Preliminary
Water Quality Management Plan

For: Proposed Wake Rider Beach Resort
15712 Grand Avenue
Lake Elsinore, California

CONDITIONAL USE PERMIT NO. 2011-03
TENTATIVE PARCEL MAP NO. 35869
COMMERCIAL DESIGN REVIEW NO. 2011-03
ZONE CHANGE NO. 2011-01

Prepared for:

John Gamble
612 Tranquility Glen
Escondido, California 92027
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Prepared by:
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WQMP Preparation/Revision Date: April 9, 2012

OWNER'S CERTIFICATION

This project-specific Water Quality Management Plan (WQMP) has been prepared for: John Gamble by Medofer Engineering Inc. for the project known as **Wake Rider Beach Resort** at 15712 Grand Ave, Lake Elsinore, California.

This WQMP is intended to comply with the requirements of the City of Lake Elsinore for **Conditional Use Permit No. 2011-03, Tentative Parcel Map No. 35869, Commercial Design Review No. 2011-03 and Change of Zone No. 2011-01**, which includes the requirement for the preparation and implementation of a project-specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity.

The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under City of Lake Elsinore Water Quality Ordinance (Municipal Code Chapter 14.08).

If the undersigned transfers its interest in the subject property/project, its successor in interest the undersigned shall notify the successor in interest of its responsibility to implement this WQMP.

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

_____	TBD
Owner's Signature	Date
John Gamble	Owner
Owner's Printed Name	Owner's Title/Position

612 Tranquility Glen
Escondido, CA 92027

Contents

I. Project Description

Instructions:

The project description shall be completely and accurately described in narrative form. In the field provided on page A-3, describe and with supporting figures (maps or exhibits), where facilities will be located, what activities will be conducted and where, what kinds of materials will be used and/or stored, how and where materials will be delivered, and the types of wastes that will be generated. The following information shall be described and/or addressed in the "Project Description" section of the project-specific WQMP:

- Project owner and WQMP preparer;
- Project location;
- Project size;
- Standard Industrial Classification (SIC), if applicable;
- Location of facilities;
- Activities and location of activities;
- Materials Storage and Delivery Areas;
- Wastes generated by project activities.

Project Owner: **John Gamble**
612 Tranquility Glen
Escondido, CA 92027
Telephone: 760-743-8843

WQMP Preparer: **Medofer Engineering Inc.**
28610 Midsummer Lane
Menifee, CA 92584
Telephone: 909-816-5830

Project Site Address:	15712 Grand Avenue Lake Elsinore, CA
Planning Area/ Community Name/ Development Name:	Lakeland Village
APN Number(s):	381-030-005
Thomas Bros. Map:	Page 808 Grid C-7
Project Watershed:	Santa Ana
Sub-watershed:	San Jacinto Valley Hydrologic Unit
Project Site Size:	5.35 acres
Standard Industrial Classification (SIC) Code:	5812 (Eating Places), 7011 (Hotels and Motels), 7999 (Amusement and Recreation Services)

Formation of Home Owners' Association (HOA) or Property Owners Association (POA):

Y ☐ N ☒

Additional Permits/Approvals required for the Project

AGENCY	Permit required
State Department of Fish and Game, 1601 Streambed Alteration Agreement	Y ☐ N ☒
State Water Resources Control Board, Clean Water Act (CWA) section 401 Water Quality Certification	Y ☐ N ☒
US Army Corps of Engineers, CWA section 404 permit	Y ☐ N ☒
US Fish and Wildlife, Endangered Species Act section 7 biological opinion	Y ☐ N ☒
Other *(please list in the space below as required)* City of Lake Elsinore Grading Permit	Y ☒ N ☐

The project is located at 15712 Grand Avenue in Lake Elsinore, CA, and consists of the redevelopment of a portion of an approximately 5.35-acre property into a commercial, hospitality and recreational use. Lake Elsinore is situated within the easterly third of the 5.35 acres, and there is approximately 170 feet of lake shoreline within the property. The site was previously used as a hotel that has been demolished and the site is currently vacant. Proposed uses include, but are not limited to: one building containing a first floor retail food establishment (coffee shop) with drive-thru lane and second floor professional offices, three buildings containing a 50-unit hotel with related accessory uses, a fifth building containing a sit-down restaurant with convenience store, and a beach recreational area with floating dock. The property currently drains via surface flow easterly into the lake. There is a flood control district concrete-lined channel adjacent to the southerly boundary that discharges in the lake. This project proposes to mitigate water quality issues by using porous pavement for parking areas and to also incorporate a porous landcsape detention basin as site design BMPs, before discharging into the existing flood control channel.

Appendix A of this project-specific WQMP includes a complete copy of the final Conditions of Approval. Appendix B of this project-specific WQMP shall include:

1. A Vicinity Map identifying the project site and surrounding planning areas in sufficient detail to allow the project site to be plotted on Co-Permittee base mapping; and
2. A Site Plan for the project. The Site Plan included as part of Appendix B depicts the following project features:
    - Location and identification of all structural BMPs, including Treatment Control BMPs.
    - Landscaped areas.
    - Paved areas and intended uses (i.e., parking, outdoor work area, outdoor material storage area, sidewalks, patios, tennis courts, etc.).
    - Number and type of structures and intended uses (i.e., buildings, tenant spaces, dwelling units, community facilities such as pools, recreation facilities, tot lots, etc.).
    - Infrastructure (i.e., streets, storm drains, etc.) that will revert to public agency ownership and operation.
    - Location of existing and proposed public and private storm drainage facilities (i.e., storm drains, channels, basins, etc.), including catch basins and other inlets/outlet structures. Existing and proposed drainage facilities should be clearly differentiated.
    - Location(s) of Receiving Waters to which the project directly or indirectly discharges.
    - Location of points where onsite (or tributary offsite) flows exit the property/project site.
    - Proposed drainage areas boundaries, including tributary offsite areas, for each location where flows exits the property/project site. Each tributary area should be clearly denoted.
    - Pre- and post-project topography.

Appendix G of the project-specific WQMP shall include copies of CC&Rs, Covenant and Agreements, and/or other mechanisms used to ensure the ongoing operation, maintenance, funding, transfer and implementation of the project-specific WQMP requirements. These documents are not included in this preliminary WQMP.

II. Site Characterization

Land Use Designation or Zoning: Existing zoning – C-1 (commercial), R-3 (residential) and R (recreational). Proposed zoning – C-1 (commercial) and R (recreational)

Current Property Use: Property is currently vacant, but was previously developed as a hotel and beach recreation area.

Proposed Property Use: Restaurant with Drive-thru, Office, Hotel with accessory uses, Restaurant, Beach recreation, and floating docks.

Availability of Soils Report: Y ☒ N ☐ *Note: A soils report is required if infiltration BMPs are utilized. Attach report in Appendix E.*

Phase 1 Site Assessment: Y ☐ N ☒ *Note: If prepared, attached remediation summary and use restrictions in Appendix H.*

Receiving Waters for Urban Runoff from Site

Instructions:

On the following page, list in order of upstream to downstream, the receiving waters that the project is tributary to. Continue to fill each row with the receiving water's 303(d) listed impairments, designated beneficial uses, and proximity, if any, to a RARE beneficial use.

Receiving Waters for Urban Runoff from Site

Receiving Waters	303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Lake Elsinore HU #802.31	Nutrients-Organic Compounds/Oxygen Demanding Substances-Sediments/Turbidity-Unknown Toxicity	REC1-REC2-WARM-WILD	Not Designated as RARE

III. Pollutants of Concern

Potential pollutants associated with Urban Runoff from the proposed project must be identified. Exhibit B of the WQMP provides brief descriptions of typical pollutants associated with Urban Runoff and a table that associates typical potential pollutants with types of development (land use). It should be noted that at the Co-Permittees discretion, the Co-Permittees may also accept updated studies from the California Association of Stormwater Quality Agencies (CASQA), USEPA, SWRCB and/or other commonly accepted

agencies/associations acceptable to the Co-Permittee for determination of Pollutants of Concern associated with given land use. Additionally, in identifying Pollutants of Concern, the presence of legacy pesticides, nutrients, or hazardous substances in the site's soils as a result of past uses and their potential for exposure to Urban Runoff must be addressed in project-specific WQMPs. The Co-Permittee may also require specific pollutants commonly associated with urban runoff to be addressed based on known problems in the watershed. The list of potential Urban Runoff pollutants identified for the project must be compared with the pollutants identified as causing an impairment of Receiving Waters, if any. To identify pollutants impairing proximate Receiving Waters, each project proponent preparing a project-specific WQMP shall, at a minimum, do the following:

1. For each of the proposed project discharge points, identify the proximate Receiving Water for each discharge point, using hydrologic unit basin numbers as identified in the most recent version of the Water Quality Control Plan for the Santa Ana River Basin or the San Diego Region.
2. Identify each proximate identified above that is listed on the most recent list of Clean Water Act Section 303(d) list of impaired water bodies, which can be found at website www.swrcb.ca.gov/tmdl/303d_lists.html. List all pollutants for which the proximate Receiving Waters are impaired.
3. Compare the list of pollutants for which the proximate Receiving Waters are impaired with the pollutants expected to be generated by the project.

Urban Runoff Pollutants: Sediment/Turbidity, Nutrients, Organic Compounds, Oxygen Demanding Substances.

Hydrologic Conditions of Concern

Impacts to the hydrologic regime resulting from the Project may include increased runoff volume and velocity; reduced infiltration; increased flow frequency, duration, and peaks; faster time to reach peak flow; and water quality degradation. Under certain circumstances, changes could also result in the reduction in the amount of available sediment for transport; storm flows could fill this sediment-carrying capacity by eroding the downstream channel. These changes have the potential to permanently impact downstream channels and habitat integrity. A change to the hydrologic regime of a Project's site would be considered a hydrologic condition of concern if the change would have a significant impact on downstream erosion compared to the pre-development condition or have significant impacts on stream habitat, alone or as part of a cumulative impact from development in the watershed.

This project-specific WQMP must address the issue of Hydrologic Conditions of Concern unless one of the following conditions are met:

- **Condition A:** Runoff from the Project is discharged directly to a publicly-owned, operated and maintained MS4; the discharge is in full compliance with Co-Permittee requirements for connections and discharges to the MS4 (including both quality and quantity requirements); the discharge would not significantly impact stream habitat in proximate Receiving Waters; and the discharge is authorized by the Co-Permittee.
- **Condition B:** The project disturbs less than 1 acre. The disturbed area calculation should include all disturbances associated with larger plans of development.
- **Condition C:** The project's runoff flow rate, volume, velocity and duration for the post-development condition do not exceed the pre-development condition for the 2-year, 24-hour and 10-year 24-hour rainfall events. This condition can be achieved by minimizing impervious area on a site and incorporating other site-design concepts that mimic pre-development conditions. This condition must be substantiated by hydrologic modeling methods acceptable to the Co-Permittee.

  This Project meets the following condition: **Condition C**

IV. Best Management Practices

V.1 SITE DESIGN BMPS

Project proponents shall implement Site Design concepts that achieve each of the following:

1) Minimize Urban Runoff
2) Minimize Impervious Footprint
3) Conserve Natural Areas
4) Minimize Directly Connected Impervious Areas (DCIAs)

The project proponent should identify the specific BMPs implemented to achieve each Site Design concept and provide a brief explanation for those Site Design concepts considered not applicable.

Instructions:

In field below, provide narrative describing which site design concepts were incorporated into project plans. If the project proponent implements a Co-Permittee approved alternative or equally-effective Site Design BMP not specifically described below, the Site Design BMP checkbox in Table I should be marked and an additional description indicating the nature of the BMP and how it addresses the Site Design concept should be provided. Continue with completion of Table 1.

***Note:** The Co-Permittees general plan or other land use regulations/documents may require several measures that are effectively site design BMPs (such as minimization of directly connected impervious areas and/or setbacks from natural stream courses). The Project Proponent should work with Co-Permittee staff to determine if those requirements may be interpreted as site design BMPs for use in this table/narrative. See Section 4.5.1 of the WQMP for additional guidance on Site Design BMPs.*

*Following Table 1: if a particular Site Design BMP concept is found to be not applicable, please provide a brief explanation as to why the concept cannot be implemented. Also include descriptions explaining how each **included** BMP will be implemented. In those areas where Site Design BMPs require ongoing maintenance, the inspection and maintenance frequency, the inspection criteria, and the entity or party responsible for implementation, maintenance, and/or inspection shall be described. The location of each Site Design BMP must also be shown on the WQMP Site Plan included in Appendix B.*

The project will utilize a porous paving as well as a landscape infiltration basin. The porous paving will be located throughout the parking areas of the entire project, and the basin will be located in the southeasterly portion of the site, near the proposed restaurant. The infiltration basin will mitigate the required water quality volume by storing the increase in volume associated with the development and reducing the increased runoff associated with the development. The porous paving and infiltration basin will utilize filtration as the primary method for water quality treatment. The porous paving and infiltration basin will also incorporate perforated pipes below the sand media to promote infiltration. The water quality volume required to be treated was calculated using the Design Procedure for BMP Volume worksheet and is included in Appendix F.

Table 1. Site Design BMPs

Design Concept	Technique	Specific BMP	Included: Yes	Included: No	Included: N/A
Site Design Concept 1	*Minimize Urban Runoff*	Maximize the permeable area (See Section 4.5.1 of the WQMP).	☒	☐	☐
		Incorporate landscaped buffer areas between sidewalks and streets.	☒	☐	☐
		Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs.	☐	☐	☒
		Use natural drainage systems.	☐	☐	☒
		Where soils conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.	☒	☐	☐
		Construct onsite ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.	☒	☐	☐
		Other comparable and equally effective site design concepts as approved by the Co-Permittee (Note: Additional narrative required to describe BMP and how it addresses Site Design concept).	☒	☐	☐

Table 1. Site Design BMPs (Cont.)

Design Concept	Technique	Specific BMP	Included: Yes	Included: No	Included: N/A
Site Design Concept 2	*Minimize Impervious Footprint*	Maximize the permeable area (See Section 4.5.1 of the WQMP).	☒	☐	☐
		Construct walkways, trails, patios, overflow parking lots, alleys, driveways, low-traffic streets and other low -traffic areas with open-jointed paving materials or permeable surfaces, such as pervious concrete, porous asphalt, unit pavers, and granular materials.	☒	☐	☐
		Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walk able environment for pedestrians are not compromised.	☒	☐	☐
		Reduce widths of street where off-street parking is available.	☐	☐	☒
		Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design.	☒	☐	☐
Site Design Concept 3	*Conserve Natural Areas*	Other comparable and equally effective site design concepts as approved by the Co-Permittee (Note: Additional narrative required describing BMP and how it addresses Site Design concept).	☒	☐	☐
		Conserve natural areas (See WQMP Section 4.5.1).	☐	☐	☒
		Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs.	☐	☐	☒
		Use natural drainage systems.	☐	☐	☒
		Other comparable and equally effective site design concepts as approved by the Co-Permittee (Note: Additional narrative required describing BMP and how it addresses Site Design concept).	☒	☐	☐

Table 1. Site Design BMPs (Cont.)

Design Concept	Technique	Specific BMP	Included: Yes	Included: No	Included: N/A
Site Design Concept 4	*Minimize Directly Connected Impervious Areas (DCIAs)*	Residential and commercial sites must be designed to contain and infiltrate roof runoff, or direct roof runoff to vegetative swales or buffer areas, where feasible.	☒	☐	☐
		Where landscaping is proposed, drain impervious sidewalks, walkways, trails, and patios into adjacent landscaping.	☒	☐	☐
		Increase the use of vegetated drainage swales in lieu of underground piping or imperviously lined swales.	☒	☐	☐
		Rural swale system: street sheet flows to vegetated swale or gravel shoulder, curbs at street corners, culverts under driveways and street crossings.	☐	☐	☒
		Urban curb/swale system: street slopes to curb; periodic swale inlets drain to vegetated swale/biofilter.	☐	☐	☒
		Dual drainage system: First flush captured in street catch basins and discharged to adjacent vegetated swale or gravel shoulder, high flows connect directly to MS4s.	☐	☐	☒
		Design driveways with shared access, flared (single lane at street) or wheel strips (paving only under tires); or, drain into landscaping prior to discharging to the MS4.	☒	☐	☐
		Uncovered temporary or guest parking on private residential lots may be paved with a permeable surface, or designed to drain into landscaping prior to discharging to the MS4.	☐	☐	☒
		Where landscaping is proposed in parking areas, incorporate landscape areas into the drainage design.	☒	☐	☐
		Overflow parking (parking stalls provided in excess of the Co-Permittee's minimum parking requirements) may be constructed with permeable paving.	☒	☐	☐
		Other comparable and equally effective design concepts as approved by the Co-Permittee (Note: Additional narrative required describing BMP and how it addresses Site Design concept).	☒	☐	☐

Non-applicable Site Design BMPs:

Reduce the widths of streets where off-street parking is available – There are no onsite or offsite streets proposed with this project.

Conserve natural areas – The property was previously disturbed, rough graded and vegetated. There are no natural areas within the property.

Rural swale system – No streets are proposed with this project.

Urban drainage system – No streets are proposed with this project.

Dual drainage system – No streets are proposed with this project.

Overflow parking constructed with permeable paving – No overflow parking is proposed, thereby minimizing the impermeable footprint of the project.

Project Site Design BMPs:

Site Design Concept 1 (Minimize Urban Runoff)

- Maximize the permeable area – The project was designed using City of Lake Elsinore guidelines with respect to parking stall, access drive and hardscape widths, with the intent of minimizing the impermeable footprint.
- Incorporate landscape buffer areas between sidewalks and streets – Landscape areas are situated throughout the paved areas.
- Maximize canopy interception and water conservation by preserving existing native trees – There are no native trees within the project area (site was previously disturbed).
- Use natural drainage systems – The project perpetuates historical drainage patterns by discharging treated runoff associated with the project into the lake by way of the exisiting drainage channel to the south.
- Where conditions are suitable, use perforated pipe or gravel filtration – Perforated pipe will be utilized in the onsite infiltration basins.
- Construct onsite ponding areas or retention facilities – The project incorporates porous paving and an infiltration basin for ponding and retention.

Site Design Concept 2 (Minimize Impervious Footprint)

- Maximize the permeable area – The project was designed using City of Lake Elsinore guidelines with respect to parking stall, access drive and hardscape widths, with the intent of minimizing the impermeable footprint.
- Construct streets, sidewalks and parking lot aisles to the minimum widths necessary - As previously stated, the project was designed to City of Lake Elsinore standards and was designed to minimize the widths of parking stalls, drive aisles, etc. in order to minimize the impermeable footprint.
- Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design – No decorative concrete is being used in the landscape design.

Site Design Concept 3 (Conserve Natural Areas)

- Maximize canopy interception and water conservation by preserving existing native trees, etc. – There are no native trees within the project area (site was previously disturbed).
- Use natural drainage systems – The project perpetuates historical drainage patterns by discharging treated runoff associated with the project into the lake by way of the exisiting drainage channel to the south.

Site Design Concept 4 (Minimize Directly Connected Impervious Areas (DCIAs)

- Residential and commercial sites must be designed to contain and infiltrate roof runoff, or direct roof runoff to vegetative swales or buffer areas – Roof runoff drains into porous paving or the infiltration basin before being discharged from the site.
- Where landscaping is proposed, drain impervious walkways, trails and patios into adjacent landscaping- To the extent possible, paved areas are designed to drain to the landscape areas.
- Design driveways with shared access, or drain into landscaping prior to discharging to the MS4 – Project is designed with a single driveway to serve all uses within the project to minimize impervious paving on the site.
- Uncovered temporary or guest parking on private residential lots may be paved with a permeable surface, or designed to drain into landscaping prior to discharging to the MS4 – Porous paving is planned for the majority of parking areas.

- Where landscaping is proposed in parking areas, incorporate landscape areas into the drainage design- Landscape areas are situated throughout the paved areas and the paving is designed to drain to the landscape areas, to the extent possible.

V.2 SOURCE CONTROL BMPS

Instructions: *Complete Table 2.*

Table 2. Source Control BMPs

BMP Name	Check One		If not applicable, state brief reason
	Included	Not Applicable	
Non-Structural Source Control BMPs			
Education for Property Owners, Operators, Tenants, Occupants, or Employees	☒	☐	
Activity Restrictions	☒	☐	
Irrigation System and Landscape Maintenance	☒	☐	
Common Area Litter Control	☒	☐	
Street Sweeping Private Streets and Parking Lots	☒	☐	
Drainage Facility Inspection and Maintenance	☒	☐	
Structural Source Control BMPs			
MS4 Stenciling and Signage	☐	☒	No catch basins
Landscape and Irrigation System Design	☒	☐	
Protect Slopes and Channels	☒	☐	
Provide Community Car Wash Racks	☐	☒	No car wash racks
Properly Design:	☐	☐	
Fueling Areas	☒	☐	
Air/Water Supply Area Drainage	☒	☐	
Trash Storage Areas	☒	☐	
Loading Docks	☐	☒	No loading dock proposed
Maintenance Bays	☐	☒	No maintenance bay proposed
Vehicle and Equipment Wash Areas	☐	☒	No was areas proposed
Outdoor Material Storage Areas	☐	☒	No outdoor storage areas
Outdoor Work Areas or Processing Areas	☐	☒	No outdoor work or processing areas
Provide Wash Water Controls for Food Preparation Areas	☒	☐	

Instructions: *Provide narrative below describing how each* ***included*** *BMP will be implemented, the implementation frequency, inspection and maintenance frequency, inspection criteria, and the entity or party responsible for implementation, maintenance, and/or inspection. The location of each structural BMP must also be shown on the WQMP Site Plan included in Appendix B.*

Non-Structural Source Control BMPs

- Education for Property Owners, Operators, Tenants, Occupants, or Employees – Educational materials will be provided in the project-specific WQMP, and a list of appicable educational materials is included in Appendix D of this report.
- Activity Restrictions – It is anticipated that the Conditional Use Permit for the project will restrict the activities occurring on the property, especially outside uses.
- Irrigation System and Landscape Maintenance – Irrigation system and landscaping will be maintained by full time maintenance staff for each commercial site.
- Common Area Litter Control – Litter control will be maintained by full time maintenance staff for each site.

- Street Sweeping Private Streets and Parking Lots – Parking lot and drive aisles will be periodically swept by maintenance staff.
- Drainage Facility Inspection and Maintenance – Drainage facilities will be inspected and maintained by full time maintenance staff.

Structural Source Control BMPs

- Landscape and Irrigation System Design – Landscape and irrigation will be designed to incorporate drought tolerantplants and trees, and will utilize drip irrigation where feasible.
- Protect Slopes and Channels – Slopes and channels will be protected by landscaping.
- Properly design trash storage areas – Trash storage areas will be designed in accordance with City of Lake Elsinore guidelines and will include a cover to protect containers from rainfall.
- Wash water control for food preparation areas – Food preparation areas will be connected to the sanitary sewer system and include a grease intercetptor. There will be no outdoor food preparation areas.

V.3 TREATMENT CONTROL BMPS

Instructions:

1. *Provide narrative below describing each Treatment Control BMP. Include location, identify the sizing criteria [i.e., Urban Runoff quality design flow (QBMP) or the Urban Runoff quality design volume (VBMP), preliminary design calculations, for sizing BMPs, maintenance procedures, and the frequency of maintenance procedures necessary to sustain BMP effectiveness. The location of each Treatment Control BMP must also be shown on the Site Plan included in Appendix B.*
2. *Complete Table 3: Treatment Control BMP Selection Matrix*

   Directions for completing Table 3:

   - *For each pollutant of concern enter "yes" if identified using Exhibit B (Riverside County WQMP - General Categories of Pollutants of Concern per the instructions specified in Section III of this Template), or "no" if not identified for the project.*
   - *Check the boxes of selected BMPs that will be implemented for the project to address each pollutant of concern from the project as identified using Exhibit B. Treatment Control BMPs must be selected and installed with respect to identified pollutant characteristics and concentrations that will be discharged from the site.*
   - *For any identified pollutants of concern not listed in the Treatment Control BMP Selection Matrix, provide an explanation (in space below) of how they will be addressed by Treatment Control BMPs.*
3. *In addition to completing Table 3, provide detailed descriptions on the location, implementation, installation, and long-term O&M of planned Treatment* Control BMPs.

*For identified pollutants of concern that are **causing an impairment in receiving waters**, the project WQMP shall incorporate one or more Treatment Control BMPs of medium or high effectiveness in reducing those pollutants. It is the responsibility of the project proponent to demonstrate, and document in the project WQMP, that all pollutants of concern will be fully addressed. The Agency may require information beyond the minimum requirements of this WQMP to demonstrate that adequate pollutant treatment is being accomplished.*

Supporting engineering calculations for Q_{BMP} and/or V_{BMP}, and Treatment Control BMP design details are included in Appendix F.

***Note**: Projects that will utilize infiltration-based Treatment Control BMPs (e.g., Infiltration Basins, Infiltration Trenches, Porous Pavement) must include a copy of the property/project soils report as Appendix E to the project-specific WQMP. The selection of a Treatment Control BMP (or BMPs) for the project must specifically consider the effectiveness of the Treatment Control BMP for pollutants identified as causing an impairment of Receiving Waters to which the project will discharge Urban Runoff.*

The project will utilize a porous paving as well as a landscape infiltration basin. The porous paving will be located throughout the parking areas of the entire project, and the basin will be located in the southeasterly portion of the site, near the proposed restaurant. The infiltration basin will mitigate the required water quality volume by storing the increase in volume associated with the development and reducing the increased runoff associated with the development. The porous paving and infiltration basin will utilize filtration as the primary method for water quality treatment. The porous paving and infiltration basin will also incorporate perforated pipes below the sand media to promote infiltration. The water quality volume required to be treated was calculated using the Design Procedure for BMP Volume worksheet and is included in Appendix F.

Table 3: Treatment Control BMP Selection Matrix [1]

Pollutant of Concern	Treatment Control BMP Categories[2]							
	Veg. Swale & Veg. Filter Strips[3]	Detention Basins[4]	Infiltration Basins, Infiltration Trenches, & Porous Pavement[5]	Wet Ponds or Wetlands[6]	Sand Filter or Media Filters	Water Quality Inlets	Hydrodynamic Separator Systems [7]	Manufactured / Proprietary Devices[8]
Sediment/Turbidity	H/M	M	H/M	H/M	H/M	L	H/M (L for turbidity)	U
Y ☒ N ☐	☐	☐	☒	☐	☐	☐	☐	☐
Nutrients	L	M	H/M	H/M	L/M	L	L	U
Y ☒ N ☐	☐	☐	☒	☐	☐	☐	☐	☐
Organic Compounds	U	U	U	U	H/M	L	L	U
Y ☒ N ☐	☐	☐	☒	☐	☐	☐	☐	☐
Trash & Debris	L	M	U	U	H/M	M	H/M	U
Y ☐ N ☒	☐	☐	☒	☐	☐	☐	☐	☐
Oxygen Demanding Substances	L	M	H/M	H/M	H/M	L	L	U
Y ☒ N ☐	☐	☐	☒	☐	☐	☐	☐	☐
Bacteria & Viruses	U	U	H/M	U	H/M	L	L	U
Y ☐ N ☒	☐	☐	☒	☐	☐	☐	☐	☐
Oils & Grease	H/M	M	U	U	H/M	M	L/M	U
Y ☐ N ☒	☐	☐	☒	☐	☐	☐	☐	☐
Pesticides (non-soil bound)	U	U	U	U	U	L	L	U
Y ☒ N ☐	☐	☐	☒	☐	☐	☐	☐	☐
Metals	H/M	M	H	H	H	L	L	U
Y ☐ N ☒	☐	☐	☒	☐	☐	☐	☐	☐

Abbreviations:

L: Low removal efficiency H/M: High or medium removal efficiency U: Unknown removal efficiency

Notes:

(1) Periodic performance assessment and updating of the guidance provided by this table may be necessary.

(2) Project applicants should base BMP designs on the Riverside County Stormwater Quality Best Management Practice Design Handbook. However, project applicants may also wish to reference the California Stormwater BMP Handbook – New Development and Redevelopment (www.cabmphandbooks.com). The Handbook contains additional information on BMP operation and maintenance.

(3) Includes grass swales, grass strips, wetland vegetation swales, and bioretention.

(4) Includes extended/dry detention basins with grass lining and extended/dry detention basins with impervious lining. Effectiveness based upon minimum 36-48-hour drawdown time.

(5) Projects that will utilize infiltration-based Treatment Control BMPs (e.g., Infiltration Basins, Infiltration Trenches, Porous Pavement, etc.) must include a copy of the property/project soils report as Appendix E to the project-specific WQMP. The selection of a Treatment Control BMP (or BMPs) for the project must specifically consider the effectiveness of the Treatment Control BMP for pollutants identified as causing an impairment of Receiving Waters to which the project will discharge Urban Runoff.

(6) Includes permanent pool wet ponds and constructed wetlands.

(7) Also known as hydrodynamic devices, baffle boxes, swirl concentrators, or cyclone separators.

(8) Includes proprietary stormwater treatment devices as listed in the CASQA Stormwater Best Management Practices Handbooks, other stormwater treatment BMPs not specifically listed in this WQMP, or newly developed/emerging stormwater treatment technologies.

V.4 EQUIVALENT TREATMENT CONTROL ALTERNATIVES

Not Applicable

V.5 REGIONALLY-BASED TREATMENT CONTROL BMPS

Not Applicable

V. Operation and Maintenance Responsibility for Treatment Control BMPs

Operation and maintenance (O&M) requirements for all structural Source Control and Treatment Control BMPs shall be identified in the project-specific WQMP. The project-specific WQMP shall address the following:

- Identification of each BMP that requires O&M.
- Thorough description of O&M activities, the O&M process, and the handling and placement of any wastes.
- BMP start-up dates.
- Schedule of the frequency of O&M for each BMP.
- Identification of the parties (name, address, and telephone number) responsible for O&M, including a written agreement with the entities responsible for O&M. This agreement can take the form of a Covenant and Agreement recorded by the Project Proponent with the County Recorder, HOA or POA CC&Rs, formation of a maintenance district or assessment district or other instrument sufficient to guarantee perpetual O&M. The preparer of this project-specific WQMP should carefully review Section 4.6 of the WQMP prior to completing this section of the project-specific WQMP.
- Self-inspections and record-keeping requirements for BMPs (review local specific requirements regarding self-inspections and/or annual reporting), including identification of responsible parties for inspection and record- keeping.
- Thorough descriptions of water quality monitoring, if required by the Co-Permittee.

Instructions: *Identify below all operations and maintenance requirements, as described above, for each structural BMP. Where a public agency is identified as the funding source and responsible party for a Treatment Control BMP, a copy of the written agreement stating the public agency's acceptance of these responsibilities must be provided in Appendix G.*

Operation and maintenance of the BMPs will be the responsibility of maintenance staff of the development. A complete description of O & M activities, including schedule and projected costs, will be included in the Final WQMP.

VII. Funding

A funding source or sources for the O&M of each Treatment Control BMP identified in the project-specific WQMP must be identified. By certifying the project-specific WQMP, the Project applicant is certifying that the funding responsibilities have been addressed and will be transferred to future owners. One example of how to adhere to the requirement to transfer O&M responsibilities is to record the project-specific WQMP against the title to the property.

Costs for operation and maintenance of the BMPs will be the responsibility of the Wake Rider Beach Resort (privately operated and maintained).

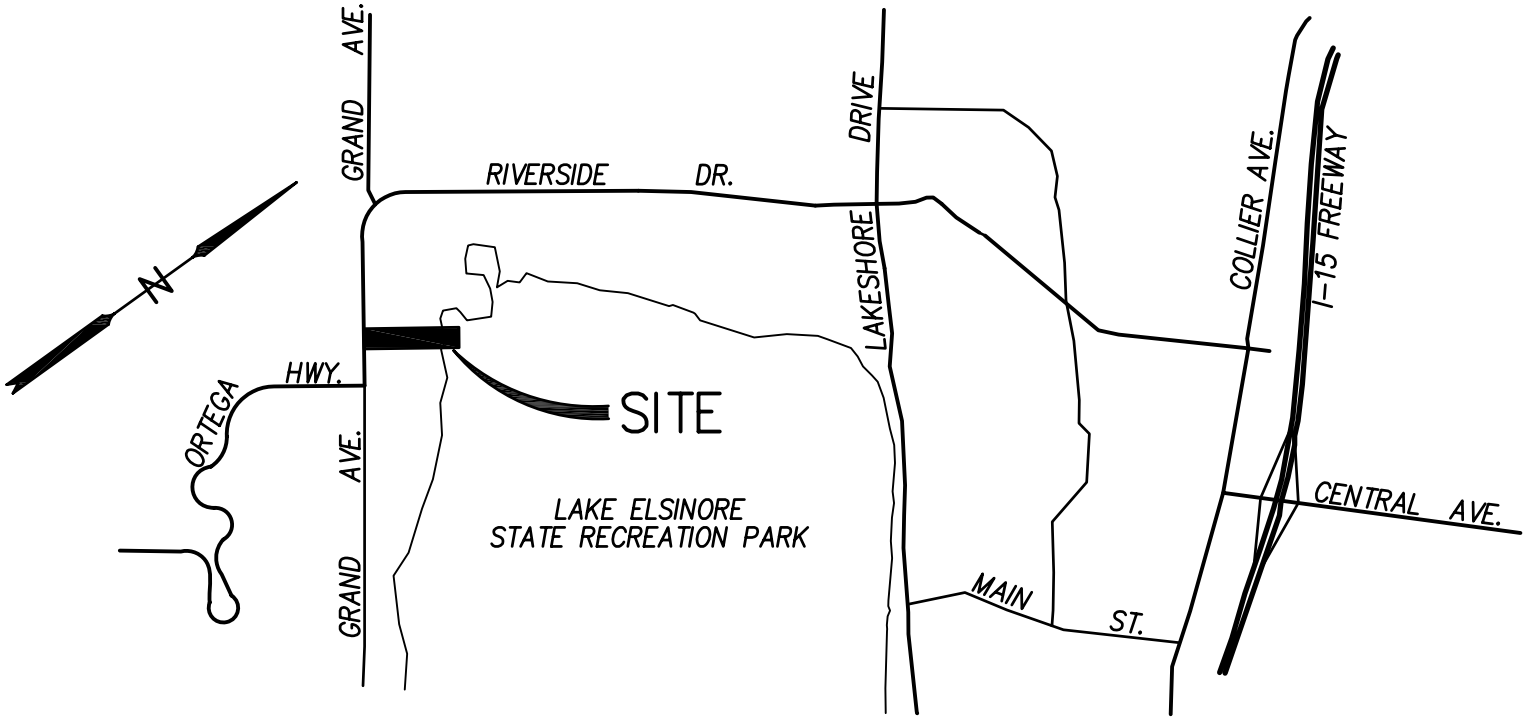
Appendix A

Conditions of Approval

NOT APPLICABLE

Appendix B

Vicinity Map, WQMP Site Plan, and Receiving Waters Map

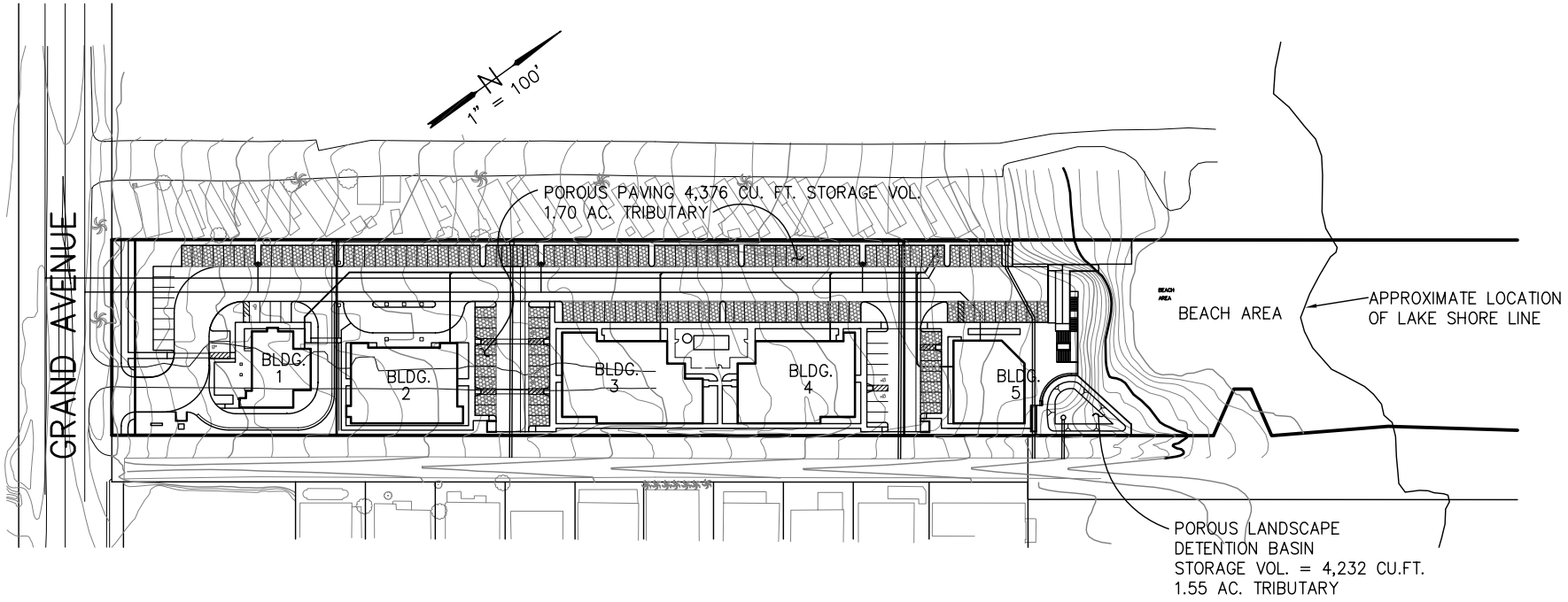


VICINITY MAP

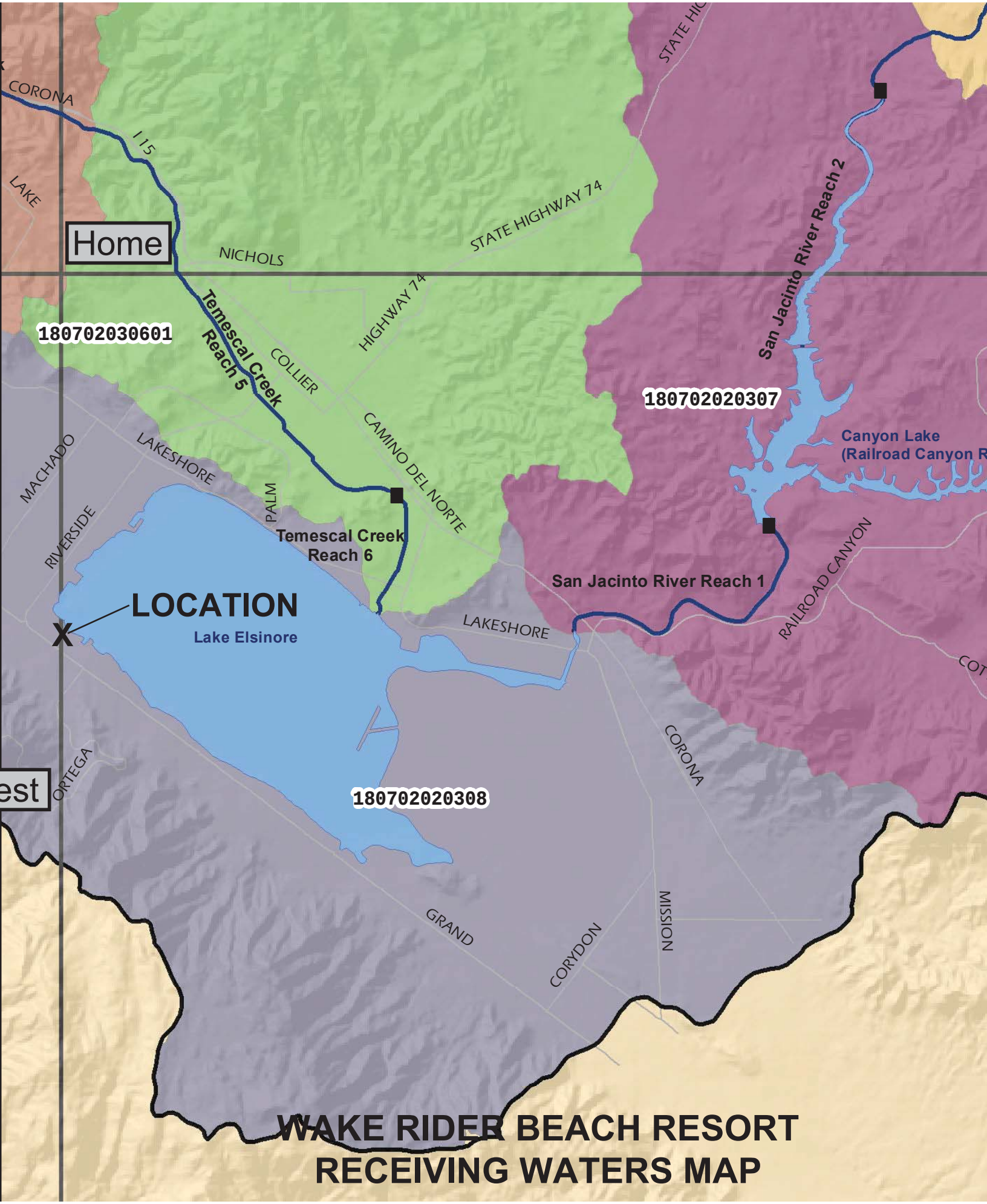
NO SCALE

POR. SECTION 11, TOWNSHIP 6 SOUTH RANGE 5 WEST

THOMAS BROS. GUIDE: PAGE 865, GRID H-6 & J-6 (2004 EDITION)



WQMP SITE PLAN
WAKE RIDER BEACH RESORT
15712 GRAND AVENUE
LAKE ELSINORE, CALIFORNIA



WAKE RIDER BEACH RESORT
RECEIVING WATERS MAP

Appendix C

Supporting Detail Related to Hydraulic Conditions of Concern

NOT APPLICABLE

Appendix D

Educational Materials

List of educational materials to be included in Final WQMP:

1. County of Riverside “What You Should Know For .....The Food Service Industry”
2. CASQA SC-11 Spill Prevention, Control & Cleanup
3. CASQA SC-30 Outdoor Loading/Unloading
4. CASQA SC-34 Waste Handling and Disposal
5. CASQA SC-41 Building & Ground Maintenance
6. CASQA SC-42 Building Repair & Construction
7. CASQA SC-43 Parking/Storage Area Maintenance
8. CASQA SC-44 Drainage System Manitenance

Appendix E

Soils Report

NOT APPLICABLE

Appendix F

Treatment Control BMP Sizing Calculations and Design Details

Preliminary Water Quality Management Plan
Wake Rider Beach Resort

BMPs proposed for the Wake Rider Beach Resort are porous paving in parking areas, as well as a porous landscape detention basin. The design storage volume for the project is calculated as 8,376 cu. ft.

The total surface area of proposed parking area to be utilized as porous paving is 25,740 sq. ft. The detention volume is 25,740 x 0.17 = 4,376 cu. ft.

Remaining volume is 8,376 – 4,376 = 4,000 cu. ft.

Volume of porous landscape detention basin, 3 feet deep with 2:1 side slopes, is (1,884 x 937)/2 x 3 = 4,232 cu. ft.

Total volume provided is 4,376 + 4,232 = 8,608 cu. ft. > 8,376 cu. ft. (required).

Appendix G

AGREEMENTS – CC&RS, COVENANT AND AGREEMENTS AND/OR OTHER MECHANISMS FOR ENSURING ONGOING OPERATION, MAINTENANCE, FUNDING AND TRANSFER OF REQUIREMENTS FOR THIS PROJECT-SPECIFIC WQMP

NOT APPLICABLE

Appendix H

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT – SUMMARY OF SITE REMEDIATION CONDUCTED AND USE RESTRICTIONS

NOT APPLICABLE