Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1101 I Street, 24th Floor
Sacramento, CA 95814

VIA FACSIMILE: (916) 341-5620
VIA EMAIL: commentletters@waterboards.ca.gov

Comments on the Draft of NPDES General Permit for Discharges of Storm Water Associated with Industrial Activities

Dear Ms. Townsend and Board Members:

While we appreciate some indications that board staff strides towards creating an industrial permit that allows for compliance, but unfortunately they are not equipped with the necessary data set to allow such an assessment of numeric effluent limits, as indicated by the Blue Ribbon Panel's assessment on the feasibility of numeric limits. Our concerns extend beyond that point. We have assessed a compliance action items to meet the Draft conditions and have grave reservations that full compliance with the Draft of NPDES General Permit for Discharges of Storm Water Associated with Industrial Activities (DGIP) are not feasible, simply because it does not scale limits to sectors, consider natural conditions, , could severely affect water quality, miss-allocates resources away from site specific best management practices and does not clearly define a variety of permit conditions, and is prescriptive of requirements that are not significantly protective of water quality in all settings.

Below we've expand on the issues that we feel will negatively impact our potential for future compliance, do not have significant benefit to water quality and in some cases could lead to degradation of water quality. Unfortunately our ability to provide comprehensive review and comments on this important permit are hobbled because we are commenting on an incomplete unrefined permit draft is obviously flawed. We also offer some suggestions for improving the proposed program for storm water quality management.

**Inspection Procedures are burdensome and inefficient and do not improve water quality**

The DGIP places a paperwork burden on facilities to inspect various locations, BMP's, equipment, and areas using various inspection guidelines in the Draft permit. The table below charts the required inspections and their frequency compared with the existing permit, for <u>one</u> watershed, even if that area does not discharge.

| Inspection Type | Frequency | Inspections Per Year | Inspections Per Existing Permit | Suggested Frequency | Inspection Per Year |
|---|---|---|---|---|---|
| 1. Quarterly Inspection (VIII.H.1.h.i) | Quarterly | 4 | 0 | Quarterly | 4 |
| 2. Annual Comprehensive site Compliance Evaluation ( | Annually | 1 | 1 | Annually | 1 |

| | | | | | |
|---|---|---|---|---|---|
| VIII.I) | | | | | |
| 3. Monthly Storm Water Discharge Visual Observation (IX.C.1) | Monthly | 12 | 8 | Monthly from October through May | 8 |
| 4. Drainage area inspection (IX.C.6) | Prior to Storm Events | 32 | 0 | Include in the Monthly inspection (during the rainy season) | 0 |
| 5. Storm Event Records (IX.C.5) | All Storm events | 32* | 32* | All Storm events | 32* |
| 6. Storm Water Storage and Containment Area inspection (IX.C.4) | Prior to Storm Events | 32* | 0 | Include in the Monthly inspection (during the rainy season) | 0 |
| 7. Good House Keeping – BMP (VIII.H.1.a.i) | Weekly | 52 | 0 | Include in the Monthly inspection (during the rainy season) | 8 |
| 8. Equipment Inspection for leaks – BMP (VIII.H.1.b.ii) | Weekly | 52 | 0 | Weekly inspection (during the rainy season, when triggered by an exeedence) | 36-38 |
| 9. Inspection and Cleaning of Outdoor Material/Waste Handling Equipment – BMP (VIII.H.1.d.v) | Daily | 365 | 0 | Include in the Weekly Equipment inspection (during the rainy season, when triggered by an exeedence) | 0 |
| 10. Non- Storm Water Discharge Visual Observations (IX.B.2) | Quarterly | 4 | 4 | Quarterly | 4 |
| **Total Yearly Inspections Per Facility** | | 586 | 45 | | 95 |
| *= based on 2010 rain events in Watsonville | | | | | |

Streamlining the process:

The Drainage area inspection, Storm water storage and containment area inspection, and the Good House Keeping BMP inspection, could all be combined into one monthly inspection, and should only be required if an area is both exposed to storm water runoff and that runoff can discharge. If significant water quality benefit can be shown equipment inspection and the daily inspections could be combined into a separate weekly inspection, if a need is triggered, for example, when oil and grease results are elevated over benchmarks, or visually detected, then an inspection cycle would be triggered until results retreat to within benchmarks. The streamlining of the documentation would meet the inspections goals of the permit while decreasing the paperwork requirements.

The emphasis on paperwork needs to be justified with water quality data. DGIP has provided no water quality improvement evidence for such the incredible increase in paperwork. QSP and the SWPPP team members at a facility should be focused on improving water quality of discharges. They should document those improvements appropriately and should not be burden with hundred of documents that do not precisely target improvements. There is no evidence that documenting the same improvement/response multiple times on different inspection forms improves water quality. Paperwork should be clearly linked to improvements and it doesn't take over five

hundred inspections to prove that a facility and its team are doing everything that is feasible and technologically achievable to improve stormwater quality.

These inspection requirements are a bonanza to clean water act litigators whom are well known to collect settlements with no improvement in water quality. Does the Board want to feed this litigation? The DGIP inspection documentation requirements provide 586 opportunities (per watershed) to violate the permit in one year, in our companies operating area based on 2010 rain events. Why the shift away from BMP and water quality data to provoking litigation. Has there been any consideration to costs associated with daily inspections by requiring staff to be present every weekend and holiday add considerable economic side effects?

**Qualifying Storm Events definitions have shifted Water Quality understanding and frequency without justification.**

Qualifying storm event (QSE) is defined as a, "storm event that has produced a minimum of 1/4 inch of rainfall as measured by an on-site rainfall measurement device, and from a storm event that was preceded by two consecutive days (48 hours) of dry weather. Dry weather shall be defined as two consecutive days (48hours) of combined rainfall of less than 1/8 inch as measured by an on-site rainfall measurement device."[1]

In Section X.H there is a footnote that elaborates on this definition to mean that dry weather only refers to operating days, therefore rain events on the weekend that cause discharges that continue through the start of the week, must be sampled within four hours of opening.

Changing the very nature of a sample event invalidates prior storm water data for future compliance prediction. Although some constituents may improve over extended periods of discharge, there is no data to indicate that all benchmarks will behave this way, and may results from the incomplete SMARTS system indicate non-compliances.

Facility also will lose their incentive to store storm water. Dischargers have no reason to store water when they don't have to sample until a quarter inch of rainfall occurs. Why shouldn't a facility discharge as early as possible to flush there facility and not sample until a ¼ inch of rain falls and then they could wait another four hours before they need to sample. For example a 5 acre site could discharge 33,939 gallons of storm water before a ¼ of rain had fallen and then they could wait another four hours before they were required to sample.

The new definition could lead to more sampling for Level two and three dischargers. The lack of a clear definition could benefit facility water sample quality while detrimentally affecting overall water quality. The water quality data that will be provided to the SMARTS data base may not be representative of initial discharge quality and pose significant downstream risks and hazards.

**Lack of a precise Daily Average definition**

[1] as defined in section X.E.1 and 2

The DA is defined as, "the sum of the analytical results reported for each constituent divided by the number of reported results,"[2] Does this mean that dischargers should be taking multiple samples from each discharge point within the four hour sampling window? Do all sampling points at a facility therefore have the same weight when it comes to the DA calculation done by SMARTS? Is a facilities DA value calculated per facility or per discharge point? How has the Board incorporated their working definition of daily average into the compliance determination assessment using the SMARTs data base?

In any one of these situations, the DGIP places water quality and compliance into jeopardy, by causing focus in the wrong areas. Inconsistencies in sampling method, new definitions of qualifying events created in this permit will decouple the effectiveness of BMP research to date and for a long time into the future until data sets allow complex deconstruction of the variables. Dischargers taking more samples in the four hour window will have different results, then if paced over a longer period regardless of the method used to calculate the DA either per discharge point or per facility. If all sampling points are put into the DA calculation then dischargers could create more sampling points within their facility to dilute the sampling points with greater pollutant loads. The importance of a defined DA calculation cannot be understated; this issue alone could easily undermine the goals of this draft permit.

**QSD Requirements**

The requirements for a QSD are not directly related to storm water experience. The appropriate experience should be based on training alone and not being a state registered engineer, geologist, hydrologist or landscape architect. The construction general permit recently addressed this issue and training is the only thing to determine if someone can be a QSD. By limiting the qualifications many people with years of experience in storm water management are no longer able to make the decisions that have been protecting water quality since the previous permit was issued. The State Water Board-sponsored or approved QSD training course should meet the requirements of the QSD.

Without a solely training based requirement for a QSD SWPPP development, amendments, and certification will become costly and more time consuming as more people who meet the requirements gain knowledge in storm water issues. The knowledge gained by previous SWPPP developers and implementers shouldn't be lost to a license that has no direct connection to storm water.

**PE Certification of Level Two and Three Reports Should be Limited**

Section XVII.C.8 and D.8 state a professional civil engineer is must certify level two and three Exceedance Evaluation Reports (EER). This requirement should be placed upon the LRP or the QSD as a PE may or may not be involved at the site. The addition of a third party PE requirement could be problematic and costly as the PE would need thorough knowledge of a site to certify the EER. Also this certification would require a PE to certify the schedule for completing to be implemented structural and/or treatment controls, it doesn't make sense that a third party engineer could be held responsible to complete such project. If a PE certification is

[2] as defined in section XI

required it should be limited in its scope to certify the structural and/or treatment BMP's that are to be implemented. BMP progress must occur rapidly and not be road blocked by wet stamps and additional costs.

**Sampling Cost Comparison between proposed and current permit**

| Minimum constituents monitored: pH, TSS, EC, Oil and grease | Current Permit | Level 1 | Level 2 | Level 3 |
|---|---|---|---|---|
| Sampling Frequency per year | 2 | 4 | 8 | Ever QSE |
| Cost per Sample Analysis* | 155 | 105 | 105 | 105 |
| Analysis cost per year | 310 | 420 | 840 | 840-Minimum |
| Calibrated Portable Instrument (cost per unit)*[1] | 0 | 155 | 155 | 155 |
| Annual NIST-Traceable Calibration (cost per unit) | 0 | 204 | 204 | 204 |
| Replacement Probe costs (annual)*[2] | 0 | 45 | 45 | 45 |
| Total costs for the first year | 310 | 1,138 | 1,578 | 1,578-Minimum |
| Total costs for each additional year | 310 | 918 | 1,338 | 1,338-Minimum |
| Total Graniterock Company Costs (16 Branches with SWPPP) | 4,960 | 14,688 | 21,408 | 21,408-Minimum |

* Cost per Sample Analysis is reduced in the draft permit due to the use of calibrated field equipment for monitoring pH and EC. Cost are based on current rates provide by Test America.
*[1] Cost based on least expensive equipment that would meet the draft permit requirements, Hanna Instruments-Low Range waterproof combo tester. Each Site would need a minimum of two calibrated portable instruments.
*[2] Probe should be replaced annually. Replacement probe must be calibrated.

The economic burden of just sampling related expenses to maintain compliance are significant and should be considered by the board. The additional costs should be justified with water quality data, but are not. The expenses related to maintaining staff on site to perform the inspections as set forth in the draft permit add additional costs that have been quantified according to generalized union rates and labor contract at our facilities. Costs vary from the different areas we currently operate in and based on the positions of SWPPP team members. The average annual personnel costs to meet the monitoring requirements of the DGIP are $55,803 per facility.

**Atmospheric Deposition is not defined**

Without a defined method for proving that atmospheric deposition is responsible for NAL/NEL triggers there is no defensible way that a facility can prove atmospheric deposition. We strongly encourage the board to define a method for proving that atmospheric deposition can influence storm water results.

**Additional Sampling Requirements for Facilities with Significant Land Disturbances**

Section XIII.B defines the requirements as:
Dischargers subject to this section shall, in addition to the sampling conducted on the first day of a qualifying storm event, collect and analyze samples from all drainage areas subject to land disturbance for each additional day of the storm event.

According to this requirement a facility must sample every day of discharge during a qualifying storm event regardless of operations. This imposes onerous sampling requirements without a corresponding benefit in water quality. It also places a large economic burden on operators already stressed by economic conditions, without regard to past performance in meeting EPA benchmarks.

The exemptions should be expanded to include inactive mines where reclamation has/is occurring, according to the SMARA definition 2733 (and mines whom meet benchmarks; those mines can revert to the existing sampling requirements): "Reclamation" means the combined process of land treatment that minimizes water degradation, air pollution, damage to aquatic or wildlife habitat, flooding, erosion, and other adverse effects from surface mining operations, including adverse surface effects incidental to underground mines, so that mined lands are reclaimed to a usable condition which is readily adaptable for alternate land uses and create no danger to public health or safety. The process may extend to affected lands surrounding mined lands, and may require backfilling, grading, resoiling, revegetation, soil compaction, stabilization, or other measures

Currently the exemption is only applicable to coal mines under the authority of SMCRA that meet the Reclamation Area definition in 40 CFR 434.11(l): (l) The term reclamation area means the surface area of a coal mine which has been returned to required contour and on which revegetation (specifically, seeding or planting) work has commenced.

Due to SWRCB role in SMARA requirements and the reclamation bonds/financial assurance mechanisms associated with inactive mines under SMARA regulations, the SWPPP requirements for inactive mining operations are unnecessary to protect water quality.

**Natural Conditions need to be considered when implementing NAL/NELs**

A one size fits all approach to a storm water permit is not applicable in a geologically diverse state such as California. Natural conditions exist caused by the geomorphic evolution our state has undergone that have left large areas of our state without potable water . Degradation of water quality through anthropogenic effects has contributed to surface and groundwater aquifer contamination in once pristine areas. The Department of Water Resources has characterized the groundwater in the central coast as:

**Groundwater Quality**

Much of the groundwater in the region is characterized by calcium sulfate to calcium sodium bicarbonate sulfate water types because of marine sedimentary rock in the watersheds. Aquifers intruded by seawater are typically characterized by sodium chloride to calcium chloride, and have chloride concentrations greater than 500 mg/L. In several areas, groundwater exceeds the MCL for nitrate. [3]

In the San Francisco Bay as:

---

[3] http://www.water.ca.gov/pubs/groundwater/bulletin_118/california's_groundwater__bulletin_118_-_update_2003_/bulletin118_3-cc.pdf

**Groundwater Quality**

In general, groundwater quality throughout most of the region is suitable for most urban and agricultural uses with only local impairments. The primary constituents of concern are high TDS, nitrate, boron, and organic compounds.[4]

In addition coastal areas of our state are subject to the affects of sea salt aerosol (SSA) deposition much more so than the rest of our state. Dry deposition can spread all across our state but larger diameter sea salt aerosols (ranging from 20-25 micrometers) are only transported 8.5 km[5]. Larger sized particle, have a greater ability to, affect the conductivity of water at industrial facilities located near the Pacific Ocean. Wet depositions caused by precipitation only further compounds the issue.

With such impairments defined by the DWR and SSA deposition affecting coastal areas, it appears that natural conditions need to be considered when implementing NAL/NELs. Careful consideration of natural conditions needs to be considered to prevent multiple facilities from being fast tracked to NELs. The economic burden of NELs should play a role when considering natural conditions. Without consideration of natural condition the data collected by this permit will be inherently flawed and not be useful to improving water quality with best practices.

**Monitoring Levels should be Transitory**

As the DGIP is currently written a facility can only go up from levels one to three. If a facilities storm water samples trigger this jump between monitoring levels and the facility follows the steps laid out in the DGIP, then storm water discharge water quality should improve. Once a facility has established the water quality improvements the facility should be allowed to decrease its monitoring. This decrease shouldn't be immediate but should occur after the facility has established that discharge water quality will remain within the water quality goals.

We propose that after 6 sampled QSE meet the water quality goals a facility should reduce its monitoring requirements a level until eventually returning to monitoring level one. We feel this is appropriate because it is three times the consecutive storm events required to proceed up one monitoring, when an NAL is triggered. By establishing a method to go between levels facilities efforts to reduce pollutants can be rewarded and the Regional Water Boards won't be saddled with meaningless data.

**NAL/NEL values should be scientifically based and technically achievable!**

| Constituents | NAL/NEL | EPA Benchmark |
|---|---|---|
| pH | 6.0-9.0 | 6.5-8.5 |
| TSS | 100 mg/l | 100 mg/l |
| EC | 200 umohs/cm | 200 umohs/cm |
| Oil and Grease | 15 mg/L | 10 mg/L |

[4] http://www.water.ca.gov/pubs/groundwater/bulletin_118/california's_groundwater__bulletin_118_-_update_2003_/bulletin118_2-sf.pdf

[5] Lewis, E.R., Shwartz, S.E. Sea Salt Aerosol Production: Mechanisms, Methods, Measurements and Models-A Critical Review, p.76, American Geophysical Union, Washington DC 2004

EPA benchmarks are not effluent limits. Benchmark levels are used to determine if the storm water discharge from a facility qualifies for further monitoring/evaluation to insure that the facility is using and maintaining adequate BMPs and properly implementing its SWPPP. EPA benchmarks are sector specific.

The California Water Environment Association has defined EPA benchmarks as: the pollutant concentrations above which EPA determined represent a level of concern. The level of concern is a concentration at which a storm water discharge could potentially impair, or contribute to impairing, water quality or affect human health from ingestion of water of fish. The "benchmarks" are also viewed by EPA as a level that, if below, a facility presents little potential for water quality concern. [6]

The EPA elaborates on that by stating, "As such, the benchmarks also provide an appropriate level to determine whether a facility's storm water pollution prevention measures are successfully implemented. The benchmark concentrations are not effluent limitations and should not be interpreted or adopted as such. These values are merely levels which EPA has used to determine if a storm water discharge from any given facility merits further monitoring to ensure that the facility has been successful in implementing SWPPP. As such these levels represent a target concentration for a facility to achieve through implementation of pollution prevention measures at the facility."[7]

The EPA developed the benchmark concentrations, "based upon existing standards or other sources to represent a level above which water quality concerns could arise.... Moreover, storm water discharges with pollutant levels would not warrant further analytical monitoring due to their de minimis potential effect on water quality." [2] The EPAs 1986 National Water Quality Criteria (Gold Book), served as the primary basis for the benchmarks. They use acute aquatic life, fresh water quality criteria, for the majority of the benchmarks. Where that data was not present they used lowest observed effect level acute fresh water value. When there was no acute fresh water criteria data available the EPA used several other references to establish benchmarks. Since the establishment of these benchmarks the EPA has continued to update benchmarks for specific industry groups as noted in the EPA's 2008 MSGP.

Benchmarks set a goal for industry to comply with. If facilities are outside of the benchmarks they are obligated to make changes to their SWPPP, BMP's or operations to enter the acceptable range established within the benchmarks. The change to NAL's and NEL's proposed in this permit open the door to superfluous lawsuits and excess regulation the State should not want. There needs to be a way a facility can move between levels not just from one to three but be able to go backwards, when they have proven and continuously met benchmark or NAL/NEL levels. This would provide others information necessary to improve water quality, rather than obscure it.

While the state hasn't provided information on how the NAL/NEL values were established, the US EPA follows strict guideline for establishing effluent guidelines. The US EPA has

---

[6] http://www.cwea.org/p3s/documents/multi-sectorrev.pdf

[7] Federal Register, Vol. 60 NO. 189, September 29, 1995, p. 50825

summarized there method as, "In establishing national effluent guidelines for pollutants, EPA conducts an assessment of (1) the performance of the best pollution control technologies or pollution prevention practices that are available for an industrial category or subcategory as a whole; and (2) the economic achievability of that technology, which can include consideration of costs, benefits, and affordability of achieving the reduction in pollutant discharge[8]." Effluent guidelines that the EPA establishes are industry specific, research based guidelines, which take years to establish as evident within federal registers dating back to 1990.

California is a very diverse both geographically and geologically. These variations play a large role in water quality and the use of NAL/NEL's without the consideration of natural background conditions will lead to numerous facilities heading to level 3 NEL regulations; with no clear way out, even if the root cause was the result of natural conditions. In the 2008 MSGP the EPA understood that natural condition must be considered, and if a benchmark exceedance occurred due to natural conditions a facility would remain in compliance[9]. The key is the EPA is referring to benchmarks and not limits while allowing a facility to prove that natural conditions are the source of the pollutant. Non-potable groundwater is located throughout central California coastal-ranges. If natural conditions aren't considered storm water retention ponds could be considered in violation of various NAL/NEL parameters, due to surface and groundwater interactions within the ponds watershed.

How is it that the state proposed NAL/NEL values can be applicable across all industrial facility types without applicable scientific data? The state board hasn't provided the public with the scientific basis for the NAL/NEL values, unlike what the EPA has done to use scientific research and evidence to set benchmark values for specific industry groups. The board has also disregarded the Storm Water Panel Recommendations to the California State Water Resources Control Board, also known as the blue ribbon panel, that, "To establish Numeric Limits for industrial sites requires a reliable database, describing current emissions by industry types or categories, and performance of existing BMPs. The current industrial permit has not produced such a database for most industrial categories because of inconsistencies in monitoring or compliance with monitoring requirements. The Board needs to examine the existing data sources, collect new data as required and for additional water quality parameters to establish practical and achievable Numeric Limits."[10] The recommendations go on and the panel lists nine specific reservations and concerns on numeric limits. The panel summarizes its findings in one powerful sentence, "The Panel recognizes the need to make progress in monitoring and reducing storm water discharge from facilities, but urges the Board to consider the total economic impact and not unduly penalize California industries with respect to industries outside of California."[10]

Even if the NAL/NEL values are based upon the SMARTS data base the blue ribbon panel "...recognized the inadequacy of current monitoring data sets and recommends improved monitoring to collect data useful for establishing Numeric Limits and Action Levels."[10]

---

[8] http://water.epa.gov/scitech/wastetech/guide/laws.cfm

[9] United States EPA NPDES Multi-Sector General Permit for stormwater Discharges Associated with Industrial Activity (MSGP), 5.4, p.32, May, 27,2009

[10] Storm Water Panel Recommendations to the California State Water Resources Control Board, The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities, June 19, 2006 p.19-21

Even if the necessary database where to exist, as described by the Panel, then determination is still hobbled because this permit version changes the very definition of storm event, sampling frequency and data processing.

**In Conclusion**

Graniterock sees the need to improve storm water quality, and believes that our suggestions offer solutions to developing a revised industrial storm water permit that encourages continual improvement of water quality through effective BMP use and the establishment of an industry specific storm water quality database that can be used to scientifically determine benchmarks or NALs values in the future. We thank the Board for the opportunity to provide comments, and request that the agency does not hesitate to contact us if further discussion or clarification is needed.