ORANGE COUNTY TRANSPORTATION AUTHORITY

Measure M2 Environmental Cleanup Allocation Program – Tier 2 Grant Program Guidelines and Call for Projects

Staff Report

OCTA

May 7, 2012

To: Executive Committee

From: Will Kempton, Chief Executive Officer

Subject: Measure M2 Environmental Cleanup Allocation Program – Tier 2 Grant Program Guidelines and Call for Projects

Overview

The Measure M2 Environmental Cleanup Program, Project X, provides funds to assist jurisdictions with improving water quality related to transportation pollution. As part of the Early Action Plan, the Board of Directors authorized expenditure of up to $38 million for regional water quality improvement projects. Guidelines for this Tier 2 Grant Program have been developed. Staff is recommending authorization to issue the fiscal year 2012-13 Grant Program's call for projects.

Recommendations

A. Approve the Environmental Cleanup Program Tier 2 Comprehensive Transportation Funding Program Guidelines.

B. Authorize staff to issue the fiscal year 2012-13 call for projects for the Tier 2 Grant Program.

Background

The Environmental Cleanup Program, Project X (ECP), provides for the allocation of Measure M2 (M2) revenues to improve overall water quality in Orange County from transportation-related pollution. Funding for the ECP is allocated on a countywide competitive basis to assist jurisdictions in controlling transportation-related pollution. These funds are intended to supplement, not supplant, existing transportation-related water quality programs. Funds are awarded to priority projects that improve water quality in streams, harbors, and other waterways that have a nexus to transportation-related pollution consistent with the Orange County Transportation Authority's (OCTA) M2 Ordinance No. 3.

In 2007, the OCTA Board of Directors (Board) approved the membership for the Environmental Cleanup Allocation Committee (ECAC). The ECAC has been instrumental in providing guidance on program design and funding. The ECAC includes representatives (e.g., cities of Anaheim, Cypress, Laguna Niguel, Orange, Orange County Coast Keeper, etc.) from a broad cross-section of the water quality community.

In May 2010, the Board approved a two-tiered approach to fund the M2 ECP. Specifically, the funding plan called for up to $19.5 million in Tier 1 grants on a "pay-as-you-go" basis through fiscal year (FY) 2017-18, and up to $38 million in Tier 2 grants via bonding through FY 2014-15. The Tier 1 Grant Program is designed to mitigate the more visible forms of pollutants, such as litter and debris that collect on the roadways and storm drains. The Tier 2 Grant Program consists of funding regional, potentially multi-jurisdictional, capital-intensive projects. The purpose of the Tier 2 program is to strategically focus on areas within the County which have the greatest need for water quality improvement projects as related to the transportation infrastructure. The Board has previously approved funding for the preparation of a planning and research study for the development of evaluation methodologies and implementation strategies related to the development of the funding guidelines for the Tier 2 Grant Program.

Discussion

To prepare for the call for projects, a Tier 2 Grant Program Planning Study (Planning Study) was conducted in cooperation with the County of Orange and with guidance and input from the ECAC to identify and prioritize the most strategically effective areas for implementation of capital intensive projects within the County's 11 watersheds. The Planning Study provides the basis for technical project evaluation through watershed and location-specific needs and priority analyses. It is intended to be a reference document summarizing and supporting geographic information system evaluations within the Tier 2 Grant Program. The Planning Study supported development of the Tier 2 Guidelines and scoring criteria, which will be used to evaluate eligible projects.

The technical scoring criteria (70 percent weighting) are intended to address the intent of M2 funds, transportation-related pollution, the urban runoff treatment needed, and the ability of the proposed project to address specific water quality issues. Other scoring criteria (30 percent weighting) include factors such as project readiness, ability to leverage matching funds, and regional benefits of the project. The ECAC actively participated in the

development of the Planning Study over the last year and endorsed it for Board approval on April 12, 2012 (Attachment A).

The ECAC's proposed approach to funding Tier 2 projects took into consideration the possibility that there may be fewer shovel-ready projects during the first call for projects compared to subsequent call(s). The ECAC recommended that one-third of the funds be allocated for the first call for projects and two thirds of the funds be allocated for the second call for projects. Depending on the number of qualified applications received and the number of projects funded, there is the potential that more or less funds would be allocated during any one call, or that a third call for projects could occur if funds remain after two calls for projects.

It is proposed that each call will have a two-year funding cycle, giving applicants a two-year option to receive the grant funds. For the fiscal year 2012-13 call for projects, an applicant must indicate whether to receive funds by June 30, 2013 or June 30, 2014. Since the Tier 2 type projects may involve multiple jurisdictions and are regional in nature, the ECAC is recommending a cap of $5 million per project. This means projects funded may cost a total of $10 million or more, including the required 50 percent match.

Draft ECP Guidelines will be part of the Comprehensive Transportation Funding Program (CTFP) Guidelines, Chapter 12 (Attachment B). The guidelines include similar requirements and processes as the CTFP Guidelines utilized for the streets and roads program. Such similarities include eligibility requirements, and reimbursement, reporting, and auditing practices. There is a proposed minimum local match requirement of 50 percent. In recognition of the high match requirement, the ECAC developed strategies to reward applicants who have shovel-ready projects by reducing the match up to 25 percent. These opportunities include up to 15 percent reduction for project readiness (i.e., environmental [five percent], design [five percent] and/or right-of way [five percent]) and up to ten percent reduction for an operations and maintenance commitment beyond ten years (i.e., 15-year commitment [five percent] or 20-year commitment [ten percent]). On February 9, 2012, the ECAC endorsed the approval of the Tier 2 Guidelines and the Tier 2 call for projects.

Since the inception of the Tier 2 Planning Study, staff has been reaching out to potential applicants to gauge the level of interest as well as the number of projects that may be shovel-ready. These included multiple Tier 2 pre-call workshops and several one-on-one meetings with various potential applicants. Staff will continue to conduct similar outreach throughout the 90-day call period. To date, there are several applicants who have engaged staff with

potential projects and solicited feedback. Staff will continue discussion with the applicants throughout the process.

Next Steps

Upon Board authorization, the Tier 2 call for projects is anticipated to begin on June 4, 2012 through September 4, 2012. Staff will be conducting group and one-on-one workshops with applicants to provide input and guidance on the application process. The ECAC will evaluate the applications, and staff will return to the Board for funding recommendations in the November 2012 timeframe. The evaluation process duration will be dependent on the number of applications received. Upon Board approval, project sponsors will initiate projects.

Fiscal Impact

This project is proposed to be included in OCTA's FY 2012-13 Budget, Planning Division, Account 0017-7831-MX001-T6S, and is funded with M2 funds.

Summary

Staff is recommending the approval of the Tier 2 Comprehensive Transportation Funding Program Guidelines and authorization to issue the fiscal year 2012-13 call for projects for the Tier 2 Grant Program, totaling approximately $13.3 million.

Attachments

A. Tier 2 Grant Program Planning Study – Renewed Measure M Environmental Cleanup Program's Tier 2 Grant Program
B. Draft Environmental Cleanup Program Guidelines

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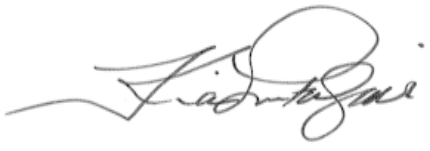
Approved by:



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ORANGE COUNTY TRANSPORTATION AUTHORITY

Measure M2 Environmental Cleanup Allocation Program – Tier 2 Grant Program Guidelines and Call for Projects

Attachment A

ATTACHMENT A

Prepared for

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Tier 2 Grant Program Planning Study

Renewed Measure M Environmental Cleanup Program's Tier 2 Grant Program

Prepared by

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Project Number LA0223

April 2012

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EXECUTIVE SUMMARY

The Orange County Transportation Authority's (OCTA) Environmental Cleanup Program (ECP) provides a 2% allocation of annual Renewed Measure M (M2) gross revenues to improve transportation-related water quality issues in Orange County. The goal of the ECP is to fund projects on a countywide, competitive basis which assist jurisdictions in meeting the Clean Water Act standards for controlling transportation-related pollution. The M2 ECP funds are designed to supplement, not supplant, existing water quality programs. Proposed projects must demonstrate a direct nexus (connection) to a reduction of ***transportation-related*** pollution.

In May 2010, the Board approved a two-tiered approach to fund the M2 ECP. Specifically, the funding plan called for up to $19.5 million in Tier 1 grants intended to fund purchases and upgrades to existing catch basins with BMPs (such as storm water screens, filters, inserts and other "street-scale" low flow diversion projects) and up to $38 million in Tier 2 grants intended to fund regional, potentially multi-jurisdictional, capital-intensive structural treatment BMP projects.

The Board also approved a planning and research study related to the development of the funding guidelines for the Tier 2 Grant Program. This Tier 2 Grant Program Planning Study (Planning Study) was conducted to identify and categorize the most strategically effective areas (SEAs) for implementation of structural Best Management Practices (BMPs) within the County's eleven watersheds. This Study describes background information and the scoring basis for the watershed-scale technical project evaluation criteria. The Study is intended to be a reference document supporting GIS evaluations within the Tier 2 Grant Program.

PROJECT EVALUATION CRITERIA

All proposals that meet the mandatory prerequisites will be evaluated based on competitive selection criteria. Each proposal will receive a score of up to 100 points, which is based on both technical (M2-required) scoring criteria (70 percent weighting), as well as other scoring (non-required) criteria (30 percent weighting). The specific technical and non-technical scoring metrics and the points awarded for each were developed and approved by the OCTA Environmental Cleanup Allocation Committee (ECAC) through a public process including monthly ECAC meetings and technical subcommittee meetings. The results are summarized in Table ES-1 below.

The technical scoring criteria are intended to address:

- The intent of M2 funds to address transportation-related pollution (transportation nexus, represented as a Transportation Priority Index, or TPI).
- Urban runoff treatment need, evaluated based both on:
  - A land use based water quality needs assessment (WQN-LU), and
  - A Receiving Water (e.g., Waters of the U.S.) based, wet-weather and dry-weather water quality assessment based on wet weather and dry weather monitoring data and 303(d) impairments(WQN-MON), and
- The ability of the proposed project to address catchment specific water quality issues (BMP Water Quality Performance).

Table ES-1. Tier 2 Grant Funding Project Scoring Criteria

Criteria	**Score**
Technical Scoring Criteria (70% of score)	
1. Transportation Priority Index[1]	5
2a. Land Use Based Wet-Weather Water Quality Need[1]	30
2b. Receiving Water Based Water Quality Need (Monitoring Data and 303(d) Impairments) [1]	10
3. BMP Water Quality Performance[2]	25
Non-Technical Scoring Criteria (30% of total score)	
4. Multiple Benefits (Up to 10 points)	10
4a. Downstream Flood Hazard Mitigation	*(5)*
4b. Recreational Benefits	*(5)*
4c. Habitat Benefits	*(5)*
4d. Water Resources Benefits	*(5)*
4.e Other Benefits	*(5)*
5. Project Readines	10
6. Policy: Multi-jurisdictional/Community Support	10
BONUS POINTS	
7. Ability to Leverage Funding	5
TOTAL POSSIBLE POINTS	**105**

[1] Source of this score will be the catchment prioritization (this study)

[2] Source of this score will be project-specific, based on SBPAT BMP Modeling and Analysis Tool

This Planning Study describes tools and methods used as the basis for calculating project scores related to watershed-scale Technical (M2-Required) Scoring Criteria. This includes the TPI, WQN-LU, and WQN-MON scoring criteria. Non-technical (non-M2-required) scoring metrics will be described in OCTA's Funding Guidelines and Scoring Metrics and are not included in this document. The Planning Study does not provide the technical basis for the BMP Water Quality Performance scoring criteria because the Planning Study score is project performance-related and therefore requires information from project applicants for evaluation (design criteria, etc.). In contrast, scores for the TPI, WQN-LU, and the WQN-MON scoring criteria are need-related, and therefore depend on watershed-scale information used to identify geographic regions in high need of water quality treatment.

Strategically Effective Areas Assessment

The Strategically Effective Areas (SEA) Assessment consisted of three separate analyses used to develop geographic priorities: TPI, WQN-LU, and WQN-MON. This assessment directly supports the technical (M2-required) scoring guidelines. All three analyses were conducted at the same drainage-based catchment scale and the results of each analysis were weighted and combined to highlight areas in high need of structural BMP implementation addressing transportation-related pollution in Orange County. Results are presented as maps showing a) catchment scores for each individual analysis; and b) catchment scores weighted and combined based on the weights summarized in Table ES-1. The scores depicted in the cumulative map illustrate SEAs for structural BMP implementation.

To conduct the SEA Assessment, a Geographic Information Systems (GIS) model of Orange County was developed. The model is structured as a geodatabase that contains spatial (i.e., specific location points and mapped areas) and non-spatial data layers pertinent to the SEA assessment including catchment boundaries, transportation networks, land use, soils, drainage, rainfall isohyets, land use-based event mean concentrations (EMCs), 303(d) impaired waterbodies, topography, monitoring stations, monitoring station tributary areas, etc.

Methods

The transportation nexus catchment scores (represented as TPI) were calculated based on current lane-miles per unit area of each catchment. The probability density function (based on percentiles, or quantiles) of the results was then used to break scores into 10 groups of equal number. Each group was then assigned a score of between 1 and 10, dependent upon relative position in the probability density function (i.e., the highest score would represent the top 10 percent of catchment areas).

The WQN-MON catchment scores were calculated in equal parts based on results of Orange County Public Works (OCPW) receiving water monitoring data gathered between

summer 2006 and spring 2009 and the number of downstream 303(d) impairments. OCPW receiving water monitoring data was provided specifically for toxicity and water quality and had been synthesized by OCPW in reports submitted to the Regional Water Quality Control Boards, such that each monitoring station had been assigned to a "poor", "fair", "good" or "very good" category. These categories were then used to assign scores to the areas tributary to each monitoring station. These scores were combined with scores developed based on the number of downstream 303(d) impairments and regulatory importance of such impairments (with waterbodies addressed by Total Maximum Daily Loads, or TMDLs, weighted higher than impairments), and normalized in the same manner as the TPI scores.

While the TPI and WQN_MON scoring criteria were calculated through manipulation of spatial and non-spatial data in the ArcGIS environment, a specialized ArcGIS extension called the Structural BMP Prioritization and Analysis Tool (SBPAT) was used to automate calculation of the WQN-LU scores. SBPAT is a GIS-based decision support tool that can be used to identify and prioritize potential structural BMP retrofit projects as well as estimate planning-level costs and potential pollutant concentrations and load reductions resulting from the implementation of the prioritized projects. The methodological basis for the tool can be thought of as a five step approach to strategically identifying and evaluating structural BMP projects for water quality treatment. Only the first step was required for development of this Planning Study and is described herein.

The objective of the task described herein was to identify catchments within the watershed with the highest water quality improvement need. The relative need for retrofitting a catchment within a watershed with structural BMPs is quantified by developing a Catchment Prioritization Index (CPI) and a nodal Catchment Prioritization Index (NCPI). In general, CPI and NCPI are calculated for each catchment based on the sum of weighted individual pollutant loading potential scores (weighted for downstream receiving water impairments and TMDLs). OCTA and the ECAC, through a public process, established the weightings, priorities, and ranking methods, the results of which are reflected in this Planning Study.

To develop the catchment-specific SEA scores, the results of the TPI, WQN-LU, and WQN-MON were weighted based on the scoring weights summarized in Table ES-1.

WATERSHED-SPECIFIC RESULTS

For the initial round of potential Tier 2 Grant Program project evaluations, catchment areas within the County's eleven watersheds were evaluated and compared on a County-

wide basis[1]. Results of the SEA assessment clearly indicate that the Coyote Creek and Newport Bay watersheds are high priorities for structural BMP implementation based on the criteria evaluated in calculation of the weighted combination of the TPI, WQN-LU, and WQN-MON. Anaheim Bay watershed also contains a number of high scoring catchments. However, it is not as high as Newport Bay and Coyote Creek watersheds.

In terms of percentiles, with the highest percentiles reflecting highest priorities, Coyote Creek, Newport Bay and Anaheim Bay collectively contain all catchments scoring in the highest (70th, 80th, and 90th) percentiles of SEA scores. In examining WQN-LU (a significant component of the SEA scores) all catchments falling within the highest (70th, 80th, and 90th) percentiles of WQN-LU scores are also within the Coyote Creek, Newport Bay and Anaheim Bay watersheds.

While the TPI and the WQN-MON scores are weighted lower than WQN-LU in calculation of SEA score, they do have an impact on SEAs. This is most evident in the San Juan and Anaheim Bay watersheds where results for the three scoring criteria components of the SEA vary more widely than in the Coyote Creek and Newport Bay watersheds. For example, in the Oso Creek area of the San Juan watershed, SEAs are slightly higher than the WQN-LU scores. In this particular subwatershed, high TPI and number of impairments (a portion of the Monitoring score) scores subtly enhance SEAs.

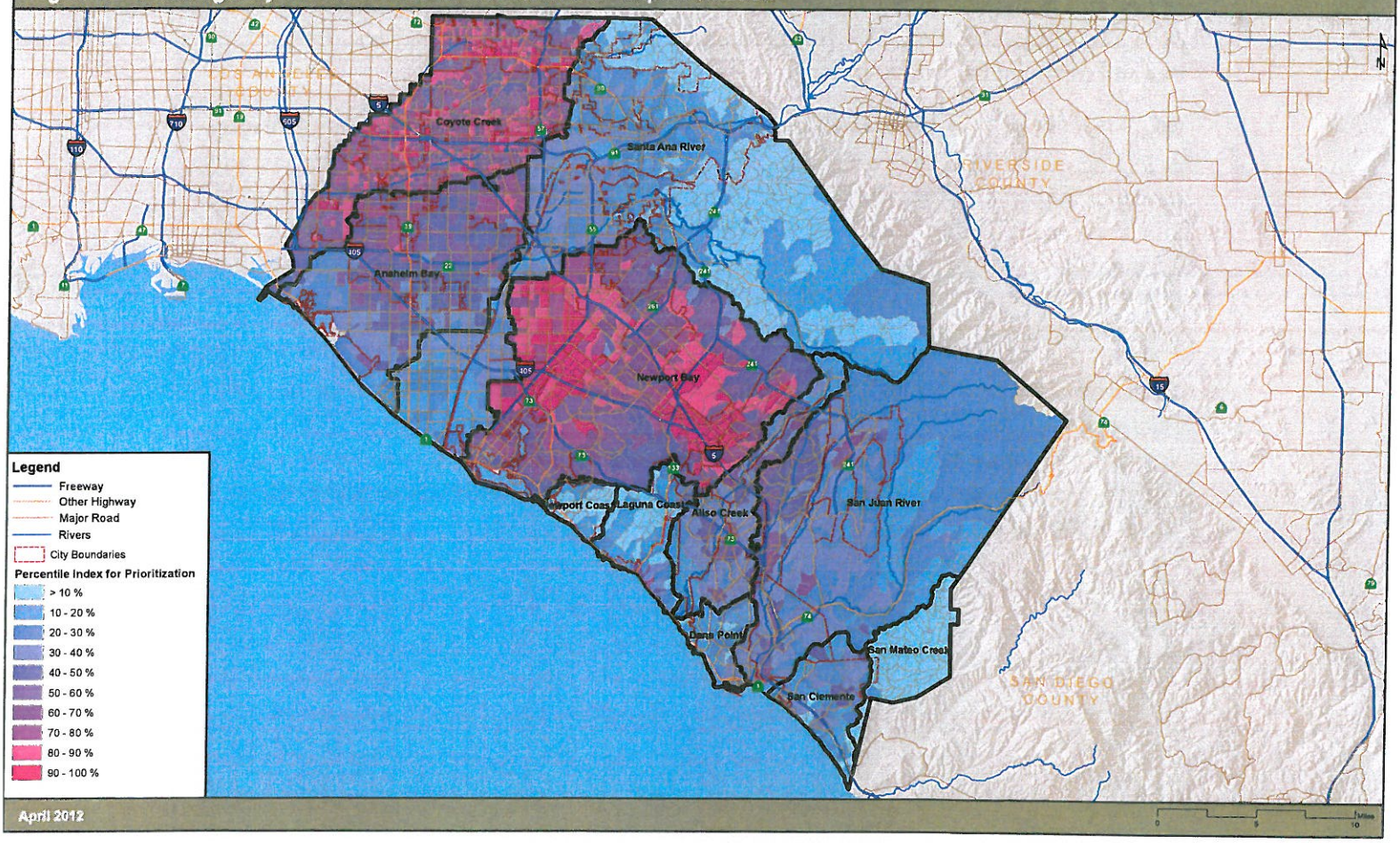
Similarly, in the Anaheim Bay watershed, low WQN-MON scores subtly decrease the relative importance of the catchments within the watershed in terms of SEA. WQN-LU scores are slightly higher throughout the watershed than SEAs. The low number of downstream impairments in this watershed as compared to the other watersheds tends to lower SEAs slightly.

A map illustrating the SEAs in Orange County is provided as Figure ES-1.

[1] It was agreed that should this evaluation indicate a bias, subsequent rounds of project evaluation may consider prioritization within watershed management areas.

Orange County Transportation Authority - Measure M2 Tier 2 Planning Study

Figure ES-1. Strategically Effective Areas for Structural BMP Implementation



April 2012

1 INTRODUCTION

1.1 PURPOSE AND SCOPE

The Orange County Transportation Authority's (OCTA) Environmental Cleanup Program (ECP) provides a 2% allocation of annual Renewed Measure M (M2) gross revenues to improve transportation-related water quality issues in Orange County. To establish early priorities for M2 revenues, the M2 Early Action Plan was developed and approved by the OCTA's Board of Directors (Board) in August 2007, which identified the development of funding program guidelines for the water quality component of M2 as an early priority. As directed by the M2 Early Action Plan, the funding program guidelines should be developed to ensure that funds are allocated on a countywide competitive basis to assist jurisdictions in meeting the Clean Water Act standards for controlling transportation-related pollution.

In May 2010, the Board approved a two-tiered approach to fund the M2 ECP. Specifically, the funding plan called for up to $19.5 million in Tier 1 grants intended to fund purchases and upgrades to existing catch basins with BMPs (such as storm water screens, filters, inserts and other "street-scale" low flow diversion projects) and up to $38 million in Tier 2 grants intended to fund regional, potentially multi-jurisdictional, capital-intensive structural treatment BMP projects. The Board also approved the funding guidelines for the Tier 1 Grant Program, as well as a planning and research study related to the development of the funding guidelines for the Tier 2 Grant Program. This Planning Study report summarizes the approach to and results of the Tier 2 Grant Program planning and research study. More specifically, it summarizes the general structure of grant funds disbursement and the methods and results of the Strategically Effective Areas Assessment, a component of Tier 2 Grant Program planning intended to identify high priority geographic regions for structural BMP implementation. This report is intended to be a background guidance document to support overall project evaluation, including details on the funding guidelines, how geographic prioritization was conducted and what the results mean, and how individual project scores will be assigned. Specific procedures for calculating individual BMP project effectiveness metrics are detailed in the SBPAT User Guide written for OCTA.

1.2 REPORT ORGANIZATION

Section 1 provides introductory information on project context. Section 2 describes the geographic setting and provides background information on transportation and water quality conditions in Orange County. Section 3 presents an overview of the Tier 2 Grant Program funding structure (described in more detail in "Appendix A. Comprehensive Transportation Funding Program Tier 2 Funding Guidelines." Section 4 describes the tools

and methods used to geographically assess where funding priorities lie. Finally, limitations to the study are summarized in Section 5 and references are listed in Section 6.

1.3 TERMS OF REFERENCE

This work was conducted by Geosyntec Consultants for the Orange County Transportation Authority to support the effective distribution of Renewed Measure M Tier 2 Grant funds for regional structural water quality projects and serves as the deliverable for Task 5.1 of the Agreement No. C-0-1613 between the Orange County Transportation Authority and Geosyntec Consultants, Inc. dated January 14, 2011. This work was managed by Ken Susilo, P.E., D.WRE, CPSWQ, and conducted by Julie Stephenson, Aubrey Dugger, and Erica Meyers of Geosyntec Consultants. Senior review was provided by Ken Susilo in accordance with Geosyntec's quality assurance policies.

2 GEOGRAPHIC SETTING

Orange County covers approximately 795 mi^2 along the coast of Southern California and is located between Los Angeles and San Diego counties. It is comprised of 34 incorporated cities and boasts a population of over 3 million residents. Much of Orange County's growth in the first half of the 20th Century was driven by the expansion of new forms of transportation. In the early 1900s, the Pacific Electric Railway built three lines to serve Orange County and in the 1910s and 1920s, new highways led the way to new communities. California's first state highway was constructed and crossed Orange County from San Juan Capistrano to La Habra by 1920. Several small communities later developed along Beach and Manchester boulevards, and the completion of the Coast Highway in 1926 brought new growth into the south County beach towns.

To accommodate the influx of people brought to Orange County because of the thriving economy, farms were being replaced by tract housing faster than any other community in the United States by mid-century. Existing cities began annexing territory in every direction, and new cities incorporated almost every year. Tract development began in north County and followed in south County in the 1960s, with master planned communities such as Irvine, Mission Viejo, Laguna Niguel., Aliso Viejo, Rancho Santa Margarita, Ladera Ranch, and others. This type of development continued into the 1980s and 1990s.

Figure 1 illustrates current Orange County land uses and Figure 2 provides an exhibit of the Orange County Transportation Network.

Because Orange County settlement patterns were driven by the development of transportation networks, the networks remain vital to the day to day function of its economy. Increases in vehicular traffic and rising demands for transportation systems

resulting from urbanization has coincided with land disruption, soil displacement and compaction, and increased pollutant discharges into the surrounding environment. Consequently, transportation facilities serve as a major source of contamination to local waterways.

Several urban runoff pollutants are associated directly with transportation facilities, including gas emissions, heavy metals from vehicular component abrasion and vehicle body deterioration, oil and grease deposits, deicing salts, and suspended solids from road surface degradation. Roadways can also act as conveyance systems for urban stormwater pollutants originating upstream in the watershed, such as nutrients, sediment, and bacteria. It is the intent of OCTA's ECP to address water quality issues that have arisen throughout the County as a result of existing and developing transportation networks.

Figure 3 illustrates the waterbodies that have been listed by the State Water Resources Control Board (SWRCB) as impaired for water quality (not all waterbodies shown are impaired due to transportation-related pollution).

Orange County Transportation Authority - Measure M2, Tier 2 Planning Study

Figure 1. Orange County Land Use

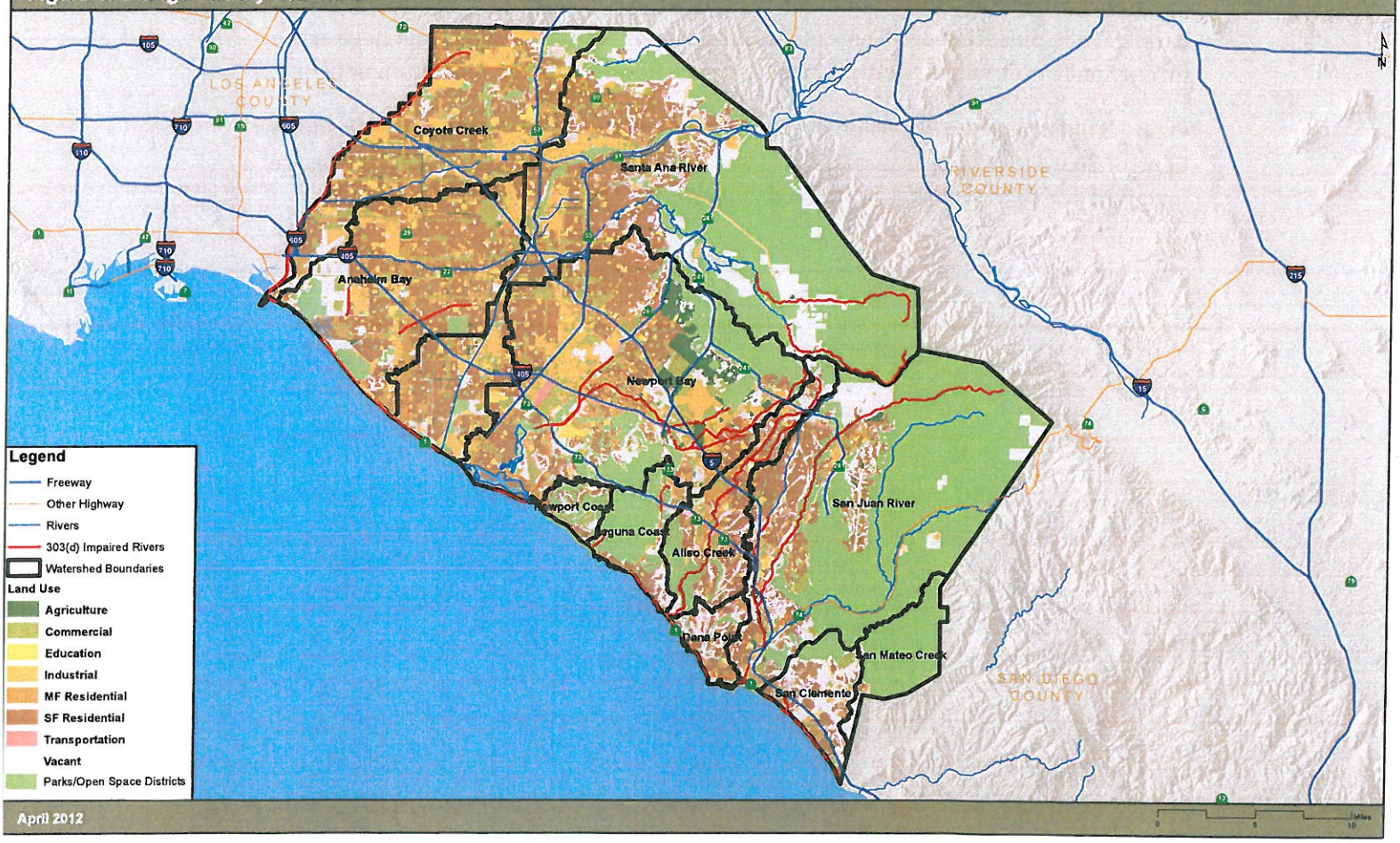


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Figure 2. Orange County Transportation Network

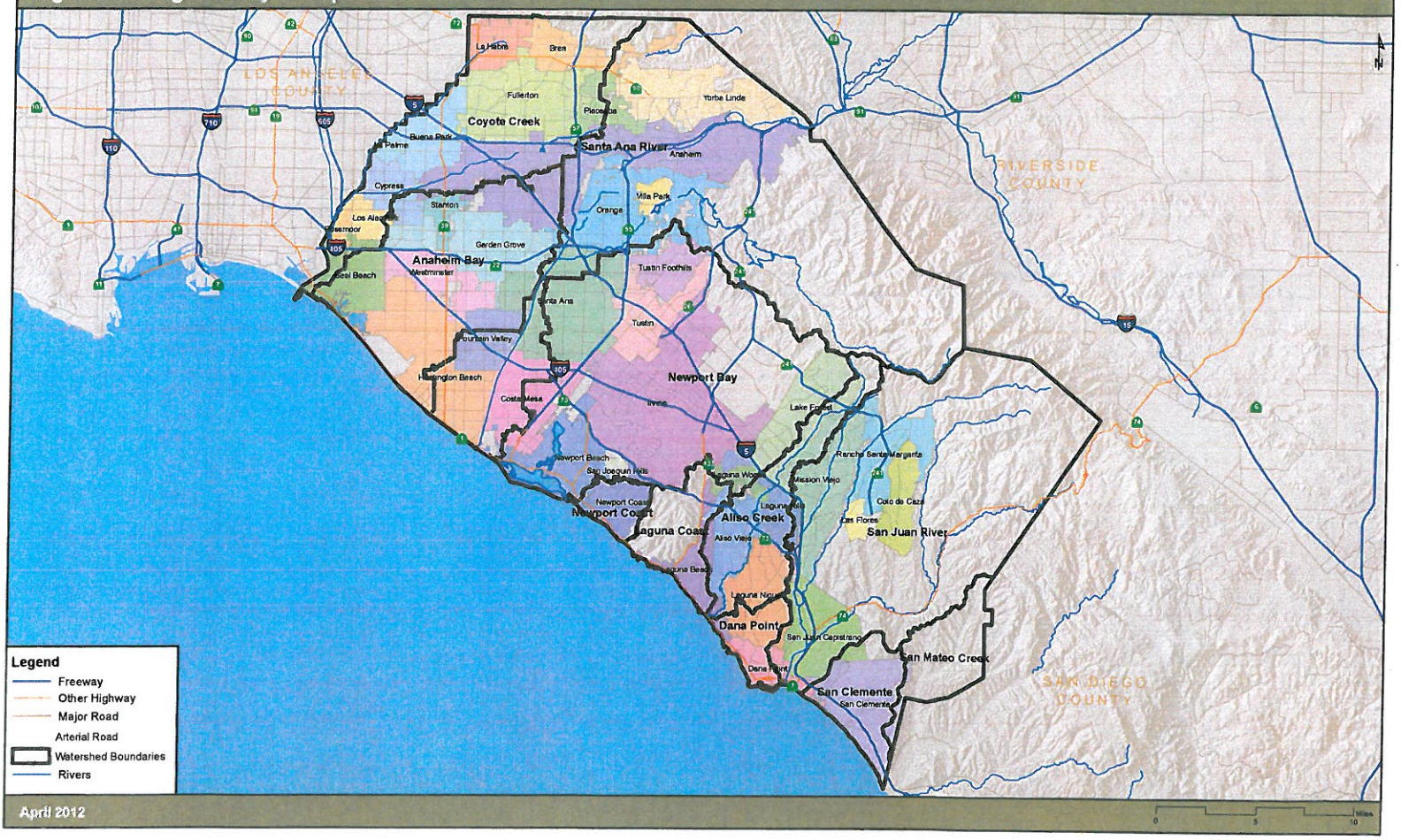

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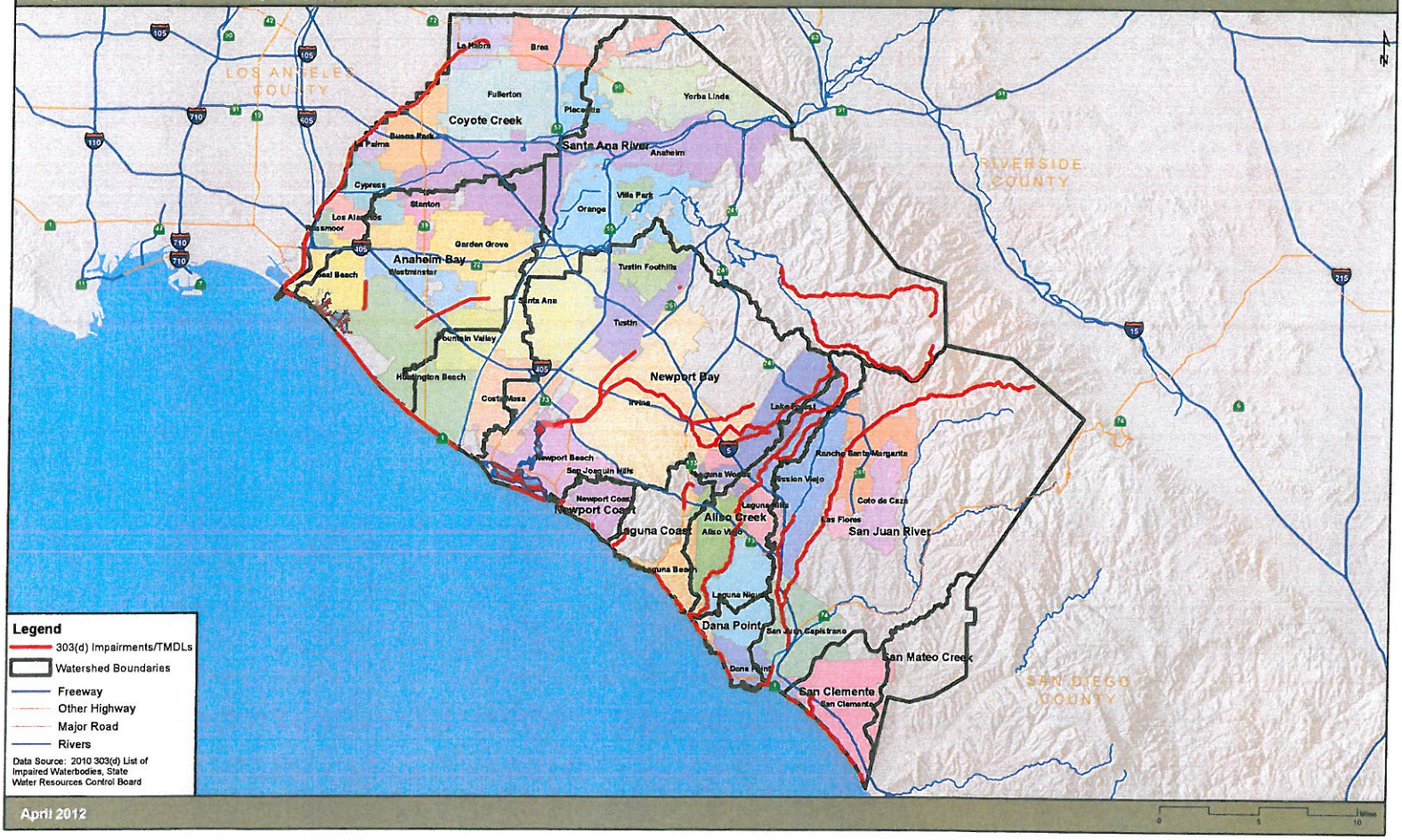
Figure 3. Orange County 303(d) Listed Impairment/TMDLs



3 OVERVIEW OF FUNDING STRUCTURE AND PROCESS

3.1 OVERVIEW OF ELIGIBILITY

The goal of the ECP is to fund projects on a countywide, competitive basis which assist jurisdictions in meeting the Clean Water Act standards for controlling transportation-related pollution. The M2 ECP funds are designed to supplement, not supplant, existing water quality programs. Proposed projects must demonstrate a direct nexus (connection) to a reduction of transportation-related pollution as developed and defined by the ECAC in conformity with the M2 Ordinance:

> *"Transportation-related activities can be a contributor of pollutants and/or impairments to receiving waters via aerial deposition, storm, and non-storm water discharges. Transportation-related activities are associated with the operation, construction, and maintenance of public roads, highways, and other ground transportation systems.*
>
> *"The conveyance of transportation-related pollutants to surface and groundwater can occur from precipitation, runoff, and leaching entering or discharging from public roads, highways, and other ground transportation systems via drainage systems; such as catch basins, curbs, gutters, ditches, manmade channels, retention basins, or storm drains. The quality and quantity of these discharges vary considerably and are affected by hydrology, geology, land use, season, and sequence and discharge of hydrologic events.*
>
> *"Pollutant sources can encompass right-of-way, properties, facilities, and activities related to motor vehicles, highway maintenance, construction site runoff, maintenance facility runoff, illegal dumping, spills, and landscaping care. Pollutant categories include, but are not limited to: metals (such as copper, lead, and zinc), organic chemicals and compounds (hydrocarbons and pesticides), sediment, nutrients (nitrogen and phosphorus), litter, oxygen demanding substances (decaying vegetation, animal waste, and other organic matter), groundwater dewatering discharges, and pathogenic material."*

The Tier 2 Grant Program is intended to fund larger (projects treating catchment areas of 50 acres or greater), potentially multi-jurisdictional, capital-intensive structural treatment BMP projects. Proposed projects covering smaller catchment areas which are otherwise eligible are not prohibited from the application process and will be regarded as eligible for consideration if the proposed project can demonstrate highly significant water quality improvement benefits (greater than other competing larger scale proposed projects) and

cost-effectiveness under the scoring criteria guidelines. Examples of large, potentially multi-jurisdictional, capital intensive structural treatment BMPs include constructed wetlands, detention/infiltration basins and other large scale BMPs that mitigate litter and debris, heavy metals, bacteria, organic chemicals, sediment, nutrients, and other transportation-related pollutants.

Applicants eligible for ECP funds include the 34 Orange County cities plus the County of Orange. M2 eligible jurisdictions may partner with other entities such as water and wastewater public entities, environmental resource organizations, nonprofit 501(c) environmental institutions, and homeowners associations; however, the lead agency must be an M2 eligible Orange County city and/or the County of Orange.

3.2 Project Evaluation Criteria

3.2.1 Overview

OCTA will evaluate all proposals that meet the mandatory prerequisites based on competitive selection criteria. Each proposal will receive a score of up to 100 points, which is based on both technical scoring criteria – seventy (70) percent weighting – and non-technical scoring criteria – thirty (30) percent weighting. The specific scoring metrics and points awarded for each are summarized in Table 1 for reference. Final scoring metrics will be based on ECAC-approved, Board-adopted Scoring Metrics and illustrated in the Tier 2 Application that has been approved by the ECAC but must also be adopted by the OCTA Board.

Table 1. Tier 2 Grant Funding Project Scoring Criteria.

Criteria	Score
Technical Scoring Criteria (70% of score)	
2. Transportation Priority Index[1]	5
2a. Land Use Based Wet-Weather Water Quality Need[1]	30
2b. Receiving Water Based Water Quality Need (Monitoring Data and 303(d) Impairments) [1]	10
3. BMP Water Quality Performance[2]	25
Non-Technical Scoring Criteria (30% of total score)	
8. Multiple Benefits (Up to 10 points)	10
4a. Downstream Flood Hazard Mitigation	*(5)*
4b. Recreational Benefits	*(5)*
4c. Habitat Benefits	*(5)*
4d. Water Resources Benefits	*(5)*
4.e Other Benefits	*(5)*
9. Project Readines	10
10. Policy: Multi-jurisdictional/Community Support	10
BONUS POINTS	
11. Ability to Leverage Funding	5
TOTAL POSSIBLE POINTS	**105**

[1] Source of this score will be the catchment prioritization (this study)

[2] Source of this score will be project-specific, based on SBPAT BMP Modeling and Analysis Tool

A focus on several overarching concepts is emphasized in the funding guidelines and scoring criteria:

- Focus on a clear and measureable transportation nexus, defined as total lane miles in the project catchment area, as defined by the Master Plan of Arterial Highways and roadway/highway mile data provided by Caltrans.

- Priority in the scoring criteria is given to projects in areas of highest water quality need, as established by predicted pollutant loading, receiving water monitoring, and the extent of impairment of receiving waters s (i.e., higher priority given to 303(d) listed waterbodies or project in a water quality plan).

- Quantification of project benefits where possible in terms of a load reduction metric (pollutants or water volumes), expressed in terms of cost-benefit.

- Emphasis on project readiness, and ability to leverage funding.

- Emphasis on other regional and environmental benefits.
- Emphasis on multi-jurisdictional and public benefits.

3.2.2 *M2 Required Metrics Addressed by this Planning Study*

The results of the Strategically Effective Areas (SEA) Assessment described below provide the information required to assign project scores for the TPI, WQN-LU, and WQN-MON. Results of the SEA Assessment are (drainage area-based) catchment priority scores provided in map format to be referenced by project evaluators and used as technical support for project scoring. Additional details on how geographic areas were assigned scores for the above noted three metrics are provided below.

4 STRATEGICALLY EFFECTIVE AREAS ASSESSMENT

The purpose of the SEA Assessment is to identify high priority geographic regions for Tier 2 grant funded structural BMP implementation which will provide the technical basis for Tier 2 project evaluation with respect to the following metrics:

- Transportation Priority Index (TPI), which addresses the nexus between project benefits and the intent of M2 funds to address transportation-related pollution;
- Water Quality Need based on Land Use (WQN-LU), which addresses the nexus between project benefits and the need for urban runoff treatment based on upstream land uses; and
- Water Quality Need based on receiving water Monitoring data and number of downstream 303(d) impairments/ TMDLS (WQN-MON), which addresses the nexus between project benefits and the need for urban runoff treatment based on receiving water monitoring data.

The SEA assessment based on these three metrics was conducted in GIS at a drainage-based catchment scale (on the order of 200 acres per catchment), which were delineated by the OCTA consultant team. Scores were calculated for each catchment for each metric and then weighted based on scoring criteria weights in Table 1 and combined into one SEA score.

Results are provided both as maps depicting catchment scores TPI, WQN-LU, WQN-MON and SEA. Results described below are discussed in terms of SEAs, as these reflect the collective results of the SEA assessment.

The maps, as well as the spatial data they depict, will be used to determine the score of the catchment where the structural BMP projects will be located. The catchment scores are

intended to directly translate to project scores for the three scoring criteria addressed by this study. These catchment scores can be updated to incorporate future changes in impairments or other parameters.

4.1 GIS APPLICATION

To conduct the SEA assessment, a GIS model of Orange County was developed. The model is structured as a geodatabase that includes pollutant loading algorithms and analyses, containing spatial and non-spatial data layers pertinent to the Geographic Priorities Assessment.

4.1.1 DATA INPUTS

Data pertinent to the analysis and specific sources used for this project are summarized in Table 2. Additional details on data are provided in Appendix C.

Table 2. Data Pertinent to the SEA Assessment

Dataset	*Source*	*Coverage*	*Scale/ Resolution*	*Date*
Catchments (~200 ac)	Various	Countywide	Various	Various
Land Use	SCAG	Countywide	1:24,000 (min 2-ac mapping unit)	2005
Impairments (303(d)) & TMDLs	SWRCB	Countywide	1:24,000	2006 & 2010
Precip. (85th percentile 24-hr isohyets)	PACE (from CDM data)	Countywide	Unknown	Unknown
Water Quality Monitoring	OCPW	Countywide	Various	2010 & 2011
Parcels	OC Land Base via OCTA	Countywide	Unknown	Unknown
Transportation	OCTA/ Thomas Bros.	Countywide	Unknown	Unknown
Storm drains	OCPW	Countywide	Unknown	2010
Elevation/ slope	USGS	Full county	10-m horizontal res; 1-m vertical	Various
Soils/ permeability	NRCS SSURGO	Full county	1:12,000 to 1:63,360	Various
Land Use EMCs	Los Angeles, Ventura, San Diego, Cos. SCCWRP	N/A	N/A	1997-2011

4.1.2 *Modeling and Application*

While the TPI and WQN-MON scoring criteria were calculated through manual manipulation of spatial and non-spatial data in the ArcGIS environment, a specialized ArcGIS extension called the Structural BMP Prioritization and Analysis Tool (SBPAT) was used to automate calculation of the WQN-LU scores.

SBPAT is a GIS-based decision support tool that can be used to identify and prioritize potential structural BMP retrofit projects as well as estimate planning-level costs and potential pollutant concentrations and load reductions resulting from the implementation of the identified opportunities. The tool includes a data preprocessor and two primary elements: a BMP prioritization methodology component (Methodology component) and a BMP modeling and analysis component (BMP Analysis component). The methodological basis for the tool can be thought of as a five step approach to strategically identifying and evaluating structural BMP projects for water quality treatment at a watershed scale. The Methodology component, used for the SEA assessment described in this report, implements the Los Angeles County Structural BMP Prioritization Methodology and comprises the first four steps, which include Catchment Prioritization, Parcel Screening, General BMP Evaluation, and Site-Specific BMP Evaluation. The BMP Analysis component comprises the fifth step, which entails evaluating identified BMP projects in terms of performance. In this component, a customized version of the U.S. EPA Storm Water Management Model (SWMM) is used for simulating study area hydrology and BMP hydraulics, which then feed into a statistical water quality model to determine the effectiveness of the proposed BMP for treating stormwater runoff in a given area.. The components of SBPAT are illustrated in the flow chart in Figure 4 and described in more detail in the SBPAT User Guide written for OCTA.

The geodatabase created as part of this study was developed such that all SBPAT components can be run; however, only Step 1 of the Methodology component was run to support the SEA assessment. Step 5, which is part of the BMP Analysis component, will be run as part of Tier 2 project scoring evaluations. However, results from Step 5 depend upon project-specific data and, therefore, such evaluations will be conducted following receipt of project applications.

SBPAT was selected because it makes watershed-wide planning possible without having prior knowledge of potential BMP project locations, is based on a supported, methodical approach that considers both the relative need for water quality improvement and the constraints of BMP implementation in BMP siting, and is the only fully transparent (public domain) and reproducible GIS-based watershed planning tool that allows for local preferences and stakeholder input in the prioritization process for watershed and water quality planning.

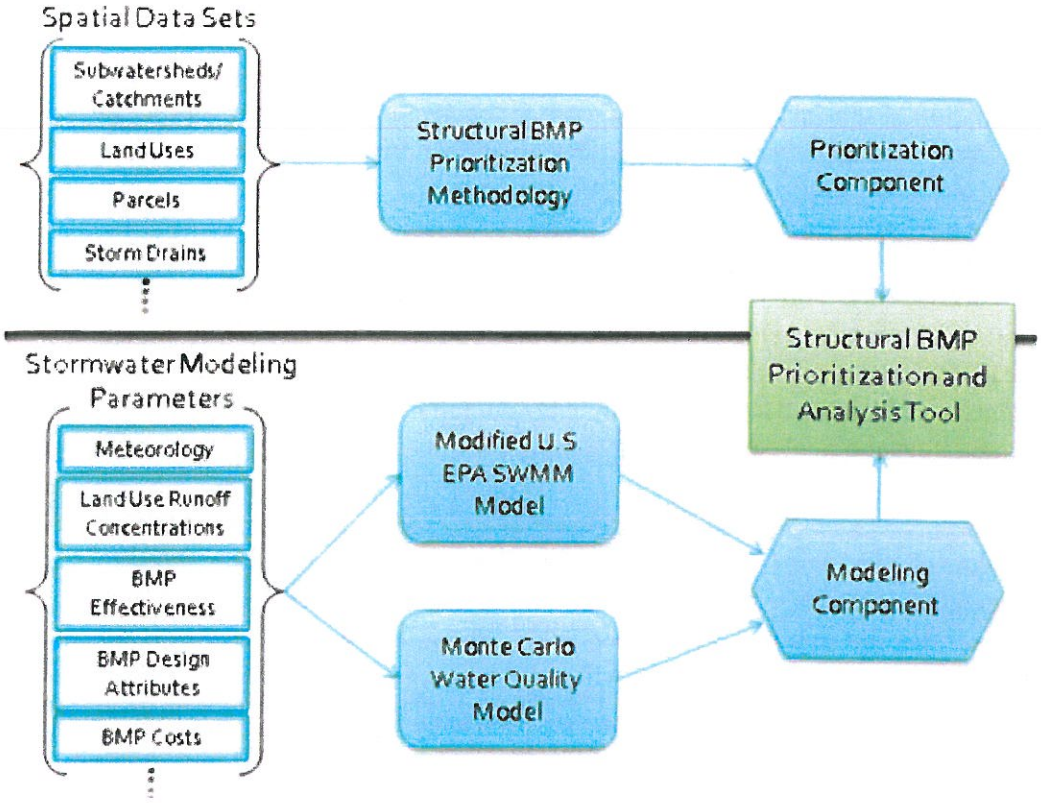


Figure 4. SBPAT Approach Flow Chart

4.2 STRATEGICALLY EFFECTIVE AREAS ASSESSMENT

4.2.1 APPROACH

SEAs are defined as catchments where implementation of M2 Grant funded structural BMPs is a high priority relative to other catchments in the County. SEAs are identified by combining the TPI, WQN-LU, and WQN-MON scores that have been weighted based on scoring criteria weights defined in Table 1. The methods used to calculate the individual components of SEA scores are described below.

4.2.2 TRANSPORTATION PRIORITY INDEX

The TPI was developed as a catchment-scale metric of transportation nexus. Using the OCTA Master Plan of Arterial Highways (MPAH) GIS dataset paired with a Caltrans Highways GIS dataset, lane-miles per catchment area were calculated as the product of number of lanes per highway section and section length, summed over the catchment and divided by catchment area. Secondary and local roads were not considered in the index calculation. The probability density function of the results was then used to break scores

up into 10 groups, each of the same bin size. Each group was then assigned a score of between 1 and 10, dependent upon relative position in the probability density function. Figure 6 illustrates TPI Scores throughout the County.

4.2.3 Water Quality Needs Analysis

4.2.3.1 Land Use Based Wet-Weather Water Quality Need

WQN-LU was calculated based on Step 1 of SBPAT. Step 1 of the Methodology consists of identifying catchments within the watershed with the highest water quality improvement need. The relative need for retrofitting a catchment within a watershed with structural BMPs is quantified by developing a Catchment Prioritization Index (CPI). In general, CPI is calculated based on pollutant loadings associated with the specific land uses in a given catchment or a given catchment's total upstream drainage area. For each catchment, CPI is based on the land use based pollutant loadings within the individual catchment (weighted for downstream receiving water impairments and TMDLs), whereas Nodal CPI (NCPI) is calculated as the area-weighted average of the CPI values from all upstream tributary catchments. Figure 5 illustrates the steps involved in calculating the CPI and NCPI, and details on the full CPI calculation are described in the SBPAT User Guide written for OCTA.

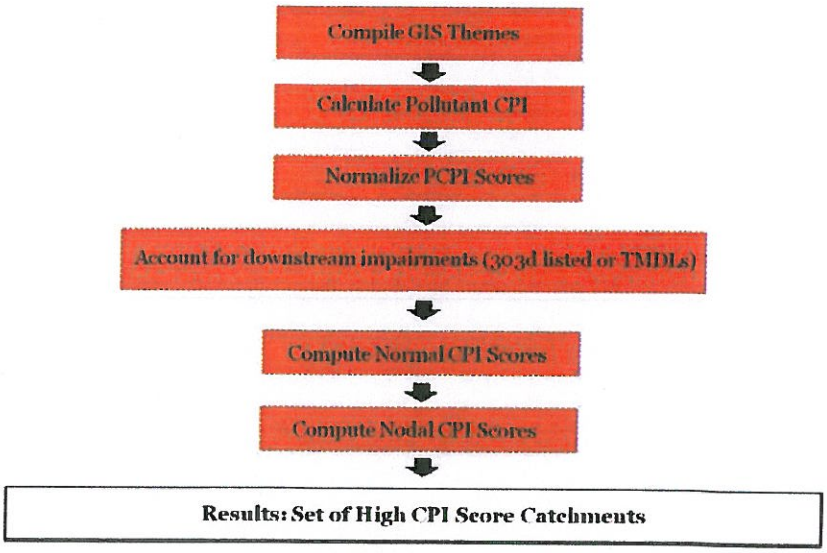


Figure 5. SBPAT Step 1 Methodology Flow Chart

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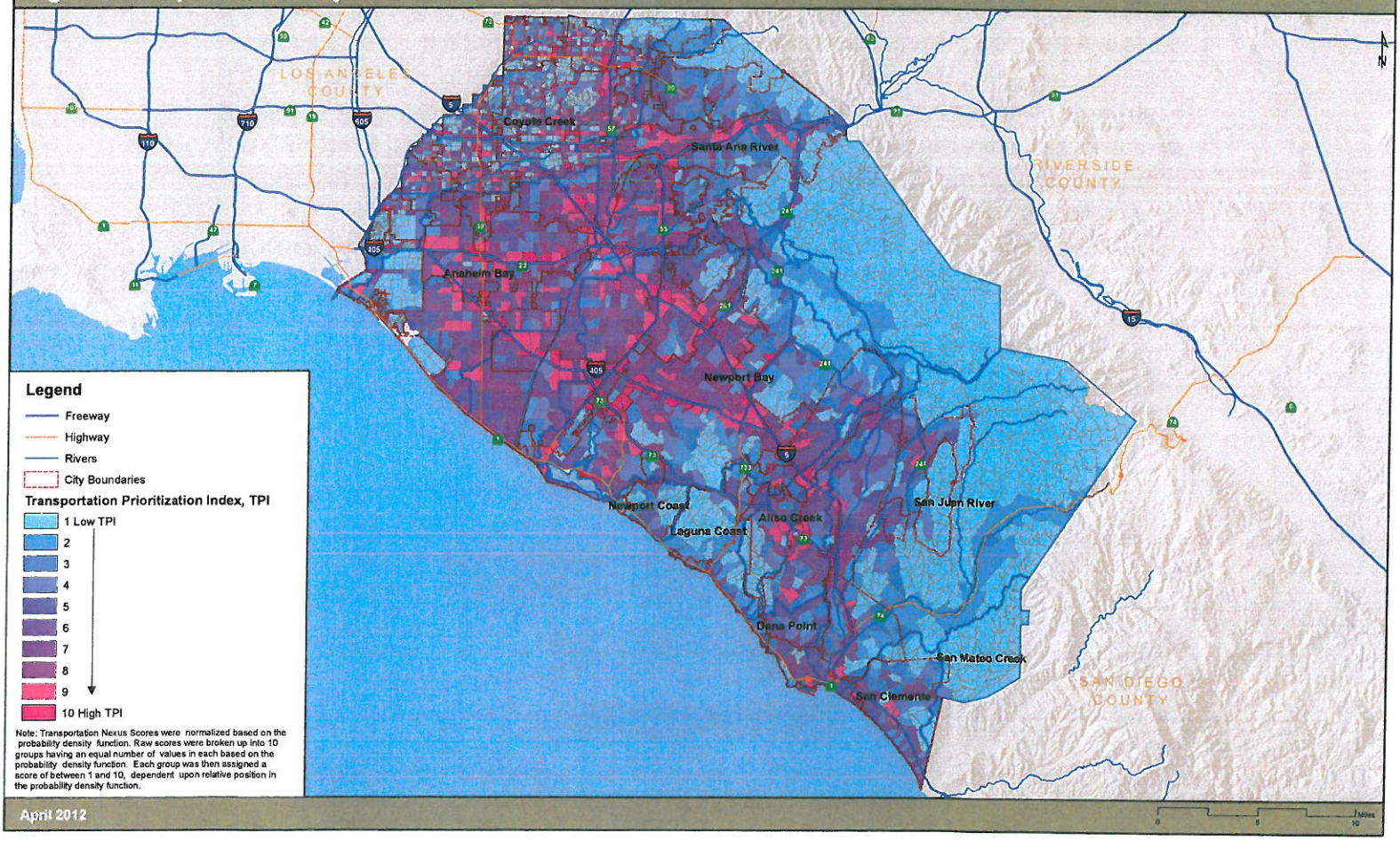
Figure 6. Transportation Priority Index



Calculation of Pollutant-Specific CPIs. Pollutant-specific CPIs (PCPIs) are calculated for bacteria (fecal coliform), nutrients (nitrate), trash, total copper, total lead, total zinc, and sediment based on catchment land use and average precipitation using the following equation:

$$PCPI_x = \frac{\sum_y \left(EMC_{x,y} * RC_y * A_y * P \right)}{\sum_y A_y}$$

Where:

$PCPI_x$ = load-based pollutant CPI for pollutant type "x"

$EMC_{x,y}$ = Event Mean Concentration for pollutant x for land use type "y"

RC_y = Runoff coefficient for land use y

A_y = Total area for land use y in catchment

P = Precipitation index value for study catchment

Table 3 summarizes the default land use based EMCs and runoff coefficients in SBPAT.

Table 3. Runoff Coefficients & Average EMCs by Land Use for Evaluated Pollutants

Land Use	Runoff Coefficient[1]	Average EMC[2]						
		Fecal Coliform (MPN/100 ml)	Total Copper (ug/L)	Total Lead (ug/L)	Total Zinc (ug/L)	Trash (cf/ac)	Nitrate (mg/L-N)	TSS (mg/L)
Agriculture	0.1	60,300	100.1	30.2	274.8	0.0	34.4	999
Commercial	0.61	51,600	31.4	12.4	237.1	1.0	0.55	67
Education	0.61	51,600	19.9	3.6	117.6	1.0	0.61	99.6
Industrial	0.64	3,760	34.5	16.4	537.4	1.0	0.87	219
Transportation	0.64	1,680	52.2	9.2	292.9	1.0	0.74	77.8
Vacant	0.06	6,310	10.6	3	26.3	0.0	1.17	216.6
SF Residential	0.39	31,100	18.7	11.3	71.9	1.0	0.78	124.2
MF Residential	0.39	11,800	12.1	4.5	125.1	1.0	1.51	39.9

[1] Ackerman & Schiff, 2003

[2] Log-transformed arithmetic mean values shown, except for trash, which are median values. All statistics were derived from Los Angeles County land use EMC data except for fecal coliform, which were derived from SCCWRP. For more details, see Appendix C of the SBPAT User's Manual.

Normalize PCPIs. Once PCPIs are calculated for each catchment per the above equation, they are normalized into equal quantiles by the probability density function of countywide results. By doing this, results are normalized such that there are equal numbers of catchments with any given score between 1 and 10. Normalized PCPIs are then weighted based on user-defined pollutant weights which reflect pollutant importance in driving catchment prioritization. The Tier 2 Planning Study project managers and ECAC agreed on the pollutant weighting scheme summarized in Table 4 below.

Table 4. User-Defined Pollutant Weights

Pollutant	*Weight*
Volume	5
Nutrients	10
Bacteria	10
Total Copper	5
Total Lead	5
Total Zinc	5
Sediment	5

Downstream Impairments. Catchment PCPIs are then weighted for downstream receiving water impairments. To do so, normalized PCPIs are multiplied by two (2) in catchments that drain to an impaired waterbody and by three (3) in catchments that drain to a waterbody that has an existing TMDL. SWRCB 303(d) listings for Orange County are summarized in the User's Manual.

Compute CPI and NCPI Scores. To compute catchment-specific CPI, PCPIs for each catchment are summed and normalized into 10 quantiles, again using the probability density function of the results distribution. These values are rounded up to the nearest integer to obtain the CPI. Figure 7 illustrates the resulting countywide CPI scores.

4.2.3.2 Monitoring Data Prioritization Index

The WQN-MON catchment scores were calculated in equal parts based on results of OCPW receiving water monitoring data collected between summer 2006 and spring 2009 and the number of downstream 303(d) impairments.

Catchment scores based on OCPW receiving water monitoring data were calculated at the monitoring station tributary scale. Post-processed OCPW receiving water monitoring data was received such that toxicity and water quality parameters at each monitoring station for each sampling event were assigned categorical designations based on numeric OCPW-defined thresholds. Toxicity and water quality results were assigned poor, fair, good or

very good designations based on how results compared to defined thresholds. To translate to numeric scores, categorical designations were assigned numeric values between 1 and 4. Numeric scores for each parameter for each sampling event were then averaged and normalized based on the maximum score for each parameter and a 2.5 point scale. These normalized parameter scores for each monitoring station were then combined and normalized in the same manner as TPI but into 5 bins. Figure 8 shows Receiving Water Monitoring scores on a countywide basis.

Catchment scores based on the number of downstream 303(d) impairments and TMDLs were calculated by summing the downstream SWRCB 303(d) listed impairment and TMDL pollutant categories (based on SWRCB 303(d) list pollutant categories). The sum of the number of downstream pollutant categories was then weighted by 2 for impairments (as in calculation of CPI) and 3 for TMDLs. The two weighted sums were then combined for each catchment. The weighted sums for each catchment were then normalized in the same manner as TPI. Figure 9 illustrates downstream 303(d) Impairment/TMDL scores.

To calculate the WQN-MON score, the catchment scores calculated based on OCPW receiving water monitoring data and on number of downstream impairments/TMDLs were arithmetically combined and scaled to 5.

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Figure 7. Land Use Based Water Quality Need Scores

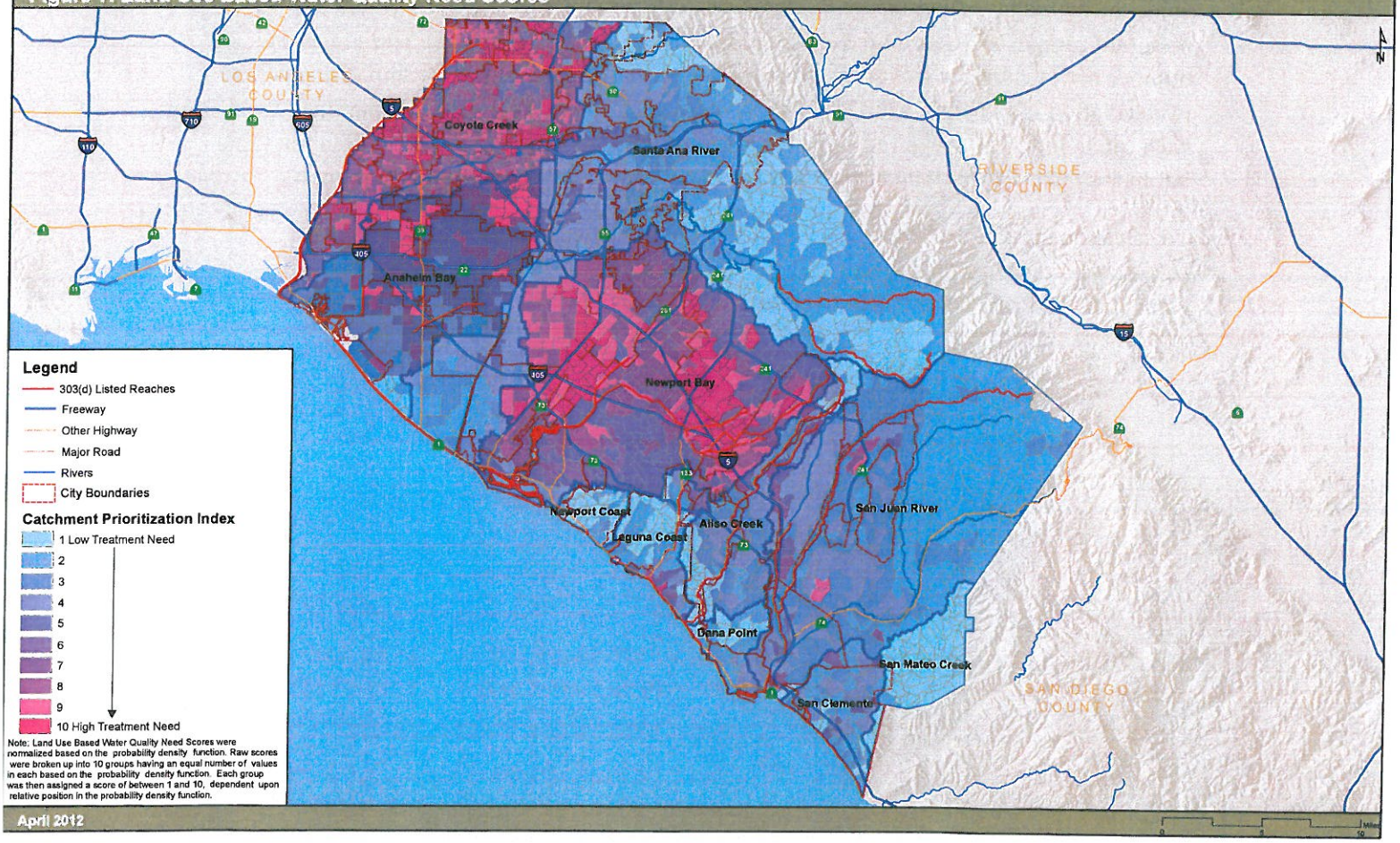

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Figure 8. Receiving Water Monitoring Scores

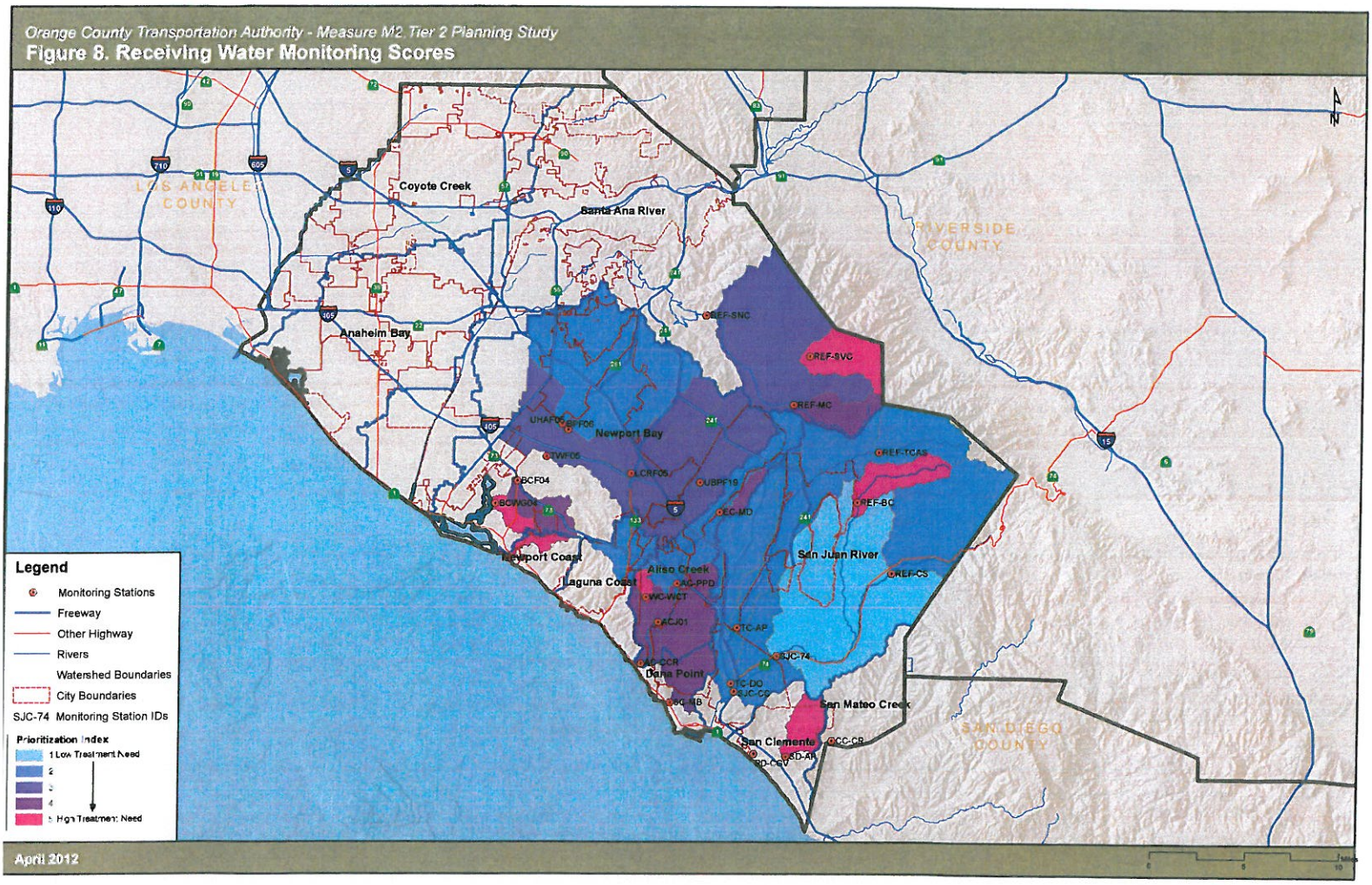

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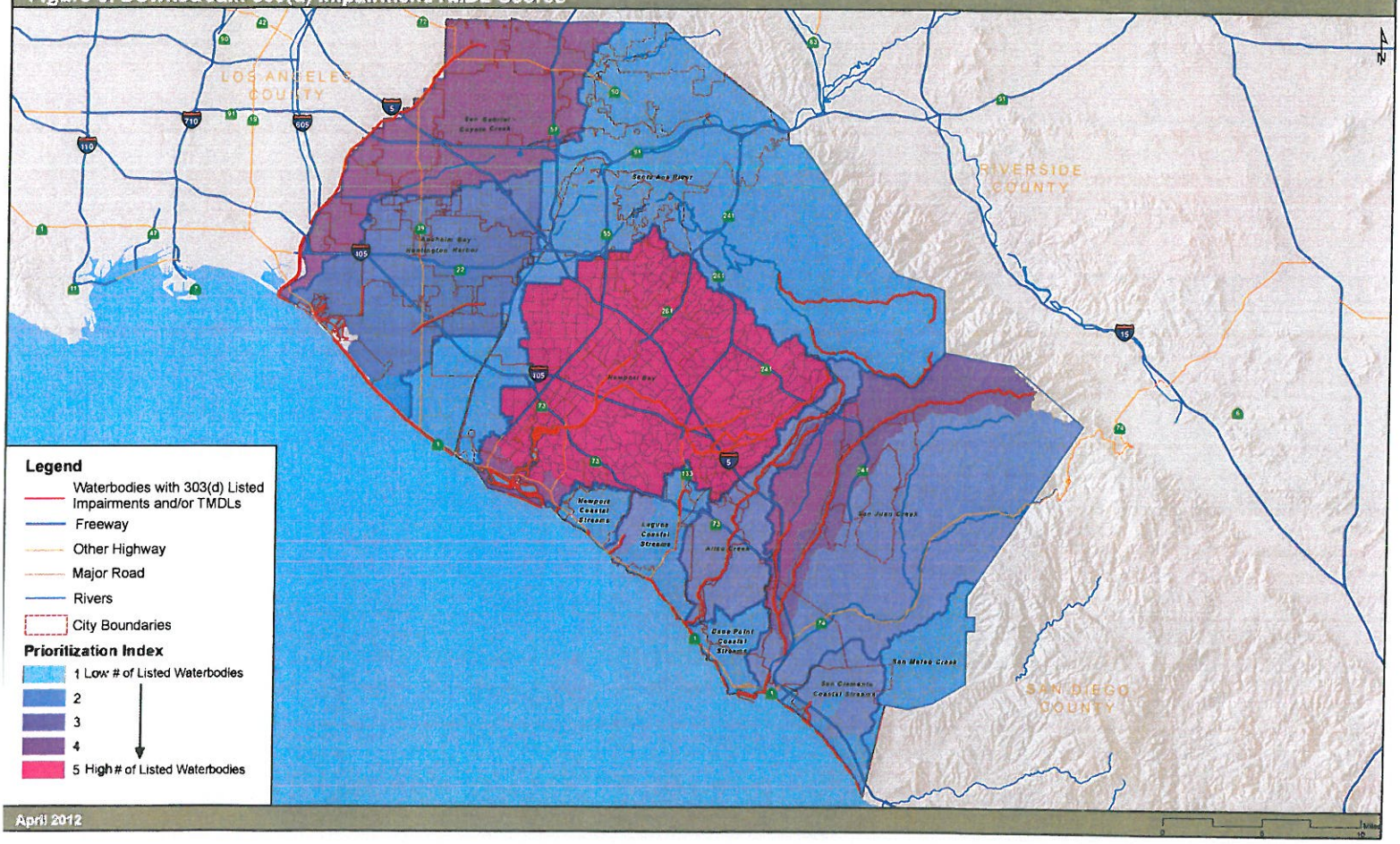
Figure 9. Downstream 303(d) Impairment/TMDL Scores



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4.2.4 *Discussion of Analytical Results*

Results of the SEA assessment clearly indicate that the Newport Bay and Coyote Creek watersheds are high priorities for structural BMP implementation based on the criteria evaluated in calculation of the weighted combination of the TPI, WQN-LU, and WQN-MON scores. Anaheim Bay watershed also contains quite a few high scoring catchments. However, it is not as consistently high as Newport Bay and Coyote Creek watersheds.

Coyote Creek, Newport Bay and Anaheim Bay contain 100% of all catchments scoring in the 70th, 80th and 90th percentiles of SEA scores. In Coyote Creek watershed, 12.5 mi^2 fall within the 90th percentile, 18.2 mi^2 fall within the 80th percentile and 17.5 mi^2 fall within the 70th percentile. In Newport Bay, 30.4 mi^2 fall within the 90th percentile, 23.6 mi^2 fall within the 80th percentile, and 15.2 mi^2 fall within the 70th percentile. In Anaheim Bay, 0.75 mi^2 fall within the 80th percentile and 7.75 mi^2 fall within the 70th percentile.

The WQN-LU scores are the major driver of SEA scores. As with the SEA scores, 100% of catchments within the 70^{th}, 80^{th}, and 90^{th} percentiles of WQN-LU scores are within the Coyote Creek, Newport Bay and Anaheim Bay watersheds. Furthermore, Coyote Creek and Newport Bay watersheds contain the majority of all catchments within the 80^{th} and 90^{th} percentiles of SEA scores.

While the TPI and the WQN-MON scores are weighted lower in calculation of SEA score, they do affect SEAs in some areas. This is most evident in the San Juan and Anaheim Bay watersheds where results for the three scoring criteria components of the SEA vary more widely than in the Coyote Creek and Newport Bay watersheds. For example, in the Oso Creek area of the San Juan watershed, SEAs are slightly higher than the WQN-LU scores. In this particular subwatershed, high TPI and number of impairments scores (a portion of the Monitoring score) subtly increase SEAs.

Similarly, in the Anaheim Bay watershed, low Monitoring scores decrease the relative importance of the catchments within the watershed in terms of SEA. WQN-LU scores are slightly higher throughout the watershed than SEAs. The low number of downstream impairments in this watershed as compared to the other watersheds tends to lower SEA scores slightly.

Figure 10 illustrates SEAs on a county-wide basis.

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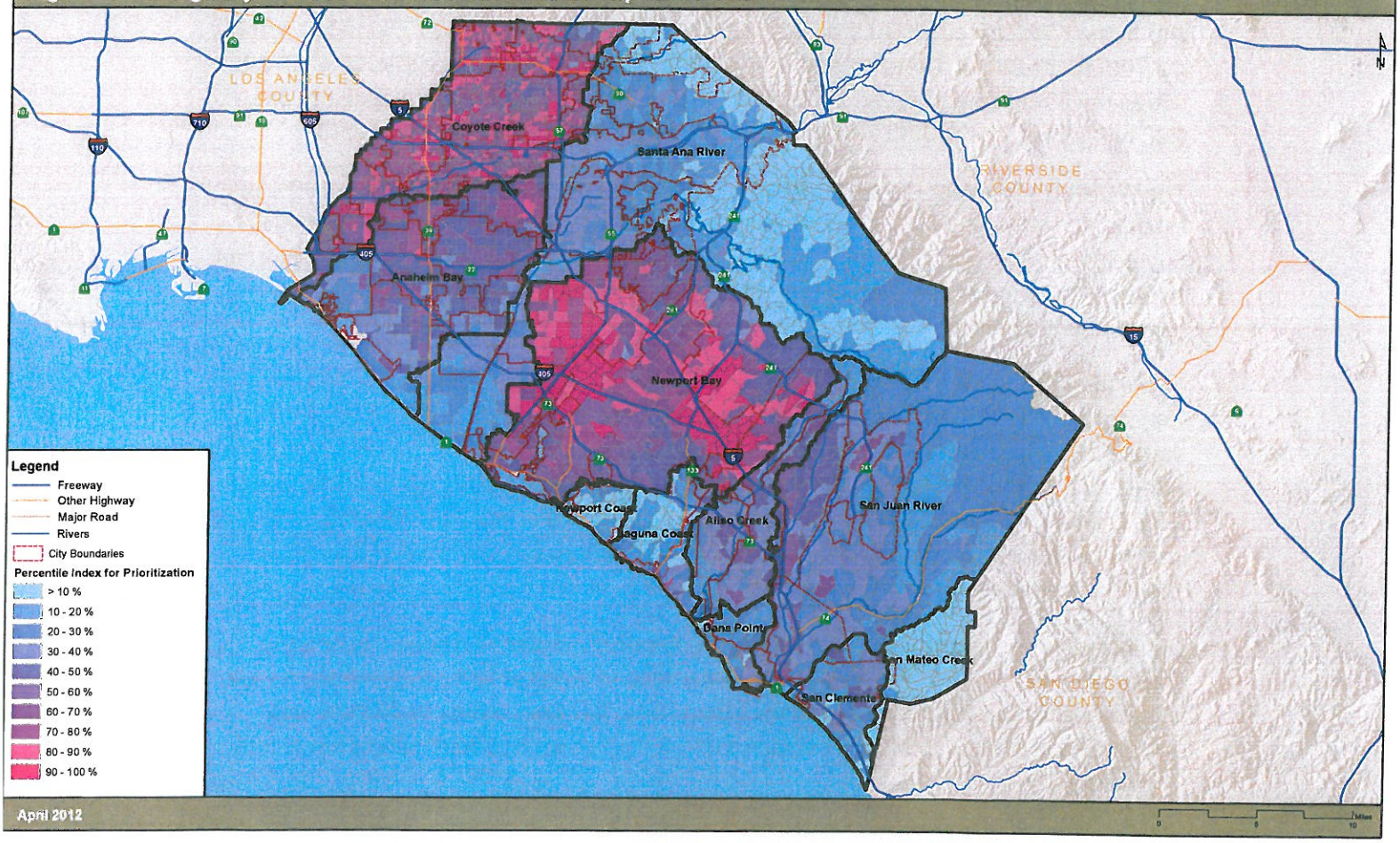
Figure 10. Strategically Effective Areas for Structural BMP Implementation



5 WATERSHED-SPECIFIC DISCUSSIONS

5.1 COYOTE CREEK WATERSHED

Figure 11 illustrates SEAs in the Coyote Creek Watershed. SEAs range between 20 and 42 (highest score throughout the County is 44). The average catchment score is 33, which is the highest average catchment score of the watersheds analyzed. Approximately 48.2 mi^2 of the 85.2 mi^2 watershed falls within the upper 30th percentile of SEA scores, which is the second greatest area falling within this range of scores out of the watersheds analyzed.

The relatively high SEA scores in the Coyote Creek watershed are reflective of high WQN-LU and high WQN-MON. There are some high TPI scores in the watershed as well; however, these scores are not as consistently high throughout the watershed as those for WQN-MON scores.

WQN-LU scores range between 4 and 10, the average score being 8. Scores are consistently high as illustrated by the average score and reflect the highly urbanized environment within the watershed, 88% (75 mi^2) of which is comprised of developed land uses. The watershed consists predominantly of residential, commercial and industrial land uses, all of which have relatively high runoff coefficients and elevated priority pollutant EMCs. Priority pollutants for Coyote Creek watershed include bacteria, nutrients and metals, which are defined as such based on bacteria and nutrients impairments, a metals TMDL, and high relative bacteria and nutrients pollutant weighting as defined countywide by the Tier 2 Grant Program project management team.

WQN-MON scores for all catchments in the watershed are 7, which are based solely on the number of downstream impairments (there were no OCPW receiving water monitoring stations within the watershed boundaries). A metals TMDL exists for Coyote Creek, which is also impaired for nutrients, bacteria, legacy pesticides and bioaccumulation. Additionally, a metals TMDL exists for the San Gabriel River Estuary, at the downstream end of Coyote Creek, which is also impaired for nutrients and bioaccumulation. Seal Beach, where the San Gabriel River Estuary reaches the open ocean, is also impaired for bacteria and bioaccumulation.

The highest scoring catchments within the watershed lie in three east - west trending swaths generally located along California State Route 90, US Interstate 710 and just south of Carbon Creek where it trends east-west within Los Alamitos and Cypress. In all three swaths, there are large consolidated areas of industrial land uses, which likely increase WQN-LU scores and subsequently SEA scores in those areas.

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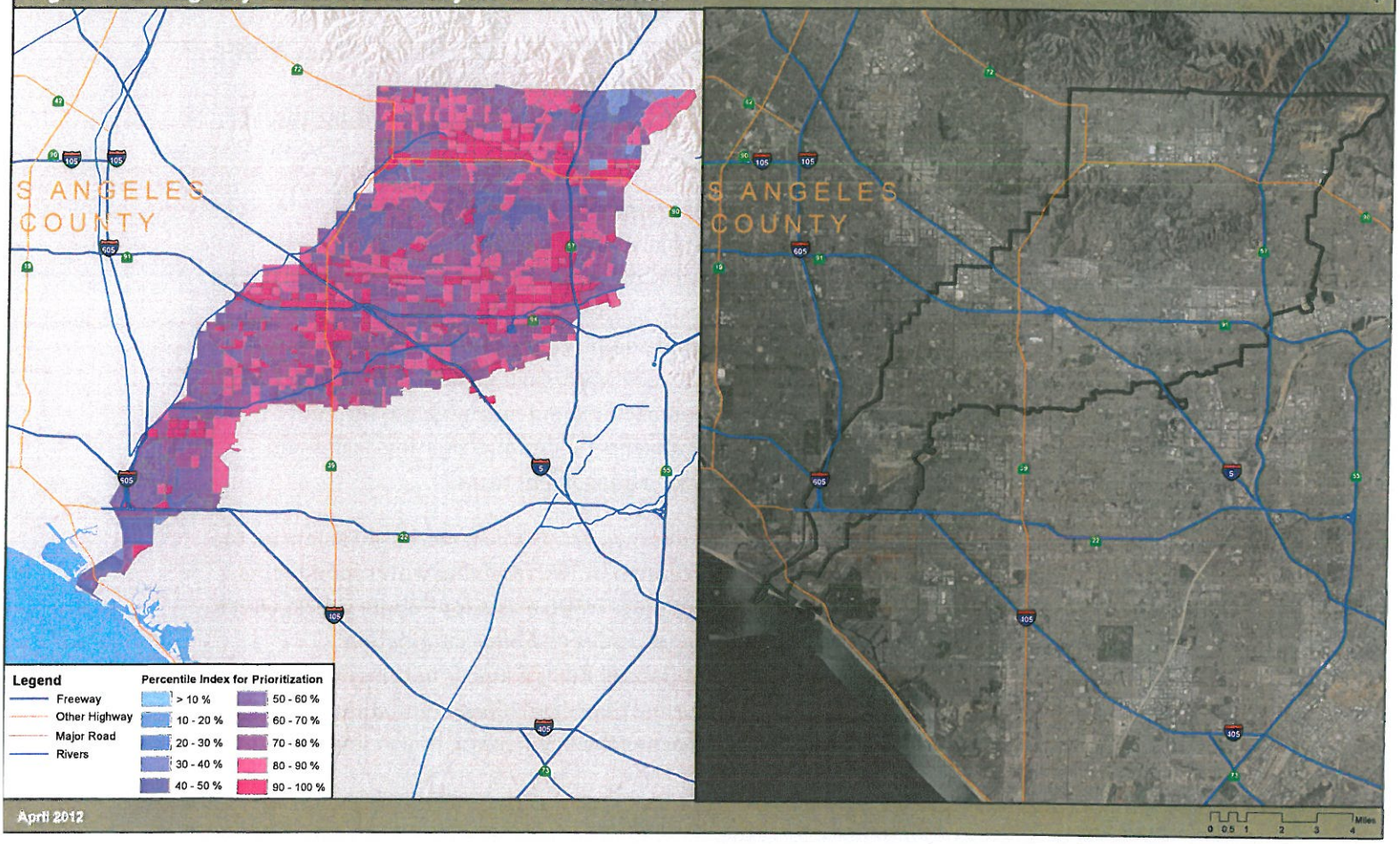
Figure 11. Strategically Effective Areas - Coyote Creek Watershed



5.2 ANAHEIM BAY WATERSHED

SEA scores in Anaheim Bay Watershed (Figure 12) range between 9 and 36. The average SEA score is 24, which is the third highest average catchment score out of all the watersheds analyzed. Approximately 8.5 mi^2 of the 77.7 mi^2 watershed falls within the upper 30th percentile of SEA scores which, while seemingly a small percentage, is also the third greatest area falling within this range of scores out of the watersheds analyzed.

The relatively high SEA scores in the Anaheim Bay Watershed are reflective of high WQN-LU scores and high TPI scores. WQN-MON scores are relatively low primarily due to the lack of TMDLs within the watershed, a relatively low number of impairments and dependence solely on the number of downstream impairments due to the lack of OCPW receiving water monitoring stations. The WQN-MON scores decrease the relative importance of catchments with high WQN-LU and high TPI scores in SEA scores.

WQN-LU scores range between 2 and 9, the average score being 6. The wide range of WQN-LU scores reflect the array of land uses that can be found within the watershed. For example, the coast within the Anaheim Bay watershed consists largely of undeveloped, preserved land (i.e. Seal Beach National Wildlife Refuge), associated with low WQN-LU scores due to its unlikely contribution of stormwater pollutants. In contrast, portions of the upper watershed, along the US Interstate 5 and in the western portion of Garden Grove and eastern portion of Cypress, are some of the most densely urbanized areas in the County, which are associated with high WQN-LU scores due to their significant contributions of priority pollutants. Priority pollutants for Anaheim Bay watershed include nutrients, metals, and bacteria which are defined as such based on nutrients, bacteria, metals, and toxicity impairments, and high relative bacteria and nutrients pollutant weighting as defined countywide by the Tier 2 Grant Program project management team.

TPI scores within Anaheim Bay Watershed range between 1 and 10. The wide range of TPI scores, like the WQN-LU scores, is reflective of the array of land uses and associated roadway densities characteristic of them. Scores are low adjacent to the coast, where undeveloped, natural lands do not require as much access. In contrast, scores are generally higher and more variable throughout the rest of the watershed, where the patterns of mixed, developed land uses, such as commercial, industrial, and residential, result in above-average but somewhat variable roadway densities.

The highest scoring catchments within the watershed lie in two general areas: a) along the US Interstate 5 in the upper portion of the watershed, and b) in the western portion of Garden Grove and eastern portion of the City of Cypress. Both areas contain large, consolidated patches of industrial and commercial land uses, which are associated with wide, heavily used roadways, and therefore result in high SEA scores.

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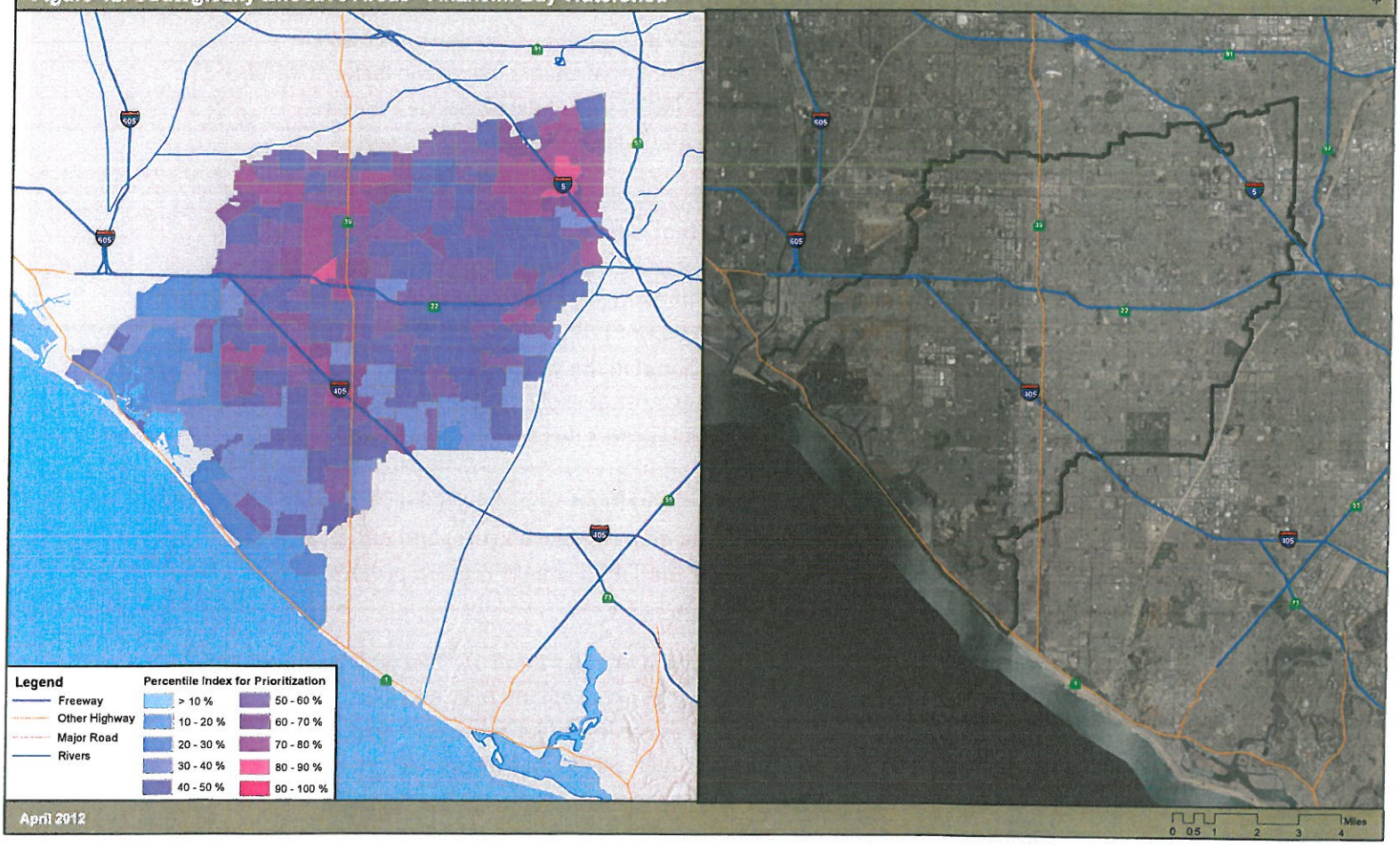
Figure 12. Strategically Effective Areas - Anaheim Bay Watershed



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5.3 SANTA ANA RIVER WATERSHED

SEA scores in Santa Ana River Watershed (Figure 13) range between 6 and 22. The average SEA score is 11, which is third lowest average SEA score of the watersheds analyzed. The majority of catchments within the Santa Ana River Watershed fall within the lower 20th percentile of SEA scores, which comprise approximately 150 mi^2 of the 208.6 mi^2 watershed.

The relatively low SEA scores in the Santa Ana River watershed are reflective of relatively low WQN-LU scores and low WQN-MON. TPI scores are wide ranging due to the different needs for access in the less developed foothills of the upper watershed versus the flatter, more urbanized portions of the lower watershed. Because of the low WQN-LU and WQN-MON, catchments with high SEA scores relative to the rest of the watershed typically are those with high TPI scores.

WQN-LU scores range between 1 and 5, the average score being approximately 2. The low WQN-LU scores are more reflective of the relatively low number of impairments within the watershed than of the land use because of the multipliers applied to raw scores in watersheds draining to impaired waterbodies or waterbodies with TMDLs in calculation of the WQN-LU. Portions of the Santa Ana River Watershed, particularly in the flatter lower watershed, are comprised of dense urbanized land uses associated with high runoff coefficients and high priority pollutant EMCs. However, the raw scores of these catchments that are a result of the land use alone are much lower than WQN-LU scores of catchments elsewhere in the County that drain to waterbodies with multiple impairments or TMDLs, where the raw scores are multiplied by 2 or 3 accordingly.

WQN-MON for the Santa Ana River Watershed are low as well, also as a result of the low number of impairments/TMDLs within the watershed. Silverado and Santiago Creeks, in the upper watershed, are impaired for bacteria and salinity, respectively. The only other impairments within the watershed are located near the coast, where Huntington Beach State Park is impaired for bioaccumulation and Newport Slough is impaired for bacteria.

The highest scoring catchments within the watershed lie in three consolidated patches: a) just north of State Route 91 in Anaheim, b) along State Route 57 just north of the US Interstate 5-State Route 57 interchange, and c) along the US Interstate 405 within the Cities of Fountain Valley and Costa Mesa. All high scoring areas contain large, consolidated patches of industrial and commercial land uses, which increase WQN-LU scores and are associated with wide, heavily used roadways and therefore result in high SEA scores.

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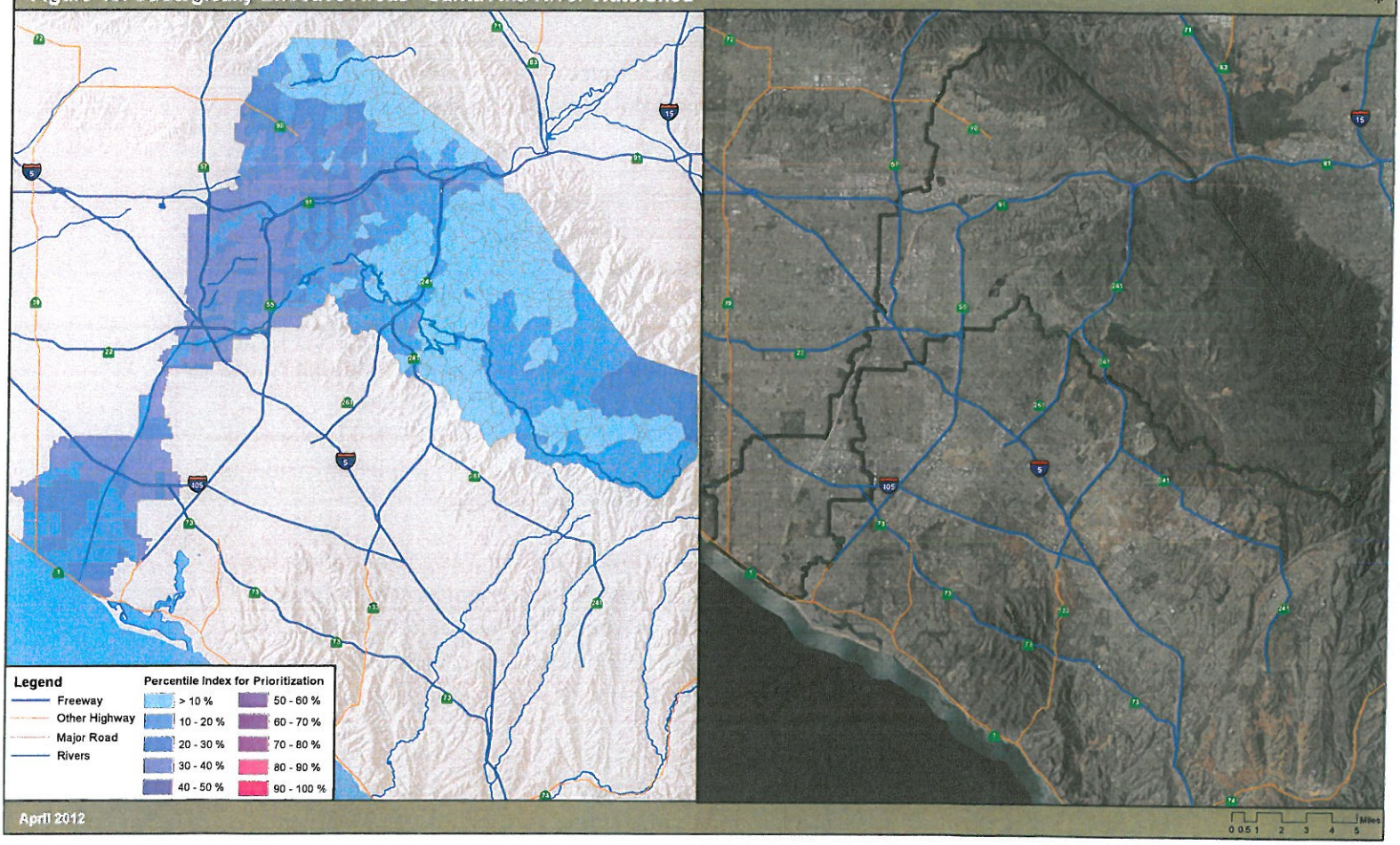
Figure 13. Strategically Effective Areas - Santa Ana River Watershed



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5.4 NEWPORT BAY WATERSHED

SEA scores in the Newport Bay Watershed (Figure 14) range between 21 and 44. The average SEA score is 32, making it the second highest average of the watersheds analyzed. Newport Bay Watershed contains the greatest area of high priority catchments, where approximately 69 mi^2 of the 150 mi^2 watershed falls within the upper 30th percentile of SEA scores. This is 21 mi^2 greater than the corresponding area within Coyote Creek Watershed, the watershed with the second greatest area of high priority catchments.

The relatively high SEA scores in the Newport Bay Watershed are reflective of high WQN-LU scores, high WQN-MON, and average TPI scores. The scores for WQN-LU and Monitoring Data metrics are high likely as a result of the high number of impairments and TMDLs within the watershed, the developed land uses (comprising 65% of the watershed) and the central location of the watershed which connects south County to north County and contains various transportation corridors to do so.

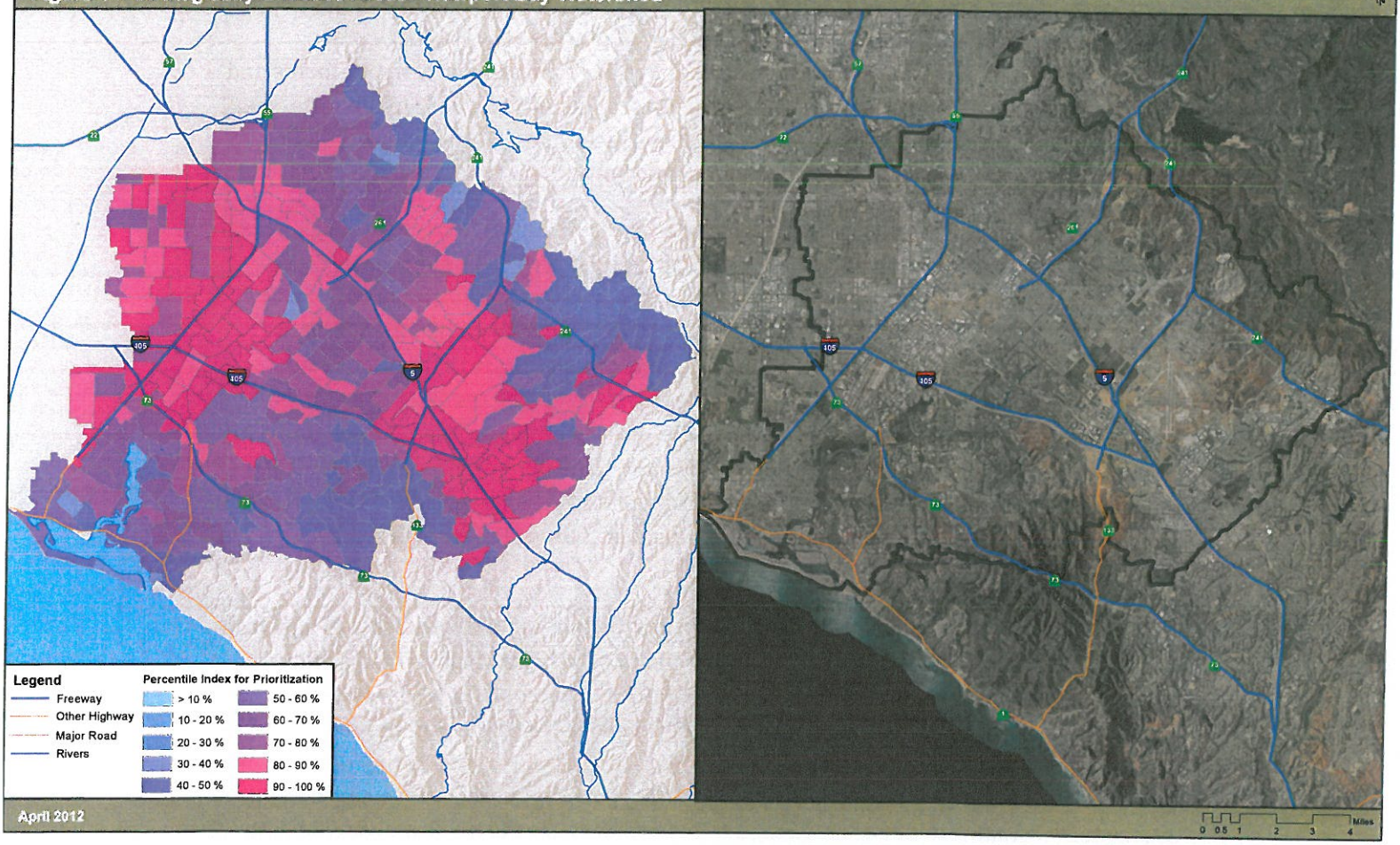
WQN-LU scores range between 4 and 10, the average score being 7. The high range of and average WQN-LU scores are reflective both of the high number of impairments/TMDLs within the watershed and the percentage of area comprised of developed land uses. The watershed is comprised largely of residential land uses, with consolidated pockets of commercial and industrial land uses and some areas of open space in the south and southeastern corners. Priority pollutants for Newport Bay Watershed include nutrients, metals, bacteria, pesticides, and sediment. These priority pollutants are defined based on nutrients, bacteria, metals, pesticides, sediments and toxicity impairments, nutrients, sediment, toxicity, bacteria, and pesticides TMDLs, and high relative bacteria and nutrients pollutant weighting as defined countywide by the Tier 2 Grant Program project management team.

WQN-MON within the Newport Bay Watershed are the highest of all watersheds analyzed due to the high number of downstream impairments, which are briefly noted above. Unlike the watersheds discussed this far, WQN-MON for Newport Bay Watershed are calculated based on both OCPW receiving water WQN-MON and the number of downstream impairments scores because OCPW receiving water monitoring data exists for stations within the watershed. While OCPW WQN-MON are low, catchment scores associated with the number of downstream impairments are the highest observed in the County, and therefore WQN-MON for the watershed are still relatively high.

The highest scoring catchments within the watershed lie in two general areas: a) along the State Route 55 freeway in Costa Mesa, north Irvine and Santa Ana and b) along the US Interstate 5 freeway in southern Irvine and portions of the unincorporated County. As with the high priority areas in other watersheds, these areas contain large, consolidated patches of industrial and commercial land uses, raising SEA scores.

Orange County Transportation Authority - Measure M2 Tier 2 Planning Study

Figure 14. Strategically Effective Areas - Newport Bay Watershed



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5.5 NEWPORT COAST WATERSHED

SEA scores in the Newport Coast Watershed (Figure 15) range between 5 and 16. The average SEA score is 8, which is the second lowest average catchment score of the watersheds analyzed. All catchments are in the lower 30th percentile of SEA scores in the County.

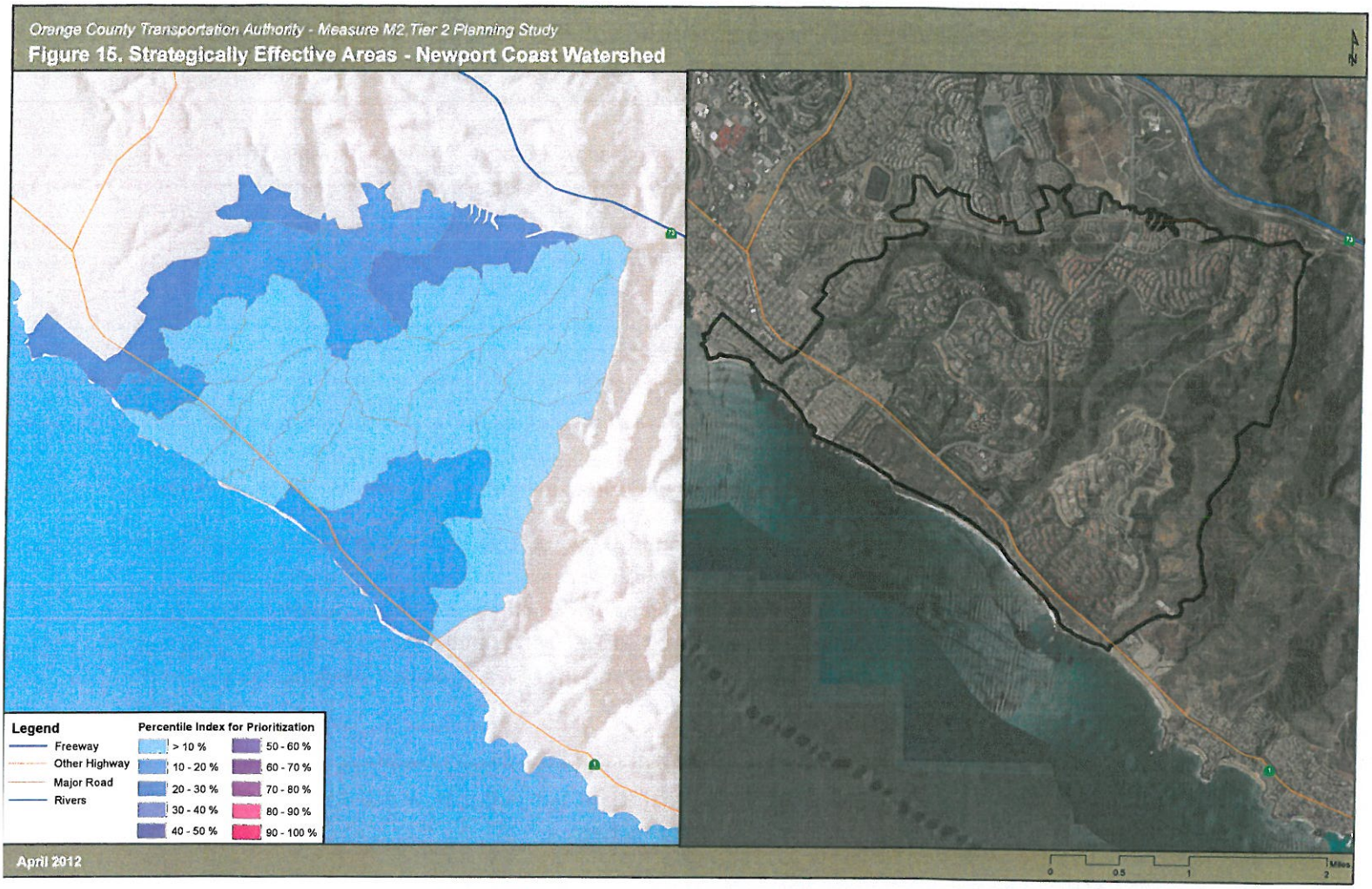
These relatively low SEA scores are reflective of low WQN-LU, Monitoring Data and TPI scores. Scores for all metrics in this analysis are low, likely as a result of the watersheds hilly relief and small size (7.8 mi^2), which limit the type and extent of development that can theoretically occur and constrain the magnitude of and potential range in scores.

WQN-LU scores range between 1 and 3, the average score being 1. The low average WQN-LU score is reflective of the low percentage of developed land uses and the low number of impairments/TMDLs within the watershed. Developed land uses comprise only 40% of the watershed and consist of single family residential and commercial land uses. The remainder of the watershed is comprised of vacant or open space land uses, which are associated with low runoff coefficients and low EMCs for priority pollutants. Furthermore, there are only two impaired waterbodies within the Newport Coast watershed, each of which have small tributary areas and are impaired only for one pollutant (bacteria). Priority pollutants for the Newport Coast watershed include bacteria and nutrients, due to the bacteria impairments and high relative bacteria and nutrients pollutant weighting as defined countywide by the Tier 2 Grant Program project management team.

WQN-MON in the Newport Coast Watershed range between 1 and 6, and the average score is 3. The average Monitoring Data score is low because scores are calculated solely based on the number of downstream impairments, and as discussed above, there are very few impaired waterbodies within the watershed and no TMDLs. A small portion of the watershed does drain to an OCPW receiving water monitoring station, but consideration of such data does not impact the results.

Like the WQN-LU and WQN-MON, TPI scores in the Newport Coast watershed are relatively low. This observation is likely due to the land use patterns, which do not require high density road networks to provide adequate access.

The highest scoring catchments within the watershed lie in two general areas: a) in the upper portion of the watershed along Newport Center Drive, where there are small patches of commercial and industrial land uses, and b) in the northwestern portion of the watershed, where there is a large patch of consolidated single family residential land use.


Orange County Transportation Authority - Measure M2 Tier 2 Planning Study
Figure 15. Strategically Effective Areas - Newport Coast Watershed
Legend
Freeway
Other Highway
Major Road
Rivers
Percentile Index for Prioritization
> 10 %
10 - 20 %
20 - 30 %
30 - 40 %
40 - 50 %
50 - 60 %
60 - 70 %
70 - 80 %
80 - 90 %
90 - 100 %
April 2012
0
0.5
1
2
Miles

5.6 LAGUNA COAST WATERSHED

SEA scores in Laguna Coast Watershed (Figure 16) range between 6 and 33. While this is a fairly wide range of scores, the average SEA score is 13 and 61 out of 63 watersheds, representing 19 mi^2 out of the 19.3 mi^2 watershed, fall within the lowest 50th percentile of SEA scores.

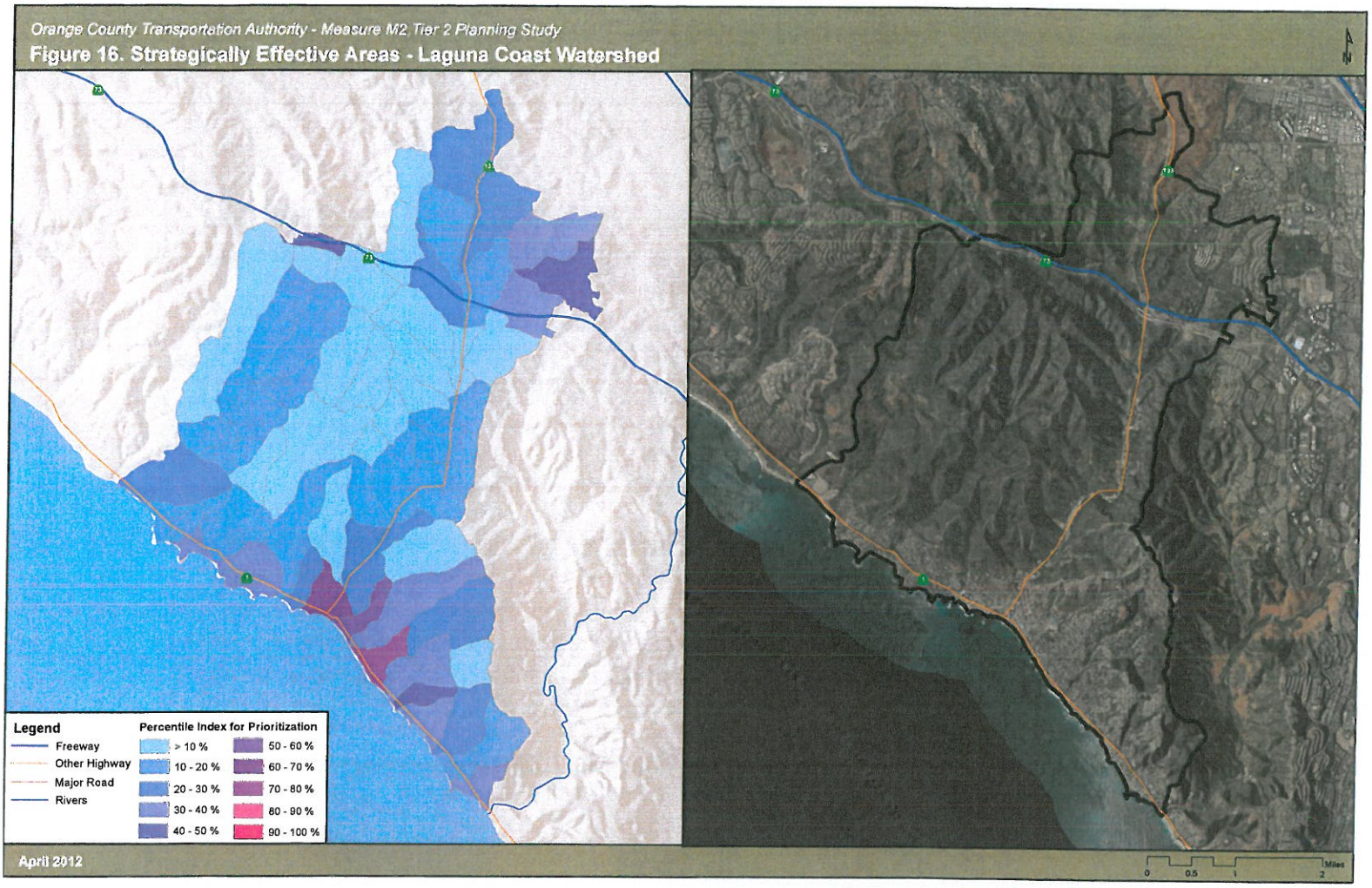
These relatively low SEA scores are reflective of low WQN-LU, Monitoring Data and TPI scores. Scores for all metrics in this analysis are low due to development patterns that are driven primarily by the watershed's hilly terrain. Like the Newport Coast Watershed, the hilly terrain of the Laguna Coast watershed limits the type and extent of developed land uses and, subsequently, the need for vehicular access and roads and the extent of water quality degradation.

WQN-LU scores range between 1 and 9, the average score being 3. The wide range of WQN-LU scores is indicative of variety of land uses that can be found within the watershed (industrial and open space land uses) while the low average score suggests that the watershed is comprised predominantly (75%) of land uses which do not contribute significantly to stormwater pollution (i.e. vacant or open space land uses) associated with priority pollutants. Priority pollutants for the Laguna Coast watershed include metals, nutrients and bacteria which are defined as such based on metals, bacteria and toxicity impairments, and high relative bacteria and nutrients pollutant weighting as defined countywide by the Tier 2 Grant Program project management team.

WQN-MON in the Laguna Coast Watershed range between 2 and 4 and the average score is 3. The average Monitoring Data score is low because, like in Newport Coast watershed, the majority of catchment scores are calculated solely based on the number of downstream impairments. Also like in the Newport Coast watershed, a small portion of the watershed does drain to an OCPW receiving water monitoring station, but consideration of such data does not impact the results.

Like the WQN-LU and WQN-MON, TPI scores in the Laguna Coast watershed are relatively low. This observation is likely due to the land use patterns, which do not require high density road networks to provide adequate access.

The highest scoring catchments within the watershed lie in two general areas: a) in the southeastern corner of the watershed within the jurisdiction of Laguna Woods, and b) in the southwestern corner of the watershed within the jurisdiction of Laguna Beach. Both areas contain large, consolidated patches of residential land uses which drain to impaired waterbodies, which pull up WQN-LU scores and require roadway access networks.

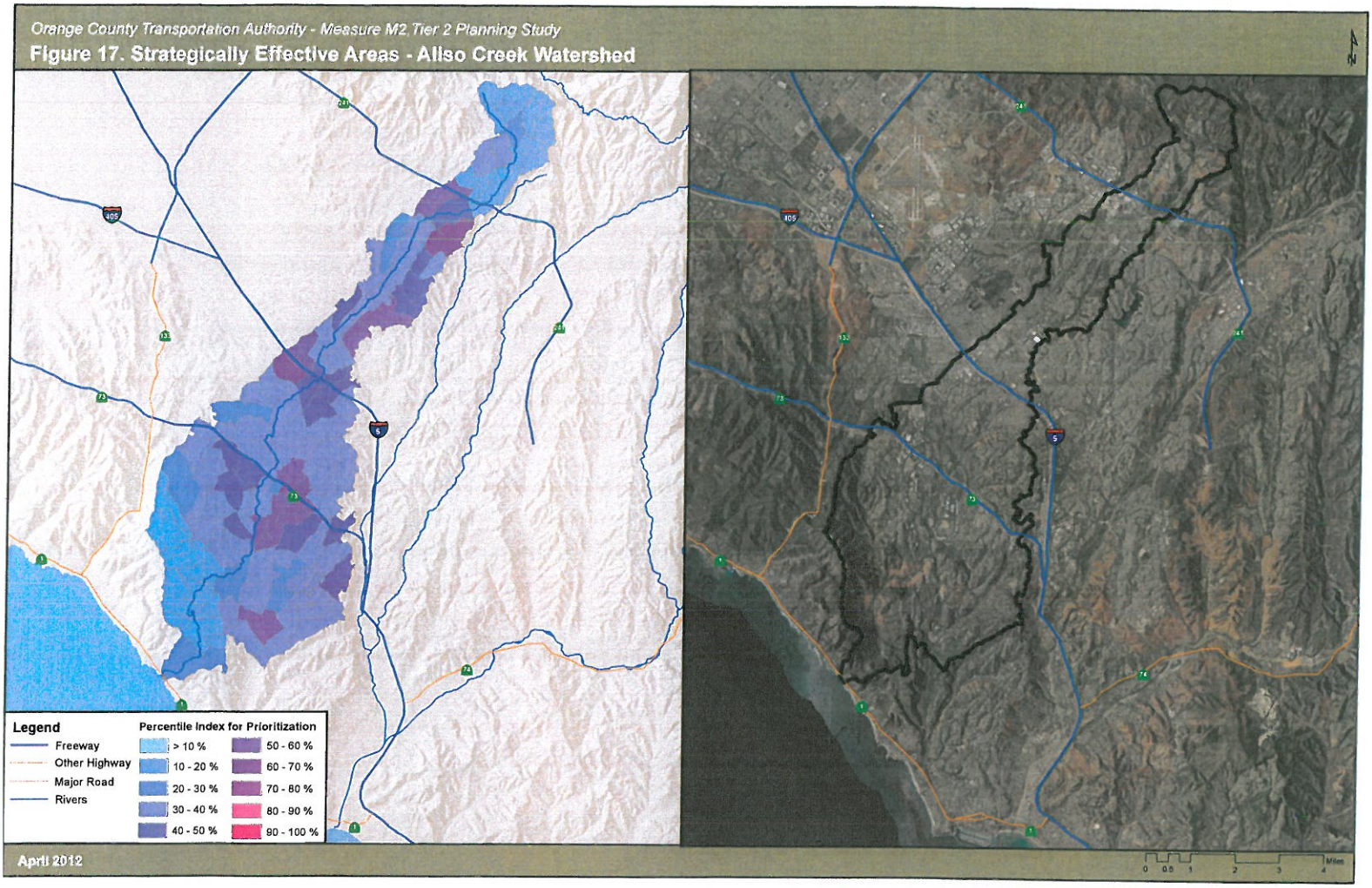

Orange County Transportation Authority - Measure M2 Tier 2 Planning Study
Figure 16. Strategically Effective Areas - Laguna Coast Watershed
N
Legend
Freeway
Other Highway
Major Road
Rivers
Percentile Index for Prioritization
> 10 %
10 - 20 %
20 - 30 %
30 - 40 %
40 - 50 %
50 - 60 %
60 - 70 %
70 - 80 %
80 - 90 %
90 - 100 %
April 2012
0
0.5
1
2
Miles

5.7 ALISO CREEK WATERSHED

Aliso Creek Watershed (Figure 17) is a 35 square-mile watershed draining portions of Lake Forest, Mission Viejo, Laguna Hills, Laguna Woods, Aliso Viejo, and Laguna Niguel with its outlet at the ocean at Laguna Beach. A little over half of the watershed (18 square miles) is in developed land uses, with large hilly, undeveloped areas in both the upper and lower watershed. SEA scores range from 11 to 31 with an average score of 19, which is about mid-range for the 11 watersheds in the county.

The Transportation Priority Index values cover the full range of potential scores from 1 to 10, with an average value of 4. The higher scoring catchments are located towards the middle of the watershed along the CA-241, CA-73, and I-5 corridors, along with a commercial development section of Laguna Niguel. WQN-LU range from 2 to 7 with a mean value of 4. Most of the higher scoring catchments are concentrated in the mid-watershed region due to the denser urban development in this area, predominantly residential. Aliso Creek has listed impairments for metals, bacteria, nutrients, and toxicity. The coastal beaches where the watershed outlet drains are also impaired for bacteria. There are currently no TMDLs within the Aliso Creek Watershed. There is ongoing water quality monitoring within the watershed, with an average Receiving Water Monitoring score of 3. Combining this monitoring score with the Downstream 303(d) Impairments score of 4, the WQN-MON score is 5 with a watershed-wide range of 2 to 7.

All three of the priority groups (Transportation, Land Use Based Water Quality, and Receiving Water) score near mid-range, on average, for Aliso Creek Watershed, meaning all factors contribute fairly evenly to the cumulative SEA ranking. Higher scoring catchments tend to track the highways and surrounding urban development in the middle of the watershed, with lower scoring catchments concentrated in the undeveloped sections at the headwaters near Cleveland National Forest and nearer to the outlet in the Aliso and Wood Canyons Wilderness Park.


Orange County Transportation Authority - Measure M2 Tier 2 Planning Study
Figure 17. Strategically Effective Areas - Aliso Creek Watershed
Legend
Freeway
Other Highway
Major Road
Rivers
Percentile Index for Prioritization
> 10 %
10 - 20 %
20 - 30 %
30 - 40 %
40 - 50 %
50 - 60 %
60 - 70 %
70 - 80 %
80 - 90 %
90 - 100 %
April 2012
Miles

5.8 DANA POINT WATERSHED

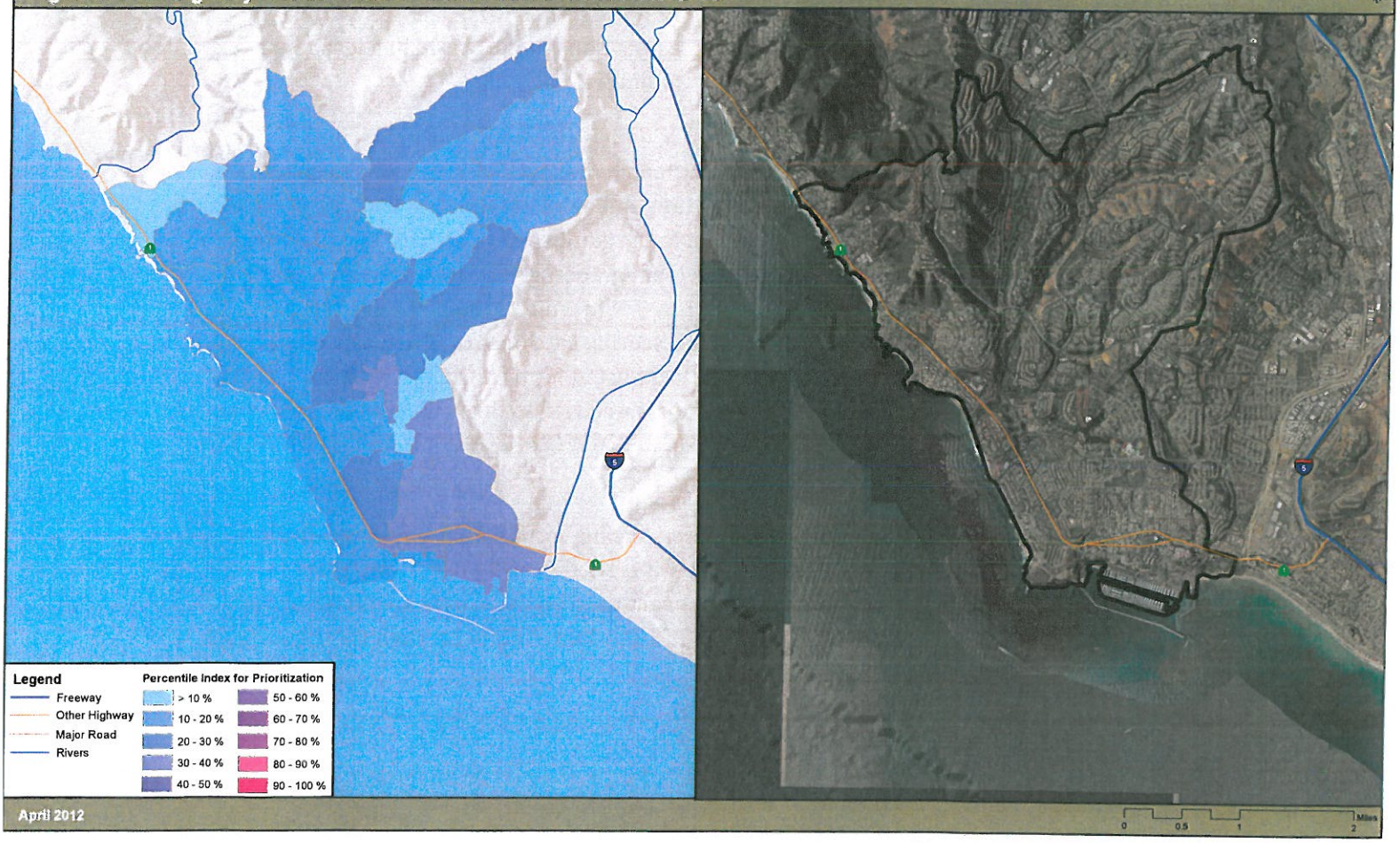
Dana Point Coastal Watershed (Figure 18) is a small collection of ocean-draining catchments covering portions of Laguna Niguel, Laguna Beach, and Dana Point. Of the 11 square miles in this watershed, almost 65% (7 square miles) is in developed land uses, mostly residential with smaller pockets of commercial development. There are no highways within the Dana Point Watershed; however, there are a number of major and primary routes that cross the watershed. There are open space areas in the northwestern portion of the watershed abutting Aliso and Wood Canyons Wilderness Park as well as the Salt Creek Corridor Regional Park along the central watershed drainage. SEA scores range from 7 to 20 with a mean value of 12. This score puts Dana Point Watershed just above the lower third of mean SEA scores within the 11 watersheds studied.

Dana Point Watershed has a mean TPI score of 5, with higher scoring catchments somewhat distributed across the watershed, although the highest scores are clustered in the City of Dana Point in the southeastern portion of the drainage basin. This pattern coincides with the WQN-LU, which are highest in the southeastern watershed where most of the denser commercial and residential development occurs. On a countywide scale, however, the WQN-LU are low, ranging from 1 to 4 with a mean value of 2. Dana Point Harbor, adjacent to the higher TPI and WQN-LU scoring catchments, is listed as impaired for metals and toxicity, and the coastal beaches are listed for bacteria. No TMDLs currently exist within this watershed. Water quality is monitored within the watershed, resulting in an average Receiving Water Monitoring score of 2. The WQN-MON score averages 4 with a watershed-wide range of 2 to 6.

The spatial distribution of the SEA scores reflects the higher TPI, LWQN-LU, and WQN-MON scores in the southeastern portion of the watershed near Dana Point Harbor. However, in the context of the overall county, even these higher scores are on the lower range of county-wide priorities with an average SEA value of 18 in the high priority region.

Orange County Transportation Authority - Measure M2, Tier 2 Planning Study

Figure 18. Strategically Effective Areas - Dana Point Coastal Watershed



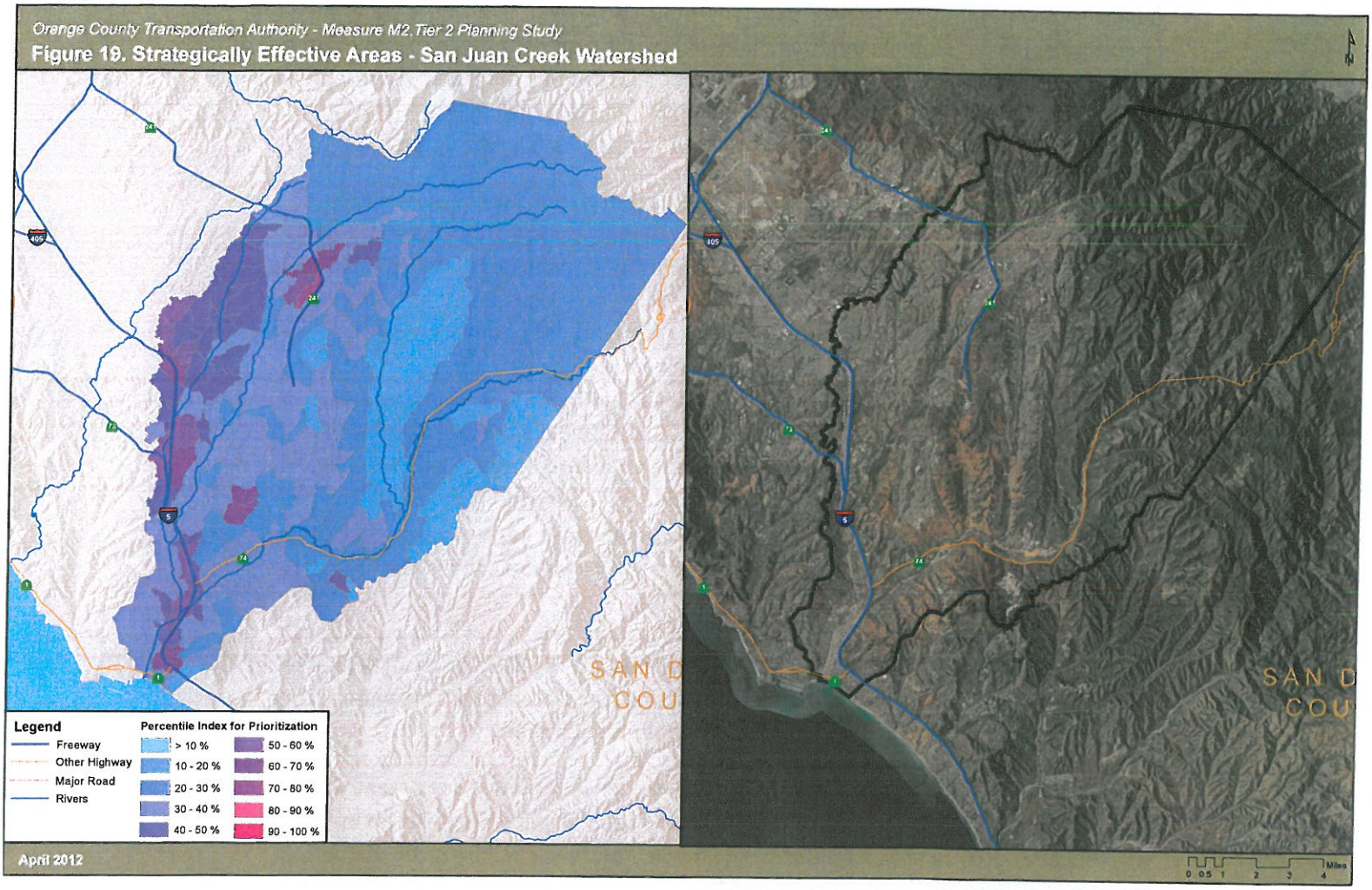
April 2012

5.9 San Juan River Watershed

The San Juan River Watershed (Figure 19) is the largest watershed in South Orange County at 158 square miles, reaching from headwaters in the Cleveland National Forest to a watershed outlet at the coast at Dana Point. The watershed encompasses portions of Mission Viejo, Rancho Santa Margarita, Laguna Hills, Laguna Niguel, San Juan Capistrano, and Dana Point, as well as significant areas of unincorporated county. Most of the upper and eastern watershed is undeveloped, with only a little over 20% of the watershed (34 square miles) in developed land uses. Development is concentrated in the western half of the watershed and near the outlet and consists of residential and commercial land uses with small pockets of industrial development. SEA scores range from 11 to 36 with an average score of 17, exactly mid-range for the 11 watersheds in the county.

Roads and highways are concentrated along the western edge of the watershed and near the outlet. I-5 is the dominant corridor, but CA-241 also crosses the upper watershed along the western edge. The TPI scores are highest in Rancho Mission Viejo and along the I-5 corridor in the southwest, with catchment scores ranging from 1 to 5 and a watershed-wide average of 2. The WQN-LU generally track the land use patterns, with higher scores along the western edge of the watershed and lower scores in the undeveloped eastern and upper watershed. Scores range from 2 to 9, with an average value of 4. Impaired waterbodies within the watershed include Oso Creek (metals, nutrients, toxicity, inorganics, and salinity), San Juan Creek (metals, nutrients, bacteria, and toxicity), and Arroyo Trabuco (nutrients, toxicity, and pesticides). The coastal beaches at the watershed outlet are listed as impaired for bacteria. These numerous impairments yield bands of 303(d) Impairments scores from high along the western edge of the watershed to low along the undeveloped eastern edge, for an average score of 4. Water quality monitoring within the San Juan River basin ranks the watershed an average of 2 on a 1 to 5 scale, which, combined with the impairments score, yields a WQN-MON score of 4 on average with a range from 2 to 7. The spatial pattern of this cumulative receiving water score prioritizes catchments along Oso Creek and Upper Bell Canyon.

The geographic distribution of cumulative SEA scores is generally consistent with all three prioritizations (Transportation, Land Use Based Water Quality Need, Receiving Waters), with higher scores along the western edge of the watershed and towards the outlet, tracking development, impairments, and the I-5 corridor. While the watershed-wide averages are mid-range for the county as a whole, there are 70 higher-priority catchments along the western edge of the watershed and close to the outlet that score at least 20.


Orange County Transportation Authority - Measure M2 Tier 2 Planning Study
Figure 19. Strategically Effective Areas - San Juan Creek Watershed
Legend
Freeway
Other Highway
Major Road
Rivers
Percentile Index for Prioritization
> 10 %
10 - 20 %
20 - 30 %
30 - 40 %
40 - 50 %
50 - 60 %
60 - 70 %
70 - 80 %
80 - 90 %
90 - 100 %
April 2012
Miles
0 0.5 1 2 3 4

5.10 San Clemente Coastal Watershed

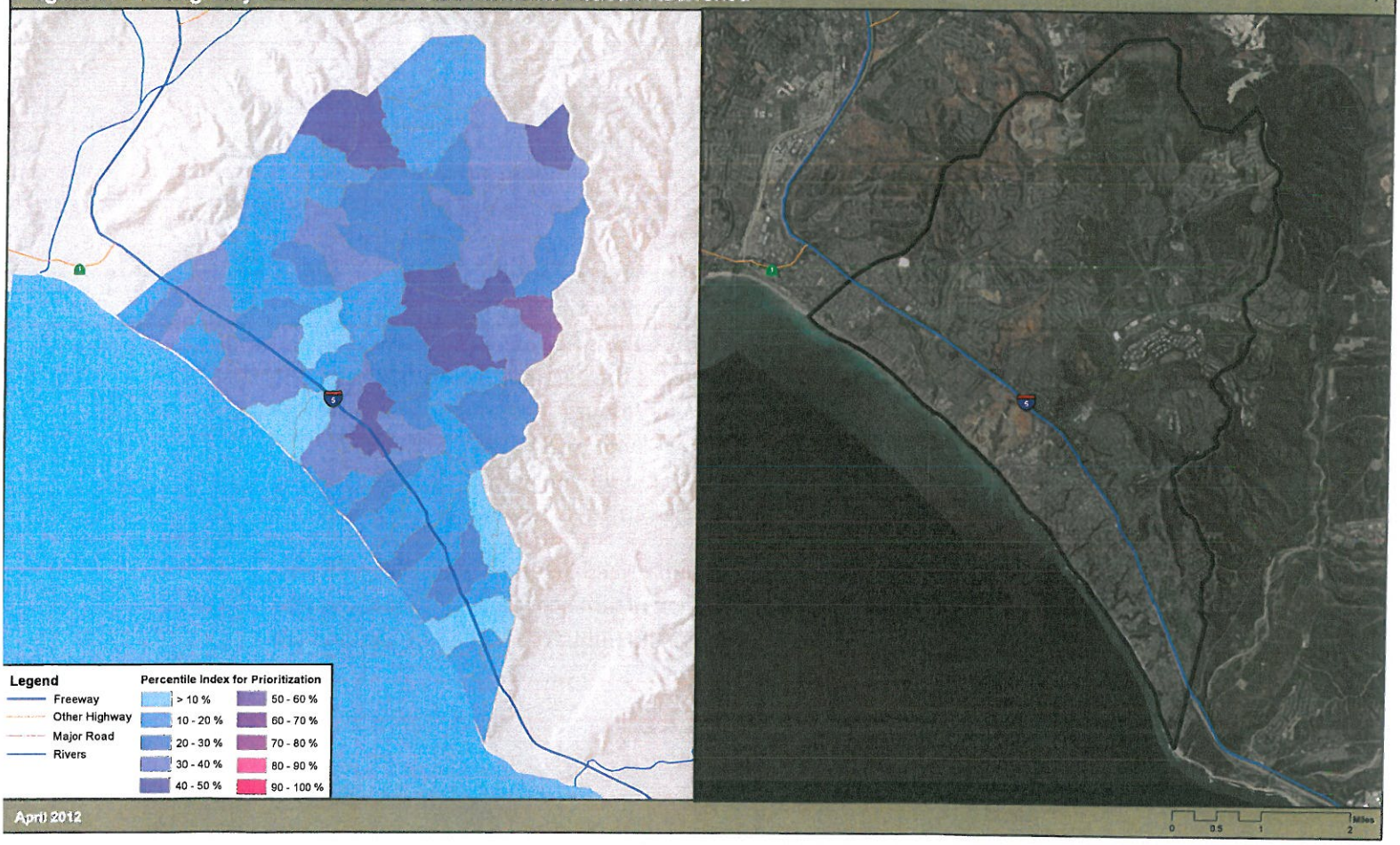
San Clemente Coastal Watershed's 19 square miles (See Figure 20) are predominantly within the City of San Clemente; however, small areas reach into the cities of Dana Point and San Juan Capistrano. Just over half of the watershed (approximately 10 square miles) is in developed land uses. While residential land uses dominate the developed portions of the watershed, there are also significant commercial and industrial areas. Undeveloped areas are spread throughout the watershed, with large tracts in the center of the watershed and in the upper areas (Prima Deshecha Regional Park and Ranch Mission Viejo Ecological Reserve). SEA scores range from 6 to 26 with an average score of 15, close to mid-range (17) for the 11 watersheds in the county.

I-5 runs along the coastal edge of the San Clemente Watershed, and the TPI scores track this corridor. The mean TPI score for catchments within this basin is 4, with a range of 1 to 10. The WQN-LU show a different spatial pattern, with higher priority catchments dispersed throughout the watershed due to higher density residential, commercial, and industrial land uses. Despite a range of WQN-LU of 2 through 9, the average value is 3, putting San Clemente Watershed as a whole on the lower end of priorities in this factor. However, there are 7 catchments within this basin that score in the upper tier (>=20) of the Land Use Based Water Quality Need priorities. Prima Deshecha Creek is listed as impaired for metals, nutrients, and sediment, while the Segunda Deshecha Creek a bit further south is listed for nutrients, sediment, and toxicity. The coastal beaches are listed for bacteria. There are no TMDLs within the San Clemente Watershed. The 303(d) Impairments score averages 3 and water quality monitoring within the watershed also yields an average score of 1. The result is a WQN-MON score with a mid-range value of 4.

The combination of Land Use Based Water Quality Need and Receiving Water scores appear to dominate the geographical distribution of SEA scores. The highest scoring catchments contain more intensive commercial and industrial land use types and are upstream of one of the 303(d) listed creeks.

Orange County Transportation Authority - Measure M2 Tier 2 Planning Study

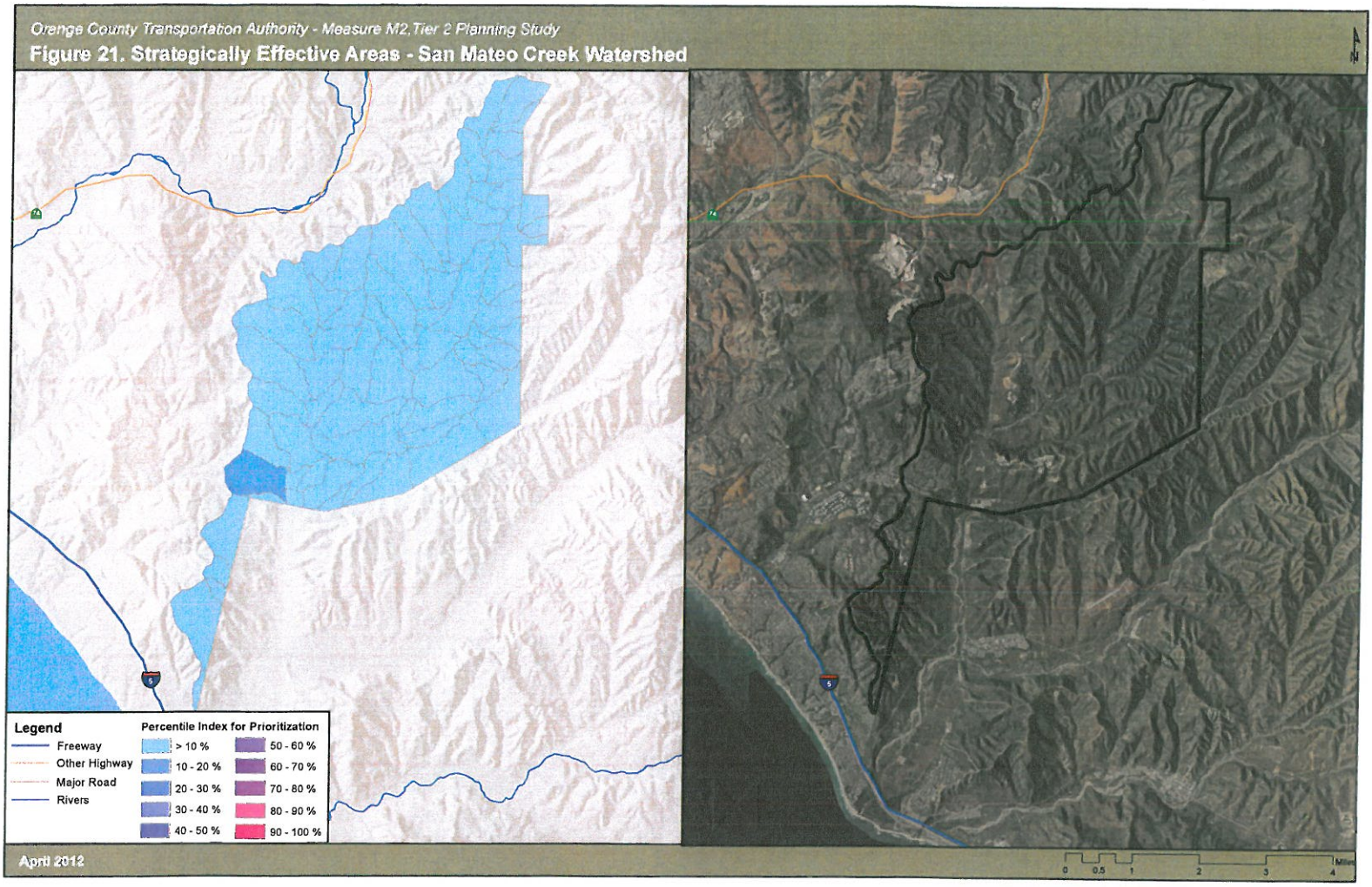
Figure 20. Strategically Effective Areas - San Clemente Coastal Watershed



5.11 San Mateo Creek Watershed

San Mateo Creek Watershed (Figure 21) is a small drainage that straddles Orange and San Diego Counties. The Orange County portion is 19 square miles, less than 5% of which (1 square mile) is in developed land uses. The watershed is nearly all open space, with a small residential development near San Clemente and small pockets of industrial land uses further up in the watershed. As expected, this is a very low-scoring watershed, with SEAs ranging from 6 to 10 and an average score of 6. None of the catchments in this watershed fall within the upper 30th percentile of SEA scores.

With only one arterial highway segment entering the watershed, the TPI scores are quite low, ranging from 1-4 with an average value of 1. WQN-LU are also low given the predominant undeveloped land uses, ranging from 1 to 2 with an average value of 1. San Mateo Creek eventually drains to the ocean, so it is upstream of the regional coast 303(d) impairment listing for bacteria. There is also water quality monitoring at the point where San Mateo Creek meets the county line, with observations placing the drainage into the lowest (1) Receiving Water Monitoring score. The WQN-MON score averages 2. Overall, the highest SEA scoring catchments track development at the bottom of the watershed near San Clemente, but even these highest scores are quite low from a countywide perspective.


Orange County Transportation Authority - Measure M2, Tier 2 Planning Study
Figure 21. Strategically Effective Areas - San Mateo Creek Watershed
Legend
Freeway
Other Highway
Major Road
Rivers
Percentile Index for Prioritization
> 10 %
10 - 20 %
20 - 30 %
30 - 40 %
40 - 50 %
50 - 60 %
60 - 70 %
70 - 80 %
80 - 90 %
90 - 100 %
April 2012
0 0.5 1 2 3 4

6 LIMITATIONS

This work was conducted in accordance with the scope of work, purpose, terms, and conditions described in the Terms of Reference, described above. The results and conclusions contained in this memorandum are based on the analyses presented herein and information compiled and collected by Geosyntec; no independent verification or validation of data or referenced studies was conducted as part of this effort.

No warranty, expressed or implied, is made regarding the professional opinions expressed in this report or concerning the completeness of the data presented to us.

Geosyntec is not liable for any use of the information contained in this report by persons other than OCTA for purposes described above in Section 1. Use of this information for any purposes other than referenced in this report without the expressed, written consent of Geosyntec is not authorized.

7 REFERENCES

(Data sources are described in the Technical Memoranda)

Ackerman & Schiff, 2003. Modeling Storm Water Mass Emissions to the Southern California Bight. J. of Environmental Engineering. April 2003. P. 308-317.

Geosyntec Consultants, 2008a. A User's Guide to the Structural BMP Prioritization and Analysis Tool (SBPAT v 1.0), Prepared for Heal the Bay, the City of Los Angeles, and the County of Los Angeles Department of Public Works, December 2008.

Geosyntec Consultants, 2008b. Los Angeles County-wide Structural BMP Prioritization Methodology, Updated November 7, 2008.

Geosyntec Consultants, 2008c. Technical Memorandum: Hydrologic Analysis of Proposition O Projects for Santa Monica Bay Beaches Wet Weather Bacteria TMDL, Developed for distribution to the City of Los Angeles Bureau of Engineering Proposition O Design Teams.

ORANGE COUNTY TRANSPORTATION AUTHORITY

Measure M2 Environmental Cleanup Allocation Program – Tier 2 Grant Program Guidelines and Call for Projects

Attachment B

Draft Environmental Cleanup Program Guidelines

Chapter 12 Environmental Cleanup Program Guidelines

TIER 2 GRANT PROGRAM

The Tier 2 Grant Program consists of funding larger (projects treating catchment areas of 50 acres or greater), potentially multi-jurisdictional, capital-intensive structural treatment best management practice (BMP) projects. Proposed projects covering smaller catchment areas which are otherwise eligible are not prohibited from the application process and will be regarded as eligible for consideration if the proposed project can demonstrate highly significant water quality improvement benefits (greater than other competing larger scale proposed projects) and cost-effectiveness under the scoring criteria guidelines. Tier 2 funds are designed to fund large-scale BMP construction projects. Examples include constructed wetlands, detention/infiltration basins and other large-scale BMPs that mitigate litter and debris, heavy metals, organic chemicals, sediment, nutrients, and other transportation-related pollutants. Funds will be awarded through a competitive grant process geared towards awarding funds to the highest scoring, most cost-effective projects.

Pre-Application Process

In order to facilitate a jurisdiction's best use of Environmental Cleanup Program (ECP) funds, Tier 2 applicants may engage in a pre-application process with the Orange County Transportation Authority (OCTA) staff in order to assist jurisdictions in project planning, proposal and cost estimate development, and determination of likely projected scoring in the scoring criteria. The pre-application timeframe is defined as the time between the initiation of the call for projects and one week prior to the application deadline date. Subsequent to the call for projects deadline, applicants will not be able to change the content of their application or scope of the project.

Eligible Applicants

ECP funds can be used to implement street and highway-related water quality improvement projects to assist Orange County cities and the County of Orange to meet federal Clean Water Act standards for urban runoff. Applicants eligible for ECP funds include the 34 Orange County cities plus the County of Orange. Eligible applicants must meet the transportation requirements discussed in the Measure M2 (M2) Ordinance.

For Tier 2 multi-agency collaborations, M2 eligible jurisdictions may partner with other entities such as special districts and non-profits, but the lead agency must be an M2 eligible jurisdiction.

Third parties, such as water and wastewater public entities, environmental resource organizations, non-profit 501(c) environmental institutions, and homeowners associations cannot act as the lead agency for a proposed project; however, these agencies can jointly apply with an M2 eligible Orange County city and/or the County of Orange.

Two or more agencies may participate in a project. If a joint application among agencies and/or third party entities is submitted, a preliminary agreement with joint or third party entities must be provided as part of the application. In order to meet M2 Ordinance requirements, an eligible applicant must be the lead agency for the funding application. Per Chapter 9 of the Comprehensive Transportation Funding Program (CTFP) Guidelines, if a project includes more than one jurisdiction and is being submitted as a joint application, one agency shall act as lead agency and must provide a resolution of support from the other agency.

Each eligible jurisdiction must meet the eligibility criteria as set forth in Chapter 1 of the CTFP manual. For example, to apply for CTFP programs, local agencies must fulfill an annual eligibility process. Eligibility packages are due to OCTA by June 30 of each year. The M2 Eligibility Preparation Manual outlines the eligibility requirements in detail.

In order for an applicant to accept ECP funding for their proposed project, OCTA has certain requirements that must be met. These requirements include adhering to the OCTA CTFP Guidelines; meeting a ten-year BMP operations and maintenance (O&M) commitment; and commitment to maintain and monitor the project commensurate with the design life.

Project Programming

The Tier 2 Grant Program is designed to be consistent in terms of approach with Chapter 2 of this CTFP Manual.

Funding Estimates

The Tier 2 program will be funded beginning in winter 2012-13 using bond financing revenues with up to $38 million allocated through fiscal year (FY) 2014-15. Beyond 2014-15, funding will be based on a pay-as-you-go basis. The maximum amount that an individual project may receive of the initial $38 million in Tier 2 funding is capped at $5 million per project phase. Projects must receive a minimum evaluation score of 70 out of 100 to receive grant funds.

The first Tier 2 call for projects is expected to be issued in spring 2012, with a total amount of $13.3 million available for programming. Jurisdictions may request allocation of funds to be in either FY 2012-13 or FY 2013-14. The second Tier 2 call of $24.7 million is expected in FY 2013-14, and jurisdictions may request allocation of

funds in either FY 2013-14 or FY 2014-15. Depending on the outcome of the first two Tier 2 call for projects, there may be a third call if there are residual funds available after the first two calls.

FY 2012-13 Tier 2 Implementation Timeline

The Tier 2 call for projects will be open for 90 days. The FY 2012-13 Tier 2 applications must be received by OCTA no later than 5:00 p.m., month/date 2012. OCTA is seeking applications for projects, which can be awarded no later than June 30, 2013 for the FY 2012-13 funding cycle, or by June 30, 2014, for the FY 2013-14 funding cycle. Projects that do not obligate funds by the dates/cycles listed above will not be considered. Funds allocated by OCTA for each awarded project will be available on July 1st of that funding cycle year.

After the Tier 2 applications are reviewed by OCTA, an advisory panel will review and rank projects in accordance with the OCTA Board of Directors (Board) approved scoring criteria. Following review and recommendation by the Environmental Cleanup Allocation Committee (ECAC), a recommended priority list of projects will be forwarded to the Board for approval. Funds allocated for projects are final once approved by the OCTA Board. No additional funds will be allocated to the project. Grantees are responsible for any costs exceeding the allocated amount.

Matching Funds

For the Tier 2 Grant Program, a minimum local match of 50 percent of the project phase cost is required. These matching funds can be provided by cash contributions or in-kind services. Construction management and project management cannot exceed 15 percent of construction costs. Previously completed phases of a project may not be attributed to the match. Prior expenditures cannot be used as matching funds. In-kind services can include salaries and benefits for employees who work directly on the project. In-kind services for O&M cannot be pledged as a match.

Potential to reduce matching funds up to 25 percent:

- Project readiness (i.e., environmental [five percent], design [five percent] or right-of-way acquisition [five percent]) – up to fifteen percent reduction
- O&M commitment beyond ten years: Five years above commitment for a total of 15 years (five percent reduction) and ten years above commitment for a total of 20 years (ten percent reduction) – up to ten percent reduction

If a joint application among agencies and/or third party entities is submitted, matching funds documentation must clearly identify the entity providing the funds for each line item in the matching funds description. Additionally, preliminary agreements are required to be submitted with the grant application that contains the matching funds commitments from a supporting agency.

Applicants must submit a draft BMP O&M plan covering a minimum of ten years after project completion. The BMP O&M plan must document (through a resolution) project O&M financial commitment and sustainability for ten years and is subject to an OCTA semi-annual (twice yearly) review process over the ten-year period. BMP O&M costs cannot be used for the match or in-kind services. Applicants must include as part of the O&M Plan project assessment and monitoring of performance. A documented 15 or 20 year draft BMP O&M plan (submitted with application) will be eligible for a five percent or ten percent matching funds reduction, respectively.

Refer to Chapter 10 for reimbursement details. Sufficient documentation including council resolutions, purchase orders, invoices, and payroll records must be submitted with the funding request to enable OCTA to verify total project expenditures and eligible costs.

Matching rate commitments identified in the project grant application shall remain constant throughout the project. Match rate commitments may not be reduced for any reason.

Eligible Expenditures

- ECP funds are designed to fund capital improvements. Tier 2 funds are designed to be strictly used for project construction costs, although up to ten percent of total grant amount (i.e., funds requested) may be allocated to preliminary project design, environmental, or engineering costs. Non-capital expenses for enhancements such as education, recreation, etc. are not eligible for Tier 2 Grant Funding.
- Tier 2 projects must meet the transportation nexus as outlined previously in this chapter.
- Expenditures prior to allocation of funds cannot be considered eligible for funding or match.
- Eligible jurisdictions may use in-kind services to meet all or part of the matching funds requirement. These services can include salaries and benefits for employees of the eligible jurisdiction who perform work on the project or programs. Only those employees' salaries and benefits working directly on the project will be considered for the matching requirement. For Tier 2, construction management and project management cannot exceed 15 percent of the total construction costs.
- ECP funds are not to be used for planning.
- ECP funds can only be used for facilities that are in public ownership for public use; however, water quality improvements on private property, which are connected to municipal separate storm sewer systems, are eligible (for example, a homeowner's association can apply for funding through an eligible agency if the proposed project is connected to a public facility).

Overmatch

For the Tier 2 Grant Program, administering agencies may "overmatch" ECP projects; that is, additional cash match dollars may be provided for the project. Applicants will receive additional points in the evaluation process for over matching with cash contributions. Proposals that exceed the 50 percent minimum funding match will be given an additional one point for every five percent over the minimum cash match (up to five bonus points).

Additionally, administering agencies must commit to cover any future cost overruns if the project is underfunded. Any work not eligible for ECP reimbursement must be funded by other means by the project applicant and cannot count as match. These non-eligible items should not be included in the cost estimate breakdown in the application.

Expenditures incurred prior to letter agreement execution cannot be credited towards the matching fund threshold.

Reimbursements

For the Tier 2 Grant Program, OCTA will release funds through two payments. The initial payment will constitute 75 percent of the contract award or programmed amount at time of award. OCTA will disburse the final payment, approximately, 25 percent of eligible funds, after approval of the final report. Further information on reimbursements can be located within Chapter 10 of the CTFP Guidelines.

Scope Reductions and Cost Savings

Any proposed scope reductions of an approved project must be submitted to OCTA to ensure consistency with the Tier 2 Grant Program requirements. If the proposed scope reduction is approved by OCTA, cost savings will be proportionally shared between OCTA and the grantee. A reduction in ECP funds must be applied proportionally to maintain the approved local match percentage. All cost savings will be returned to the Tier 2 Grant Program for reallocation for the subsequent call for projects.

Tier 2 Selection Criteria

OCTA will evaluate all proposals that meet the mandatory prerequisites based on competitive selection criteria with the following categories:

- Problem and source identification
- Project design
- Project implementation and readiness
- Project benefits
- Performance metrics

Each proposal can receive a maximum of 100 points, exclusive of five bonus points associated with a cash "overmatch," which was discussed in a previous section. Tier 2 selection criteria include both technical scoring criteria – 70 percent weighting – and non-technical scoring criteria – 30 percent weighting.

A focus on several overarching concepts is emphasized in the funding guidelines and scoring criteria:

- Focus on a clear and measureable transportation nexus, defined as total lane miles in the project catchment area, as defined by the Master Plan of Arterial Highways
- Priority in the scoring criteria is given to projects in areas of highest water quality need, as established by predicted pollutant loading, receiving water monitoring, and the extent of impairment of receiving waters (i.e., higher priority given to 303(d) listed water bodies or project in a water quality plan)
- Quantification of project benefits where possible in terms of a load reduction metric (pollutants or water volumes), expressed in terms of cost-benefit
- Emphasis on project readiness, and ability to leverage funding
- Emphasis on other regional and environmental benefits
- Emphasis on multi-jurisdictional and public benefits

Application Process

The following information, which is to be completed within the Tier 2 Grant Application Form (Exhibit 12-2), is required by OCTA to evaluate and select projects. A checklist is included in the Tier 2 Grant Application Form to assist eligible agencies in assembling project proposals:

- Project Title
- Lead Agency Information
- Joint-Application (if applicable)
- Funding Request/Match Commitment
- Proposed Schedule
- Project Management
- Integrated Regional Water Management Plan identification (if applicable)
- Description of Proposed Project
- Project Priority
- Funding Cycle preference
- Performance Metrics (Project Specific Information)
- Funding Information

In addition, the following exhibits are required to be included within the submitted proposal:

- Project design or concept drawings, including preliminary design calculations, of proposed BMP
- Estimates of pollutant load reduction, calculated using structural best management practices prioritization and analysis tool (SBPAT) or equivalent
- Precise maps to show tributary drainage area and proposed location(s) for BMP installation
- Disposition of environmental clearance and permitting
- Discussion and disposition of long term maintenance agreement
- Discussion of multiple benefits
- Discussion of funding leveraging/overmatch
- Digital project site photos
- A project master schedule
- Preliminary agreements with joint and/or third party entities if part of the funding application
- A draft resolution (final due prior to OCTA Committee and Board approval)
- A ten year draft BMP O&M plan. Applicants may propose up to a 20 draft year BMP O&M plan (if applicant desires match reduction)

Information can be completed utilizing the grant application exhibit.
For the Tier 2 Grant Program, an unbound original and four copies (total of five) of the completed application form and related exhibits are to be submitted, plus a CD copy of the complete application. Use separate sheets of paper if necessary.

There is no maximum length for proposals. All pages must be numbered and printed on 8-1/2 x 11 sheets of white paper. Maps and drawings can be included on 11 x 17 sheets, folded into the proposal. The original proposal should be left unbound for reproduction purposes.

Reporting and Reimbursement

The Tier 2 Grant Program is consistent with Chapter 10 of the CTFP Guidelines regarding the process and requirements of reimbursements and reporting including semi-annual reviews. Upon completion of project construction, a final BMP O&M plan is required to be submitted along with the final report.

Additionally, an exception to Precept #34: Agencies may appeal to the ECAC and the OCTA Board on any issues that the agency and OCTA cannot resolve.

Audit Process

Once an agency submits a final report for a project, OCTA shall review the report for compliance with the CTFP guidelines and may conduct a field review. The audit process for the Tier 2 Grant Funding program is consistent with Chapter 11 of this CTFP manual. If possible, project audits will occur simultaneously with the M2 audit. All programs will require an audit of project expenditures. Only CTFP eligible items listed on a project's cost estimate form will be reimbursed.

EXHIBIT 12-2
MEASURE M2 ENVIRONMENTAL CLEANUP PROGRAM
TIER 2 PROJECT APPLICATION

Part One: General Project Information (Non-scored)

Project Title: _____

Lead Agency Information	**FUNDING/MATCH SUMMARY**	
(Project Administrator responsible for day-to-day project implementation) Name: Title: Address: Phone: Email:	TOTAL PROJECT COST (TPC) $_____ Complete section "i." on next page to calculate amounts below TOTAL FUNDS REQUESTED APPLICANT MATCH % (50% min. minus reductions) OVERMATCH COMMITMENT APPLICANT MATCH AMOUNT Project is part of a larger effort (circle)	$_____ _____% _____% $_____ Yes / No
Joint Applicant / Third Party: Name: Title: Agency: Address: Phone: Email:	**Joint Applicant / Third Party:** Name: Title: Agency: Address: Phone: Email:	**Joint Applicant / Third Party:** Name: Title: Agency: Address: Phone: Email:

i. Funding Request/Match Commitment:

Total Funds Requested ($5 million max)	**$_____**	
Match Reduction Percentages (25% max)* Project Readiness up to 15% Draft Operations and Maintenance (O&M) Plan up to 10%	**Applicant Match**	**Match Calculation**
• Minimum Required Match Percent	50%	50%
Project Readiness • CEQA Certification (must be certified) • Construction Documents Complete • Right-of-Way Acquired	 5% reduction 5% reduction 5% reduction	 Subtract ☐ % Subtract ☐ % Subtract ☐ %
Draft O&M Plan (10-year Plan Required) • O&M Beyond 10 years: 15 years (5% reduction)or 20 years (10% reduction)	5% or 10% reduction	Subtract ☐ %
Calculated Applicant Match Percentage		_____%
Applicant Overmatch Percentage (See Part Two, #7)		_____%
Applicant Match Amount (Total Funds Requested X Match Percentage)		$_____
Estimated Eligible Grant Funded Expenditures**	**Amount**	**Percentage**
• Construction	$_____	_____%
• Project Management/Construction Management (max 15% of Construction Cost)	$_____	_____%
• Preliminary Project Design, Environmental, & Engineering (max 10% of Total Funds Requested)	$_____	_____%
Total Eligible Expenditures (Cannot exceed total funds requested plus match amount)	$_____	

* Match reduction(s) require verification by evaluation committee.

** Provide if available. This information will be required for payment verification at time of invoicing.

ii. Proposed Schedule: Provide an estimate of the project's proposed schedule:

	Start Date	Completion Date
Environmental Document		
Design and Permitting (if applicable)		
Right-of-way (if applicable)		
Award of Contract		
Construction		
Operations & Maintenance (10 years min. 15 or 20 years for match reduction)		

iii. Project Management

Provide an assessment of the management capabilities of the Applicant/Lead Agency. At a minimum, include an organization chart (as attachment), showing key project individuals who will be responsible for ensuring that the project is completed and has long-term sustainability.

iv. Integrated Regional Water Management Plan (IRWMP)

Is the proposed project identified in an existing IRWMP? Yes _____ No _____

v. Description of Proposed Project

Describe the project and why it is important for controlling transportation-related pollutants to a watershed(s).

vi. Project Details:

INFORMATION REQUIRED	INPUT
1. Project Location (Street Address or Lat-Long)	
2. Project BMP Type (use CASQA or equivalent definition)	
3. Project Design Criteria. Select one: - Volume-based BMP (24-hour rainfall volume) - Flow-based BMP (design 1-hour intensity)	
4. Project Site Map	Provide as Attachment (provide as GIS file or in Google Earth format)
5. Project Tributary Drainage Area	Provide as Attachment (provide as GIS file or in Google Earth format)

vii. Project Priority

If submitting an application for more than one project, is this project your agency's priority?

Yes _____ No _____

viii. Funding Cycle

If awarded funding, in which funding cycle would you like to receive funds? (Check one)

_____ FY 2012-13 (contract must be awarded by June 30, 2013 and funds would be available July 1, 2013)

_____ FY 2013-14 (contract must be awarded by June 30, 2014 and funds would be available July 1, 2014)

Part Two: Project Specific Information (scored)

Each proposal can receive up to 105 points, inclusive of five bonus points associated with overmatch commitment. Tier 2 selection criteria includes both technical scoring criteria (70 percent weighting) and non-technical scoring criteria (30 percent weighting).

1) Transportation Priority Index (5/100 pts – Coordination with OCTA required to determine points)
   The Transportation Priority Index (TPI) is developed based on density of roadway lane miles within pre-defined catchment areas. OCTA will provide geospatial information (through ArcGIS and/or Google Earth) that will allow applicants to establish this point score based solely on project location/address.

   ☐ Points (5 max)

2) Water Quality Need Analysis (40/100 pts – Coordination with OCTA required to determine points)
   a) *The Environmental Cleanup Allocation Committee (ECAC) agreed upon criteria upon which water quality Catchment Prioritization Index (CPI) scores were established. CPI scores quantify water quality need using the GIS-based Structural BMP Prioritization and Analysis Tool (SBPAT) and Orange County land use and receiving water data. OCTA will provide geospatial information (through ArcGIS and/or Google Earth) that will allow applicants to establish this point score based solely on project location/address.*

      ☐ Points (30 max)

   b) *The OCTA team reviewed County monitoring data and regulatory (303d) impairment lists to establish indices of water quality need based on receiving water quality. OCTA will provide geospatial information (through ArcGIS and/or Google Earth) that will allow applicants to establish this point score based solely on project location/address.*

      ☐ Points (10 max)

3) BMP Performance (25/100 pts – Coordination with OCTA required to determine points)
   a) For Wet Weather (25 pts), develop water quality load reduction index (WQLRI)

A	B	C	D
Pollutant Family	Relative Contribution to CPI Score from SBPAT Prioritization Output	Avg. Annual Load Reduction from SBPAT Analysis Output (units vary, max 100)	Weighted Load Reduction (B x C)
Volume	___%		
Metals	___%		
Bacteria	___%		
Nutrients	___%		
TSS	___%		
	___%	dimensionless WQLRI (sum)	

WQLRI/Total Project Cost: _____
Wet Weather Project Quantile (to be completed by OCTA): _____
Wet-Weather Points Allocated (to be completed by OCTA): _____

   b) For Dry Weather (25 pts), estimate total dry-weather volume mitigated (include supplemental calculation package, including basis for estimates)

Proposed BMP Technology	
Estimated Total Dry Weather Flow Rate (cfs)	
Estimated Total Dry Weather Flow Rate Mitigated (cfs)	
Estimated Percentage of Dry-Weather Flow Removed or Avoided (MG/yr)	
Estimated Percentage of Dry-Weather Flow Treated to Water Quality Standards (MG/yr)	
Estimated Total Dry Weather Flow Volume Fully Mitigated (MG/year)	

Mitigated Dry Weather Volume/Total Project Cost: _____
Dry-Weather Project Quantile (to be completed by OCTA): _____
Dry-Weather Points Allocated (to be completed by OCTA): _____

   c) Total BMP Performance Score
Wet-Weather Points Allocated (from a)) _____
Dry-Weather Points Allocated (from b)) _____
Total Points Allocated (max 25 points) _____

4) Multiple-Benefits (semi-qualitative analysis) (10/100 pts max from subcategories *a, b, c, d, e*)

All subcategories may not apply to your project.

a) Drainage (5 pts max)
How does the project increase levels of protection or mitigate a flooding problem?

b) Recreational (5 pts max)
How does the project provide a recreational benefit to the community?

c) Habitat (5 pts max)
How does the project provide a habitat benefit?

d) Water Resources (5 pts max)

Is there a potential water resources sustainability benefit? Describe.

e) Other (5 pts max)

Describe any other benefit your project provides not previously addressed in a *through* d.

5) Project Readiness (10 pts max)

Describe the project's readiness (i.e., how far along is the project with regard to concept development, cost estimates, design, environmental compliance, construction documents).

6) Policy (10/100 pts max from subcategories *a* and *b*)

a) Multi-Jurisdictional Project with Regional Benefit (max 10 pts)

If the project is multi-jurisdictional, describe how it would provide a regional benefit.

b) Community and Public Support and Benefit (max 5 pts)
Does the project have community and public support and how will it provide a benefit? Include relevant support letter(s)as an attachment.

7) BONUS POINTS: Ability to Leverage Funding (5 pts max, 1 point per 5%)
Will your agency provide matching funds above the minimum?

For OCTA use:

Points Category	**Available**	**Earned**
Technical	70 points	
Non-Technical	30 points	
Bonus	5 points	
	TOTAL	

Part Three: Funding

Project Title: _____	**Phone: _____**
Contact: _____	**Email: _____**
Agency: _____	

Local Match Detail

Cash Contribution	_____
In-Kind Services *	_____
Other Grants	_____
Total Match Commitment	$ -

Source(s) of Local Match

1. ***In-Kind Services (excluding O&M): Salaries and benefits for employees who will perform work on the proposed project are eligible as a matching requirement. Please provide details on how in-kind services are calculated. Identify the Fiscal Year(s) of In-Kind expenditure and amount for each year. Do not use acronyms.**

2. **Other grants and/or funding may include fair share funds, non-ECP state or federal grant funds, local city funds, general funds, developer fees, etc. Please list the name and amount of any respective non-ECP grants that are proposed as a match. If there are other grant type(s), include the status of each.**

Estimated Preliminary Project Design, Environmental, & Engineering Cost

Item #	Description	Unit	Quantity	Unit Price	Amount
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				Subtotal:	$0

Estimated Construction (Capital) Costs

Item #	Description	Unit	Quantity	Cost/Price	Amount
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				Subtotal:	$0

Estimated Project Management/Construction Management Costs

Item #	Description	Unit	Quantity	Cost/Price	Amount
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				Subtotal:	$0

Estimated Other Costs

Item #	Description	Unit	Quantity	Cost/Price	Amount
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				$ -	$ -
				Subtotal:	$0

TOTAL PROJECT COST	$0

Part Four: Tier 2 Grant Program Resolution

SAMPLE AGENCY RESOLUTION REQUESTING FUNDS FOR PROPOSED PROJECT

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL/BOARD OF THE CITY/COUNTY OF _____ AUTHORIZING AN APPLICATION FOR FUNDS FOR THE ENVIRONMENTAL CLEANUP, TIER 2 GRANT PROGRAM UNDER ORANGE COUNTY LOCAL TRANSPORTATION ORDINANCE NO. 3 FOR

(NAME OF PROPOSAL) PROJECT.

WHEREAS, Orange County Local Transportation Ordinance No.3, dated July 24, 2006, and is known and cited as the Renewed Measure M Transportation Ordinance and Investment Plan makes funds available through the Environmental Cleanup Program to help protect Orange County beaches and waterways from transportation-generated pollution (urban runoff) and improve overall water quality.

WHEREAS, the Environmental Cleanup, Tier 2 Grant Program consists of funding regional, potentially multi-jurisdictional, capital-intensive projects, such as constructed wetlands, detention/infiltration basins and bioswales, which mitigate pollutants including litter and debris, heavy metals, organic chemicals, sediment, and nutrients.

WHEREAS, OCTA has established the procedures and criteria for reviewing proposals; and

WHEREAS, (ADMINISTERING AGENCY) possesses authority to nominate water quality improvement projects that have a transportation pollution nexus to finance and construct the proposed project; and

WHEREAS, by formal action the (GOVERNING BODY) authorizes the nomination of (NAME OF PROPOSAL), including all understanding and assurances contained therein, and authorizes the person identified as the official representative of the (ADMINISTERING AGENCY) to act in connection with the nomination and to provide such additional information as may be required; and

WHEREAS, the (ADMINISTERING AGENCY) will maintain and operate the equipment acquired and installed; and

WHEREAS, the (ADMINISTERING AGENCY) will give OCTA's representatives access to and the right to examine all records, books, papers or documents related to the funded Tier 2 Grant Project; and

WHEREAS, the (ADMINISTERING AGENCY) will cause work on the project to be commenced within a reasonable time after receipt of notification from OCTA and that the project will be carried to completion with reasonable diligence; and

WHEREAS, the (ADMINISTERING AGENCY) will comply where applicable with provisions of the California Environmental Quality Act, the National Environmental Policy Act, the American with Disabilities Act, and any other federal, state, and/or local laws, rules and/or regulations;

NOW, THEREFORE, BE IT RESOLVED that the City/County of _____, hereby authorizes (NAME OF AGENCY REPRESENTATIVE) as the official representative of the (ADMINISTERING AGENCY) to accept funds for the Environmental Cleanup, Tier 2 Grant Program for (NAME OF PROPOSAL).

BE IT FURTHER RESOLVED that the City/County of _____, agrees to fund its share of the project costs and any additional costs over the identified programmed amount.

Checklist

Mandatory Application Items (check all items included in this package)

_____ Application (Parts 1 - 3)

_____ Environmental Document (if applicable)

_____ Preliminary Cooperative Agreement (if applicable)

_____ Project Cost Estimate

_____ Proposed Budget

_____ Maps

_____ Design / Concept Drawing

_____ Digital Project Site Photos

_____ Project Schedule

_____ Draft Resolution

_____ Applicable Exhibits (refer to Tier 2 Guidelines)

ORANGE COUNTY TRANSPORTATION AUTHORITY

Measure M2 Environmental Cleanup Allocation Program – Tier 2 Grant Program Guidelines and Call for Projects

PowerPoint

Measure M2 Environmental Cleanup Allocation Program – Tier 2 Grant Program Guidelines and Call for Projects

OCTA

Background

- Measure M2 (M2) – Water Quality Program component
- Environmental Cleanup Allocation Committee (ECAC)
- Program requirements
  - Transportation-related
  - Competitive process
  - Capital improvements, cost-effective
  - Not to supplant funding or mitigation
- Early Action Plan Project

CTFP Funding Guidelines

- M2 streets and roads programs
- Simplified and consistent process
- Uniform requirements
  - reimbursements
  - reporting
  - auditing

CTFP – Comprehensive Transportation Funding Program

Eligible Applicants

Lead Agencies

- Orange County cities
- County of Orange

Joint Application Partnerships

- Water/wastewater public entities
- Environmental resource organizations
- Non-profit 501(c) environmental institutions
- Homeowner's associations

Early Action Plan Allocation

Up to $57.5 million available through FY 2017-18

Ultimate funding projected to be approximately $300 million

Tier 1

- Up to $19.5 million pay-as-you-go
- 25% local match
- FY 2011-12 through FY 2017-18

Tier 2

- Up to $38 million via financing
- 50% match
- Pay-as-you-go after FY 2014-15

FY – Fiscal year

Tier 1 Grant Program

- More visible forms of pollutants (trash & debris)
- Purchase and installation of catch basin related best management practices (BMPs)
  - screens
  - filters
  - inserts
  - street scale low flow diversion devices
- Can be completed in a single year
- $100,000 maximum per project

Tier 1 Schedule

Issue call for projects	February 21, 2012
Workshops	February 23 & 29, 2012
One-on-one meetings	March 15 & 19, 2012
Proposal due date	April 20, 2012
Regional Planning & Highways Committee/Board recommendations	July/August 2012
OCTA letter agreement	Summer/fall 2012
Tier 1 project implementation	Upon letter agreement execution

Board – Board of Directors
OCTA – Orange County Transportation Authority

Tier 2 Grant Program

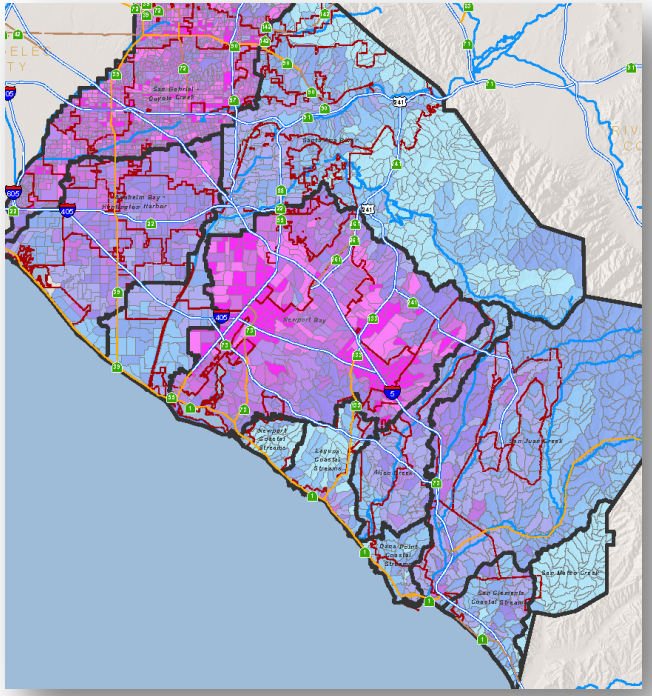
- Capital intensive BMP comprehensive pollutant mitigation projects
- Large scale, such as wetlands, infiltration basins, etc.
- $5 million maximum per project

Tier 2 Funding Approach

- First call anticipated late spring 2012 with $13.3 million available
- Second call in FY 2013-14 with $24.7 million available
- Third call may occur depending upon funding allocation from first two calls

Tier 2 Grant Program Planning Study

- Purposes:
  - To identify strategically effective areas for implementation of regional structural BMPs in the County's 11 watersheds
  - To guide capital improvement program, project ranking, and investments
  - To provide basis for technical project evaluation through watershed and location-specific needs and priority analyses
  - To serve as a reference document summarizing and supporting geographic information system (GIS) analyses



Tier 2 Grant Program Planning Study

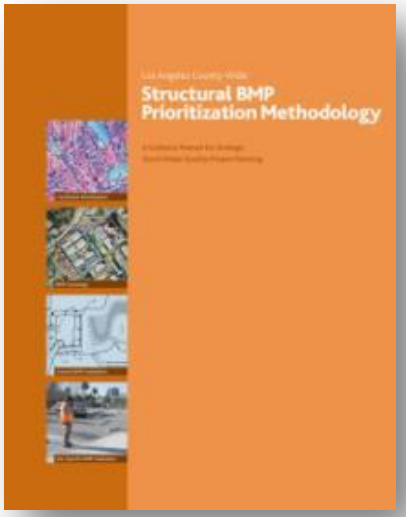
- Scoring Criteria: addresses the intent of M2 funds to address transportation-related pollution, the urban runoff treatment needed, and the ability of the proposed project to address specific water quality issues
- ECAC endorsed the Planning Study on April 12, 2012

SCORING CRITERIA
Technical Scoring Criteria (70% of score)
1. Transportation Priority Index
2a. Land-Use Based Wet-Weather Water Quality Need
2b. Receiving Water Based Water Quality Need (Monitoring Data and 303(d) Impairments)
3. BMP Water Quality Performance[2]
Non-Technical Scoring Criteria (30% of total score)
4. Multiple Benefits (Up to ten points)
4a. Downstream Flood Hazard Mitigation
4b. Recreational Benefits
4c. Habitat Benefits
4d. Water Resources Benefits
4e. Other Benefits
5. Project Readiness
6. Policy: Multi-Jurisdictional/Community Support
BONUS POINTS
7. Ability to Leverage Funding

[2] Source of this score will be project-specific, based on Structural Best Management Practice Prioritization and Analysis Tool

Water Quality Based Priorities

- Cooperative study with Orange County and ECAC
- Transparent and reproducible process
- Identifies strategic locations and approaches through countywide GIS analyses:
  - Transportation priority indices
  - Orange County structural BMP prioritization and analysis tool (GIS/land-use based)
  - Monitoring and listed water quality impairments (GIS/receiving water based)
- Project-specific analysis tool to establish cost-effectiveness based on pollutants of concern



Tier 2 Proposed Schedule

Pre-call for projects workshops	March 6 & 8, 2012
Issue call for projects	June 4, 2012 (~90-day call period)
Workshops	TBD (during call period)
Proposal due date	September 4, 2012
Executive Committee/ Board recommendations	November 2012
OCTA letter agreement	November/December 2012
Tier 2 project implementation	Upon letter agreement execution
Contract award (depending on funding cycle requested)	By June 30, 2013 or June 30, 2014

TBD – to be determined

Recommendations

A. Approve the Environmental Cleanup Program Tier 2 Comprehensive Transportation Funding Program Guidelines

B. Authorize staff to issue the FY 2012-13 call for projects for the Tier 2 Grant Program