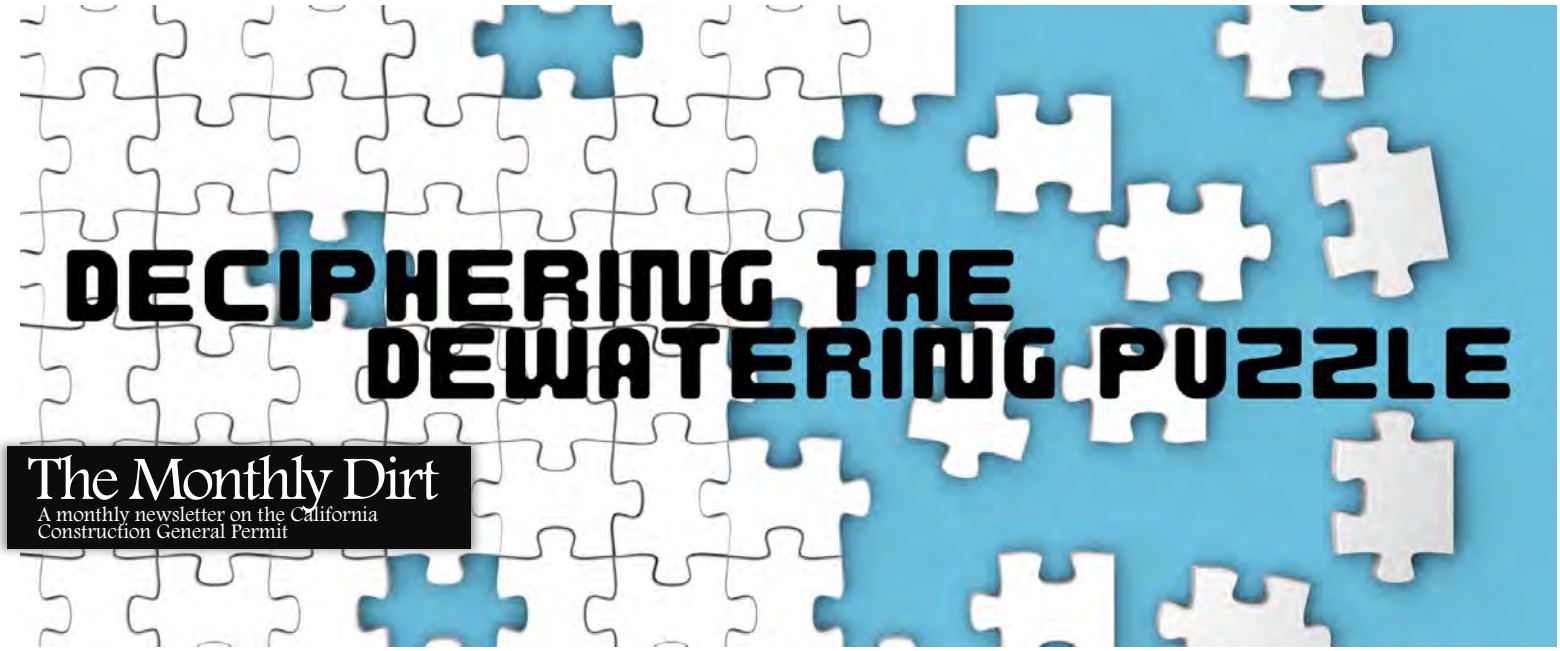

DECIPHERING THE DEWATERING PUZZLE

The Monthly Dirt
A monthly newsletter on the California Construction General Permit

Dewatering definitions and requirements will be dependent on where you are located in the State.

After more than a year and a half of evaluating and deciphering the new Construction General Permit's dewatering requirements including eleven Water Board road shows and several other staff presentations, the Attachment J dewatering requirements still remain a bit of a puzzle. We are finding that the key to solving the dewatering puzzle lies with each Regional Water Quality Control Board. How each Regional Board defines "dewatering" and what other NPDES Permits they deem applicable may, in effect, alter the Attachment J compliance program experience drastically from one Regional Board to another.

DEFINING TERMS:

Attachment B defines dewatering as "*the process of removing excess water in an excavation or impoundment by pumping or other mechanical means.*" Maybe it is just me and my preconceived ideas, but I still would have interpreted this as groundwater, until I heard Brandon Roosenboom of the State Water Board respond to a question asked during the Water Board's April 12, 2022 workshop on the proposed CGP. During the recent Storm Water Awareness Week keynote presentation, Brandon (who is the NPDES Construction Stormwater Permitting Lead Staff) was again asked if dewatering included the discharge of storm water which had collected in trenches, basins, and low spots on a construction site. He replied that it ***does*** include pumping storm water from these types of impoundments (click here to go to directly to his quote.) Continuing to look at the terms used in this definition, it is clear what is an "excavation"; but what is meant by impoundment? The second paragraph in Attachment J provides the answer. Impoundments include ponds, puddles, low points on the active site, or other similar accumulation points. Moving storm water out of a puddle by "*pumping or other mechanical means*" is dewatering?! Well, that appears to be the intent of the new permit. But before you get too worked up over this interpretation, there is **another** piece of the puzzle needing to be considered—the local Regional Board.

COVERAGE UNDER ANOTHER PERMIT:

Attachment J of the new General Permit states, "*Dischargers with dewatering activities subject to a separate NPDES permit for dewatering activities are not subject to the provisions in this Attachment, and shall obtain separate NPDES coverage as required by the State or Regional Water Board. Dischargers shall include in its Stormwater Pollution Prevention Plan (SWPPP), the separate NPDES permit coverage it holds for dewatering discharges.*" So which dischargers would be subject to other NPDES permits for dewatering? As it turns out, eight of the nine Regional Water Quality Control Boards (Regional Boards) have a NPDES General Permit or other mechanism for low threat discharges that ***could potentially*** cover dewatering activities. The only Regional Board not having a separate permit is the San Francisco Bay Region (Region 2). With this newsletter, we have provided a table with links to the various low threat NPDES permits for the eight other regions. ***But this is where it gets interesting ...*** not all of the Regional Boards define dewatering to be exclusively storm water or require an otherwise seemingly applicable NPDES permit to be obtained. During the recent Storm Water Awareness Week keynote presentation, we interviewed staff from four different Regional Boards.

Nerissa Schrader of Region 4—Los Angeles stated that her region considers dewatering to include groundwater and commingled storm water and groundwater. The Regional Board requires projects having dewatering to obtain coverage under the Regional Dewatering Permit. For her region, pumping off storm water would not require a separate NPDES permit and would only be subject to Attachment J of the CGP. (Click here to go directly to view Nerissa's interview.)

Jorge Beltran of Region 5—Central Valley stated that his region also considers dewatering

to include groundwater or commingled storm water and groundwater. In his region, pumping off storm water would not require a separate NPDES permit and would only be subject to Attachment J of the CGP. Discharges of groundwater to surface waters would require coverage under the Limited Threat NPDES Permit. Discharges of groundwater to land that exclusively infiltrate into the soil would require coverage by the Limited Threat Waste Discharge Requirements (WDR). (Click here to go directly to Jorge's interview.)

Jim Carolan of Region 6—Lahontan stated that his region considers dewatering to be "comprehensive" which includes groundwater, storm water, and hydrostatic testing water. He said dewatering in his region is complicated and quite onerous. Therefore, his region encourages dischargers to find ways to infiltrate water on site rather than applying for a separate NPDES permit. If infiltration cannot prevent a discharge, the project would require coverage under the Dewatering NPDES Permit and discharges of "dewatering" from a construction site without coverage under this permit would face enforcement action. (Click here to go directly to Jim's interview.)

Erica Ryan of Region 9—San Diego stated her region considers pumping off of discharges exclusively comprised of storm water from a construction site only to be subject to Attachment J. Discharges of groundwater to surface waters would require coverage under the General Waste Discharge Requirements for Groundwater Extraction Discharges to Surface Waters. Discharges of groundwater to land that exclusively infiltrate into the soil would require coverage by the Conditional Waivers of Waste Discharge Requirements for Low Threat Discharges. However, land application under this WDR is limited to a maximum of 5,000 gallons per day via mechanical pumping for 180 continuous days. For discharges greater or longer than this waiver allows, the project proponent would need to contact the Regional Board. (Click here to go directly to Erica's interview.)

NOTIFICATIONS AND REPORTING:

If you find yourself needing to dewater without a separate NPDES permit, you will first need to notify the Regional Board of your intent to discharge from dewatering activities. The CGP states, "*At least 24 hours prior to the beginning of a dewatering discharge, the discharger shall notify the applicable Regional Water Board storm water staff via email of the anticipated dewatering discharge.*" Email addresses can be found in Attachment C of the CGP. In addition, the QSD must revise the SWPPP to include the dewatering activities and associated BMPs at least 24 hours prior to beginning the dewatering discharge. Within 14 days, the amended SWPPP must be uploaded onto SMARTS. Once discharge and the associated monitoring begin, if there are numeric action level (NAL) exceedances, they must be reported on SMARTS via an Ad-Hoc report within 10 days. An NAL exceedance necessitates that the discharge immediately be discontinued and will trigger the need for corrective action that must be documented in another SWPPP amendment and uploaded onto SMARTS within 10 days of the exceedance.

REQUIRED DEWATERING BMPS:

The following BMPs are required to be included in the amended SWPPP prior to commencing dewatering discharge:

- Utilize outlet structures that withdraw water from the surface (e.g., pond skimmers) when conducting dewatering activity from sediment basins or similar impoundments, unless infeasible;
- Prevent the dewatering discharge from contacting construction materials or equipment;
- Do not use waters of the United States as part of the treatment area, at all areas or points where dewatering is discharged (which means a mixing zone in the water body where sediment settles out and turbidity improves is not allowed);
- Decelerate the velocity of dewatering discharge (e.g., check dams, sediment traps, riprap, and grouted riprap at outlets);
- Include in the SWPPP a cleaning and maintenance plan for all dewatering devices and filter media vessels when the pressure equals or exceeds the manufacturer's specifications (if applicable).

DEWATERING MONITORING:

The new CGP requires dewatering discharges to be analyzed for pH and turbidity at the discharge location within the first hour of discharge and daily for continuous dewatering discharges. ***During the Storm Water Awareness Week keynote presentation, we were surprised to hear Brandon Roosenboom state that Attachment J applies to all dischargers; and, therefore, the sampling requirements also apply to all dischargers regardless of their risk level.*** (Listen to his comment here.) Each sample must instantaneously comply with the NALs for pH (within 6.5 - 8.5 standard pH units) and turbidity (250 nephelometric turbidity units). The discharge must immediately cease if an NAL is exceeded. This may happen:

- Through an automated sampling device capable of ceasing the discharge if a single sample concentration/level exceeds an NAL; or,
- By a QSP or trained delegate who is present during the operation of the mechanical pumping and/or syphoning of the dewatering activity.

Keep in mind the NAL for dewatering is not a daily average but a single reading. The moment you see a reading outside of the pH or turbidity NALs, the discharge must be terminated, corrective action identified and included in a SWPPP amendment, and an Ad Hoc NAL exceedance report will need to be submitted on SMARTS with the amended SWPPP. Because of this process, it would be wise to test the water quality and/or treatment system performance by recirculating water back into the impoundment and testing for pH and turbidity before discharging it offsite. Once water quality tests good, then the discharge can commence with the official pH and turbidity monitoring.

DEWATERING PROHIBITIONS:

Attachment J also includes a list of prohibitions for dewatering discharges.

- Dewatering discharges must not cause receiving water limitation exceedances. This could be sediment and turbidity, but it can also include other pollutants or conditions present in the discharge such as pesticides, salinity, low dissolved oxygen, metals, nitrates, etc. Many of the Regional Board Low Threat NPDES Permits require extensive testing for these types of analytes.
- The dewatering discharge must be absent of pollutants in quantities that threaten to cause pollution or a nuisance (as defined by 40 Code of Federal Regulations section 131.
- The dewatering activity can only take place in an area without known soil and/or groundwater contamination where that contamination could cause an exceedance of receiving water limitations. How do you know if your project site is free of background or historic contaminants? You can use public database tools and information resources such as Geotracker, local permitting authorities, and consulting with the Regional Boards.

Starting this winter many projects will need to decipher the dewatering puzzle. QSDs can get a head start by determining what their Regional Board requires and what permits are needed.

Please contact us if you have any questions ...

The Monthly Dirt

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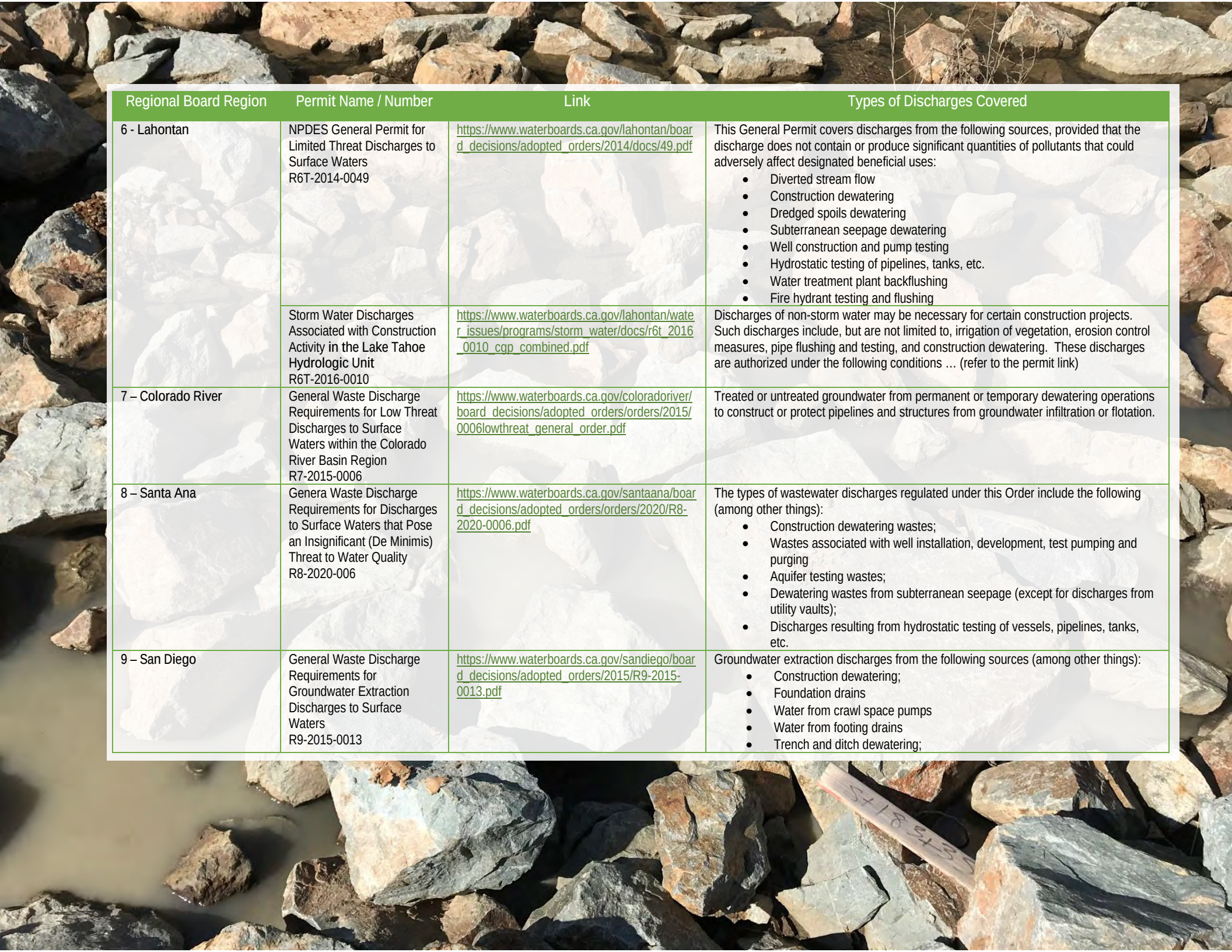
Regional Board De-Watering Permits:

Regional Board Region	Permit Name / Number	Link	Types of Discharges Covered
1 – North Coast	Low Threat Discharges to Surface Waters in the North Coast Region R1-2015-003	https://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/2015/150312_0003_Low_Threat_General_Order.pdf	Among other types of discharges… • Construction dewatering of groundwater, captured storm water, or any non-storm water where sediment and naturally occurring parameters (e.g., naturally occurring metals or salts, temperature, pH, etc.) are the only pollutants of concern and these pollutants are in compliance with applicable water quality objectives; • Hydrostatic testing of newly constructed pipelines, tanks, and reservoirs used for purposes other than potable water supplies, where chlorine, chlorine byproducts and naturally occurring parameters (e.g., naturally occurring metals, temperature, pH, etc.) in the water supply are the only pollutants of concern;
2 – San Francisco Bay	None		
3 – Central Coast	NPDES General Permit for Discharges with Low Threat to Water Quality R3-2017-0042	https://www.waterboards.ca.gov/centralcoast/board_decisions/adopted_orders/2017/npdes_general_order_r3-2017-0042.pdf	Low-threat discharges are discharges that contain minimal amounts of pollutants and pose little or no threat to water quality and the environment. These discharges may be treated and discharged on either continuous or batch bases. Discharge flow rates are generally limited to those rates specified in this Order and do not exceed 0.3million gallons per day (MGD).
4 – Los Angeles	Waste Discharge Requirements for Discharges Of Groundwater From Construction And Project Dewatering To Surface Waters In Coastal Watersheds Of Los Angeles And Ventura Counties R4-2018-0125	https://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/general_orders/r4-2018-0125/OrderNoR4-2018-0125(Order).pdf	Discharges covered under this General Permit include groundwater generated from permanent or temporary dewatering operations or other appropriate wastewater discharge not specifically covered in other general or individual NPDES permits. In addition, this General Permit covers discharges from cleanup of contaminated sites where other project specific general permits may not be appropriate, such as groundwater impacted by metals and/or other toxic compounds. This General Permit also covers discharges from dewatering operations in the vicinity of creeks where surface waters and groundwaters are hydrologically connected and have similar water chemistry. Creekside discharges that qualify under this General Permit will not be required to comply with the waterbody specific limitations for total dissolved solids (TDS), sulfate or chloride. The purpose of this approach to regulating creekside discharges is to avoid requiring a discharger to treat a surface waterbody to lower than naturally occurring, background, mineral content. In such circumstance, cycling the extracted creekside water back into the waterbody would not cause any decrease in the quality of the waterbody or degradation.
5 – Central Valley	Waste Discharge Requirements Limited Threat Discharges to Surface Waters R5-2022-0006	https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2022-0006_npdes.pdf	Clean or relatively pollutant-free wastewaters that pose little or no threat to water quality which include the following: • Well Development Water • Construction Dewatering • Pump/Well Testing o Pipeline/Tank Pressure Testing • Pipeline/Tank Flushing or Dewatering • Condensate • Water Supply System • Aggregate Mine • Filter Backwash Water • Other wastewater that does require treatment



Regional Board Region	Permit Name / Number	Link	Types of Discharges Covered
6 - Lahontan	NPDES General Permit for Limited Threat Discharges to Surface Waters R6T-2014-0049	https://www.waterboards.ca.gov/lahontan/board_decisions/adopted_orders/2014/docs/49.pdf	This General Permit covers discharges from the following sources, provided that the discharge does not contain or produce significant quantities of pollutants that could adversely affect designated beneficial uses: • Diverted stream flow • Construction dewatering • Dredged spoils dewatering • Subterranean seepage dewatering • Well construction and pump testing • Hydrostatic testing of pipelines, tanks, etc. • Water treatment plant backflushing • Fire hydrant testing and flushing
	Storm Water Discharges Associated with Construction Activity in the Lake Tahoe Hydrologic Unit R6T-2016-0010	https://www.waterboards.ca.gov/lahontan/water_issues/programs/storm_water/docs/r6t_2016_0010_cgp_combined.pdf	Discharges of non-storm water may be necessary for certain construction projects. Such discharges include, but are not limited to, irrigation of vegetation, erosion control measures, pipe flushing and testing, and construction dewatering. These discharges are authorized under the following conditions … (refer to the permit link)
7 – Colorado River	General Waste Discharge Requirements for Low Threat Discharges to Surface Waters within the Colorado River Basin Region R7-2015-0006	https://www.waterboards.ca.gov/coloradoriver/board_decisions/adopted_orders/orders/2015/0006lowthreat_general_order.pdf	Treated or untreated groundwater from permanent or temporary dewatering operations to construct or protect pipelines and structures from groundwater infiltration or flotation.
8 – Santa Ana	Genera Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimis) Threat to Water Quality R8-2020-006	https://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2020/R8-2020-0006.pdf	The types of wastewater discharges regulated under this Order include the following (among other things): • Construction dewatering wastes; • Wastes associated with well installation, development, test pumping and purging • Aquifer testing wastes; • Dewatering wastes from subterranean seepage (except for discharges from utility vaults); • Discharges resulting from hydrostatic testing of vessels, pipelines, tanks, etc.
9 – San Diego	General Waste Discharge Requirements for Groundwater Extraction Discharges to Surface Waters R9-2015-0013	https://www.waterboards.ca.gov/sandiego/board_decisions/adopted_orders/2015/R9-2015-0013.pdf	Groundwater extraction discharges from the following sources (among other things): • Construction dewatering; • Foundation drains • Water from crawl space pumps • Water from footing drains • Trench and ditch dewatering;

THANK YOU

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