A. Establish Processes for Evaluating & Potentially Reducing Monitoring Requirements in NPDES Permits

NPDES POTW Stakeholder Group Issue/Proposal 1 (see pages 1-2)	NPDES permits are typically specific to the receiving water impacts from a specific agency. Upstream and downstream samples may be analyzed, but the purpose of this monitoring is to determine whether the POTW discharge impacts the receiving water and habitat at the outfall and some distance downstream. The monitoring programs for individual agencies are developed independently of each other. Watershed and special study permits, on the other hand, seek to determine whether the collective impacts of multiple discharges to a watershed are impacting the multiple waterbodies and habitats within the watershed. Multiple stakeholders have differing interests in the analysis. Significant effort goes into crafting the management questions the monitoring program is expected to answer. Statistical techniques are used to select monitoring stations throughout the watershed or study area. Regulatory board staff overseeing the individual and watershed permits often act independently of each other. Therefore, there is little coordination of monitoring efforts. The result is duplication of ambient and effluent monitoring requirements. The State Water Board should develop, in conjunction with stakeholders, a process to review existing compliance monitoring programs to identify triggers and procedures for reducing routine monitoring requirements. This process would assist the State Water Board and individual permittees to identify monitoring and reporting requirements that are costly to agencies and not beneficial to improving water quality. This review process could also consider whether regional monitoring, partially funded by the permit-holder, would meet the State Water Board's need for information pertaining to a particular constituent in lieu of effluent monitoring.

WB Staff Comments: In many cases, the Regional Boards already work with affected entities to refine permit conditions and remove unneeded monitoring requirements. A formal process, including guidelines, for evaluating monitoring requirements could bring additional consistency to NPDES program implementation, but monitoring requirements are often site-specific and facility-specific, and therefore attempting to standardize requirements may not be useful. In some cases there is also limited flexibility to change monitoring requirements and/or frequency due to the provisions of the State Implementation Policy or other regulatory requirements.

In general we agree that there could be value in developing general informal guidance for how staff should conduct permit by permit evaluations of monitoring requirements and establishing triggers for situations where reduction of routine monitoring would be considered. A comprehensive review of all existing permits would require significant resources, and therefore a better approach may be to establish informal guidance that is applied on permit by permit basis as permits come up for reissuance (taking into consideration other existing monitoring in the affected watershed). Implementing this proposal will require expenditure of staff resources and would potentially divert staff from existing NPDES priority work. A prescriptive regulatory "cook book" approach for how to set monitoring requirements would be complex and probably not helpful, while consuming large amounts of staff and stakeholder time to develop.

Note: Page number references in tables correspond to NPDES POTW Stakeholder revised resource alignment proposals dated May 21, 2013

NGO Comments: We support finding efficiencies in monitoring, and working towards collaboration among dischargers in the watershed to identify and eliminate duplicative monitoring. However, monitoring requirements are often site-specific and facility-specific, and therefore attempting to standardize requirements may not be useful. Further, any reduction in monitoring that is inconsistent with the Clean Water Act is illegal.

We already see a trend towards reducing monitoring requirements (both number of parameters and frequency), in many POTW permit renewals throughout the state. Further reductions of monitoring requirements will decrease the likelihood that plant upsets and water quality exceedances are detected and appropriately abated.

A frequent reason provided by regional board staff for the reduction in requirements is that the reasonable potential analysis ("RPA") did not trigger an effluent limitation and thus continued monitoring at the same level is not necessary. In fact, the current practice of the RPA approach favors dropping constituents and weakening the monitoring programs from the current permits, creating progressively less protective permits with every permitting cycle. For instance, the 2008 Oxnard POTW permit renewal had a decrease in the monitoring frequency for 26 constituents compared to the prior permit.

Monitoring for permit-limited constituents must be conducted to determine compliance with both effluent and receiving water limitations. NPDES sampling is a regulatory requirement and may or may not overlap with regulatory sampling for other surface water programs. Receiving waters are sampled downstream of the discharge point although surface water quality objectives apply throughout the receiving stream. Statistical techniques are not used to develop receiving water sampling points for NPDES discharges, but are typically selected based on easy access to the stream for sampling. It would be highly unlikely for another regulatory program to require sampling at a wastewater treatment plant outfall for an NPDES regulated constituent. Other regulatory programs are often times a short duration study, such as development of a TMDL, whereas an NPDES discharges are typically ongoing.

NPDES POTW Stakeholder Group Issue/Proposal 2 (see pages 2-3)	Many wastewater facilities have a demonstrated positive record of compliance with specific parameters, yet these entities are required to continue monitoring for that parameter on a frequent basis. This expends valuable agency resources with no notable water quality benefit. If a wastewater treatment plant has demonstrated a record of good compliance for a certain parameter, allow for the reduction in monitoring frequency of that parameter.

WB Staff Comments: We generally agree with the proposal and the Water Boards have already been reducing monitoring frequency for constituents where a history of good compliance has been demonstrated.

It may be helpful to develop general guidance that defines the constituents and situations that should trigger an assessment of whether monitoring frequency can/should be reduced or even eliminated. Formal guidance adopted as a regulation would potentially be difficult and counterproductive. Interpretation of what is reasonable is different for different stakeholders and is site-specific. Establishing a formal regulation would likely be difficult to develop and to justify and may have the unintended consequence of reducing flexibility to modify permit conditions in manner more beneficial to the permittee.

Note: Page number references in tables correspond to NPDES POTW Stakeholder revised resource alignment proposals dated May 21, 2013

NGO Comments: The phrase "positive record of compliance" is very subjective. The bottom line is that monitoring must be sufficient to demonstrate compliance. There can be great variability in POTW influent quality, and thus effluent quality. Pretreatment efforts have gone a long way in improving influent quality; however, new industries with different pollutants can come online at any time. Also, as pollutant-laden runoff and stormwater is diverted to POTWs more frequently, this can also change influent quality.

Many adopted permits in Region 4, for example, contain "performance goals" and "benchmarks" instead of effluent limits. Of note, we believe that performance goals and mass emission benchmarks are extremely poor regulatory mechanisms, and thus, should be replaced with enforceable effluent limitations. The Los Angeles Regional Water Board argues that "…the continued use of performance goals serves to maintain existing treatment levels and effluent quality and supports State and Federal anti-degradation policies." (NPDES Permit No. CA0053813, Cl-1758). Thus it is critical that monitoring remain, even for those constituents that do not have an associated effluent limitation, in order to ensure that degradation does not occur.

Further as stated above, we have historically seen that regional water boards have adopted reduced monitoring requirements (both number of parameters and frequency), in POTW permit renewals throughout the state as a result of the RPA. In other words, "stream-lining" is already being done.

Sampling both effluent and receiving water is necessary to determine compliance with permit limitations. For a compliant and well-operated wastewater treatment plant continued monitoring will indeed demonstrate a positive record of compliance. However, wastewater treatment systems can experience upsets, bypasses and slug load discharges. Reductions in wastewater discharge sampling may result in missing treatment plant upsets, bypasses of pollutants or slug load discharges that exceed permit limitations which would result in degradation of the beneficial uses of the receiving stream. For example, chlorine is a highly toxic chemical, and is continuously monitored at many wastewater treatment plants. A wastewater treatment plant may have established a record of compliance with chlorine limitations of many years. However, experience shows that chlorination systems do fail. It would not be prudent to eliminate continuous monitoring when a simple system failure could cause the discharge of chlorine at lethal levels.

NPDES POTW Stakeholder Group Issue/Proposal 3 (see page 3)	Many wastewater entities are frequently required to perform redundant and unnecessary sampling and monitoring that consume valuable, limited agency resources and do not improve water quality. Often, the same information can easily be obtained through the use of surrogate sampling. When two or more similar parameters are required to be monitored in an NPDES permit, the Water Boards should allow for a reduction or elimination of the monitoring requirements for one or more of the parameters.

WB Staff Comments: We agree in concept with this proposal, and we have often selected a single constituent to represent a group of related constituents. This works well for some constituents like salts, where we can monitor electrical conductivity as a surrogate for TDS, chlorides, etc. This approach may be problematic for some constituents. For example, the NPDES stakeholders original proposals (dated February 4, 213) cited the example of requiring redundant monitoring for both TSS and turbidity. However, TSS is part of the definition of secondary treatment, so must be included as an effluent limit and be monitored in POTW NPDES Permits. Turbidity is one of the primary indicators of proper

Note: Page number references in tables correspond to NPDES POTW Stakeholder revised resource alignment proposals dated May 21, 2013

functioning of tertiary filters, and can be monitored continuously, so turbidity is needed for tertiary filtration POTWs. We agree with use of surrogates when consistent with state and federal requirements, but compliance monitoring is required for constituents with effluent limits.
NGO Comments: Monitoring must be sufficient to demonstrate compliance. Compliance monitoring is required for the all constituents with effluent limits, and surrogates cannot be substituted. Examples of redundant sampling are absent in this version of POTW stakeholder proposals, however in previous comments, total suspended solids (TSS) and turbidity were cited as being redundant. TSS and turbidity are not redundant sampling requirements. TSS is used to determine compliance with federal secondary treatment requirements. Turbidity is used to determine compliance with filtration capability for advanced treatment based on recommendations from the Department of Public Health (DPH). Turbidity and settleable material are also separate water quality objectives in many of the Basin Plans and must be evaluated individually. While it may appear to some that monitoring requirements are redundant, regulatory and technical requirements may require monitoring be conducted to determine compliance with vastly different permit requirements.

B. Eliminate Irrelevant and Unnecessary Reports

NPDES POTW Stakeholder Group Issue/Proposal 4 (see pages 3-5)	It has been the experience of the many wastewater agencies that the Regional Water Boards frequently adopt new NPDES and WDR permits for POTWs with increasing numbers of required studies and reports, some of which are unnecessary or inapplicable to the entities ultimately subject to these requirements. A good number of the POTWs who submit to these unnecessary requirements report that they do not receive responses from the Water Board regarding their content; thus leading the POTWs to believe that they are never actually even read. Elimination of irrelevant and unnecessary reports not only presents an opportunity for reductions in the cost of compliance, but would also potentially free Regional Water Board and POTW staff to concentrate on relevant water quality concerns. Rather than being automatically incorporated into new permits, reports and/or studies should be more closely considered for inclusion or exclusion based on discharge-specific issues prior to the Water Boards requiring them.
WB Staff Comments: In some cases there are different opinions on the need or value of a particular study. The NPDES stakeholders, for example, identify Salinity Evaluation and Minimization Plans (SEMPs) as unnecessary for certain low threat dischargers. We agree that SEMPs are not needed for all discharges under all circumstances. Once a SEMP is prepared and implemented, routine redrafting of the SEMP when the permit is renewed should not be needed. However, salt is a major problem within R5 and for most areas using water exported from R5. R5 salinity control is not just directed at achieving water quality objectives, but tries to reduce salt concentrations in waterbodies whenever feasible. Low salinity waters, such as the Sacramento River, provide dilution to waters with higher salinity, and provide dilution for ocean water carried by tidal action and Delta pumping into the Delta. Delta salinity control requires release of fresh water from storage to maintain Delta salinity, so any increased salt concentrations in the Sacramento River can require additional releases from reservoirs at some times of the year to maintain compliance with Delta salinity objectives, reducing available water supplies for other purposes. SEMPs are not required of all dischargers, and SEMPs do not need to be redone with	

Note: Page number references in tables correspond to NPDES POTW Stakeholder revised resource alignment proposals dated May 21, 2013

every permit renewal unless there are significant salt issues with the specific discharge. Pollutant reduction is not prohibited if RP does not exist. The State and Federal anti-degradation policies allow degradation of high quality waters only when there are offsetting societal benefits – the SEMPs seek to minimize degradation of all waters, and particularly high quality waters. The Water Boards may require a constituent study where there are indications that there is Reasonable Potential (RP) for a specific constituent, but there are not enough data to actually come to a conclusion on RP. Usually this is caused by a very small data set, or data sets have detected (but not quantified) concentrations that might be high enough to exceed water quality objectives if lower detection levels were required. In these instances, we require a special study of that constituent to develop additional data to determine RP. If we have already determined RP and set an effluent limit, there would not be a valid reason for including a constituent study in a permit. To grant time schedules with MMP protection the Water Boards are sometimes required by the Water Code to require the discharger to complete a Pollution Prevention Plan. In some cases this is not useful, but there is no other option. For ammonia, a PPP may be desirable/useful in some cases because there may be operational or other changes that could reduce ammonia in the effluent while treatment facilities are being upgraded to meet ammonia effluent limits.
NGO Comments: We object to the characterization of "Irrelevant and Unnecessary Reports," as our review of NPDES permits consistently shows that adequate permitting efforts is undermined by inadequate data. Fourteen years after the adoption of the 2000 California Toxics Rule (CTR), proposed NPDES permits often state that there is "insufficient data to include an effluent limitation" for individual constituents. NGOs and the public often review discharger reports to better understand the discharge and its potential impacts. The fact that staff resources are limited to review reports in detail is not an excuse for eliminating these requirements all-together. The discharger should use these reports to identify potential issues with their process and discharge.

C. Facilitate Use of Regulatory Tools by Making Processes more Clear and Consistent

NPDES POTW Stakeholder Group Issue/Proposal 5 (see pages 5-6)	There are several regulatory tools available to POTWs for reducing the costs of compliance associated with meeting effluent limitations. Some examples are water effect ratio (WER) studies, translator studies, or mixing zone and dilution studies; all aimed at allowing relaxed effluent limitations without compromising true water quality. However, even though the tools have been available for some time, efforts to use them have at times been overly costly or unsuccessful because of the manner in which the studies (or the results of those studies) are viewed by the Regional Water Boards. There needs to be consistent guidelines for how WERs, translator studies, mixing zones, and dilution credits can, and should, be used so that POTWs are provided clear direction for their pursuit of relaxed effluent limits using these study results.
WB Staff Comments: Translators must be site specific under federal regulations, but watershed based studies are currently used for WER (at least in R5). A Basin Plan amendment for site specific objectives	

Note: Page number references in tables correspond to NPDES POTW Stakeholder revised resource alignment proposals dated May 21, 2013

for multiple San Francisco Bay segments utilizing WERs and translator studies was conducted for copper in Region 2. This has been a costly but successful process for dischargers. There are likely additional opportunities to implement these approaches in other areas, but additional resources would be needed from both the Water Boards and the discharges. Guidance on use of these studies from one POTW for permits on another POTW may be helpful tool for the Water Boards.

From our perspective dilution credits are often approved, but there can commonly be disagreements on the amount of dilution that should be granted. We can't be arbitrary, but dilution and mixing zones are discretionary under federal and state law and regulations. There may be instances where proposals for dilution meet all technical criteria, but there are overriding considerations that cause denial, such as for a discharge to already heavily stressed waterbodies where increased loadings may not be warranted. Allowance of dilution credits has been an ongoing policy discussion for Region 2 and Region 5, in general dischargers believe additional dilution credit should be granted, but there is often opposition from other stakeholders. Development of a statewide rule for the application of dilution credits may be equally as complex and time consuming as the current process, and potentially difficult to implement and lack flexibility.

The process for reopening permits to adjust effluent limits for new studies, data, etc. requires a lot of staff time, so we will usually defer the changes to the next permit cycle unless the changes are critical to discharger planning or compliance. Having said this, the NDPES Stakeholders have identified specific examples where in their view additional dilution credit is warranted. These example situations should be evaluated to determine lessons learned and potentially to inform development of informal guidance for more consistent application of translator studies, WERs, mixing zones, dilution credits and performance based effluent limits.

NGO Comments: First, the purpose of water effect ratio (WER) studies, translator studies, or mixing zone and dilution studies is not to "reduce cost of compliance." Instead, they are available tools to determine how site-specific characteristics may alter how a specific waterbody attenuates pollution. Thus, these studies may lead to higher or lower pollution limits depending on the outcome of the analysis. US EPA has minimum guidelines to follow for these types of studies.
The WER studies that we have seen to date are inadequate, in large part because they contain extremely limited monitoring. Thus instead of looking to reduce monitoring and the cost of these studies, the State Board and regional boards should be looking at increasing the robustness of the studies.

In general, the use of WERs to modify water quality standards is not a protective approach and should not be pursued. Through limited monitoring, it is extremely difficult to capture variability in the system and develop an appropriate WER value. Thus, there is little assurance that the WER will actually be protective of the beneficial uses of the waterbody. Of note, there has never been a WER study pursued that resulted in tougher water quality objectives. Further, WERs will result in significant increases in the amount of pollution allowed into our waterways, which in turn, will have serious ramifications to beneficial uses.

Unfortunately, we have seen regional boards approve these inadequate WER studies and utilize the WERs in permits. At a minimum, in general, four sampling events (2 wet and 2 dry) per year over five years are needed to develop a WER that accurately reflects site specific conditions. In any event, as US EPA Region IX has explained, regardless of any WER studies and other special studies aimed at relaxing effluent limitations for POTWs, effluent limitations must ensure that effluent concentrations do not

exceed the level of water quality that can be reliably maintained by the POTWs' treatment technologies existing at the time of permit issuance, reissuance or modification. In addition, effluent limitations must comply with anti-degradation and anti-backsliding requirements.

D. Duplicative/Overlapping Sanitary Sewer System Requirements and Monitoring

[Note: After discussion and consideration of the issues association with our original proposal relating to SSOs and "progressive enforcement", the stakeholders decided to refocus this proposal on issues of duplication and report overlap and costs, which seemed to fit more appropriately within the framework of this initiative.]

NPDES POTW Stakeholder Group Issue/Proposal 6 (see pages 6-7)	The State Water Board adopted the General Order for Sanitary Sewer Systems, Order 2006-003 (General Order) after determining that all sanitary sewer collection systems should be subject to consistent regulation. Concurrent with adoption of the General Order, the State Water Board Executive Director issued a guidance memorandum indicating that individual NPDES permits should be revised to refer to the independently applicable General Order as the source of sanitary sewer overflow requirements and reporting. The NPDES permit would include only the three federally required provisions. There has been significant variation in the implementation of the order. Some regional water boards, such as Region 5, have adhered to the process set forth in the guidance, and simply require enrollment in the General Order. Others, including Regions 4 and 9, have either adopted competing regional general orders or included overlapping and duplicative monitoring and reporting requirements in individual permits. As a consequence, the State Water Board's goal of a consistent statewide program has been undermined, and many collection systems are incurring increased costs for water quality sampling and additional reporting that are not required under the Statewide General Order.
WB Staff Comments: We are in the process of discussing the need for region specific SSO orders with Region 4 and Region 9.	
NGO Comments: While we agree that "overlapping and duplicative monitoring and reporting requirements" do not make sense, this has not been the case in the permits that we have reviewed to date (including many permits in Region 4). SSOs are a major human health issue and can be a significant aquatic ecosystem issue, so an effective monitoring program is extremely important. The SSO WDR has not resulted in consistent SSO monitoring and reporting by permittees. Instead, vague permit requirements, poor training, or simple false reporting results in inaccurate spill duration, volume, and receiving water reports. If a region, such as Region 4, believes that additional monitoring is necessary to ensure public health protection at the heavily used beaches in Los Angeles and Ventura counties, the board should be allowed to use its best professional judgment to make these additions.	

E. Reduce Sanitary Sewer Spill Reporting Requirements When No Spills Occur

NPDES POTW Stakeholder Group Issue/Proposal 7 (see pages 7-8)	The Statewide General Order requires that, even when there are no SSOs during a calendar month, a statement must be submitted through the Online SSO Database for certification purposes. Even though each certification only takes a few minutes, the cumulative impact of all the no-spill certifications statewide

Note: Page number references in tables correspond to NPDES POTW Stakeholder revised resource alignment proposals dated May 21, 2013

	adds up over time. There is no water quality benefit directly associated with the no-spill certifications. While this may serve as a means of distinguishing between dischargers with no spills and those that have spills but fail to report them, there is still a cost to the compliant agency. However, the frequency of the no-spill certifications does not have to be monthly; the same need could be fulfilled if the no-spill certifications are filed less frequency, such as quarterly. Reduction of the frequency could also potentially reduce the burden on State Water Board staff to track the no-spill certifications and take action against non-submitters.
WB Staff Comments: Water Board staff has been working with stakeholders on this issue. We expect a revised MRP to be adopted soon that may address many or all of the reporting concerns that have been raised. We therefore recommend deferring further discussion on this specific proposal until the revised MRP is adopted.	
NGO Comments: At the current level of system performance for sewage collection systems in California, it is impossible for a significant number of systems consistently achieve a zero spill rate. Instead, reporting of zero spills only highlights the failure of the reporting regime under the SSO WDR, and the lack of effective enforcement for inaccurate reports. The no spill certification helps highlight the system operator's responsibility for accurate reporting, and the potential liability for submitting false information. Given that the Clean Water Act and the SSO WDR prohibit all spills, and require that all spills be reported. Any lessening of the reporting requirements will only further undermine the State's efforts address sewage spills. The filing of "no-spill certifications" on a monthly basis takes very little time and is a valuable resource to the public regarding the quality of surface waters. Dischargers are not in the position to evaluate the "same need" as the public regarding what information should be available to determine water quality from sanitary sewer spills. In particular, inland surface waters do not have the same public notification processes in place as many coastal areas; it is infrequent when a notice of water quality is issued regarding sewage spills for inland waters. It is valuable information for the public to be aware of who has spilled and who has not is a watershed when considering degradation of the beneficial uses of the receiving stream. The public should not have to wait for three months for knowledge of sanitary sewer spills, or the lack thereof, to surface water streams, rivers and beaches.	

Proposals Contained in NPDES Stakeholders February 4, 2013 Submittal, but removed from the May 22, 2013 Submittal

Implement a Phased Approach to TMDLs

Proposal 8	State Water Board should move towards a phased implementation approach that selects the most appropriate approach as the first step for certain statewide water quality objectives (and TMDLs).
WB staff comments/concerns: We agree. We usually encourage source control as an initial implementation step, but sometimes we can't provide extended schedules for implementation/compliance due to NPDES compliance schedule policies. Federal law requires us to consider all sources of impairment, but there is flexibility with how loads (and responsibility) are allocated, and our Impaired Waters (TMDLs) Guidance includes adaptive implementation. We do not have the flexibility to find that costs are too high to require a POTWs to implement wasteload allocations (federal requirement), but additional flexibility and cost savings may be achieved through offset programs. The applicability of cost sharing approaches and allocations of costs is often a judgment/policy call that is case specific (e.g., pass through constituents, responsible party is not financially viable) and depends on the constituents being addressed. Court decrees, which may preclude extensive stakeholder process, represent another constraint to the use of cost sharing, phasing, and adaptive approaches.	

Clarify and Consistently Apply the Processes for Revising Water Quality Standards

Proposal 9	The Water Boards need to define a pathway to regulatory success for studies to support changes to beneficial use designations and water quality objectives. This could involve creating a task force of regulatory agency staff (from the Water Boards and USEPA), regulated community representatives, and other interested parties to explore the feasibility of creating a more certain regulatory environment for these alternative mechanisms, such as development of screening criteria, a procedures manual, and a mediation process for use if disputes arise.
WB staff comments/concerns: We don't object to exploring this proposal further or to creating a joint task force to evaluate options to provide increased regulatory certainty for changes to uses or objectives. It is inherently easier to add a use than to remove one, since it is easier to prove a use exists than to prove it does not. Additionally, US EPA's definition of existing use criteria makes it difficult to remove uses. Conducting the studies, however, will never guarantee an outcome will be beneficial to the POTW (for example if study demonstrates that a use exists). CVSALTS is looking at this exact issue for identifying and correcting inappropriate or incomplete beneficial use designations, and trying to deal with large numbers of waterbodies at the same time, not one by one. It may be useful to evaluate past attempts to remove uses and determine the reasons why the efforts have been unsuccessful. Region 5 also helped clarify issues for de-designation of MUN uses for New Alamo Creek. That knowledge is being applied to other waterbodies, but it's still a lengthy process.	

Proposal 10	The Water Boards need to develop a methodology for proper designation and de-designation, which includes taking a big picture view of the value of these tools, how these actions are taken and whether they are appropriate. There also needs to be a

Note: Page number references in tables correspond to NPDES POTW Stakeholder revised resource alignment proposals dated May 21, 2013

	better balance between the volume of studies and evidence required to de-designate a waterbody versus the level of information routinely used to designate uses in the first instance.
WB staff comments/concerns: See above.	

Consider Impacts to Design Approach and Related Costs When Considering Defining Compliance Parameters

Proposal 11	Though this approach could be relevant for many areas, two examples of wastewater treatment costs that demonstrate this principle are as follows: 1. Change allowable chlorine residual from 0 all of the time to <0.2 for more than 5 minutes per day. Every treatment plant that dechlorinates its effluent with sulfur dioxide or sodium bisulfite adds an excess to ensure compliance if anything unexpected goes wrong. For many agencies, the excess of sodium bisulfite often exceeds 1 ppm. In Region 2, these excess additions are often done for outfalls receiving initial dilution approaching 100:1. The oxygen demand of this excess sodium bisulfite far exceeds the ecological benefits associated with 0 ppm of chlorine residual every second of every day. 2. Define nutrient removal in terms of annual loads or seasonal loads rather than "maximum daily" concentrations. The ecological relevance of nutrient concentrations is more associated with weeks to months (or seasons) than minutes to days. In addition, nutrients can be quickly washed from a system during a rainy winter so nutrient loading during times of the year when the water residence time is long, winds are weak, and strong stratification is possible are the critical times of concern for nutrient concentrations.
WB staff comments/concerns: We agree with the chlorine residual proposal and similar approaches have been adopted when the discharger has provided studies demonstrating that small chlorine discharges are not adverse. We recognize these studies can be costly for the discharger. The proposal could be addressed by a statewide chlorine policy, which has been identified as a potential Water Board project for a number of years, but has not been pursued due to intervening priorities. It would be beneficial to develop a chlorine policy, but resources are needed. We also agree with the nutrient concepts, but longer term averages may not be appropriate to protect against aquatic toxicity (e.g., ammonia toxicity) or public health (e.g., nitrate MCL). In some cases, longer term averages may be appropriate but the science is needed to provide support. This issue may be addressed through the Water Boards Nutrient Numeric Endpoints project. Federal requirements generally require monthly, weekly or daily limits, but with supporting science we can deviate in some circumstances. Aspects of the SIP could also be updated to address some of these concerns. Region 5 has adopted longer term limits for some non-CTR constituents, but there has been resistance from USEPA and other stakeholders.	