

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF FEBRUARY 7-8, 2008

Prepared on January 15, 2008

ITEM NUMBER: 16

**SUBJECT: The City of Salinas Storm Water Management Program and
Compliance with Phase I Storm Water Permit, Status Report #4**

KEY INFORMATION:

Location: City of Salinas
Discharge Type: Municipal Storm Water
Existing Orders: R3-2004-0135
This Action: Status Report

SUMMARY

This item is a status report on the City of Salinas' Storm Water Management Program and their compliance with Phase I Storm Water Permit. During the 2006/2007 reporting year, the City of Salinas (City) made significant progress, but also continues to have areas needing improvement. The City also completed its draft Storm Water Management Plan (SWMP), which is presented for Water Board consideration at this February 2008 Board meeting as item No. 17. The City has been implementing their draft SWMP during the 2006/2007 reporting year. The City also submitted its 2006/2007 Annual Report, which reported on implementation of the draft SWMP, and submitted a draft of, but still has to complete, the Storm Water Development Standards (formerly called the Low Impact Development, "LID" Standards).

Water Board staff reviewed the Annual Report and identified areas where the City must improve their Annual Report format so that it better aligns with the SWMP and reporting-year's Work Plan. Water Board staff is preparing a letter to formally require the City to submit a more specific 2007/2008 Work Plan, pursuant to Water Code Section 13383, by March 28, 2008.

Staff also reviewed the City's SWMP, and is recommending that the Water Board approve some modifications to the SWMP (see item 17 on this agenda). The modifications are to correct deficiencies in organization, clarity, and specificity. The City also needs to improve its public participation practices, revise its annual reporting for some measurable goals, and improve Annual Report formatting and organization so that the Annual Report aligns with the SWMP organization.

The City responded to the major concerns that Water Board staff had identified in the February 2007 and July 2007 Board updates. The first major set of accomplishments was the City's

investigation and abatement of illicit discharges to the storm water system, and education of industry and business operators to prevent future discharges. The second accomplishment, and equally notable, was that the City adopted a Storm Water Ordinance, which provides the City with authority to require water quality protective measures. The Storm Water Ordinance references and upholds the draft Storm Water Development Standards. These Standards contain the Low Impact Development measures that will provide storm water quality and stream protection to reduce impacts from the Future Growth Area's 3,400-acre new developments, and significant in-City redevelopment projects. In the interim, the City is currently requiring some of the construction developments to include Low Impact Development techniques that treat all stormwater runoff from the sites. The City has also integrated water quality protective methods into the City's Maintenance Division, with primary focus on reducing pesticide use, eliminating trash release in park and creek areas, and maintaining septic and storm water infrastructure to minimize illicit and illegal discharges. Lastly, the City is on-track with fully implementing its water quality monitoring program.

Staff concludes that the City's storm water program has made substantial strides in the last year. Although the City must revise its SWMP, and Annual Report format, the program as it is being implemented now provides improved water quality and aquatic habitat protection compared to past years.

DISCUSSION

The Water Board directed staff to provide this status report regarding the City of Salinas' 2006-2007 Annual Report on Storm Water Permit activities (NPDES permit Order No. R3-2004-0135). The City submitted its Annual Report on October 1, 2007, as required by the Permit. Staff elected to present the status report at the same Board meeting as the Salinas SWMP adoption item. Water Board staff have presented two other updates to the Board this year, in February 9, 2007, and July 6, 2007. This staff report discusses the main interest items for the 2006-2007 reporting year, which include the City's Annual Report, draft Storm Water Management Plan (SWMP), and Storm Water Development Standards status.

I. Annual Report

On October 1, 2007, the City submitted its Annual Report, which reported on implementation of the City's June 2007 draft SWMP. Staff reviewed the Annual Report to determine general storm water program progress, and compliance with the segments of the City's Permit which are addressed through the City's implementation of the June 2007 draft SWMP BMPs. Staff is providing follow-up requirements in a letter to the City, which are summarized in the next two paragraphs. Staff also is requiring the City to submit a 2007/2008 Annual Work Plan. The City is required by Permit section D.5.a to provide an Annual Work Plan each year at the same time (October 1) that the Annual Report is due to Water Board staff. Staff found that the 2006/2007 Annual Report did not clearly define the upcoming 2007/2008 Work Plan commitments. Therefore staff is requiring the City, pursuant to Sections 13267 and 13383 of the California Water Code, to submit a 2007/2008 Work Plan by March 28, 2008.

The City is in the unusual position of reporting on a SWMP which has been in development at the same time that items in the program are being implemented, and which still has to be adopted by the Water Board. Staff understands from the City's statements at the February 2007 Board meeting, that the City has been implementing the SWMP, and is considering the Tables within the SWMP to be the Work Plan. Therefore, in staff's Annual Report review, staff assessed the level of storm water program implementation using the June 2007 Draft SWMP.

The 2006/2007 Annual Report contains some useful additions and features compared to past Annual Reports. Each Element section table cross references the sections of the Permit that are addressed by the City's storm water program. This cross reference is very helpful in identifying how the city is staying on-task with Permit requirements. Each Element section gives a discussion on the storm water program's effectiveness. In some cases, effectiveness is easy to gauge, yet in other sections, such as Monitoring, which has a limited amount of data, effectiveness is harder to gauge. Therefore, staff is requiring the City to improve future Annual Reports by including the information necessary to determine effectiveness.

Additionally, staff found that the format the City has used for the Annual Report made it challenging to align and verify the Work Plan tasks and Measurable Goals from the SWMP with the Annual Report information, and for several items, the Annual Report did not provide as much detail on measurable goals as was anticipated in the SWMP Work Plan. For a few BMPs, the Annual Report needed cross references or additional description of work performed in order for staff to understand and evaluate the level of implementation. Therefore, staff is requiring the City to submit an improved Work Plan for 2007-2008.

In evaluating whether the City met their SWMP Work Plan commitments, staff found there were some variations from the SWMP Work Plan that were not discussed well in the Annual Report. Despite the challenges in conducting a one-for-one check, staff concluded that most of the work plan commitments have been completed or are in progress. Overall the City appears to be conducting the draft SWMP satisfactorily, and plans to continue implementing the SWMP in the upcoming year. However, staff is requiring the City to improve the format of the Annual Report to facilitate a one-for-one check between SWMP Work Plan commitments and BMP reporting.

The main highlights of the Annual Report are as follows:

A. Construction –

The City required Low Impact Development (LID) in all applicable projects during the reporting period and inspected such projects to ensure the proper installation of these developing strategies and techniques. Maintenance agreements are prepared and recorded against the properties upon which such features are located to ensure their proper and ongoing maintenance and functioning. The City has also adopted a Stormwater Ordinance.

City staff reviewed one hundred percent (100%) of submitted construction plans for compliance with the City's NPDES permit and LID requirements. City staff exceeded the City's permit requirements for construction site inspections, and typically reviewed each site that is greater than 1 acre in size on a weekly basis to ensure compliance. During this reporting period the construction inspection team conducted 1146 inspections on 757 projects. This does not include the City's own capital improvement projects which are inspected daily during the course of construction.

B. Municipal Maintenance –

The City's Park and Urban Forestry Division continued to refine and use individualized Storm Water Pollution Prevention Plans (SWPPPs) for park sites as a maintenance and training tool. Park staff focused on litter, garbage, and landscape inspection and removal in creeks and basins. The City implemented 26 watershed

trash and litter cleanups involving over 1083 volunteers at nine locations, including park sites and five major cleanups and restoration of illicit homeless encampments, which eliminated significant pollution sources along City creek zones.

The 2006/2007 year activities included training for all employees, including pesticide training for 100% of applicators, and NPDES BMP training for 95% of the staff. The training and knowledge of the goals of this program have made employees more aware of the results and benefits of their daily activity, increased productivity in specific areas that effect water quality, and more efficient and productive in the use of pesticides.

The Parks department employed Integrated Pest Management practices such as increased hand weeding, reduced turf pre-emergent herbicide use, and use of traps instead of rodenticides, whenever possible to reduce the use and need for pesticides. Pesticides were applied when there were no viable alternatives and according to all label and Manufacturer Safety Data Sheet (MSDS) requirements to ensure safe and effective use. During the 2006-2007 stormwater year the Parks Division used 42% less Roundup and 51% less Surflan than the 2004-2005 year. Applied pesticides were kept from entering and negatively impacting the storm water drainage system.

C. Commercial and Industrial Facilities –

During this reporting period the City prepared inventories of all industrial and high-risk commercial facilities and activities and established BMPs for each business type. Within the category of commercial operations, the City designated five types of operations as “high-risk”, based on their potential to contribute to stormwater pollution. The five categories include: Food services, Automotive repair facilities, Retail gasoline outlets, Commercial car washes, and Mobile cleaners. The City has established sets of BMPs tailored to the specific categories of operation and activities. For commercial operations, source control BMPs have been established for the primary activities associated with each of the five high risk commercial categories. For industrial operations, BMPs focus on non-storm water discharge elimination.

The City completed 100% of the industrial inspections scheduled during this reporting period. The effectiveness of this program can best be demonstrated by the number of industrial facilities found in compliance during the 2006-07 inspection cycle. Comparison data shows that in 2001, nineteen industries had NPDES BMP issues that required re-inspection for compliance. In the 2006-07 reporting period, the non-compliance number dropped to five of the 71 industries inspected. Four facilities have received City-issued Notices of Violations and Compliance Orders for illicit discharges (detail provided in Illicit Discharges and Illegal Connections section, below). Three have been instructed to submit Notices of Intent to enroll in the State Water Resources Control Board’s General Stormwater Permit program. Each facility immediately abated the discharges and each is currently in compliance.

D. Public Education and Outreach –

Salinas has implemented a four-pronged multi-media outreach campaign. Targeted audiences included (1) the general public, (2) public agencies/quasi-governmental organizations, (3) select community sectors, and (4) primary schools. To establish a common base of knowledge in the first two years of the permit term, the general public education program was purposely broad. As the program moved into its third year (2006/2007), its message has become more focused. A second main task of this reporting year was refinement and expansion of the City's public education program. The City developed cost projections and developed partnerships to ensure program success. Salinas also expanded its commercial business outreach. A twelve-week multi-media campaign employing radio and television were created and produced during 2006-2007. The themes were reduction of food waste, and oil and grease disposal. In all, over 256 spots were aired with a total of over 1,000 impressions. The radio and television ads increased residents' and the business community's awareness of their behavior and their affect upon the environment, and identified alternatives.

In 2006-2007 the City hired a consulting firm to prepare an entirely new redesign to its home web page. A new web design will feature expanded public outreach regarding urban water runoff and greater user-friendly features to access information.

While the annual reporting on the City's "public education and outreach" demonstrates improvement and progress, the City has been challenged to satisfactorily involve stakeholders in providing input to ordinances and standards. The City did engage a stakeholder group to assist in preparing the Development Standards, partially in response to complaints about limited opportunity for public review and comment on the Storm Water Ordinance. Members of this stakeholder group have commented to Water Board staff that the City has not provided adequate time or transparency for this process.

E. Illicit Discharges and Illegal Connections -

The City mapped inlets and outfalls, and continued an extensive program of sewer inspection, cleaning, repair and replacement to reduce sanitary sewer overflows and leakage from sanitary sewer lines. Seventeen Wastewater employees were trained in spill response procedures, environmental compliance, and pesticide training. The City maintains a regular maintenance schedule for collection system pipes and for sanitary sewer lifts stations. The effectiveness of the maintenance program was reflected in the number of sanitary sewer overflows; in 2007, pipeline maintenance resulted in a 54% reduction in sanitary sewer overflows compared with the same time period in 2005.

The City developed a written spill response plan, a required set of actions for sanitary sewer and other hazardous spills. The City maintained an emergency response phone line, and logged received calls. Reported activities were responded to expeditiously with adequate equipment to address the problems. The Wastewater Division of the City's Maintenance Services Department responded to 115 reports of illicit discharges since October 2006. Of the 115 responses 65% were reported by Wastewater staff. The remaining 34% of callouts were generated by residents or other City departments. Typically, responses have been cleanups to concrete wash-

downs, paint spill, grease, oil, fuel, grass clippings, glass, tile cutting, dirt, rock salt, garbage, and grey water discharges. To date, all responses have resulted in complete recovery of the spills or discharges with the exception of three partial recoveries from private sewer lateral overflows.

The City also responded to illicit discharge reports from Water Board staff based on the Board's Central Coast Ambient Monitoring Program (CCAMP). CCAMP staff monitored two locations on the Reclamation Canal, Airport Road (309ALU) and Boranda Road (309ALD). Samples are also collected from the storm drain pipe upstream of the Airport Road site (309AXX). CCAMP staff documented multiple exceedances of water quality objectives, and toxic waters at these sites, and brought these issues to the City's attention. When toxicity is discovered, the Permit's Monitoring and Reporting Program requires the City to conduct a Toxicity Reduction Evaluation which includes all reasonable steps to identify the source(s) of toxicity and discuss appropriate BMPs to eliminate the causes of toxicity. The City conducted dye and smoke tests to identify which smaller storm drains lead to the 309AXX drain. The drains leading to 309AXX originated in an industrial area, which contained industries suspected of being the pollutant source(s). The City inspected the industrial sites, found illegal discharges and pollutant sources, and required the sites to make appropriate changes to eliminate the discharges and contain pollutant sources. The industrial sites complied. In a search for other pollutant sources, the City also sent out a letter to all business addresses and property owners in the Airport Road area describing best management practices that should be incorporated at their facilities. The illicit discharge location and abatement activities were summarized in the Annual Report in an eight page table.

F. Monitoring and Water Quality testing –

The City submitted its Final Draft Quality Assurance Project Plan (QAPP), which details methods the City uses to collect and analyze conventional water quality constituents, aquatic toxicity, sediment toxicity, and benthic invertebrates. Changes in the State Water Resources Control Board protocol for Rapid Bioassessment, prompted Regional Water Board staff to request the City updates its QAPP with the new protocol. The City is complying. Although the QAPP is in a draft stage, the water quality sampling portion of the QAPP has been approved by staff, and the City conducted the sampling activities required by the Permit's Monitoring and Reporting Program (MRP).

The MRP doesn't require the collection of benthic invertebrate data for Background sites (i.e. sites upstream of the City). However, as the MRP indicates that "the purpose of the downstream (Receiving Water) sites is to characterize the impacts of the Permittee's discharge on each of the receiving water bodies", the City of Salinas has decided to have benthic community data collected from Background sites so as to allow for a comparison to the Receiving Water sites. This additional monitoring will allow for a more complete assessment of benthic community impacts from the City's stormwater.

The City found that water samples from background (i.e. upstream) sites exceeded water quality standards for orthophosphate, nitrate, zinc, copper, e. coli, and total coliform. These results confound interpretation of impacts from Salinas stormwater

at Receiving water (downstream) sites. Such findings underscore the importance of collaboration between the Cooperative Monitoring Program for our Agricultural Regulation Program and the City's sampling program to unravel the watershed pollutant-picture. Water Board staff have contacted both groups in an effort to bring together a collaborative, data-sharing forum. Additionally, the City has contracted with Pacific Ecorisk, an environmental consulting firm conducting research and testing in the fields of environmental toxicology, aquatic biology, and environmental chemistry, to conduct the City's monitoring. Pacific Ecorisk is also the consultant for the Cooperative Monitoring Program for our Agricultural Regulation Program. Pacific Ecorisk was chosen for its professional credentials and to create consistency between the two monitoring programs.

II. Storm Water Management Plan Final Draft

A significant accomplishment in 2007 was the City's release of the final draft Storm Water Management Plan (SWMP). The City had submitted three versions, which Water Board staff commented on, resulting in changes and culminating in the June 2007 draft, which was released for public comment.

Water Board staff provided comments on and recommended revisions to the SWMP, which staff sent to the City and made available for public comment, in September 2007. The City agreed to make most of the recommended revisions to the SWMP in December 2007. Water Board staff is recommending that the Board adopt the City's SWMP (see Item 17 on this agenda) and all the revisions staff recommended, including those the city agreed with and those they did not. Some of staff's original recommended revisions were modified in response to the City's comments and stakeholders' comments, and staff recommended some new revisions in response to stakeholders' comments.

Water Board staff presents much more detail on the SWMP, comments, and modifications in the staff report prepared for SWMP adoption, in agenda item No. 17.

III. Storm Water Development Standards

The City's Permit requires the City to develop and adopt Storm Water Development Standards which require Low Impact Development (LID) methods in new and re-development. Water Board staff is concerned that the City's process of drafting the Development Standards has been drawn out over time, while in the meantime, development projects continue to be designed and built that may not be in compliance with the City's Permit, or an approved SWMP or approved Development Standards. During summer 2007, the City adopted a Storm Water Ordinance which gives the City the authority to implement and enforce broad storm water management measures, including the required and forthcoming Storm Water Development Standards. During fall 2007, the City convened a stakeholder group to draft the Storm Water Development Standards, and submitted a preliminary Storm Water Development Standards to Water Board staff in December 2007. Water Board staff are currently reviewing the preliminary Development Standards. Staff will approve the Development Standards, or will work with City staff to prepare an approvable draft. Once a staff-approved draft is finalized, it will be presented to the Water Board for final approval. If the City's Draft Development Standards are not acceptable, and we are unable to correct the deficiencies quickly, staff will present conditioned Development Standards to the Water Board. If adopted by the Water Board, the Development

Standards and any added conditions will be enforceable based on Permit requirements. Staff anticipates that the Development Standards will be recommended to the Board for approval in July 2008 (This Board hearing is scheduled to be in Watsonville.) If adopted, the Stormwater Development Standards will become part of the City's SWMP and enforceable pursuant to the Permit.

While the Design Standards are being developed and adopted, the City engineering department staff are borrowing LID engineering designs from Contra Costa County for lined bioswales, and requiring their implementation in new construction of commercial sites. The lined bioswales (liner is used in low percolation native soil areas) provide treatment for all rooftop and parking lot runoff on the sites that Water Board staff examined. The lined bioswales address the Permit's requirement to treat storm water runoff prior to discharge. The lined bioswales are not considered to be a complete LID "program", but are an interim step towards implementing LID. The City's LID interim measures requiring bioswales are a bridge that indicate to developers that a new expectation for managing storm water is expected in the City. At this time, without adopted Storm Water Development Standards that define when and where LID must be used, the City engineering and planning staff is making these decisions on a case-by-case basis. There are plans to annex approximately 3,400 acres into the City, which will be converted into new development, representing 15,100 new homes, and 16 million square feet of non-residential development¹. The Storm Water Development Standards, when approved by the Water Board and adopted by the City will solidify the LID construction requirements. If approved in a timely manner, the Storm Water Development Standards will be applied to the new development, thus protecting receiving waters from urban storm water impacts to the maximum extent possible.

CONCLUSION

The City must improve its reporting format so that it better aligns with the SWMP and Work Plan. Water Board staff is preparing a letter to formally require the City to submit additional information pursuant to Water Code Section 13383 by March 28, 2008. Water Board staff is also recommending that the Water Board approve some modifications to the SWMP to correct some of these deficiencies (see item No. 17 on this agenda).

The City has made great strides in the last two years, and the major milestones were met in 2007. Water Board staff's July 2007 status report identified that the two items of greatest concern to monitor and address were: 1) measurable water quality exceedances; and 2) the lack of Low Impact Development Standards. The City successfully addressed both concerns through its investigation and abatement of industrial pollutant discharges and its Storm Water Ordinance and Storm Water Development Standards, and by requiring interim LID management practices in current construction projects. Staff recommends the City address required SWMP deficiencies (see item No. 17 on this agenda). The City must improve its Annual Report organization so that it better aligns with the SWMP and Work Plan, and must submit a more understandable 2007/2008 Work Plan. With these recommendations and requirements, staff concludes that the City is now well underway with a storm water program protective of water quality and habitat, which addresses the main water quality concerns facing the City. The anticipated Storm Water Management Plan adoption (presented at this February 2008 Board

¹ City of Salinas Sphere of Influence Amendment and Annexation, LAFCO Pre-Application Information, April 19, 2005

meeting) will solidify and memorialize the effective efforts that the City is currently undertaking to protect water quality, and will insure the City makes some modifications and implements some new actions so its Storm Water Program complies with its Permit and meets the maximum extent practicable standard.

RECOMMENDATION

No Board action is required on this item; however, the Board may give direction to staff.

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