

"New ideas pass through three periods: 1) It can't be done. 2) It probably can be done, but it's not worth doing. 3) I knew it was a good idea all along! Arthur C. Clarke (Science-fiction writer)

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 respond to a question asked during the Water Board's April 12, 2022 workshop on the proposed CGP. Brandon was 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 dewatering does include pumping storm water from these types of impoundments. This was a paradigm shift for me and, I am thinking, for others too! 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 Whoa! Another accumulation points. paradigm shift! Puddles? Low points? Moving storm water out of a puddle by "pumping or other mechanical means" is dewatering?! That appears to be the intent of this proposed permit. Pumping is obvious, but what is "other mechanical means"? The proposed Permit makes two references to syphoning but really doesn't provide a comprehensive definition of mechanical. So could using a shovel or squeegee to move water from a puddle be

As we have seen in the last two Monthly Dirt editions, change is coming quickly as we approach the soon adoption of the Proposed Statewide Construction Storm Water General Permit Reissuance. Last month, we looked at new Best Management Practice (BMP) requirements in the proposed permit. In this third (in a series of four) article, we will review the requirements the State Water Board has placed on dewatering activities. I bet you thought dewatering is only if groundwater needs to be pumped out of an excavated pit. Guess again! Even storm water pumped from a low spot is now considered to be "dewatering."

dewatering? Possibly! It may depend upon the interpretation of the municipal or Water Board inspector.

COVERAGE UNDER ANOTHER PERMIT:

The Attachment | of the proposed General Permit states, "Dischargers with dewatering activities subject to a separate NPDES, de minimis, or low threat discharge permit for dewatering activities are not subject to the provisions in this Attachment and shall obtain separate coverage as required by the State or Regional Water Board. Dischargers who are subject to separate coverage for dewatering discharges shall state so in their Storm Water Pollution Prevention Plan (SWPPP)." 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 for low threat discharges that 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. Going back to our paradigm shift due to the proposed CGP's definitions, we have to wonder if these eight Regional Boards also include such an expanded view of what is dewatering and would expect permit coverage for pumping

water from puddles and low spots.

NOTIFICATIONS AND REPORTING:

If you find yourself needing to dewater without a separate NPDES permit (meaning your project is probably located in the San Francisco Bay region), you will first need to notify the Regional Board of your intent to discharge from dewatering activities. The proposed 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 proposed Permit. 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 as a part of a Changeof-Information (COI) which certification by the Legally Responsible Person (LRP). 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.

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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); and
- 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 proposed 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. 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 that 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 looks 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 <u>Geotracker</u>, local permitting authorities, and consulting with the Regional Boards.

If you are like us, this has probably prompted more questions of what will require a separate dewatering NPDES permit and how the permitting logistics will work, but, without doubt, under the proposed Construction General Permit renewal there will be more steps to take when discharging impounded water. Join us next month for the last edition in the series of four on the proposed CGP. We will look at how Total Maximum Daily Loads (TMDLs) are being incorporated into the Permit and what that means for your project's compliance program.

Download the Caltrans Comprehensive Guide to Dewatering

It is a 1,600-page manual that has applicable information to any dewatering projects in California. It is packed-full of information on permitting, treatment, system configuration and design, and much more.



https://dot.ca.gov/-/media/dot-media/programs/ construction/documents/environmental-compliance/fieldguide-to-construction-site-dewatering-ally.pdf

WATER BOARD MEETING TO
CONSIDER ADOPTION OF THE CGP
RENEWAL IS POSTPONED
UNTIL SEPTEMBER 2022
DETAILS TO BE PROVIDED IN A SEPA-

RATE FORTHCOMING

NOTICE

Please contact us if you have any questions ...

The Monthly Dirt

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Technical Questions about Environmental Compliance? Call ...

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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/bo ard_decisions/adopted_orders/pdf/2015/15031 2_0003_Low_Threat_General_Order.pdf	 Among other types of discharges Construction dewatering of groundwater, captured storm water, or any non-sto water where sediment and naturally occurring parameters (e.g., naturally occurring metals or salts, temperature, pH, etc.) are the only pollutants of conc 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 byproduce 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/b oard_decisions/adopted_orders/2017/npdes_g eneral_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 treated and discharged on either continuous or batch bases. Discharge flow rates a 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/bo ard_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 Perm also covers discharges from dewatering operations in the vicinity of creeks where surface waters and groundwaters are hydrologically connected and have similar wat 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 th naturally occurring, background, mineral content. In such circumstance, cycling the extracted creekside water back into the waterbody would not cause any decrease in 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 qu 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 6 - Lahontan	NPDES General Permit for	Link https://www.waterboards.ca.gov/lahontan/boar	Types of Discharges Covered This General Permit covers discharges from the following sources, provided that the
	Limited Threat Discharges to Surface Waters R6T-2014-0049	d_decisions/adopted_orders/2014/docs/49.pdf	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/waterissues/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 contrues 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 operation 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/boar d_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 fro 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):



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Monitoring

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- Installation Monitoring
- Post-Installation Monitoring and Reporting
- Mitigation Monitoring & Reporting
- Dredging Monitoring



- Environmental Regulation Compliance
- Clean Water Act Permitting and Compliance
- California Department of Fish and Wildlife Streambed Alteration Agreements
- 401, 404, and Section 1600 Permit Compliance
- Federal Endangered
 Species Act Compliance



- Geographic Information
 Systems & Digital Mapping
- Biological Resource Support
- Environmental Awareness Programs
- Environmental Project
 Management

MEET THE BIOLOGIST:

Danielle Teravskis, Biological Monitor

Danielle has had experience as a biological technician providing monitoring for several notable organizations including U.S. Fish and Wildlife. She specializes in monitoring construction activities and the impact on wildlife, conducting field investigations for habitat analysis, and monitoring for protected species.





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