP for City review. The inspection fee would be paid prior to issuance of the grading, right-of-way or building construction permit, whichever occurs first.

The following table presents the proposed fee structure for the review and inspection of construction-related SWPPP's:

Development Category	Proposed Fee			
	Plan review		Inspection	
	Initial Lot/Unit	Subsequent Lot/Unit	Initial Lot/Unit	Subsequent Lot Unit
Single Family Detached	\$210	\$70	\$230	\$120
Multi-family Attached and Mobile Homes	\$210	\$35	\$230	\$70
Commercial/Industrial	\$280	\$280	\$400	\$400

Given the current development schedules, the total estimated annual revenue to be generated from the construction related SWPPP review and inspection fee for FY 2003-04 is \$72,000 and \$114,000 respectively for a total of \$186,000.

## **Regulatory Background**

The City of Carlsbad is one of twenty co-permittees in San Diego County subject to National Pollutant Discharge Elimination System (NPDES) Order No. 2001-01 (the Order) issued by the San Diego Regional Water Quality Control Board (SDRWQCB). The Order was issued under the authority of the Federal Clean Water Act and NPDES permit CAS0108758. It requires the City to enforce federal law and the orders of the SDRWQCB to reduce pollution that enters the waterways from developed property, whether public or privately owned.

Although the Order and the response required of the co-permittees are sometimes referred to as the “storm water program”, it has received that name only because it is the storm drainage system that channels the pollutants carried from the developed surfaces of public and private property. In fact, with the exception of thermal pollution (warm water discharge) all of the pollutants may be defined as solid waste pursuant to State and City Codes. (See Public Resources Code Section 40191; Carlsbad Municipal Code Sections 6.08.010A (6)(8)(13)(18) (22)(26)). Therefore, prevention, reduction, removal, transport and disposal of the pollutants found in storm water and other drainage flows can be considered part of the City’s solid waste handling services.

Pollutants such as grass clippings, leaves, animal waste, manure, dirt, grime, ashes, brake dust, tire shavings, trash and other debris and even liquids such as soap and cleaners are defined as solid wastes by City Code (Carlsbad Municipal Code Sections 6.08.010A (6)(8)(13)(18) (22)(26)). Whether such pollutants are washed from the property by storm water or potable water runoff, swept, blown or otherwise removed from a property by wind, hand or mechanical blower or, shaken and abraded from a vehicle driving down the street, their removal and disposal from streets and other parts of the storm drainage system are considered an integral part of the City’s solid waste removal program.

Each user of developed property in the City is served by the City’s storm drainage system. As used in this report the City storm drainage system includes all municipally owned and operated storm drainage facilities including storm drain pipes, inlets, outlets, access holes, retention, sedimentation and pollutant control basins, ditches, channels (lined and unlined) and energy dissipaters. Also to be considered included are the public roads and other impervious surfaces within the public right-of-way used to convey drainage flows to City storm drains, channels, ditches and other drainage watercourses. The Clean Water Act, as implemented by the Order, now imposes new and substantially increased requirements to reduce pollutants entering the City’s storm drainage conveyance system. The new obligations to the City imposed by the State and Federal government were established without provision of any funding to meet the program costs for storm water cleanup.

## **City Solid Waste Service Area**

The City provides refuse collection service to the users of developed property within the full extent of the City limits (For the purposes of this report, refuse collection, trash collection and solid waste service may be used interchangeably). The owners of undeveloped property do not pay solid waste service fees. A regulatory fee added to the solid waste services (trash

collecton) bill for storm water pollution prevention activities would be paid only by those who are using developed property, the same users that contribute pollutants to the receiving waters via the City's storm drainage system.

City utility (water and sewer) and solid waste service fees are billed together within a single bill for those areas inside the City's utility service areas. Outside the boundaries of the City's utility service areas, solid waste service fees are billed separately by the City's waste management company. Solid waste service fees are the only City service fee billed to all users of developed property throughout the full extent of the City limits. Although, such billing is currently split between the City and the City's waste management company.

### **Storm Water Pollution Prevention Activities**

In compliance with the Order, the City has prepared several regulatory documents that define the activities required by the City to meet the water quality objectives of the Clean Water Act. There are three basic documents required by the Order, a Jurisdictional Urban Runoff Management Program (JURMP), a Watershed Urban Runoff Management Program (WURMP) and a Standard Urban Storm Water Mitigation Plan (SUSUMP). A brief description of each document and its purpose can be found in the glossary at the end of this report. The basic storm water pollution prevention activities described in and required by these three documents are listed in Table 1.

Over the past two years the City has seen a significant rise in costs required to provide and maintain the level of storm water pollution protection activities required by the Order. Many of the storm water pollution prevention activities performed by the City were being carried out prior to issuance of the Order but generally at a more reduced level than currently required such as street sweeping and inlet cleaning. Other activities are completely new and are still within the early implementation stage such as the preparation, review, inspection and implementation of storm water pollution prevention plans (SWPPP's).

To better manage the increasing costs of this new program, the City established a special revenue account for storm water protection activities within the Operating Budget. The total costs listed in the Fiscal Year 2003-04 Budget for storm water protection activities is \$1,244,750. However, the budget figures in the special revenue account do not account costs for all the activities listed above. Cost for some of the activities such as maintenance of the various municipal facility SWPPP's, inspection of construction related SWPPP's, storm event preparations, GIS updates and litter removal are included in other Public Works budgets. The cost for some activities such as the inspection of business-related SWPPP's are not fully funded in the current budget since the program is presently in the early stages of development.

Table 2 was prepared to capture and display all of the storm water pollution prevention activity costs regardless of budgetary location. The table headings include the activity description, unit cost, number of units occurring in an average year, the yearly total for the activity, current budget location by department and the current funding source for the activity. The left hand column identifies the various activities, as described above (and in some cases is further broken down into sub-activity categories). For most activities, the unit costs listed

under this heading are actual budgeted amounts. For those programs being developed, such as the SWPPP preparation and inspection activity, the costs represent the amount estimated to ensure compliance with the Order. The total yearly cost to perform all activities required by the Order is \$1,611,527.

An equitable method of sharing the storm water pollutant reduction costs requires users of developed property in the City to bear a fair share allocation of the costs in reasonable proportion to their pollutant contribution and/or benefits received. The use of developed property, whether public or private, creates the pollution that requires cleanup imposed by the Order. Undeveloped property generates little of the pollutants of concern and its owners should not bear any of the fees or charges proposed in this report.

Table 1
Street Sweeping – Public Streets and Parking Lots
Litter Removal – Public rights-of-way and City Properties
Storm Water Facility Cleaning and Maintenance - Public Facilities including: <ul style="list-style-type: none"> <li>▪ Inlets</li> <li>▪ Sedimentation and Floodwater Retention Basins</li> <li>▪ Channels</li> <li>▪ Pipes</li> </ul>
Storm Event Activities – Filling and Placement of Sandbags, Patrolling and Clean-up
Illicit Connection and Illegal Discharge Enforcement Program <ul style="list-style-type: none"> <li>▪ Dry Weather Testing of Storm Sewer Outfalls</li> <li>▪ Investigations</li> <li>▪ Enforcement</li> </ul>
Storm Water Pollution Prevention Plan (SWPPP) – Preparation, Review, Inspection and Implementation of Plans to Limit Pollution from: <ul style="list-style-type: none"> <li>▪ Construction Related Activities</li> <li>• Municipal Facility Operations</li> <li>• Business-Related (Commercial/Industrial) Operations</li> </ul>
Public Education and Outreach
Program Administration Including: <ul style="list-style-type: none"> <li>▪ Annual Reporting</li> <li>▪ Maintenance of Storm Sewer Geographical Information System (GIS) Database</li> <li>▪ Updating of Drainage and Storm Water Quality Master Plan</li> <li>▪ Wet Weather Testing</li> <li>▪ General Administration Including Payment of Annual Permit Fees</li> </ul>

**Table 2**

Activity	Unit Cost	Units	Unit Count	Current Yearly Budget	Current Budget Location	Current Fund Source
<b>Public Street and Parking Lot Sweeping</b>						
Streets	\$149,069	LS	1	\$149,069	Streets/Storm	General Fund
Parking lots	\$11,931	LS	1	\$11,931	Facilities	General Fund
<i>Public Street and Parking Lot Sweeping Total</i>				<b>\$161,000</b>		
<b>Litter Removal</b>						
Litter Removal	\$216	CY	350	\$75,621	Streets	General Fund
<i>Litter Removal Total</i>				<b>\$75,621</b>		
<b>Storm Drainage Cleaning and Light Maintenance</b>						
<b>Inlets</b>						
Inspection and Cleaning	\$31.81	EA	3500	\$111,342	Storm Water	General Fund
Fossil filter replacements	\$12,500	EA	1	\$12,500	Storm Water	General Fund
<i>Inlets Subtotal</i>				<b>\$123,842</b>		
<b>Basins</b>						
Inspection and Cleaning (Note 1)		EA	3	\$0	None	N/A
<i>Basins Subtotal</i>				<b>\$0</b>		
<b>Channels</b>						
Brow ditch	\$0.53	LF	18750	\$10,013	Storm Water	General Fund
Large Channels	\$0.80	LF	14800	\$11,766	Storm Water	General Fund
<i>Channels Subtotal</i>				<b>\$21,779</b>		
<b>Pipes and Gutters</b>						
Video Inspections	\$20,000	LS	1	\$20,000	Streets	General Fund
Cleaning (Storm Drain/Brown Ditch)	\$45.76	SH	103	\$4,713	Parks	General Fund
Gutter Cleaning	\$25.17	SH	120	\$3,020	Streets	General Fund
<i>Pipes and Gutters Subtotal</i>				<b>\$27,733</b>		
<i>Storm Drainage Cleaning and Maintenance Total</i>				<b>\$173,354</b>		
<b>Storm Event Activities</b>						
Sandbag stockpiling (Note 1)		EA		\$0	Streets	General Fund
Patrols	\$26.71	SH	1000	\$26,713	Streets	General Fund
<i>Storm Event Total</i>				<b>\$26,713</b>		
<b>Illicit Connection/Illegal Discharge Enforcement Program</b>						
Dry Weather Testing	\$50,000	LS	1	\$50,000	Storm Water	General Fund
Enforcement	\$1,300	LS	1	\$1,300	Storm Water Streets, City Atty	General Fund
Administration/Supervision	\$145,400	LS	1	\$145,400	Storm Water	General Fund
RFA/Complaints	\$35,200	LS	1	\$35,200	Storm Water	General Fund
<i>Illicit/Illegal Enforcement Program Total</i>				<b>\$231,900</b>		
<b>Storm Water Pollution Prevention Plans (SWPPP's)</b>						
<b>Construction Related SWPPP</b>						
Plan Review	\$90,973	EA	1	\$90,973	Storm Water	General Fund
Inspection	\$113,982	EA	1	\$113,982	Engineering	General Fund
<i>Construction Related SWPPP Subtotal</i>				<b>\$204,955</b>		
<b>Business Related SWPPP (Industrial/Commercial)</b>						
Inspection	\$36,250	LS	1	\$36,250	Storm Water	General Fund
Administration	\$69,800	LS	1	\$69,800	Storm Water	General Fund
<i>Business Related SWPPP Subtotal</i>				<b>\$106,050</b>		
<b>Municipal Facility SWPP (Note 2)</b>						
SWPP Implementation		LS		\$0	Streets Parks	General Fund
Testing and Reporting		LS		\$0	Streets Parks	General Fund
<i>Municipal Facility SWPPP Subtotal</i>				<b>\$0</b>		
<i>All SWPPP Activities Total</i>				<b>\$311,005</b>		
<b>Miscellaneous Activities</b>						
Annual Reporting (JURMP)	\$20,500	LS	1	\$20,500	Storm Water	General Fund
GIS Updates	\$10,000		1	\$10,000	Engineering GIS	General Fund
Wet Weather Testing/Coastal lagoon Outfall Monitoring	\$205,000	LS	1	\$205,000	Storm Water	General Fund
Administration (General)	\$307,964	LS	1	\$307,964	Storm Water	General Fund
NPDES Permit Fee	\$10,000		1	\$10,000	Storm Water	General Fund
Public Education/Outreach	\$78,470	LS	1	\$78,470	Storm Water Streets, PW Adm	General Fund
<i>Miscellaneous Activities Total</i>				<b>\$631,934</b>		
<b>Program Totals</b>				<b>\$1,611,527</b>		

Note 1 - Not Available - Program still in development stages

Note 2 - Not Available. Amounts to be determined next fiscal year. This amount will not affect fees being charged to end users.

## **Storm Water Pollution Prevention Financing Alternatives**

As shown in Table 1 the city presently funds all storm water protection activities from the General Fund. The increase in program costs over the past several years has put a strain on the General Fund and will over time force reductions in other City services. To prevent this from happening, new sources of program funding must be developed. In FY 2001-02, the City commissioned an Alternative Financing Mechanism Study, which was subsequently prepared by the consulting firm of Brown and Caldwell. The recommendation of the financing study, as amended by the City Leadership Team, is to pursue four separate funding sources.

The first of these sources is the establishment of new processing fees for the review and inspection of SWPPP's for construction related activities and business-related commercial/industrial activities. The second source is the establishment of new and/or increased fines and levies against storm water code violators. The third source is to impose utility surcharges on the City's water, sewer and/or solid waste service bills to pay for those storm water activities reasonably related to the provision of utility and solid waste services. The fourth source is the creation of a new storm water utility charge to pay for property related storm water activities and potentially for major repair and replacement of storm water collection and treatment facilities. This report is concerned only with the establishment of new construction related SWPPP processing fees and imposition of solid waste service surcharges.

One of the Leadership Team recommendations was not to pursue the imposition of fines and levies at this time. At this stage of the storm water program, enforcement of the regulations is being carried out on a cooperative basis a gain voluntary compliance from, for example illicit discharges into the City's storm water drainage system.. Failing that, the City has the means to enforce compliance through its already-established code enforcement process. Eventually as the program progresses, the City will want to establish a more aggressive fine and levy mechanism to recoup all its enforcement costs.

Another recommendation of the Leadership Team was to delay the creation of a storm water utility and establishment of a storm water utility fee. Establishment of a storm water utility fee is subject to the requirements of California Constitution Articles XIII C and D (as amended by Proposition 218). Articles XIII C and D essentially make it mandatory to submit any new property-related service fee or charge to a vote of the electorate or property owners. Water sewer and solid waste service fees are specifically exempt from the voting provision of the Articles.

Establishing of a storm water utility will require either a two thirds approving vote of the general electorate or a simple majority vote of the property owners subject to the fee or charge. The process of establishing a storm water utility is lengthy and requires a considerable amount of public education to obtain a successful vote. Staff will proceed with the formation of a storm water utility during FY 2003-04 at City Council's discretion. In the interim, the Leadership Team recommended establishment of the new SWPPP processing fees and imposition of surcharges upon existing water, sewer and/or solid waste service bills.

## **Justification for Surcharges to Utility and Solid Waste Service Rates**

Imposition of utility surcharges to provide storm water protection services has been carried out by other agencies without the need for a Proposition 218 vote. The main reason for this is that storm water facilities and their respective maintenance operations perform a bilateral function. Historically, storm drainage facilities have served to protect property from flooding. As such they collect and control the rainwater that falls onto properties in a manner that reduces the likelihood of flooding. The amount of runoff is directly related to the size of the property and amount of impermeable surface upon the property. For this reason a fee or charge for the flood control function of storm drainage facilities can be considered a property-related fee subject to Proposition 218.

The passage of the Clean Water Act has increasingly led to the use of storm drainage facilities for a secondary function, that of storm water pollution prevention. The Clean Water Act regulations as expressed in the Order established strict requirements for the cleaning and maintenance of inlets, sedimentation basins and storm water pipes, testing and monitoring of storm water and drainage flows, removal of litter and sweeping of streets, erosion control, illicit connection and illegal discharge detection and, reporting and general administration of cleanup activities. However, unlike flood control, the storm water pollution prevention function of storm drainage facilities is directly related to the development and use of a property and not the property itself. For example, a fast food restaurant generates significantly more pollution/solid waste than does a single family residence.

The Order does not seek to control runoff for native, undeveloped property; however it should be understood that even undeveloped property creates a certain amount of pollutants. Eroded soils and vegetative matter escape undeveloped property and find their way into the waterways. This undeveloped or native pollutant loading is generally considered to be beneficial and comprises the ecological base line for a lagoon or waterway. However, further addition of soils and vegetative matter, addition of different types of vegetative matter and addition of new pollutants created by development and use of properties is considered non-beneficial and potentially ecologically damaging to waterways.

Water, sewer and solid waste (refuse collection) services are not purchased by property owners, as owners, but as users of property. The charge for water, sewer and solid waste services is not per parcel, but according to the amount or volume of the service purchased and used. The charge can be avoided by discontinuing the use. For these reasons, a surcharge on water, sewer and/or solid waste service fees is not a "property-related" fee or charge as that term is used within Articles XIII C and D of the California Constitution (and Proposition 218).

There is a reasonable relationship between the use of potable water and the creation and transport of pollution into the City's storm sewer system. There is also a reasonable relationship between the generation of solid waste and other pollutants from the use of a property and its unintentional or intentional transport into the City's storm drainage system. It is fair and reasonable that a portion of the costs of cleaning the storm drainage waters be borne by users of potable water and/or solid waste services. It is the use of developed

properties that generate the solid waste and other pollutants, and it is the use or misuse of potable water that increases the generation of solid waste and helps to transport such wastes and other pollutants into the City's storm sewer system and ultimately into the waterways the Clean Water Act seeks to protect.

Because the City's water service area covers roughly 80% of the City's incorporated boundary, development of a water rate surcharge would not extend to all developed properties within the City. Imposition of a water rate surcharge would, therefore, create both a shortfall in revenue and an inequity of payment by users. Fortunately, the City has a superior alternative, the imposition of a rate increase for solid waste services.

### **Solid Waste Service Fees Authority and Justification**

Nearly all the constituents that make up the pollutants discharged into the City's storm sewer system qualify as solid waste under the definitions established in State and local codes. City Code Section 6.08.010 (A)(22). defines solid waste as meaning "putrescible and nonputrescible solid, semisolid and liquid wastes, generated in or upon residential or commercial premises, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, construction and demolition wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, dewatered, treated, or chemically fixed sewage sludge which is not hazardous waste, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes." This definition is consistent with the Public Resources Code Section 40191 definition of solid waste.

Pursuant to City Code, the City Council is authorized to establish rates and fees to be paid for regular solid waste services by resolution (Carlsbad Municipal Code Section 6.08.180). The City Code definition of solid waste services includes the collection, transport and disposal of solid waste and designated recyclables, including yard waste, from residential, commercial and industrial generators (Carlsbad Municipal Code Section 6.08.010(A)(23)).

The primary constituents that make up the pollutants of concern that enter the City's storm drainage system generally originate from one of the following sources:

- 1) The use of developed property within the City
- 2) Construction activities related to the development or redevelopment of property
- 3) The use, development or redevelopment of property in other jurisdictions
- 4) Travelers visiting or passing through the City for either commercial or non-commercial purposes
- 5) Natural sources from within and outside the City (soot from brush fires, native vegetative matter, soil erosion, etc)

Of primary concern to this study are the pollutant constituents originating from source numbers 1 and 2 listed above. The cleanup and prevention of these pollutants account for the vast majority of costs expended by the City for storm water pollution prevention activities.

Consistent with Article XII D Section 6(c), rates or fees established to collect, transport and dispose of these solid waste pollutants from developing and developed properties within the City can legitimately be charged to solid waste service users as a regulatory fee.

A fee or charge for the cleanup of airborne pollutants, originating from other jurisdictions and dispersed over all properties in the City (regardless of their use) or, for pollutants originating from natural sources, whether they occur on developed or undeveloped property, could be construed as property related fee and subject to the voting provisions of Article XIII D of the California Constitution. However, as will be described later in this report, the volume of such airborne pollutants is negligible in comparison to the volume of pollutants from sources 1 and 2, above, and the costs to cleanup airborne pollutants does not significantly increase the City's cost to clean up solid wastes from sources 1 and 2..

This study does not address cost recovery for water borne pollutants originating from outside the City or from travelers passing through the City. Such costs are not attributable to users of developed or developing property within the City and therefore cannot be reasonably charged to solid waste service users within the City. However, costs to clean up solid waste and other pollutants generated from travelers that visit developed properties within the City can be charged to solid waste service users within the City.

The City currently charges a solid waste service fee to the owners of all developed property within the City including those used for residential, commercial and industrial purposes. The City's current fee structure for solid waste services was established on the basis of curbside collection and does not include any cost recovery for the collection, transport or disposal of 'fugitive' solid waste originating from the use of developed property. However, as mandated by the Clean Water Act, the City is now required to exercise its authority to prevent the discharge of such 'fugitive' solid waste from entering the storm water drainage system and to the maximum extent practicable collect, transport and dispose of those solid wastes that enter into the storm drainage system via storm water runoff or other property drainage.

Note: For the purposes of this study, 'fugitive' solid waste is solid waste generated by the use or users of developed property, which leaves developed property by the action of wind, water, mechanical or human means, and which is not otherwise carried away by curbside solid waste collection services or deposited in a legal dumpsite. Fugitive solid waste includes, but is not limited to, liquid, semisolid and solid wastes including pesticides, herbicides, oil, soapy water, leaf litter, lawn clippings, foodstuff, pet waste, brake dust, tire rubber, paint chips, dust, hair, glass, metal, paper, plastic and dirt

All of the storm water pollution prevention activities listed in Table 1 of this report can in whole or in part be reasonably charged to solid waste service users except for costs related to the preparation, review, inspection or implementation of Storm Water Pollution Prevention Plans (SWPPP's). The costs for SWPPP review and inspection for development/construction projects and business-related commercial or industrial activities will be addressed separately in later sections of this report. The costs for SWPPP preparation and implementation for City owned public facilities will be borne by the City's General Fund or other operating funds as determined by City Council and are not addressed in this report.

## **Solid Waste Service Fee Rate Increase Computation**

### Legal mandates –

As noted in the preceding section with the exception of the preparation, review, inspection and implementation of SWPPP's, all the other activities listed in Table 1 are solid waste services. However, not all the costs for these solid waste collection activities can reasonably be charged to existing solid waste service users within the City via a service fee rate increase. Some portion of the costs could be considered property related and as such their imposition may require a vote of the electorate or property owners in compliance with Articles XIII D of the State Constitution. Other costs are not attributable to the solid waste service users in the City and could not be reasonably charged such users.

The imposition of new or increased service fees must:

- 1) Be based upon the actual costs of providing the service for which the fee is being charged. Said another way, the fee or charge shall not exceed the funds required to provide the service.
- 2) Be reasonably related to the service being provided
- 3) Have a 'nexus' or rough proportionality to use or size of the property/development.

Consistent with the California Integrated Waste Management Act of 1989, (Public Resources Code section 40000 et seq.), the city "may determine aspects of solid waste handling which are of local concern, including, but not limited to, frequency of collection, means of collection and transportation, level of services, charges and fees, and nature, location, and extent of providing solid waste handling services." (Public Resources Code section 40059). In addition, Public Resources Code section 41901 requires the city to comply with Government Code section 66016 when setting and collecting local solid waste fees.

Pursuant to Section 66016 of the California Government Code, prior to levying a new service fee or increasing an existing service fee, a local agency must hold at least one open and public hearing at which oral and written presentations can be made. The meeting must be noticed a minimum of 14 days in advance and the action creating the fee or fee increase must be taken by ordinance or resolution. Since the City Council has previously adopted a solid waste service fee ordinance, a fee increase may be established by resolution pursuant to City Code Section 6.08.180.

### Existing Solid Waste Fee Structure –

While relatively simple for residential service, the fee structure for commercial service is much more complex involving multiple potential bin sizes, pick-ups per week and recycle needs. Table 3 on the following pages detail the City's current fee structure for solid waste services:

**Table 3**  
**Existing Solid Waste Fee Structure**

Residential Service (Per month):

Residential Curbside Service: \$14.52  
 Residential Backyard Service: \$19.70

Commercial Service (per month):

Number of Bins (3yd)	Number of Pick-ups per Week					
	1	2	3	4	5	6
1	\$74.92	\$137.19	\$199.46	\$261.73	\$324.00	\$386.27
2	\$149.84	\$274.38	\$398.92	\$523.46	\$648.00	\$772.54
3	\$224.76	\$411.57	\$598.38	\$785.19	\$972.0	\$1158.81

Added Cost per Bin Dump					
Size of Bin	2yd	3yd	4yd	5yd	6yd
Cost	\$26.00	\$35.00	\$42.00	\$49.00	\$56.00

Commercial Can Service:

Curbside service: \$25.10 1x per week  
 (Up to four (4) 32 gallon cans) \$50.20 2x per week  
 \$75.30 3x per week

Backyard Service:

(Up to four (4) 32 gallon cans) \$35.70 1x per week  
 \$71.40 2x per week

Recycling:

- Non-Residential Commercial Accounts: \$11.65/month/per container per pick-up
- 96 Gallon Waste Wheels for Non-residential commercial accounts 1x per week service Glass or commingled commodities only. (No limit)
- Multi-family Waste Wheelers provided at No-Charge (No limit)

Yard Waste Recycling:

Number of 3yd Bins	1x per Week	2x per Week
1	\$73.73	\$130.57
2	\$146.86	\$261.14
3	\$220.29	\$391.71

Mixed Paper & Cardboard Recycling 3-yard Bin Service:

No. Bins	Number of Pick-ups per Week				
	1	2	3	4	5
1	\$51.00	\$86.00	\$121.00	\$156.00	\$186.00
2	\$102.00	\$172.00	\$242.00	\$312.00	\$372.00

It should be noted that the above tables do not include the solid waste charges for temporary bins for special hauls or construction waste. Such charges are generally for one time short duration uses and therefore are not considered in any potential rate increases. Also not included in any potential rate increase are costs for miscellaneous services or drop off recycling. Only those costs for regular services provided to users at their place of residential or commercial use were considered for the proposed rate increases.

Solid Waste Fee Revenues and Expenditures –

As stated in the above sections, the City collects solid waste service fees from residential service users within the northern 80% of the City. By agreement, the remaining fees are collected by the City’s solid waste hauler, Coast Waste Management. The bulk of the revenues generated from solid waste service fees go directly to Coast Waste Management to operate the curbside collection of commercial and residential refuse and recyclable wastes. The remaining revenue (9.5% of the total revenue collected) goes to the City as a franchise fee (7.5%) and AB 939 fees (2%). The AB 939 fees are additional charges added to the solid waste service fee to pay for recycling and waste reduction programs mandated by California Assembly Bill No. 939.

The total amount of solid waste revenues generated during Fiscal Year 2002-03 was \$11,668,003. The City’s share of the revenues (franchise fee plus AB 939 fee) is \$1,108,460. The City budget for Solid Waste Services for FY 2002-03 was \$234,410. The current fiscal year budget is \$276,761. The total average number of residential solid waste service customers within Carlsbad for FY 2002-03 time period was 25,110.

The following table shows the distribution of solid waste service fee revenues collected by both the City and Coast Waste Management for FY 2002-03:

Service User	City	Coast Waste	Total
Residential	\$2,983,894	\$1,551,209	\$4,535,103
Rolloff*	\$0	\$2,395,126	\$2,395,126
Commercial	\$0	\$4,737,774	\$4,737,774
Totals	\$2,983,894	\$8,684,109	\$11,668,003

\* Rolloff Service Users are those requesting large sized waste bins on a one-time basis to remove remodel, construction and other special waste removal needs.

**Cost Apportionment –**

The remainder of this section provides the justifications for apportioning the costs of the City’s storm water pollution protection activities to the City’s solid waste service fee in accordance with all legal mandates for imposition of new or increased service fees as discussed above.

***Street Sweeping –***

The City’s street sweeping program is divided into two categories – sweeping of public roads and sweeping of parking lots. The cost of sweeping public parking lots is a direct result of the public use of the property and therefore should not be added to the solid waste fee.

The majority of the costs for sweeping public roads can and should be apportioned to solid waste service users. The City’s entire local road network and a certain percentage of its arterial network were constructed for the sole purpose of serving developed properties that front upon or otherwise access the network. Virtually all of the solid waste materials swept from City streets originate from the use of developed properties. A certain percentage of the wastes may originate from airborne pollutants generated from outside the City, from travelers passing through the City or from undeveloped properties.

In determining the proper allocation of costs to the various generators of the solid waste swept from City streets, several reasonable assumptions must be made. First, it is assumed that the volume of waste generated from airborne pollutants originating outside the City’s developed land base is negligible in comparison to the waste generated from local developed properties and does not add significant costs to the collection, transport or disposal of the solid waste collected through sweeping of City streets. Therefore, no cost allocation will be attributed to this source. The second assumption is that the general purpose of City roads is to serve the needs of developed property both within and outside the City, therefore, the removal of solid waste accumulations generated from undeveloped properties should be borne by the users of

developed property and not the owners of undeveloped property. In other words, without developed property there is no need for paved roads and without paved roads there is no need to remove the sediments and vegetative matter typically generated from undeveloped land.

The third assumption, or perhaps more accurately set of assumptions, establishes the framework for allocating costs between City roadway travelers originating from (or destined for) developed property within the City and those travelers passing directly through the City. The first assumption is that those passing through the City by and large are using one of five regional arterial roads within the City, Carlsbad Boulevard, El Camino Real, La Costa Avenue, Palomar Airport Road or Rancho Santa Fe Road. The next assumption is that, absent regional traffic, users of local developed property would still require the use of at least two lanes of the aforementioned regional roadways to serve their local needs. The last assumption is that solid wastes accumulate more or less uniformly across the road network.

Using these assumptions, it can be found that the percentage of street sweeping costs attributable to City solid waste service users is roughly proportional to the percentage of street lane miles that directly serve the needs of local developed properties. Given that the total number of street lane miles within Carlsbad is 664 miles (excluding alleyways, freeways and private streets not included within the City's street sweeping program) and that the total number of lane miles needed to primarily service regional through traffic is 52 lane miles. Then, the total number of road lane miles required to service the needs of local land development uses is 612 miles (664 miles – 52 miles). The percentage of street sweeping costs attributable to solid waste service users located within Carlsbad is, therefore, 92% (612/664).

Given that the yearly cost to sweep the entire road network is currently \$149,069 and applying the percentage described above then, the fair share allocation of annual street sweeping costs attributable to solid waste service users within Carlsbad is \$137,143.

Assuming that the amount of solid waste swept from City streets is generated in rough proportionality to the amount of solid waste removed from developed properties using curbside solid waste collection services then, the fair share cost of the City street sweeping activities can be allocated amongst residential and commercial solid waste service users based upon their respective ratios of annual revenues to the total annual solid waste curbside collection revenues (excluding rollofs). The City's current yearly gross revenues for residential and commercial solid waste collection service is \$4,535,103 and \$4,737,774 respectively. The percentage of the total solid waste curbside collection revenues derived from residential uses is 49% and the percentage for commercial uses is 51%. Using these percentages to allocate the fair share costs for street sweeping results in an allocation of \$67,200 to residential service users and \$69,943 to commercial service users.

The following table depicts the proposed distribution of the annual costs for the City’s street sweeping activities:

Table 5 Street Sweeping Cost Allocation				
Street Sweeping Activity	Projected Yearly Expenditure	Residential Solid Waste Service Users	Commercial Solid Waste Service Users	General Fund or Other Fund Source
Public Roads*	\$149,069	\$67,200	\$69,943	\$11,926
Parking lots	\$11,931	\$0	\$0	\$11,931
Total	\$161,000	\$67,200	\$69,943	\$23,857

\* Excludes freeways and alleyways

***Litter Removal –***

A large percentage of the litter removed from City rights-of-way and other public places originates from users of developed property within the City or from travelers visiting, serving or being served by developed properties. Again a simplifying assumption will be made that the percentage of costs that can be apportioned to solid waste service users is roughly proportional to the percentage of street lane miles used for local development needs to the number of total lane miles in the City or 92%. Given that the City’s yearly expenditure for litter removal is \$75,621, the total litter removal cost that can be allocated to users of solid waste services is \$69,571.

The allocation of the \$69,571 in fair share litter removal costs between residential and solid waste service users can be made at the same ratio use to allocate the street sweeping costs. The table below shows the yearly litter removal costs and amounts allocated to the City’s solid waste service users and other funding sources.

Table 6 Litter Removal Cost Allocation				
Activity	Projected Yearly Expenditure	Residential Solid Waste Service Users	Commercial Solid Waste Service Users	General Fund or Other Fund Source
Litter Removal	\$75,621	\$34,090	\$35,481	\$6,050

***Storm Drainage Facility Cleaning and Light Maintenance –***

The cleaning and light maintenance of storm drainage facilities (inlets, pipes, channels and basins) is essentially a solid waste collection, removal and disposal activity. Heavy maintenance activities which include structural repairs and replacement of storm drainage facilities is not a function of solid waste servicing and therefore not included within the scope of this study. The primary constituents removed from the City’s inlets, pipes, channels and basins during light cleaning and maintenance are sediments, vegetative matter, trash and other refuse and a host of lesser minor pollutants. Such solid wastes primarily originate from developed and undeveloped properties within the City. As with solid waste swept from public streets, a small fraction of the solid waste removed from storm drainage facilities originates from air borne pollutants distributed over the City landscape; however, as discussed in the street sweeping section, the volume of air borne materials compared to the volume generated from properties within the City is negligible and does not materially add to the cost of the storm drainage facility cleaning activities. Therefore, the costs of removing transporting and disposal of solid waste removed from drainage facilities will be spread fully to residential and commercial solid waste service users. Heavy maintenance activities, which include structural repairs and replacement of storm drainage facilities by the City, is not a function of solid waste servicing and therefore not included within the scope of this study.

The following table depicts the distribution of current aggregate land use amongst developed and undeveloped lands within the City. Undeveloped lands are further broken down among potentially developable and permanent Open Space.

Current Property Use	Area in acres
Developed	12,457
Undeveloped	
Future Developable	6898
Permanent Open Space	5725

Unlike streets, storm drainage facilities serve the needs of both developed and undeveloped properties. Although storm drainage facilities are needed to primarily protect developed properties, they are sized to handle flows from all properties and carry storm water runoff from future developable properties. Sediments and vegetative matter generated from future developable property contribute to the solid waste loading of storm drainage facilities in rough proportionality to the percentage of acreage upstream of City drainage facilities.

For the most part, lands within permanent open space either encompass the City’s waterways or drain directly into the City’s waterway and thus, do not add to the solid waste load deposited within the City’s storm drainage system. Therefore, the costs to remove solid waste from City storm drainage facilities should not be allocated to permanent Open Space properties. The allocation of costs should be based solely upon the ratio of currently developed and future developable land to the total amount of developable land within the City. By using this cost allocation methodology, the percentage of storm drainage facility cleaning costs attributable to developed properties is found to be 64% (12,457/19,355) and the

percentage of costs attributable to undeveloped property is 36% (6,898/19,355). Given that the total annual storm drainage facility cleaning and maintenance cost is \$173,354, the amount allocated to solid waste service users is \$110,946 ( $\$173,354 \times 64\%$ ). The remaining amount attributable to undeveloped properties that will be allocated to the General Fund until such time as the properties develop is \$62,407.

The ratio of developed and future developable property within the City will be reviewed on an annual basis through the City’s Geographic Information System (GIS), and by confirming the number of building permits issued during the previous year. After this review is completed, City staff will re-allocate solid waste service user fees to reflect any changes in the ratio between developed and future developable properties in the City.

The following table presents the allocation of storm drainage facility cleaning and maintenance costs to the various proposed funding categories:

Activity	Projected Yearly Expenditure	Residential Solid Waste Service Users	Commercial Solid Waste Service Users	General Fund or Other Fund Source
Inlet Cleaning and Maintenance	\$123,842	\$38,837	\$40,422	\$44,583
Basin Cleaning and Maintenance*	\$0	\$0	\$0	\$0
Channel Cleaning and Maintenance	\$21,779	\$6,830	\$7,109	\$7,840
Pipes and Gutters Cleaning and Maintenance	\$27,773	\$8,697	\$9,052	\$9,984
Totals	\$173,354	\$54,364	\$56,583	\$62,407

\* Basin Cleaning Program not yet implemented.

***Storm Event Activities –***

Storm event activities include activities to prepare for and react to storm events such as filling and stockpiling of sandbags, patrolling of streets and drainage facilities during and after storm events and cleaning deposited mud, debris and other solid wastes from streets and storm drainage facilities. The same methodology used to allocate costs for cleaning and light maintenance of storm drainage facilities is used to allocate storm event activity costs to solid waste service users. This methodology provides rough proportionality in distributing costs in relation to the needs created by the users of such services.

The following table presents the allocation of costs for storm event activities within the various proposed funding categories:

Activity	Projected Yearly Expenditure	Residential Solid Waste Service Users	Commercial Solid Waste Service Users	General Fund or Other Fund Source
Storm Events	\$26,713	\$8,377	\$8,719	\$9,617

***Illicit Connection and Illegal Discharge Enforcement Program –***

The purpose of this program is to monitor for, detect and eliminate illegal and illicit solid waste discharges originating from developed properties within the City. Activities associated with the Illicit Connection and Illegal Discharge Enforcement Program include monitoring and testing of storm drainage outlets for the presence of solid waste pollutant discharges, investigation of citizen complaints regarding potential discharge of solid waste pollutants into City storm drainage facilities, monitoring of coastal lagoon outfall, conducting investigations to determine the source of illegal and/or illicit solid waste discharges and enforcement actions to abate illegal connections or illegal discharges to the City’s storm drainage system.

Since the primary purpose of the Illicit Detection and Illegal Discharge Enforcement Program is to find and eliminate solid wastes originating from developed properties, 100% of the costs for the testing, monitoring and complaint response work should be allocated to solid waste users. The fair share allocation of such costs between residential and commercial users will be made using the same ratios determined for the preceding discussion on storm water activities. Such distribution is roughly proportional to needs created by the solid waste service users within Carlsbad.

Once an illicit connection or illegal discharge has been discovered, then, the cost for the subsequent investigation and enforcement activity should be paid in whole by the illegal/illicit discharger. As stated earlier in this report, the City will initially conduct enforcement actions on a cooperative basis so imposition of new fines and levies to recoup these costs are not part of this study. Until such time that additional fines and levies are established to recoup these costs, the cost of the City’s investigation and enforcement activities for the Illicit Detection and Illegal Discharge Enforcement Program shall be borne 100% by the City’s General Fund. Some cost recovery may be possible if the City elects to process an enforcement action using existing code enforcement regulations.

The following table presents the proposed allocation of costs for the activities of the Illicit Detection and Illegal Discharge Enforcement Program to the various solid waste service users:

Activity	Projected Yearly Expenditure	Residential Solid Waste Service Users	Commercial Solid Waste Service Users	General Fund or Other Fund Source
Storm Drain Outfall Monitoring and Testing	\$50,000	\$24,500	\$25,500	\$0
Enforcement	\$1,300	\$0	\$0	\$1,300
Administration	145,400	\$71,246	\$74,154	\$0
Citizen Complaints	\$35,200	\$17,248	\$17,952	\$0
Totals	\$231,900	\$112,994	\$117,606	\$1,300

***Storm Water Pollution Prevention Plans (SWPPP's) –***

There are essentially three separate program activities related to the preparation, processing and enforcement of SWPPP's. These include plan review and inspection of construction related SWPPP's, review and inspection of business related (commercial/industrial) SWPPP's and implementation and monitoring of municipal facility SWPPP's. Plan review and inspection of construction related SWPPP's will be discussed separately later in this report under the section dealing with new development processing fees. The cost to implement and monitor municipal facility SWPPP's are a function of the use of the City's public facilities and no portion of such costs can be allocated to the solid waste users; therefore, 100% of such costs will be funded through the General Fund or other appropriate funding source.

The full cost to review and inspect business related SWPPP's can be allocated to commercial solid waste service users. Each commercial user within the City must be reviewed periodically to determine their potential solid waste and other potential pollutant handling and processing requirements. From these periodic reviews, the commercial businesses are categorized into high, medium and low priority facilities. The categorization for industrial sites is made based upon several factors including the type of business activity, materials used, wastes generated, pollutants discharge potential, non-storm water discharges, size of facility, proximity to receiving waters, sensitivity of receiving waters and other relevant factors. For non-industrial commercial sites, the Order contains a detailed list of high priority sites that must be inventoried and inspected on a regular basis.

Although wastes generated is but one of the many factors used to determine priority ranking for the purpose of conducting business related SWPPP reviews and inspections this factor can be used, for the sake of administrative simplicity, to determine a rough proportionality between needs created by the business activity and the SWPPP plan review and inspection services provided by the City. For this reason, costs associated with the review and inspection of business related SWPPP's are allocated within this study report to commercial solid waste

service users based upon a uniform increase in service fees to commercial solid waste service users. By using this allocation, commercial businesses that generate more solid waste pay a proportionally higher solid waste collection fee that in turn pays for the proportionally higher costs to review and inspect their business premises to ensure compliance with their SWPPP pursuant to the Order.

As additional support for this allocation methodology, it should be noted that one of the main activities performed by City staff during SWPPP compliance inspections is to ensure that the solid waste collection enclosures are clean, orderly and protected against storm water runoff and unintentional spills. The following table presents the proposed allocation of SWPPP review and inspection costs to the various solid waste service users:

Activity	Projected Yearly Expenditure	Residential Solid Waste Service Users	Commercial Solid Waste Service Users	General Fund or Other Fund Source
Construction Related SWPPP Review and Inspection	\$204,955*	\$0	\$0	\$204,955*
Municipal Facility SWPPP Monitoring and Implementation	N/A**	\$0	\$0	N/A**
Business Related SWPPP Review and Inspection	\$106,050	\$0	\$106,050	\$0
Totals	\$311,005	\$0	\$106,050	\$204,955

\* To be funded from new development service fee. See later section of this report.

\*\* Not available at this time. Program is still within implementation stage.

***Miscellaneous Storm Water Activities –***

There are several miscellaneous storm water activities required to properly administer the City’s storm water pollution prevention program in compliance with the Order. These activities include preparation of the annual JURMP report, maintenance of geographical information system (GIS) and other records, payment of the annual NPDES permit fee, participation in the required wet weather testing program, general administration of the program and, participation and maintenance of a public education and public outreach program. Since all of these activities are required solely due to use of developed property and because virtually all of the costs for the above mention miscellaneous activities arise from and benefit the users of the solid waste services provided by the City, then 100% of the costs for these activities should be allocated to the solid waste users.

Again, for the sake of administrative simplicity, the costs for the miscellaneous storm water activities will be allocated among commercial and residential users based upon their respective current ratios to the total current cost for curbside services. Such allocation provides a rough proportionality between the needs created by the users and the costs to perform the miscellaneous activities. The following table presents the proposed allocation of miscellaneous storm water activity costs to the various solid waste service users:

Activity	Projected Yearly Expenditure	Residential Solid Waste Service Users	Commercial Solid Waste Service Users	General Fund or Other Fund Source
Annual Reporting	\$20,500	\$10,045	\$10,455	\$0
GIS and Records Maintenance	\$10,000	\$4,900	\$5,100	\$0
Wet Weather Testing Program	\$205,000	\$100,450	\$104,550	\$0
General Program Administration	\$307,964	\$150,902	\$157,062	\$0
NPDES Permit Fee Payment	\$10,000	\$4,900	\$5,100	\$0
Public Education and Outreach	\$78,470	\$38,450	\$40,020	\$0
Totals	\$631,934	\$309,648	\$322,286	\$0

## **Rate Computation -**

The computation of the proposed rate increases for the solid waste services requires a summation of the total costs for the storm water pollution prevention activities and a determination of the methodology required to equitably spread costs to the existing solid waste fee structure. Table 13 on the following page provides a summary of the activity costs as they were spread to residential and commercial solid waste service users in the preceding sections of this summary. The total cost to be spread to residential solid waste service users is \$586,673 and the total cost to be spread to commercial service users is \$716,668. The methodology used to spread these costs to residential and commercial ratepayers is discussed in the following two sections.

Storm Water Pollution Prevention Activity	Residential Solid Waste Service Users	Commercial Solid Waste Service Users
Street Sweeping	\$67,200	\$69,943
Litter Removal	\$34,090	\$35,481
Storm Drainage Facility Cleaning and Maintenance	\$54,364	\$56,583
Storm Event Activities	\$8,377	\$8,719
Illicit Connection and Illegal Discharge Enforcement Program	\$112,994	\$117,606
Business Related SWPPP	\$0	\$106,050
Miscellaneous Administrative Activities	\$309,648	\$322,286
Totals	\$586,673	\$716,668

### **Residential Service Rate Increase –**

The proposed rate increase for residential solid waste service users is calculated by dividing the total fair share allocation of costs to residential users by the yearly average number of residential users. Currently there are two basic collection rates for residential users, one for curbside service and the other for backyard service. Since the differential in costs has more to do with the location of the collection and not with the use of the property, the proposed fee increase will be added as a surcharge to the customer account rather than charging a percentage increase to the existing collection billing. The total proposed surcharge for each residential customer is \$23.36 (\$586,673/25,110 users) annually or \$1.95 monthly. For residential solid waste service users the proposed increase represents a percentage increase of approximately 13.4% over the current monthly billing for residential curbside collection service.

Commercial Service Rate Increase –

The proposed rate increase for commercial solid waste service users is determined by first calculating the percentage revenue increase required to generate the fair share amount allocable to commercial service users and then spreading the increase uniformly across the commercial service rates. In this manner, those businesses requiring the greatest amount of service will pay a proportionately higher rate commensurate with the amount of waste generated.

The proposed rate increase for commercial service users is 15.1%, calculated by dividing the fair share allocation of storm water protection costs (\$716,668) by the total revenues for commercial curbside service users (\$4,737,774).

Table 14 on the following pages show the new proposed fee structure for residential and commercial service users:

Rate tables Placeholder Table 14

**STORM WATER PROTECTION PROGRAM  
RECOMMENDED FEE INCREASES / ADDITIONS**

**Solid Waste Service Fees**

<u>Residential Service Rates:</u>	Current	Proposed
Monthly Curbside Service:	\$14.52	\$16.47
Monthly Backyard Service:	\$19.70	\$21.65

Commercial Service Rates:

Number of Bins (3yd)		Number of Pick-ups per Week					
		1	2	3	4	5	6
1	Current	\$74.92	\$137.19	\$199.46	\$261.73	\$324.00	\$386.27
1	Proposed	\$86.23	\$157.91	\$229.58	\$301.25	\$372.92	\$444.60
2	Current	\$149.84	\$274.38	\$398.92	\$523.46	\$648.00	\$772.54
2	Proposed	\$172.47	\$315.81	\$459.16	\$602.50	\$745.85	\$889.19
3	Current	\$224.76	\$411.57	\$598.38	\$785.19	\$972.00	\$1,158.81
3	Proposed	\$258.70	\$473.72	\$688.74	\$903.75	\$1,118.77	\$1,333.79

Added Cost per Bin Dump					
Size of Bin	2yd	3yd	4yd	5yd	6yd
Cost-Current	\$26.00	\$35.00	\$42.00	\$49.00	\$56.00
Cost-Proposed	\$29.93	\$40.29	\$48.34	\$56.40	\$64.46

		Current	Proposed
Commercial Can Service: (Up to (4) 32 gallon cans)			
Curbside service 1 X per week:		\$25.10	\$28.89
Curbside service 2 X per week:		\$50.20	\$57.78
Curbside service 3 X per week:		\$75.30	\$86.67
Backyard service 1 X per week:		\$35.70	\$41.09
Backyard service 2 X per week:		\$71.40	\$82.18
Recycling: Non-residential Commercial Accounts		\$11.65	\$13.41
(per month per container)			

Yard Waste Recycling:

Number of 3yd Bins		1x per Week	2x per Week
1	Current	\$73.73	\$130.57
	Proposed	\$84.86	\$150.29
2	Current	\$146.86	\$261.14
	Proposed	\$169.04	\$300.57
3	Current	\$220.29	\$391.71
	Proposed	\$253.55	\$450.86

Mixed Paper & Cardboard Recycling 3-yard Bin Service:

No. Bins		Number of Pick-ups per Week				
		1	2	3	4	5
1	Current	\$51.00	\$86.00	\$121.00	\$156.00	\$186.00
	Proposed	\$58.70	\$98.99	\$139.27	\$179.56	\$214.09
2	Current	\$102.00	\$172.00	\$242.00	\$312.00	\$372.00
	Proposed	\$117.40	\$197.97	\$278.54	\$359.11	\$428.17

**New Storm Water Protection Program Plancheck and Inspection fees:**

Development Category	Proposed Fee			
	Plan review		Inspection	
	Initial Lot/Unit	Subsequent Lot/Unit	Initial Lot/Unit	Subsequent Lot Unit
Family Detached	\$210	\$70	\$230	\$120
Multi-family Attached & Mobile Homes	\$210	\$35	\$230	\$70
Commercial/Industrial	\$280	\$280	\$400	\$400

## **Construction Related SWPPP Plan Review and Inspection Fees**

The review and inspection of construction related SWPPP's is not an activity related to the provision of solid waste services; therefore, the City costs to provide these services will not be incorporated into the proposed solid waste services rate increase. Construction related SWPPP's are required to help prevent to release of potential pollutants generated from land development and other construction activities. The costs to the City to provide the required SWPPP review and inspection services consistent with the Order should be borne entirely by those property owners and developers who develop or otherwise perform construction activities to or upon their property.

To recoup the costs to review and inspect construction related SWPPP's, this report proposes the establishment of new processing fees to be charged to anyone required to prepare and implement a construction related SWPPP. As required by State law, the proposed new processing fees are based upon actual costs to provide the service, are reasonably related to the service being provided and are roughly proportional to size of the development or construction activity. (See Government Code Section 66016 et seq.)

Flowcharts 1 and 2 in Appendix A provide a general overview of the existing process' used by City staff to review and inspect construction related SWPPP's. The boxes within each chart list specific activities performed by staff along the various stages of the review and inspection process and list the specific job classification(s) required to perform the specified activity.

For the purpose of establishing fees, SWPPP review and inspection activities were segregated into three project categories; single family detached, multi-family attached and mobile home and, commercial/industrial projects. These three groupings were chosen to ensure that the proposed fees maintained a rough proportionality to the size and nature of the development activity. Tables A-1 through A-3 in Appendix A detail the average amount of time required by each job classification to complete the various activities depicted in Flowcharts 1 and 2 for each of the three project categories.

For each project category, a separate fee is proposed for SWPPP review and inspection services. It is proposed that the SWPPP review fee be charged concurrent with the submittal of the SWPPP to the City for review. The SWPPP inspection fee will be charged prior to issuance of the associated grading, right-of-way or building permit being issued for the covered development and/or construction activity. This fee splitting methodology is consistent with the City method of collecting existing plan review and inspection fees for grading and street improvement projects. In many instances there are significant time delays between the review and approval of a plan and the issuance of the respective construction permit. In other cases, projects are abandoned by the property owner and/or developer and never make it to construction. Splitting the fees into the two activities (review and inspection) reduces the financial burden to developers, reduces the need to refund unused fees for projects that don't go to construction and provides for increased revenues because inspection fees may be raised

during the annual fee review process before the developer applies for their construction permits.

The following table presents a summary of the proposed new fees for construction related SWPPP review and inspection services.

**Table 15**

Development Category	Proposed Fee			
	Plan review		Inspection	
	Initial Lot/Unit	Subsequent Lot/Unit	Initial Lot/Unit	Subsequent Lot Unit
Single Family Detached	\$210	\$70	\$230	\$120
Multi-family Attached and Mobile Homes	\$210	\$35	\$230	\$70
Commercial/Industrial	\$280	\$280	\$400	\$400

Note that for residential projects there is a base fee for the first unit or lot and a reduced fee for each subsequent unit or lot. The reduction accounts for certain processing activities that occur whether one or multiple lots/units are processed. It is also a reflection of the fact that the average residential project includes from 20 to 50 units. The fee for commercial/industrial lots is fixed at the same value for each lot. The reason for the fixed fee is that average lot sizes for commercial and industrial projects are larger and the average number of lots per project are smaller. Due to the method employed to determine staff time spent reviewing an average commercial and industrial lot, the incremental reduction in costs to review subsequent lots was considered marginal and therefore one set rate is proposed for all commercial/industrial lots.

## GLOSSARY

**JURMP** (Jurisdictional Urban Runoff Management Program also know as Jurisdictional Urban Runoff Management Plan) – A program required of each owner of a municipal storm drainage system to demonstrate compliance with the federal clean water regulations for discharge of urban storm water runoff into the waters of the United States. Each municipal agency JURMP must include components that address storm water pollution reduction through land use planning, construction permitting, existing development maintenance and operations, public education and illicit discharge detection and elimination. Each program must also include a financial plan to guarantee funding for the program and, a mechanism to assess the effectiveness of the program.

**NPDES Permit** (National Pollutant Discharge Elimination System Permit) – A permit issued to the owner(s) of municipal storm drainage systems by the California Regional Water Quality Control Board to ensure compliance with Federal Clean Water Act regulations. The purpose of such permits is to reduce pollutant loadings to waters of the United States from non-point (storm water) sources. The City of Carlsbad together with all other incorporated cities within the County of San Diego, the County of San Diego and the San Diego Unified Port District are each copermittees under the same NPDES permit identified as Order No. 2001-01 NPDES No. CAS0108758.

**Solid Waste** “Solid waste” means putrescible and nonputrescible solid, semisolid and liquid wastes, generated in or upon residential or commercial premises, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, construction and demolition wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, dewatered, treated, or chemically fixed sewage sludge which is not hazardous waste, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes. (Carlsbad Municipal Code section 6.08.010(A)(22), and Public Resources Code section 40191)

(Add definition from CMC and state its consistency with PR Code)

**SUSUMP** (Standard Urban Storm Water Mitigation Plan) – A plan prepared by an agency or group of agencies for the purpose of reducing pollutants and runoff flows from all new development and significant redevelopment projects. The SUSUMP includes a comprehensive presentation of specific mitigation standards and specifications that can be employed to reduce pollutants and runoff for construction projects.

**SWPPP** (Storm Water Pollution Prevention Plan) – A plan prepared by a developer, and submitted to the City for review and approval, that described a developer’s detailed plan for preventing the escape of pollutants of concern from a construction site to the maximum extent practicable. City staff inspect the effectiveness of SWPPPs by site visits to monitor the developer’s compliance with the SWPPP.

**WURMP** (Watershed Urban Runoff Management Program) – A program developed collectively by those agencies whose jurisdictions contribute drainage to one or a common

grouping of watersheds designed to identify and mitigate the highest priority water quality issues/pollutants that affect the watershed(s). The requirement for a WURMP provides recognition that watershed boundaries transcend individual agency boundaries. The WURMP also provides a programmatic approach to identify which pollutants presented the greatest threat to the common watershed(s) and recommends measures to mitigate the threat.

APPENDIX A

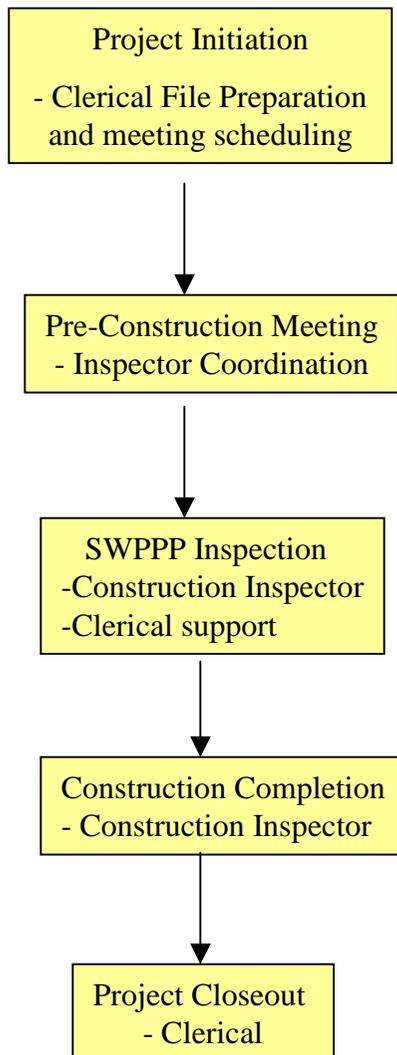
SWPPP Review and Inspection Fee  
Process Flowcharts  
And  
Processing Fee Computation Spreadsheets

# Flowchart 1

## Inspection Process

### for

## Construction Related SWPPP's

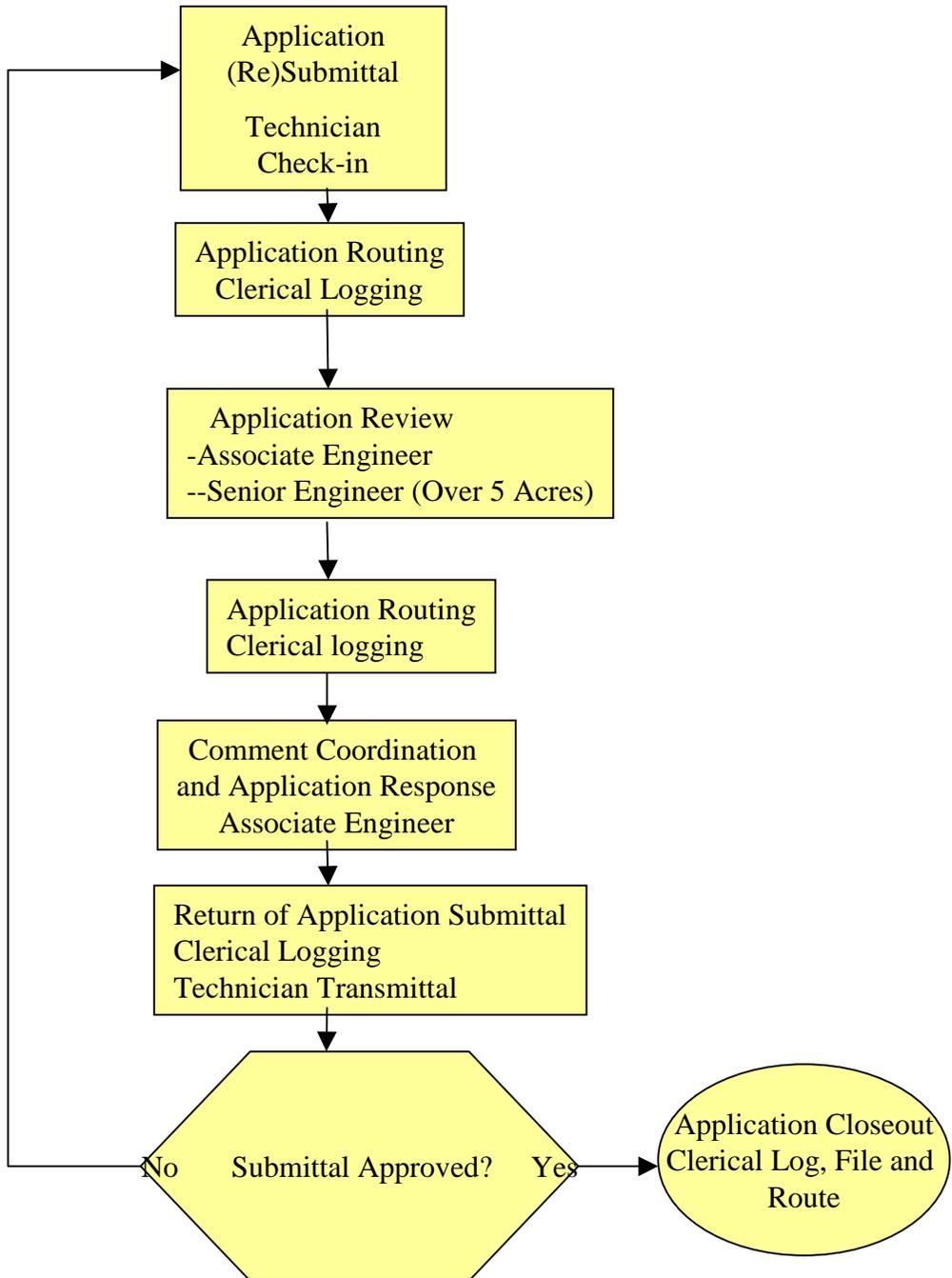


# Flowchart 2

## Plan Review Process

### for

## Construction related SWPPP's



**Table A-1  
City of Carlsbad  
Service Fee Computation  
for  
Processing Storm Water Pollution Prevention Plans  
(Residential Single Family Detached Development Projects)**

Organizational Unit	Position	Time Unit	Hourly Rate*	Total Cost	Staff Time per Plancheck Activity							Staff Time per Inspection Activity					
					Submittal	Routing	Review	Routing	Response	Return	Closeout	Initiation	Pre-Const	Inspection	Completion	Closeout	
<b>SWPPP Plancheck Per SF Lot**</b>																	
PW-ENG-ADMINISTRATION	Sr. Office Specialist	1.50	33.64	50.46		1.00		0.50									
PW-ENG-DEVELOPMENT SERVICES	Engineering Technician	1.25	45.15	56.44	0.50					0.25	0.50						
PW-ENG-DEVELOPMENT SERVICES	Associate Engineer	1.50	70.26	105.39			1.00		0.50								
<b>Plancheck Total - First Lot</b>				212.29													
<b>Each Additional SF Lot</b>																	
PW-ENG-DEVELOPMENT SERVICES	Associate Engineer	1.00	71	71.00			1.00										
<b>Plancheck Total - Each Additional SF Lot</b>				71.00													
<b>SWPPP Inspection Per SF Lot - First Lot</b>																	
PW-ENG-CONSTRUCTION MANGMT	Sr. Office Specialist	1.25	33.64	42.05							0.50		0.50			0.25	
PW-ENG-CONSTRUCTION MANGMT	Construction Inspector	3.50	53.74	188.09								0.50	2.00	1.00			
<b>Inspection Total - First Lot</b>				230.14													
<b>Each Additional Lot</b>																	
PW-ENG-CONSTRUCTION MANGMT	Sr. Office Specialist	0.50	33.64	16.82									0.50				
PW-ENG-CONSTRUCTION MANGMT	Construction Inspector	2.00	53.74	107.48									2.00				
<b>Inspection Total - Each Additional Lot</b>				124.30													
<b>Combined Plancheck and Inspection Total - First Lot</b>				442.43													
<b>Combined Plancheck and Inspection Total - Each Additional Lot</b>				195.30													

\* Hourly rate includes overhead burden

\*\* Average SF lot size is 10,000 SF. Yields approximately 4 lots per acre

**Table A-2**  
**City of Carlsbad**  
**Service Fee Computation**  
**for**  
**Processing Storm Water Pollution Prevention Plans**  
**(Residential Multi-Family Attached and Mobile Home Development Projects)**

Organizational Unit	Position	Time Unit	Hourly Rate*	Total Cost	Staff Time per Plancheck Activity							Staff Time per Inspection Activity				
					Submittal	Routing	Review	Routing	Response	Return	Closeout	Initiation	Pre-Const	Inspection	Completion	Closeout
<b>SWPPP Plancheck Multi-family Units and Mobile Homes - First Unit**</b>																
PW-ENG-ADMINISTRATION	Sr. Office Specialist	1.50	33.64	50.46		1.00			0.50							
PW-ENG-DEVELOPMENT SERVICES	Engineering Technician	1.25	45.15	56.44	0.50						0.25	0.50				
PW-ENG-DEVELOPMENT SERVICES	Associate Engineer	1.50	70.26	105.39			1.00		0.50							
<b>Plancheck Total - First Unit</b>				212.29							0.50					
<b>Each Additional Unit</b>																
PW-ENG-DEVELOPMENT SERVICES	Associate Engineer	0.50	71	35.50			0.50									
<b>Plancheck Total - Each Additional Unit</b>				35.50												
<b>SWPPP Inspection Per SF Lot - First Lot</b>																
PW-ENG-CONSTRUCTION MANGMT	Sr. Office Specialist	1.25	33.64	42.05							0.50		0.50			0.25
PW-ENG-CONSTRUCTION MANGMT	Construction Inspector	3.50	53.74	188.09								0.50	2.00	1.00		
<b>Inspection Total - First Lot</b>				230.14												
<b>Each Additional Lot</b>																
PW-ENG-CONSTRUCTION MANGMT	Sr. Office Specialist	0.50	33.64	16.82									0.50			
PW-ENG-CONSTRUCTION MANGMT	Construction Inspector	1.00	53.74	53.74									1.00			
<b>Inspection Total - Each Additional Lot</b>				70.56												
<b>Combined Plancheck and Inspection Total - First Lot</b>				442.43												
<b>Combined Plancheck and Inspection Total - Each Additional Lot</b>				106.06												

\* Hourly rate includes overhead burden

\*\* Based upon average density of 8 units/acre

**Table A-3  
City of Carlsbad  
Service Fee Computation  
for  
Processing Storm Water Pollution Prevention Plans  
(Commercial and Industrial Development Projects)**

Organizational Unit	Position	Time Unit	Hourly Rate*	Total Cost	Staff Time per Plancheck Activity							Staff Time per Inspection Activity					
					Submittal	Routing	Review	Routing	Response	Return	Closeout	Initiation	Pre-Const	Inspection	Completion	Closeout	
<b>SWPPP Plancheck Commercial/Industrial Lot **</b>																	
PW-ENG-ADMINISTRATION	Sr. Office Specialist	1.50	33.64	50.46		1.00		0.50									
PW-ENG-DEVELOPMENT SERVICES	Engineering Technician	1.25	45.15	56.44	0.50					0.25	0.50						
PW-ENG-DEVELOPMENT SERVICES	Associate Engineer	2.50	70.26	175.65			2.00		0.50								
<b>Plancheck Total Per Lot</b>				282.55							0.50						
<b>SWPPP Inspection Commercial/Industrial Lot</b>																	
PW-ENG-CONSTRUCTION MANGMT	Sr. Office Specialist	1.50	33.64	50.46								0.75		0.50			0.25
PW-ENG-CONSTRUCTION MANGMT	Construction Inspector	6.50	53.74	349.31									0.50	5.00	1.00		
<b>Inspection Base Total Per Lot</b>				399.77													
<b>Combined Plancheck and Inspection Total Per Lot</b>				682.32													

\* Hourly rate includes overhead burden  
 \*\* Based upon average lot size of 0.5 Acre

**STORM WATER PROTECTION PROGRAM  
RECOMMENDED FEE INCREASES / ADDITIONS**

**Solid Waste Service Fees**

Residential Service Rates:

	Current	Proposed
Monthly Curbside Service:	\$14.52	\$16.47
Monthly Backyard Service:	\$19.70	\$21.65

Commercial Service Rates:

Number of Bins (3yd)		Number of Pick-ups per Week					
		1	2	3	4	5	6
1	Current	\$74.92	\$137.19	\$199.46	\$261.73	\$324.00	\$386.27
1	Proposed	\$86.23	\$157.91	\$229.58	\$301.25	\$372.92	\$444.60
2	Current	\$149.84	\$274.38	\$398.92	\$523.46	\$648.00	\$772.54
2	Proposed	\$172.47	\$315.81	\$459.16	\$602.50	\$745.85	\$889.19
3	Current	\$224.76	\$411.57	\$598.38	\$785.19	\$972.00	\$1,158.81
3	Proposed	\$258.70	\$473.72	\$688.74	\$903.75	\$1,118.77	\$1,333.79

Added Cost per Bin Dump					
Size of Bin	2yd	3yd	4yd	5yd	6yd
Cost-Current	\$26.00	\$35.00	\$42.00	\$49.00	\$56.00
Cost-Proposed	\$29.93	\$40.29	\$48.34	\$56.40	\$64.46

	Current	Proposed
Commercial Can Service: (Up to (4) 32 gallon cans)		
Curbside service 1 X per week:	\$25.10	\$28.89
Curbside service 2 X per week:	\$50.20	\$57.78
Curbside service 3 X per week:	\$75.30	\$86.67
Backyard service 1 X per week:	\$35.70	\$41.09
Backyard service 2 X per week:	\$71.40	\$82.18
Recycling: Non-residential Commercial Accounts (per month per container)	\$11.65	\$13.41

Yard Waste Recycling:

Number of 3yd Bins		1x per Week	2x per Week
1	Current	\$73.73	\$130.57
	Proposed	\$84.86	\$150.29
2	Current	\$146.86	\$261.14
	Proposed	\$169.04	\$300.57
3	Current	\$220.29	\$391.71
	Proposed	\$253.55	\$450.86

Mixed Paper & Cardboard Recycling 3-yard Bin Service:

No. Bins		Number of Pick-ups per Week				
		1	2	3	4	5
1	Current	\$51.00	\$86.00	\$121.00	\$156.00	\$186.00
	Proposed	\$57.12	\$96.32	\$135.52	\$174.72	\$208.32
2	Current	\$102.00	\$172.00	\$242.00	\$312.00	\$372.00
	Proposed	\$117.40	\$197.97	\$278.54	\$359.11	\$428.17

**New Storm Water Protection Program Plancheck and Inspection fees:**

Development Category	Proposed Fee			
	Plan review		Inspection	
	Initial Lot/Unit	Subsequent Lot/Unit	Initial Lot/Unit	Subsequent Lot Unit
Family Detached	\$210	\$70	\$230	\$120
Multi-family Attached & Mobile Homes	\$210	\$35	\$230	\$70
Commercial/Industrial	\$280	\$280	\$400	\$400