



City of Santa Barbara

Public Works Department

www.ci.santa-barbara.ca.us

September 10, 2004



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Mr. Roger Briggs, Executive Officer
Regional Water Quality Control Board
Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906

Administration
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SUBJECT: COMMENTS ON THE DRAFT NPDES PERMIT

Engineering
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Dear Mr. Briggs:

Building Maintenance/
Street Lights
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The City of Santa Barbara (City) is pleased to have an opportunity to submit comments on the draft NPDES permit. The proposed permit includes significant changes from the previous permit, including reinterpretation of the implementation of the Ocean Plan, and inclusion of a new program mandating a prescriptive program for collection system management. Given the scope of the changes in the permit, the City was pressed for time in compiling comments and appreciates the extension of time for submitting comments.

Permit Counter
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The City shares the Regional Water Quality Board's (RWQCB) goal of limiting pollution to the maximum extent possible. However, the City is cognizant of the fact that an NPDES permit is a legal document, and therefore, exposes the City and its rate payers to liability for failure to comply with all permit requirements. Therefore, the City is compelled to ensure that the permit does not unduly subject City rate payers to unreasonable limits or requirements. Because the City believes there is value in the public process associated with the development of regulations and policies, the City also objects to the inclusion of limits or requirements that are not based on current laws, regulations, or adopted plans.

Transportation Operations
Transportation Planning
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Water Maintenance
Street Maintenance
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The City's record of operation and maintenance of the treatment plant and collection system should convince the RWQCB that we are committed to operating a first rate system, and that the imposition of detailed operational requirements in the permit is not the driving factor in this commitment. In the past five years, the City's collection system has spilled less than 60,000 gallons of sewage from its 258 miles. In that same period of time, over 15 billion gallons of wastewater were safely contained, transported to and treated, at the wastewater treatment plant.

Water Supply Management
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GENERAL COMMENTS

Downtown Parking
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The RWQCB has begun routinely issuing permits specifying collection system management programs. Despite the fact that Board staff have indicated that they have a de facto policy of regulating collection systems, no actual policy has been developed.

This is important because the absence of a region-wide public process has precluded stakeholders from commenting during the policy development period. By implementing this new policy through the issuance of individual permits, the Board is circumventing the public process required for modifications of basin plans, and the Ocean Plan, and implementing an underground regulation.

The City has met with RWQCB staff to address some of the specific concerns related to implementing the requirements of the draft NPDES permit and complying with permit conditions. RWQCB staff was understanding and helpful regarding some of the issues, but was unable to address many of the specifics, because of the manner in which RWQCB is implementing the collection system policy.

The City takes pride in funding and implementing a proactive collection system maintenance and management program. The City owns and maintains 258 miles of collection system mainlines, and 11 lift (or pump) stations. The City also maintains an additional 5 miles of collection system owned by the County of Santa Barbara (County). The City employs 20 collection system staff, dedicated to the operation and maintenance of the system. The City has implemented a performance management system to ensure that the work being done by staff is both efficient and effective. Scrutiny of the data developed during implementation of the performance management program has shown that by carefully targeting collection system cleaning efforts, the City can actually reduce the amount of time spent on cleaning and increase efforts for inspection and repair. This allows the City to run the system more effectively. It also clearly illustrates that mandates for collection system maintenance should not be included in a permit, but should be dictated by system need. The cleaning schedule should correspond to the cleaning frequency that is required to effectively minimize blockages – not an arbitrary standard of cleaning the system every two years. In fact, because parameters that are pipeline specific, such as slope, flow, and scouring velocity, some lines do not require cleaning, only periodic inspection. The City should be responsible for effectively operating the system, rather than for systematically cleaning the system on a regular basis. This approach is consistent with the California Water Code, which specifies that Regional Boards shall indicate the measure to be achieved, not the means of achieving it (Water Code section 13360). Since the objective of cleaning sewer lines is to prevent spills, and since spills are already prohibited, the permit should simply state that the City should implement a program of cleaning its lines to prevent spills.

It should be noted that the provisions of an NPDES permit can be enforced both by regulatory agencies (RWQCB and the U.S. EPA) as well as by citizens in third party suits. The RWQCB is generally understanding regarding the limitations of a City in owning and maintaining such an extensive infrastructure as a wastewater treatment plant and collection system. Third parties, on the other hand, sometimes have ulterior motives, such as garnering publicity for high profile suits, and are less interested in working collaboratively to develop solutions. Therefore, it is very important that only requirements based on law or regulation be imposed within an NPDES discharge permit. Unattainable standards, regardless of their good intentions, can subject the discharger and its rate payers to attorney's fees, fines and penalties that do nothing to improve water quality or protect the environment.

SPECIFIC COMMENTS**Staff Report**

Key Information: The current capacity is stated as 8.5 MGD. This should be current influent flow rate, not current capacity. The current capacity is 11 MGD.

Discussion

The report incorrectly states that biosolids are land applied when, in fact, they are composted – not land applied. This is an important distinction, because the Federal 40 CFR 503 regulations place responsibility for compliance on the person who “prepares” the biosolids. For the City, this is the composting firm.

The discussion of the average dry weather flow is inaccurate. The average dry weather flow is indicated as 7.3 MGD or 66% of the design capacity. This is the effluent flow rate. It does not include approximately 1 MGD of flow that is further treated and recycled. Since this discussion is about plant capacity, the influent flow rate should be cited here.

Under the section discussion Effluent Sampling – Ocean Plan Table B, RWQCB staff is recommending annual sampling of Table B parameters. The City does not object to monitoring for these pollutants. However, the City believes that imposing limits for these pollutants in the absence of any data is contradictory to Ocean Plan implementation practices.

Imposing limits will require the RWQCB to issue minimum mandatory penalties if there are any exceedences of the parameters, with no provision for the City to develop a pollutant minimization plan. The City agrees that once pollutants have been determined to be in the effluent, limits should be implemented, however, there is precedence in the State Policy for Implementation of Toxics Standards for Inland Surface Waters/Enclosed Bays and Estuaries of California (the SIP) and the Ocean Plan for requiring sampling, without requiring limits until any identified pollutants can be addressed and reduced. In fact, one of the proposed major revisions to the Ocean Plan specifies the manner in which Reasonable Potential Analyses (RPA) are to be conducted and clearly specifies that if data is not available, the permittee should be required to monitor, but that limits shall not be assigned. This approach is responsive to both the Ocean Plan and the discharger by allowing the discharger time to develop a plan to reduce the discharge of pollutants without subjecting them to mandatory penalties for pollutants that were previously not identified or known to be present, and that the City has not yet had an opportunity to address (please see the attached supplemental comments that address the legal issues raised by the draft permit.)

RWQCB Staff cites the periodic upsets that the plant has experienced since 1999, as one of the justifications for requiring Table B monitoring. The City believes that these upsets are associated with our continued commitment to accepting septic and portable toilet wastes. If continued acceptance of these wastes will subject the City to a higher level of scrutiny, the City may consider that it is in its best interest to discontinue this optional community service. It is clear that the upsets are not being caused by toxic substances, such as those found in Table B, since the City has not failed acute or chronic toxicity tests.

Biosolids Standard Language

The City objects to the inclusion of the biosolids conditions in the permit. As RWQCB staff points out, they do not have the jurisdiction to over see this program. The City must comply with the requirements of 40 CFR 503, regardless of whether the language is included in the permit. Since the City is not currently land applying its biosolids, and has no intentions to do so, the inclusion of the information about the requirements for land applied biosolids is confusing. The City is unaware of any requirement to include this language in the permit. Reference to the applicable regulations, rather than inclusion of a detailed excerpt from those regulations would be more clear and concise.

Reasonable Potential Analysis (RPA)

The City would like the RWQCB to clarify that the RPA that was conducted in 1999 was done by, and at the discretion of, RWQCB staff. The language attributing plant upsets to the lack of an RPA is inappropriate and should be removed. Concentrations of the Ocean Plan Table constituents and concentrations sufficient to upset the treatment plant would cause effluent toxicity. The plant has not experienced trouble passing effluent toxicity tests. Further, effluent has periodically been tested for some of the constituents on Ocean Plan Table B, and there were no significant levels of any of the listed pollutants observed.

Waste Discharge Requirements and NPDES Permit

Tributary Wastewater Collection System Agencies

Paragraph 4: The County owns five miles of mainlines in Mission Canyon that are maintained by the City. The City and County are signatories to a Memorandum of Understanding regarding the operation and maintenance of this system.

Design Treatment Capacities

Paragraph 6: This section currently reflects the average daily flows for effluent. Because it is discussing treatment plant capacity, which pertains to the total flow treated at the plant, this section should be revised to reflect influent flows. The average influent for January to December 2003 was 8.47 MGD (76% of the facility's respective design capacity), and the average dry weather peak flow was 13.13 MGD (69% of the facility's respective design capacity).

Water Reclamation

Paragraph 11: Reclaimed or recycled water is used for irrigation at locations throughout the City, and is also used for toilet flushing at restrooms in many of the City's park restrooms.

California Ocean Plan

Paragraph 16: The California Ocean plan is currently in the final phase of a triennial review. The State Water Resources Control Board (SWRCB) is scheduled to hear this item on October 22, 2004. One of the two proposed changes is addition of clarification of the manner in which RPA's should be conducted.

Basin Plan

Paragraph 18: The Basin plan does not include any plans or policies for management of wastewater collection systems. If the RWQCB wishes to implement a program of collection system management, it should follow the proper procedure of implementing this program through a revision to the basin plan.

Paragraph 20: In the discussion of the shellfish beneficial use, there is a statement that oyster harvesting does not exist at offshore commercial leases. Such practice would be a maricultural use, not a shellfish use, and this comment should be removed or moved to the next section, which discusses the Mariculture beneficial use.

Paragraph 21: The wording that is currently in the permit regarding the shellfish harvesting prohibitive zone. Shellfishing is not allowed within three miles of the discharge. Thus shellfish harvesting, and MAR are existing beneficial uses in near shore areas that are outside the prohibitive zone only.

Wastewater Collection System Overflows

Paragraph 29: The definition of a collection system overflow should be modified to clearly state that a wastewater collection system overflow is defined as a discharge to groundwater or surface water. This is consistent with the authority vested in the RWQCB.

Paragraph 32: States that the discharger is expected to take all necessary steps to adequately operate and maintain its wastewater collection system to prevent overflows. This seems to be an overly broad requirement, and is most likely unattainable. There are numerous constraints on the actions that the City can take to maintain the collection system; one of the most significant is limitations of financial resources. The same intent would be achieved without assigning an unreasonable burden to the City by substituting the word reasonable for necessary in the permit language.

This paragraph also discusses a Wastewater Collection System Management Plan. The SWRCB is currently working to develop a regional approach to management of collection systems. The term that they are using for the management plan is Sewer System Management Plan (SSMP). The City does not have an objection to either term, but since the term SSMP is becoming a common term in the industry, it might be helpful to cross reference this management plan here, so that it is clear that the two terms are the equivalent.

Anti Backsliding Policy

Paragraph 35: In a meeting with City staff to discuss the draft permit RWQCB staff said that if a future RPA is conducted that shows no potential for discharge of a pollutant that has a limit in this permit, removing that limit in a future permit would not be backsliding. The City believes that this section should include a discussion that it is allowed to remove or relax a limit when new information is obtained.

California Environmental Quality Act

Paragraph 36: This paragraph states that issuance of the permit is exempt from CEQA. This is because the Basin Plans and Ocean Plan on which the permit conditions are based are required to go through a review process that is the functional equivalent of CEQA. There are no requirements for collection system management in either the Basin Plan or the Ocean Plan. Therefore, the inclusion of such requirements here illegally bypasses the CEQA process. The City requests that the RWQCB remove the collection system provisions from the permit so that a regional management plan for collection systems can be developed with all interested stakeholders and incorporated into the basin plan, undergoing all required public notice and alternative review.

Section A. Discharge Prohibitions:

The City suggests that the prohibition on overflows be included in the Discharge Prohibitions section, and that an affirmative defense be included to protect the City's rate payers from being assessed penalties for overflows that occur, despite the City's best efforts to prevent them. There is precedent for such an approach in the NPDES permit recently issued by the San Francisco Regional Board to Stege Sanitary District. A copy of the relevant section is attached to these comments. This permit is in effect, and the U.S. EPA did not object to the language regarding sewer system overflows. Such an approach would protect the City from enforcement for unforeseeable situations or actions, such as vandalism. Further, this approach meets the objectives of the RWQCB – protection of water quality – without unduly penalizing the City for spills that occur despite the City implementing a proactive and effective collection system management program.

Section B. Discharge Specifications:

Paragraph B. 3: Specifies the manner in which mass limits must be met. Please see the supplemental comments for a discussion of the legal issues that prohibit implementing mass limits in this manner. The City proposes that the RWQCB require compliance with a monthly median mass limit. Requirement of a daily mass limit is unnecessary to protect water quality as the concentration based limit and daily flow will dictate the daily mass discharge, and therefore, the concentration based limit is already sufficient to measure compliance with Ocean Plan standards.

Tables B-1 through B-3

As discussed previously, given that there is no current data available for these pollutants, the RWQCB should require monitoring, but limits should not be contained in the permit at this time. Should a pollutant be detected in the effluent at a concentration above Ocean Plan Table B limits, the City should be directed to develop and implement a pollutant minimization plan? This approach both protects the ocean and allows a reasonable time and approach for compliance by the City.

Section C. Receiving Water Limitations

The City objects to the characterization of the area around the diffuser as a waste field. The City is unaware of any information or data that would suggest this is an appropriate designation for this part of the ocean. If the RWQCB wishes to denote the area outside

of the ZID, but still within the area of influence of the wastewater plume a more appropriate and descriptive term would be area of potential influence.

Section D. Wastewater Collection System Requirements

As expressed above, the inclusion of these requirements is not supported by the Clean Water Act, its implementing regulations, the Ocean Plan or the Basin Plan. If the RWQCB wants to implement a program of collection system management, it must follow State and Federal laws and implement the program through the prescribed public process. Failure to do so misuses the permitting system to implement an underground regulation. (For additional information on the legal issues associated with implementing an underground regulation through the NPDES permit, please see the attached supplemental comments. For information on legal barriers to using the Clean Water Act as the basis for implementing collection system regulation, please see the attached AMSA white paper on this topic.)

Despite the fact that the RWQCB has failed to follow proper procedures for implementation of a collection system management program, the City would be willing to accept reasonable requirements for collection system management on an interim basis, while the RWQCB develops a program for such regulation through the proper process. The City believes that the best approach for regulating collection systems is through the issuance of general Waste Discharge Requirements (WDR). This would achieve the goal of the RWQCB of regulating collection system management, but would do so in a manner that was consistent, and set a level playing field for all collection system operators. The current approach of site specific NPDES permits for collection system operators owning treatment plants, and WDRs for satellite collection systems is neither consistent in its provisions, nor consistent in the liability that it imposes on collection system operators.

Paragraphs D.9. and D10. should be removed. This discussion should be included in the section on Prohibitions. Please see the attached excerpt from the Stege Sanitary District's permit for an example of how this wording can more appropriately be incorporated into the Prohibitions section.

Inflow/Infiltration and Spill Prevention Measures

Paragraph D.11: Staff requests that all reports be scheduled to be submitted at the same time, as a part of the annual report. This accomplishes several objectives: 1) It allows staff to take the time to do a comprehensive review of all programs at the same time, and to report on them all in one location; 2) It makes it easier to access these documents in the future, because all of the information is contained in the same documents; 3) It organizes all data by Calendar year, rather than having some reports cover a calendar year, and others cover some other interval and 4) It allows staff to maximize their time managing the system by reducing the number of different reports that they have to prepare. City staff is a working staff, and the addition of administrative duties, such as report writing to their responsibilities reduces their ability to focus on collection system and plant function.

Paragraph D.12.b.3: This section again mixes reporting requirements with the development of a program.

Paragraph D.12.b.4: This section is particularly unwieldy. The requirement to list each reach of conveyance and include a schedule by which the listed reach will be replaced is unreasonable. Such a list, if created, would be current only on the day it was put together. To be effective, collection system maintenance must be dynamic. Some problems will arise that will displace others that had been scheduled. If the RWQCB feels compelled to dictate to experienced staff the details of how they maintain the collection system, it would be more effective to simply require that the City develop a system for identifying and prioritizing collection system rehabilitation and repair. The City currently has such a system, and has for many years.

Paragraph D.12.b.5: A program for pump station maintenance should not require previous year's operational problems. This is a reporting effort. A program for pump station maintenance should indicate the frequency of inspection and the required preventative maintenance. That said, the RWQCB should not prescribe these things, but should specify that a program be developed.

Paragraph D.12.b.6: This paragraph on alternate power should be included with the pump station maintenance program. They are not separate issues.

Paragraph D.13: The provisions of this paragraph and its subparagraphs are prescriptive. The California Water Code prohibits the RWQCB from prescribing the manner in which objects are obtained. The WDRs being issued to satellite collection systems do not include any of the language found in this section – yet they are regulating the same type of system. The WDRs and the City's draft permit both reference "MRP Attachment 1", which does a better job describing the elements of a collection system management plan, because it is descriptive rather than prescriptive. The City suggests that the format used for collection system management plans, used in the WDRs be used in the City's permits.

The provision requiring the City's entire system to be cleaned every two years is an example of the unreasonable specificity of the draft permit. In fact, requiring that the system be cleaned at some given frequency – whatever it may be – will require City staff to focus on meeting that goal, rather than on allowing them the flexibility to spend their staffing resources in the manner that they find to be the most efficient and responsive for this particular collection system. Many of the City's lines have operated for many years without being cleaned. They were designed and constructed in such a manner that they are self scouring.

The City strongly objects to the current format of the permit. Specific concerns are addressed below. The level of detail required by the current wording is unnecessary. It does nothing to further the RWQCB's understanding of the collection systems operation to require submission of the names of assigned staff persons. The level of detail required under the currently drafted provisions of this section will require that the City divert efforts from field activities to meet the overly specific requirements of the permit.

Paragraph D.13.a: The City believes that this requirement is overly detailed, while at the same time failing to require identification of key collection system features, such as the location of siphons. The City believes that a more effective requirement would be to

require development of a map showing all significant collection system features, including, but not limited to lift stations, emergency generators and all trunk lines. The City currently has an extensive automated map that includes the above listed information, and much more.

Paragraph D.13.b.1: The narrative provisions of this section should more reasonably be required in an annual report, rather than in a collection system management program. The requirement to clean the entire system every two years is arbitrary, and would result in a waste of resources with no corresponding increase in collection system performance.

Paragraph D.13.b.2: It is difficult to understand the value of simply describing methods of inspection. Similarly, it is unimportant to identify assigned staff, as this changes frequently, and with a qualified staff, is of little consequence. The important part of visual inspection is that pipes are being inspected at a frequency that is adequate to identify defects prior to their creating back-ups or spills. The requirements for describing results and problem areas identified is clearly not intended to be part of a report of activities performed, not as part of a program.

Paragraph D.14, Fiscal Resources: The WDRs issued to satellite collection systems specify simply that proper operation and maintenance requires adequate funding. Requiring a description of the fee structure for collection system management is not appropriate. The City's fee structure supports the operation and maintenance of both the collection system, and the treatment plant. Therefore, information regarding the fee structure within the body of a collection system program is meaningless. The City generally develops and implements a two-year budget for its programs. A six year capital program is also adopted with the two-year budgets. This information is available for review on the internet, and upon request. Requiring it in the body of the permit as a part of a collection system management plan is not appropriate.

Paragraph D.15, Personnel Training: The level of detail included in these portions of the permit is unnecessary and cumbersome. Again, this level of detail is not necessary to be contained in the NPDES permit, or in a collection system management plan. Staffing changes frequently, the inclusion of a requirement to have a detailed description of staffing levels and training in a collection system management program does nothing to further the operation or maintenance of the system. A more effective requirement would be identifying specific jobs or duties requiring special training, and specifying how that level of training is obtained and maintained.

Paragraph D.16.b: The City requests to submit the Collection System Annual report in conjunction with the Wastewater Treatment Plant Annual Report. Additionally, staff requests to have these reports due on March 30th. These reports are reviewed by the City's Water Commission, and it is effective to take them one comprehensive report. The later date is requested because data is not generally available until the beginning of February. February is also budget time, and the time for submitting the City's internally required performance management reports. The requirement to also additionally compile a comprehensive report during February will add significantly to the workload of staff in this already busy month. Extending the deadline to March would significantly ease this crunch, and would not significantly delay submission of this data to the RWQCB.

Paragraph D.16: This paragraph seems duplicative of the requirements of paragraph D. 13. The City again urges the board to use the approach adopted for collection system WDRs, and allow the City the flexibility to develop and implement a responsive program. This will provide consistency in the way that this new program is implemented throughout the region.

Paragraph D.16.e, f. & g: This financial information is currently also requested in the sub-paragraphs of D.13. This information is not appropriately placed in a program document that will describe how a program is implemented, and the collection system is properly managed.

Paragraph F. Biosolids Requirements: It is inappropriate to include the Biosolids Requirements in the body of the permit. If the board has been directed by EPA to include this language, the City would like to receive a copy of that direction. If the RWQCB believes it is necessary to address biosolids in the permit, a reference to the City's obligation to comply with applicable regulations should suffice. Inclusion of detailed requirements, many of which are not relevant to the City's operations, is confusing and misleading. At the current time, the City is having biosolids composted off site. Under 40 CFR 503 the requirement for compliance with the biosolids rules is placed on the person who processes and changes the biosolids. Therefore, none of the language about land application applies to the City. Including it in the permit may subject us to having to comply with these provisions.

Section G – Provisions,

Provision G.5: As currently drafted, the permit language for the toxicity indicates that the City would go directly to a TRE, without first conducting a Toxicity Identification Evaluation (TIE). The first step is to identify the toxicant; the second step is to find ways to reduce it. The City recommends that the following language be substituted for Provision G.5 in the permit:

If toxicity monitoring shows a violation of toxicity limitations of this Order or a toxicity objective in Table B of the Ocean Plan, the Permittee shall increase the frequency of toxicity testing to once per week, and submit the results within 15 days after each test to the Regional Board Executive Officer. If the discharge consistently exceeds toxicity effluent limitations as determined by the Executive Officer, the Executive Officer shall direct the Permittee to conduct a TIE to identify the causes of toxicity. Subsequent to the TIE, the Permittee will initiate a TRE, which shall include all reasonable steps to control the source(s) of toxicity. The objective of the TRE is to narrow the search for effective control measures for effluent toxicity.

Paragraph G.6: The requirement to conduct sanitary sewer surveys whenever directed by the RWQCB Executive Officer is vague and unclear in scope. It should be removed.

Paragraph G.11: The requirement to disinfect the El Estero effluent was based on data produced by an extensive scientific study. Therefore, it seems inappropriate to include this paragraph discussing when disinfection shall be required. Further, the City has already invested significant resources into constructing a disinfection system utilizing sodium bisulfate. Therefore, the discussion about what type of disinfection should be required is also inappropriate.

MONITORING AND REPORTING PROGRAM

Section I Influent Monitoring

The Monitoring and Reporting program requires that flow composited influent samples be collected at the influent to the treatment plant. The plant was designed without an influent sampling point. The wastewater enters the treatment plant through three separate lines. None of these provides a good place for collecting a composite sample, and none of these is metered. The City has reported to the RWQCB that influent sampling is not feasible, and has been allowed to monitor plant influent using the confluent. The confluent is primarily composed of influent, but also includes plant return flows. A confluent sampler is set up after the headworks (screening), and collects flow proportioned samples.

The cost of installing three metered influent stations is high. Additionally, none of the influent lines is particularly suited to accurate flow measurement.

The City proposed to provide calculated influent data by subtracting confluent flow and pollutant loads from the confluent to arrive at calculated influent data. The City believes that the confluent sampling location is far superior, even with calculated data, to any sampling locations that could be installed in the influent lines.

To allow an approach of calculated influent data, Table 1, Influent Monitoring, should be modified to specify that daily flows are calculated, not metered.

Footnote 2 to Table 1 requires that influent sampling and effluent sampling should be scheduled to compensate for the plant's detention time. Because the production of recycled water varies, and because this affects the plant detention time, it is not possible to calculate an exact detention time. The City can delay effluent sampling by some interval to compensate for detention in the plant, but it will be an estimate. However, the City questions whether there is really any value to this exercise, as it is extremely unlikely that the same water will be sampled regardless of efforts to account for plant detention, and delaying samples to account for detention adds significantly to plant efforts, requiring overtime for the plant personnel involved.

Section II Effluent Monitoring

The City sees little benefit collecting samples at delayed intervals to account for plant detention time. This will add significantly the burden of operators, requiring effluent samples to be collected, and samplers reset at 5:00 a.m., when the plant is currently not staffed. Because influent and effluent samples for CBOD and TSS are collected daily and compliance is calculated daily the need to account for detention is unnecessary. The effluent is monitored for compliance with these parameters at all times, and any flows that would cause violations will still cause violations regardless of whether detention is considered or not. The only situation where this is not the case would be if a particularly concentrated load were to come into the plant over a short period of time. In this case, failure to account for detention time would actually subject the plant to a stricter limit as the effluent sample, which would be represented without the benefit of the elevated influent sample. The City is willing to accept this risk in exchange for the efficiency of collecting all samples on the same schedule.

RWQCB staff has clarified that our existing composite samplers (Isco and Sigma brand) are approved devices.

The Executive Officer has the authority to modify the Monitoring and Reporting Program. Therefore, it is unclear why the reference to requiring monitoring of bioaccumulation of toxicants in the discharge zone is included. The City is unaware of any data or information that suggests such monitoring is warranted.

The City requests that the language requiring samples to be collected in the specified months be modified to require that the City make their best attempt to collect the samples in the specified months. This will allow the City to avoid sampling during wet weather, or if other unanticipated incidents arise that might interfere with sampling.

Table 2, footnote 1: The City requests that the range of bacterial densities required be changed to >2 to >16,000. This range is adequate to show compliance with the permit. Requiring a greater range of samples greatly increases the cost, time and space required for this test.

Table 2, footnote 4 should remove the reference to strip charts. The City's data is stored electronically on the SCADA system.

Table 2, footnote 11: The City requests that the footnote be changed to clarify that the screening period will be the first set of samples collected during the permit term.

Table 8: Ocean Sampling Station Locations, is a bit confusing without the attachment of a map showing the locations. Previous permits have contained a map showing the required sampling locations.

The City agrees that if sampling for bacterial analyses is required to be performed because of effluent excursions, the range of values should be 20 to 160,000 MPN.

The City requests to use ecoli as a surrogate for fecal coliform monitoring. There are EPA approved test methods for Ecoli that provide results in 24 hours, rather than the 48 or greater required for the multiple tube fermentation process. Obtaining results in a timelier manner allows the treatment plant operators to modify plant operations and respond to the data obtained.

Section VIII. Biosolids Monitoring, Reporting and Notification

Since the RWQCB has not got authority to enforce the 40 CFR 503 rules, it is unclear why the requirements of that rule are included in the City's MRP. In fact, because the City contracts with a company to compost its biosolids, the City is not technically required to sample the biosolids at the given frequency – the composting company is. The City proposes to replace this entire section of monitoring requirements with a requirement that the City include in its annual report to the RWQCB a copy of the annual report required to be filed with the USEPA. That report contains all biosolids sampling data and required certifications. This language is currently included in the draft report in Paragraph 9 a-e of this section.

Inclusion of biosolids monitoring requirements that are not strictly required under the Federal law is imposing additional, unauthorized regulatory oversight on the City.

Section IX Inflow/Infiltration and Spill Prevention Reporting

The City requests that this section be retitled "Collection System Reporting". This will more accurately characterize the comprehensive nature of the reports pertaining to operation and maintenance of the collection system – not just Inflow/ Infiltration and Spills.

Section X Pretreatment Program Reporting

The City requests to have the date of the annual report changed to March 31, each year.

Sections XI and XII

These sections are somewhat duplicative and redundant of Section IX. The City again requests that the RWQCB adopt the approach used in WDRs issued to satellite collection systems, which is better organized, more general and leaves the decisions for program management to the collection system operator.

Table 15 Reporting Schedule Summary.

The City requests that the date of the Annual Summary Report be moved to March 31, to provide adequate time to receive analytical and financial data from the previous calendar year, which is generally not available until February, and to compile the comprehensive report.

The submission of the report on Bottom Sediment and Benthic Biota Sampling is due 60 days following inspection and March 1. This is a comprehensive report that requires the categorization of the benthic biota, and the statistical analysis of populations. It generally takes several months for the data to be available. The City suggests that this report be required as soon as it is available, but no later than the Annual Report following the sampling.

The Annual Inflow/Infiltration and Spill Prevention report is currently required by February 1. Staff would like to include this with the Annual Summary report, and requests to have the date coincide with the date for submission of that report (March 31).

The Wastewater Collection System Overflow Cleanup Protocol Monitoring Program is required to be submitted March 1, but no year is specified. The City believes the RWQCB intended this document to be submitted by March 1, 2005.

MRP ATTACHMENT 1

Paragraph III E. It is inappropriate to require implementation of pretreatment program requirements in a collection system management plan. Pretreatment program requirements are specifically linked to the operation of wastewater treatment plants.

Paragraph IV C. The City believes that this paragraph would be more effective if it was rewritten to require the development of a proactive plan to reduce or prevent dry weather overflows. The plan shall include a component for public outreach and education.

Paragraph IV. E. The City believes it is counter productive to spend time scheduling rehabilitation and replacement of specific stretches of pipe. It is more effective to develop a plan that establishes how pipe replacement and rehabilitation are prioritized, and to develop a program that will replace system components prior to their failure.

Paragraph IV. I. This section requires a plan to respond to spills from private property. Such spills are the responsibility of the property owner. Requiring a public agency to respond on the property owners behalf rewards those property owners who have failed to adequately maintained their laterals. This paragraph should be deleted.

Paragraph IV. J. Requiring collection system operators to develop a plan for grease disposal may be beyond the scope of their control and/or may endanger the treatment process at the local treatment plant. This paragraph should be deleted.

Paragraph IV. K. In the City, wastewater fees cover the operation and maintenance of both the treatment plant and collection system. Therefore, it is inappropriate to require a fee structure to support collection system operations. Further, it is the responsibility for collection system operators to properly operate and maintain their systems. NPDES permits do not require financial system information for treatment plants and should not require this information from collection system operators. It increases the administrative burden on the collection system operator without doing anything to achieve the goals of the RWQCB, proper operation and maintenance of the collection system.

Paragraph IV. L. The level of detailed required in this paragraph should be limited to the inclusion of an organizational chart. The duties and training frequencies of staff are internal operational issues. If the RWQCB wishes to address staff capabilities, they should follow the lead of the Department of Health Services and mandate that collection system personnel be certified.

Paragraph VII.B. This paragraph should be revised to change the requirement for reporting overflows from "immediately" to "in a timely manner".

Paragraph VII.C. requires immediate notification of health agencies and other impacted entities. This requirement should be changed to require that notification be made in a timely manner. The RWQCB's spill reporting policy already sets forth the timeframe for reporting such spills.

Paragraph VIII. Source Control Programs: This requirement should state that the collection system operator should evaluate the need for source control programs, rather than dictating that they must be developed. In many cases treatment plants already have such programs in place and there is no need for the collection system operator to implement a duplicative program. In other situations, fats, oils and grease are not a significant problem for collection systems.

Paragraph IX. C. Plan Updates. The City believes that requiring annual plan updates minimizes the importance of the review process. A less frequent review would be more of an event, rather than routine. This would allow operators to focus their efforts more carefully at assessing the plan.

Thank you very much for considering these comments. As you are well aware the permit sets the minimum standard for performance of the wastewater treatment plant. This draft permit also includes many requirements that will be the minimum standard for operation of the collection system. For this reason it is very important that these standards be achievable. It does not serve environmental any purpose to implement a permit that is overly burdensome, and can not be complied with. In fact, it diverts the efforts of City staff from programs to operate and maintain the wastewater treatment plant and collection system, and forces them to focus on administrative issues created by such a permit. Additionally, an unreasonable permit will divert financial resources from areas where they are most needed to fulfill and arbitrary permit requirement, (such as the currently included requirement to clean all lines every two years).

The fact that the permit is a minimum standard is also important because it allows the City the opportunity to work collaboratively with the RWQCB, and community groups to address issues, or to reach performance levels higher than those mandated in the permit. This is a much more responsive, efficient and community oriented method of tailoring the systems management than dictating requirements in the permit.

Finally, the City again urges the RWQCB to initiate a public process to develop a consistent approach to collection system management. This process should include key stakeholders, and result in the development of a general WDR for collection systems that mandates key program components, but allows individual system operators the flexibility to tailor operations to most effectively address the issues of their system. As you know the SWRCB is currently in the process of developing a program to address collection systems. I urge the RWQCB to follow their lead and work collaboratively with its collection system operators and other stake holders.

Please feel free to contact me at (805) 897-1914, if you have any questions about these comments or if there are any sections that need further clarification

Sincerely,



Rebecca Bjork
Wastewater System Manager

RB/dm

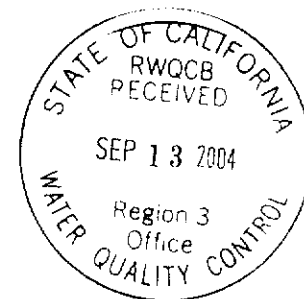
Attachments: 1. Somach, Simmons & Dunn letter to the City of Santa Barbara
2. Excerpt from Stege Sanitary District NPDES permit
3. AMSA White Paper

cc: (w/o attachments)

Anthony J. Nisich, Public Works Director
Steve Mack, Acting Water Resources Manager
Bill Carroll, Assistant City Attorney

SOMACH, SIMMONS & DUNN
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW

HALL OF JUSTICE BUILDING
813 SIXTH STREET, THIRD FLOOR
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(916) 446-7979



September 9, 2004

Via Electronic and U.S. Mail

Rebecca Bjork
City of Santa Barbara
P.O. Box 1990
Santa Barbara, CA 93102-1990

SUBJECT: Tentative Waste Discharge Requirements Order No. R3-2004-0122 for the
City of Santa Barbara El Estero Wastewater Treatment Facility

Dear Rebecca:

As you requested, we have reviewed the tentative waste discharge requirements for the City's El Estero Wastewater Treatment Facility. In addition to the technical comments and recommended language revisions that the City is preparing, we offer the following comments regarding several key provisions of the proposed permit.

1. Collection System Provisions

While the City shares the Regional Board's goal of reducing sanitary sewer overflows (SSOs) that present a potential risk to public health and safety. The City should be very concerned about the provisions of the tentative permit that set forth a detailed and prescriptive set of requirements for the sewer collection system and an absolute prohibition on any overflows or seepage from the collection system. (Discharge Prohibition A-3.) The permit findings do not articulate the statutory or regulatory bases for these requirements. The proposed collection system provisions (Findings 29-33, Prohibition A.3 and Wastewater Collection System Requirements) are flawed for several reasons.

The Regional Board May Not Implement a New Regulatory Program in the Guise of Adopting an Individual Permit.

Waste Discharge Requirements adopted by the Regional Board are to "implement" the relevant water quality control plans. (Water Code §13263(a).) WDRs must take into consideration, among other things, the public interest factors enumerated in Section 13241 of the Water code, including water quality conditions that can reasonably be achieved and economic considerations. In other words, through the Ocean Planning and Basin Planning process, the Regional Board and SWRCB are to

Rebecca Bjork
City of Santa Barbara
September 9, 2004
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evaluate the economic, environmental and social impacts of a proposed regulatory program prior to its adoption. The regulatory program may then be implemented in WDRs issued to individual dischargers or groups of dischargers.

In proposing to impose the new collection system requirements in the City's Tentative Permit, the Regional Board has not articulated the specific Basin Plan or Ocean Plan provision being implemented, nor demonstrated that the regulatory requirement has undergone the review required under Water Code section 13241 and the California Environmental Quality Act. (Public Resources Code §21159.) When the Regional Board adopts a regulatory provision such as a performance standard or treatment requirement, the Regional Board is obligated to conduct a review of the reasonably foreseeable methods of compliance with those standards or requirements. (*Ibid.*) Economic factors must be a part of this analysis.

The Regional Board may not bypass this analysis by establishing new, permit-specific regulatory requirements rather than going through the water quality planning process. The affirmative duty to consider and evaluate economic and other factors applies equally to case-by-case establishment of new requirements in WDRs. (Memorandum from William R. Attwater, SWRCB Chief Counsel, to Regional Water Board Executive Officers, January 4, 1994.)

The Regional Board must undertake the analyses required by the Water Code and CEQA before it may require the City to comply with a detailed new regulatory program for its collection system.

Inclusion of Prescriptive Collection System Requirements in an NPDES Permit is Premature.

Even if the Regional Board were inclined to undertake the analysis outlined above and establish a new, detailed program for collection system management, maintenance and operation, the including requirements in the City's NPDES permit would be premature and potentially in conflict with federal and statewide schemes under consideration. The U.S. EPA continues to develop new regulations governing collection systems.¹ While the federal effort appears to be moving slowly, the State Water Resources Control Board has formed an SSO Guidance Committee to assist in identifying the best approach to addressing SSOs consistently in the State. The SWRCB staff is expected to seek approval of a resolution outlining the fundamental principles that will govern the statewide effort. Implementation may take the form of guidance, new regulations or a statewide General WDR. With these comprehensive efforts underway, it makes little sense to impose very specific, detailed requirements on the City's collection

¹ A draft rule was signed in January 2001 but has not yet been published in the Federal Register.

system, when these requirements may ultimately prove to be inconsistent with the federal or statewide rules. The Santa Ana Regional Water Quality Control Board cited a desire to avoid potential inconsistencies with the forthcoming federal rules as a primary reason for issuing a General WDR, rather than an NPDES permit, to collection system operators in Orange County. (Response to Comments on Tentative Order No. R8-2002-0014, March 22, 2002, p. 4.)

Adoption of the Proposed Collection System Provisions will Create an "Un-level" Playing Field Among Dischargers in the Region.

In order to reduce SSOs and improve reporting and record-keeping, the Regional Board must address not only the universe of collection system operators who also operate wastewater treatment plants, but also the so-called "satellite" collection systems that convey wastewater to the POTW. Education and outreach to these satellite agencies, many of whom are new to the water quality regulatory arena, is a major focus of the SWRCB's SSO Guidance Committee. Several regional boards, including Regions 8 and 2, have recognized that SSOs must be addressed in a manner that brings all collection systems under the same set of standards, reporting requirements, etc.² With this permit, the Regional Board will be establishing a double standard with regard to collection system requirements within its jurisdiction. The City will be subject to the detailed, prescriptive program set forth in the Tentative Permit, and any violation of the permit's stringent provisions could potentially subject the City to third party lawsuits by virtue of their inclusion in a federal NPDES permit. In contrast, the non-NPDES WDRs issued to the collection-only agencies are less onerous and are not subject to direct citizen enforcement.

This approach is not only unfair, but it will be less effective in addressing SSOs. A goal driven, comprehensive approach, involving stakeholders who will be directly affected, can yield far better results in terms of improved and consistent reporting, enhanced system operation, maintenance and management, and education of satellite systems. The Regional Board should reconsider its proposed piecemeal regulatory scheme and consider the greater benefit to be achieved by bringing together the affected community to work toward solutions. Both the San Francisco Bay Regional Board and the SWRCB have recognized the merits of this type of approach in their current efforts to reduce SSOs. At a minimum, however, if the Regional Board feels compelled to pursue a regulatory solution, the rules should be the same for all collection systems. A General WDR covering all collection systems would be a better mechanism for ensuring

² The Santa Ana Region opted for a General WDR that governs all collection systems, including satellites, within the Orange County portion of its jurisdiction. The San Francisco Bay Region is focusing initially on a collaborative effort with the Bay Area Clean Water Agencies to improve reporting and collection system operation and maintenance through outreach to satellites as well as POTWs.

consistent compliance throughout the watershed then the current system of unequal permitting.

The Proposed Collection System Requirements are Overly Prescriptive and Conflict with Water Code Section 13360.

The Tentative Permit includes both an absolute prohibition on overflows and a detailed, very specific set of wastewater collection system requirements addressing SSO prevention and response, infiltration and inflow (I & I) measures, and planning and reporting. This places the City in an untenable position. The City must implement the specific program laid out in the permit, but if it does so *to the letter*, and an SSO occurs, the City would still be violation of the prohibition. Similarly, failure to comply with a specific task in the permit could subject the City to enforcement even if no SSOs had reached surface waters. The inclusion of these very prescriptive requirements in the permit limits the City's flexibility to make decisions regarding the best operation and maintenance of its system without providing any defense in the event an overflow occurs despite its compliance with the program requirements. The level of detail also limits the Regional Board's flexibility to make changes or revisions, as a permit amendment would be required subject to the NPDES permitting regulations.

In addition, the level of detail set forth in the Tentative Permit violates Water Code section 13360(a), which states that no "waste discharge requirement or other order . . . shall specify the design, location, type of construction or particular manner in which requirement may be had" with the order. The Regional Board may not specify the manner of compliance. The Tentative Permit should be amended to require the City to develop and implement a Sewer System Management Plan including specified elements, and to develop and implement programs to address I & I. The details should be included in the plans rather than in the permit. If, however, the Regional Board decides to retain the prescriptive and detailed requirements, the permit should be amended to specify that a demonstration of compliance with the requirements of Section D is a defense to a violation of Prohibition A.3.

The Proposed Absolute Prohibition on SSOs is Unreasonable and Unattainable.

Discharge Prohibition A.3 of the Tentative Permit states that discharge "of any wastes including overflow, bypass and seepage from collection, transport, treatment or disposal systems is prohibited." This absolute, unqualified prohibition would set an impossible and unattainable standard for the City's collection system. The Water Code requires the Regional Board to regulate to achieve the highest water quality that is "reasonable." (Water Code §13000.) It is clearly not reasonable to require immediate compliance with an impossible standard. In the Preamble to the draft federal collection system regulations, U.S. EPA noted that some overflows are unavoidable, even in the best operated systems. In other contexts, courts have limited the "zero discharge"

standard of the Clean Water Act, reasoning that “Congress could not have intended a strict application of the zero discharge standard . . . when compliance is factually impossible.” (*Hughey v. JMS Development Corp.*, 78 F.3d 1523, 1530 (10th Cir. 1996); *see also Mississippi River Revival, Inc. v. City of Minneapolis*, 319 F.3d 1013, 1017-18 (8th Cir. 2003).)

The Tentative Permit should be modified to delete the prohibition, or alternatively, to describe its implementation and specify an affirmative defense to enforcement for specified types of overflows.³

Conclusion.

I concur with the City’s strong preference for the development of a General WDR for collection system agencies that will establish consistent and equitable requirements applicable to all sewer collection agencies. Despite the City’s concerns about the legality, fairness and appropriateness of including collection system related requirements in an individual NPDES permit, the City may be able to agree to alternate collection system provisions, as outlined in the City’s detailed comments, as an interim approach. The City’s proposed language recognizes that certain overflows—for example, those that are contained and recovered—should not be considered violations of an NPDES permit. The proposed language requires the City to “make every practicable effort” to contain and control SSOs, and provides an affirmative defense for overflows caused by factors outside the City’s control that could not have prevented by the exercise of reasonable care. This approach will be as effective, if not more so, as the Regional Board’s proposed language in reducing and controlling SSOs, yet will not subject the City to unwarranted exposure to enforcement or third party litigation. Similar language has been included in California NPDES permits and the U.S. EPA has not objected to those permits. (*See, e.g.*, Stege Sanitary District, Order No. R2-2004-0014, NPDES Permit No. CA0038482 (adopted March 16, 2004).)

2. Ocean Plan Implementation

Effluent Limitations for Table B Constituents may be Imposed Only for those Pollutants for which the Discharge has “Reasonable Potential.”

The Regional Board proposes to include effluent limitations for each of the water quality objectives contained in Table B of the “Water Quality Control Plan for Ocean Waters of California” (the “Ocean Plan”). Inclusion of these effluent limitations is

³ The City has provided alternative language to accomplish this. Examples of other permits providing affirmative defense language include Stege Sanitary District, Order No. R2-2004-0014 and General Waste Discharge Requirements for Sewage Collection Agencies in Orange County, Order No. R8-2002-0014.

inappropriate both under the existing language of the Ocean Plan, and in light of proposed revisions to the Plan which recognize that “a scientifically defensible, statistically based, reasonable potential procedure” is preferred. (*Informational Document, Public Scoping Meeting for the Proposed Amendment of the Water Quality Control Plan for Ocean waters of California*, December 2003, at p. 57.) Effluent limitations for particular pollutants are required where the discharge has the reasonable potential to cause or contribute to an exceedance of a water quality standard. (40 C.F.R. §122.44(d)(1)(iii).) There are various methods for calculating reasonable potential—for example, the approach set forth in U.S. EPA’s *Technical Support Document for Water Quality-based Toxics Control* (1991) (the “TSD”).

The Ocean Plan does not specify a method for determining which Table B pollutants should be translated into numeric limits. However, a fundamental premise of reasonable potential (RP) analysis is that effluent data will be used to determine whether RP exists. The federal regulations specify that one of the considerations for determining RP is “the variability of the pollutant or pollutant parameter *in the effluent*.” (40 C.F.R. §122.44(d)(1)(ii).) Thus, while the language of the Ocean Plan, standing alone, could be read to require effluent limitations for all Table B pollutants, the Plan must be read in the context of the regulations which also apply. The Scoping Document for the Ocean Plan amendments summarizes six different reasonable potential approaches—all of which rely on the use of effluent data to determine RP. Indeed, the proposed revisions to the Ocean Plan are intended to clarify that an RP analysis is equally required in the context of ocean discharges as it is for other surface water discharges. The Table B implementation provisions are proposed to be revised as follows:

“If the RWQCB determines that a pollutant is discharged into Ocean Waters at levels which will cause, have the reasonable potential to cause, or contribute to an excursion above any Table B water quality objective, the RWQCB shall incorporate a water quality-based effluent limitation in the Waste Discharge Requirements for the discharge of the pollutant.”
(Scoping Document at p. 60.)

Where insufficient data exists to determine reasonable potential, the appropriate approach is to require the discharger to conduct monitoring and reopen the permit to impose effluent limitations for those pollutants for which RP exists. This approach is proposed for the revised Ocean Plan, similar to the requirements adopted in the *State Policy for Implementation of Toxics Standards for Inland Surface Waters/Enclosed Bays and Estuaries of California* (the “SIP”).

In the absence of a demonstration that the City’s discharge has the reasonable potential to cause or contribute to the exceedance of a Table B objective, effluent limitations for those constituents are inappropriate. The Tentative Permit should be amended to remove the effluent limitations and replaced with a requirement to monitor

the Table B pollutants in order to establish a data set for the determination of RP. This is the proper approach under both the existing Ocean Plan language and the proposed revisions. The City should not be penalized with Table B limitations that, a few months from now, will clearly not be required, merely because of an ambiguity in the language of the Ocean Plan.

The Daily Maximum Mass Effluent Limitations Should Be Removed.

The Tentative Permit states that "in accordance with the Ocean Plan" effluent limitations are expressed in terms of concentration as well as mass. (Finding No. 17.) The Permit proposes to impose both daily maximum and 6-month median mass effluent limitations. (Table B-1). The daily maximum mass limits violate federal regulations, which require that all effluent limits in POTW permits be expressed as average weekly and average monthly limits, unless it is impracticable to do so. (40 C.F.R. § 122.45(d)(2).) The permit does not include findings explaining why it is impracticable to include final limits as monthly averages.⁴

The daily maximum mass limitations are not necessary to protect beneficial uses. Mass emissions will be limited inherently due to the concentration limitations and treatment plant flows. Imposition of daily maximum effluent limitations expressed in both mass and concentration is not only unlawful, but it may unfairly expose the City to multiple mandatory minimum penalties (MMPs). The Office of Chief Counsel has opined that where an effluent limitation for the same parameter is expressed in multiple forms (e.g. daily maximum and weekly average, mass and concentration) each exceedance is counted separately as violation potentially subject to MMPs, even where a single sample triggers the exceedances. (*SB 709 and SB 2165 Questions and Answers*, April 17, 2001, Question 37.)

The daily maximum mass limitations are unlawful and are not needed to protect beneficial uses. The daily maximum mass limits should be removed from the permit. The remaining mass effluent limitations should be calculated using design flows rather than "actual" flows. This is the approach that has been used in other regions. (See, e.g., R4-97-090, Joint Water Pollutant Control Plant, Carson (mass limits expressed as weekly and monthly averages based on design flow).)


⁴ Both the courts and the SWRCB have invalidated effluent limitations in POTW permits expressed as daily maximums. (See, e.g. *City of Los Angeles v. State Water Resources Control Board*, Los Angeles County Superior Court Case No. BS060957, (April 4, 2001) and *In the Matter of the Review on Own Motion of Waste Discharge Requirements Order No. 5-01-044 For Vacaville's Easterly Wastewater Treatment Plant*, Order WQ 2002-0015 (October 3, 2002).)

3. Biosolids Requirements

Provision F sets forth a series of detailed requirements that apparently reflect "standard" permit language provided by U.S. EPA. Many of these standard requirements are inapplicable to the City and do not reflect the City's biosolids reuse practices. Moreover, these requirements are not necessary, as the City's biosolids are composted and land applied under individual permits issued by other entities and this Regional Board. (Finding No. 9.) Thus, inclusion of biosolids requirements in this NPDES permit would subject the City to unnecessary duplicative—and potentially conflicting—regulation. The inclusion of these requirements in the City's NPDES permit is also inappropriate, given that the implementation and enforcement of the federal biosolids program has not been delegated to the State of California. (Finding No. 8.) While the federal regulations do allow the State to impose requirements on the use or disposal of biosolids, absent the delegation of the program, such regulation must be done pursuant to the State's non-NPDES authority. This is already occurring under the permits governing the land application and composting (Order R5-2002-0172; Order R3-99-11.) The permit should simply reference the City's obligation to manage its biosolids in conformance with all applicable federal regulations and, if desired, require the City to supply the Regional Board with an annual report detailing its biosolids management and disposal activities.

As indicated at the outset, these comments are intended to be supplemental to the City's detailed technical comments and recommended permit language revisions. We would be happy to meet with you and the Regional Board staff to explain our comments further and to explore opportunities to revise the Tentative Permit to address these concerns.

Sincerely,



Roberta L. Larson

RLL/jlp

cc: William Carroll, Esq. City Attorney's Office

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
1515 CLAY STREET, SUITE 1400
OAKLAND, CA 94612
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FACT SHEET

FOR
NPDES PERMIT and WASTE DISCHARGE REQUIREMENTS for
Stege Sanitary District, Contra Costa County

NPDES Permit No. CA0038482

PUBLIC NOTICE:

Written Comments

- Interested persons are invited to submit written comments concerning this draft permit.
- Comments must be received by the Regional Board no later than 5:00 p.m. on February 16, 2004.
- Send comments to the ATTN: Jenny Chen

Public Hearing

- The draft permit will be considered for adoption by the Board at a public hearing during the Board's regular monthly meeting at: Elihu Harris State Office Building, 1515 Clay Street, Oakland, CA; 1st floor Auditorium.
- This meeting will be held on: March 17, 2004, starting at 9:00 am.

Additional Information

- For additional information about this matter, interested persons should contact Regional Board staff member: Ms. Jenny Chen, Phone: (510) 622-2405; email: jc@rb2.swrcb.ca.gov

This Fact Sheet contains information regarding an application for waste discharge requirements and National Pollutant Discharge Elimination System (NPDES) permit for the Stege Sanitary District for controlling sanitary sewer overflows (SSOs) during wet weather condition. The Fact Sheet describes the factual, legal, and methodological basis for the proposed permit and provides supporting documentation to explain the rationale and assumptions used in deriving the limits.

I. INTRODUCTION

The Discharger owns and maintains approximately 148 miles of wastewater collection system, which are connected to interceptors owned by East Bay Municipal Utility District, Special District 1, or EBMUD. The Discharger's collection system serves a population of 40,000 in the Discharger's service area, which includes the City of El Cerrito and the unincorporated area of Kensington, and a portion of the Richmond Annex section of the City of Richmond. The wastewater collected from the Discharger's service area is treated by EBMUD's wastewater treatment facilities. The collection system was originally constructed in the early twentieth century with cross connections to storm drain systems. In the 1970s and 1980s, overflows occurred frequently due to these storm drain cross connections as well as to infiltration into the Discharger's collection system. These overflows

resulted in untreated wastewater overflows (also called SSOs) to streams, creeks or the Bay during storm events.

II. BACKGROUND INFORMATION ON EAST BAY I/ICP

The Discharger is a member of the East Bay Communities, which include the Stege Sanitary District and the Cities of Alameda, Albany, Berkeley, Emeryville, Oakland and Piedmont. Wastewater collected from the East Bay Communities flow to EBMUD's interceptors, and is treated by EBMUD's wastewater treatment plant.

The East Bay Communities and EBMUD initiated a 6-year East Bay Sewer System Evaluation Survey (SSES) in 1980. The SSES outlined recommendations for a sewer improvement program called the I/I Correction Program (I/ICP). Schedules to complete the I/ICP, which are called Compliance Plans, were developed for each member of the East Bay Communities. The East Bay Communities and EBMUD started implementing the I/ICP in 1987. Since then, the East Bay Communities have eliminated all known cross connections between sewer and storm drain systems, and 113 out of 115 sewer overflow points identified in the SSES as high threats to public health from the East Bay Communities' wastewater collection systems.

In conjunction with the SSES, EBMUD conducted its own wet weather program planning from 1975 to 1987, and developed a comprehensive East Bay Wet Weather Program. This East Bay Wet Weather Program combined the results of the I/I Studies and the EBMUD facility planning and developed a cohesive approach to reducing sanitary sewer overflows in the East Bay. EBMUD started implementing its component of the East Bay Wet Weather Program in 1987. Since then, EBMUD has spent about \$310 million on the East Bay Wet Weather Program. EBMUD has constructed three (3) wet weather treatment facilities, two (2) wet weather interceptors, improvements at its Main Wastewater Treatment Plant, system storage and pumping facilities and has eliminated two designed wet weather overflow structures. As a result, EBMUD's interceptor and treatment facilities will be able to treat all wet weather flows up to a 5-year design storm from the East Bay Communities after the East Bay Communities complete their I/ICP.

III. GENERAL RATIONALE

The following documents are the bases for the requirements contained in the proposed Order, and are referred to under the specific rationale section of this Fact Sheet.

- Federal Water Pollution Control Act, as amended (hereinafter the CWA).
- Federal Code of Regulations, Title 40 (40 CFR)- Protection of Environment, Chapter 1, Environmental Protection Agency, Subchapter D, Water Programs, Parts 122-129 (hereinafter referred to as 40 CFR specific part number).
- Porter-Cologne Water Quality Control Act, or California Water Code.
- The Board, on June 21, 1995, adopted, in accordance with Section 13240 et seq. of the CWC, a revised Water Quality Control Plan, San Francisco Bay Basin (Basin Plan). This updated and revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20, 1995, and November 13, 1995, respectively. A summary of revisions to regulatory provisions is contained in California Code of Regulations, Section 3912.

The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and ground waters. This Order is in compliance with the Basin Plan.

IV. SPECIFIC RATIONALE

1. Basis for Prohibitions

a. Prohibition A.1 (no discharges of untreated or partially treated sewage to State water):

This prohibition is based on the Clean Water Act, which prohibits discharges of wastewater that does not meet secondary treatment standards as specified in 40CFR Part 133.

Additionally, the Basin Plan prohibits discharge of raw sewage or any waste failing to meet waste discharge requirements to any waters of the Basin Plan.

b. Prohibition A.2 (no discharge of chlorine, or any other toxic substance used for disinfection and cleanup of sewage spill to any surface water body):

The Basin Plan contains a toxicity objective stating, "All waters shall be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses to aquatic organisms." Chlorine is lethal to aquatic life.

c. Implementation and enforcement of Prohibition A.1.

This provision is based on 40 CFR 122.41 (n) regarding treatment facility upset and affirmative defense.

4. Basis for Receiving Water Limitations

a. Receiving water limitations C.1 and C.2 (conditions to be avoided):

These limits are based on the previous permit and the narrative/numerical objectives contained in Chapters 2 and 3 of the Basin Plan.

b. Receiving water limitations C.3 and C.4 (Dissolved Oxygen and un-ionized ammonia limitations):

This requirement is based on the Basin Plan receiving water objectives.

5. Basis for Provisions

a. Provision D.1. (Controlling and containing SSO)

This requirement is based on available practices for addressing SSOs commonly used by some collection system operators.

b. Provision D.2. (SSO Reporting)

This requirement is based on California Water Code Section 13193, 40CFR 122.48, and the Board's Resolution No. 2003-R2-0095.

c. Provision D.3. (Sewer System Management Plan)

This requirement is based on 40 CFR 122.41(e) for proper operation and maintenance, and (d) for Duty to mitigate. These two standard NPDES requirements require dischargers to properly operate and maintain their collection systems as well as take all reasonable steps to minimize or prevent SSO discharges to waters of the United States, and waters of the State that have a reasonable likelihood of adversely affecting human health or the environment. These requirements, along with prohibition on SSOs discharge to waters of the State are the basis for requiring dischargers to provide adequate sanitary sewer collection system capacity. It is also consistent with the Board's SSO Resolution No. 2003-R2-0095, which was developed collaboratively with the Bay Area Clean Water Agencies.

d. Provision D.4. (Change in Control or Ownership):

This provision is based on 40 CFR 122.61.

e. Provisions D.5 and D.6. (Permit compliance and rescission of previous permit):

Timeframes are consistent with the State's Memorandum of Agreement with the U.S. EPA.

f. Provision D.7 (Permit Expiration and Reapplication):

The term of the permit is five (5) years, which is consistent with 40 CFR 122.46 (a).

V. WASTE DISCHARGE REQUIREMENT APPEALS

Any person may petition the State Water Resources Control Board to review the decision of the Board regarding the Waste Discharge Requirements. A petition must be made within 30 days of the Board public hearing.

entered into a JPA under which EBMUD serves as administrative lead agency to conduct the East Bay I/I Study. The JPA was amended on January 17, 1986 to designate EBMUD as the lead agency during the initial five-year implementation phase of the East Bay I/I Study recommendations. The amended JPA also delegated authority to EBMUD to apply for and administer grant funds, to award contracts for mutually agreed upon wet weather programs, and to perform other related tasks. Programs developed under the JPA are directed by a Technical Advisory Board (TAB) composed of one voting representative from each of the East Bay Communities and EBMUD. In addition, one non-voting staff member of the Board, State Water Resources Control Board (State Board), and U.S. EPA may participate in the TAB.

13. *Cease and Desist Order (CDO)*. In 1986, the Board issued a CDO to the East Bay Communities including the City of Emeryville (Order No. 86-17, reissued with Order No. 93-134). This CDO requires East Bay Communities to cease and desist discharging wet weather overflows from their wastewater collection systems. In this enforcement order, the Board accepted the proposed approach in the I/ICP and directed the I/ICP to focus on conducting activities that reduce impacts to public health.

The Board also issued a separate CDO to EBMUD (Order No. 87-19, reissued with Order No. 92-96) requiring EBMUD to eliminate discharge of untreated overflows from its interceptors. The CDO for EBMUD (Order No. 92-96) was rescinded following construction of storage and increased treatment capacity at EBMUD's Main Wastewater Treatment Plant, of interceptor hydraulic improvements, of increased storage at Pump Station C, and of three (3) wet weather treatment facilities, which remove floatable material and disinfect peak excess flows that are directed to them.

14. *EBMUD's Wet Weather Program*. From 1975 to 1987, EBMUD underwent its own wet weather program planning, and developed a comprehensive Wet Weather Program. The objective of the Wet Weather Program is that EBMUD's wet weather facilities have the capacity to convey peak flows to EBMUD's system by the East Bay Communities' trunk sewers at the end of the I/ICP implementing period. EBMUD started implementing its Wet Weather Program in 1987. Since then, EBMUD has spent about \$310 million on the wet weather program. This includes construction of three (3) wet weather treatment facilities, and two (2) wet weather interceptors, new storage basins and pumping facilities, expansion of the main wastewater treatment plant, and elimination of two (2) out of the seven (7) designed wet weather overflow structures.
15. *Updates to original I/ICP*. After receiving a notice from the Board for issuing a new CDO in 1993, the East Bay Communities requested the opportunity to revise their Compliance Plans. The impetus of this revision stemmed from increased costs for implementing the original Compliance Plans. New technological developments and the inadequacy of other methods previously thought viable for sewer rehabilitation and relief line installation have increased the cost of the I/ICP from original cost estimates. The revised Compliance Plans incorporated the experience gained from the implementation of I/ICP for the past six (6) years from 1987 to 1993 in order to better address the remaining I/ICP projects.
16. *Extension to Original Compliance Plans*. The increase in project costs necessitated extensions of the schedules in the original Compliance Plans in order to minimize the impact on rate-payers. As a result, all members of the East Bay Communities except the Stege Sanitary District and Emeryville submitted a revised Compliance Plan and Schedule in October 1993. In light of the

increased costs, the Board granted the Discharger and the Cities of Alameda, Berkeley, Oakland, and Piedmont a five (5) to ten (10) year extension to the original compliance schedules in the CDO reissuance in October 1993.

Design Goal of East Bay I/ICP

17. *Cost analysis of sewer rehabilitation program.* It is cost prohibitive to eliminate all I/I into a sewer system. The East Bay Communities performed a cost analysis during the I/I Study to determine the cost-effective level of rehabilitation. The cost-effective level of rehabilitation involves balancing the cost of rehabilitation of the East Bay Communities' sewer systems and the cost for increasing the capacity of EBMUD's interceptors, wastewater treatment facilities. A sensitivity analysis was performed to study cost effects of various levels of rehabilitation on various wet weather alternatives. Cost-Effective Ratios¹(C-E-Ratio) for various drainage basins were calculated. A C-E Ratio greater than one (1) indicates that I/I rehabilitation is cost effective. The analysis was performed by using a computer program supported by the Corps of Engineers Hydrologic Engineering Center, called STORM. This analysis derived a regional least-cost solution, which involves both East Bay Communities' sewer rehabilitation cost and transportation/treatment cost by EBMUD. The study results were described in the Wet Weather Facilities Update. It was concluded that the most cost effective solution was to rehabilitate the cost effective collection systems and provide relief sewers, interceptor hydraulic capacity, and storage basins to handle wet weather flows up to a 5-year storm event.
18. *Design goal of I/ICP.* The design goal of East Bay I/ICP is to eliminate overflows from the East Bay Communities' collection systems and EBMUD's interceptor unless the rainfall exceeds a 5-year design storm event. Overflows may continue to occur for events less than the 5-year design storm until the Discharger completes its I/ICP. However, the occurrence of overflows will decrease as more of the East Bay I/ICP projects are completed.
19. *5-year Design Storm Event Definition.* The 5-year design storm event is a storm event that meets the following criteria: a 6-hour duration, and a maximum 1-hour rainfall intensity of a storm with return period of five (5) years. The storm is assumed to occur during saturated soil conditions, and to coincide with the peak 3-hour ultimate Base Wastewater Flow (BWF) condition. BWF consists of domestic wastewater flow from residential, commercial, and institutional sources plus industrial wastewater. BWF specifically excludes infiltration and inflow (I/I) from groundwater or storm water. Due to these conservative assumptions, the Wet Weather Facilities Pre-design Report concluded that the estimated peak flow produced by this event has a return period of approximately 13 years. The peak I/I flow from a 5-year storm was selected as the basis of design for the treatment level intended to protect beneficial uses as defined by the San Francisco Bay Basin Plan (Basin Plan), Maintenance Level C. Maintenance Level C requires secondary treatment to the half-year recurrence interval, primary treatment to the 5-year recurrence interval, and above the 5-year interval, overflows are allowed.

Progress Made Since Implementation of I/ICP

20. The Discharger started implementing its I/ICP in 1987. Since 1987, the Discharger has spent approximately \$15 million dollars on sewer rehabilitation, maintenance and replacement. The Discharger has completed numerous construction projects to install relief lines for additional hydraulic capacity, to increase the size of lines to provide additional capacity, and to rehabilitate

¹ C-E Ratio = (East Bay Communities Cost Savings + EBMUD Cost Savings)/(Rehabilitation Cost)

existing lines. The Discharger has replaced and constructed about 7.75 miles of sewer lines, and rehabilitated 4.25 miles of existing sewer lines. The Discharger has completed all projects originally identified in the I/ICP. The Discharger continues to perform an on-going sewer rehabilitation program that is related to the original I/ICP.

21. *Elimination of overflows points and storm drain cross connections.* The I/ICP Compliance Plan dated October 1993, identified four (4) overflow locations as high threats to public health within Discharger's service area. The Discharger has eliminated all four (4) of the high threat overflow locations. The Compliance Plan identified 14 known cross connections between the sewer systems and the storm drain systems. The Discharger has removed all 14 known cross connections.

The Board SSO Resolution No. 2003-R2-0095

22. In October 2003, the Board adopted a Resolution in support of collaboration between the Board and the Bay Area Clean Water Agencies (BACWA) to report and manage SSOs in this Region. The Board staff and BACWA will develop a web-based region-wide SSO reporting system, and an outline for the necessary elements for a Sewer System Management Plan (SSMP). The Board will require wastewater collection system owners and operators to report all SSOs through the web-based SSO reporting system and develop site-specific SSMPs for wastewater collection systems. This Order is consistent with the SSO Resolution No. 2003-R2-0095.

Applicable Plans, Policies and Regulations

Federal Water Pollution Control Act (Clean Water Act)

23. The Clean Water Act (CWA) Section 301(a) prohibits discharge to waters of the United States except in compliance with other provisions of the CWA. For publicly owned treatment works, all discharges must meet effluent limitations based upon secondary treatment requirements. The secondary treatment standards are specified in 40CFR Part 133. The CWA Section 308 provides the basis for SSO reporting requirements. This section requires establishing, maintaining, and reporting records for determining whether there has been a violation of the CWA.

California Water Code Sections that Apply to SSOs

24. *California Water Code Section 13243.* California Water Code Section 13243 provides that a Board, in waste discharge requirements, may specify certain conditions or areas where the discharge of waste, or certain types of waste, is not permitted.
25. Section 13193 of the California Water Code requires the State Board, after funding has been appropriated, to develop a form for reporting of SSOs. Subsequently, it requires sanitary sewer agencies to report specific information for SSOs greater than 1,000 gallons² to the Board. Water Code Section 13376 also requires any person discharging pollutants or proposing to discharge pollutants to waters of the State to file a report of waste discharge.
26. Section 13377 of the California Water Code authorizes the Board to prescribe effluent standards and limitations to ensure compliance with the CWA, and the Water Quality Control Plan or Basin Plan.

² However, the Board SSO Resolution No. 2003-R2-0095 requires dischargers report all SSOs including those SSOs that are below 1,000 gallons. See Finding No. 22 for discussion on SSO Resolution.

Basin Plan

27. *Water Quality Control Plan.* The Board, on June 21, 1995, adopted, in accordance with Section 13240 et seq. of the CWC, a revised Water Quality Control Plan, San Francisco Bay Basin (Basin Plan). This updated and revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20, 1995, and November 13, 1995, respectively. A summary of revisions to regulatory provisions is contained in California Code of Regulations, Section 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and ground waters. This Order is in compliance with the Basin Plan.
28. *Basin Plan Prohibition.* The Basin Plan prohibits discharge of raw sewage or any waste failing to meet waste discharge requirements to any waters of the Basin. The intent of this prohibition is to protect the public and the aquatic environment from the effects of raw or inadequately treated waste discharges.
29. *Basin Plan Beneficial Uses.* Beneficial uses for central San Francisco Bay and its tributaries, as identified in the Basin Plan, are:
- a. Commercial and sport fishing
 - b. Estuarine habitat
 - c. Industrial service supply
 - d. Fish migration
 - e. Navigation
 - f. Preservation of rare and endangered species
 - g. Water contact and non-contact recreation
 - h. Shellfish harvesting
 - i. Fish spawning
 - j. Wildlife habitat

Anti-degradation Policy

30. *State Board Resolution.* The prohibition on discharge, and receiving water limitation in this Order is consistent with the State Board Resolution 68-16 (Anti-degradation Policy). Compliance with these requirements will result in the use of best practicable treatment or control of the discharge.

CEQA Exemption and Public Hearing

31. *NPDES Permit.* This Order serves as an NPDES permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code [California Environmental Quality Act (CEQA)] pursuant to Section 13389 of the California Water Code.
32. *Notification.* The Discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharges and have been provided an opportunity to submit their written views and recommendations. Board staff prepared a Fact Sheet and Response to Comments, which are hereby incorporated by reference as part of this Order.

33. *Public Hearing.* The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code, regulations, and plans and policies adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the Discharger shall comply with the following:

A. PROHIBITIONS

1. The discharge of untreated or partially treated wastewater to any surface water stream, natural or man-made, or to any drainage system intended to convey storm water runoff to surface waters, is prohibited.
2. The discharge of chlorine, or any other toxic substance used for disinfection and cleanup of wastewater spills, to any surface water body is prohibited.

B. IMPLEMENTATION AND ENFORCEMENT OF PROHIBITION A.1

1. *Enforcement consideration.* In any enforcement action, the Board will consider the Discharger's efforts in containing, controlling, and cleaning up SSOs. The Board will also consider the Discharger's efforts in sewer rehabilitation as well as implementation of the East Bay *II* Correction Program (*I/ICP*). These considerations are part of the factors required by Section 13327 of the California Water Code.

The Discharger shall make every practicable effort to contain SSOs and to prevent the wastewater from entering storm drains and surface water bodies.

Prohibition A.1. is not violated under either of the following:

- a. If the SSO does not enter a storm drain or surface water body, or
- b. If the Discharger contains the SSO within the storm drain system pipes, and fully recovers and cleans up the spilled wastewater.

However these incidents of SSOs shall be reported to the Board as SSOs as stipulated in Section D.2.

2. *Discharges caused by severe natural conditions.* The Board may take enforcement action against the Discharger for any sanitary sewer system discharge caused by natural conditions, unless the Discharger demonstrates through properly signed, contemporaneous operating logs, or other relevant evidence that,
 - a. The discharge was caused by severe natural conditions (such as hurricanes, tornadoes, flooding, earthquakes, landslides, tsunamis, and other similar natural conditions);
 - b. There were no feasible alternatives for the discharge, such as retention of untreated wastewater, reduction of inflow and infiltration, and use of adequate backup equipment;

- c. The Discharger submitted a claim to the Board's staff within 10 working days of the date of the discharge that the discharge meets the conditions of this provision. Additional information to substantiate such claim shall be submitted upon request of the Board staff; and
 - d. The Discharger took all reasonable steps to stop, and mitigate the impact of the discharge within 24 hours after the Discharger became aware of the SSO.
3. *Discharges caused by other factors.* For SSOs other than those covered under this section, the Discharger may establish an affirmative defense to an action brought for noncompliance if the Discharger demonstrates through properly signed, contemporaneous operating logs, or other relevant evidence that:
- a. The Discharger can identify the cause or likely cause of the discharge event;
 - b. The discharge was exceptional, unintentional, temporary and caused by factors beyond the reasonable control of the Discharger;
 - c. The discharge could not have been prevented by the exercise of reasonable control, such as proper management, operation and maintenance; adequate treatment facilities or collection system facilities or components (e.g., adequately enlarging treatment or collection facilities to accommodate growth or adequately controlling and preventing infiltration and inflow); preventive maintenance; installation of adequate backup equipment; or in compliance with East Bay I/ICP.
 - d. The Discharger submitted a claim to the Board's Executive Officer within 10 working days of the date of the discharge that the discharge meets the conditions of this provision; and
 - e. The Discharger took all reasonable steps to stop, and mitigate the impact of, the discharge as soon as possible.
4. *Burden of proof.* In any enforcement proceeding, the Discharger has the burden of proof to establish that the criteria in this section have been met. A claim to be submitted under Sections B.2.c. and B.3.d. above may also be provided in the space allocated for claims in the web-based SSO reporting system (when the system becomes available), which currently is being developed pursuant to the Board SSO Resolution No. 2003-R2-0095. The Discharger shall provide additional available information pertaining to the SSO upon request by the Board's staff. The information may include:
- a. Relevant sewer maintenance/repair logs including the associated costs of sewer rehabilitation, cleaning/flushing, inspection, and replacement for the pipe section where the SSO occurred; and
 - b. Information relating to storm event, such as size of the storm, length of such storm during the SSO.

C. RECEIVING WATER LIMITATION

1. The discharges shall not cause the following conditions to exist in waters of the State at any place:
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - d. Visible floating, suspended, or deposited oil or other products of petroleum origin; and
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or which render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.
2. The discharges shall not cause nuisance, or adversely affect the beneficial uses of the receiving water.
3. The discharges of waste shall not cause the following limits to be violated in waters of the State at any one place within one foot of the water surface:
 - a. Dissolved Oxygen: 5.0 mg/L, minimum
 - b. Un-ionized ammonia: 0.16 mg/L as N, maximum

D. PROVISIONS

1. Controlling and containing SSO

In a Sanitary Sewer Overflow (SSO) event, the Discharger shall make every practicable effort to contain the SSO and prevent the SSO from entering storm drains and surface water bodies. However, if it is not feasible, the Discharger may use storm drains to contain the SSO by blocking the drain, and recovering and cleaning up the SSO in order to prevent the SSO from being discharged to an open surface water body.

The Discharger shall, to the maximum extent possible, take remedial action to

- a. Control or limit the volume of wastewater discharged to the State water;
- b. Terminate the wastewater discharge as rapidly as possible; and
- c. Recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

2. **SSO Reporting**
The Discharger shall report SSOs in accordance with Standard Provisions and Reporting Requirements with the exception of items, B., C., D.2., D.3., E.5., E.6.c., and E.6.d(ii). In the event that there is a discrepancy between requirements of this permit, and the Standard Provision and Reporting Requirements and Part A of Self-Monitoring Program, the permit requirements prevail. After the development of an SSO Monitoring and Reporting Program by Bay Area Clean Water Agencies (BACWA) and the Board, pursuant to the Board's SSO Resolution No. 2003-R2-0095, the Discharger shall report SSOs using the SSO electronic reporting system in accordance with the SSO Monitoring and Reporting Program.
3. **Sewer System Management Plan (SSMP)**
The Discharger shall develop an SSMP and implement the SSMP in according with the requirements and schedule developed by BACWA and Board staff pursuant to SSO Resolution No. 2003-R2-0095.
4. **Change in ownership**
This Order is not transferable to any person, except after notice to the Board's Executive Officer. The Discharger shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new Discharger containing a specific date for the transfer of this Order's responsibility and coverage between the existing Discharger and the new Discharger. This agreement shall include an acknowledgement that the existing Discharger is liable for violations up to the transfer date and that the new Discharger is liable from the transfer date on.
5. **Permit Compliance and Rescission of Previous Waste Discharge Requirements**
The Discharger shall comply with all sections of this Order beginning on the effective date stated in a later provision. Upon the effective date, the requirements prescribed by this Order supersede the requirements prescribed by Order No. 94-118, and Order No. 94-118 is hereby rescinded.
6. **NPDES Permit**
This Order shall serve as a National Pollutant Discharge Elimination System (NPDES) permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective on March 17, 2004, provided the U.S. EPA Regional Administrator has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.
7. **Order Expiration and Reapplication**
 - a. This Order expires on March 16, 2009
 - b. In accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code, the Discharger must file a report of waste discharge no later than 180 days before the expiration date of this Order as application for reissuance of this permit and waste discharge requirements.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on March 17, 2004.


BRUCE H. WOLFE
Executive Officer

Attachment:

Standard Provisions and Reporting Requirements, August 1993

(Not attached, see our website at <http://www.swrcb.ca.gov/rwqcb2/Download.htm> for document)



Association of
Metropolitan
Sewerage Agencies

White Paper

Sanitary Sewer Overflows: Legal Issues

AMSA represents nearly 300 of the nation's publicly owned wastewater treatment agencies, which serve the majority of the sewered population in the United States. Our members collectively treat and reclaim more than 18 billion gallons of wastewater each day. For more than 30 years, AMSA has worked closely with the U.S. Environmental Protection Agency, Congress, and other clean water stakeholders to achieve our nation's clean water goals by fostering the development, implementation, and coordination of major water programs.

AMSA has consistently advocated for a workable and cost-effective national regulatory framework for sanitary sewer overflows (SSOs). Achievement of this goal has been elusive for many reasons. One of these reasons is the absence of a succinct discussion of how the Clean Water Act, its implementing regulations, and key legal and regulatory precedents can be woven together to support various SSO regulatory approaches. Accordingly, this White Paper compiles and analyzes the relevant precedents and discusses how they can be used to achieve practical results, even before a final SSO regulatory program becomes a reality.

White Paper Executive Summary

Efforts to promulgate a federal sanitary sewer overflow (SSO) regulation under the Clean Water Act (CWA) have been on-going for many years. In November 2001, the U.S. Environmental Protection Agency (EPA) committed to proposing its January 2001 draft SSO regulation, but continued discussion of the legal status of SSOs, blending and related wet weather policies have delayed federal action since that time.

In the interim, AMSA's *Wet Weather* and *Legal Affairs Committees*, and the *SSO Work Group*, have spent time studying the approach to SSO regulation described in the January 2001 draft as well as various alternatives to that approach. Some of these alternatives were discussed with EPA in advance of the January 2001 draft, some were discussed and dismissed in the draft preamble, and others have come to light with subsequent study and evaluation. Accordingly, these *Committees* have used AMSA's Technical Action Fund (TAF) to work with AMSA affiliate law firm Squire, Sanders and Dempsey, LLP to produce this *White Paper*.

The various alternatives discussed in this *White Paper* reveal that there is much greater statutory, regulatory, and legal flexibility to develop an innovative, flexible and effective SSO regulation than previously contemplated. This *White Paper* is designed to debunk, demystify, and detail the *legal issues* surrounding the management, enforcement, and potential regulation of SSOs. This *White Paper* does not address many related SSO issues, nor does it purport to be a comprehensive assessment of SSO policy. Nonetheless, the cases, regulatory provisions, and statutory elements discussed in this *White Paper* will be useful not only as AMSA continues discussions with EPA and stakeholders regarding a future SSO regulation, but also to publicly owned treatment works (POTWs) seeking to respond to SSO questions in the context of permitting, enforcement, or other related proceedings.

SSO Background

Building upon the interest in municipal wet weather issues that began with the April 1994 release of the federal *Combined Sewer Overflow Policy*, in 1995 EPA formed the Urban Wet Weather Flows Advisory Committee pursuant to the Federal Advisory Committee Act (FACA). The Committee was to assist EPA in the development of cost-effective solutions for controlling the environmental and human health impacts of urban wet weather flows with minimal regulatory burden.¹ A Subcommittee to discuss regulatory options for SSOs was convened, and after ten meetings and a two and a half year hiatus, in October 1999 the Subcommittee generally endorsed elements that should be included in an SSO regulation. In January 2001, a proposed SSO regulation (hereinafter the Draft SSO rule) was signed by EPA Administrator Browner.² However, the incoming Bush Administration withdrew the proposal before it was published in the *Federal Register*. Although EPA has stated it will propose the January 2001 regulatory text with a revised preamble, an actual regulatory proposal still appears to be far in the future – and is even more remote with pre-election issues and considerations likely taking precedence at the Agency in the coming months.

¹ 60 *Fed. Reg.* 21,189 (May 1, 1995).

² The 2001 SSO draft is available at http://cfpub.epa.gov/npdes/regresult.cfm?program_id=4&view=all&type=3 or <http://www.amsa-cleanwater.org/private/regalerts/ra01-2.cfm>.

I. EPA's Legal Analysis in the Draft SSO Rule

Although the Draft SSO Rule was not formally published in the *Federal Register* as a proposed regulation, it nevertheless contains the latest public statement of the Agency's position with regard to the legal status of SSOs. In the preamble, EPA proposes to follow a "prohibition and excuse" approach to SSO regulation, in which SSOs would be categorically prohibited and could only be excused through the exercise of "enforcement discretion" (in emergency situations when there is no feasible alternative to the overflow) or on the basis of an extremely limited "affirmative defense" (when they are caused by severe natural conditions such as hurricanes, tsunamis and earthquakes).

The draft rule contains four principal components: (1) a proposed capacity, management, operation and maintenance (cMOM) standard permit condition for sanitary sewer collection systems (to be codified in 40 CFR 122.44(e)); (2) the proposed prohibition against discharges from sanitary sewer collection systems (to be codified in 40 CFR 122.44(f)); (3) proposed permit requirements for satellite collection systems (to be codified in 40 CFR 122.38); and (4) proposed standard permit conditions for reporting, public notification and public recordkeeping for sanitary sewer systems and SSOs (to be codified in 40 CFR 122.44(g)).

A. EPA's legal basis

1. Legal basis for the "prohibition approach"

EPA claims in Part IV.B of the Draft SSO rule preamble that the "prohibition" would be a "technology-based limitation" based on CWA § 301(b), which prohibits discharges except in compliance with the Act. The basis for its position is as follows:

- (1) SSOs are required to meet secondary treatment (in support of this proposition, the preamble cites the statement in EPA's Sept 8, 1989 *CSO Control Strategy* that "[d]ischarges from sanitary sewer systems with less than secondary treatment are prohibited."³)
- (2) Because "as a practical matter," sewage discharges cannot meet such limitations unless treated, EPA concludes that sanitary sewer discharges "should not be authorized except from outfalls at a treatment facility."

Notwithstanding these obstacles to authorizing any sanitary sewer discharges that have not received full secondary treatment, EPA suggests that SSOs caused by "severe natural conditions" could be excused from the prohibition based on a codification of "enforcement discretion," and that SSOs caused by accidents and emergencies could be excused based on the establishment of an "affirmative defense."

EPA claims that this "prohibition and excuse" approach is "consistent with EPA's longstanding interpretation" of the CWA, and that it was "unanimously supported" by the SSO Subcommittee.

³ 54 *Fed. Reg.* 37370, 37371.

Although it solicits comments on an alternative approach in which NPDES permits could authorize SSOs under a statutory theory other than secondary treatment, EPA argues that this would require a change in EPA's "historic" interpretation that the CWA requires secondary treatment of all sewage from POTWs, and that SSOs are part of the POTW. This "historic" interpretation is said to be based on the definition of POTW in 40 CFR 122.2, 125.2 and 125.3(a)(1)(i) to include "pipes, sewers, or other conveyances only if they convey wastewater to a POTW providing treatment."

2. "Proper operation and maintenance" requirements

In discussing the legal basis for its proposed cMOM requirements, EPA notes that under the existing NPDES requirements at 40 CFR 122.41, all NPDES permits contain two standard conditions addressing operation and maintenance: 1) the "proper operation and maintenance" requirements,⁴ and 2) the "duty to mitigate" requirements.⁵ EPA believes that these two conditions require every permittee to take all reasonable steps to minimize or eliminate SSOs and to provide adequate collection system capacity. EPA also notes in this section of the preamble that certain provisions in the federal construction grant regulations required grantees to assure proper and efficient operation and maintenance of treatment works and their associated collection systems.⁶

3. Regulation of satellite collection systems

EPA recognizes that many sanitary sewer collection systems are not entirely owned or operated by a single municipal entity or by the owner/operator of the POTW into which they discharge. In Part V.E of the Draft SSO Rule preamble, EPA states that its legal basis for regulating satellite collection systems "derives from the definition of 'publicly owned treatment works.'" EPA notes that the definition of "treatment works" in CWA § 212(2)(A) includes "any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature . . . including . . . intercepting sewers, outfall sewers, sewage collection systems . . ." EPA then claims that its regulatory definition of "publicly owned treatment works"⁷ is "similar," although there are key differences in the language actually found in the cited regulations. EPA's intention is that the cMOM provisions in the Draft SSO Rule would be implemented throughout the entire "POTW," which is "defined to include the POTW treatment plant and the collection system."

4. Definition of Sanitary Sewer Overflows

EPA discusses the definition of SSOs in Part II.C of the Draft SSO Rule preamble.⁸ It divides the universe of SSOs into three "classes," which include (a) overflows that reach waters of the United States; (b) overflows that do not reach waters of the United States; and (c) wastewater

⁴ 40 CFR 122.41(e).

⁵ 40 CFR 122.41(d).

⁶ Draft SSO Rule preamble at 64, citing 40 CFR 35.925-10; 35.935-12; 35.2106; and 35.2206.

⁷ 40 CFR 122.2 and 403.1.

⁸ Draft SSO Rule preamble at 79-81.

backups into buildings caused by blockages or flow conditions in a sanitary sewer (other than a building lateral).

The proposed prohibition provision of the Draft SSO Rule would only apply to the first class, SSOs that discharge to waters of the United States. The proposed reporting, public notification and recordkeeping standard condition, however, is "tiered," with different proposed requirements applying to different classes of SSOs. All SSOs, including those that do not reach waters of the United States, would be identified in annual reports and subject to recordkeeping requirements; SSOs that discharge to waters of the United States would be identified in DMRs; SSOs that "may imminently and substantially endanger human health" would be subject to noncompliance reporting and public notification whether or not they discharge to waters of the United States.

5. Discussion of the "authorization alternative"

In Part IV.C of the Draft SSO Rule preamble,⁹ EPA solicits comment on an alternative approach that would authorize SSOs under a statutory theory other than secondary treatment. This alternative would apply a separate technology standard for SSOs based on BAT (for toxic pollutants) and BCT (for conventional pollutants), similar to the approach used for CSOs in the 1994 CSO Policy. Instead of the Nine Minimum Controls used for CSOs, BAT/BCT for SSOs would be based on conditions similar to the cMOM program.

B. Fallacies in EPA's legal analysis

EPA's discussion of the legal status of SSOs in the Draft SSO Rule preamble differs significantly from its previous analyses in a number of SSO subcommittee discussion papers, such as the draft "Unified Paper" circulated toward the end of 1996.¹⁰ The position finally taken in the Draft SSO Rule appears to have been heavily influenced by input from the enforcement side of the Agency and from those Regions that have taken the position that all SSOs are illegal and cannot be authorized unless they comply with Secondary Treatment.

The EPA Regions were first asked to comment on the emerging SSO Subcommittee consensus at the time that the draft Unified Paper was issued in November of 1996. Extreme "negative feedback" was received by EPA headquarters from four of the six Regions that submitted comments (Regions 3, 4, 5 and 7). (Region 1 also stated that SSOs are unauthorized and cannot be permitted, and that EPA should not accept that wet weather will cause a system to overflow even once a year.) The common thread in these objections was that the Regions believed that all SSOs were unlawful, that SSO discharges were subject to secondary treatment requirements, that the creation of an affirmative defense for unavoidable SSOs would hamper enforcement efforts, and that citizen suits were a desirable and essential part of the enforcement process.

Contrary to the assertions made in the Draft SSO Rule preamble, however, this hard-line position does not reflect EPA's "longstanding" or "historic" interpretation of the CWA. Rather, it is the

⁹ Draft SSO Rule preamble at 153.

¹⁰ "Draft Sanitary Sewer Overflow and Sanitary Sewer Operation, Maintenance and Management Unified Paper" (November 20, 1996).

interpretation of one faction within the Agency, which has been reflected in the inconsistent enforcement posture taken with regard to SSOs from one EPA Region to another.

1. EPA's past policy statements have not consistently stated that SSOs are illegal

a. EMS "Chapter X"

Chapter X of the *Enforcement Management System* handbook, entitled "Setting Priorities for Addressing Discharges from Separate Sanitary Sewers" (1996), recognized that some SSOs have been permitted, some have not, and that their legal status depends on the permit language:

Some permits have specific requirements for these discharges, others have specific prohibitions under most circumstances, and still other permits are silent on the status of these discharges.

The legal status of any of these discharges is specifically related to the permit language and the circumstances under which the discharge occurs. Many permits authorize these discharges when there are no feasible alternatives, such as when there are circumstances beyond the control of the municipality (similar to the concepts in the bypass regulation at 40 CFR Part 122.41 (m)). Other permits allow these discharges when specific requirements are met, such as effluent limitations and monitoring/reporting.¹¹

b. 1999 preamble to NPDES permit application rules

In the preamble to its revised NPDES permit application requirements for POTWs,¹² EPA stated that "emergency" or "accidental" discharges from locations within municipal sewage collection systems that are listed in the permit application but not identified in the permit itself would not receive the protection of the "permit shield" defense:

Rather, the legal status of these discharges is specifically related to the permit language and the circumstances under which the discharge occurs. The Agency notes that NPDES permit regulations do provide limited relief under the bypass and upset provisions of 40 CFR 122.44(m) and (n), respectively, for such discharges. The Agency is currently developing guidance that would clarify the applicability of the bypass and upset provisions to such discharges.

c. 1995 memorandum on "Enforcement Efforts Addressing Sanitary Sewer Overflows"

The March 7, 1995 memorandum from Steven A. Herman, Assistant Administrator for OECA, and Robert Perciasepe, Assistant Administrator for the Office of Water, directed to the Water Management Division Directors and Regional Counsels of Regions I – X, as well as to State Program Administrators, stated that:

¹¹ *EMS Handbook*, Chapter X, at 2.

¹² 64 *Fed. Reg.* 42434, 42442 (Aug. 14, 1999).

SSO discharges to waters of the United States are prohibited *unless authorized by a National Pollutant Discharge Elimination System (NPDES) permit*. Discharges without an NPDES permit are illegal. In addition, SSO discharges often cause violations of water quality standards and violate NPDES permit requirements for proper operation and maintenance.

This statement clearly implies that SSOs can be authorized in NPDES permits. Indeed, it would be impossible for SSOs to violate the O&M provisions of the permit if they were not subject to the permit to begin with.

2. EPA's proposal to issue separate permits to satellite collection systems confirms that they are not part of the POTW

EPA cannot logically argue that "satellite collection systems" should receive separate NPDES permits if it maintains that the collection system is part of the POTW. In addition, if the collection system is part of the POTW it would be entitled to coverage under the existing bypass and upset regulations. On the other hand, if the collection system is separate from the POTW then it should not be subject to secondary treatment requirements. EPA has attempted to finesse this logical impasse by creating an entirely new definitional construct, in which the POTW "treatment plant" and the POTW "collection system" are both part of the larger definition of "POTW." Through this construct, both would be subject to the secondary treatment requirements, but only the POTW "treatment plant" would be covered by the traditional bypass and upset regulations. The POTW "collection system" is covered by the new prohibition against SSO discharges, along with the much more limited defenses that it allows.

As discussed below, neither the CWA nor the existing NPDES regulatory definition of POTW can support this novel refinement in regulatory definitions.

3. The definition of "treatment works" in CWA § 212 does not apply to the secondary treatment requirement in CWA § 301

CWA § 212 explicitly states that the definitions it contains are "as used in this subchapter." CWA Subchapter II deals with "Grants for the Construction of Treatment Works," and the definition of "treatment works" in that chapter was intentionally broad so that the federal grants program could provide financing for collection systems as well as for treatment plants. This broad definition does not apply to Subchapter III or to the secondary treatment requirement in § 301. The court in *Montgomery* explicitly held that the definition of treatment works in CWA § 212 was inapplicable to CWA § 301, noting that:

The legislative history also indicates that the broad definition of treatment works in section 212 was viewed as an expansion beyond the common meaning of the word, an expansion justified by the context of the federal grant authorization. . . . Approval of this new definition in the narrow context of construction grants was

not a determination that attaching a sewer system to a treatment facility would require secondary treatment at formerly independent overflow points.¹³

4. O&M requirements from the grants program no longer apply

The collection system requirements from the federal construction grants regulations were a one-time condition of the construction grants program, which was enforceable only as a condition of the grants themselves. In fact, in a footnote to its discussion of this point in the draft SSO rule, EPA itself acknowledges that “[i]n accordance with Section 602(b)(6) of the CWA, the Clean Water State Revolving Fund Program no longer contains Title II Construction Grant requirements.”

5. The definition of SSOs cannot be extended to discharges that do not reach waters of the United States

In crafting the prohibition section of the Draft SSO Rule, EPA recognized that it had no authority to prohibit discharges unless they actually reach waters of the United States. This is due to the statutory definition of what constitutes a “discharge,” which is the only thing prohibited by § 301 of the Act. CWA § 502(12) defines the terms “discharge of a pollutant” and “discharges of pollutants” to mean “any addition of any pollutant to navigable waters from any point source.” The term “navigable waters” is in turn defined in § 502(7) to mean “the waters of the United States, including the territorial seas.”

Despite this clear jurisdictional limitation, EPA argues that public recordkeeping and notification requirements “should be based on public health risks” and not on “an arbitrary distinction” between SSOs that do or do not go to waters of the United States.¹⁴ Despite its lofty goal, this unwarranted expansion of the Agency’s authority is clearly without legal authority. EPA also tries to suggest that overflows that do not reach waters of the United States “may” be an “indicator” of a violation of the standard permit condition requiring proper operation and maintenance, but this cannot justify the creation of a new set of recordkeeping and reporting requirements when the overflows themselves are not unlawful.

II. SSO Statutory and Regulatory Framework

This section sets forth the pertinent statutory and regulatory provisions that provide the basis for correctly defining the legal status of SSO discharges.

A. The CWA prohibits discharges not in compliance with specified provisions of the Act

CWA § 301(a) states that the discharge of any pollutant is prohibited “except as in compliance with law:”

¹³ 646 F.2d at 591.

¹⁴ Draft SSO Rule preamble at 184.

Except as in compliance with this section and sections 1312, 1316, 1317, 1328, 1342, and 1344 of this title,¹⁵ the discharge of any pollutant by any person shall be unlawful.

B. The CWA authorizes the issuance of NPDES permits “upon condition that such discharge will meet” all applicable CWA requirements

CWA § 402(a) authorizes the issuance of permits for any discharge that meets specified conditions of the Act:

Except as provided in sections 1328 and 1344 of this title, the Administrator may, after opportunity for public hearing issue a permit for the discharge of any pollutant, or combination of pollutants, notwithstanding section 1311(a) of this title, upon condition that such discharge will meet either (A) all applicable requirements under sections 1311, 1312, 1316, 1317, 1318, and 1343 of this title,¹⁶ or (B) prior to the taking of necessary implementing actions relating to all such requirements, such conditions as the Administrator determines are necessary to carry out the provisions of this chapter.

C. Point sources other than POTWs are required to meet BAT for toxic and nonconventional pollutants, and BCT for conventional pollutants

For “toxic” and “nonconventional” pollutants, all classes and categories of point sources other than POTWs are required to meet effluent limitations based on “best available technology economically achievable” (BAT). BAT may require the total elimination of all discharges only if such elimination is technologically and economically achievable. CWA § 301 states that there shall be achieved:

(2) (A) for pollutants identified in subparagraphs (C), (D), and (F) of this paragraph, effluent limitations for categories and classes of point sources, other than publicly owned treatment works, which (i) shall require application of the best available technology economically achievable for such category or class, which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 1314(b)(2) of this title, *which such effluent limitations shall require the elimination of discharges of all pollutants if the Administrator finds, on the basis of information available to him (including information developed pursuant to section 1325 of this title), that such elimination is technologically and economically achievable* for a category or class

¹⁵ 33 USC § 1312 (CWA § 302) deals with water quality related effluent limitations; § 1316 (CWA § 306) deals with national standards of performance for new sources; § 1317 (CWA § 307) deals with toxic and pretreatment effluent standards; § 1328 (CWA § 318) deals with aquaculture projects; § 1342 (CWA § 402) deals with NPDES permit requirements; and § 1344 (CWA § 404) deals with permits for dredged or fill material.

¹⁶ 33 USC § 1311 (CWA § 301) deals with technology-based and water quality-based effluent limitations; § 1318 (CWA § 308) deals with records, reports and inspections; and § 1343 (CWA § 403) deals with ocean discharge criteria.

of point sources as determined in accordance with regulations issued by the Administrator pursuant to section 1314(b)(2) of this title (*Emphasis added*).

For “conventional pollutants” (which are defined in CWA § 304(a)(4) to include biological oxygen demand, suspended solids, fecal coliform, and pH), there shall be achieved compliance with effluent limitations which “require the application of the best conventional pollutant control technology as determined in accordance with regulations issued by the Administrator” (BCT).

D. The CWA requires POTWs to comply with “secondary treatment” and any more stringent state water quality standards

Pursuant to CWA § 301(b)(1)(C) and (D), publicly owned treatment works are required to achieve “effluent limitations based upon secondary treatment as defined by the Administrator pursuant to Section 1314(d)(1) of this title,” or “any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations”

There is no statutory definition of “publicly owned treatment works” in Title III of the CWA. The definition contained in Title II (CWA § 212) is referenced (but not explicitly reproduced) by EPA in its general pretreatment regulations,¹⁷ in a provision which is in turn cross-referenced in the NPDES permit regulations.¹⁸ As stated above, however, the definition in Title II does not apply to Title III, and the reference to this definition in the cited regulations is qualified by certain additional language that makes its applicability to SSOs a matter of dispute.

E. Secondary treatment is defined by EPA in 40 CFR Part 133

The secondary treatment regulations were promulgated by U.S. EPA in 1973,¹⁹ and subsequently amended in 1976, 1984 (twice), 1985 (twice) and 1989.²⁰ They are presently codified in 40 CFR §§ 133.100-105. Secondary treatment is defined “in terms of the parameters” BOD, SS and pH. The method of treatment to achieve the numeric effluent limitations for these parameters is not specified. 40 CFR 133.103 also contains several “special considerations” allowing relief from the percent removal and mass loading requirements for certain POTWs receiving wet weather flow from combined sewers (§ 133.103(a) and (e)), and for certain POTWs receiving “less concentrated influent wastewater for separate sewers” (§ 133.103(d)).

F. NPDES permit regulations governing “bypass” and “upset”

The NPDES permit regulations contain certain provisions applicable to all permits, including a qualified prohibition against “bypass” and an affirmative defense for “upsets.”

¹⁷ 40 CFR § 403.3(o).

¹⁸ 40 CFR § 122.2.

¹⁹ 38 *Fed. Reg.* 22298 (Aug. 17, 1973).

²⁰ 41 *Fed. Reg.* 30786 (July 26, 1976) (to remove the limits for fecal coliform); 49 *Fed. Reg.* 37006 (Sept. 20, 1984); 49 *Fed. Reg.* 40405 (Oct. 16, 1984); 50 *Fed. Reg.* 23387 (June 3, 1985); 50 *Fed. Reg.* 36880 (Sept. 10, 1985); and 54 *Fed. Reg.* 4228 (Jan. 27, 1989).

1. The "bypass" provision

40 CFR § 122.41(m) defines a "bypass" as "the intentional diversion of waste streams from any portion of the treatment facility." Section 122.41(m)(2) states that "The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation." For all other bypasses, § 122.41(m)(4) states that:

- (4) *Prohibition of bypass.* (i) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:
- (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (C) The permittee submitted notices as required under paragraph (m)(3) of this section.

Whether or not the existing bypass provision applies to SSOs may depend on whether or not they are deemed to be a part of the "treatment facility." This term is not defined in 40 CFR Part 122, but EPA has stated, in the *1989 CSO Control Strategy*, that "[t]he treatment facility begins at the headworks where equalization of the waste streams takes place."²¹ Based on this interpretation, EPA suggests in the draft SSO rule that SSOs are not covered by the bypass provision because they are not part of the "treatment facility" even though they are part of the "POTW."

2. The "upset" provision

40 CFR § 122.41(n) defines an "upset" as "an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee." The definition of upset does not include noncompliance "to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation." 122.41(n)(2) provides that:

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (n)(3) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

²¹ 54 *Fed. Reg.* 37370, 37371 (Sept. 8, 1989).

Whether the current upset defense can or should be extended to cover noncompliance with water-quality based effluent limitations as well as technology-based effluent limitations is discussed below.

III. *Alternative Approaches*

This section outlines several alternative approaches to the regulation of SSOs. Some approaches should be used in conjunction with others; some stand alone, but each one is superior to the absolute prohibition, or "zero discharge," approach set forth in the Draft SSO rule.

A. **Limited SSO authorization approach**

The first of these alternatives is based on the proposition that SSOs can be authorized under existing law and are not required to comply with secondary treatment. Support for this proposition is found in the existing regulatory definition of "POTW," and in the legal analysis set forth by the D.C. Circuit Court of Appeals in the 1979 *Montgomery* decision.

From 1973 through 1979, the NPDES regulations contained a definition of "treatment works" that included "any facility, method or system for the storage, treatment, recycling or reclamation" of sewage or wastes, "including waste in combined storm water and sanitary sewer systems."²² However, this definition was replaced in 1979 with a definition of "Publicly Owned Treatment Works" as any device or system used in the treatment of liquid sewage or wastes, "excluding any sewers or other conveyances *not leading to* a facility providing treatment."²³ In the consolidated permit rules issued the following year, the definition was "reworded" to state that it "includes sewers, pipes or other conveyances *only if they convey* wastewater to a POTW providing treatment."²⁴ Thus, under the current regulatory definition, it can be argued that neither CSOs nor SSOs are part of the POTW since they do not convey wastewater to the POTW but instead result in a discharge prior to the POTW.

Shortly after the 1980 NPDES rule amendments described above, the D.C. Circuit ruled in the *Montgomery* case²⁵ that CSOs are not part of the "treatment works" under either the 1979 or the 1980 definition, and consequently they are not subject to the "secondary treatment" standards applicable to POTWs. U.S. EPA had previously expressed a similar view in a 1976 General Counsel Opinion,²⁶ which concluded that "treatment works" does not include CSOs whose purpose is not storage and treatment but simply to discharge when capacity is exceeded. In its briefs to the court in the *Montgomery* case, EPA argued "that a sewage overflow point is a device discharging sewer flow without treatment, and that it is therefore not a 'treatment works'." 646 F.2d at 590. The court found that this argument was "buttressed" by the 1979 regulatory definition of treatment works, and that the 1980 definition was "even more explicit in its denial of 'treatment works' status to overflow points." *Id.*

²² 38 Fed. Reg. 13528 (1973), codified at 40 CFR § 125.1(hh) (1973).

²³ 44 Fed. Reg. 32854 (June 7, 1979) (emphasis added).

²⁴ 45 Fed. Reg. 33418 (May 19, 1980) (emphasis added).

²⁵ *Montgomery Environmental Coalition v. Costle*, 646 F.2d 568 (D.C. Cir. 1980).

²⁶ EPA General Counsel Opinion No. 48, *In re Richmond, Virginia* (June 30, 1976).

Since the *Montgomery* decision was issued in 1979, neither EPA nor the courts have formally determined that SSOs must be treated differently than CSOs. When the SSO Subcommittee first began its deliberations, EPA stated in a Nov. 28, 1994 "SSO Discussion Paper" that secondary treatment requirements did not apply to CSOs, but that EPA had "not clarified whether SSOs should be addressed in a similar or different manner." At that time there was considerable variation among that States and Regions in their interpretation of the legal status of SSOs. Many permits authorized SSO discharges when there were no feasible alternatives or when they resulted from circumstances beyond the control of the operator.²⁷ Other permits allowed SSO discharges when specific requirements were met, such as compliance with effluent limitations and/or monitoring and reporting obligations.

B. MOM can be BAT/BCT for SSOs if secondary treatment standards do not apply

If it is determined that SSOs are not part of the POTW, and that the CWA's secondary treatment requirements do not apply, then SSOs would be subject to the BAT and BCT requirements applicable to all other categories of point source discharges. Rather than establishing a set of numeric effluent limitations, BAT/BCT for SSOs would be defined as a set of Best Management Practices (BMPs), based on the MOM portion of the cMOM requirements proposed in the Draft SSO Rule. The use of such BMPs is authorized by 40 CFR § 122.44(k) where the imposition of numeric effluent limitations is infeasible.

CWA § 301 requires generally that discharges comply with "effluent limitations." CWA § 502 defines "effluent limitations" to mean any restriction on quantities, rates and concentrations of constituents discharged from point sources. Nowhere does the CWA say that effluent limitations must be numeric. EPA has confirmed this position in its "Questions and Answers Regarding Implementation of an Interim Permitting Approach for Water-Quality Based Effluent Limitations in Storm Water Permits."²⁸

EPA has, through regulation, interpreted the statute to allow for non-numeric limitations (*e.g.*, "best management practices" or BMPs, see 40 CFR 122.2) to supplement or replace numeric limitations in specific instances that meet the criteria specified at 40 CFR 122.44(k). This regulation essentially codifies a court case addressing storm water discharges. *NRDC v. Costle*, 568 F.2d 1369 (D.C. Cir. 1977). In that case, the Court stated that EPA need not establish numeric effluent limitations where such limitations were infeasible.

40 CFR § 122.44 states that NPDES permits shall include, where applicable:

(k) *Best management practices (BMPs)* to control or abate the discharge of pollutants when:

²⁷ See, for example, the collection system permit for East Bank, West Virginia, included as Tab 7 in the December 1996 FACA briefing book, which provides that specified SSOs are subject to the bypass provision (but not the Upset provision) in the permit's standard conditions section. Unlike the federal rule, which states that bypasses are *prohibited* unless they meet certain conditions, the bypass provision in the permit begins by stating that "Bypass is permitted only under the following conditions"

²⁸ 61 *Fed. Reg.* 57425, 47426 (Nov. 6, 1996).

- (1) Authorized under section 304(e) of the CWA for the control of toxic pollutants and hazardous substances from ancillary industrial activities;
- (2) Authorized under section 402(p) of the CWA for the control of storm water discharges;
- (3) Numeric effluent limitations are infeasible; or
- (4) The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

Subsections (k)(3) and (4) could both be used to justify the application of cMOM-based BMPs in lieu of numeric effluent limitations for SSOs.

C. The cMOM approach can be adopted as a special form of Secondary Treatment for collection systems

Even if it is assumed that SSOs can only be authorized in NPDES permits so long as they comply with secondary treatment as well as water-quality based effluent limitations, there are several alternative approaches to establishing what secondary treatment means for the collection system, as distinct from the POTW.

1. MOM can be adopted as a "special consideration" approach under the existing secondary treatment regulations (see 40 CFR § 133.103)

If SSOs are determined to be part of the POTW and therefore subject to the secondary treatment requirement in CWA § 301, a defined set of Management, Operation and Maintenance requirements could be established as a "special consideration" under the existing secondary treatment regulation in 40 CFR 133.103. This rule already contains a provision, in subparagraph (e), covering "less concentrated influent wastewater for separate sewers." If necessary, and additional subparagraph could be added to the rule stating that municipal sanitary collection systems which are in compliance with the applicable MOM requirements (and are implementing a capacity assurance plan, if needed) are in compliance with the technology and water-quality based requirements of the CWA.

2. MOM can be adopted as a new subcategory of secondary treatment by re-opening the secondary treatment regulations

As a second, and more cumbersome alternative, the secondary treatment regulations could be reopened for EPA to establish appropriate CMOM requirements for sanitary sewer collection systems as a separate subcategory in EPA's definition of what constitutes secondary treatment. CWA § 301 requires POTWs to meet secondary treatment "as defined by the Administrator pursuant to section 1314(d)(1) [CWA § 304(d)(1)] of this title." Section 304 requires the Administrator to publish information "in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, on the degree of effluent reduction attainable through the application of secondary treatment." It also directs the Administrator to provide guidance on the design criteria for certain types of facilities that are deemed the "equivalent" of secondary treatment.

In 40 CFR § 133.102, EPA defined secondary treatment for POTWs in terms of the parameters BOD₅, SS and pH. In a revised secondary treatment regulation, EPA could amend this section to define secondary treatment for collection systems in terms of compliance with specified CMOM requirements.

D. EPA can provide an affirmative defense for unavoidable SSOs

Even if SSOs are not authorized pursuant to one of the options outlined above, EPA can still provide a more effective affirmative defense for unavoidable SSOs than those contained in the draft SSO rule (which are so severely limited that they provide no realistic protection to the collection system operator).

1. The courts have held that EPA must provide an upset defense for technology-based effluent limitations, and must permit certain unavoidable bypass.

Both the Fourth and Ninth Circuit Courts of Appeals have ruled that EPA must provide some form of "excursion" or "upset" provision, to protect against violations of technology-based effluent limitations based on unavoidable failures of the underlying technology. *FMC Corp. v. Train*, 539 F.2d 973 (4th Cir. 1976); *Marathon Oil v. EPA*, 564 F.2d 1253 (9th Cir. 1977). The *Marathon* decision also concluded that EPA must "allow" or "permit" certain bypasses when they are unavoidable to prevent severe property damage. The *Marathon* case was cited by EPA as the basis for its adoption of the original bypass and upset provisions. See 43 *Fed. Reg.* 37078, 37079 (Aug. 21, 1978).

2. The D.C. Circuit has held that EPA may, but is not required to, apply the upset defense to exceedances of water quality based limits

The bypass and upset provisions in the NPDES permit rules were originally proposed on Aug. 21, 1978,²⁹ and adopted on June 7, 1979, 49 *Fed. Reg.* 37998. They were appealed in a number of petitions, which were eventually consolidated as *NRDC v. EPA*, No. 80-1607 (D.C. Cir., filed June 2, 1980). After two years of negotiations, a settlement was reached on June 7, 1982, covering 27 of 42 issues raised in the appeals. Amended regulations were proposed on Nov. 18, 1982, 47 *Fed. Reg.* 52072, and issued as final on September 26, 1984.³⁰ This proposed rule would have removed the "essential maintenance" restriction on bypasses not exceeding effluent limitations, and it would have expanded the upset provision to cover noncompliance with water quality based effluent limitations. The final rule, however, reverted to the Agency's original position on both issues. In 1987, the D.C. Circuit upheld the final bypass prohibition, stating that:

In view of the Act's ambitious policies, we cannot say that the Act requires EPA to allow bypasses which are not provided for in the permit and which are unnecessary for essential maintenance purposes or to avoid harm to life or property.³¹

²⁹ 47 *Fed. Reg.* 52072.

³⁰ 49 *Fed. Reg.* 37998.

³¹ *NRDC v. EPA*, 822 F.2d 105, 124 (1987).

In response to the contention that hydraulic flooding resulting from heavy rainfall may damage the system or render it inoperative, the court interpreted the rule to provide that, under such circumstances, "even a bypass which exceeds effluent limitations would be permitted if it was unavoidable to prevent severe property damage."³² Although "Congress did not specifically address the question whether bypasses may be permitted," the court concluded that:

The Agency's adoption of a bypass regulation which incorporates two broad and sensible exceptions (bypasses which do not cause effluent limitations to be exceeded for purposes of essential maintenance and bypasses which may cause effluent limitations to be exceeded in order to avoid personal injury or severe property damage) is, in our view, reasonable and therefore lawful.³³

The next year, the D.C. Circuit considered EPA's failure to extend the upset defense to non-compliance with water quality-based limits.³⁴ The court endorsed the Ninth Circuit's decision in *Marathon Oil* that an upset defense was required for technology-based permit limitations, since "no pollution technology works perfectly all of the time." However, it concluded that the Act does not require EPA to provide a similar defense for water quality-based limitations, and that it was within the Agency's discretion whether or not to allow such a defense in situations where the permittee could show that water quality standards were maintained in all stream segments affected by the upset:

Indubitably, the Act requires overall water quality to be maintained, and even though an individual permit violation may not always produce an infringement of water quality standards for a particular body of water, the agency is at liberty to make the regulatory judgment not to allow permittees to assert an upset defense.³⁵

Because EPA had not adequately explained its decision to eliminate the defense from the proposed rule, the court remanded the issue for further proceedings by the Agency. In doing so, however, the court emphasized that EPA was not required to permit the defense, and that, if it did, EPA "has authority to determine in the first instance what constitutes sufficient proof that water quality was maintained during an upset."³⁶ EPA has never acted on this remand, and the applicability of the upset defense to non-compliance with water-quality based effluent limitations remains unresolved.

The *Marathon* and *NRDC* decisions chart the legal boundaries of EPA's duty and authority to provide defenses under the Act. The Agency *must* provide some form of excursion or upset defense for technology-based limits (presumably including secondary treatment requirements), and it *may* provide an upset defense for non-compliance with water quality-based permit limits if overall water quality is maintained. Furthermore, it is reasonable and lawful (and, arguably, required) for the Agency to "allow" or "permit" bypasses for essential maintenance that do not

³² *Id.* at 125.

³³ *Id.* at 126.

³⁴ *NRDC v. EPA*, 859 F.2d 156, 206-07 (1988).

³⁵ *Id.* at 209.

³⁶ *Id.* at 210.

cause effluent limitations to be exceeded, and bypasses that are necessary to avoid personal injury or severe property damage even if they cause effluent limitations to be exceeded. The protection afforded by the existing bypass provision is not limited to exceedances of technology-based effluent limitations, but covers water quality-based limits as well.

The availability of such defenses is not dependent on whether or not the collection system is part of the POTW, since the legal rationale applies to unavoidable exceedances of any technology-based standard, whether it is secondary treatment or some other BAT/BCT effluent limitation. However, if a separate BAT/BCT standard is applied to SSOs, the current NPDES permit regulations would have to be modified, either to expand the application of the existing bypass regulation or to create an equivalent provision for SSOs. The existing bypass provision applies to the intentional diversion of waste streams from "any portion of the treatment facility." (The upset provision is not similarly restricted.) In the 1989 *CSO Control Strategy*, consistent with the *Montgomery* decision, EPA stated that since CSOs are not part of the POTW the bypass provision would not apply. Similarly, if SSOs are separated from the POTW, the existing bypass defense would become unavailable unless it is amended.

3. Potential drawbacks to use of the existing bypass defense

With regard to the condition in the existing bypass rule that there must be "no feasible alternative" to a bypass, recent court decisions have suggested that the hypothetical ability to construct a larger treatment facility or to rehabilitate the entire collection system may eviscerate the existing defense.³⁷ However, these cases must be understood in their procedural context. In the *Toledo* case, the same court had previously refused to grant summary judgment on the government's theory that any bypass which occurred when the treatment plant was operating at less than its design capacity was, as a matter of law, not entitled to the bypass defense.³⁸ The later opinion was a ruling on a joint motion for decision of a legal issue, which held that "feasible alternatives" may include the construction of additional facilities. It did not grant summary judgment on the issue of liability. Instead, consistent with the court's earlier ruling, it laid the foundation for an evidentiary hearing on the issue of "feasibility." Thus, the court never determined (1) whether some bypasses that occurred at less than plant capacity were "unavoidable" to prevent severe property damage, or (2) how much it would have been "feasible" for the city to spend on additional treatment or storage capacity.

E. The "impossibility" defense

An affirmative defense against the prohibition of SSO discharges might also be based upon the principle expressed in the ancient legal maxim *lex non cogit ad impossibilia* (Hob. 96) or *lex non intendit aliquid impossibile*, meaning that "the law does not compel the doing of impossible acts." The principle is applied in the interpretation of statutory provisions that would otherwise compel an impossible result.³⁹ In *Hughey v. JMS Dev. Corp.*, 78 F.3d 1523 (10th Cir. 1996) this principle was applied to the "zero discharge" standard of the CWA (*i.e.*, no discharge without a

³⁷ Cf. *United States v. Penn Hills*, 46 ERC 1279 (W.D. Pa. 1998); *United States v. City of Toledo*, No. 3:91CV7646 (N.D. Ohio Aug. 6, 1999).

³⁸ *United States v. City of Toledo*, 867 F. Supp. 603 (N.D. Ohio 1994).

³⁹ *Chew v. Heong*, 112 U.S. 536 (1884).

permit), because “Congress could not have intended a strict application of the zero discharge standard . . . when compliance is factually impossible.” Thus, a local developer was held not liable for stormwater discharges that occurred when no stormwater permit was available from the relevant permitting agency. The court held that:

. . . Congress did not intend (surely could not have intended) for the zero discharge standard to apply when: (1) compliance with such a standard is factually impossible; (2) no NPDES permit covering such discharge exists; (3) the discharger was in good-faith compliance with local pollution control requirements that substantially mirrored the proposed NPDES discharge standards; and (4) the discharges were minimal.⁴⁰

The so-called “*Hughey* exception” to the zero-discharge standard was subsequently recognized by the U.S. District Court in Minnesota (in spite of opposition by U.S. EPA),⁴¹ and affirmed by the Eighth Circuit Court of Appeals.⁴² In its decision, the Eighth Circuit noted that cities cannot stop rain and snow from falling, and any attempt to prevent discharge through established storm drains would actually cause harm to public health and the environment. In these circumstances, the court held “as a matter of law” that the plaintiffs could not obtain an award of civil penalties against the cities for their unpermitted stormwater discharges.

IV. Conclusion

This *White Paper* reveals that with some fresh thinking and approaches, a sensible approach to SSO regulation can be developed and implemented. AMSA continues to support EPA’s development and finalization of a national regulatory program for SSOs. It is our hope that as this program is developed, that legal and regulatory precedent will be used to support a practical and effective program.

⁴⁰ 78 F.3d at 1530.

⁴¹ *Mississippi River Revival v. EPA*, 107 F. Supp. 2d 1008, 1014 (S.D. Minn. 2000).

⁴² *Mississippi River Revival, Inc. v. City of Minneapolis*, 319 F.3d 1013, 1017-18 (8th Cir. 2003).