



March 17, 2015

**California-Nevada American Water Works Association
Operator Symposium**

**How to Comply with the New Statewide Permit
for
Drinking Water System Discharges
To Surface Waters**

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Intent of Presentation

- **In the Next 40 minutes**
 - **Overview and highlights of new permit**
 - **How to make this permit serve your regulatory needs**
 - **How to Comply with the permit**
 - **Incentives to work together with other local utilities for water conservation**

Regulatory Compliance

Familiar to Drinking Water System Operators



Federal
Safe Drinking Water Act
and
California
Health and Safety Code



Administered through your system's Division of Drinking Water permit

*To assure Drinking Water System water served to your customers
is safe for their public health*

What is this New Statewide Permit?

An NPDES Permit based on the

Federal
Clean Water Act
and
California
Water Code



Administered through the State Water Board's Division of Water Quality permit

To assure discharges from your Drinking Water System water that flows into surface waters is safe for beneficial uses of those waters, including aquatic life

**National Pollutant Discharge Elimination System
NPDES Permit**

Basic Water Quality Concerns from Drinking Water System Discharges

- **Toxicity from chlorine, metals & change in receiving water ambient pH**

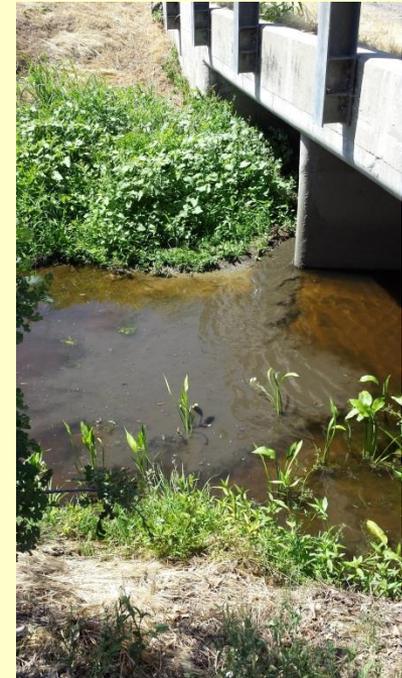


- **Solids in form of sediment, turbidity, sand and trash**



Basic Water Quality Concerns from Discharge Velocities

- **Erosion and hydro-modification through scour**



Type of Discharges Are Covered by this Permit?

- **Planned discharges resulting from activities mandated by the federal Safe Drinking Water Act, Health and Safety Code, and Division of Drinking Water Permit**
- **Discharges from:**
 - **Transmission Systems and Lines**
 - **Supply wells**
 - **Water treatment plants or facilities (excluding filter backwash)**
 - **Distribution Systems**
 - **Storage Systems**
- **Emergency and unplanned discharges**

Types of Discharges Regulated By Permit

- Planned discharges that allow management practices to be put in place
- Whether routed to storm drain system or discharged directly to surface water



- Emergency discharges



How Does This Permit Serve A Water Purveyors Needs?

- This NPDES Permit provides water purveyors with required Clean Water Act regulatory coverage for mandated discharges and emergency discharges
 - The water purveyor is permitted by the State Water Board to discharge to waters of the U.S. per the requirements of the permit
 - This permit sets consistent water quality requirements for discharges statewide
 - This permit does not interfere with local storm water agency authority (this is not a permit to discharge into a storm drain)

What Else Does This Permit Do for Water Purveyors?

- This permit provides a regulatory exception to the California Toxic Rule
- The California Toxic Rule was established through federal regulations for California waters
 - Sets stringent criteria for 126 pollutants including metals and chlorine byproducts
- The State Water Board grants water purveyors that are covered under this permit an exception to California Toxic Rule
 - Note – this is not an exception to the Clean Water Act*
- The exception does not apply to commingled storm water

Best Management Practice-focused Permit

- Implement Best Management Practices to protect beneficial uses of receiving surface water



- Monitor
- Report annually
- Keep records



Permit Requires Existing Proven Management Practices

- Permit does not specify which Best Management Practices
- Select specific practices that protect beneficial uses from your discharge



Permit Requires Existing Proven Management Practices

- Same for ground water supply operations
- Select specific practices that protect beneficial uses from your discharge



Permit Acknowledges Coverage Under Existing MS4 Permits

State Water Board not requiring the following to enroll in statewide permit:

- **A water purveyor that is also a municipal storm water permittees**
- **A water purveyor that have an established local agreement with municipal storm water permittee, and concurrence with their regional water board**
- **A water purveyor whose discharges do not enter waters of the U.S.**

Permit Acknowledges Small System Challenges

- **State Water Board acknowledges difficulties small drinking water systems encounter due to lack of resources and remoteness**
- **State Water Board does not require systems of less than 1000 connections to enroll in new statewide permit**
- **State Water Board does not have the authority to waive small systems from Clean Water Act requirements**
- **State Water Board strongly encourages these small systems to enroll and obtain mandated Clean Water Act regulatory coverage**

Permit Addresses Local Cost Concerns

- **Compliance monitoring involves field monitoring only**
 - 1. Event monitoring for discharges with greater perceived threat**
 - **Discharges due to well development and rehabilitation**
 - **Superchlorinated discharges**
 - **Discharges greater than one acre-foot**
 - 2. Once-per-year representative monitoring**
 - **One representative monitoring sample represents other discharges of same:**
 - **general source**
 - **treatment and**
 - **management practices**

Permit Addresses Local Cost Concerns

- **Visual receiving water monitoring only for direct discharges that are non-compliant**
- **No monitoring for emergency discharges or non-surface water discharges**
- **Annual reporting to State Board (statewide database)**
- **Immediate reporting when non-compliance may potentially adversely impact beneficial uses of receiving waters**
- **Pre-notification to Regional Water Quality Control Board of large size discharges**
- **Post notification of emergency discharges**

How to Comply with the Permit

By September 1, 2015

- **Submit a Completed Application Package (Att. B-1 of permit)**
- **Or**
- **Submit a Completed *Notice of Non-Applicability***
 - (Att. B-2 of permit)
 - *Your water agency is storm water (MS4) permittee that holds a storm water NPDES permit (i.e. City, County)*
 - *Your water agency has an established local agreement with the storm drain agency and all your system discharges enter the storm drain system (no direct discharges to surface waters)*
 - *Your water system does not discharge to a water of the U.S.*
 - *Your discharge to a water of the U.S. is federally exempt*

Promoting Multiple Uses for these Good Quality Discharges



- Incentives to work with storm water entity to route water to:
 - Ground water recharge facilities
 - Low impact development facilities



- Reuse



Promoting Multiple Uses for these Good Quality Discharges



- **Incentive to routing water for beneficial use or reuse**
 - Permit coverage also serves as waste discharge requirements
 - No monitoring for portions of discharges that do not discharge to surface waters (waters of the U.S.)



Note – discharge to a dry creek bed is a discharge to a water of the U.S. and an NPDES discharge. Not considered a beneficial use per this discussion.

Seek Opportunities for Collaboration Among Local Drinking/Storm Water Agency

- **Large volume discharges create un-natural pulses in storm drain systems during dry weather creating high-concentration storm water**
 - Route flows to green streets, parking lots, other low impact development (LID) infrastructure
- **During drought**
 - Difficult to view discharges as *de minimus* discharges in terms of needed water supply
 - Drinking water discharges may serve as conservation when routed to LID, especially those systems that overlay ground water basins and fractured bedrock
- **Continue Integrating local water management**
 - Incentivized through CA Water Action Plan (Actions 2 & 10) and Proposition 1 funding incentives

**For Further Information
Come to a Permit Implementation Workshop or
Request a Permit Implementation Workshop in Your Area**

http://www.waterboards.ca.gov/water_issues/programs/npdes/drinkingwatersystems.shtml

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Additional Background Information

For Information Only

TMDL Implementation

- Section K of Fact Sheet summarizes existing TMDLs that apply to water purveyors
- Los Angeles and San Diego Regional Water Board TMDLs directly and indirectly reference waste load allocations to water purveyors exclusively
- Permit Fact Sheet concludes that water purveyors are not a source of the pollutant impairment
 - Additional application monitoring to be evaluated

Why an NPDES* Permit?

**National Pollutant Discharge Elimination System*

- Clean Water Act requires pollutant source discharges to waters of the U.S. (fishable and swimmable waters) to obtain an NPDES permit
- In California, the State and Regional Water Boards issue NPDES permits
- Many water purveyors have local agreements with storm water NPDES permittees for regulatory coverage
- Others do not, or storm water permittees requiring separate permit

Clean Water Act Requirements

- Section 122.44(d)(1)(i) states NPDES permits shall include appropriate effluent limitations:

*Limitations must control all pollutants parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines **are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality***

- For drinking water system discharges, pollutants of concern include chlorine, chlorine byproducts, pH, solids

Toxicity Standards

Toxicity (i.e. chlorine, byproducts, metals)

- Regional Board Basin Plans contain narrative toxicity objectives which generally state:

“all waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life;”

- Specific language varies among Basin Plans.
- Federal regulations require effluent limits when a discharge has a reasonable potential*

* *causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a numeric or narrative objective within an applicable State water quality standard (40 Code of Federal Regulations 122.44(d)).*

For Discharges Into TMDL Water Bodies

TMDL – Total Maximum Daily Load

If the water quality in a surface water is polluted and does not support its beneficial uses, the Regional Water Quality Control Board adopts a TMDL

- **A TMDL is state regulation that allocates how much of that pollutant different types of dischargers can contribute to that water body to restore its water quality**
- **Attachment F, Section III.K. lists the water bodies in which If water purveyors are included in a TMDL**
- **Lab analysis of subject TMDL pollutant is required for discharges into that impaired water body**
 - **If so, lab analysis for subject constituents for permit application only**

New Proposition 1 Funding

- **Requires Storm Water Resource Plan**
 - Think Outside the Box regarding making storm water a resource, and the overlap with drinking water system discharge water reuse/beneficial use.
 - How can the concept of “storm water as a resource” incorporate drinking water system discharges that typically enter storm drain, but instead routed to ground water recharge or reuse?
 - How can drinking water system discharges (that typically ends up in storm drain system) be used in a manner that provides a benefit to water supply elsewhere in your watershed?

NPDES Permit Application Checklist

- ❑ Notice of Intent form completed and signed for each CDWS
- ❑ Application fee payable to the SWRCB included
- ❑ Site information provided
 - Option of providing general location of the facilities or the boundaries of the service area(s)
 - Need only to show the named receiving waters and the major named downstream waters
 - For discharges within 300 feet of a water body, the Discharger is only expected to submit the representative distance of 300 feet on both sides of the named water bodies or indicate the entire service area is within 300 feet from a water body.
- ❑ TMDL Waterbody information completed and submitted
 - 2 samples' laboratory analysis for parameters listed in Table F-2 for each applicable TMDL waterbody representative of the discharges
 - The estimated minimum and maximum discharge volume per discharge event and estimated average annual discharge volume going to the TMDL waterbody.
 - Description of TMDL specific BMPs if any.

<u>Service Connections</u>	<u>Application Fee Only</u>	<u>Application & Annual Fee</u>
<u>15-999</u>	<u>\$100</u>	
<u>1,000-9,999</u>		<u>\$500</u>
<u>10,000+</u>		<u>\$2,062</u>
<u>Transmission Only</u>		<u>\$2,062</u>