

IRVINE RANCH WATER DISTRICT POLICY POSITION
OCSD DRY WEATHER URBAN RUNOFF DIVERSION PROGRAM

As adopted on May 13, 2013

Issue Summary:

A key strategic objective of the Irvine Ranch Water District is to minimize and improve the quality of dry weather urban runoff. IRWD has developed the San Joaquin Marsh (SJM) system and the Natural Treatment System (NTS) to further this objective by providing treatment of urban runoff flows. In some cases, the SJM and NTS cannot provide adequate treatment of urban runoff to meet the receiving water standards. In these cases, IRWD has partnered with the Orange County Sanitation District (OCSD) to construct dry weather urban runoff diversion facilities to direct these flows to wastewater treatment facilities for treatment and reuse or disposal. IRWD operates two such diversions on the Newport Coast. These diversions play a fundamental role in improving the water quality in local streams, beaches, and the ocean, which benefits all of the residents of Orange County. The diversions have been used by municipalities as an option of last resort when other treatment strategies do not exist or are financially infeasible.

Current OCSD policy provides for treatment at no charge for municipal discharges of dry weather urban runoff up to a cumulative volume of 4 million gallons per day (MGD). Planned increases in urban runoff diversions by various municipalities in the Newport Bay watershed to address selenium contamination in urban runoff will cause the cumulative volume to exceed this threshold. OCSD should continue to treat these discharges over 4 MGD at no charge to ensure that the water quality in streams tributary to Newport Bay is enhanced and protected.

Background:

Dry weather urban runoff is typically contaminated water which finds its way into storm drains from urban areas. It is composed primarily of runoff from excess landscape irrigation, washing of vehicles, hosing down of paved areas, storm drain infiltration, natural groundwater from sub-drain systems and a variety of other sources from urban activity. These nuisance flows may be high in bacteriological contamination, nutrients, oil and grease, and they may have high organic and inorganic content, especially selenium. Dry weather urban runoff does not include stormwater. Urban runoff may also include shallow groundwater that has risen to the surface and combined with these other incidental flows.

A key strategic objective of both IRWD and OCSD is to minimize and improve the quality of dry weather urban runoff to reduce the impacts of these flows on the environment. IRWD developed the SJM and the NTS to further attainment of this objective by providing treatment of urban runoff. In some cases, the SJM and NTS cannot provide adequate treatment of urban runoff to meet receiving water quality standards. In these cases, IRWD and several municipalities in Orange County have partnered with the OCSD under their Dry Weather Urban Runoff Diversion Program to construct urban runoff diversion facilities to direct these flows to wastewater treatment facilities for treatment and beneficial reuse or discharge to the ocean. The municipalities expend extensive efforts to identify alternatives to diversion. The diversions are used as an option of last resort when other treatment options do not exist or are financially infeasible. IRWD operates two such diversions on the Newport Coast. These diversions play a

fundamental role in improving the water quality in local streams and the ocean, which benefits all of the residents of Orange County.

The OCSD Dry Weather Urban Runoff Diversion Program began in December 1999 when OCSD agreed to temporarily accept dry weather urban runoff into its wastewater treatment facilities. This action was prompted by a 1999 Huntington Beach closure investigation that indicated that the dry weather urban runoff flowing into the Pacific Ocean may have caused or contributed to shoreline contamination and high bacteria levels. In April 2000, OCSD adopted a resolution accepting urban runoff on a long-term basis during dry weather. This was possible because OCSD treatment facilities have surplus capacity during dry weather owing to the absence of inflow and infiltration during rain events. The resolution was designed to minimize adverse impacts of urban runoff on coastal beaches and public health, while maintaining the high quality of OCSD's primary function: the collection, treatment and disposal of wastewater. On September 27, 2000 OCSD adopted a second resolution that established the requirements for municipal dischargers requesting to divert urban runoff into the OCSD facilities. The resolution set aside up to 10 MGD of surplus dry weather capacity for this purpose. OCSD also waived all charges for municipal dischargers of urban runoff within the OCSD service area. The fee waiver was to continue until the cumulative volume of dry weather urban runoff discharges exceeded 4 MGD or OCSD modified its policies. Cumulative flows in the dry weather urban runoff diversion program are currently approximately 2 MGD.

New diversions of dry weather nuisance flows are currently being planned by several municipal dischargers in the Newport Bay watershed to address elevated selenium concentrations originating from rising shallow groundwater in the area. These diversions will reduce the selenium concentration in tributary streams thus avoiding environmental harm to fish and birds from the higher selenium concentrations. These additional discharges will cause the cumulative total of urban runoff discharges to exceed 4 MGD, potentially triggering the levying of fees and charges by OCSD on all municipal dischargers of urban runoff.

Policy Principles:

Staff has developed the following principles that define IRWD's policy with respect to the OCSD Dry Weather Urban Runoff Diversion Program:

- It is a key strategic objective of both IRWD and OCSD to reduce the negative water quality impacts from urban runoff and other nuisance flows.
- In certain cases, the only feasible means of treating urban runoff and other nuisance flows is by diversion to a waste water treatment facility for treatment and subsequent disposal or reuse.
- The OCSD Dry Weather Urban Runoff Diversion Program has contributed significantly to the improvement of water quality in Orange County streams and at the beaches.

- The OCSD policy of allocating surplus dry weather treatment capacity to the treatment of urban runoff at no charge to municipal dischargers makes treatment of these flows economically feasible.
- The direct beneficiaries of improved water quality in Orange County's streams and ocean are all of the home owners and businesses within OCSD, so it is appropriate that the cost of providing treatment services for urban runoff is defrayed by all customers of the OCSD.
- OCSD should continue its policy of providing treatment of dry weather urban runoff at no charge to the municipal dischargers up to the 10 MGD surplus capacity cited in the 2000 OCSD resolution.
- The amount of surplus dry weather capacity in OCSD wastewater facilities allocated to the treatment of urban runoff should be increased as needed up to 10 MGD to accommodate all reasonable diversion projects that enhance the quality of local receiving waters.