STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401-7906

WASTE DISCHARGE REQUIREMENTS AND MASTER WATER RECYCLING REQUIREMENTS ORDER NO. R3-2013-0020

Waste Discharger Identification No. 3 279804003

FOR THE

SANTA LUCIA COMMUNITY SERVICES DISTRICT
SANTA LUCIA PRESERVE WASTEWATER RECYCLING
MONTEREY COUNTY

The California Regional Water Quality Control Board, Central Coast Region (hereafter also referred to as the "Central Coast Water Board" or "Water Board") finds that:

PURPOSE OF ORDER

1. The Santa Lucia Community Services District submitted an August 2012 Report of Waste Discharge supporting a request for revision of Order No.98-60 (Waste Discharge and Recycled Water Producer Requirements) and Order No.98-61 (Recycled Water User Requirements). This Order establishes master water recycling requirements that regulate the Santa Lucia Community Services District's production and use of recycled sanitary wastewater for irrigation of the Santa Lucia Preserve Golf Trail.

FACILITY INFORMATION

2. **Community Served -** The Santa Lucia Preserve is a 20,000-acre development that allows up to 300 highly dispersed residential home sites, the Santa Lucia Preserve Golf Trail, community amenities and infrastructure, and 90% open space.

3. **Wastewater Recycler -** The Santa Lucia Community Services District owns and operates the Santa Lucia Water Recycling Facility, located in Carmel Valley's Santa Lucia Preserve (at latitude 36.45362 and longitude -121.80188), as shown in Attachment A.

4. **Wastewater Flows -** For this phase of development, the Santa Lucia Water Recycling Facility is expected to process a nominal dry weather capacity of 31,500 gallons per day and a peak hydraulic flow capacity of 120,000 gallons per day. Two equalization basins, one each for dry and wet weather, will moderate flow spikes and a three-day emergency storage basin will provide for emergencies.

5. **Treatment -** The proposed treatment system will provide the wastewater with biological oxidation, microfiltration, ultra-filtration and chemical disinfection.

6. **Biosolids** - Biosolids are dewatered using a sludge bagging system. Drainage from the bagger will return to pre-aeration tank. These bags contain a cake that is then placed in dumpsters for weekly removal to a landfill.

7. **Wastewater Disposal** – The discharger does not dispose of wastewater; all wastewater is recycled for golf trail irrigation. During wet weather, treated wastewater is stored until it can be used for irrigation.

8. **Water Recycling** – This order requires the Santa Lucia Community Services District to produce disinfected tertiary recycled water, as defined in California Code of Regulations, Title 22, Division 4, Chapter 3, §60301.230, for use on the Santa Lucia Preserve Golf Trail.

GEOLOGY, SOILS, AND GROUNDWATER

9. **Geology/Soils** – Soils in the area consist of Santa Ynez series fine sandy loam. The golf trail's shallow, native soils were determined to be insufficiently drained for optimal golf turf conditions. Consequently, the developer covered the native soils with a sand cap that included underdrains. The underdrains collect percolated water and route that water back to irrigation storage reservoirs. Topography consists of level to gently sloping terrain.

10. **Groundwater –** Groundwater is primarily found in a fractured bedrock aquifer system, although unconsolidated alluvial deposits less than 100 feet deep are present along some of the creek channels. Depth to groundwater first encountered is about 150 feet below the ground surface.

11. **Groundwater Quality –** Groundwater quality is generally good. Groundwater TDS ranges from about 300 mg/L to 500 mg/L, while groundwater sodium and chloride ranges from about 50 mg/L to 100 mg/L.

BASIN PLAN

12. The Central Coast Water Board has adopted the *Water Quality Control Plan for the Central Coastal Basin* (the Basin Plan), which designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for receiving waters within the Region.

13. Receiving water quality is a result of many factors, some unrelated to the discharge. This permit considers these factors and is designed to minimize the influence of the discharge to receiving waters.

14. **Groundwater Beneficial Uses –** Present and anticipated beneficial uses of groundwater in the vicinity of the Santa Lucia Preserve include:

Table 1: Groundwater Beneficial Uses

Receiving Water	Beneficial Uses
Santa Lucia Basin	Municipal, and Domestic Supply (MUN), Agricultural Supply (AGR) Industrial Process Supply (PROC), Industrial Service Supply (IND)

SURFACE WATERS

15. Although this project does not include discharges to surface waters, protection of these beneficial uses is important as the discharges may have direct and indirect impacts to surface waters. The golf trail lies partially in the Las Garzas Creek watershed and partially in the San Clemente Creek watershed. Both Las Garzas Creek and San Clemente Creek are tributary to the Carmel River.

16. **Surface Water Beneficial Uses** - Present and anticipated beneficial uses of San Clemente Creek and the Carmel River are listed in the following table:

Table 2 – Surface Water Beneficial Uses

Receiving Water	Beneficial Uses
San Clemente Creek	Municipal (MUN) Agricultural (AGR) Groundwater Recharge (GWR) Water Contact Recreation (REC – 1) Non-contact Water Recreation (REC-2) Wildlife Habitat (WILD) Cold Fresh Water Habitat (COLD) Migration of Aquatic Organisms (MIGR) Spawning, Reproduction and/or Early Development (SPAWN) Fresh Water Replenishment (FRSH) Navigation (NAV) Commercial and Sport Fishing (COMM)
Carmel River	Municipal (MUN) Agricultural (AGR) Industrial Service Supply (IND) Groundwater Recharge (GWR) Water Contact Recreation (REC-1) Non-contact Water Recreation (REC-2) Wildlife Habitat (WILD) Cold Fresh Water Habitat (COLD) Warm Fresh Water Habitat (WARM) Migration of Aquatic Organisms (MIGR) Spawning, Reproduction and/or Early Development (SPAWN) Preservation of Biological Habitats of Special Significance (BIOL) Rare, Threatened or Endangered Species (RARE) Fresh Water Replenishment (FRSH) Commercial and Sport Fishing (COMM)

17. **Stormwater** - The State Water Resources Control Board adopted general NPDES permits for stormwater discharges associated with industrial facilities and stormwater discharges associated with construction activities. This master recycling permit does not regulate stormwater discharges. It is incumbent upon the Discharger to obtain all necessary stormwater permits prior to discharging regulated stormwater.

RECYCLED WATER REGULATIONS AND POLICY

18. **California Constitution** – The California Constitution, Article 10, Section 2 declares that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. This order promotes maximal water use.

19. **California Water Code** – This order conforms with California Water Code section 13523.1, which provides authority to the Central Coast Water Board to issue a master reclamation permit.

20. **Recycled Water Policy** – This order conforms to the State Water Resources Control Board's Recycled Water Policy (Resolution No. 2009-0011), which strives to increase the use of recycled water from municipal wastewater sources that meets the definition in Water Code section 13050(n), in a manner that implements state and federal water quality laws.

21. **Title 22 Recycled Water** – As required by California Water Code section 13523.1, staff consulted with the California Department of Public Health to develop this master recycling permit. The California Department of Public Health has evaluated the proposed project and these waste discharge requirements and provided comments and recommendations which have been incorporated into this Order. The California Department of Public Health has determined that this Order is consistent with water recycling criteria contained in California Code of Regulations Title 22, Division 4, Chapter 3.

ANTIDEGRADATION

22. The water recycling regulated by this Order is subject to waste discharge requirements that will result in treatment, control, prevention of pollution and nuisance, and maintenance of water quality consistent with maximum benefit to the people of the State. As such, these waste discharge requirements are consistent with the provisions of Resolution No. 68-16.

MONITORING PROGRAM

23. Monitoring and Reporting Program (MRP) No. R3-2013-0020 is part of this Order. The MRP requires routine wastewater influent and effluent and receiving water (groundwater) sampling and analysis to verify compliance with this Order. Monitoring reports are required monthly and an annual report is required by January 30th of each year.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

24. These waste discharge requirements are for an existing facility and are exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et. seq.) in accordance with Section 15301, Article 19, Chapter 3, Division 6, Title 14 of the California Code of Regulations.

25. The Central Coast Water Board is a responsible agency pursuant to CEQA (CEQA Guidelines Section 15096). The Central Coast Water Board has considered the EIR and makes its own conclusions in this Order on whether and how to approve the waste discharge requirements for the project. Since the EIR has not identified any potentially significant environmental effects within the Water Board's jurisdiction, the Water Board is not required to make any specific finding pursuant to CEQA Guidelines 15096.

EXISTING ORDERS

26. **Order Nos. 98-60 and 98-61** – In 1998, the Central Coast Water Board adopted Order Nos. 98-60 and 98-61, which regulated the production and use of recycled water within the Santa Lucia Preserve. This order rescinds Order Nos. 98-60 and 98-61.

27. **Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (General WDRs).** - The Santa Lucia Community Services District's collection system has been enrolled under State Water Resources Control Board Order No. 2006-0003-DWQ, since July 27, 2006.

GENERAL FINDINGS

29. On June 18, 2013**,** the Central Coast Water Board notified the Discharger and interested agencies and persons of its intent to consider adoption of waste discharge requirements for

the discharge and provided them with a copy of the proposed Order and an opportunity to submit written comments and scheduled a public hearing. Written comments were required to be received by July 19, 2013.

30. In a public hearing on September 12, 2013, the Central Coast Water Board heard and considered all comments pertaining to the discharge, all evidence in the record, and the applicable law and found this Order consistent with the above findings.

31. All technical and monitoring reports submitted pursuant to this Order are required pursuant to Section 13267 of the California Water Code and failure to submit reports in accordance with schedules established by this Order or attachments to this Order, or failure to submit a report of sufficient technical quality to be acceptable to the Executive Officer, may subject the Discharger to enforcement action pursuant to Section 13268 of the California Water Code.

IT IS HEREBY ORDERED that, pursuant to authority in the California Water Code, Division 7; including Sections 13263, 13267, and 13523; the Santa Lucia Community Services District, its agents, successors, and assigns shall comply with the following:

Requirement authorities/sources are denoted as follows:

Notation	Description
ROWD	Requirement implements the project described in the Report of Waste Discharge
BPJ	Requirement represents staff's best professional judgment and common practice
T22	Requirement implements CCR Title 22, Div.4, Ch.3. Water Recycling Criteria
RWP	Requirement implements the SWRCB's Recycled Water Policy, as adopted in State Water Resources Control Board Resolution No. 2009-0011
BP	The requirement implements the "Basin Plan" (Water Quality Control Plan, Central Coast Basin)
MCL	The requirement implements California's Maximum Contaminant Level (22 CCR §63341)
CWC	California Water Code

A. PROHIBITIONS

1. Wastewater disposal is prohibited. ROWD

2. Introduction of any substance into the recycling facility that adversely affects wastewater treatment is prohibited. ROWD

3. Recycling of untreated or partially treated wastewater is prohibited. ROWD

4. Discharge of any wastes, except incidental runoff as defined in the State Water Resources Control Board Recycled Water Policy, to areas other than the golf trail is prohibited.[ROWD,RWP,T22]

5. Storage pond freeboard of less than two feet is prohibited. [BPJ]

6. Recycling of water within 100 feet of any well used for domestic supply or irrigation of food crops is prohibited. [T22]

B. INFLUENT LIMITATIONS

1. Dry weather flows to the pre-aeration unit shall not exceed the following: [ROWD]

Description	Value, gpd
30-Day Average	31,500
Maximum Day	41,000

2. Wet weather flows to the ultra-filtration unit shall not exceed the following: [ROWD]

Description	Value, gpd
Wet Season Average	38,000
Maximum Month	41,000
Maximum Week	49,200
Maximum Day	82,000
Maximum Hour	82,000

C. RECYCLED WATER SPECIFICATIONS

1. Recycled water production, distribution, and use shall at all times be in conformance with recycled water criteria established in Title 22, Division 4, Chapter 3 of the California Code of Regulations ("Title 22 Water Recycling Criteria") and the Engineering Reports on file with the Water Board and the Department of Public Health. [T22,]

2. Recycled water used for the surface irrigation of the following shall be a disinfected tertiary recycled water, as defined in the Title 22 Water Recycling Criteria. [ROWD, T22,]

3. Recycled water shall not exceed the following limitations:

Constituent	Units	Monthly Average Maximum	Daily Maximum	Instantaneous Maximum
BOD_5 [ROWD]	mg/L	10	30	-
Total Suspended Solids[ROWD]	mg/L	10	30	-
Settleable Solids [ROWD]	mL/L	-	0.1	-
Total Nitrogen[MCL]	mg/L	7	10	-
Turbidity[T22]	NTU	-	-	0.5
		≤0.2 NTU 95% of the time within a 24-hr period		

4. The median concentration of total coliform bacteria measured in the disinfected effluent shall not exceed a Most Probable Number (MPN) of: [T22]

a. 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed.

b. 23 per 100 milliliters in more than one sample in any 30-day period.

c. 240 per 100 milliliters.

5. The recycled water shall undergo a chlorine disinfection process that provides a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow. [T22]

6. Chlorine residual in reclaimed water shall equal or exceed 0.5 mg/L, as measured immediately after the chlorine contact zone. [T22]

7. Delivery of reclaimed water for irrigation purposes shall cease as soon as possible and all wastewater shall be routed to the emergency storage pond if: [BPJ]

d. Disinfection of wastewater ceases at any time; or,

e. Reclamation specifications are violated or threaten to be violated.

D. USE AREA REQUIREMENTS

1. Recycled water shall be confined to the authorized reuse areas identified in the submitted *Report of Waste Discharge* and *Engineering Reports* that serve as a basis for these requirements. .[ROWD]

2. Recycled water shall not be used for irrigation during extended periods of rainfall and/or runoff. [BPJ]

3. Personnel involved in producing, transporting or using recycled water shall be informed of possible health hazards that may result from contact and use of recycled water. [BPJ]

4. Use of recycled water shall occur at a time and in a manner to prevent or minimize public contact with recycled water and to prevent ponding in irrigation areas. [BPJ]

5. All use areas where recycled water is used that are accessible to the public shall be posted with signs that are visible to the public, in a size no less than 4 inches high by 8 inches wide, that include the following wording: “RECYCLED WATER - DO NOT DRINK.” Each sign shall display an international symbol similar to that shown in the *Water Recycling Criteria*, figure 60310-A. The Santa Lucia Community Services District may propose alternative signage and wording, or an educational program, provided the Santa Lucia Community Services District demonstrates to the California Department of Public Health that the alternative approach will assure an equivalent degree of public notification.[T22]

6. Recycled water valves shall be of a design to prevent public access.[BPJ]

7. Drinking fountains shall be protected from recycled water spray, mist or runoff. [T22]

8. Tank trucks used to transport recycled water shall be appropriately labeled and shall not leak.[BPJ]

9. No impoundment of disinfected tertiary recycled water shall occur within 100 feet of any domestic water supply well.[T22]

10. No irrigation with disinfected tertiary recycled water shall take place within 50 feet of any domestic water supply well unless all of the following conditions have been met: [T22]

    a. A geological investigation demonstrates that an aquitard exists at the well between the uppermost aquifer being drawn from and the ground surface

    b. The well contains an annular seal that extends from the surface into the aquitard

    c. The well is housed to prevent any recycled water spray from coming into contact with the wellhead facilities

    d. The ground surface immediately around the wellhead is contoured to allow surface water to drain away from the well

    e. The owner of the well approves of the elimination of the buffer zone requirement

11. Except as allowed under section 7604 of title 17, California Code of Regulations, no physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water.[T22]

12. The portions of the recycled water piping system that are in areas subject to access by the general public shall not include any hose bibs. Only quick couplers that differ from those used on the potable water system shall be used on the portions of the recycled water piping system in areas subject to public access.[T22]

E. RECEIVING WATER LIMITATIONS

(Groundwater Limitations)

1. The discharge shall not cause groundwater to contain taste- or odor-producing substances in concentrations that adversely affect beneficial uses. [BP]

2. The discharge shall not cause radionuclides to be present in concentrations that are deleterious to human, plant, animal, or aquatic life or result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or aquatic life. [BP]

3. The discharge shall not cause groundwater to contain concentrations of organic or inorganic chemicals in excess of the limiting concentrations set forth in California Code of Regulations, Title 22, Division 4, Chapter 15, Article 5.5, Section 64444 (organic) and Article 4, Section 64431 (inorganic). [BP]

4. The discharge shall not cause groundwater to contain concentrations of chemical constituents in amounts that adversely affect the agricultural supply beneficial use. Interpretation of adverse effects shall be as described in University of California Agricultural Extension Service guidelines provided in Table 3-3 of the Central Coast Basin Plan. [BP]

5. The discharge shall not cause a significant increase in mineral constituent concentrations in the underlying groundwater, as determined by comparison of samples collected from wells located upgradient and downgradient of the disposal area.[BP]

F. PRETREATMENT SPECIFICATIONS

1. The Discharger is exempt from applicable pretreatment requirements specified under 40 CFR 125.66(d). In accordance with requirements specified in this Order, the Discharger shall implement public education and waste minimization/source reduction programs to limit the introduction of toxic pollutants and pesticides into the treatment plant. Implementation of a pollution prevention program will substitute for those requirements specified under 40 CFR 125.66 (d) (Nonindustrial Source Control Program).[40CFR125.66(d)]

G. BIOSOLIDS SPECIFICATIONS

Biosolids refers to non-hazardous sewage sludge as defined in 40 CFR 503.9. Sewage sludge that is hazardous (as defined in 40 CFR 261) must be disposed of in accordance with requirements of the Resource Conservation Recovery Act (RCRA). Sludge with PCB levels in excess of 50 mg/kg must be disposed in accordance with 40 CFR 761.

1. All biosolids generated by the Discharger shall be used or disposed of in compliance with the applicable portions of the following regulations.

    a. 40 CFR 503 - for biosolids that are land applied, placed in surface disposal sites (dedicated land disposal sites or monofills), or incinerated.

    b. 40 CFR 258 - for biosolids disposed of in municipal solid waste landfills.

    c. 40 CFR 257 - for all biosolids use and disposal practices not covered under 40 CFR 258 or 503).

    d. 40 CFR 503 Subpart B (land application) applies to biosolids applied for the purpose of enhancing plant growth or for land reclamation. Section 503 Subpart C (surface disposal) applies to biosolids placed on the land for the purpose of disposal.

The Discharger is responsible for ensuring that all biosolids produced at its facility are used or disposed of in accordance with these rules, whether the Discharger uses or disposes of the biosolids itself or transfers them to another party for further treatment, use, or disposal.[BPJ]

H. PROVISIONS

1. Prior to system startup, the Santa Lucia Community Services District shall:

    a. Submit an Operations Plan for review that includes at the least:[T22]
        i. Operations and Maintenance procedures
        ii. Alum dosing procedures
        iii. Alarm functions and operator responses
        iv. Reporting requirements
        v. GAC change out requirements

vi. Operating limits

b. Perform tracer studies, as described in the submitted November 2012 engineering report's Section 4.2(C) for both wet and dry weather flow rates.[ROWD]

c. Establish and enforce rules or regulations for recycled water users, governing the design and construction of recycled water use facilities and the use of recycled water, in accordance with the uniform statewide recycling criteria established pursuant to Section 13521.[CWC]

2. The Santa Lucia Community Services District shall submit, by **November 29, 2013,** a work plan for installation of a representative groundwater monitoring network capable of determining the impact of water recycling on underlying groundwater. At a minimum, the work plan shall describe existing hydrogeological conditions, optimal upgradient and downgradient groundwater monitoring locations, monitoring infrastructure, proposed pollutants to be monitored (including but not limited to nitrogen, sodium, chloride, and total dissolved solids), and monitoring schedules and protocols.[BPJ]

3. The StormBLOX's granular activated carbon shall be switched out at least annually at the end of each rainy season, with all media change-outs noted in the routine reporting documents submitted to the RWQCB.[BPJ]

4. Any revisions to the following Title 22 Engineering Reports shall be submitted to the Water Board executive officer as an application document (i.e.: Title 22 Technical Support Document and Report of Waste Discharge documents):[CWC]

   a. "Amendment to the Title 22 Engineering Report for the Production, Distribution, and Use of Recycled Water" dated November 2012 by the NorthStar Engineering Group and

   b. "Ovivo StormBLOX process with the iSEP 500-PVDF ultrafiltration membrane: Demonstration testing for California recycled water applications" dated October 8, 2012 by Trussell Technologies.

5. The Santa Lucia Community Services District reclamation plant shall be provided with a sufficient number of qualified personnel to operate the facility effectively so as to achieve the required level of treatment at all times.[T22]

6. A preventive maintenance program shall be provided at each reclamation plant to ensure that all equipment is kept in a reliable operating condition. [T22]

7. Operating records shall be maintained at the reclamation plant or a central depository within the operating agency. These shall include: all analyses specified in the reclamation criteria; records of operational problems, plant and equipment breakdowns, and diversions to emergency storage or disposal; all corrective or preventive action taken.[T22]

8. Process or equipment failures triggering an alarm shall be recorded and maintained as a separate record file. The recorded information shall include the time and cause of failure and corrective action taken. [T22]

9. Any discharge of untreated or partially treated wastewater to the use area, and the cessation of same, shall be reported immediately by telephone to the regulatory agency, the State Department of Health, and the local health officer. [T22]

10. The Santa Lucia Community Services District shall comply with Monitoring and Reporting Program No. R3-2013-0020 (included as part of this Order), as ordered by the Executive Officer.[CWC]

11. Discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements," dated January, 1984 (also referred to as "Standard Provisions"). [CWC]

12. Treatment and discharge shall not cause pollution or nuisance as defined in Section 13050 of the California Water Code. [CWC]

13. All accumulated biosolids or solid residue shall be disposed of at a location authorized by law. The Discharger shall report to the Executive Officer plans to discharge at a facility not covered by existing waste discharge requirements or general waste discharge requirements at least six months before disposal begins. If the Executive Officer directs the Discharger to submit a report of waste discharge, Discharger shall not begin disposal until it has obtained coverage under individual or general waste discharge requirements or other authorization to discharge. [CWC]

14. Treatment and storage facilities shall be managed to exclude the public and posted to warn the public of the presence of wastewater.[BPJ]

15. The Discharger shall develop and implement a salt and nutrient management plan for groundwaters of the Santa Lucia Preserve, as required by the Recycled Water Policy.[RWP]

16. Pursuant to Title 23, Division 3, Chapter 9, Article 2 of the California Code of Regulations, the Discharger must submit a report to the Executive Officer, no later than **May 30, 2023** addressing:[CWC]

    a. Whether there will be changes in the continuity, character, location or volume of the discharge; and,

    b. Whether, in its opinion, there is any portion of the Order that is incorrect, obsolete or otherwise in need of revision.

I, Kenneth A. Harris Jr., Interim Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Central Coast Region on September 12, 2013.

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Kenneth A. Harris Jr., Interim Executive Officer

TJK
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CIWQS Place # 255653
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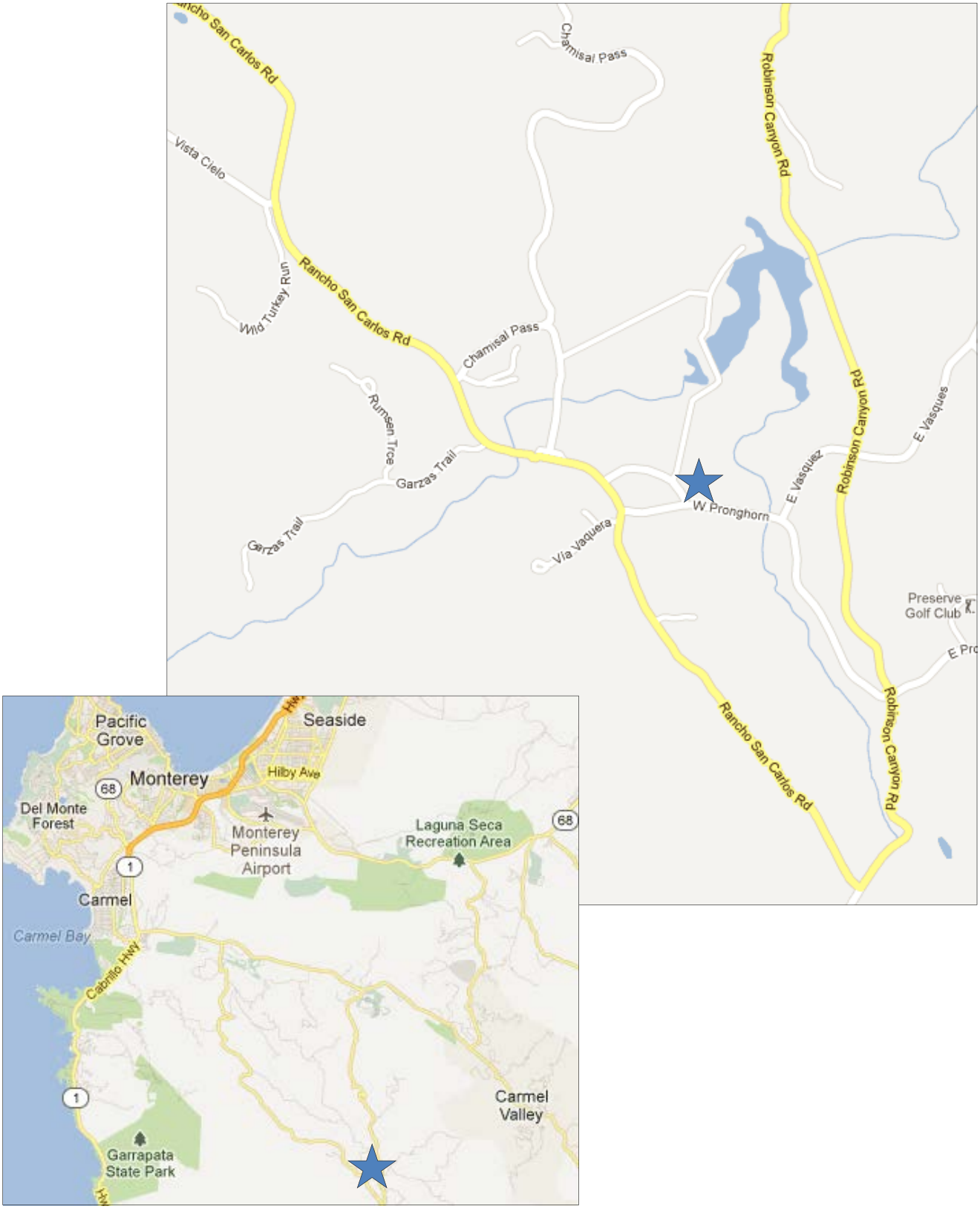
Attachment A – Location Maps

(Map data ©2012 Google)