

# 2016 Municipal Service Review and Sphere of Influence Study:

## Carmel Area Wastewater District



Adopted by the Commission on June 27, 2016

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**2016 MUNICIPAL SERVICE REVIEW  
FOR THE CARMEL AREA WASTEWATER DISTRICT**

Carmel Area Wastewater District – At a Glance	
<b>Formation Date</b>	July 8, 1908
<b>Legal Authority</b>	Sanitary District Act of 1923 ( <i>Health and Safety Code section 6400 et seq.</i> )
<b>Board of Directors</b>	Five-member Board of Directors, elected at-large to four-year terms
<b>District Area</b>	5.0 square miles (3,207 acres)
<b>Sphere of Influence Area</b>	354 acres beyond District boundaries
<b>Population</b>	Approximately 11,000 within the District boundaries, plus 4,500 Pebble Beach residents contractually served for wastewater treatment
<b>Authorized Powers</b>	Wastewater collection and treatment, recycled water distribution
<b>Budget (FY 2016-17, proposed)</b>	\$7.9 operating revenues \$5.7m non-operating revenues \$3.7m net District income \$11m capital budget
<b>District Mission</b>	Carmel Area Wastewater District is a special district dedicated to protecting the public health and the environment by cost-effective collection and treatment of wastewater and the return of clean water to the environment.
<b>General Manager</b>	Barbara Buikema
<b>Contact Information</b>	P.O. Box 221428 (3945 Rio Road), Carmel, CA 93922 831-624-1248
<b>Website</b>	<a href="http://www.cawd.org">www.cawd.org</a>

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**EXECUTIVE SUMMARY AND RECOMMENDATIONS**

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This Municipal Service Review and Sphere of Influence Study provides information about the services and boundaries of the Carmel Area Wastewater District. The report is for use by the Local Agency Formation Commission in conducting a statutorily required review and update process. The Cortese-Knox-Hertzberg Act requires that the Commission conduct periodic reviews and updates of Spheres of Influence of all cities and districts in Monterey County (Government Code section 56425). It also requires LAFCO to conduct a review of municipal services before adopting Sphere updates (Government Code section 56430). The last service review of the District was completed in June 2006, as part of a review of all local agencies in the Carmel Valley.

**District Services, Boundaries, and Sphere of Influence**

The District owns, operates and maintains sewer collection lines within its boundaries. The District operates a treatment facility for wastewater collected by the District and the adjacent Pebble Beach Community Service District. Wastewater is treated to tertiary standards. Much of the treated wastewater is then used to irrigate golf courses and public open spaces.

District boundaries include the City of Carmel-by-the-Sea and portions of the surrounding unincorporated areas of Carmel, Carmel Valley, Carmel Meadows, and Carmel Highlands. Over the years, the District has annexed subdivisions and properties requiring wastewater service that were not contiguous to the existing District boundaries. The Sphere of Influence was first adopted in 1985. Since then, it has only been expanded in tandem with the proposed annexation of specific parcels or areas requesting service.

In April 2016, the District submitted a proposal for a more comprehensive Sphere of Influence amendment and annexation of several areas within, or adjacent to, existing District boundaries. The proposal area primarily includes portions of Carmel Valley, the Carmel Hills area near the mouth of the valley, and lands in and near the Point Lobos State Natural Reserve. The District's Sphere of Influence amendment and district annexation proposal, which includes approximately 3,040 acres (about five square miles) is described in more detail and evaluated in this study. The proposal also includes a future study area in the Carmel Highlands area. Figure 1 through 3 show the District's existing Sphere of Influence and boundaries, the 2016 Sphere and annexation proposal, and the overall Sphere and boundaries that would result from the 2016 proposal, if approved.

This study evaluates the District's proposal in relation to likely future needs for wastewater services in the area. The study makes determinations that the District's proposal is an appropriate expansion of its boundaries and Sphere of Influence.

### **District Highlights**

The District has adequate capacity to meet existing and projected future wastewater treatment needs in the Carmel and Del Monte Forest areas. It also is actively maintaining the wastewater collection system within District boundaries. In addition to its wastewater collection and treatment services, the District partners with the adjacent Pebble Beach Community Services District to make reclaimed wastewater available for landscape irrigation, thereby reducing the strain on local potable water resources.

The District's finances are stable and responsibly managed. The District has accumulated substantial cash reserves to cover operational emergencies and long-term capital improvements. The Board and staff adhere to requirements for accountability, transparency and ethics, and are committed to delivery of high quality services in a cost-efficient manner.

The District has the capability to address future challenges. The primary challenge facing the District is a need to rehabilitate and update much of its older existing infrastructure. In order to meet this challenge the District has developed a detailed master capital improvement plan for wastewater treatment implemented a funding plan, and approved contracts to initiate Phase I of the improvements. The District is now nearing completion of a capital improvement plan for its wastewater collection system.

### **Recommended Actions**

Based on the analysis and determinations in the *2016 Municipal Service Review and Sphere of Influence Study for the Carmel Area Wastewater District*, the Executive Officer recommends adoption of a resolution to:

- a) Find the *2016 Municipal Service Review and Sphere of Influence Study for the Carmel Area Wastewater District* exempt from provisions of the California Environmental Quality Act (CEQA) under Sections 15306 and 15061(b)(3) of the State CEQA Guidelines; and
- b) Adopt the Study and the determinations included within the Study.

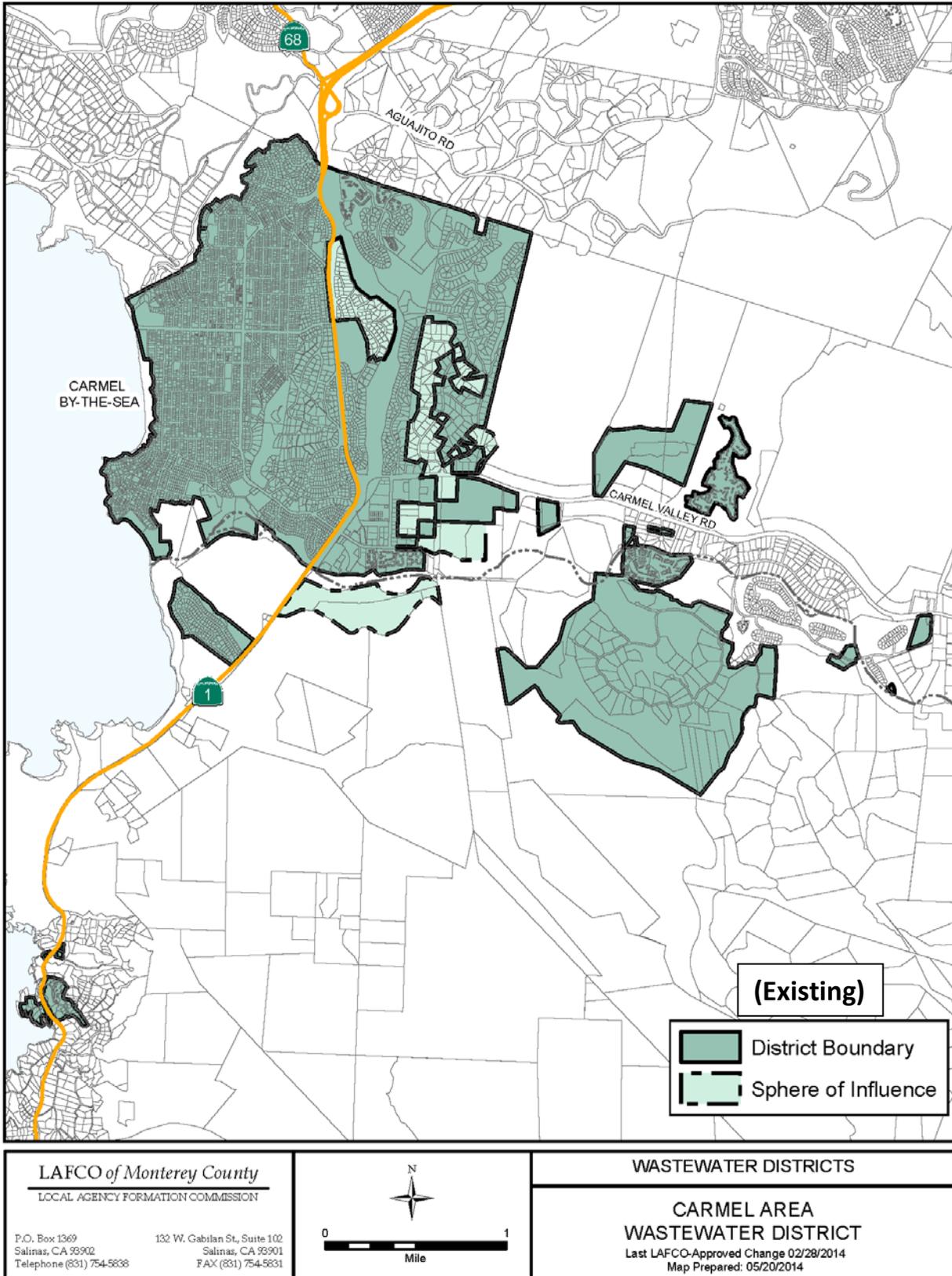


Figure 1: Existing Boundaries of the Carmel Area Wastewater District

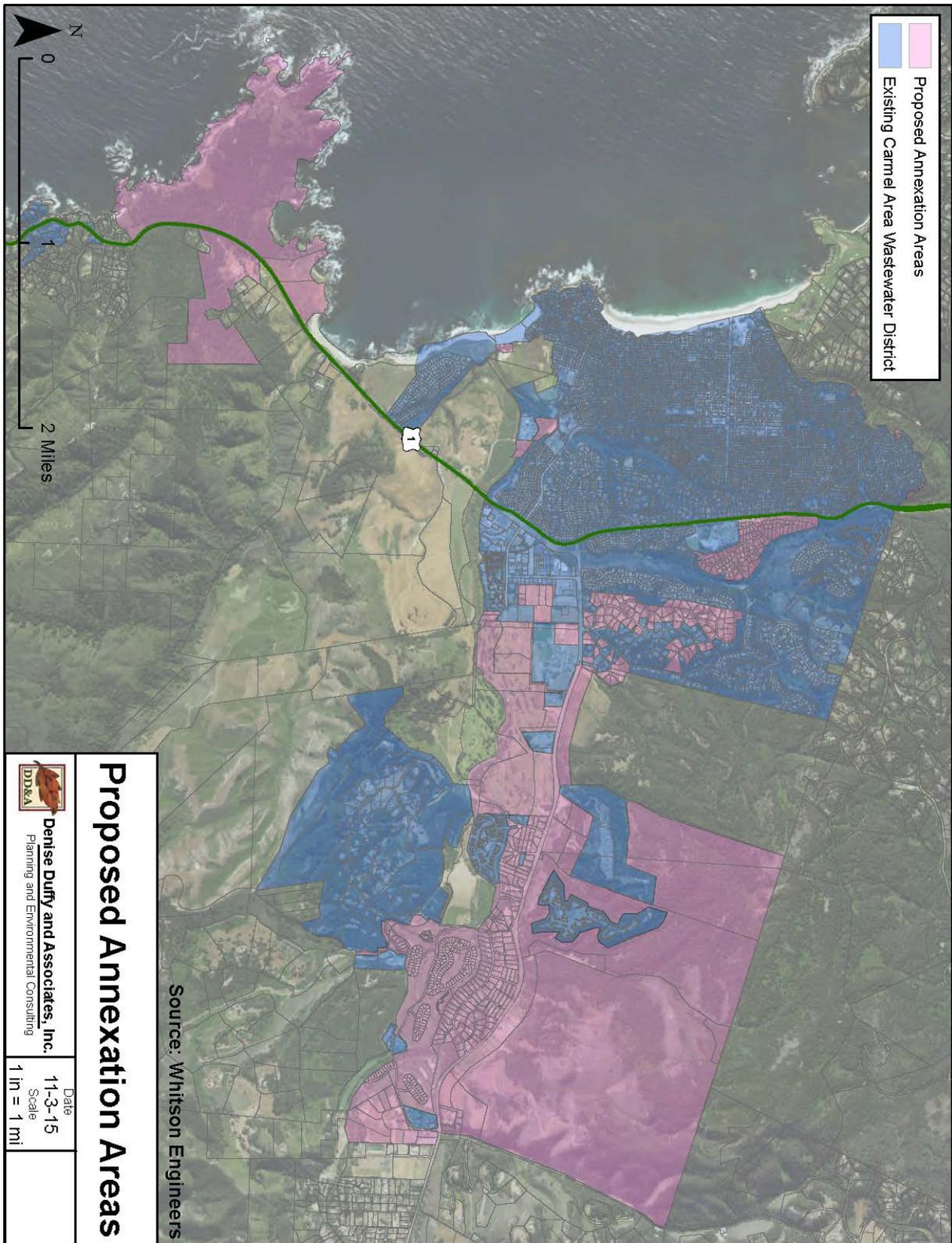


Figure 2: 2016 Proposal - Carmel Area Wastewater District

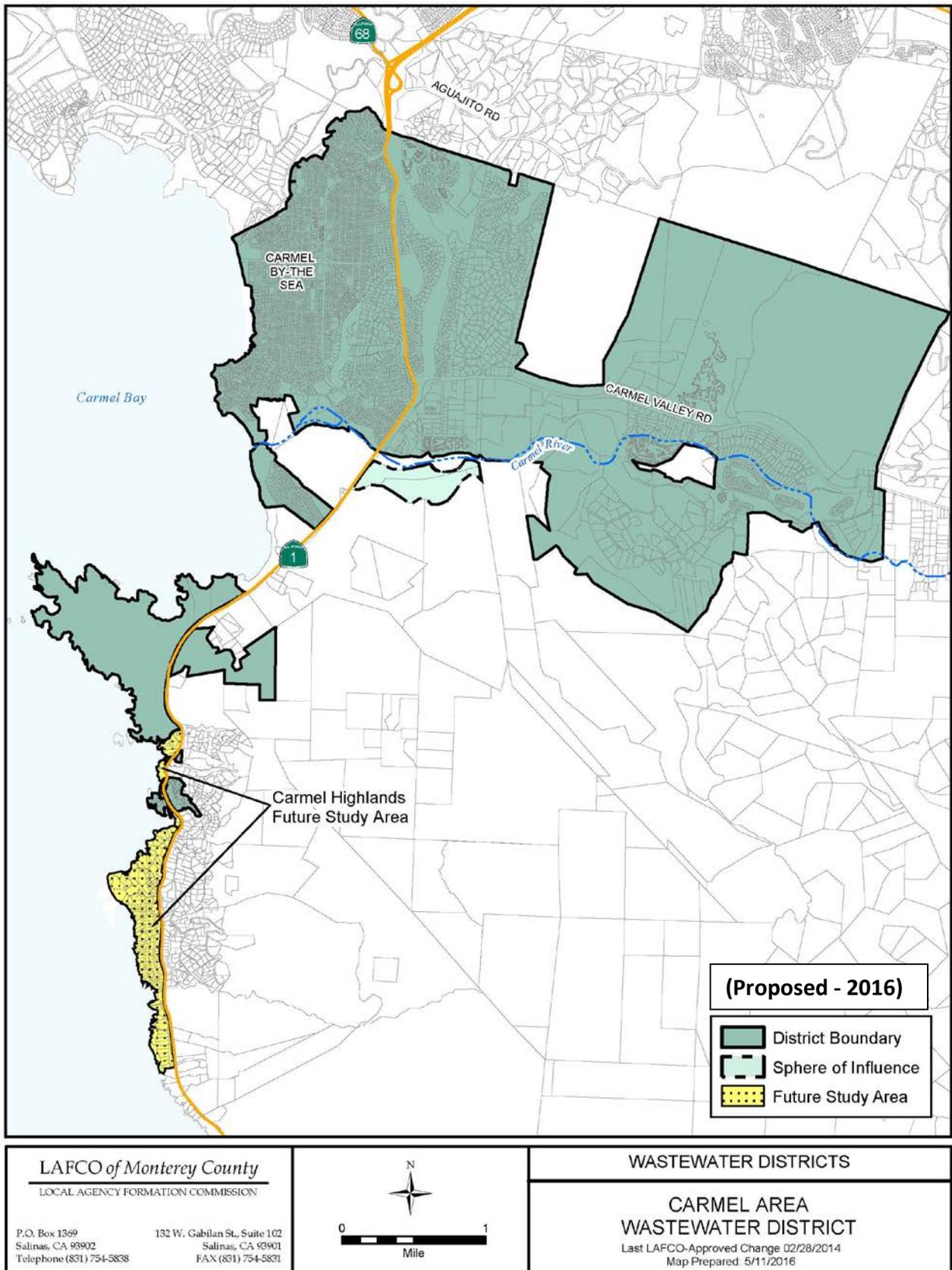


Figure 3: Proposed Overall Boundaries of the Carmel Area Wastewater District

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## HOW THIS REPORT IS ORGANIZED

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This report presents a brief review of the District's history and the area's growth projections. It examines the District's provision of wastewater service, cooperative efforts, governance, and finances, and explores the District's Sphere of Influence and boundaries and proposals for expansion. The document concludes with recommended determinations as required by law and with acknowledgements and source references.

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## DISTRICT HISTORY

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The District was originally named the Carmel Sanitary District. In 1979, the *Carmel Sanitary District Area-wide Facility Plan* summarized the District's early growth as follows:

The Carmel Sanitary District was formed in 1908 to serve the community of Carmel-by-the-Sea, and is one of the oldest sanitary districts in the state. Formation preceded incorporation of the City of Carmel-by-the-Sea by ten years. In 1934, the district was reorganized under the Health and Safety Code District Act of 1923. Initially, the district operated collection sewers and a community septic tank near the mouth of the Carmel River. Septic tank effluent was disposed of by percolation into the nearby beach sand. As the district population grew, the design capacity of the septic tank was reached. In 1939, work began on a primary treatment plant to replace the septic tank. The district's primary treatment plant was built at the site of the present water pollution control plant, and had a design capacity of 0.8 million gallons per day (MGD). This primary treatment plant was the first sewage treatment plant on the Monterey Peninsula.



In 1967, the primary treatment plant was nearing capacity and a larger-capacity secondary treatment plant was planned. In the same year, the Pebble Beach Sanitary District was formed in response to failing septic systems in the Del Monte Forest. In 1969, a joint-use agreement to share the costs of a new plant was executed by the two districts. A pipeline connecting the Pebble Beach collection lines with the CAWD was completed. (Note: The Pebble Beach Sanitary District was reorganized as the Pebble Beach Community Services District in 1982).

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## DISTRICT BOUNDARIES, SPHERE OF INFLUENCE, AND RECOMMENDED CHANGES

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District boundaries include the City of Carmel-by-the-Sea and surrounding unincorporated areas of Carmel, Carmel Valley, Carmel Meadows, and Carmel Highlands. The Sphere of Influence was first adopted in 1985, when it encompassed the then-existing District boundaries, a number of adjacent properties and three specific areas anticipating urban development. The Sphere has not been expanded since 1985, except in tandem with the proposed annexation of specific areas. Figure 1 shows the boundaries and Sphere of Influence of Carmel Area Wastewater District.

Over the years, the District has annexed a number of subdivisions and properties needing wastewater service. These annexations have frequently included areas that were not contiguous to the existing District boundaries. As a result, District boundary growth has not always appeared to be comprehensively planned.

### 2016 Sphere and Annexation Proposal

Over the years, many property owners within, or adjacent to, the District's existing Sphere of Influence have expressed a need for wastewater service, often because of failing septic systems. The District is also interested in taking a more proactive and comprehensive approach to updating its Sphere of Influence and boundaries, in order to meet current and planned future needs.

In April 2016, the District submitted a proposal for a Sphere of Influence amendment and annexation of some areas within, or adjacent to, existing District boundaries. The District's proposal, which is shown in Figure 2, contains the following components:

1. Expansion of the District's Sphere of Influence to the east in the Carmel Valley area;
2. Inclusion of lands into District's Sphere of Influence that are already served under a LAFCO-approved "out-of-agency" service agreement and the provision of services to State Parks-owned properties at Point Lobos;
3. Annexation of the proposed expanded Sphere of Influence except for the "Odello Ranch" parcels, and
4. Designation of a "Future Study Area" in the Carmel Highlands on the west side of State Highway One. Under this designation, the Highlands area would be outside of the District's Sphere of Influence, but may warrant inclusion in the Sphere in future years. Further study would need to be completed if this expansion were to occur.

Proactive expansion of the District's Sphere and boundaries will greatly reduce the need for inefficient "parcel-by-parcel" Sphere of Influence amendments and annexations as service needs occur over time. In facilitating future sewer service connections, the proposal will also help gradually reduce the number of individual septic systems in the area. Reducing the number of septic systems in the Carmel River watershed is a public health benefit that has been a long-standing objective of the County Environmental Health Department.

### Subareas of the Proposal

The subareas within the District's proposal are more specifically described below.

Carmel Hills: This area is located in unincorporated Monterey County, between Highway 1 and the Hatton Canyon State Park property. Carmel Hills includes medium density-zoned residences within the unincorporated Monterey County. Approximately 75 lots in this area are within the Sphere of Influence but currently outside the District's boundaries. These lots are served by septic tanks, while the majority of all surrounding parcels are served through the District. The vast majority of these lots are developed with single-family residences, with some less than one acre in size. This area is proposed to be annexed.

Carmel Valley, north of Carmel Valley Road. This area contains four large land holdings:

- Pacific Meadows: While the affordable housing development is included with the boundaries of the Carmel Area Wastewater District, surrounding parcels are not in the District. This includes 236 acres of County-owned open space and six large single-family parcels on the north side of Carmel Valley Road. Three of the single-family parcels are improved and three unimproved; these parcels average seven acres in size. Only limited development is possible in this area. (Assessor's Parcel Numbers: 015-163-005, -006, -008, -009, -010, -011, -012 and -013)
- Del Mesa Carmel: While the Del Mesa Senior Citizen development is within the District, the northern and eastern portions of this property are maintained as open space. This open space land contains around 343 acres and is currently not within the District boundaries. Development of this area is not anticipated. (Assessor's Parcel Numbers: 015-441-001, -002, -003, and -005)
- September Ranch: On November 9, 2010, the County Board of Supervisors approved a subdivision of this land to allow 95 residential lots. While construction has not yet begun, a condition of the development approval was connection to the Carmel Area Wastewater District. (Assessor's Parcel Numbers: 015-171-010, 015-171-012, 015-361-013 and 015-361-014)
- Property Reserve, Inc. (portion thereof): This undeveloped property contains appropriately 595 acres between the Carmel Hills area and Pacific Meadows. While the majority of this property is not part of the current proposal, the District proposes to add a parcel along the northern side of Carmel Valley Road to the Sphere. The District may install service lines may within this area. The

remainder of the property is not proposed to be included within the Sphere because there is no future development proposed or planned and the property has no service extension needs in the foreseeable future. The Property Reserve land is zoned by the County for low and rural residential use, with densities ranging between 2.5 and 10 acres per unit. This property was previously restricted through an agricultural preservation contract that expired in 2013. (Assessor's Parcel Number: 015-161-022, proposed for addition to the Sphere of Interest.)

Carmel Valley, south of Carmel Valley Road: The western end of this developed area includes the Rancho Cañada Golf and Country Club, with two golf courses. A portion of the site with the club's main buildings is currently within the District. The District's 2016 Sphere/annexation proposal includes the remainder of Rancho Cañada north of the Carmel River. Areas south of the river have no anticipated future need for sewer service under potential future residential development north of the river as described below.

In 2007, a 280-unit residential development project (Rancho Cañada Village) was proposed on areas of the Rancho Cañada "west" golf course. In 2015, a reduced, 130-unit proposal was presented to the County's Carmel Land Use Advisory Committee. The revised project continues to propose open space on areas south of the river. To date, the County Planning Commission and Board of Supervisors have not acted on the project. In April 2016, a pending sale of Rancho Cañada "east" golf course lands to the Monterey Peninsula Regional Park District was announced. The park district is anticipated to take ownership in 2017. The sale of this property for future open space uses does not affect the potential future development of the Rancho Cañada Village project on nearby lands to the west.

Existing single-family homes cover most of the remaining areas south of Carmel Valley Road within the proposed Sphere expansion. This includes the Descanso Oak Estates, Rancho Cañada #1 and Carmel Valley Golf and Country Club (Quail Lodge) Subdivisions. Open spaces adjacent to the Quail Lodge development have been excluded from the Sphere of Influence because wastewater service is not needed. This area contains numerous individual parcels.

Point Lobos: In 2002, LAFCO approved the extension of wastewater service outside of the District's boundaries to the Point Lobos State Natural Reserve. In 2006, wastewater lines were also extended into Point Lobos Ranch, an undeveloped site on the eastern side of Highway 1 that contains several State Parks-owned staff residences. The District proposes to include these properties within its Sphere of Influence and to annex them. (Assessor's Parcel Numbers: 243-111-001/-002, 243-112-019 and 243-121-001)

Other Parcels: In addition to the proposal's main subareas described above, fourteen individual parcels are included in the proposed Sphere of Influence amendment and annexation. These parcels are effectively surrounded by existing district boundaries and are included as a "cleanup" measure. The parcels are mapped (shown with pink shading) and listed below.

Misc. residential parcels – north area (from left)	
APN	Location
009-112-002	24670 Pescadero Rd
009-112-010	24658 Pescadero Rd
009-011-010	24384 San Juan Rd
009-011-011	
009-011-012	24376 San Juan Rd
009-031-024	24285 San Pedro Ln
009-031-025	24295 San Pedro Ln
009-031-028	24315 San Pedro Ln
009-031-029	24325 San Pedro Ln
009-031-030	24331 San Pedro Ln
009-031-031	24335 San Pedro Ln



Misc. parcels- south area (from left)	
APN	Location
009-472-001	Scenic Road
009-521-002	Adjacent to CAWD treatment plant (off Highway 1)
009-541-021	



The District General Manager has expressed long-term interest in expanding further into the Carmel Valley. However, growth beyond what is currently proposed will require an expansion of the wastewater collection infrastructure. This would need to be paid for by property owners who are reluctant to initiate the process unless they have experienced septic system failure or are contemplating major construction projects.

#### Future Study Area: Carmel Highlands

A long-term goal to expand sewer service into the Carmel Highlands has been identified by County Environmental Health and the Regional Water Quality Control Board (see Future Challenges and Opportunities section, below). The District is interested in eventually serving this area, and there are no other existing or likely future sewer service providers. However, no foreseeable funding has been identified to support the very substantial infrastructure improvements that such an expansion will require. LAFCO staff recommends designation of a portion of Carmel Highlands west of Highway 1 as a “Future Study Area” (Figure 2). As defined by local LAFCO Policies and Procedures, a Future Study Area is “territory outside of an adopted Sphere of Influence that may warrant inclusion in the sphere in future years. Further study would have to be completed prior to inclusion.”

Highlands properties nearest to the ocean are the highest future priority because of the potential for effluent from septic systems to directly enter the marine environment. Future connection of these properties to the District’s sewer system will alleviate this environmental concern. In addition, more connections will also increase the amount of effluent processed by the District’s wastewater plant. This, in turn, will provide for additional reclaimed water for use on public and private open space. In the longer term, the Carmel Highlands area may at some time be appropriate for inclusion in the District.

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## POPULATION AND GROWTH

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The District serves the City of Carmel-by-the-Sea and adjacent unincorporated areas. No specific demographics exist for the District. The District’s estimate of its population is 11,000. Extrapolations from census data for ZIP Code 93923 indicate that the area is losing population. The US Postal Service defines ZIP Code 93923 as “Carmel and Carmel Highlands.” This ZIP code area, which is larger than the Carmel Area Wastewater District, included 12,073 people in 2010; in 2000, 13,108 people lived in the zip code. The City of Carmel-by-the-Sea, which is within both ZIP Code 93923 and the District, also lost population between 2000 and 2010, as it has for each decade since 1980. The City’s 2010 population of 3,722 is fifteen percent less than it was in 1950.

The District’s wastewater plant contractually provides service to the Pebble Beach Community Services District as well as to District residents. 4,514 people resided in Pebble Beach in 2010, essentially unchanged from the count of 4,523 in 2000.

The popularity of Carmel and Pebble Beach residences as vacation homes has removed many dwellings from permanent occupancy. While this trend does not decrease the number of sewer connections, it

reduces the full-time occupancy of homes and the corresponding volume of wastewater. The decreasing residential sewage volume is partially offset by the existence of many tourist-oriented businesses, such as restaurants, hotels/motels, and golf courses in the area.

In 2014, the Association of Monterey Bay Area Governments (AMBAG) projected an essentially stable population for the City of Carmel-by-the-Sea through 2035. Minor growth outside of City limits is anticipated as several vacant parcels develop. In the future, the population served by the District will increase primarily through expansion of the area served, as is currently being proposed.

The District maintains a Wastewater Treatment Capital Improvement Program 15-Year Master Plan (discussed in the Future Challenges and Opportunities section, below) to provide for its future service needs. A capital improvement plan for the sewage collection system is nearing completion.

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## FACILITIES AND OPERATIONS

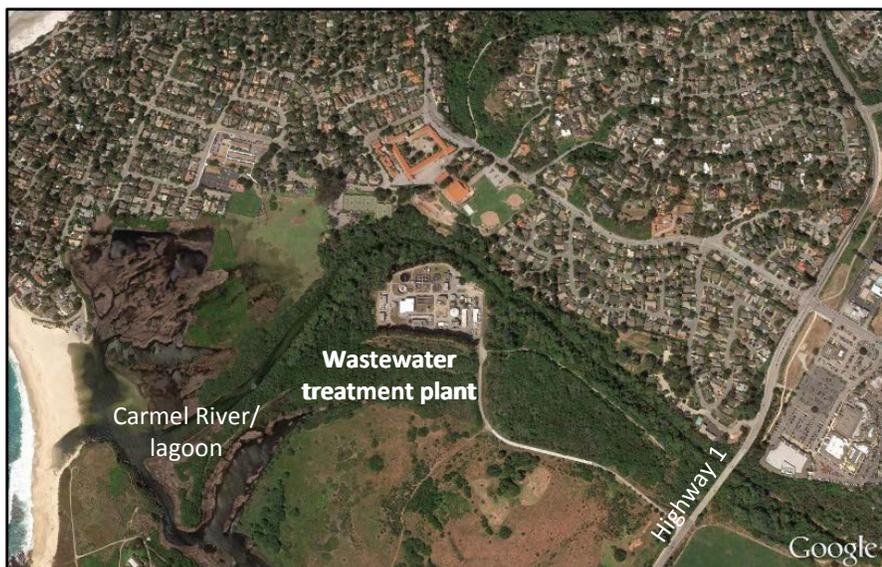
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### Wastewater Collection System and Treatment Plant

The District's collection facilities consist of approximately 83 miles of sewer lines, five miles of force mains, and seven pump stations. The District currently has 6,671 sewer connections, 6,298 of which are residential. Wastewater is conveyed to the District's treatment plant, which is located south of Carmel on Highway 1, between the Crossroads area and the Carmel Meadows residential development.

The treatment plant also receives wastewater from the Pebble Beach unincorporated community, under a contractual arrangement with the Pebble Beach Community Services District. The contract allocates one-third of the plant's treatment capacity to PBCSD.

The District's current permitted treatment capacity is 3.0 million gallons per day (MGD). Prior to the economic recession and the current increase in conservation efforts, inflows averaged approximately 2.1 MGD. District staff states that the current daily dry weather inflow is between 1.2 and 1.4 MGD, which includes wastewater from Pebble Beach. (In the 2014 reissuance of the District's permit, the Central Coast Regional Water Quality



Control Board estimated existing dry weather inflow to be 1.8 MGD. Under either estimate, the District's current inflow is well below its permitted capacity). The physical extent of wastewater collection infrastructure such as pipelines and pump stations—as opposed to treatment capacity—has been the main limiting factor in District growth; extending the collection system is a substantial cost that generally must be financed by the new users requesting sewer service. In-District (i.e., “non-Pebble Beach”) connections have increased only slightly from 6,652 in 2009 to the current 6,671.

District staff estimates that the plant's surplus capacity could hypothetically accommodate flows equivalent to the connection of an additional 7,000 to 8,000 residential units within the District, plus volume equivalent to 3,000 to 4,000 additional units in Pebble Beach. District staff estimates that the proposed Sphere of Influence - if fully developed in accordance with County General Plan designations

and entitlements, annexed, and connected to the District's sewer system– would add approximately 520 connections.

The District's adopted (2013) 15-Year Master Plan for Wastewater Treatment determined that substantial reinvestment was needed in order to maintain the long-term sustainability of the infrastructure. This issue is discussed further in the Challenges and opportunities section, below.



### Reclamation Project (Recycled Water)

The Reclamation Project is a cooperative effort involving the Carmel Area Wastewater District, the Pebble Beach Community Services District, the Monterey Peninsula Water Management District and the Pebble Beach Company. The project provides treated wastewater to irrigate seven golf courses, an equestrian center, the grounds of a private school, and some smaller landscaped areas within Pebble Beach. The use of this treated wastewater makes potable water available for uses other than irrigation. The Reclamation Project was initially financed in 1992 through \$33.9 million in Certificates of Participation issued by the Monterey Peninsula Water Management District. At that time, the Pebble Beach Company guaranteed payment of the project's construction and maintenance costs. The initial portions of the project were completed in 1994. The Project was later expanded to increase the quantity and quality of the reclaimed water. From 2006 to 2009, a microfiltration/reverse osmosis phase was added to reduce the water's sodium content. The recycled water's lower sodium content has reduced stress on golf course greens and eliminated the need for flushing the courses with potable water.



The Project now utilizes the Forest Lake Reservoir in Pebble Beach to hold water treated in the winter for use during the dry summer months, further expanding the availability of recycled water. The District owns and manages the tertiary treatment plant and all reclaimed water pipeline within the District boundaries. The Pebble Beach Community Services District owns the Forest Lake reservoir and distribution pipelines within Pebble Beach.

Treated wastewater that is not diverted for beneficial use as part of the Reclamation Project is ultimately discharged to the Carmel Bay. The District's outfall pipe extends approximately 650 feet off shore, south of the Carmel River Lagoon. Wastewater outfall standards applicable to the District are particularly strict because the outfall occurs within the Carmel Bay Area of Special Biological Significance (ASBS). Since the new tertiary treatment system became operational, the District has discharged less than 200,000 gallons of secondarily treated wastewater to the ocean per day. The total annual discharge has been less than the amount of wastewater received by the treatment plant in a single week. This discharge level is well within the District's permit limitations.

The Reclamation Project was designed to produce up to 1.5 MGD of reclaimed water. During the recent drought conditions, influent into the plant has decreased, which has severely limited reclaimed water production. This limitation has resulted in a search for new water sources. Potential sources include accepting storm water, diverting untapped spring water into the system and increasing the treatment plant's service area.

### Other Shared Facilities and Services

The District has a long history of working with other public and private organizations in accomplishing its mission. The District has partnered with the Pebble Beach Community Service District since 1969 to

construct treatment facilities and treat wastewater from the collection lines of the two districts, as discussed above. The expansion of the treatment facilities to attain tertiary treatment standards has also involved partnering with the Monterey Peninsula Water Management District to issue Certificates of Participation, the Pebble Beach Company to guarantee expenses, and with a number of golf courses to utilize the recycled water.

For years, the District has also worked with the City of Carmel-by-the-Sea to provide public services. As the District and the City are both relatively small units of government, they share backhoes and other equipment as needed. The District will also clean a spill or provide other inter-jurisdictional services if requested by the City. A more formal arrangement is being discussed where District staff may assist the City with restaurant source control inspections. To date, the District has been conducting source control inspections to ensure that grease is not disposed of in the wastewater stream, while the City currently inspects to keep grease out of the storm water system.

The District participates in the Southern Monterey Bay Dischargers Group. This group, colloquially known as “Clog Busters,” is a consortium of wastewater collection system owners and wastewater treatment jurisdictions in northern Monterey County. Clog Busters sponsors a website and ad campaigns to keep grease and fat out of drains. Nine units of local government and the California American Water Company participate in the consortium.

In 2012, the City of Pacific Grove initiated discussion with the District to recycle some of the City’s wastewater. This proposal would divert wastewater from approximately 500 homes in the Del Monte Park area to the District’s treatment facility through pipes owned by the Pebble Beach Community Services District. While the City is currently studying other recycled water alternatives, this 2012 proposal illustrates a possible expanded role for the District in the region.

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## GOVERNANCE / TRANSPARENCY AND ACCOUNTABILITY

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### Governance

The District is governed by a five-member Board of Directors, who are elected at-large for four-year terms. Elections are seldom required to fill seats as the number of candidates usually matches the number of seats up for election. There has been only one competitive election within the last approximately 15 years. The Board of Directors holds regular monthly meetings at the District offices. The Board is kept up to date through routine staff reports on the status of engineering, capital improvement and internal projects, and on current mechanical and maintenance issues.

### Transparency and Accountability

The building and room where the Board meets are accessible to people with physical disabilities. The agenda packets for Board meetings are available to the public through the District’s website. These packets include copies of staff reports and minutes of past Board and committee meetings. District staff posts meeting notices on a display board in front of the District office, at the Carmel-by-the-Sea post office and on its website. Each Board meeting has a time on the agenda reserved for public comments. The Board limits closed session discussions to issues allowed by State law. Directors receive ethics training and submit the required Statements of Economic Interests. District audits are regularly and professionally completed. The District website makes available a variety of information such as District budgets, audits, and specifics on District meetings and activities.

### 2012 Grand Jury Report

A 2012 Monterey County Civil Grand Jury initiated a review of the District. Overall, the report concluded that the District “is run efficiently and managed effectively.” The Grand Jury also determined “the current rate structure for wastewater treatment and connection fees are in line with other agencies with similar

populations.”<sup>1</sup> The report contained five recommendations relating to implementing a 15-year Master Capital Improvement Plan (discussed further below), improving employee morale, completing employee evaluations in a timely manner, conducting a new employee survey and considering both internal and external job applicants for senior management positions.

The District has implemented the Grand Jury’s recommendations. An updated employee survey was completed in January 2013 by the authors of an earlier (2011) survey that had shown some employee dissatisfaction. The 2013 survey concluded that “CAWD Management and Supervisors have done a remarkable job of addressing and implementing changes to make such amazing progress in such a short period of time. Both the General Manager and Plant Superintendent have been instrumental in making a cultural shift, changing attitudes and morale. This has been an absolute success story as the survey results show.”<sup>2</sup> The survey results showed overall job satisfaction jumping from 46% to 100%. Performance appraisals were also found to be prepared on time 71% of the time, compared to 27% in 2011.

The District has also implemented a capital improvements budget based on the District’s adopted (2013) Wastewater Treatment 15-Year Master Plan. The District maintains a five-year plan for improvements to the wastewater collection system, and is in the process of expanding it into a 20-year plan. District management has also expressed that it will follow the Grand Jury’s recommendations regarding opening up job applications for senior management positions to outside, as well as internal, applicants.

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## FINANCES

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### Operating Revenues and Expenses

The District’s preliminary Fiscal Year 2016-17 budget anticipates:

- Operating revenues of \$7.9m, about 80% of which is from user fees. Other operating revenues include wastewater treatment fees paid by the Pebble Beach Community Services District (13%), Reclamation Project reimbursements from PBCSD (6%), and District permit and inspection fees (less than 1%);
- Operating expenses of \$6.9m broken into five main categories: maintenance, collections, treatment, administration, and the Reclamation Project described in the Facilities and Operations section above. The agreement with the Pebble Beach Community Services District requires the PBCSD to reimburse all District expenses for the Reclamation Project and approximately one-third of overall District expenses related to wastewater treatment; and
- Depreciation expenses of \$2.7m, representing a standard year-to-year reduction of the value of the District’s physical infrastructure.

The budgeted amounts represent overall 8%, 4.7%, and 4.0% increases in operating revenues, operating expenses, and depreciation as compared to the Fiscal Year 2015-16 final budget.

The District has worked diligently to control costs in recent years. An employee contract negotiated in FY 2011-12 provided for a 2% cost of living adjustment, but also required employees, for the first time, to participate in paying health insurance and pension costs. This cost-sharing trend continues in the most recent employee contract (through FY 2015-16). Since 2005, District employees have accrued pension benefits through the California Public Employee Retirement System (CalPERS). Prior to 2005, the District had its own defined-benefit pension plan which it continues to adequately fund for prior service.

### Non-Operating Revenues and Expenses

The preliminary FY 2016-17 budget projects \$5.7m in non-operating revenues and \$0.2m in expenses. Most of the District’s non-operating revenue represents property taxes. Property tax revenues are a portion of

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<sup>1</sup> Monterey County Civil Grand Jury, 2012 Year-End Final Report, February 4, 2013, page 21.

<sup>2</sup> CSI Human Resources Group – Beth Ingram, Employee Survey Results and Recommendations, January 2013, Prepared for Carmel Area Wastewater District, page 12.

the 1% statewide ad valorem property tax that the County apportions to various local agencies. The District only receives a portion of property tax revenues on parcels that were already within the District prior to 1978, when voters approved Proposition 13. Property tax revenues dropped significantly following the 2007-08 Fiscal Year, and have only recently risen to match pre-recession levels.

The District’s rate-setting strategy has historically been that operating income should pay for operating expenses. Capital improvements and other non-operating expenses—other than extending sewer lines to properties that have requested new sewer service—have traditionally been covered through non-operating income (largely property taxes and investment earnings). With the approval of the 2013 Wastewater Treatment Capital Improvement Program 15-Year Master Plan, the District’s board of directors determined that sewer rates would need to be increased to cover a portion of the capital improvements budget.

### Total District Income

The preliminary FY 2016-17 budget anticipates a total net income of \$3.8m. In keeping with recent fiscal years, the District’s positive non-operating revenues offset a net operating loss when depreciation expenses are taken into account.

### Capital Budget

Capital expenditures are planned by means of a five-year rolling capital improvements budget. The District’s board reviews and authorizes this budget annually. The Capital Improvements Program budget significantly increased in recent years, based on the substantial reinvestment needs identified in the District’s 2013 CIP for the wastewater treatment plant. From Fiscal Year 2008-09 through 2011-12, the annual capital budget was less than \$1m. It increased to about \$2m in FY 2012-13, \$7m in 2013-14, \$9.2m in 2014-15, and \$12.2m in 2015-16. Actual capital expenditures in FY 2014-15 and 2015-16 were only about 25% of the budgeted amounts due to project scheduling. District staff currently anticipates that budgeted capital improvements will decrease to \$11m in FY 2015-16 and \$3.4m in FY 2017-18 as the District makes headway in building out its CIP.

### Prior-Year Revenues and Expenses

Table 1 presents an overview of District revenues and expenses from recent audited fiscal years.

Table 1: Revenue, Expenses and Change in Net Position: Fiscal Years 2012-13 through 2014-15			
Audited Fiscal Year	2012-13	2013-14	2014-15
Operating Revenues	\$ 5,909,528	6,465,750	7,323,138
Operating Expenses	\$ 7,548,130	8,093,302	8,269,714
Operating Income/(Loss)	\$ (1,638,602)	(1,627,552)	(946,576)
Net Non-Operating Revenues	\$ 1,936,363	2,262,011	2,481,164
Capital Contributions*	\$ 5,119	101,712	174,675
Total Change in Net Position	\$ +302,880	+736,171	+1,709,263

\*Primarily consists of Reclamation Project reimbursements by Pebble Beach Community Services District

## Assets, Liabilities and Reserves

As of the District’s most recent audit, for the fiscal year ended June 30, 2015, the District had total assets of \$63.4m. Of this amount, \$25.2m represented “current” assets (i.e. cash and cash equivalents), with most of the remainder representing the District capital assets, net of depreciation. Current assets were about 7.6% higher than a year earlier, and total assets were 2.4% higher. Current liabilities were about 10% higher than a year before, but total liabilities (a much higher dollar amount) decreased by over 8%.

With current assets of over \$25 million and current liabilities of less than half a million dollars, the District can comfortably meet short term needs. Current assets are anticipated to decrease significantly as the District initiates an aggressive capital improvements program in the future. On April 30, 2015, the District Board initiated this program by awarding a \$14 million contract for Phase I of the Wastewater Treatment Plant Rehabilitation Project. An overview of assets and liabilities is presented in Table 2, below.

	June 30, 2013	June 30, 2014	June 30, 2015
<b>ASSETS</b>			
Current	\$ 22,136,432	23,462,550	25,234,336
Total	\$ 61,193,228	61,898,964	63,407,188
<b>LIABILITIES</b>			
Current	\$ 486,473	531,934	587,226
Total	\$ 2,706,313	2,675,878	2,451,974
<b>NET ASSETS</b>	\$ 58,486,915	59,223,086/ 61,203,884*	62,913,147

\* Per the June 30, 2015 annual financial report, a prior-period adjustment in the amount of \$1,980,798 was made to increase the District’s net position as of June 30, 2014, in order to reflect the District’s net pension liability, in accordance with the implementation of GASB Statement No. 68.

Source: Carmel Area Wastewater District annual financial reports (audits)

## CHALLENGES AND OPPORTUNITIES

### Rehabilitating and Expanding District Infrastructure

In 2013, the District completed a Capital Improvement Program 15-Year Master Plan for Wastewater Treatment. This consultant-designed program determined that the rate of renewal of the District’s aging assets had not kept pace with the rate of deterioration, resulting in noticeable physical condition deficiencies. The District has embarked on a program to sustainably rehabilitate and rebuild its infrastructure. The District is now in the fourth year of five annual rate increases to raise the needed funds. These increases are projected at approximately 10% per year. The first phase of capital improvements for the wastewater treatment plant was initiated in 2015 through approval of a \$14 million construction contract.

The District states that it has sufficient capacity at its treatment facility to process all anticipated wastewater from its existing and proposed boundaries plus flows from the Pebble Beach Community Services District. The treatment plant’s permitted capacity is 3.0 million gallons per day (MGD) pursuant to a license from the California Regional Water Quality Control Board. While this 3.0 MGD limitation applies specifically to ocean discharges, the District also considers this the practical limitation for flows into the plant.

The District estimates the current average daily dry weather flow between 1.2 and 1.4 MGD. The existing wastewater flow has been decreasing, at least in part due to successful local water conservation efforts. In recent years, the average daily dry weather flow was as high as 2.1 MGD. District staff estimates that the

plant's surplus capacity would allow the connection of an additional 7,000 to 8,000 residential lots in the District and an additional 3,000 to 4,000 in Pebble Beach.

Areas proposed for Sphere of Influence and boundary expansion within Carmel Valley include the County-approved September Ranch development of 95 residential lots, potential future development of approximately 130 units at Rancho Cañada and expansion into existing residential developments that are now served by septic systems.

### **Carmel Highlands: Potential Future Service Area**

The District originally served areas near the City of Carmel-by-the-Sea and the mouth of the Carmel Valley. In 2001, LAFCO approved the District's provision of wastewater service, outside District boundaries, to Point Lobos State Reserve. In 2003, the District expanded its wastewater lines further south along the coast into the Carmel Highlands. At that time, the District annexed the Highlands Inn, Tickle Pink Inn, and the 14 residential members of the Highlands Sanitary Association. This annexation allowed replacement of inadequate and failing private wastewater treatment plants. Additional incremental, non-contiguous annexations in the Highlands were approved by LAFCO in 2009, 2010, and 2013.

The Carmel Highlands is described in Monterey County's Local Coastal Plan as an area of matchless visual beauty, where the preservation of the natural environment is critical. The certified 1983 Local Coastal Plan states that "further residential development of this area is constrained by steep slopes and shallow soils which may preclude establishment of on-site waste disposal facilities on certain lots." It also states that "housing densities and lot sizes shall be consistent with the ability of septic systems to dispose of waste without contamination of coastal streams or creation of hazards to public health." While the Local Coastal Plan anticipates the possible future installation of public sewer lines, it also states that sewers "shall be considered only to eliminate a public health hazard and shall be sized to serve only the projected build-out of this area as allowed by this plan" (pages 70, 72 and 86).

Septic system failures in the Carmel Highlands have been a continuing concern of the State Water Resources Control Board and the Monterey County Environmental Health Division. In 2010, the County adopted an Onsite Wastewater Management Plan for the Highlands. This plan recommended engineering feasibility and environmental studies for extension of a sanitary sewer system to serve high risk-areas of the Highlands. The County's plans to initiate the recommended studies were put on hold as funds declined during the recession. If funded in the future, the studies will seek to determine the available capacity of the existing Highlands sewer system, recommend a sewage facilities plan, and conduct the necessary environmental review.

The study area in the Onsite Wastewater Management Plan extends approximately 2,000 feet inland from the coast from roughly Gibson Creek (Point Lobos) on the north to Malpas Creek on the south. The study estimated that the area contains about 450 existing developed residential parcels and a small number of commercial uses. An estimated additional 105 undeveloped residential parcels in the study area have the potential for future development. The portion of the Plan Area which is west of Highway One is identified as the proposed "future study area" in Figure 2. The parcels in this area are most at risk of discharging pollutants to the ocean.

The District has expressed interest in serving this area once the financial resources are available to make needed improvements at an unknown time in the future. For purposes of the District's Sphere of Influence, LAFCO staff recommends designation of a portion of the Carmel Highlands as a Future Study Area as described and mapped above.

### **Carmel River Lagoon Project**

The Monterey County Public Works Department and the Water Resources Agency of Monterey County are in the planning stages of developing an ecosystem protective barrier. The project's stated objectives are to improve the functions and values of the ecosystem in and around the Lagoon by allowing lagoon levels to rise and the lagoon to breach naturally, and to improve the existing level of flood protection in low-lying

developed areas north of the lagoon. While the specifics of this proposal are still being designed, the estimated \$15 million project will likely include a steel or fiber reinforced polymer sheet pile wall, street reconstruction, drainage pipes, and a pump station.

The District's wastewater treatment plant is immediately adjacent to the lagoon. The District is concerned that the project may result in flooding at the plant, which could severely limit its operations, and has hired a consulting firm to assist in the examination of potential risks. The County is anticipated to address the District's comments during the design and environmental review of the project.

The District also wants to ensure that other planned projects in the Carmel River area—such as levee and/or floodwall improvements for County Service Area 50 (Lower Carmel River), and a planned causeway under Highway 1 as part of the Lower Carmel River Floodplain Restoration Project—will not negatively impact the treatment plant or the District's bay outfall pipes.



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## MUNICIPAL SERVICE REVIEW DETERMINATIONS

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The preceding Service Review provides the information needed to make the State-mandated determinations contained within this section. Following is a recommended written statement of LAFCO's Municipal Service Review Determinations for the seven areas required by Government Code section 56430(a).

### **1. Growth and population projections for the affected area**

As outlined in the Service Review, little growth is anticipated, through 2035, within the area that includes the District's proposed boundaries. The majority of the District's growth will occur through annexation of existing adjacent developed parcels and land proposed for development.

### **2. The location and characteristics of any disadvantaged unincorporated communities [DUCs] within or contiguous to the Sphere of Influence**

State law defines DUCs as communities with an annual median household income of less than 80 percent of the statewide annual median household income. Staff has reviewed Census Block Group data available through the California Department of Water Resources. Staff used census block group data, the smallest unit available, to identify all areas that might meet these criteria and are located within the District or three miles of the District boundaries. LAFCO identified only one area as possibly meeting these criteria: Census Tract 116.02, Block Group 2, which covers the Pacific Meadows affordable senior apartments and adjacent parcels. It appears likely that income levels in Pacific Meadows are the basis for Block Group 2's overall income levels meeting the definition of a DUC. The District already provides sewer service to Pacific Meadows.

Low-density single-family houses on the south side of the road house the majority of Block Group 2's remaining population. These residences exhibit needs similar to other areas in or near the Mouth of the Carmel Valley. The District is currently proposing to expand its Sphere of Interest into this area and to annex it.

### **3. Present and planned capacity of public facilities, adequacy of public services, and infrastructure needs or deficiencies including needs or deficiencies related to sewers, municipal and industrial water, and structural fire protection in any disadvantaged unincorporated communities within or contiguous to the Sphere of Influence**

The District has established itself as a capable provider of wastewater service as shown in the Service Review. The wastewater treatment plant has a permitted capacity is 3.0 million gallons per day (MGD). District staff state that the documented average daily dry weather flow is currently between 1.2 and 1.4 MGD. The District has sufficient capacity to meet current and future needs of the areas within its boundaries and those of the Pebble Beach Community Services District. The District has constructed and maintained an adequate network of wastewater collection lines. The District is undertaking a significant capital improvement program and is increasing service fees to support these improvements.

### **4. Financial ability of agency to provide services**

The District has the financial ability to provide services within its boundaries. The District maintains a positive balance of revenues over expenses. The District budgets its revenues and expenses annually and has developed a detailed capital improvements plan. Its financial status is reviewed annually by professionally-prepared audits. The Service Review's Finances section outlines relevant financial information for the District.

### **5. Status of, and opportunities for, shared facilities**

The District works closely with the Pebble Beach Community Services District, the City of Carmel-by-the-Sea and private entities as outlined within the Service Review. Additional cooperative efforts are now being discussed between the District and the City of Pacific Grove.

6. **Accountability for community service needs, including government structure and operational efficiencies**

The Carmel Area Wastewater District is an independent special district. The District Board is composed of five Members who are elected at-large. The District maintains an informative web page to inform its residents. The District operates efficiently as outlined in the Service Review.

7. **Any other matter related to effective or efficient service delivery, as required by commission policy**

LAFCO staff has reviewed its local policies and identified no other pertinent matters.

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## SPHERE OF INFLUENCE DETERMINATIONS

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Following is a recommended written statement of LAFCO's Sphere of Influence Determinations regarding the four areas required by Government Code section 56425(e). Based on the recommended determinations in this section and the information in this report, this study provides support for the District's proposed expansion of its Sphere of Influence and the designation of a Future Study Area in the Carmel Highlands.

1. **The present and planned land uses in the area, including agricultural and open-space lands**

The present and planned land uses in the proposed Sphere of Influence expansion are discussed in the Service Review. No negative impacts are anticipated for inclusion of these areas within the District's Sphere of Influence.

2. **The present and probable need for public facilities and services in the area**

As outlined in the Service Review, existing uses within the proposed Sphere of Influence may need sewer connections if their existing septic systems fail. Undeveloped parcels will require the availability of wastewater service prior to being eligible for County development approval.

3. **The present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide**

As outlined in the Service Review, the Carmel Area Wastewater District has sufficient capacity and authorization to serve the proposed expanded Sphere of Influence. The Carmel Area Wastewater District's current permitted capacity is 3.0 million gallons per day (MGD). District staff has informed LAFCO that the average daily dry weather flow is currently between 1.2 and 1.4 MGD. As analyzed in the Service Review, the District's collection and treatment infrastructure is currently adequate and a detailed capital improvement program has been adopted and funded to ensure that the District provides adequate service. Expanded wastewater lines would be funded by property owners before service is extended.

4. **The existence of any social or economic communities of interest in the area, if the commission determines that they are relevant to the agency**

The Carmel/Carmel Valley/Carmel Highlands community is a geographically connected population that shares common social and economic interests. The district respects these boundaries, and only excludes areas that do not have a current need for wastewater service. There are no other social or economic communities of interest in the area that is of concern in this Sphere of Influence Review.

5. **The present and probable need for those public facilities and services [i.e. wastewater facilities and services] of any disadvantaged unincorporated communities within the existing sphere of influence.**

As outlined within the Municipal Service Review Determinations, the only potential Disadvantaged Unincorporated Community within the District's existing Sphere of Influence is currently being served.

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## SOURCES AND ACKNOWLEDGEMENTS

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LAFCO wishes to thank the staff of the Carmel Area Wastewater District for the time and energy they have put into providing essential information in the preparation of the Service Review. In particular we would like to thank General Manager Barbara Buikema and Principal Engineer Drew Lander. LAFCO staff has used various resources in the preparation of this report. The following have been key:

- a. District annual financial reports and budgets [[cawd.org/financials.html](http://cawd.org/financials.html)]
- b. CAWD / PBCSD Reclamation Project: An Enterprise Fund of the Monterey Peninsula Water Management District, Annual Financial Report, June 30, 2014  
[[cawd.org/documents/financial/CAWD%20PBCSD%20Reclamation%20Project%20Financial%20Audit%2006-30-14.pdf](http://cawd.org/documents/financial/CAWD%20PBCSD%20Reclamation%20Project%20Financial%20Audit%2006-30-14.pdf)]
- c. Carmel Highlands Onsite Wastewater Management Study, Prepared for Monterey County Health Department, by Questa Engineering Corporation, December 2009  
[[mtyhd.org/index.php/service-catalog/hd-eh-svcs/eh-review-services/item/carmel-highlands-onsite-wastewater-management-plan-informational-services](http://mtyhd.org/index.php/service-catalog/hd-eh-svcs/eh-review-services/item/carmel-highlands-onsite-wastewater-management-plan-informational-services)]
- d. Central Coast Regional Water Quality Control Board, Order No. R3-2014-0012, NPDES No. CA0047996, Waste Discharge Requirements for the Carmel Area Wastewater District Treatment Plant, May 22, 2014  
[[http://www.waterboards.ca.gov/centralcoast/board\\_decisions/adopted\\_orders/2014/2014\\_0012\\_npdes.pdf](http://www.waterboards.ca.gov/centralcoast/board_decisions/adopted_orders/2014/2014_0012_npdes.pdf)]
- e. CSI Human Resources Group – Beth Ingram, Employee Survey Results and Recommendations, January 2013, prepared for: Carmel Area Wastewater District  
[<http://cawd.org/documents/packets/CAWD%20Employee%20Survey.pdf>]
- f. Carmel River Lagoon Ecosystem Protective Barrier (EPB) and Scenic Road Protection Structure (SRPS) Projects Feasibility Report, May 29, 2013, prepared for Monterey County Water Resources Agency and Monterey County Department of Public Works.  
[<http://www.co.monterey.ca.us/government/departments-i-z/resource-management-agency-rma-/planning/current-major-projects/carmel-lagoon-ecosystem-protective-barrier-and-scenic-road->  
[[http://www.co.monterey.ca.us/planning/major/EPB%20and%20Scenic%20Road%20Protection/Feas%20Rpt\\_May%2029%202013.pdf](http://www.co.monterey.ca.us/planning/major/EPB%20and%20Scenic%20Road%20Protection/Feas%20Rpt_May%2029%202013.pdf)]
- g. Kennedy/Jenks Consultants, Carmel Area Wastewater District Wastewater Treatment, Capital Improvement Program 15-Year Master Plan, April 2013  
[<http://cawd.org/documents/financial/Capital%20Improvement%20Program%2015-Year%20Master%20Plan.pdf>]
- h. Monterey County Civil Grand Jury, 2012 Year-End Final Report, February 4, 2013  
[<http://www.co.monterey.ca.us/inc/pr/CivilGrandJury/Interim-Final-Rpt-No-3-CAWD.pdf>]  
- and District's earlier response (February 28, 2012)  
[[http://www.monterey.courts.ca.gov/Documents/GrandJury/2012/2012\\_Responses\\_1.pdf](http://www.monterey.courts.ca.gov/Documents/GrandJury/2012/2012_Responses_1.pdf) (pages 175-178)].

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- Google (page 14)
- Pebble Beach Community Services District (page 15)
- Environmental Science Associates (page 20)