DATE ISSUED: September 14, 2005 REPORT NO. 05-194

ATTENTION: Natural Resources and Culture Committee
Agenda of September 21, 2005

SUBJECT: Update on the Total Maximum Daily Load (TMDL) Program and Storm Water Pollution Prevention Division

SUMMARY

THIS IS AN INFORMATION ITEM ONLY. NO ACTION IS REQUIRED ON THE PART OF THE COMMITTEE.

BACKGROUND

On July 25, 2005, the Metropolitan Wastewater Department (MWWD) requested authorization from Council to appeal the San Diego Regional Water Quality Control Board, Region 9 (Regional Board) decision to impose Total Maximum Daily Loads (TMDLs) for Dissolved Copper, Lead, and Zinc in Chollas Creek. The Regional Board's regulatory vehicle for imposing TMDLs is an amendment to the "Comprehensive Water Quality Control Plan for the San Diego Basin". During the discussion, a request was made for a presentation on this matter.

DISCUSSION

***Comprehensive Water Quality Control Plan for the San Diego Basin***

The federal Clean Water Act and the California Water Code (Porter-Cologne Water Quality Control Act) require the Regional Board to adopt a water quality control plan to guide and coordinate the management of water quality within its jurisdiction. In response, the Regional Board adopted the "Comprehensive Water Quality Control Plan for the San Diego Basin" (Basin Plan) in 1975. The planning area coincides with the jurisdictional extent of Region 9: most of San Diego County (all of the City of San Diego), southwestern Orange County and parts of southwestern Riverside County. The purpose of the plan is to: 1) designate beneficial uses of the region's surface waters and ground waters; 2) designate water quality objectives for the reasonable protection of

those uses; and 3) establish an implementation plan to achieve the objectives. The Regional Board from time to time amends the Basin Plan for purposes of changing water quality standards and policies to reflect current water quality conditions and priorities.

***Clean Water Act Section 303(d): Impaired Waters***

If the above-referenced water quality objectives are violated (4% of the time for bacteria and 10% of the time for other pollutants) in a particular water body, Section 303(d) of the Clean Water Act requires the State Water Resources Control Board (State Board) and Regional Boards to prioritize waters/watersheds for the development of TMDLs. A TMDL is a regulation that specifies the particular pollutant, a maximum allowable concentration of the pollutant, and an implementation plan describing how the allowable concentration will be achieved. TMDLs may also include an allocation of allowable loads to individual sources or groups of sources of the pollutant(s) of concern (a "Waste Load Allocation") which must be achieved within a specific time frame. Specific waste load allocations are proposed by the Regional Board for dischargers such as governmental entities, individual business enterprises, or a category of businesses such as ship building manufacturers. Adoption of TMDLs requires public review and comment before the TMDL can be referred to the Regional Board, State Board, and then to the US Environmental Protection Agency for ultimate approval. The Clean Water Act requires that the list of 303(d) waters be updated every three years. The next distribution of this list for public review and comment is tentatively scheduled for this fall.

Until recently, no TMDLs in the San Diego region had been established which required action or implementation of best management practices (BMPs) by the City of San Diego. Diazinon was a household pesticides that resulted in death of hydrophitic insects when residues are washed away during rain events. In 2002, the Regional Board adopted a TMDL and Implementation Plan for Diazinon in Chollas Creek; however, the federal government has prohibited the sale of Diazinon, so it is not expected that the City will have to take proactive measures to reach the allowable concentration. However, in the spring of 2005, the Regional Board adopted a TMDL and Implementation Plan for dissolved metals (copper, lead and zinc) in Chollas Creek. The Chollas Creek Dissolved Metals TMDL will require the City to install BMPs and perform monitoring to determine compliance with the waste load allocations. Moreover, during the last two years, the Regional Board has approved three TMDLs (see table below) and is in the process of initiating an additional nine TMDLs that affect 13 locations within the City and which will require action by City staff. The TMDLs address a variety of constituents, including bacteria, metals, sedimentation, eutrophication and contaminated sediments. Additionally, there are seven other TMDLs within the City that are shown on the approved 303(d) list that will be addressed in the upcoming years (listed as "pending" in the following table). The Regional Board is scheduled to adopt three to four new TMDLs per year. Each of these TMDLs will assign dischargers a waste load allocation for each pollutant to meet water quality objectives that require the execution of BMPs within each discharger's property or jurisdiction.

303(d) List of Total Maximum Daily Load (TMDL) Waterbodies
Within the City of San Diego

| Waterbody | Pollutant | Waste Load Allocation | |
|---|---|---|---|
| | | % Required Reduction | Maximum Allowable Concentration |
| Chollas Creek Diazinon TMDL **-ADOPTED-** | Diazinon | | 0.460 (2004) - 0.045 (2010) micrograms/Liter |
| Chollas Creek Dissolved Metals **-ADOPTED-** | Dissolved Copper; Dissolved Lead; Dissolved Zinc | 88.5% 98.7% 77.4% | |
| San Diego Bay Shelter Island Yacht Basin **-ADOPTED-** | Dissolved Copper | 76% | |
| San Diego Bay Marine Sediments at the Mouth of Chollas Creek, 32nd Naval Station, between Sampson and 28th Streets | Copper; Mercury; PAHs; PCBs; Zinc | In Process: Tentative Cleanup and Abatement Order R9-2005-0126 | |
| Bacteria TMDL Impaired Waters for Beaches and Creeks | Bacteria | Initiated | |
| TMDL for Bacteria at San Diego Bay and Dana Point Harbor | Bacteria | Initiated | |
| Famosa Slough Lagoon TMDL | Eutrophication | Initiated | |
| Los Penasquitos Lagoon TMDL | Sedimentation/Siltation | Initiated | |
| San Diego Bay Marine Sediments at the Downtown Anchorage | Benthic Community Effects; Sediment Toxicity | Initiated | |
| San Diego Bay Marine Sediments at B Street and Broadway Piers | Benthic Community Effects; Sediment Toxicity | Initiated | |
| San Diego Bay Marine Sediments at the Mouth of Switzer Creek | Chlordane; Lindane; PAHs | Initiated | |
| San Diego Bay Marine Sediments at Seventh Street Channel** | Benthic Community Effects; Sediment Toxicity | Initiated | |
| San Diego Bay Naval Station Submarine Base | Benthic Community Effects; Sediment Toxicity | Initiated | |

| Waterbody | Pollutant | Waste Load Allocation | |
|---|---|---|---|
| | | % Required Reduction | Maximum Allowable Concentration |
| Lake Hodges TMDL | Color; Nitrogen; Phosphorus; Total Dissolved Solids | Pending | |
| San Diego River (Lower 6 Miles) | Bacteria; Low Dissolved Oxygen; Phosphorus; Total Dissolved Solids | Pending | |
| Mission Bay Bacteria TMDL | Bacteria | Pending | |
| Mission Bay Lead TMDL | Lead | Pending | |
| Mission Bay Eutrophication TMDL | Nitrogen; Phosphorus | Pending | |
| Tecolote Creek TMDL | Bacteria; Cadmium; Copper; Lead; Toxicity; Zinc | Pending | |
| Tijuana River TMDL | Bacteria; Eutrophication; Low Dissolved Oxygen; Pesticides; Solids; Synthetic Organics; Trace Elements; Trash | Pending | |

* TMDL for dissolved copper from boat hulls that contains copper; City has not been designated.
** City has drainage into Paleta Creek that discharges into the Seventh Street Channel.

***Implications***

The City of San Diego created the Storm Water Pollution Prevention Division (Division) in January, 2001 in anticipation of issuance by the Regional Board of National Pollutant Discharge Elimination System (NPDES) permit, Order No. 2001-01 in February, 2001. The Division was originally established within the General Services Department and was moved into the Metropolitan Wastewater Department (MWWD) in April, 2004. Although the majority of MWWD activities are paid for with sewer bill receipts, the Division is funded by the City's General fund and grants. The Division is comprised of six sections: Receiving Water Monitoring, Inspections and Compliance, Public Education and Outreach, Engineering and Municipal Activities, Budget and Grant Monitoring, and Administrative Support.

The Division's primary goal is to ensure compliance with the Municipal Storm Water Permit. This goal requires coordination with other departments for multiple NPDES

permit components. Additionally, the Division is responsible to ensure compliance with other water quality regulatory requirements that pertain to urban runoff and storm water issues. These other water quality regulatory requirements generally take the form of TMDLs, enforcement letters, Cleanup and Abatement Orders, Notice of Violations, Cease and Desist Orders and/or Administrative Civil Liabilities. Currently the Regional Board has dedicated a staff of eight for the development and implementation of TMDLs.

The ongoing approval of additional TMDLs within the City will have a significant effect on the Division. TMDLs will take away limited resources that are used for the permit compliance by refocusing them to TMDL compliance. The Regional Board enforces TMDLs through requirements to comply with each TMDL implementation plan's waste load allocations and/or with enforcement actions. Ultimately, the TMDL requirements will be incorporated into the Municipal Storm Water Permit for enforcement ease by the Regional Board. To achieve the waste load allocations for the various TMDLs, the City will need to allocate resources to perform monitoring, site and construct best management practices (BMPs) and educate the public when necessary.

Additionally, the State and Regional Boards also enforce other laws and regulations that have been adopted pursuant to the Clean Water Act and the California Water Code. The Division is also responsible for responding to these directives as well. Currently, studies and negotiations are underway with the State Water Resources Control Board on two other recent, high-profile Board decisions that include:

- The Board's recent decision to proceed with a tentative Cleanup and Abatement Order for San Diego Bay. The Division needs to participate in review of technical reports which may determine what, if any, liability the City may have for an estimated $100,000,000 cleanup of San Diego Bay in the vicinity of the Southwest Marine and NASSCO shipyards at the mouth of Chollas Creek. This action is being taken in place of a TMDL implementation plan and schedule.
- A recent decision by the State Board to define Areas of Special Biological Significance (ASBS) as areas that should not be subjected to any discharge of urban runoff or storm water. Two such areas exist off the coast of La Jolla. Currently, staff is seeking clarity on this decision and, at the same time, planning for improvements that would be necessary to redirect all storm drain system discharges into the ocean at these locations. Preliminary engineering indicates that public works costing $60 to $85 million dollars would be needed to redirect 100-year storm water (not all storm water) away from just one of these areas.

***Staffing***

During this time of increasing responsibilities, the Division, like many other divisions which rely on the City's General Fund, has seen its budget decrease. In FY '02, the Division's budget was $3.1 million and included 25 staff positions. The FY '06 budget totals $2.7 million (a 13% decrease) and includes 21 staff (a 16% decrease).

Current revenues are inadequate to fund the Storm Water Pollution Prevention Program as well as the operation and maintenance of the storm water drainage infrastructure

managed by the General Services Department. For example, the storm water fee for residential properties in currently $.95 per month. City staff is working with a consultant to develop a recommendation for a Storm Water Management Fee to meet the City's Urban Runoff - Storm Water needs. This fee would require a vote of property owners or the people.

Respectfully submitted,

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| Scott Tulloch<br>Director<br>Metropolitan Wastewater Department | Approved: Richard Mendes<br>Deputy City Manager |

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