SOUTHERN CALIFORNIA
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June 11, 2008

Ms. Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 "I" Street, 24th Floor
Sacramento, CA 95814

RE: Comments on the March 2008 Draft Construction Stormwater Permit

Dear Ms. Townsend and Members of the Board:

We appreciate the opportunity to comment on the Draft Construction General Permit (Draft Permit). As a utility company, Southern California Edison's projects include both linear construction and traditional construction. This document includes comments on the impacts of the Draft Permit on both linear construction and traditional construction. In addition, answers to Vice Chair Wolff's three questions are included at the end of this comment letter.

As written the Draft Permit, would regulate stormwater discharges from both conventional footprint land development projects and from large linear utility projects. However, the differences between land development projects and linear construction projects are sufficiently great that any attempt to force both types of construction to be covered under the same Permit will result in

- an overstatement of the risk of linear projects;
- unreasonably high costs to the owner of the linear project; and
- significant compliance challenges that would make compliance at most linear sites nearly, if not completely, impossible.

Simply stated, the Draft Permit seems clearly written for conventional footprint land development projects and is consequently not appropriate for regulating large linear projects.

In 2003, the State Water Resources Control Board (SWRCB) adopted the Small Utility Linear Permit (SLUP) (Order No. 2003-0007-DWQ) in recognition that linear construction projects are fundamentally different from conventional footprint land development projects. In SCE's view, this reasoning also applies to linear projects that are required to be regulated under a construction stormwater Permit for large projects (i.e., linear projects that cannot be covered under the SLUP)

A linear project, no matter the size, proceeds in a predictable way, with sections of the project active, but most of its length inactive. That is, along a major utility construction project, only a small portion is active at any time, which greatly reduces the risk of sediment discharge and receiving water risk.

The SLUP states:

> Construction activities associated with small linear underground/overhead projects that result in land disturbances greater than one acre, but less than five acres (hereafter referred to as small LUPs), are not like traditional construction projects. Small LUPs have a lower potential to impact receiving waters because these projects are typically short duration and constructed within or around hard paved surfaces that result in minimal disturbed land areas being exposed at the close of the construction day. (Page 1 SLUP Fact Sheet)

Following are three suggested options to appropriately regulate linear construction projects:

1. Extend Order No. 99-08-DWQ to regulate linear projects not covered by the SLUP until the SLUP can be rewritten to include all linear construction projects;
2. Update the SLUP concurrently with the Draft Permit to include all linear construction projects; or
3. Rewrite the Draft Permit so linear construction is appropriately regulated.

We believe option #1 would be most effective at this stage of the Draft Permit. We realize that the SWRCB hopes to finalize the Draft Permit in the summer or fall of 2008, and rewriting the Draft Permit to include linear construction would drastically delay the schedule. In addition, considering that the SLUP expires this year, and understanding that regulation will be needed for large linear projects, we suggest revising the SLUP, and extending the current Construction General Permit while an appropriate regulatory program is developed.

1. Linear Construction-General comment

The Construction General Permit is written for traditional, "box" construction projects. The differences between linear and traditional construction are sufficiently great that any attempt to force both types of construction to be covered under the same Permit will result in widespread non-compliance, overstatement of a project's risk, and unnecessarily high costs to the owner of the linear project.

We recommend excluding linear construction projects over five acres from the new Construction General Permit, and updating the SLUP to cover all linear construction projects.

2. Risk Assessment

The risk evaluation method outlined in Attachment A of the Draft Permit is both complex and subjective. The combination of these factors will result in fluctuations in risk assessment levels, and will decrease the value of the rest of the Permit. A simpler risk assessment method is recommended; one that uses fewer inputs that are simpler to define would provide a more consistent method of evaluating risk.

Factors for determining sediment risk

The complexity of the sediment risk factor worksheet is acceptable, but the factors are subjective. The risk factors involved in determining sediment risk (rainfall factor, soil erodibility factor, and slope-length factor) will almost certainly vary over the distance of a linear project. For example, the LS factor could be highly variable for a single site, depending on the judgment of the person doing the evaluation. The applicability of the LS factor to linear construction is doubtful. For

example, over long stretches of overhead linear construction, the only disturbed areas are the tower foundations; in these locations, the appropriate LS factor would reflect just a few feet of slope length.

Factors for determining receiving water risk
The Receiving Water Risk Factor Worksheet is both complex and subjective. The factors involved in determining receiving water risk (impairments to receiving water, beneficial uses to receiving water, flood-prone width of receiving water, channel stability index, and use of ATS) are site-specific. A linear project may cross several watersheds, which could result in multiple receiving waters with different impairments and/or beneficial uses, different flood-prone widths, and different channel configurations. In addition, the channel evaluation worksheet is repetitive and unclear. For instance, question 3 asks for an evaluation of the "degree of incision" and provides an explanation that says "relative elevation of 'normal' low water; floodplain/terraces @ 100%." The question and its associated explanation are confusing and may be difficult for many people to understand and answer. Questions 5, 6, and 12 are repetitive, as they are essentially asking the same question in three different ways. Also, for a linear construction project, use of an ATS would not be feasible due to the large number of discharge points typical for a long linear project. For linear construction, it would be more appropriate to evaluate a project on a watershed-by-watershed basis for the risk evaluation to have meaning, but that would increase the complexity of implementing the Permit if different construction sections were determined to have different risk factors, and therefore varied Permit requirements.

The method of determining risk does not account for a project's area
The risk factor for a project should consider the project area. The Fact Sheet indicates that a project's area will be considered when determining the Risk Level. However, the risk evaluation method in Attachment A does not consider the project's area. This discrepancy should be rectified before the Permit is finalized.

3. Effluent Monitoring

Attachment B, Table 3 (page 4) and Fact Sheet, Table 3 (page 35) outline the requirements of effluent monitoring according to Risk Level:

Table 1 - Storm Water Effluent Monitoring Requirements by Risk Level

Risk Level 1	one sample per storm event	turbidity and pH plus non-visible pollutant parameters (if applicable)
Risk Level 2	one sample beginning the first hour of any new discharge[1] and one sample during the first and last hour of every day of normal operations for the duration of the discharge event	turbidity, pH, and suspended sediment concentration (SSC)[2] (only if turbidity NEL exceeded) plus non-visible pollutant parameters (if applicable)
Risk Level 3	one sample beginning the first hour of any new discharge and one sample during the first and last hour of every day of normal operations for the duration of the discharge event **OR** continuous at any discharge point where sampling results exceed the turbidity NEL	turbidity, pH and SSC plus non-visible pollutant parameters (if applicable)

Effluent monitoring as required by the Draft Permit will be expensive and time consuming for a linear project. Linear projects can be very large, and may have hundreds of discharge points. Monitoring of all discharge points would be physically and financially burdensome.

Permit requirements for effluent monitoring are confusing and contradictory. Page 35 of the Draft Fact Sheet states:

> All construction projects shall collect storm water samples from each drainage area after the initial ½ inch of measured precipitation from a storm event, and every one-inch thereafter. Dischargers shall collect samples of stored or contained storm water that is discharged subsequent to a storm event producing precipitation of ½ inch or more at the time of discharge.

Table 3 lays out different requirements for each Risk Level; the requirements in Table 3 seem very different from the requirements in the text on the previous page of the Fact Sheet, as cited above.

[1] A new discharge is defined here as any type of discharge (storm water or non-storm water) that goes beyond the property boundary after at least a 48 hour period of no discharge.
[2] Suspended Sediment Concentration monitoring is required for any Level 2 site that exceeds its turbidity NEL.

The Permit should more clearly identify what the effluent monitoring requirements are. It is probable that many sites would be in inadvertent non-compliance with many aspects of this Permit because of the lack of clarity in the Permit requirements.

Storm Water Effluent Sampling Locations
Attachment B, Section F (page 8) states:

> The discharger shall perform sampling of storm water discharges from all drainage areas associated with construction activity.

Sampling in all drainage areas where there is construction activity is not realistic for linear projects. A linear project could stretch over many miles, and multiple drainage areas. This requirement could result in the need to sample at dozens of points across a linear project and is therefore infeasible.

4. Receiving Water Monitoring

Attachment B, Table 4 (page 5) outlines the requirements for receiving water monitoring by Risk Level:

Table 2 - Receiving Water Monitoring Requirements by Risk Level

Risk Level 1	not required	not required
Risk Level 2	if NEL exceeded, next sampling event shall include RW monitoring	turbidity, pH, and SSC (only if turbidity NEL exceeded),
Risk Level 3	none - all sampling events shall include effluent and receiving water monitoring	turbidity, pH, SSC and bioassessment

Furthermore, Attachment B (page 5) states:

> All dischargers shall collect storm water grab samples from one sampling location in each drainage area beginning the first hour of any new discharge and during the first and last hour of every day of normal operations for the duration of the discharge event.

A linear project could cross multiple watersheds and discharge to multiple receiving waters. The requirement to monitor the receiving waters for a linear project is infeasible due to the potentially large number of locations where receiving water monitoring could be required. In addition to the logistical and cost impacts to a project imposed by receiving water monitoring, the issues of access to the receiving water are multiplied when multiple receiving water monitoring locations are required.

Access to Receiving Water Sampling Locations
Many receiving waters in California have been engineered, and they have restricted bank access. Most of the areas where utilities install infrastructure are near urbanized areas, increasing the likelihood that the discharge will be to an engineered channel. In Orange County, for example,

the Santa Ana River is typically a large trapezoidal or rectangular channel. Access to the channel for sampling would require an encroachment Permit from the County. The requirement to obtain an encroachment Permit from the county for every sampling event, or even for each construction project, would be burdensome if not impossible.

In many locations, the only areas where access to the channel is available are via busy freeway or street bridges over the channel. Receiving water samples would have to be taken by throwing a bucket with a rope over the rail, lowering it up to 50 feet, and hauling it back up for sampling. The bridges over the Santa Ana River occur sometimes every mile or so. Where the bridge over the river is for a freeway, access would most likely not be granted by the County, and samples would have to be taken from another mile downstream. All of these issues increase the cost of a project, and at the same time reduce the value of data gained from this type of monitoring. Receiving water monitoring can also be dangerous in urbanized areas.

The Permit should justify the need for receiving water monitoring in urbanized areas. The Permit should also take into account the dangers and difficulties involved in acquiring samples in these areas. The challenges of receiving water monitoring should be weighed against the quality of data that will be obtained from urban area receiving water monitoring. The linkage between construction site runoff and receiving water quality should be considered when a construction site is many miles from the first available point for receiving water monitoring, and the requirement to monitor receiving water should be reduced when the data gained will have limited value.

Receiving Water Monitoring – Decision of Where to Sample
Fact Sheet page 37 states:

> Risk Level 2 sites shall only monitor the downstream receiving water(s) for turbidity, SSC and pH when an NEL is violated. Risk Level 3 sites shall always monitor the downstream receiving water(s) for turbidity, SSC and pH.

In some areas, discharge from a site can enter the storm drain, remain underground for several miles, and commingle with runoff from multiple sites, before eventually daylighting into a large, engineered channel. In these cases, the initial challenge will be locating the precise point where the discharge meets the receiving water. The challenge of locating the discharge location combined with the challenge of taking samples at specific points (upstream or downstream of an identified discharge point) would reduce the value of the data gained from receiving water monitoring. The Permit should justify the need for this type of monitoring, and should consider whether the data gained would provide a significant or relevant relationship between discharge from a construction site and receiving water quality.

Bioassessment Monitoring
The requirement to perform a benthic macroinvertibrate assessment will multiply costs for linear construction due to discharges to multiple receiving waters. We ask that this requirement be removed from the Permit for all projects. This type of monitoring will be more appropriately conducted by field experts rather than individual dischargers.

5. Hydromodification/Runoff Reduction

A single linear project may traverse areas that have MS4 Permits and other areas that do not. This will result in varied Permit requirements for a single project. Runoff reduction is also infeasible for a linear construction project. By nature, linear projects traverse watersheds, first order streams, higher order streams, and other waterbodies. However, they typically do not change the hydrology of the area, and they leave the integrity of the watershed intact. If linear construction is to be regulated under the Construction General Permit it should not be required to comply with this requirement.

6. Assumed Relationship between Turbidity and Suspended Sediment Concentration

The Fact Sheet (page 53) states:

> A 1:3 relationship between turbidity (expressed as NTU) and suspended sediment concentration (expressed as mg/L) is assumed based on a review of suspended sediment and turbidity data from three gages used in the USGS National Water Quality Assessment Program:
>
> - USGS 11074000 SANTA ANA R BL PRADO DAM CA
> - USGS 11447650 SACRAMENTO R A FREEPORT CA
> - USGS 11303500 SAN JOAQUIN R NR VERNALIS CA

The Fact Sheet states that a 1:3 relationship between turbidity and suspended sediment concentration is assumed. We request a copy of the data so we can do an analysis. The literature does not support this assumption, and it should not be used in the Draft Permit if it has no scientific basis. We also propose that staff do a more thorough evaluation, using more gages to gain a better understanding of the relationship, if any relationship can truly be said to exist.

7. Statistics used to determine NAL and NEL for pH from Caltrans data

The Fact Sheet (page 49) states:

> The chosen Draft limits were established by calculating one standard deviation above and below the mean pH of runoff from highway construction sites[3] in California. Proper implementation of BMPs should result in discharges that are within the range of 6.5 to 8.5 pH Units. The Caltrans study included 33 highway construction sites throughout California over a period of four years, which included 120 storm events. All of these sites had typical BMPs in place that would be conventional at all types of construction sites in California.

The statistics used to determine the pH NAL and NEL should be explained. The Fact Sheet references the Caltrans Construction Sites Runoff Characterization Study, which provides an average pH value of 7.66 in construction site runoff. The Fact Sheet seems to round this to 7.5 for use as an average, or starting point. The Fact Sheet then states that the NAL was determined by moving one standard deviation from the average, resulting in a range from 6.5 to 8.5. Therefore,

[3] Caltrans Construction Sites Runoff Characterization Study, 2002. Available at: http://www.dot.ca.gov/hq/env/stormwater/pdf/CTSW-RT-02-055.pdf

the standard deviation can be assumed to be 1. The Caltrans study does not identify the standard deviation of the data set. The source of the calculations should be provided, or better explained. When determining the range for the pH NEL, the Fact Sheet states that three standard deviations from the average were used. This should result in a range from 4.5 to 10.5 if the previously identified standard deviation of 1 is employed. However, the NEL established in the Fact Sheet is 6.0 to 9.0. The math needs to be verified for these ranges to be appropriate.

8. Blue Ribbon Panel Recommendations on NAL and NEL

The Blue Ribbon Panel's recommendations on including NALs and NELs in the Construction General Permit encouraged a gradual and careful application of effluent limits for construction sites, along with careful regard for the cost of implementing monitoring. However, there are several statements made in the Panels conclusions that do not seem to be considered in the Permit. We would like to encourage staff to reconsider the recommendations made by the experts that make up the Panel. Specific examples of recommendations by the Blue Ribbon Panel that were dismissed or overlooked are discussed below.

On pages 16 and 17 of its 2006 Report, the Blue Ribbon Panel stated:

> While the Panel concludes that Numeric Limits or Action Levels are technically feasible, the Panel has several reservations and concerns.
>
> 1. The active treatment systems have generally been employed on sites five acres or larger. While the systems are technically feasible for sites of any size, including sites or drainages as small as an acre or less, the cost may be prohibitive... The Panel recommends that the Board give particular attention to improving the application of cost-effective source controls to small construction sites.
>
> 5. ...the Panel recommends that the Board consider the concept of Action Levels for sites where only traditional erosion and sediment controls are applied or construction sites that are considered "stabilized" for the runoff season. An Action Level indicates a failure of BMPs (within some storm size limits).
>
> 7. ...The Board should consider the phased implementation of Numeric Limits and Action Levels, commensurate with the capacity of the dischargers and support industry to respond.
>
> 8. ...The Panel recommends that a Numeric Limit or Action Level should be compared to the average discharge concentration. The minimum number of individual samples required to represent the average discharge concentration for a storm will need to be defined.
>
> 11. The Panel recommends that Numeric Limits and Action Levels not apply to storms of unusual event size and/or pattern (e.g. flood events). The determination of Water Quality Capture Volume should consider the differing climate regions to specify these events.
>
> 13. The Panel is concerned that the monitoring of discharges to meet either the Action Levels or Numeric Limits may be costly. The Panel recommends that the Board consider this aspect.

9. Public Availability of Documents

The Fact Sheet (page 46) allows for documents to be viewed by the public:

> All electronically submitted documents, as well as appropriate status reports, shall be made available to the public (and to the Regional Water Boards) on the State Water Board website.

Utility companies have policies in place to protect infrastructure from terrorist attacks. These policies include limiting public access to information regarding the location of their facilities. Public submittal of certain documents, such as the SWPPP map and NOI, would violate the security policies in place. Utility companies must be exempt from having their documents posted on the Internet for public viewing.

10. Time Schedule to Comply with the Permit

The Draft Permit (front page) states that

> This Order shall become effective on: (100 days after adoption if USEPA has no objection, or upon withdrawal of the objection.)

One hundred days to shift a project from the current Permit to the new Permit is not a sufficient amount of time. As staff has stated, the Draft Permit will require considerable input from outside experts to comply with the new requirements. Examples of potentially time-consuming tasks to comply with the new Permit include:

- Conducting a risk assessment, which includes the channel stability index rating and an evaluation of whether ATS would be appropriate for the site
- Determining the appropriate turbidity NAL for the site, which includes doing a soil particle size analysis
- Rewriting the SWPPP to comply with the new requirements as stated in the Draft Permit and Fact Sheet
- Purchasing turbidity and pH meters
- Training staff to conduct effluent and receiving water monitoring
- Contracting with a QSD and QSP if internal qualified personnel are not available
- Bioassessment of receiving water for Risk Level 3 sites
- Re-consideration of hydromodification impacts to a site

The tasks listed above would take well over 100 days for a project to complete. Rushing a project into coverage under the new Permit will only ensure that the tasks above are not performed with the care required to make them meaningful, which is the intent of the Permit.

In addition to extending the time period for a project to transition to the new Permit, we recommend adding a grandfather clause to the Permit. We suggest that any project that has received its grading Permit at the time the Draft Permit is adopted be exempt from the new Permit. Further, we suggest that projects at or beyond the planning phase be exempt from the runoff reduction requirements.

11. "Complete Utility Phase" vs. Linear Construction

The Draft Permit states that the "complete utility phase" of project construction is automatically high risk for high pH discharges. This statement could be interpreted to classify the entire duration of linear projects as high risk for pH discharges and subject to a pH numeric effluent limit. Linear projects should be differentiated from the Draft Permit's utility phase. In many cases, underground utility projects do not use concrete slurry for backfill and those that do would only allow limited exposure of fresh concrete to rain, as trenches are paved over quickly or covered with trench-plates when backfill does not occur immediately. This practice limits the exposure of any newly poured concrete and obviates the need to consider linear utility sites as high risk for pH discharges.

12. REAP

Because linear projects have essentially one phase of construction (contrary to conventional footprint land development projects with multiple phases of construction), linear projects should require a single standardized REAP for the entire project that would be referenced during pre-storm inspections to ensure appropriate BMPs are in place, rather than preparing a new REAP for every new storm event.

13. Soil Testing

Linear construction subject to the Draft Permit will likely be at least several miles in length and numerous soil types and particle sizes will be encountered. It is not practicable to consider, much less sample, and evaluate the particle size of every soil type encountered over a long linear construction route. BMPs used for linear construction in undeveloped areas are installed at drainage consolidation points and are not likely to vary significantly based on soil conditions. Also, many linear projects trench across existing paved areas, such as city streets. Excavated soil is usually replaced into the trench the same day it is removed, or trucked offsite. Temporary stockpiling of excavated soil can be adequately secured with BMPs. It is unreasonable to require testing of excavated or import soil that will quickly be used as backfill for a trench that will be paved over.

14. Clarification of Mandatory Minimum Penalties

In the May 21 Sacramento workshop, staff indicated that NEL violations would trigger Mandatory Minimum Penalties (MMPs). The same topic was raised in the June 4 State Board Hearing. Two types of violations lead to MMPs: acute violations and chronic violations. Acute violations trigger an immediate enforcement action for $3,000 per violation. Chronic violations trigger an enforcement action for all violations after the third in a rolling six-month period. Following is an example of how this could impact a construction site. A Risk Level 3 construction site with four discharge points would have to sample for both pH and turbidity two times per day. This is eight samples per day. If a storm lasted for three days, that multiplies to 24 samples. If a site had violations for each sample, the MMP total for the single storm would total

24 - 3 = 21 violations;

$3,000 x 21 = $63,000 for one storm.

Even if that same site only had violations a quarter of the time, the total would be $15,000 for the single storm. Assuming six storms in a year illustrates the total effect of this enforcement policy. A site could face hundreds of thousands of dollars in automatic MMP fines in a single rainy season as a result of this Draft Permit. For a construction site with several discharge points, MMPs do not allow any discretion by the enforcement staff. That is, a violation of an NEL will always either start the MMP clock ticking or trigger a $3,000 fine, regardless of whether the storm was of unusually large size, or had high run-on concentrations. We suggest that the Permit include

1. A design storm that, when exceeded, reduces, or eliminates the penalties associated with NEL violations. Data on the ability of BMPs to remove turbidity from runoff is not available; therefore, dischargers should not be held to a standard without adequate information of how to meet the standard.
2. A limitation of the number of discharge points that must be sampled, or a way to use an average of the discharge values to report exceedances. The example was used in the June 4 hearing of a one-acre site with 20 discharge points vs. a 20-acre site with one discharge point. The Permit as currently written will penalize the smaller site because it has more discharge points, and thus more opportunity to trigger MMPs. In reality, the larger site has a higher potential impact on water quality, but may slip through the cracks because of this loophole in the Draft Permit. Additionally, dischargers will likely attempt to funnel all discharge to a single discharge point to take advantage of this loophole and avoid the MMP situation. This strategy of concentrating the runoff will then become a hydromodification issue.

   One suggestion of how to achieve this is to use a monthly average of the turbidity values (instead of instantaneous grab samples) for enforcement purposes.

16. Final Stabilization

The Draft Permit states on page 16:

> For Risk Level 3, the discharger shall provide cover for all disturbed, inactive areas of construction equivalent to RUSLE "C Factor" of 0.003.

Attachment C of the Draft Permit contains a reference table of RUSLE C-factors. A review of the C-factor table shows that only one cover factor method, rolled erosion control products, that can possibly achieve this level of stabilization. A site that is entirely paved with asphalt concrete can claim a C-factor of 0.01, which does not satisfy the final stabilization requirement in the Draft Permit. This means that a construction project that plans to install roads paved with asphalt concrete will not meet final stabilization requirements in the roadways. In addition, the C-factor for rolled erosion control product ranges from 0.001 to 0.3, a range that spans two orders of magnitude. This product will not likely be able to achieve a C value of 0.003. We recommend that staff reconsider the overly protective requirement of 0.003 and increase the value to a more attainable level.

Answers to Vice Chair Wolff's Questions

Question 1. *The Permit attempts to balance the need for simplicity and transparency with the need to sensitively address widely different physical conditions across sites. In what parts of the draft Permit do you think complexity is most and least valuable?*

Southern California Edison appreciates the care that Staff has taken to write a Permit that attempts to protect water quality while still being enforceable. In addition, Edison supports the Permit writing effort, and believes that appropriate regulations are necessary to enhance our environment. However, our resistance to the Draft Permit as written comes from its complexity and the uncertainty caused by the complexity. The complex requirements in the Draft Permit lead to potential confusion for dischargers, which could result in violations and enforcement. We request that staff consider our comments concerning the complexity of the Draft Permit and provide clarification where needed.

Based on staff's indication that they do not have adequate time to review all documents, we have to ask, what is enforcement based on? For example, the turbidity NEL does not consider background values, traditional BMPs are not designed to remove turbidity, and turbidity is a poor measurement of sediment concentration. In addition, the math used to determine the pH NEL is not defensible.

In addition, the jump from the current Permit, Order No. 99-08-DWQ, to the Draft Permit is a vast one. Staff has stated during workshops that they have not fully explored the impacts of the Draft Permit. Many of the Blue Ribbon Panel's recommendations for moderation and thoughtful application of NELs and ATS requirements have not been heeded.

- Conventional BMP removal abilities are not known for sediment removal, much less for turbidity removal.
- The assumption of a 1:3 relationship between turbidity (expressed as NTU) and suspended sediment concentration (expressed as mg/L) greatly oversimplifies the complex natural processes in surface water.
- The brief cost analysis done by staff is insufficient, and actual costs to the construction industry could spiral up due to unintended consequences resulting from requirements in the Draft Permit.
- An analysis of staff hours required to implement the Permit must be conducted.
- The Draft Permit's NELs will open the door to enforcement actions and public scrutiny without the benefit of thorough background research and incremental application of effluent limitations.

The scientific method requires that a good experiment change only one variable at a time, so the results of that single change can be measured. The Draft Permit makes multiple changes, many of which could potentially have a positive impact on water quality. However, we will never know which changes were effective because so many changes are made concurrently.

It is recommended that the Draft Permit be tabled for five years, and an Interim Permit be created. The Interim Permit would be used to gather the data that is lacking, so when the Interim Permit term expires, the Draft Permit would have strong data to back up the assumptions it currently makes. This suggestion also makes sense in the light of anti-backsliding requirements. What would happen if 1,000 NTU is determined to be actually too restrictive for a turbidity NEL? Anti-

backsliding requirements would prevent the next Permit from making the Permit limits more lenient. We request that Staff and the State Board consider the serious impacts that will result from releasing this Draft Permit.

Question 2. *Our scientific understanding of when and where a management practice is best is limited. Self-monitoring for compliance will not necessarily increase our understanding due to variations between practitioners and for other reasons. Are you interested in creating a scientifically valid database on management practice performance via rigorous third party 'random' monitoring in lieu of self-monitoring and at least partially paid for by Permittees?*

Yes. There is a tremendous need for a scientifically valid database. With information on BMP performance, the effectiveness of source controls, the relationship between sediment concentration and turbidity, and receiving water impacts due to construction, dischargers would have a much more effective toolbox of BMPs to choose from when designing their sites. At this time, there is no clear or certain method to meet the NELs in the Draft Permit.

Question 3. *Ignoring the numbers and how they are calculated, do you think that the tiered compliance structure of the Permit is a desirable or undesirable feature? By tiered structure we mean action levels 'backstopped' by higher numeric effluent limits that are intended to simplify enforcement against egregious violations.*

A tiered Permit is desirable, but not an appropriate step until the next Permit term. The upcoming Permit term should be spent on monitoring both construction site effluent and receiving waters while implementing conventional BMPs and source controls. Action levels could be included in this Permit term to help identify where "bad actors" are, and to complete the information loop. NELs should not be included until more research is conducted and they can be applied in a scientifically defensible way.

Please feel free to contact me if you have any questions regarding these comments, ND thank you for the opportunity to comment

Sincerely,
Hazem Gabr
Southern California Edison