

**Staff Report for Draft Order No. R3-2012-0005  
ATTACHMENT 2.a**

**KEY ISSUES AND COMMENTS**

The City of Salinas submitted comments related to each Key Issue and Comment discussed below. In addition, Central Coast Water Board staff received comments from other stakeholders related to Key Issue and Comments 1, 3, 4, 5, 7, and 9. The topics commented on by the largest number of commenters were Key Issue and Comments 3 and 9.

- 1) ***The Central Coast Water Board should have modified the existing Order No. R3-2004-0135 and the SWMP instead of developing a new document and the Central Coast Water Board should not have moved the main requirements of the SWMP into the Draft Order. The Central Coast Water Board's approach creates a lengthy document and makes it difficult to discern and evaluate changes to the City's existing requirements, with the result that commenters are not able to provide adequate input on the modifications.***

Central Coast Water Board staff considered modifying the existing Order No. R3-2004-0135 and the SWMP document, instead of developing a single new document, but found a single new document to be more efficient and effective. Existing Order No. R3-2004-0135 contains relatively brief language for its requirements, and relies upon the City to interpret those requirements into BMPs and identify them in its stormwater management plan (SWMP). The SWMP is an enforceable part of the existing Order, so that the City's requirements are found in two documents – existing Order No. R3-2004-0135 and the SWMP. Central Coast Water Board staff has found this type of arrangement to be inefficient and the requirements potentially unclear. Reliance on the SWMP to identify the BMPs the City will implement requires an extensive process of review and negotiation for the SWMP. This essentially amounts to an additional adoption process for a second Order. Central Coast Water Board staff recently underwent this process for approximately 40 Phase II stormwater municipalities in the region, and found the process to be a major expense of resources. Rather than undertake a negotiation and adoption process for both an Order and a SWMP, Central Coast Water Board staff finds it more efficient to include all requirements in the Draft Order through a single process.

In addition, since the SWMP is an enforceable part of the Order under the existing Order No. R3-2004-0135, the City cannot change any portion of the SWMP without approval from the Central Coast Water Board or its Executive Officer. Central Coast Water Board staff has found that requiring municipalities to obtain approval for every SWMP change is not conducive to allowing municipalities to make timely improvements to their programs. Therefore, the Draft Order moves the main requirements of the City's SWMP into the Order so that the City may update the SWMP without having to receive approval from the Central Coast Water Board or its Executive Officer.

Locating all of the detailed requirements in the Draft Order, rather than relying on a SWMP, also serves to clarify expectations for the City, Central Coast Water Board staff, and other stakeholders. Upon adoption of the Draft Order, all parties will know what the requirements are, rather than having to wait until the SWMP is negotiated and finalized. In addition, only one document will need to be referenced to identify the requirements, rather than two, making for easier understanding of the requirements. For several years now, most Phase I

municipal stormwater permits in California have increasingly relied upon detailed requirements in the orders, as opposed to the SWMPs. Central Coast Water Board staff and staff of other Water Boards find that the increased clarity of requirements and more efficient administrative processes provide for more effective stormwater regulation.

While the Draft Order still requires the City to have a SWMP, it serves a different purpose than the existing SWMP. Rather than serving as an extension of the Draft Order's requirements, the SWMP serves as a planning document for the City to guide the development and implementation of its program. Under the Draft Order, the SWMP will be a working document that demonstrates how the City will comply with each requirement of the Draft Order. The SWMP will also include the documents developed for compliance with the Draft Order. As such, the SWMP will be a plan that all current and future City staff responsible for implementing the program can reference to understand what needs to be implemented.

This change in the purpose of the SWMP makes a simple modification of existing Order No. R3-2004-0135 impossible, since the Draft Order must be rewritten to incorporate the requirements formerly found in the SWMP.

Further, Central Coast Water Board staff found that many of the changes required to meet the MEP standard and to make the City's program consistent with other Phase I programs did not lend themselves readily to modification of the existing Order No. R3-2004-0135 and the SWMP. Stormwater regulation has evolved substantially since 2004, and new stormwater management approaches have been identified and implemented in other parts of California. While many requirements in the Draft Order are similar or identical as existing requirements, others reflect these newer approaches being implemented elsewhere. In these instances simple modification of existing text would not be effective. Central Coast Water Board staff finds such requirements are clearer when rewritten, rather than edited from existing requirements. Section VI of this Staff Report includes a description of substantive changes or modifications in the Draft Order compared to the existing Order No. R3-2004-0135, including requirements that have been reduced or eliminated.

The City has had opportunity to review the Draft Order, to submit comments for review and response by Central Coast Water Board staff, and to propose changes to requirements contained in the Draft Order. Central Coast Water Board staff has considered all input from the City in developing and modifying the Draft Order. While the City submitted numerous comments, Central Coast Water Board staff has found that many of the City's comments relate to a relatively small number of topics. In addition, Central Coast Water Board staff has worked extensively with the City to facilitate the City's understanding of the Draft Order. Central Coast Water Board staff provided an initial overview of the Draft Order to the City, held three workshops, and initiated numerous discussions with the City to describe and explain the Draft Order and to answer the City's questions.

- 2) ***The City is already implementing stormwater measures to control pollutants to the maximum extent practicable (MEP) and because the City has seen a decline in its revenues, practicability will necessarily have a different cost basis.***

***For Draft Order Provisions where the City must implement BMPs to reduce pollutants to the MEP, and the requirements specify some BMPs the City must implement, the Draft Order does not provide a limit to MEP which leaves the requirements open-***

***ended and subject to different interpretations. Requiring something to the MEP expands the requirements to include whatever Central Coast Water Board staff or third parties through lawsuits, think BMP to the MEP means, and therefore the City must assume very large potential cost. MEP is overly broad and requires whatever is possible as a BMP, not what is practical or economically feasible given the current lack of a consistent application of the MEP standard. MEP means the City will have to retrofit existing BMPs if more effective BMPs are discovered. Central Coast Water Board staff should narrow the definition of MEP in the Draft Order.***

*[Note: Much of the following response also appears in MEP discussion in Section VI of the Fact Sheet for Draft Order No. R3-2012-0005 (Attachment 7 of this Staff Report).]*

MEP is an evolving concept that changes over time as new information is gathered regarding the effectiveness of municipalities' (including the City's) stormwater programs to reduce pollutant loading from stormwater and to meet water quality standards. The Draft Order's new requirements reflect the evolution of stormwater management and knowledge of receiving water conditions since 2005, as well as information obtained by Central Coast Water Board staff during audits and review of annual reports and the City's Report of Waste Discharge. As such, the Draft Order asserts that the City will meet the MEP standard through compliance with the Draft Order's requirements. Each new requirement in the Draft Order is discussed and justified individually in the Fact Sheet.

The Draft Order requires the City to establish and implement BMPs that reduce the discharge of pollutants to the MEP and to prohibit discharges from the MS4 that cause or contribute to violations of water quality standards. The MEP standard applies to the City's entire stormwater program regardless of whether or not a specific provision specifically states it as such. The MEP standard is the technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) which operators of MS4s must achieve.

Technology-based standards establish the level of pollutant reduction dischargers must achieve, typically by treatment or by a combination of source control and treatment control BMPs. Meeting the MEP standard generally necessitates implementation of pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense). The MEP standard considers economics and is generally, though not necessarily, less stringent than the Best Available Technology (BAT) standard. A definition of MEP is not provided either in the statute or in the regulations; therefore MEP has been defined in practice by the Central Coast Water Board using guidance from the State Water Board's Office of the Chief Counsel (see below). Achieving the MEP standard requires a dynamic and cumulative effect of implementing, evaluating, and making corresponding changes to a variety of technically appropriate and economically feasible BMPs, ensuring that the most appropriate controls are implemented in the most effective manner. This process of implementing, evaluating, revising, or adding new BMPs is commonly referred to as the iterative process.

In a memo dated February 11, 1993, entitled "Definition of Maximum Extent Practicable," Elizabeth Jennings, Senior Staff Counsel, State Water Board's Office of the Chief Counsel, addressed the achievement of the MEP standard as follows:

*To achieve the MEP standard, municipalities must employ whatever Best Management Practices (BMPs) are technically feasible (i.e., are likely to be effective) and are not cost prohibitive. The major emphasis is on technical feasibility. Reducing pollutants to the*

*MEP means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, or the BMPs would not be technically feasible, or the cost would be prohibitive. In selecting BMPs to achieve the MEP standard, the following factors may be useful to consider:*

- *Effectiveness: Will the BMPs address a pollutant (or pollutant source) of concern?*
- *Regulatory Compliance: Is the BMP in compliance with stormwater regulations as well as other environmental regulations?*
- *Public Acceptance: Does the BMP have public support?*
- *Cost: Will the cost of implementing the BMP have a reasonable relationship to the pollution control benefits to be achieved?*
- *Technical Feasibility: Is the BMP technically feasible considering soils, geography, water resources?*

*The final determination regarding whether a municipality has reduced pollutants to the maximum extent practicable can only be made by the Regional or SWRCBs, and not by the Permittee. If a municipality reviews a lengthy menu of BMPs and chooses to select only a few of the least expensive, it is likely that MEP has not been met. On the other hand, if a Permittee employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit derived, it would have met the standard. Where a choice may be made between two BMPs that should provide generally comparable effectiveness, the Permittee may choose the least expensive alternative and exclude the more expensive BMP. However, it would not be acceptable either to reject all BMPs that would address a pollutant source, or to pick a BMP base solely on cost, which would be clearly less effective. In selecting BMPs the municipality shall make a serious attempt to comply and practical solutions may not be lightly rejected. In any case, the burden would be on the Permittee to show compliance with its Order. After selecting a menu of BMPs, it is the responsibility of the Permittee to ensure that all BMPs are implemented.*

The Draft Order cannot narrow the definition of MEP as suggested by the City's comments, since the Draft Order uses MEP consistent with USEPA and State Water Board regulations and guidance. The City's continued assertion that, if the Draft Order does not limit MEP or narrow the definition of MEP then the City must assume that it has to implement extreme actions at a much larger effort than as described in the Draft Order (and spend an \$85 million upfront cost), is unjustified. Stormwater permits throughout the state contain similar language, and are not interpreted consistent with the City's interpretation. The Draft Order has been written to balance the City's need for flexibility with the need for clear and specific requirements. To achieve this balance, the Draft Order frequently prescribes minimum measurable outcomes, while providing the City with flexibility in the approaches it uses to meet those outcomes. The level of specificity in the Draft Order's requirements is sufficient to prevent the potential for an overly broad interpretation of MEP as suggested by the City. The comprehensive discussions of the requirements in the Fact Sheet also serve this purpose.

The City must use its assessment to determine any other BMPs required to produce a set of BMPs that is effective and will reduce the discharge of pollutants to the MEP. Central Coast Water Board staff has identified BMPs that are necessary to attain the MEP standard, but since the City is most familiar with its municipal facilities and operations, the City must also conduct an assessment to identify applicable BMPs.

The City suggests in its comments that the MEP standard means that the City must always upgrade/retrofit to the most effective BMP available. MEP can be an iterative process but does not mean that the City must always upgrade to the most effective BMP regardless of cost. For example, cost can be a consideration in determining if the MEP standard has been met when a point of diminishing returns is reached (i.e., where increasing levels of BMP implementation cumulatively achieve less and less additional water quality benefit).

In addition to requiring the City to implement BMPs to reduce the discharge of pollutants to the MEP, the Draft Order requires that the City not cause or contribute to a violation of receiving water quality standards. To the extent that discharges are causing or contributing to a violation of receiving water quality standards, the Draft Order requires iterative implementation of BMP improvements to achieve further reductions in pollutant load until receiving water quality standards are attained. This process of implementing BMP improvements to attain receiving water quality standards is similar to the iterative process to meet MEP, but requires more aggressive and focused actions because the actions must correct the violation of receiving water quality standards. Until receiving water quality standards are attained, the City would remain in violation of the receiving water limitations. The Central Coast Water Board is less likely to pursue enforcement when the City has implemented more aggressive and focused actions to correct the violation of receiving water quality standards.

### 3) Cost

#### **a. Central Coast Water Board staff needs to conduct a cost estimate.**

The City includes multiple comments stating that Central Coast Water Board staff should conduct a cost estimate for the City's stormwater program. The City refers to the Little Hoover Commission's January 2009, 'Clearer Structure, Cleaner Water: Improving Performance and Outcomes at the State Water Boards,' in its comment. The report recommends that, "The water boards must develop standardized economic analysis procedures to help set priorities and determine the most effective and efficient means to improve water quality."<sup>1</sup> The Little Hoover Commission is providing a recommendation to the State Water Boards.

While the Central Coast Water Board is not required by federal or state regulations to prepare an analysis of costs associated with implementing the Draft Order, Central Coast Water Board staff has considered the best stormwater cost information available while drafting the Draft Order's requirements. Central Coast Water Board staff presented this cost information in the Fact Sheet to demonstrate that the requirements contained in the Draft Order are reasonable and consistent with the MEP standard in that they include consideration of the cost of implementation. General estimates of Phase I stormwater permit implementation costs have been estimated in several studies, as discussed in Key Comment and Issue 9.b, below. In addition, Central Coast Water Board staff has considered each of the City's comments identifying specific Draft Order requirements which may create an undue financial burden for the City, and has modified the Draft Order in some cases to reduce Draft Order requirements. Central Coast Water Board staff has also provided information to the City to help make the City's cost analysis more accurate.

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<sup>1</sup>*Clearer Structure, Cleaner Water: Improving Performance and Outcomes at the State Water Boards.* Little Hoover Commission, January 2009. Web. 5 December 2011. p.90  
<<http://www.lhc.ca.gov/studies/195/report195.pdf>>.

***b. Private capital improvements required by the Draft Order will cost between \$57.3 million and \$85.3 million. The costs to implement the Draft Order for the City, over the five year permit term, could exceed \$29 million.***

The City vastly overestimates the cost of implementing the requirements in the Draft Order. The City's cost estimates illustrate the vast difference between what the City interprets it is required to do and Central Coast Water Board staff's intentions in the Draft Order. The City's interpretations are not consistent with common interpretations of stormwater requirements in California. For example, in the City's \$85.3 million estimate for private capital improvement costs, \$79 million in the estimate is based on retrofits of every commercial and industrial facility and every residence in the City. Central Coast Water Board staff anticipates very few commercial and industrial sites would require any significant costs because the City currently has a commercial and industrial oversight program which it indicates is comprehensive. Central Coast Water Board staff has modified the Draft Order's requirements to better clarify that every commercial, industrial, and residential property within the City does not need to be retrofitted. Additionally, many items in the City's cost estimates for implementation of the Draft Order are items that the City is already required to do under its existing Order No. R3-2004-0135, or items that the City would do even if it did not have a stormwater permit. For example, the City both swept its streets and maintained its MS4 to prevent flooding before it had a stormwater permit.

Central Coast Water Board staff recognizes there are costs associated with compliance with the Draft Order, and that many communities and businesses are experiencing economic challenges. While the Draft Order contains new requirements consistent with the MEP standard, the majority of requirements contained in the Draft Order are also contained in existing Order No. R3-2004-0135. Central Coast Water Board staff finds that the Draft Order includes requirements that are similar to other comparable Phase I municipalities in California; therefore, the Central Coast Water Board staff anticipates that the cost of implementing the Draft Order will be similar to other comparable Phase I stormwater programs. See below for examples. Central Coast Water Board staff also received a letter from USEPA staff commenting on the Draft Order. The USEPA comment letter affirms that USEPA staff does not consider the requirements contained in the Draft Order to constitute an unfunded State mandate or to exceed the MEP standard.

*[Note: Much of the following discussion in this response also appears in Section V (Economic Issues) of the Fact Sheet for Draft Order No. R3-2012-0005.]*

Economic discussions of urban runoff management programs tend to focus on costs incurred by municipalities in developing and implementing the programs. This is appropriate, and these costs are significant and a major issue for the Permittees. When considering the cost of implementing stormwater management programs, it is also important to consider the alternative costs incurred by not fully implementing the programs, as well as the benefits which result from program implementation.

It is very difficult to ascertain the true cost of implementing stormwater management programs because of highly variable factors among different municipalities and inconsistencies in reporting by Permittees. Reported costs of compliance for the same program element can vary widely from Permittee to Permittee, often by a very wide margin

that is not easily explained.<sup>2</sup> Despite these problems, efforts have been made to identify urban runoff management program costs, which can be helpful in understanding the costs of program implementation. In 1999, USEPA reported on multiple studies it conducted to determine the cost of urban runoff management programs. A study of Phase II municipalities determined that the annual cost of the Phase II program was expected to be \$9.16 per household per year. USEPA also studied 35 Phase I municipalities, finding costs to be similar to those anticipated for Phase II municipalities, at \$9.08 per household each year.<sup>3</sup>

A study on program cost was also conducted by the Los Angeles Regional Water Quality Control Board, where program costs reported in the municipalities' annual reports were assessed. The Los Angeles Regional Water Quality Control Board estimated that average per household cost to implement the MS4 program in Los Angeles County was \$12.50 per year.

The State Water Board also commissioned a study by the California State University, Sacramento to assess costs of the Phase I MS4 program. Annual cost per household in the study ranged from \$18-46, with the City of Encinitas representing the upper end of the range.<sup>4</sup> The cost of the City of Encinitas' program for the 2002/2003 fiscal year, as discussed in the study, is a reasonable approximation of the cost of the City of Salinas' program under the Draft Order. During fiscal year 2002/2003, the City of Encinitas implemented its stormwater program in accordance with Order No. R9-2001-01. The basic requirements of Order No. R9-2001-01 and the Draft Order are similar in many ways. For example, both Orders generally address stormwater discharges from municipal, commercial, industrial, construction, and residential areas and activities by requiring inventories of sources, prioritization of inventories, identification of BMP requirements, inspection frequencies according to prioritization, and enforcement of codes and ordinances. Likewise, both Orders require development and implementation of significant programs to control stormwater discharges from new development and redevelopment, at both the planning and individual project levels. In addition, both Orders require mapping and assessment of watershed conditions, and concomitant development of a plan to address stormwater impacts on a watershed basis. Further, while the Draft Order contains more detail regarding effectiveness assessments, both Orders require the MS4s to assess the effectiveness of their BMP implementation.

While the City of Encinitas is a relatively small coastal city with a reliance on tourism, it is important to note that the study assessed program costs from fiscal year 2002/2003 when considering the relevance of the City of Encinitas' program to the City of Salinas' program. Stormwater permit requirements throughout the state have evolved significantly since that time as the significant impacts to receiving waters caused by stormwater discharges have become better understood. Moreover, the number of impairments to which the City of Encinitas contributed at that time was fewer than those currently contributed to by the City of Salinas. These factors indicate that a similar level of stormwater program implementation

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<sup>2</sup>Radulescu, Dan, and Xavier Swamikannu. *Review and Analysis of Budget Data Submitted by the Permittees for Fiscal Years 2000-2003*. Los Angeles Regional Water Quality Control Board, January 2003. Web. 24 August 2011. p.2.

<sup>3</sup>"National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges, Final Rule." *Federal Register* 64 (8 December 1999): p. 68791 – 68792. Web. 10 August 2011.

<sup>4</sup>Currier, Brian K., et al. *NPDES Storm Water Cost Survey Final Report*. Office of Water Programs, California State University, Sacramento, January 2005. p.ii.

between the City of Encinitas in 2002/2003 and the City of Salinas in 2012 is appropriate, even though the City of Salinas may lack within its jurisdiction the coastal tourism economy of the City of Encinitas. It is also worth noting that while the City of Salinas does not heavily rely on water-based tourism directly within its jurisdiction, the surrounding communities downstream of the City of Salinas' stormwater discharges substantially depend on the healthy waters of the Monterey Bay National Marine Sanctuary. Other MS4s assessed in the study, which may have similar compositions to that of the City of Salinas, include the Cities of Corona and Santa Clarita. These MS4s were found to expend \$32 and \$39 annually per household on their stormwater programs, respectively.

It is important to note that reported program costs are not all attributable to compliance with MS4 permits. Many program components, and their associated costs, existed before any MS4 permits were issued. For example, street sweeping and trash collection costs cannot be solely or even principally attributable to MS4 permit compliance, since these practices have long been implemented by municipalities. Therefore, true program cost resulting from MS4 permit requirements is some fraction of reported costs. The California State University, Sacramento study found that only 38 percent of program costs are new costs fully attributable to MS4 permits. The remainder of program costs was either pre-existing or resulted from enhancement of pre-existing programs.<sup>5</sup> The County of Orange found that even lesser amounts of program costs are solely attributable to MS4 permit compliance, reporting that the cost attributable to implementation its Drainage Area Management Plan is less than 20 percent of the total budget. The remaining 80 percent is attributable to pre-existing programs.<sup>6</sup>

It is also important to acknowledge that the vast majority of costs that will be incurred as a result of implementing the Draft Order are not new. Urban runoff management programs have been in place in the City of Salinas for over 10 years. Any increase in cost to the City of Salinas to implement the Draft Order is expected to be incremental in nature.

Urban runoff management programs cannot be considered in terms of their costs alone. The programs must also be viewed in terms of their value to the public. For example, household willingness to pay for improvements in fresh water quality to support fishing and boating has been estimated by USEPA to be \$158-210.<sup>7</sup> This estimate can be considered conservative, since it does not include important considerations such as marine waters benefits, wildlife benefits, or flood control benefits. The California State University, Sacramento study corroborates USEPA's estimates, reporting annual household willingness to pay for statewide clean water to be \$180.<sup>8</sup> When viewed in comparison to household costs of existing urban runoff management programs, these household willingness-to-pay estimates exhibit that per household costs incurred by Permittees to implement their urban runoff management programs remain reasonable. The City argues that these studies are outdated and do not reflect current economic conditions or resident views in the City. However, as noted above, these estimates are conservative, which allows for some accommodation of changes in economic conditions. Further, the City's stormwater

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<sup>5</sup> Ibid, p.58.

<sup>6</sup> County of Orange. *A NPDES Annual Progress Report*, 2000. p. 60.

<sup>7</sup> "National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges, Final Rule." *Federal Register* 64 (8 December 1999): p. 68793. Web. 10 August 2011.

<sup>8</sup> Currier, Brian K., et al. *NPDES Storm Water Cost Survey Final Report*. Office of Water Programs, California State University, Sacramento. p.iv.

discharges do not stop at the City's boundaries. The discharges end up at the Monterey Bay National Marine Sanctuary, a resource valued highly at the local, state, and national levels.

Another important way to consider urban runoff management program costs is to consider the implementation cost in terms of costs incurred by not improving the programs. Urban runoff in southern California has been found to cause illness in people swimming near storm drains.<sup>9</sup> A study of south Huntington Beach and north Newport Beach found that an illness rate of about 0.8 percent among bathers at those beaches resulted in about \$3 million each year in health-related expenses.<sup>10</sup> Extrapolation of such numbers to the beaches and other water contact recreation in Monterey Bay and the tributary creeks of the region could result in huge expenses to the public.

Finally, it is important to consider the benefits of urban runoff management programs in conjunction with their costs. A study conducted by USC/UCLA assessed the costs and benefits of implementing various approaches for achieving compliance with the MS4 permits in the Los Angeles Region. The study found that non-structural systems would cost \$2.8 billion but provide \$5.6 billion in benefit. If structural systems were determined to be needed, the study found that total costs would be \$5.7 to \$7.4 billion, while benefits could reach \$18 billion.<sup>11</sup>

Central Coast Water Board staff expects costs to be spread out over many years – probably ten years at least. As noted above from the literature, the benefits of the programs are expected to considerably exceed their costs. Such findings are corroborated by USEPA, which found that the benefits of implementation of its Phase II stormwater rule would also outweigh the costs.<sup>12</sup>

Many of the potential costs of specific components of the Draft Order are difficult to estimate because the cost of implementing current requirements is unknown and the costs of the Draft Order would represent incremental increases above current costs. However, for some entirely new requirements costs can be estimated. For example, the requirement to conduct rapid stream assessments can be estimated based on information provided by the Center for Watershed Protection to conduct an Urban Stream Assessment (USA). According to the Center:

“Several factors come into play when budgeting and scoping a USA survey, including the number of stream miles to cover, available staff, equipment needed, and the density of impacts in the stream corridor. The desktop analysis step can help estimate the total stream mileage for delineated reaches that will be surveyed, so that you can estimate staff time needed. For example, in a moderately urban subwatershed with 30 stream miles, you

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<sup>9</sup>Haile, R.W., et al. *An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay*. Santa Monica Bay Restoration Project. 1996.

<sup>10</sup>Dwight, Ryan H., et al. “Estimating the economic burden from illnesses associated with recreational coastal water pollution—a case study in Orange County, California.” *Journal of Environmental Management*. 76.2 (2005): 95-103. 24 August 2011. <<http://www.sciencedirect.com>>.

<sup>11</sup>Devinny, Joseph S., Sheldon Kamieniecki, and Michael Stenstrom. “Appendix H: Alternative Approaches to Stormwater Control.” *NPDES Storm Water Cost Survey Final Report*. University of Southern California; University of California at Los Angeles, 2004. Web. 24 August 2011.

<sup>12</sup>“National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges, Final Rule.” *Federal Register* 64 (8 December 1999): p. 68791. Web. 10 August 2011.

should expect to expend five to seven staff weeks of effort to complete all four USA steps. Assuming minimal supply needs and professional rates of \$25/hour, you should expect to spend approximately \$15,000 on a full USA survey. Note that significant cost savings can be achieved by using volunteers. Table V.1 provides a generic budget breakdown for the cost of performing the USA on a 10 square mile subwatershed.”

Central Coast Water Board staff estimates that the stream miles requiring assessment per the Draft Order is approximately 10 miles, resulting in substantially less expense to implement an assessment following the entire USA protocol.

Table 2.a.1 Generic Urban Stream Assessment Budget for Hypothetical Subwatershed

<b>Salaries</b>		
Task 1: General Prep for fieldwork Generating field maps Watershed Planner I @ \$25/hr 40 hrs		\$1,000
Task 2: Performing Urban Stream Assessment (3 staff @ 2 miles/day) Watershed Planner I @ \$25/hr 120 hrs Watershed Planner II @ \$25/hr 120 hrs Watershed Planner III @ \$25/hr 120 hrs		\$9,000
Task 3: Data processing (quality control, evaluation) Watershed Planner I @ \$25/hr 80 hrs		\$2,000
<b>Supplies and Equipment</b>		
GPS unit (@ \$150/unit) Waders (3 pairs @ \$70/pair) Digital camera (@ \$300) Street maps/orthos (\$40)		\$700
<b>Copying and Reproduction</b>		\$500
<b>Total Costs</b>		<b>\$13,200</b>
Estimate assumes 10 square mile subwatershed with 30 miles of walkable streams		

\* Table 2.a.1 reproduced from CWP USA, Table 8, p. 23.<sup>13</sup>

The potential cost of implementing the monitoring requirements contained in the Draft Order can also be estimated through comparison of monitoring requirements contained in the Draft Order with those contained in existing Order No. R3-2004-0135. A comparison of monitoring requirements between the two Orders is contained in Table 2.a.2 below.

Table 2.a.2 Comparison of Monitoring Requirements between the Draft Order and Existing Order R3-2004-0135

<b>Requirement</b>	<b>Order R3-2004-0135</b>	<b>Draft Order</b>
Urban Discharge Monitoring	• 2 events at 4 locations, as indicated	• 2 events at 4 locations • 3 events at 1 location, using an automated sampler
Receiving Water Monitoring	• 2 events at 4 locations	• 9 events at 1 location
Dry Weather Monitoring	• 1 events at 4 locations, as	N/A

<sup>13</sup>Kitchell, Anne, and Tom Schueler. *Urban Subwatershed Restoration Manual No. 10: Unified Stream Assessment: A User's Manual Version 2.0*. Ellicott City, MD: Center for Watershed Protection, February 2005. Web. 24 August 2011. p.23. <<http://www.cwp.org/>>.

	indicated	
Water Toxicity Testing	• 2 events at 4 locations	• 2 events at 1 location
Sediment Toxicity Testing	• 1 event at 4 locations	• 1 event at 1 location
Biological Assessment	• 1 event at 3 locations	• 1 event at 1 location
Physical Habitat Assessment	N/A	• 1 event at 1 location

As indicated by Table 2.a.2, monitoring requirements contained in the Draft Order are very similar to monitoring requirements contained in existing Order R3-2004-0135. Some requirements are increased and some are decreased, but most of these changes are minor. The significant increase in requirements between existing Order R3-2004-0135 and the Draft Order is the requirement to use an automated sampling device at one urban discharge monitoring location. Central Coast Water Board staff estimates that an automated sampling device can be purchased and installed for approximately \$30,000. The cost of a sampling event using the sampling device would be comparable to the cost of sampling without the device. Therefore Central Coast Water Board Staff expects the cost of monitoring requirements contained in the Draft Order to be very similar to the cost of monitoring requirements under existing Order R3-2004-0135, with this addition.

The effectiveness assessment requirements contained in the Draft Order are designed to obtain needed information about the effectiveness of the City's stormwater management actions as efficiently as possible. Detailed BMP effectiveness measures have been included on the basis of their capacity to provide quantitative information simply and inexpensively. Monitoring sites have been limited to the number needed for obtaining needed information.

The State Water Board also administers the Proposition 84 Storm Water Grant Program, through which \$82 million dollars is available state-wide to provide matching funds to local public agencies for the reduction and prevention of stormwater contamination of rivers, lakes and streams, with a focus on LID practices and TMDL compliance. The City can learn more about this program through the following link:

[http://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/prop84/index.shtml](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/prop84/index.shtml)

**4) *The Draft Order creates an un-level playing field for the City compared to other neighboring small Phase II municipalities. The City and neighboring small Phase II municipalities should have the same requirements.***

The Draft Order includes modifications to the City's existing Order No. R3-2004-0135 to bring the City to the same level as other Phase I municipalities throughout California and to ensure the program meets the current MEP standard and is protective of water quality. The City's existing Order No. R3-2004-0135 expired in 2010, and is overdue for renewal. The Statewide Phase II Permit for small MS4s and the Salinas Phase I Permit are different permits, based on different federal regulations (e.g., Phase I federal regulations include commercial and industrial program components, whereas Phase II federal regulations do not include commercial and industrial program components), for different sized municipalities. Therefore, the Statewide Phase II Permit and the Salinas Phase I Permit will include different requirements. The City is the largest municipality and only Phase I municipality in the Central Coast Region. The City has been enrolled under a municipal stormwater permit since 1999, which is longer than all the other Central Coast

municipalities, and therefore has a more developed stormwater program. The Draft Order requirements reflect the City's status as the largest Central Coast municipality with the longest running stormwater program, as well as the different federal regulations that apply to the City.

Central Coast Water Board staff does not anticipate the Draft Order will put the City at an unfair disadvantage compared to other nearby municipalities. While there are differences between the requirements in the Draft Order and the requirements for Phase II municipalities in the Central Coast Region, many similarities also exist. For example, most of the Draft Order requirements that apply to new development and redevelopment will be very similar to requirements for Phase II municipalities. The City is participating in the Central Coast Water Board Joint Effort for Hydromodification Control to develop requirements to control stormwater runoff from new development and redevelopment. This regional effort will be applied consistently to all municipalities on the Central Coast. Therefore, Central Coast Water Board staff does not anticipate the Draft Order requirements will deter development from Salinas.

- 5) *The City and the public have not had adequate time to review the lengthy and detailed Draft Order. The City and Central Coast Water Board staff have different interpretations of the Provisions in the Draft Order. The Draft Order should not be presented to the Central Coast Water Board for approval until the City fully understands the Draft Order. Additional discussions should occur, to assist the City and the public in understanding the Draft Order, before the Central Coast Water Board adopts the Draft Order.***

Central Coast Water Board staff has repeatedly responded to the City's request for additional time, has provided the City with extensive opportunity to provide input on the Draft Order, and has provided the City with detailed explanations of the Draft Order. Central Coast Water Board staff conducted an extensive public process to work with the City and other stakeholders while developing the Draft Order.

Prior to drafting the Draft Order, Central Coast Water Board staff initiated a meeting and series of conference calls with the City to discuss staff's strategies for drafting and modifying the Draft Order and to provide the City the opportunity for input on those plans. At the time of the meeting and conference calls, the City provided little input. Following the meeting and conference calls, the City had well over a year to provide input on the drafting of the Draft Order but used the opportunity on a very limited basis.

On August 29, 2011, Central Coast Water Board staff provided the City with a copy of the Draft Order and met with the City to provide an overview of the Draft Order.

The Draft Order was available for public review and comment for 62 days, from September 2, 2011 through November 3, 2011.

During September and October 2011, Central Coast Water Board staff offered to hold weekly conference calls with the City to allow further opportunity for questions from the City and discussion of the Draft Order. In September, the City requested one call. At the initiation and request of Central Coast Water Board staff, four additional conference calls were held with the City, in the latter part of October, to discuss the City's misinterpretation of the Draft Order requirements. Central Coast Water Board staff answered questions and provided information on the intention of Draft Order language. The September call was the

only weekly call initiated by the City; all other calls were initiated by Central Coast Water Board staff.

During September and October 2011, Central Coast Water Board staff held three public workshops in the City for the purpose of explaining the Draft Order and answering questions from City staff and other stakeholders. Central Coast Water Board staff originally planned to hold two public workshops during the public comment period. In response to requests from interested parties for an additional evening workshop, Central Coast Water Board staff held a third workshop.

On October 3, 2011, a local Salinas newspaper contacted Central Coast Water Board staff and provided them with a copy of a press release issued by the City regarding the Draft Order. On October 4, 2011, the City submitted a white paper on the Draft Order to Central Coast Water Board staff. The white paper and press release included numerous erroneous statements about the Draft Order. The white paper also included a vast overestimate of the cost of implementing the requirements in the Draft Order. Prior to issuing the press release and submitting the white paper, the City had only participated in one of the weekly conference call opportunities offered by Central Coast Water Board staff. As a result of the press release, several local Salinas media outlets ran stories containing misleading and false statements about the Draft Order.

On November 3, 2011, the City and other interested parties submitted comments on the Draft Order. Central Coast Water Board staff reviewed all the submitted comments and incorporated changes into the Draft Order where appropriate. For the City's comments indicating instances where the City perceives Draft Order language to be unclear, Central Coast Water Board staff has reviewed these comments and has made changes to the Draft Order, where warranted, to clarify Draft Order requirements and intent. Central Coast Water Board staff also provided detailed responses to the City's and other interested parties' comments and questions in the response to comments documents. The submitted comments and Central Coast Water Board staff responses to comments can be found in Staff Report Section IX.2 (Attachments – Comments and Responses).

Central Coast Water Board staff offered to hold further discussions with the City to explain the revisions made to the Draft Order in response to comments. The City accepted this offer. The City and Central Coast Water Board staff had a conference call on December 20, 2011.

On January 10, 2012, Central Coast Water Board staff made public this Staff Report, including the revised Draft Order, comments submitted, responses and justification for revisions to the Draft Order.

Central Coast Water Board staff originally planned to recommend that the Central Coast Water Board adopt the revised Draft Order at the December 2011 Board Hearing. At the request of the City, Central Coast Water Board staff postponed the Board Hearing to February 2012 to allow the City more time to comment on the Draft Order. Also, at the request of the City, the Central Coast Water Board changed the meeting location so that the hearing will be in the City's council chambers in Salinas. Central Coast Water Board staff twice extended the City's time to review and submit comments on the Draft Order.

Therefore, Central Coast Water Board staff finds the City will have had sufficient opportunity to discuss and prepare comments on the Draft Order prior to the permit consideration date.

Much of the language contained in the Draft Order is similar in nature to language in the City's existing Order No. R3-2004-0135, or to language contained in other Phase I stormwater Permits in California. Therefore, Central Coast Water Board staff finds that most of the language in the Draft Order is not new, unclear, or ambiguous.

The Draft Order is two years overdue for renewal.

Central Coast Water Board staff does not plan to recommend that the Central Coast Water Board continue to postpone hearing the Draft Order at a later date.

**6) *The Draft Order is too prescriptive for Provisions where the Draft Order provides clear and specific requirements. The Draft Order does not provide enough information for the City to know how to comply and should include more details where the Draft Order is not specific.***

The Draft Order has been written to balance the City's need for flexibility with the need for clear and specific requirements. To achieve this balance, the Draft Order frequently prescribes minimum measurable outcomes, while providing the City with flexibility in the approaches it uses to meet those outcomes. Measurable outcomes included in the Draft Order are related to implementation, behavioral change, pollutant load reduction, and water quality improvements. Such clear, specific requirements are necessary so all parties understand what must be implemented. This need for clarity is demonstrated by the City's many comments requesting guidance or examples on how to comply with Draft Order requirements. Overly flexible Order language, without clear minimum measurable outcomes, can result in disagreement over the meaning of Order requirements and result in implementation of inadequate programs. In addition, for Order language to be effective, it generally must be enforceable. Order requirements that allow for too much flexibility are often difficult to enforce, which can lead to poor program implementation, due to decreased risk of enforcement.

The specific requirements of the Draft Order have been tailored to address the watershed processes and runoff conditions, which are impacted by stormwater management and are necessary to protect water quality and beneficial uses, in the City's jurisdiction. This specificity is meant to shift the focus of the City's efforts from simple program implementation to actions that achieve water quality results. After over 12 years of City program implementation, it is critical that the City's actions are better linked to positive impacts on water quality. Specific Order requirements are appropriate when they target the City's watershed processes and runoff conditions, which are impacted by stormwater management and are necessary to protect water quality and beneficial uses, to increase tangible program results.

Where the Draft Order includes detailed requirements, it does so to be in compliance with CWA section 402(p)(3)(B)(iii), which mandates that MS4 permits "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." Clearly, the CWA provides the Central Coast Water Board with the discretion to include specific requirements in the Draft Order. Further, the inclusion of detailed requirements in the Draft Order is consistent with USEPA guidance. For example, the preamble to the Phase I NPDES storm water regulations states that "this rule sets out permit application requirements that are sufficiently flexible to allow the development of site-

specific permit conditions.”<sup>14</sup> In addition, in its review of a City of Irving Texas NPDES municipal storm water permit, the USEPA Environmental Appeals Board stated that Congress “created the ‘maximum extent practicable’ (‘MEP’) standard and the requirement to ‘effectively prohibit non-storm water discharges’ into the MS4 in an effort to allow permit writers the flexibility necessary to tailor permits to the site-specific nature of MS4 discharges.”<sup>15</sup>

The level of specificity is similar to other Phase I permits in California and in SWMP BMPs for other municipalities in the Central Coast Region.

**7) Requirements in the Draft Order constitute an unfunded mandate.**

The requirements of the Draft Order are not unfunded state mandates because they do not exceed federal law. The requirements are necessary to meet the federal Clean Water Act section 402(p)(B)(3)(iii) requirement that “Permits for discharges from municipal storm sewers [...] shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.” The federal Clean Water Act and NPDES stormwater regulations provide the Central Coast Water Board with adequate authority for all of the requirements found in the Draft Order.

Permit writers have discretion to determine what pollution controls are appropriate, and therefore can include more detailed requirements than those specifically found in the federal NPDES stormwater regulations. By including such requirements in the Draft Order, Central Coast Water Board staff has not exceeded federal law, but instead has complied with the Clean Water Act. Central Coast Water Board staff’s use of permit writer discretion and the inclusion of more detailed requirements in the Draft Order is consistent with USEPA guidance. For example, the preamble to the Phase I NPDES stormwater regulations states “this rule sets out permit application requirements that are sufficiently flexible to allow the development of site-specific permit conditions.”<sup>1</sup> In addition, in its review of a City of Irving Texas NPDES municipal storm water permit, the USEPA Environmental Appeals Board stated that Congress “created the ‘maximum extent practicable’ (‘MEP’) standard and the requirement to ‘effectively prohibit non-storm water discharges’ into the MS4 in an effort to allow permit writers the flexibility necessary to tailor permits to the site-specific nature of MS4 discharges.”<sup>16</sup> The Draft Order, to be issued to implement a federal program, does not become an unfunded state mandate simply because Central Coast Water Board staff appropriately exercised its discretion in defining the particulars. Implementation of a federal program according to federal law and guidance does not constitute an unfunded state mandate.

USEPA agrees that the Draft Order does not constitute an unfunded state mandate. In its November 3, 2011 letter commenting on the Draft Order, USEPA states: “Because the draft permit incorporates federal stormwater requirements that are consistent with the MEP standard and federal regulations, EPA supports the conclusion of Finding 16 for the draft

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<sup>14</sup>55 Fed. Reg. 48038.

<sup>15</sup> Environmental Appeals Board, USEPA. *NPDES Appeal No. 00-18; Order Denying Review*. 16 July 2001.

<sup>16</sup>Environmental Appeals Board, USEPA. *NPDES Appeal No. 00-18; Order Denying Review*. 16 July 2001.

MS4 permit for Salinas which concludes that the draft permit does not constitute an unfunded local government mandate.”

The Commission on State Mandates decision referred to by the City in their comments is outdated. The Commission on State Mandates’ approach for identifying unfunded mandates in municipal stormwater permits was recently overturned by the Superior Court of California, County of Los Angeles (State of California Department of Finance, et al vs. County of Los Angeles, et al), which stated: “Under the Commission’s approach, a permit requirement that is merely practicable or easy (not even practicable to the maximum extent) would be a state mandate if the U.S. EPA failed to express the requirement as a regulation. Such an approach is clearly erroneous.” As such, the Court found that the Los Angeles Water Board’s use of permit requirements more specific than the federal regulations was appropriate and not an unfunded state mandate.

The fact that the Draft Order contains more requirements than the previous permit does not mean the Draft Order constitutes an unfunded state mandate. In its recent decision, the Superior Court of California, County of Los Angeles (State of California Department of Finance, et al vs. County of Los Angeles, et al) found: “The U.S.EPA ‘anticipates that stormwater management programs will evolve and mature over time.’<sup>17</sup> Thus, the permits for discharges from municipal separate storm sewer systems will be written to reflect changing conditions that result from program development and implementation and corresponding improvements in water quality. Id. Given that the federal regulatory scheme anticipates changing permit requirements, that these requirements have not yet been articulated does not mean that the requirement exceeds the ‘maximum extent practicable’ standard.”

**8) *The Draft Order requires too many things, too soon.***

Attachment K in the Draft Order outlines implementation milestones and deadlines for the requirements in the Draft Order. Many of the tasks scheduled to commence in Year 1 are requirements the City is already required to do under its existing Order No. R3-2004-0135; therefore, the City should already be doing a lot of the items required in Year 1. The Staff Report for the adoption of the Draft Order for the February 2, 2012 Central Coast Water Board Meeting includes a description of substantive changes or modifications in the Draft Order compared to the existing Order No. R3-2004-0135, including requirements that have been reduced or eliminated.

The City provided multiple comments related to the short-term deadlines (3 months after adoption of the Draft Order) in Provisions J (Parcel-Scale Development) and L (Development Planning) that focus on the City updating a few of its requirements for new development and redevelopment. Central Coast Water Board staff is aware of significant land areas zoned in the City of Salinas for future development. To ensure these future developments maintain and restore watershed processes impacted by stormwater management to protect water quality and beneficial uses, Central Coast Water Board staff finds the conditions outlined in Provisions J and L must be implemented as soon as possible. Central Coast Water Board staff contacted the City and asked for more details about why the City needs more than 3 months after adoption of the Draft Order for achieving the short-term deadlines in Provisions J and L. Based on the City’s justifications, Central Coast Water Board staff modified the deadlines in Provision J that require updates to the

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<sup>17</sup>55 Fed. Reg. 48052

City's Stormwater Development Standards (SWDS), consistent with the City's proposed modifications for these deadlines, to provide more time for these updates.

Central Coast Water Board staff extended some deadlines in response to City comments. Some of these extensions are listed below. For a complete list of changes made to the Draft Order to extend deadlines, see Attachment 3 of the Staff Report (Changes to Draft Order No. R3-2012-0005 in Response to Comments).

- Extended deadlines for developing inventories, designating minimum BMPs, developing inspection procedures, and beginning inspection related to the municipal, commercial/industrial, and construction program areas;
- Extended the deadline for annual assessment of all Municipal Facilities, Maintenance Operations, and Events;
- Extended the deadline for developing and implementing SWPPPs;
- Extended the deadline for modifying the catch basin inspection and cleaning schedule and the street sweeping schedule;
- Extended the deadline for developing and implementing BMPs to reduce dirt tracking;
- Extended several deadlines related to the residential program area;
- Extended several deadlines related to the illicit discharge detection and elimination program;
- Extended the deadline for prohibiting excessive application of potable and recycled water;
- Extended the deadline to require and review source control and erosion and sediment control plans;
- Extended several deadlines related to the public education and involvement program area; and
- Extended effectiveness assessment deadlines to reflect the above changes.

**9) *The new development and redevelopment standards are unreasonable. 1) The Draft Order requirements will deter redevelopment and infill in the City. 2) The Draft Order's requirements for protection, maintenance, and restoration of watershed processes refer to an unreasonable baseline of natural conditions. 3) The Draft Order includes requirements for achieving the treatment and flow control requirements that are too prescriptive.***

**a. *Redevelopment/infill –***

Central Coast Water Board staff acknowledges multiple environmental benefits of infill and redevelopment as compared to greenfield development. Central Coast Water Board staff recognizes the direct nexus to water quality and watershed health from doing such things as focusing development in the urban core, which typically requires less supporting infrastructure (e.g., roads), and redeveloping areas that are already disturbed, instead of creating new impacts and expanding the urban footprint. Central Coast Water Board staff finds the Draft Order does not deter infill and redevelopment projects for the following reasons: 1) The Draft Order is consistent with existing new development and redevelopment requirements in other current Phase I municipal stormwater permits in California, which have not been identified as deterring infill and redevelopment; 2) The long-term development requirements that the City develops through the Central Coast Water Board Joint Effort for Hydromodification Control will treat infill and redevelopment separate from greenfield development, because these requirements will be based on local landscape characteristics and existing levels of disturbance; and 3) The Draft Order includes alternative compliance

options for smart growth, infill, and redevelopment locations where it can be demonstrated that onsite compliance with the requirements is infeasible.

The Smart Growth Association, American Rivers, Center for Neighborhood Technology, River Network, and the National Resources Defense Council, asked ECONorthwest to investigate if stormwater regulations that require or encourage LID, applied uniformly to greenfield development and redevelopment, would impact developers' decisions about where and how to build. The study, based on case studies of multiple municipalities, indicated that implementing LID in redevelopment situations tended to be more challenging than on greenfield developments, because LID techniques are usually more site-specific and custom. However, developers were not choosing to invest in greenfield developments over redevelopment because of LID standards. The study indicated that developers' decision-making process for projects incorporates a wide range of economic factors, including various construction costs, current and future market conditions, regulatory incentives and disincentives, and uncertainty and risk. Many developers interviewed for the study described the cost of implementing stormwater controls as minor compared to other economic factors they considered in deciding whether or not to pursue a project, especially in the context of complex redevelopment projects and green building infill projects. The study points out that the demand for green buildings and sustainable stormwater practices has been increasing in response to the rapid growth in the global green building industry, which will likely play an important role in developers' decisions for how and where to build.<sup>18</sup>

**b. Baseline Condition for Watershed Processes –**

Central Coast Water Board staff recognizes that Salinas' watersheds have been altered and this is the existing condition in much of the Permit coverage area. However, just because a previous land use had a negative impact on watershed health, does not alleviate the City or a new developer from achieving desirable conditions on site and mitigating for the impacts posed by the new land use.

The drainage systems in the urbanized portions of Salinas' watersheds have been significantly altered with the creation of the MS4. Floodplains have been filled in and developed and cultivated. In some situations surface waters have been channelized and lined with impervious surfaces. Urbanization and agriculture have altered the watershed processes in Salinas' watersheds. The Draft Order accounts for the degradation that has occurred in Salinas' watersheds. The goal of the Draft Order is to protect, restore, and maintain the dominant watershed processes that are impacted by stormwater management in order to protect water quality and beneficial uses to the extent practicable given the level of disturbance and land uses that exist. The Central Coast Water Board Joint Effort for Hydromodification Control will direct this effort for actions related to new development and redevelopment. Provision J includes a footnote stating that the Central Coast Water Board Joint Effort for Hydromodification Control will identify the point in hydrologic history (i.e., pre-development, pre-project, or somewhere in between) for which the project applicant shall design its site. The Central Coast Water Board Joint Effort for Hydromodification Control will select numeric criteria that are based on targets attainable in the landscape.

The City has stated that the inclusion of the word 'natural' in the Draft Order in reference to requirements to protect, maintain, or restore hydrologic and watershed processes creates

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<sup>18</sup>ECONorthwest. *Managing Stormwater in Redevelopment and Greenfield Development Projects Using Green Infrastructure: Economic Factors that Influence Developers' Decisions*, June 2011.

uncertainty for compliance determination. Central Coast Water Board staff intended the word, 'natural', in the Draft Order to be defined by the common definition as the condition (of a landscape or landscape characteristics) that would exist in the absence of human disturbance. Natural is used in a few different contexts in the Draft Order, but it is never used as a compliance objective or standard in the regulatory sense.

An advantage of building in future growth areas that are on large pieces of not yet urbanized land, is that developers have land mass to work with for managing stormwater. These areas are typically not as constrained as infill and redevelopment projects. Central Coast Water Board staff recognizes that the majority of future development in the in the City and the Future Growth Area will occur on lands currently under agricultural uses. Central Coast Water Board staff recognizes that agriculture in Salinas' watersheds poses threats to water quality. The runoff characteristics of agricultural land differ greatly from the runoff characteristics of urban lands. This is particularly true in the case of smaller storms with more frequent return periods, which are the primary concern of parcel-scale development requirements in the Draft Order. In addition, pollutants generated by urban development are the same whether the pre-urban condition was forest, grassland, or agriculture. Development on areas previously used for agriculture provides an opportunity to restore some of the impacts conducted by previous land users. Just because a previous land use had a negative impact on watershed health, does not alleviate a new developer from achieving desirable conditions on site and mitigating for the impacts posed by the new land use.

***c. The BMP options permitted for meeting the new development and redevelopment requirements are too limiting and end-of-pipe BMP solutions should be permitted—***

For the purposes of the Draft Order, end of pipe systems are facilities located at the 'downstream' perimeter of a project providing flow control and/or runoff treatment prior to the runoff discharging to the MS4. End of pipe BMPs can also refer to offsite systems that detain, retain, and/or treat stormwater before the stormwater enters receiving waters.

The Draft Order requires the City to require Priority Development projects to use uniformly decentralized controls, natural treatment, and volume reduction BMPs as the first means of compliance for meeting the numeric flow control and treatment requirements. The City may allow project applicants to use centralized, mechanical, and/or synthetic flow control and treatment BMPs, when the applicant cannot meet flow control and treatment requirements using uniformly distributed decentralized controls, natural treatment, and volume reduction BMPs, because of site constraints or challenges removing certain pollutant types. The intent of requiring projects to use decentralized LID-type controls is to mimic watershed processes. Typically, a vegetated landscape, prior to development, acts as a sponge and retains small storm events in the soil strata and retains rainwater through vegetation and cavities in the landscape. Once the ground becomes saturated, runoff is generated and moves offsite and is captured along the way or eventually flows to surface waters. One objective of a LID approach is to mimic this process to recharge groundwater in a distributed fashion to contribute to shallow groundwater and deep aquifers. Shallow groundwater hydrologically connected to surface waters provides baseflow to streams and helps sustain riparian areas. Centralized basins that collect and retain or detain stormwater from surrounding impervious landscapes provide runoff peak control for larger flows, but do not mimic a landscape's response to smaller storms. The Draft Order does not prevent the use of offsite basins; however, the Draft Order does not allow centralized, offsite detention or retention basins as the first means of compliance for meeting the treatment and flow control criteria. The Draft Order prioritizes the use of decentralized LID controls to manage

stormwater on new development and redevelopment sites, because this type of approach is more representative of natural conditions and therefore more protective of beneficial uses.

The Central Coast Water Board Joint Effort for Hydromodification Control will inform the City's future flow control requirements. The Central Coast Water Board Joint Effort for Hydromodification Control will identify how, and to what extent, stormwater should be managed to protect, maintain, and restore dominant watershed processes impacted by changes in stormwater flows resulting from development, as necessary to protect water quality and beneficial uses.

In response to the City's comments about the BMP options being too limiting for the requirements in Provision J (Parcel-Scale Development), Central Coast Water Board staff modified the Draft Order to expand the options available for achieving the requirements for smaller projects, Non-Priority Development Projects, and for achieving the treatment requirements at larger projects, Priority Development Projects.

**10) *The MS4 should be defined more clearly and more narrowly. Receiving waters, including the Reclamation Ditch, should not be designated as part of the MS4. The City should not be responsible for discharges which enter receiving waters from lands outside the City's jurisdiction. Language in the Discharge Prohibitions, Effluent Limitations, and Receiving Water Limitations makes the City vulnerable to enforcement for discharges it cannot control.***

The Reclamation Ditch is not part of the City's MS4, because it is owned and operated by the Monterey County Water Resources Agency. Central Coast Water Board staff has revised the Draft Order to remove language identifying the Reclamation Ditch as part of the City's MS4 and to clarify that the City is only responsible for discharges into the Reclamation Ditch from the City's MS4.

The definition of MS4 contained in federal regulations includes manmade channels which convey stormwater. Gabilan, Natividad, and Santa Rita Creeks have all been modified by human activity for the purpose of conveying stormwater. Therefore, where these creeks are within the Permit coverage area and are operated by the City for conveying stormwater runoff from lands within the Permit coverage area, the creeks are part of the City's MS4.

Central Coast Water Board staff recognizes that the City is not the only source of pollutants to receiving waters. The Draft Order does not hold the City responsible for discharges comprised entirely of return flows or stormwater from agricultural lands and discharges which enter the creeks upstream of the Permit coverage area. Central Coast Water Board staff has added language to the Draft Order clarifying that Discharge Prohibitions, Effluent Limitations, and Receiving Water Limitations do not apply to discharges into and from portions of the MS4 that are also receiving waters when the discharges originate outside the Permit coverage area. The City is responsible for discharges to its MS4 from lands within the Permit coverage area, with the exception of discharges comprised entirely of agricultural return flows and stormwater. The City has jurisdiction over such lands and has authority to adopt ordinances, establish permit conditions, and designate required BMPs for lands within its jurisdiction, whether these lands are used for commercial, industrial, or residential purposes. The Draft Order does not hold the City responsible for improving receiving water quality problems which its discharges do not cause or to which its discharges do not contribute.

The City owns and operates the discharge pipeline from its stormwater pump station to the Salinas River. Therefore, this pipeline is part of the City's MS4, and the City is responsible for the water quality of discharges from the pipeline to the Salinas River, even if pollutants enter the pipeline through subsurface seepage from lands outside the City's jurisdiction (such seepage is not comprised entirely of agricultural return flows or stormwater). The City cannot passively receive pollutants into its MS4 from third parties. While the City may not have authority to control groundwater levels or agricultural irrigation and pollutants outside its jurisdiction, the City does have authority and capability to control discharges from its pipeline. For instance, the City could repair or replace the discharge pipeline to protect it from groundwater intrusion or implement end-of-pipe treatment methods.

The Draft Order includes receiving water limitations and discharge prohibitions which prohibit discharges that cause or contribute to pollution in receiving waters, or which cause or contribute to a violation of water quality standards. This language is in accordance with State Board WQ Order WQ 99-05, which specifies the receiving water limitations language the Water Boards must use in municipal stormwater permits. It is important to note that this language is also found in the City's existing Order No. 2004-0135. Receiving water limitations are designed to protect water quality and beneficial uses of receiving waters. Requiring compliance with receiving water limitations is consistent with the Clean Water Act's objective to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. At the same time, water quality standards apply to receiving waters, not to stormwater discharges. Therefore a stormwater discharge containing a pollutant in a concentration exceeding the concentration associated with the water quality standards for that pollutant is not presumed to constitute an exceedance of the water quality standards for that pollutant. The question of whether the City's stormwater discharges cause or contribute to an exceedance of a water quality standards must be resolved on a case-by-case basis through analysis of relevant stormwater discharge and receiving water quality data.

The City has stated it cannot comply with receiving water quality standards and will automatically be out of compliance with the Draft Order. Since many water bodies receive stormwater discharges and are not impaired, the City's claim that it cannot attain receiving water quality standards for stormwater discharges is presumptuous. Further, even in situations where municipal stormwater has been documented as causing or contributing to violations of water quality standards, modeling has shown that strategic implementation of BMPs can be reasonably expected to result in compliance with water quality standards. An example can be found in the Los Angeles area municipalities' efforts to comply with the TMDL for Bacterial Indicator Densities in Ballona Creek, Ballona Estuary, and Sepulveda Channel.<sup>19</sup>

Additionally, the City will be in violation of the receiving water limitations and discharge prohibitions if its discharges continue to cause or contribute to a violation of receiving water quality standards. These receiving water limitations are the same in the City's existing Order No. R3-2004-0135. Therefore, if the Draft Order will place the City immediately in violation of receiving water limitations, then it is likely that the City is currently in violation.

See additional response to Key Issue and Comment 2 above.

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<sup>19</sup> City of Beverly Hills, et al. Total Maximum Daily Load for Bacterial Indicator Densities in Ballona Creek, Ballona Estuary, and Sepulveda Channel Implementation Plan – Draft. 30 November 2009. Web. 23 November 2011  
<<http://www.ci.la.ca.us/san/wpd/siteorg/program/TMDLs/BCBacterialImpPlanSections.pdf>>.

**11) *The City does not have authority to regulate agricultural practices within the City. The Central Coast Water Board is responsible for regulating agricultural discharges through the Agricultural Waiver.***

The Central Coast Water Board regulates discharges from agricultural lands through the existing Agricultural Order No. R3-2004-0117. The existing Agricultural Order No. R3-2004-0117 is a conditional waiver of waste discharge requirements from irrigated lands used for commercial crop production. The Central Coast Water Board implements and enforces the existing Agricultural Order by requiring enrolled agricultural operations to conduct monitoring and implement practices to treat or control discharges of waste to waters of the State (including sediment). The existing Agricultural Order does not limit the City's authority to adopt ordinances, establish permit conditions, and designate required BMPs for lands within its jurisdiction.

However, discharges from agricultural lands that are comprised solely of return flows and/or stormwater are exempt from NPDES permitting. As such, the City is not responsible for these discharges that enter its MS4. The City is responsible for other agricultural-related discharges into its MS4. While the City is responsible for agricultural-related discharges other than agricultural discharges comprised entirely of return flows or stormwater, that does not necessarily mean the City must regulate agricultural practices directly. The City has the option to address such discharges on its own if it so chooses, by implementing measures such as BMPs that will treat the discharges and remove pollutants. Also, as owner and operator of its MS4, the City has authority to restrict discharges into its MS4.

In addition, the City of Salinas should be able to regulate the tracking of dirt and debris onto public streets, regardless of the source. The existing Agricultural Order does not limit the City's authority to do so. The existing Agricultural Order does not directly regulate agricultural dirt and debris that is tracked onto City streets or roads.

**12) *The Draft Order is too long and contains too many requirements for the City to be realistically able to train its staff in relevant duties. Since Central Coast Water Board staff wrote the Draft Order, only Central Coast Water Board staff is capable of providing such training, and Central Coast Water Board staff should do so at Central Coast Water Board expense, or training requirements should be deleted from the Draft Order.***

The Draft Order requires the City to train municipal staff as required to implement requirements of the Draft Order related to their job functions. Municipal staff need only be trained on items that relate to their job duties, not on the entire Draft Order. The Draft Order requires the City to train municipal staff so they know and understand the requirements of the Draft Order and how to effectively contribute to stormwater management efforts. In addition, the Draft Order requires the City to perform follow-up evaluations to determine the effectiveness of training at raising municipal staff's awareness of stormwater quality issues and at changing staff's behavior. The evaluations must identify gaps in knowledge and understanding so the training programs can be adjusted. These requirements are consistent with municipal stormwater program effectiveness assessment guidance.<sup>20</sup>

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<sup>20</sup> CASQA. *Municipal Stormwater Program Effectiveness Assessment Guidance*, May 2007. Web. 17 August 2011 <[www.casqa.org](http://www.casqa.org)>.

Training requirements in the Draft Order are also consistent with training requirements under existing Order No. R3-2004-0135. The City's existing SWMP contains measurable goals to provide annual training for all relevant municipal staff, covering how each employee's respective duties relate to larger City water quality management goals and to specific BMPs related to each employee's particular job duties. The SWMP also includes measurable goals for evaluating the effectiveness of training efforts.

The City cannot implement the requirements of the Draft Order without training its staff in what they need to do for successful implementation of the Draft Order. USEPA recognizes that a key element in the successful implementation of a stormwater management program is the training of the municipality's staff.<sup>21</sup> A compliance audit conducted in July 2003 of the City's implementation of Order No 99-087 found that the City needed a more formal structure for managing, coordinating, and providing training for municipal staff involved in the stormwater management program. A subsequent compliance audit conducted in March 2011 of the City's implementation of existing Order No. R3-2004-0135 found that the City had still not adequately addressed these issues. The March 2011 audit found City staff that did not know the requirements of the existing Order No. R3-2004-0135 that pertained to their job duties, and that some requirements of the existing Order No. R3-2004-0135 were not being implemented as a result.

Federal regulation 40 CFR 122.34(b)(6) specifically requires that the stormwater permittees develop a "training component" that trains employees "to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance."

The Draft Order requires general stormwater pollution awareness training for all existing and new employees, as well as training for employees, contract employees, and contractors with job duties affected by requirements in the Draft Order. The training is to be tailored to implementation of Draft Order requirements related to municipal staff job functions. The City is responsible for identifying which staff must attend trainings based on their job duties. The Draft Order provides flexibility for the City to conduct the training or to contract with another entity to provide training that meets the requirements of the Draft Order.

The City can find examples of training programs in annual reports submitted by other Phase I and Phase II municipalities throughout California. These annual reports are typically publicly available online. For example, the Monterey Regional Stormwater Program annual reports include a spreadsheet summarizing all stormwater program training. The spreadsheet contains the list of staff members whose job duties are related to each training component and the date of the training. The most effective trainings are those that include classroom presentations, in-field training, and follow-up evaluations to determine whether the training was effective.

Funding and implementation of the City's stormwater management program is the responsibility of the City, not the Central Coast Water Board. The City may contact other municipalities to learn how much they spend on training, or review their annual reports.

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<sup>21</sup> USEPA. *MS4 Permit Improvement Guide*. EPA 833-R-10-001, 14 April 2010. Web. 16 August 2011.

**13) Requirements contained in the Draft Order to develop and maintain a comprehensive information management system are unclear and burdensome. The Central Coast Water Board should provide a model for the City to follow, or provide funding for the City to develop a model.**

The Draft Order requires the City to develop and maintain an information management system to monitor implementation of the Draft Order and track other information required by the Draft Order, and to document the City's compliance with its Order requirements. In addition, the tracking system will allow the City to monitor the compliance status of those entities within its jurisdiction, such as construction sites and industrial facilities, and to ensure compliance of municipally-owned and operated facilities. The Draft Order does not require development of a single master system; it can consist of the City's existing data tracking systems and other methods for storing data. The Draft Order provides flexibility on how the City manages/develops its information management needs. Central Coast Water Board staff explained to City staff during the Draft Order explanation meeting on August 29, 2010, that the information management system need not be an expensive proprietary system and can be accomplished using software the City already owns or other standard desktop spreadsheet or database software. The majority of the requirements for information management can be accomplished using a spreadsheet.

Tracking information is a standard component of all stormwater management programs. USEPA recognizes that an important part of any municipal stormwater program is documenting and tracking information on activities a Permittee undertakes to comply with permit requirements. USEPA provided comments on the Draft Order which includes the statement that information management is clearly a necessary component of any effective stormwater management program and USEPA believes the permit requirements are consistent with the recommendations of the USEPA MS4 Permit Improvement Guide<sup>22</sup> and would also be necessary to satisfy the reporting requirements of NPDES regulations at 40 CFR Section 122.42(c).

Information tracking should be integrated into each of the minimum measures. Therefore the Draft Order provides detail throughout on the specific information required to be included in the information management system. The Draft Order also specifies deadlines for completion of information management tasks in each Section of the Draft Order that contains information management requirements. Information tracking should also be coordinated with the monitoring and evaluation programs developed by the City to facilitate program effectiveness assessment. Ideally, a monitoring and evaluation program will link the "actions" (e.g., the inspections, maintenance, education, other activities the City implements) with the "results" (e.g., water quality monitoring data, BMP rapid assessment results, improvements in environmental indicators, pollutant load reductions) of the effectiveness assessment and monitoring programs.

Information tracking is also necessary to generate and provide reports of program progress to the Central Coast Water Board. Adequate information tracking is necessary for development of Annual Reports capable of demonstrating compliance with requirements and tangible results of stormwater management efforts. Information tracking should also be structured in a way that the information management system can be populated by multiple departments implementing various stormwater program components, and then analyzed and synthesized by a single person or department for the purpose of providing summaries of overall compliance and effectiveness.

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<sup>22</sup>USEPA. *MS4 Permit Improvement Guide*. EPA 833-R-10-001, 14 April 2010. Web. 16 August 2011.

**14) *The Central Coast Water Board Executive Officer does not have the authority to approve modifications to the Draft Order.***

In *Russian River Watershed Protection Committee v. City of Santa Rosa* (9<sup>th</sup> Cir. 1998), the Ninth Circuit Court found that establishing a method of compliance with an NPDES permit does not constitute modification of the permit under federal law.

According to the Ninth Circuit Court's decision, the Central Coast Water Board has authority under federal law to establish methods of compliance with the Draft Order without having to re-open the Draft Order. The Ninth Circuit Court also found that Regional Water Boards may delegate this authority to their Executive Officers under Section 13223 of the California Water Code.

Some provisions in the Draft Order require Central Coast Water Board Executive Officer approval for some actions. The actions for which Central Coast Water Board Executive Officer approval is required involve methods of compliance rather than modifications to the Draft Order. Some provisions in the Draft Order require the City to prepare compliance plans, reports, or other documents and submit them for approval by the Central Coast Water Board Executive Officer. Other provisions prescribe methods the City must use for compliance, with the option that the City may propose alternative methods for approval by the Central Coast Water Board Executive Officer. This provides the City with the flexibility of two different options, each of which has advantages. The City may develop its own approach; or, if it prefers, may follow the method delineated in the Draft Order. When the Central Coast Water Board Executive Officer approves an alternative method of compliance, the Central Coast Water Board Executive Officer is not changing the requirements or amending the Draft Order, but is establishing the method the City will use to implement the Draft Order requirements. Central Coast Water Board Executive Officer approval helps ensure the standard set forth by the Draft Order is maintained, and that alternatives proposed by the City are not less effective than those detailed in the Draft Order. The Draft Order includes requirements specifying that any alternatives available for Executive Officer approval must be equally effective to the provisions detailed in the Draft Order.

Under the Draft Order, the Central Coast Water Board Executive Officer will establish methods of compliance for the Draft Order pursuant to the authority delegated under Section 13223 of the California Water Code.

**15) *The Findings and Fact Sheet contain many statements that are not based on facts and are not relevant to conditions pertaining to the City. Studies and comparisons with other watersheds, which serve as the basis for Provisions in the Draft Order, are not relevant to the City. The comments note the following perceived discrepancies:***

- ***Studied watersheds have less agricultural activity.***
- ***Studied watersheds are more arid.***
- ***Studies do not examine the effects of developing agricultural lands for urban uses.***
- ***Studied watersheds have different rainfall patterns and hydrological conditions.***

Central Coast Water Board staff recognizes that the watersheds studied differ from the City's watershed. The studies and research referenced in the Findings and Fact Sheet are cited to provide general data on the typical impacts of urban development on runoff

hydrology, water quality, and stream conditions. As such, they are relevant in general to conditions in the City's watershed.

Some comments suggest that cited studies are not relevant to conditions in the City unless they include a significant agricultural component, in order to account for the greater perceived impact of agricultural practices on water quality in the City's watershed compared with the impact of urban development. However, the cited studies focus on the effects of urban development, particularly impervious surfaces, on receiving water conditions, and indicate that there is a relationship between impervious surface and stream degradation which has an impact on surface water quality and beneficial uses. Therefore the City, as a large developed area with many acres of impervious surface, can be assumed to have an impact on water quality and stream stability. The cited studies are therefore relevant to local conditions in this context.

Other comments from the City suggest that cited studies are not relevant to conditions in the City because they are related to more arid watersheds. The cited studies examined areas with annual rainfall of less than 16.5 inches. By comparison, Salinas receives an average of between 13 and 13.5 inches of rain each year, according to annual rainfall data collected at the Salinas Airport between 1872 and 2010. Therefore Central Coast Water Board staff believes the cited studies are relevant to Salinas.

Some comments suggest that cited studies are not relevant to conditions in the City because they are related to watersheds with different hydrological characteristics. Central Coast Water Board staff recognizes that all watersheds are unique. However, the studies indicate that urban development impacts watersheds in predictable ways. Increasing impervious surfaces increases runoff volume, frequency, and rate. These changes in runoff conditions alter stream conditions. In addition, urban development introduces urban pollutants.