

SANTA CATALINA ISLAND

FINAL MUNICIPAL SERVICE REVIEW

Report to the
Local Agency Formation Commission
for Los Angeles County



Prepared by Burr Consulting
May 4, 2004

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EXECUTIVE SUMMARY

The purpose of this report is to review comprehensively municipal services delivered on Santa Catalina Island.

Catalina Island is a recreational and tourist destination with a resident population of 3,696—with 3,127 residing in Avalon and about 150 residents at Two Harbors and the nearby USC Marine Center. On an average day, there are 1,100 overnight visitors in Avalon's hotels. On a peak day, Avalon may host as many as 6,400 overnight visitors at its hotels, vacation homes, and moorings, and 2,400 day visitors primarily from cruise ships. On a peak day, Two Harbors may host as many as 4,700 visitors at its moorings, campground, and private camps in the vicinity.

The island is within the jurisdictional boundaries of the County of Los Angeles. The City of Avalon is the only incorporated city on the island. The Consolidated Fire Protection District of Los Angeles County (CFPD) and the Santa Monica Mountains Resource Conservation District are the only special districts that include the island as part of their territory.

MUNICIPAL SERVICE FINDINGS

Infrastructure needs or deficiencies

The island's growth is constrained by its limited fresh water supply. Any future major development must finance new wells to taps groundwater resources, new reservoirs or other storage facilities, and/or expansion of the seawater desalination facilities prior to construction.

In the community of Two Harbors where most unincorporated area incidents occur, the primary facility challenge is a lack of garage facilities for the three emergency response vehicles assigned to the area. The CFPD is considering replacing the Two Harbors facility with a larger facility to accommodate the CFPD's three emergency response vehicles.¹

Certain streets in Avalon and connecting Avalon to the airport are privately-owned, and are not maintained at the same standards as streets that are owned and maintained by the City of Avalon.

Growth and population projections

Major proposed developments in Avalon include addition of 88 units to the coastal Hamilton Cove development and a 100-250 room resort at Descanso Beach with support housing for workers in Bird Park. In order to be built, these projects must finance new wells to taps groundwater resources, new reservoirs or other storage facilities, and/or expansion of the seawater desalination facilities.

The island's population is projected to grow at about one percent annually, roughly the same rate of growth as in L.A. County as a whole.

¹ The discussions are preliminary; no funding has been identified for the FY 2004-05 budget.

Neither the water provider—Southern California Edison—nor the City of Avalon forecasts retail water demand on Catalina Island.

Financing constraints and opportunities

Street maintenance services and airport runway rehabilitation are financed by private owners without access to public grant funds. The airport is owned by the non-profit Santa Catalina Island Conservancy (hereafter, “Conservancy”). A substantial portion of the streets in Avalon are owned by the Santa Catalina Island Company (hereafter, “Island Company”), and the streets in unincorporated Catalina are owned by the Conservancy and the Island Company.

Cost avoidance opportunities

The City of Avalon could reduce its own and the CFPD’s fire response costs by reviewing its fire alarm monitoring system and implementing effective false alarm fees.²

Opportunities for rate restructuring

Water rates on Catalina Island are relatively high compared with the mainland. The average price paid per 1,000 gallons consumed on Catalina was \$9.06 in 2002. By comparison, the state average in 2003 was \$2.72. Water rates are regulated by the California Public Utilities Commission. There are no opportunities for rate restructuring due to the isolation of the island.

Opportunities for shared facilities

The City of Avalon’s new city hall and fire station includes housing facilities that could be shared with the CFPD’s relief and seasonal personnel. This opportunity is being pursued this fiscal year in contract negotiations between the CFPD and the City of Avalon.

The CFPD’s fire and lifeguard division in Two Harbors could share a facility to protect emergency response vehicles from the elements. This opportunity is being considered by the CFPD. If approved, it would be the first CFPD facility shared by the divisions.³

Government structure options

The report identifies four government structure options.

Evaluation of management efficiencies

The City of Avalon is generally an efficiently-run city that conducts workload monitoring, benchmarking studies, and financial analysis.

² In March 31, 2004 comments on the Draft MSR, the CFPD has stated that it does not support implementing false alarm fees for good intent calls and views classification and enforcement of false alarm fees as difficult.

³ The discussions are preliminary and long-range; no funding has been identified for the FY 2004-05 budget.

Local accountability and governance

The City of Avalon is accountable to its citizens. The City publicizes governing body meetings and actively solicits community input in decision-making about the City's future.

The Two Harbors community is owned by a single property owner—the Island Company. Although the town management is not accountable to residents—primarily its own employees—the town is too small to consider incorporation and lacks the infrastructure to reach the minimum population level for cityhood consideration.

AVALON SPHERE OF INFLUENCE FINDINGS

The City of Avalon has requested that its sphere of influence (SOI) be expanded to include an uninhabited industrial area southwest of the city limits where its solid waste disposal site is located. The City's warehouses may also be relocated to this area to create more space for expansion of the Avalon School. The City of Avalon and the Island Company are the only property owners in the recommended SOI expansion area, and both agree to the SOI expansion recommendation.

Land Uses

The present and planned land uses in the area, including agricultural and open-space lands, is the first factor that LAFCO must consider. The recommended SOI expansion area is zoned for industrial use. There is an eight-acre solid waste disposal facility in the SOI expansion area. There is a canyon on the city's current boundary in this area that is a potential site for municipal warehouses.

The coastal accretions in the area are under the jurisdiction of the State Lands Commission.⁴ The SOI expansion area does not include lands subject to the Williamson Act.

Service Needs

The present and probable need for public facilities and services in the area is the second factor that LAFCO must consider.

The fresh water flow to the SOI expansion area is limited. Saltwater service is not available in this area.

The street in the SOI expansion area is privately owned and unpaved, although it is traveled heavily by residents transporting items to the disposal site. Transfer of this road to the City of Avalon would improve safety and decrease vehicle maintenance costs.

Service Adequacy

The present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide is the third factor that LAFCO must consider.

⁴ Coastal accretions are areas above sea level that were formed in a process that is the opposite of erosion by the gradual addition of material to pre-existing material.

The road maintenance service provided by the City of Avalon achieves a higher service level than the service currently provided in the SOI expansion area by the Island Company.

If annexed, fire suppression would be provided by the City of Avalon, with one of the four deployed firefighters provided by the CFPD through automatic aid. The area is currently served by the CFPD professional firefighters, patrol firefighters, and mutual aid from the City of Avalon. The quality of fire service in the proposed SOI expansion area is not expected to decline as a result of the proposal.

Communities of Interest

The existence of any social or economic communities of interest in the area (if the Commission determines that they are relevant to the agency) is the fourth factor that LAFCO must consider.

The SOI expansion area is located in an industrial community including the water utility, electric utility, wastewater treatment facility, and landfill. Although the Connolly-Pacific rock quarry lies south of the SOI area and the quarry workers pass through the SOI, the property owner does not view the quarry territory as compatible with the SOI and opposes annexation of this territory to the City of Avalon during the quarry's active life.

In the vicinity of the SOI, there are Williamson Act lands that are owned by the Catalina Island Conservancy and are protected for open space and recreational purposes. Those lands, however, are generally uphill from the SOI expansion area, and would not be affected by an increase in industrial use in the SOI area.

RECOMMENDATION

It is recommended that LAFCO expand the City of Avalon's SOI to include an uninhabited industrial area southwest of the city limits where the City's solid waste disposal site is located, as depicted in Figure 1-7.

INTRODUCTION

This report is prepared pursuant to a new legislative requirement that LAFCO conduct a comprehensive review of municipal service delivery and update, as necessary, the spheres of influence of agencies under LAFCO's jurisdiction not less than every five years. This chapter provides an overview of LAFCO's history, powers and responsibilities. It explains spheres of influence and the legal and procedural requirements for updating the spheres of influence. It discusses the origins and legal requirements for preparation of the municipal service review (MSR). The chapter explains spheres of influence and the legal and procedural requirements for updating the spheres of influence. Finally, the chapter reviews the process for MSR review, MSR approval and sphere of influence updates.

LAFCO OVERVIEW

After World War II, California experienced dramatic growth in population and economic development. With this boom came a demand for housing, jobs, and public services. To accommodate this demand, the state approved the formation of many new local government agencies, often with little forethought as to the ultimate governance structures in a given region. The lack of coordination and adequate planning led to a multitude of overlapping, inefficient jurisdictional and service boundaries, and the premature conversion of California's agricultural and open-space lands. Recognizing this problem, in 1959, Governor Edmund G. Brown, Sr. appointed the Commission on Metropolitan Area Problems. The Commission's charge was to study and make recommendations on the "misuse of land resources" and the growing complexity of local governmental jurisdictions. The Commission's recommendations on local governmental reorganization were introduced in the Legislature in 1963, resulting in the creation of Local Agency Formation Commissions operating in each county.

In 1964, the Legislature formed a Local Agency Formation Commission in each county, including Los Angeles, as a regulatory agency with countywide jurisdiction to discourage urban sprawl and encourage the orderly formation and development of local government agencies. Each LAFCO is responsible for coordinating logical and timely changes in local governmental boundaries, including annexations and detachments of territory, incorporations of cities, formations of special districts, and consolidations, mergers, and dissolutions of districts, as well as reviewing ways to reorganize, simplify, and streamline governmental structure. Each LAFCO's efforts are directed toward seeing that services are provided efficiently and economically while agricultural and open-space lands are protected. To better inform itself and the community as it seeks to exercise its charge, LAFCO conducts service reviews to evaluate the provision of municipal services within the county.

Each LAFCO regulates the boundary changes proposed by other public agencies or individuals by approving or disapproving such changes, with or without amendment, wholly, partially or conditionally. Each LAFCO is empowered to initiate updates to the spheres of influence as well as proposals involving the dissolution or consolidation of special districts and the merging of subsidiary districts. Otherwise, LAFCO actions must originate as applications from affected homeowners, developers, cities or districts.

Los Angeles County LAFCO (hereafter, "LAFCO") consists of nine regular members: two members from the Board of Supervisors, two city representatives, one City of Los Angeles representative, two special district representatives and two public members (one of which represents the San Fernando Valley Statistical Area). There are six alternates to the regular members. Commissioners are appointed to four-year terms. The public members are appointed by the other members of LAFCO.

Table Intro-1: Commission Members, 2004

Appointment Source	Members	Alternative Members
Two members from the Board of Supervisors appointed by the Board of Supervisors.	Supervisor Yvonne Burke Supervisor Zev Yaroslavsky	Supervisor Don Knabe
Two members representing the 87 cities in the county. Must be a city officer and appointed by the City Selection Committee.	Mayor Carol Herrera <i>City of Diamond Bar</i> Mayor Beatrice Proo <i>City of Pico Rivera</i>	Mayor Cristina Cruz-Madrid <i>City of Azusa</i>
One member from a city representing 30% of the total population of the county who is a member of the legislative body from that city.	Councilwoman Cindy Miscikowski <i>City of Los Angeles</i>	
Two members appointed by the Independent Special District Selection Committee.	Jerry Gladbach <i>Castaic Lake Water Agency</i> To Be Determined	Robert W. Goldsworthy <i>Water Replenishment District of Southern California</i>
One public member from the San Fernando Valley statistical area, not a member of the Board of Supervisors, appointed by the Board of Supervisors.	James DiGuiseppe	Richard Close
One member from the general public appointed by the other eight Commissioners	Henri F. Pellissier	Kenneth Chappell

MUNICIPAL SERVICE REVIEW ORIGINS

The municipal service review requirement was adopted after the Legislature's consideration of two studies recommending that each LAFCO throughout the State conduct reviews of local agencies. The Little Hoover Commission study focused on the need for oversight and consolidation of special districts, whereas the Commission on Local Governance for the 21st Century study focused on the need for regional planning to ensure efficient service delivery as the California population continues to grow.

LITTLE HOOVER COMMISSION

In May 2000, the Little Hoover Commission⁵ released a report entitled *Special Districts: Relics of the Past or Resources for the Future?* This report focused on governance and financial problems among independent special districts, and the barriers to LAFCO's pursuit of district consolidation and dissolution. The report raised the concern that "the underlying patchwork of special district governments has become unnecessarily redundant, inefficient and unaccountable."⁶

The report raised concerns about independent districts with the following problems:

- a lack of visibility;
- a lack of accountability as evidenced by relatively low voter turnout rates, infrequency of contested elections, and inadequate notice of public meetings;
- excessive reserve funds;
- questionable receipt of property tax revenue by utility districts;
- inadequate financial reporting;
- outdated boundaries; and
- outdated missions.

The report questioned the public benefit provided by health care districts that have sold, leased or closed their hospitals, and asserted that LAFCOs consistently fail to examine whether they should be eliminated. The report pointed to service improvements and cost reductions associated with special district consolidations, but asserted that LAFCOs have generally failed to pursue special district reorganizations.

The report called on the Legislature to increase the oversight of special districts by mandating that LAFCOs identify service duplications and that LAFCOs study reorganization alternatives when service duplications are identified, when a district appears insolvent, when district reserves are excessive, when rate inequities surface, when a district's mission changes, when a new city incorporates and when service levels are unsatisfactory. To accomplish this, the report recommended that the state strengthen the independence and funding of LAFCOs, require districts to report to their respective LAFCO, and require LAFCOs to study service duplications.

COMMISSION ON LOCAL GOVERNANCE FOR THE 21ST CENTURY

The Legislature formed the Commission on Local Governance for the 21st Century ("21st Century Commission") in 1997 to review current statutes on the policies, criteria, procedures and precedents for city, county and special district boundary changes. The 21st Century Commission released its final report *Growth Within Bounds: Planning California Governance for the 21st Century* in January 2000.⁷ The report examines the way that government is organized and operates, and

⁵ The Little Hoover Commission, formally known as the Milton Marks "Little Hoover" Commission on California State Government Organization and Economy, is an independent state oversight agency that was created in 1962. The Commission's mission is to investigate state government operations and—through reports, recommendations and legislative proposals—promote efficiency, economy and improved service. By statute, the Commission is a balanced bipartisan board composed of five citizen members appointed by the Governor, four citizen members appointed by the Legislature, two Senators and two Assembly members.

⁶ Little Hoover Commission, 2000, page 12.

⁷ The Commission on Local Governance for the 21st Century ceased to exist on July 1, 2000, pursuant to a statutory sunset provision.

establishes a vision of how the state will grow by “making better use of the often invisible LAFCOs in each county”.

The report points to the projected doubling of California’s population over the first four decades of the 21st Century, and raises concerns that, without a strategy, open spaces will be swallowed up, expensive freeway extensions will be needed, job centers will become farther removed from housing, and this will lead to longer commutes, increased pollution and stressful lifestyles.

The 21st Century Commission recommended that effective, efficient and easily understandable government be encouraged through consolidation of small, inefficient or overlapping providers, transparency of municipal service delivery to the people, and accountability of service providers. The sheer number of special districts, the report asserts, “has provoked controversy, including several legislative attempts to initiate district consolidations”⁸ but cautions LAFCOs that decisions to consolidate districts should focus on service adequacy, not simply on the number of districts.

Growth Within Bounds cautions that for LAFCOs to achieve their fundamental purposes, they must have a comprehensive knowledge of the services available, service efficiency within various areas of the county, future service needs, and expansion capacity of each service provider. Comprehensive knowledge of water and sanitary providers, the report argued, would promote consolidations of water and sanitary districts, reduce water costs and promote a more comprehensive approach to the use of water resources. Further, the report asserted that many LAFCOs lack such knowledge, and should be required to conduct such a review to ensure that municipal services are logically extended to accommodate growth and development.

The state-mandated municipal service review would require LAFCO to look broadly at all agencies within a geographic region that provide a particular municipal service and to examine consolidation or reorganization of service providers. The 21st Century Commission recommended that the review should include water, wastewater, garbage, and other municipal services that LAFCO judges to be important to future growth. The Commission recommended that the service review be followed by consolidation studies and be performed in conjunction with updates of spheres of influence. The recommendation indicated that service reviews be designed to make nine determinations, each of which was incorporated verbatim in the subsequently adopted legislation.

MUNICIPAL SERVICE REVIEW LEGISLATION

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 requires LAFCO to review municipal services before updating the spheres of influence.⁹ The requirement for service reviews arises from the identified need for a more coordinated and efficient public service structure which will support California’s anticipated growth. The service review provides LAFCO with a tool to comprehensively study existing and future public service conditions and to evaluate organizational options for accommodating growth, preventing urban sprawl, and ensuring that critical services are efficiently and cost-effectively provided.

⁸ Commission on Local Governance for the 21st Century, 2000, page 70.

⁹ California Government Code §56430(c).

Effective January 1, 2001, Government Code Section 56430 requires LAFCO to conduct a review of municipal services provided in the county by region, subregion or other designated geographic area, as appropriate, for the service or services to be reviewed, and prepare a written statement of determination with respect to each of the following:

- 1) Infrastructure needs or deficiencies;
- 2) Growth and population projections for the affected area;
- 3) Financing constraints and opportunities;
- 4) Cost avoidance opportunities;
- 5) Opportunities for rate restructuring;
- 6) Opportunities for shared facilities;
- 7) Government structure options, including advantages and disadvantages of consolidation or reorganization of service providers;
- 8) Evaluation of management efficiencies; and
- 9) Local accountability and governance.

The municipal service review process does not require LAFCO to initiate changes of organization based on service review findings; it only requires that LAFCO make determinations regarding the provision of public services per Government Code Section 56430. However, LAFCO, other local agencies, and the public may subsequently use the determinations to analyze prospective changes of organization or reorganization or to establish or amend spheres of influence

Municipal service reviews are not subject to the provisions of the California Environmental Quality Act (CEQA) because they are only feasibility or planning studies for *possible* future action which LAFCO has not approved. (Cal. Pub. Res. Code § 21150) The ultimate outcome of conducting a service review, however, may result in LAFCO taking discretionary action with respect to a recommended change of organization or reorganization. Either LAFCO, if acting on its own, or the local agency that submits a proposal to LAFCO, will be considered the lead agency for purposes of CEQA and must conduct an appropriate environmental review prior to LAFCO taking action.

SPHERE OF INFLUENCE UPDATES

LAFCO is charged with developing and updating the sphere of influence for each city and special district within the county.¹⁰ A sphere of influence is a planning boundary that designates the agency's probable future boundary and service area. Spheres are planning tools used to provide guidance for individual proposals involving jurisdictional changes, and are intended to encourage

¹⁰ The initial statutory mandate, in 1971, imposed no deadline for completing sphere designations. When most LAFCOs failed to act, 1984 legislation required all LAFCOs to establish spheres of influence by 1985.

efficient provision of organized community services and prevent duplication of service delivery. Territory must be within a city or district's sphere in order to be annexed.

The purpose of the sphere of influence is to ensure the provision of efficient services while discouraging urban sprawl and the premature conversion of agricultural and open space lands by preventing overlapping jurisdictions and duplication of services. LAFCOs cannot tell agencies what their planning goals should be. Rather, on a regional level, LAFCO coordinates the orderly development of a community through reconciling differences between agency plans so that the most efficient urban service arrangements are created for the benefit of area residents and property owners.

The Cortese-Knox-Hertzberg (CKH) Act requires LAFCO to develop and determine the sphere of influence of each local governmental agency within the county, and to review and update the SOI every five years. LAFCO is empowered to adopt, update and amend the SOI. It may do so with or without an application, and any party is allowed to submit an application proposing a SOI amendment.¹¹

LAFCO may recommend government reorganizations to particular agencies in the county, using the SOIs as the basis for those recommendations. In determining the SOI, LAFCO must make determinations on four additional topics:

- 1) present and planned land uses in the area, including agricultural and open-space lands;
- 2) present and probable need for public facilities and services in the area;
- 3) present capacity of public facilities and adequacy of public service that the agency provides or is authorized to provide; and
- 4) existence of any social or economic communities of interest in the area if LAFCO determines that they are relevant to the agency.

CKH stipulates several procedural requirements in updating SOIs. The CKH Act requires that special districts file written statements on the class of services provided, and that LAFCO clearly establish the location, nature and extent of services provided by special districts.¹² LAFCO must notify affected agencies 21 days before holding the public hearing to consider the SOI, and may not update the SOI until after that hearing.¹³ The Executive Officer must issue a report including his SOI recommendations at least five days before the public hearing.

¹¹ If a city submits an application for a SOI amendment, it must first negotiate the boundaries, development standards, and zoning requirements within the annexable sphere area with county representatives. If an agreement is negotiated, LAFCO must give it great weight in making its final determination.

¹² In conducting the MSR, the Commission has required written statements entitled Requests for Information on the nature of services from all agencies including special districts.

¹³ The Commission may update the SOI at a Commission meeting held on the same day as the public hearing.

MUNICIPAL SERVICE REVIEW PROCESS

LAFCO is charged with preparing municipal service reviews and updating the spheres of influence of 180 local agencies. Given the enormity of this task, the Executive Officer has divided the county into the following nine geographic areas for which MSR's are being prepared:

- | | |
|---------------------------------|---------------------------------|
| 1) Catalina Island | 6) Gateway |
| 2) High Desert | 7) Northeast San Gabriel Valley |
| 3) Las Virgenes | 8) South Bay |
| 4) Santa Clara | 9) Los Angeles |
| 5) Northwest San Gabriel Valley | |

The MSR process involves the following steps:

- 1) **Draft Municipal Service Review.** During this step, LAFCO has sent questionnaires (Requests for Information) to the agencies about their delivery of municipal services. LAFCO prepares the draft municipal service review report, and submits that report to the affected agencies for review. During the 30-day review period, LAFCO invites the agencies to discuss their comments and related policy options with the Executive Officer.
- 2) **Draft Final Municipal Service Review.** After receiving the agencies' comments and holding a public workshop, LAFCO makes report revisions and releases the draft final municipal service review report.
- 3) **Final Municipal Service Review.** At a duly noticed public hearing, LAFCO may consider the nine written determinations regarding the municipal service review or may request revisions or additional analysis be conducted for the MSR. In the latter case, the report will be revised and resubmitted to LAFCO at the next meeting.
- 4) **Sphere of Influence Update.** After making the nine written determinations, LAFCO may proceed to update the sphere of influence of the agencies covered in the particular municipal service review report. Affected agencies must be notified 21 days in advance of this hearing, and the Executive Officer must distribute his recommendations on the sphere of influence update at least five days before the hearing.

CAVEATS

This draft municipal service review report includes analysis of service delivery providers and policy options for LAFCO to consider as it makes its determinations with respect to municipal service reviews and sphere of influence updates. The decision whether or not to approve or disapprove any policy options, with or without amendment, wholly, partially or conditionally, rests entirely with LAFCO. This report is not a substitute for those discretionary decisions yet to be made by LAFCO.

This Report has not yet been reviewed by the affected local agencies for factual errors, and the policy options herein have not yet been reviewed or negotiated by the affected local agencies and the Executive Officer. This Report and the policy options herein are subject to revision as may be directed by LAFCO during the course of its deliberations.

CHAPTER 1: MSR AREA

This chapter provides an overview of the MSR area covered in this report, growth and population projections, municipal services, and the local government agencies providing municipal services.

AREA OVERVIEW

Santa Catalina Island is a recreational area and tourist destination approximately 20 miles offshore from mainland Los Angeles. The island is 21 miles long and 7.5 miles wide at its widest point, with rugged coastline, mountainous terrain, and most of its lands undeveloped.

Figure 1-1: Santa Catalina Island Map



The island was first settled at least 6,800 years ago, and came under the United States' jurisdiction in 1848. Today, nearly all the island's 3,700 permanent residents live in the City of Avalon and the unincorporated community of Two Harbors, although some residents are located at Middle Ranch, Rancho Escondido, Little Harbor, and various camps dotting the leeward shore.¹⁴

¹⁴ The leeward shore is the eastern side of the island which faces the mainland and is sheltered from the prevailing winds. The windward shore is the western side of the island which faces the outer waters of the Pacific Ocean and the prevailing winds.

The non-profit Catalina Island Conservancy owns 88 percent of the land on the island, and is charged with preserving the land and providing for low-impact recreational uses such as hiking and camping. The Conservancy lands are preserved as Williamson Act lands, and are dedicated for recreational use under an open-space easement agreement with Los Angeles County. These lands are used for campgrounds and hiking trails, and, with the exception of the airport, private camps and other leased property, are exempt from property taxation.¹⁵

GROWTH AND POPULATION PROJECTIONS

This section reviews the residential and visitor population as well as projected growth.

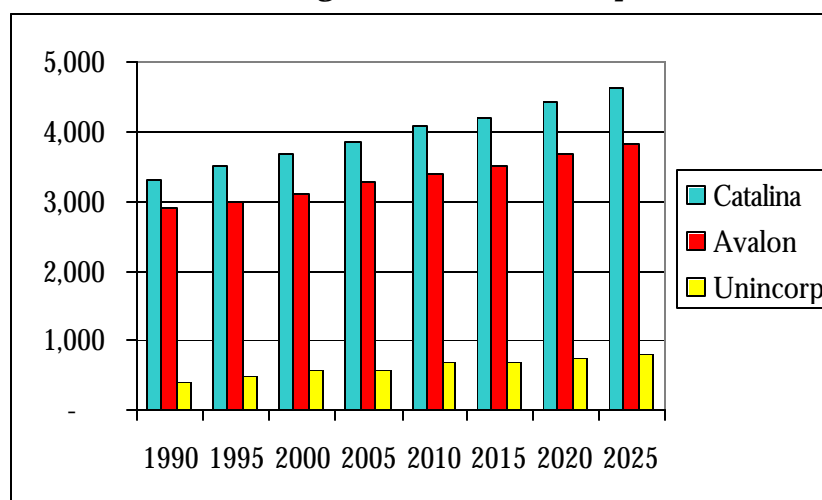
Residents

There were 3,127 residents in Avalon and 268 residents in the unincorporated town of Two Harbors at the time of the 2000 Census. The unincorporated town of Two Harbors has a residential population that varies seasonally from 150 to 250, excluding students at the USC Marine Science Center.¹⁶ The U.S. Census Bureau enumerated as many as 300 residents outside the City of Avalon and the Two Harbors community.¹⁷ The permanent population on the remainder of the island includes the staff of the Catalina Island Conservancy housed at Middle Ranch, the residents of a private ranch, and the year-round staff and residents of private camps dotting the leeward shore.

Figure 1-2: Residential Population, 1990-2025

SCAG projects that the Catalina Island residential population will grow to 4,636 by the year 2025, an increase of nearly 1,000 residents.

Most of this growth is projected to occur in Avalon. The Avalon residential population is projected by SCAG to grow to 3,401 by the year 2010 and to 3,837 by the year 2025. The SCAG population projection is similar to the City of Avalon's growth projections. The City anticipates a population in 2010 of 3,354, but believes that the actual growth will depend on the strength of the tourist economy.



The City anticipates a population in 2010 of 3,354, but believes that the actual growth will depend on the strength of the tourist economy.

¹⁵ Los Angeles County Assessor; *Santa Catalina Island Conservancy v. County of Los Angeles*, 1979.

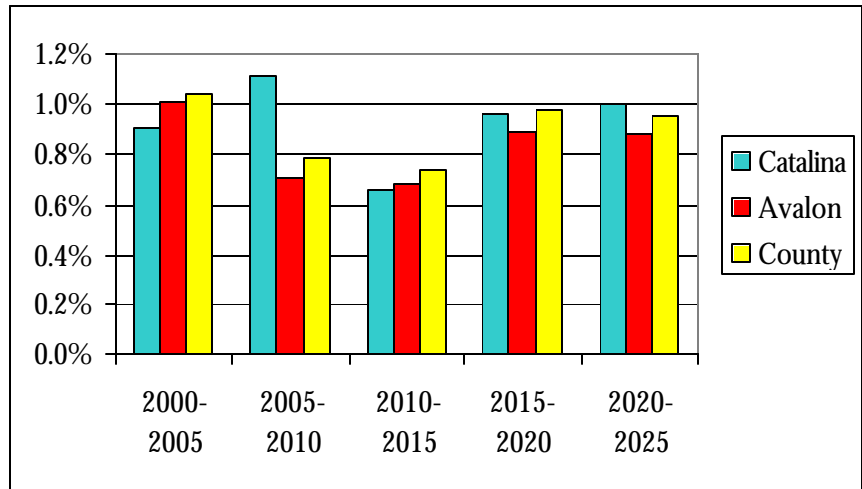
¹⁶ Interview with John Phelps and Lewis Latka, Two Harbors Enterprises.

¹⁷ Islanders reported that this number seems overstated. The census data reflect population counts in April 2000. The figure may potentially include the transient population of a private camp. Another possibility is that the figure erroneously includes the U.S. Navy population on San Clemente Island where the census recorded zero population in 2000.

Figure 1-3: Projected Annual Growth Rates, 2000-2025

The projected annual growth rates for Catalina’s residential population are comparable to the projected growth rates for the county as a whole over the long term.

In the short term, SCAG expects Catalina to grow at a much faster rate between 2005 and 2010 than the county as a whole. As shown in Figure 1-3, Catalina Island is expected to grow at an



annual rate of 1.1 percent from 2005 to 2010, while the countywide growth rate is expected to be 0.8 percent. In Avalon, the annual growth rate is expected to be slightly lower than the countywide growth rate, while growth in the unincorporated areas on Catalina is expected to be much higher.

Visitors

As a tourist destination, the actual Catalina Island population is heavily affected by the number of visitors. On an average day, there are 1,100 overnight visitors in Avalon’s hotels. On a peak day, Avalon may host as many as 6,400 overnight visitors at its hotels, vacation homes, and moorings, and 2,400 day visitors primarily from cruise ships. On a peak day, Two Harbors may host as many as 4,700 visitors at its moorings, campground, and private camps in the vicinity.

Figure 1-4: Avalon Peak-Day Arrivals

On a peak day with a cruise ship visit, the Avalon population may as much as quadruple. On an average day, there are more visitors than there are residents due to cruise ship visitors and other day-trippers. Most visitors arrive by ferry, although some arrive by helicopter, private planes, and private boats. Day visitors are cruise ship passengers and mainlanders visiting the Island; these day-trips may last several hours.

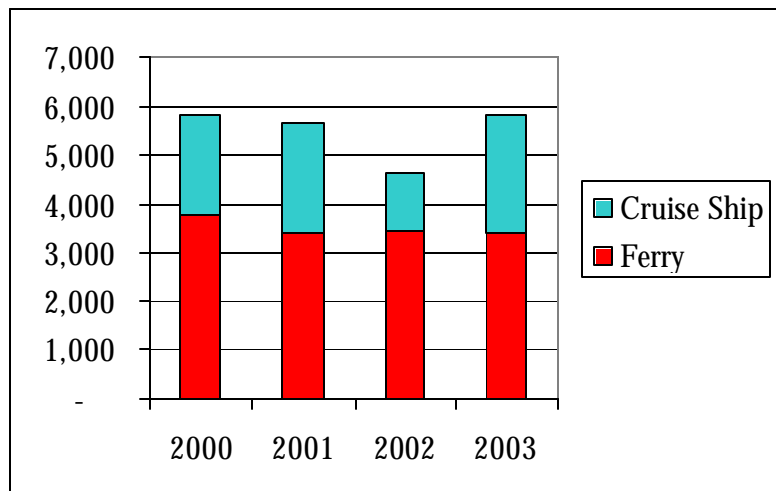
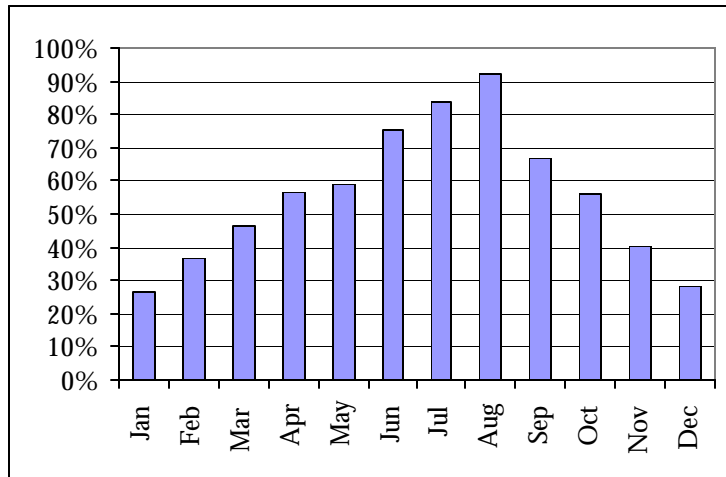


Figure 1-5: Hotel Occupancy

Currently, Avalon is able to accommodate as many as 6,400 overnight visitors—double its resident population—at its 1,011 hotel rooms, 750 vacation homes and 346 moorings. On a peak day, there may be as many as 2,400 cruise ship visitors. The tourist season on Catalina is mostly concentrated in the summer months, with the visitor—and total—population peaking in August. Despite the seasonality, Avalon’s hotels tend to be at least half-full on average.¹⁸ Hence, on any given night there are as many visitors in Avalon as there are residents.



Two Harbors is able to accommodate 4,700 overnight visitors on a peak day at its moorings, campground and hotel.

Elsewhere on the island, visitors arrive at private camps, yacht clubs, four campgrounds and numerous potential anchorages. Visitor counts on the island outside Avalon and Two Harbors are unknown; however, the campgrounds on the Island can accommodate approximately 300 visitors, and the peak occupancy of the private camps is at least 2,000.

Growth Areas

Major proposed developments in Avalon include addition of 88 units to the coastal Hamilton Cove development and a 100-250 room resort at Descanso Beach with support housing for workers in Bird Park. In order to be built, the developers must finance additional fresh water resources.¹⁹

Recent growth areas in unincorporated areas on the Island include the USC Marine Center near Two Harbors and the private camps where there is an increased tendency toward year-round use.

¹⁸ Hotel occupancy data provided by Catalina Island Chamber of Commerce & Visitors Bureau. Monthly hotel occupancy rates are 2000-2002 three-year averages.

¹⁹ Interview with Southern California Edison, 2003.

MUNICIPAL SERVICES

Municipal services on Catalina Island are provided to the City of Avalon, the unincorporated community of Two Harbors and the open space lands owned by the Catalina Island Conservancy by different providers. The City of Avalon is responsible for service provision within the city limits. In the sparsely populated unincorporated areas of the island, Los Angeles County provides public safety and planning services, private companies provide utility services, and landowners provide all other services. Throughout the island, the Long Beach Unified School District is responsible for education, and Southern California Edison provides water, gas and electric services.

Three municipal service providers on Catalina Island are local government agencies under LAFCO's jurisdiction with territory on Catalina Island. These providers are the City of Avalon, the Consolidated Fire Protection District of Los Angeles County (CFPD) and the Santa Monica Mountains Resource Conservation District (RCD).

Table 1-6: Catalina Island service providers

	Avalon	Two Harbors	Conservancy
Public Safety			
Police	LA County	LA County	LA County
Fire	Avalon	LA County	LA County
Paramedic	LA County	LA County	LA County
Hospital	Avalon	N/A	N/A
Utilities			
Water	Edison	Edison	Edison
Wastewater	Avalon United Water	Two Harbors Enterprises	N/A
Solid Waste	Avalon Seagull Sanitation	Two Harbors Enterprises	Conservancy
Public Works			
Street Maintenance	Avalon	Two Harbors Enterprises	Conservancy
Street Lighting	Avalon	N/A	N/A
Flood Control	Avalon	N/A	N/A
Other Services			
Land Use	Avalon	LA County	LA County
Park Maintenance	Avalon	Two Harbors Enterprises	Conservancy
Harbor	Avalon	Two Harbors Enterprises	N/A
Schools	Long Beach USD	Long Beach USD	N/A
Library	LA County	N/A	N/A

CITY OF AVALON

The City of Avalon arranges for service provision within the city limits. Avalon contracts with Los Angeles County for sheriff, paramedic and library services, provides utility services primarily through private providers, and is a direct provider of fire, public works, and other services.

The City of Avalon is the only local government agency exclusively located on Catalina Island. As such, this report serves as the only municipal service review for the City of Avalon. After reaching the nine determinations relating to the municipal service review, LAFCO may proceed with updating the city's sphere of influence. Hence, this report is intended to prepare LAFCO to reach its determinations regarding municipal services and the Avalon SOI.

FORMATION AND BOUNDARY

The City of Avalon was incorporated as a general law city in 1913. The City lies on a floodplain in the southeastern portion of Catalina Island. The City of Avalon constitutes 2.81 square miles of land and 0.33 square miles of water in the Avalon Bay.

LAFCO has twice approved annexations to the city. The first annexation in the 1970s added the coastal Hamilton Cove development. The second annexation approved in 1997 doubled the size of the City, adding 1,028 acres located to the southwest and to the southeast of the City. The 1997 annexation added an area slated primarily for a future expansion of the golf course, the 38-acre Wrigley Memorial Garden, and the public utility areas southeast of the City where the electric generation, seawater desalination, and wastewater plants are located. Although the 2000 Census did not count any residents in the newly annexed areas of Avalon,²⁰ the Island Company estimates that there are approximately 80 residents in Pebbly Beach Village and 10 residents in Avalon Canyon.²¹

LAFCO has adopted a coterminous sphere of influence (SOI) for the City of Avalon, most recently updating the SOI in 1997 to include the subsequently annexed lands. The City's boundary and SOI are depicted in Figure 1-7.

²⁰ The property owner—the Island Company—estimates that the actual population of the newly annexed areas is 90, including 80 at Pebbly Beach Village and 10 in Avalon Canyon.

²¹ Santa Catalina Island Company letter to LAFCO, March 31, 2004.

LOCAL ACCOUNTABILITY AND GOVERNANCE

The city is governed by an elected mayor and city council. The Mayor is elected for a term of two years and council members are elected to serve four-year terms. The Mayor is a member of the council. All council members are elected at large.

The council is the governing body of the redevelopment agency---Avalon Community Improvement Agency as well as the Hospital governing body.

The council meets twice monthly. Council meetings are held on the first and third Tuesdays of every month at 7:00 p.m. at the Los Angeles County Court House.

Council meetings are broadcast live on cable TV and replayed on Saturday. The Council meeting schedule is stated on the City's website. City Council agendas are posted in front of City Hall and on the City's website. Council meeting minutes are posted on the website. A summary of Council actions is included in a local weekly paper.

The City has a citizen complaint form which is available at City Hall for formal complaints. Most complaints are handled informally at the department level. Avalon encourages community input. The City has conducted special meetings on major issues from time to time. Presentations to service clubs, homeowner associations and other groups have been used to share information and receive input. In a major outreach effort, the City used surveys, professionally-led focus groups, and citizen committees to develop a "Vision" for the community. The most serious community problems listed by respondents to the 2003 Avalon Community Survey are:

- 1) Too many vehicles (54%)
- 2) Crime (53%)
- 3) Lack of affordable housing (49%)
- 4) Overcrowding (25%)
- 5) Lack of organized youth activities (23%)
- 6) Illegal aliens (23%)
- 7) Grocery store monopoly prices (17%).

EVALUATION OF MANAGEMENT EFFICIENCIES

The City of Avalon conducts productivity monitoring and reports that it routinely evaluates its performance by comparing itself to other resort towns such as Big Bear, Hylwild, Bar Harbor, Booth Bay, and Montauk. The city regularly evaluates its revenues, and conducts annual user fee update studies.

The Chamber of Commerce has twice recognized the City for its contributions to the business climate in Avalon. The American Society of Landscape Architects recognized the City for the Waterfront Restoration project.

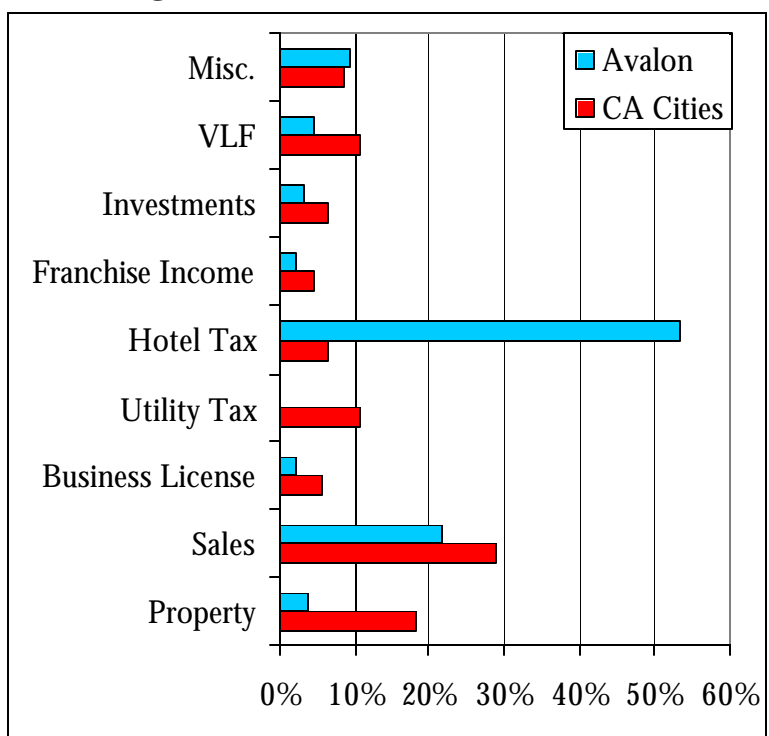
FINANCING CONSTRAINTS AND OPPORTUNITIES

The City of Avalon received \$4.4 million in general fund revenue in FY 00-01, which amounts to \$1,407 per capita.

Figure 1-8: General Fund Revenue Sources, FY 00-01

Although Avalon's per capita funding is not directly comparable to other jurisdictions due to its significant visitor population, its revenue sources may be compared.

By comparison to all cities in the state of California, Avalon relies more heavily on transient occupancy (hotel) taxes. Hotel taxes constitute 53 percent of general fund revenue in Avalon. By comparison, for California cities as a whole, hotel tax revenue constitutes only six percent of general fund revenue. Although Avalon's hotel tax revenues are relatively high, its hotel tax rate is nine percent which is lower than in other jurisdictions such as the City of Los Angeles.



Avalon is less reliant on vehicle license fees than the average California city; vehicle license fees contributed five percent of general fund revenue in the base year compared with 11 percent for the average California city. Avalon does not levy a utility users tax, and levies a relatively modest business license tax. Avalon could potentially increase its revenues by imposing a utility users tax or increasing its business or hotel tax rates, subject to voter approval.

Avalon did not have any long-term indebtedness from bonds at the end of FY 00-01, but had \$1.8 million in long-term debt from other sources. Avalon has issued bonded debt in the past, and has never defaulted on bonded debt.

Avalon's contingency reserves were 46% of general fund revenue. The Government Finance Officers Association recommends an undesignated reserve ratio of at least 5-15 percent.

CONSOLIDATED FIRE PROTECTION DISTRICT

The Consolidated Fire Protection District of Los Angeles County (CFPD) is a direct provider of fire suppression, rescue and paramedic service in the unincorporated areas, a contract provider of paramedic and lifeguard services within the City of Avalon, and maintains an automatic aid agreement with the City of Avalon, assisting with fire suppression and rescue activities within the city limits.

This report does not provide a complete review of the CFPD, as the CFPD spans multiple MSR areas. After completing all nine of the municipal service reviews, LAFCO will be able to update the CFPD's sphere of influence.

FORMATION AND BOUNDARY

The CFPD was formed as a dependent special district on April 12, 1949 prior to the creation of LAFCO. It was organized under provisions of the California Health and Safety Code as a fire protection district.

The CFPD includes all the unincorporated areas of the county within its boundaries, along with 57 incorporated cities for which it provides fire protection services. The CFPD includes all territory on the island outside the City of Avalon. The CFPD's SOI is coterminous with its boundaries.

The CFPD's territory includes 2,296 square miles, of which 72 square miles are located on Catalina Island.

LOCAL ACCOUNTABILITY AND GOVERNANCE

The CFPD is governed by the Los Angeles County Board of Supervisors. There are five members of the governing body of CFPD. The five supervisors are elected by district for four-year terms of office.

The governing body meets weekly. Agendas for each weekly meeting are posted by the Board Clerk on the Internet and at the County Hall of Administration building. Board actions and meeting minutes are available via the Internet. Board meetings are broadcast on cable television (KLCS Channel 58) and the internet, and are available to the public via cassette tapes, videos, or transcripts.

To increase voter participation, voter registration information is disseminated through the County website as well as through the monthly County Digest newsletter to encourage voter turnout.

The CFPD is accountable to its constituents and service recipients, who may direct complaints and commendations to the relevant battalion chief or fire station captain by telephone or in writing. Each complaint is handled individually and responded to in a timely fashion by the appropriate staff member of the CFPD. Because most complaints are addressed at the local level by jurisdictional staff member of the CFPD, the CFPD does not track the number and types of complaints.

EVALUATION OF MANAGEMENT EFFICIENCIES

Performances evaluations are conducted annually. The CFPD monitors each specific program's workload and output indicators and evaluates measurable workload and output indicators to better improve productivity.

FINANCING CONSTRAINTS AND OPPORTUNITIES

The CFPD is financed primarily by property taxes, a special tax, service charges, and grants.

SANTA MONICA MOUNTAINS RCD

The Santa Monica Mountains Resource Conservation District (RCD) includes the unincorporated area of the island, along with Westlake Village, Agoura Hills, Hidden Hills, Calabasas and portions of the City of Los Angeles in its boundaries. The RCD boundaries exclude the City of Avalon. Although RCD has proposed to expand its sphere of influence, none of the proposed expansions are on Catalina Island.

The RCD activities generally include watershed research and restoration, creek cleanups, wildlife monitoring, sale of trees for conservation purposes, tree registration, and natural science education.

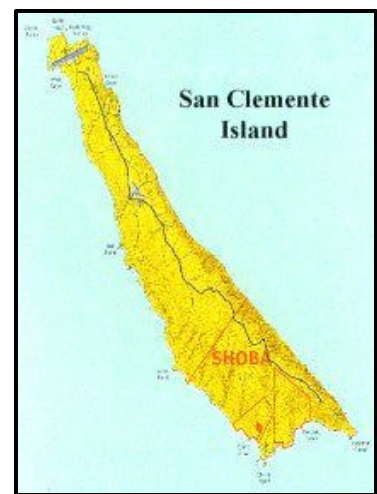
The RCD's mission overlaps the mission of the non-profit Catalina Island Conservancy, which owns nearly all the island territory in the RCD's boundaries.²² However, the RCD does not receive any property tax revenue from the Conservancy or other property owners on the island.²³

Given that the district operates in multiple MSR areas, a separate report scheduled to be released in 2004 will provide a municipal service review of the RCD.

SAN CLEMENTE ISLAND

Although San Clemente Island is within the offshore municipal service review area, the municipal service review has determined that there are no local government agencies on the island, the U.S. Navy provides municipal services on the island, and the Navy is not subject to the jurisdiction of LAFCO.

The island is a part of the County of Los Angeles. The island is approximately 21 nautical miles long and is 4.5 nautical miles across at its widest point. There are about 400 individuals staffing the



²² The Catalina Island Conservancy's mission is to be responsible stewards of its lands through a balance of conservation, education, and recreation.

²³ Letter from RCD Manager Rebecca M. Barkin to LAFCO, March 30, 2004.

Navy's operations on the island on a year-round basis, with a peak population of about 700.²⁴

Municipal-type services are provided by the U.S. Navy and the federal government. Currently, the island's fresh water supply is barged from San Diego at the rate of nearly 14.5 million gallons per year. The Navy operates a sewage plant and landfill on the island. A school and a library are located on the island for the use of Navy personnel and their family members. The Federal Fire Department provides fire suppression services and emergency rescue of civilians in the vicinity of the island. The Navy is developing an Integrated Natural Resources Management Plan for the island in cooperation with the U.S. Fish & Wildlife Service, the California Department of Fish and Game, U.S. National Park Service, Channel Islands National Park, and the Catalina Island Conservancy.²⁵

The Navy occasionally requests that the Los Angeles County Sheriff's Office perform arrests of civilians on or near San Clemente Island. The Navy permits access to the areas around San Clemente Island to fishermen, divers, and recreational boaters, so long as the activity does not interfere with training, naval gunfire against shore targets, air-to-surface bombing, and other military operations.

Under agreement with the CFPD, the U.S. Navy provides high-speed transportation assistance in the event of wildfire on Santa Catalina Island. The municipal service review does not identify any additional opportunities for regional collaboration between the U.S. Navy and municipal service providers on Santa Catalina Island.

²⁴ This figure is from the Navy's 2001 report to the California Department of Water Resources. The 1990 Census listed 128 residents on the island, of which 2 were civilians. The 2000 Census erroneously lists zero residents on the island.

²⁵ See Sturgeon (2000).

CHAPTER 2: PUBLIC SAFETY

This chapter discusses the provision of public safety services—police, fire and paramedic--on Catalina Island. The section is designed to address questions relating to the efficiency and adequacy of services, the adequacy of infrastructure, and opportunities for sharing facilities and reducing costs. The chapter provides first an overview of the service configuration, a description of the level and type of workload, service quality indicators, facility descriptions, explanation of current and potential regional collaboration between service providers, a discussion of service delivery challenges, and an analysis of potential policy alternatives relevant to the particular service.

POLICE SERVICE

The Los Angeles County Sheriff is the sole provider of police service throughout the island. The Sheriff's operations on Catalina Island are unique by comparison with service on the mainland due to the relative isolation, population scarcity, large service area and high housing costs. In addition to law enforcement, the Sheriff coordinates the Catalina Island Search and Rescue team deployed to find missing persons, rescue airplane crash victims and rescue hikers who get stuck on the island's cliffs. Further, the Sheriff dispatches 911 calls for all emergency service providers--Sheriff, County Fire, Avalon Fire and Baywatch.

SERVICE DEMAND

The demand for service is related to the size of the population, the size of the area being policed as well as crime levels. Crime has generally decreased in recent years on Catalina Island and the mainland. On the mainland, the number of calls for police service has risen over this period, whereas on Catalina the number of incidents has been declining. On Catalina, crime statistics indicate that serious (Part I) crime has decreased somewhat, Part II crime has decreased, and non-criminal incidents have decreased. By comparison, for all the territory served by the Sheriff, Part I crime has decreased, Part II crime has been relatively stable and non-criminal incidents have increased over the same time period.

Crime rates appear artificially high on the Island because visitors constitute the majority of the island's population at any given time. After adjusting for visitor counts based on available data, Avalon crime rates appear to be higher than mainland crime rates. Despite uncertainty over the precision of the visitor counts, crime rates on Catalina appear to be at least as high as on the mainland.

The nature of crimes committed on Catalina differs from mainland crime. Homicide is virtually nonexistent on Catalina. Fraud and vehicle crimes are relatively rare on the island, where many residents drive golf carts or boats rather than cars. Intoxication, grand theft auto (i.e. golf carts), and domestic violence are much more common at this resort town, however, than on the mainland.

SERVICE STANDARDS

There are no established standards for law enforcement agencies relating to emergency response times, crime clearance rates, patrol staffing levels, or citizen satisfaction levels. Voluntary accreditation programs establish standards for law enforcement agencies as well as crime laboratories. In the arenas of police training and selection, there are clear standards for California law enforcement agencies.

General

The Commission on Accreditation for Law Enforcement Agencies (CALEA) is a national organization that functions as an independent accrediting authority. Law enforcement agencies may voluntarily choose to apply for CALEA accreditation. CALEA offers an accreditation program as well as a law enforcement recognition program in which the agency is required to meet a more modest list of standards.

CALEA law enforcement accreditation does not require the law enforcement agency to meet specific benchmarks in terms of response time, staffing levels or crime clearance rates. CALEA accreditation requires the police service provider to pass inspection and to meet dozens of requirements such as annual documented performance evaluation of each employee, investigation of all complaints against the agency and its employees, and annual review of allocation and distribution of personnel.

Although the Los Angeles County Sheriff has not opted to pursue CALEA accreditation, the Sheriff Contract Law Enforcement Bureau and the Avalon station does conduct annual documented performance evaluation of each employee, investigates all formal complaints against the agency and its employees, and annually reviews the allocation and distribution of personnel. On Catalina Island, the Sheriff is in compliance with CALEA accreditation standards.

The California Peace Officers Association has developed sample law enforcement agency policies on use of force, use of safety belts, review of complaints about personnel, fitness for duty evaluations, and law enforcement values. For example, the sample policy on conduct review states that “it should be standard practice for all law enforcement agencies to conduct comprehensive and thorough investigations into any allegation of misconduct or substandard service, whether such allegations are from citizen complaints or internally generated.”²⁶ Hence, policies relating to ethics and evaluation standards are readily available to law enforcement agencies.

The Los Angeles County Sheriff maintains written policies on use of force, use of safety belts, review of complaints about personnel, fitness for duty evaluations, and law enforcement values, among other issues.²⁷ Hence, the Sheriff abides by CPOA standards on Catalina Island and throughout its larger service area.

²⁶ California Peace Officers Association, 2004.

²⁷ Interview with County Sheriff Contract Law Enforcement Bureau Lt. Richard Mouwen, 2004.

Crime Laboratories

Crime laboratory standards are established by the American Society of Crime Laboratory Directors—Laboratory Accreditation Board (ASCLD/LAB). Accreditation is a voluntary program whereby a lab is inspected to determine whether the lab’s polices, procedures, staff, physical plant, and work product meet published peer-based standards.²⁸

The only law enforcement agency on Catalina Island—the Los Angeles County Sheriff—operates an accredited laboratory.

Training

The California Commission on Peace Officer Standards and Training (POST) has developed standards for the testing and selection of police officer applicants as well as the training of police officers, dispatchers and detectives.

The Los Angeles County Sheriff conducts training to POST standards.

Service Benchmarks

Crime clearance rates, response time for serious crimes in progress, patrol staffing, complaints and awards are potential benchmark indicators.

An indicator of police service level is the proportion of serious crimes that are solved.

Although police response times for serious crimes in progress are an important indicator of service adequacy, there are not clear standards as to what that response time should be. Police response times were traditionally used to measure effectiveness. However, more recent research indicates that response time does not have a significant effect on crime-solving, because most crimes are “cold” crimes and victims do not tend to call police immediately after the crime is committed. The modern approach to response time—differential response—is to ensure quick response to serious crimes (Priority 1) in progress, when there are opportunities to save a victim and/or to apprehend the criminal, and to inform lower-priority callers that response time may be lengthy. Experiments indicate that differential response leads to both citizen and officer satisfaction.²⁹

Some jurisdictions point to the ratio of sworn officers to residents as an important indicator of police service level, this indicator is useful in comparing bedroom communities, but it does not account for the population of workers and customers in commercial areas or the population of visitors in tourist areas. Therefore, it is not an appropriate standard for Catalina Island.

Service Adequacy

The sheriffs manage to solve serious crimes as effectively on Catalina as they do on the mainland. The proportion of Part I crimes cleared in Catalina is comparable to the proportion cleared by the Sheriff Department as a whole.

²⁸ Three states—New York, Oklahoma and Texas—require accreditation of all crime laboratories.

²⁹ Walker and Katz, 2002.

The Sheriff's average response time within the City of Avalon was reported as 2.96 minutes. The Sheriff did not provide response times for service to the unincorporated areas, but pointed out that response times to Two Harbors could be as long as 1.5 hours given the remoteness of the area. Response to crimes in progress, rescues and felony crimes take precedence over non-violent crimes and report calls.

The Avalon station's share of citizen complaints was lower than its share of service calls. The Avalon station received only two personnel complaints and one service complaint between October 2002 and September 2003. By comparison, there were approximately 1,900 complaints regarding Sheriff service and personnel countywide. Citizens may complain about service to the Station Commander or the Sheriff Ombudsman on the mainland.

Two deputies at the Avalon Station have been nominated for distinguished service. One was nominated for a Medal of Valor Award for a water rescue in Avalon Harbor last year. Another was nominated for a Meritorious Service Award for organizing a scuba diving fundraiser for drug abuse education at Avalon School.

Facilities

The Sheriff's operations on the island are primarily served by the Avalon Sheriff station, and secondarily by two additional facilities.

The Avalon Sheriff station is the primary facility serving the island, and includes a dispatch center, sobering cell, two regular cells, a booking cell and a conference room.

On a 24-hour basis, there are as many as two patrol deputies and a civilian dispatcher on duty at any time. At least one of the deputies is in Avalon at any given time. In order to maintain round-the-clock staffing, there are eight deputy sheriffs. During busy holiday and summer weekends, as many as four reserve deputies augment the staff. The station is administered by a Station Commander, three sergeants, and a secretary.

The Avalon Sheriff station is assigned marked 4-wheel drive police vehicles, but no boats per request of the City of Avalon.

A resident deputy is based at Two Harbors in the Isthmus area, and provides police service there Wednesdays through Saturdays. The Isthmus Sheriff has use of a small boat and a 4-wheel drive vehicle. A relief deputy patrols the interior Sunday through Tuesday.

The third facility providing police service on the island is the Sheriff's Air 5 rescue program based in Long Beach. This facility provides search and rescue, and over-water operations with a flight crew of two deputy pilots, two paramedics and a sergeant crew chief. For its Catalina operations, Air 5 flies Sikorsky H-3 helicopters.

Table 2-1: Avalon Sheriff Station staffing

Job	#	Title
Station Commander	1	Lieutenant
Operations Officer	1	Sergeant
Watch Commanders	2	Sergeants
Detectives	1	Detectives
Patrol Officers	5	Deputies
Deputies	3	Deputies
Secretary	1	Civilian
Dispatchers	6	Civilian
CSA (Parking)	1	Civilian

Regional Collaboration

The emergency service providers on Catalina currently collaborate in the areas of dispatch and joint participation on the Search and Rescue Team. The Sheriff reported that the dispatch collaboration is being improved through collaboration with the Avalon Fire Department. The Avalon Fire Department has received grant funds that are being used to modernize, upgrade and standardize the 911 dispatch system on the island in 2004.

The Sheriff relies on the City of Avalon Harbor Department for transportation to handle most crimes committed in the Harbor. The Harbor Department handles minor boating infractions directly.

In rough weather the Isthmus Deputy relies on the Isthmus Baywatch or the Two Harbors Enterprise Harbor Master for boat transportation and back-up manpower. The U.S. Coast Guard does periodic patrols of the outer waterways. On San Clemente Island, which is owned by U.S. Navy, Sheriff's service is as-needed to investigate crimes falling within their jurisdiction.

The Avalon Sheriff station has been sharing its conference room with the Avalon City Council for its executive meetings. This facility-sharing arrangement will no longer be necessary once the new Avalon city hall facility has opened. The sheriff station is deemed too small to share effectively for other purposes.

Service Challenges

Four challenges were raised in providing effective law enforcement service on Catalina as the Island's population continues to grow.

The top problem raised by the commanding officer is the cost of housing and the associated difficulty in hiring and retention of personnel. Of the nine budgeted deputy positions, currently 2-3 positions are filled by commuters who are unavailable as reserves in emergencies, two positions are temporarily vacant due to injuries, and another position is vacant. The 11 percent pay premium offered for sheriff staff stationed on the island is apparently less effective in attracting entry-level staff than in attracting senior staff.

Another significant challenge faced in providing effective law enforcement service on Catalina was understaffing in Two Harbors. It takes about one hour to drive from Avalon to Two Harbors where one deputy is providing coverage currently. Interviews with the Two Harbors Enterprises general manager, the Baywatch Isthmus boat captain, and the sheriff's commanding officer in Avalon indicated that the Two Harbors sheriff station is understaffed and that operating alone presents a safety problem. The Isthmus Baywatch boat captain reported being the only uniformed officer at times in Two Harbors, and having to perform citizen's arrests.

The aforementioned interviewees all recommended obtaining a personal protection dog for the resident deputy at Two Harbors, which apparently proved effective with the previous resident deputy stationed there. Further, the commanding officer recommended adding another resident deputy at that facility. Adding another deputy at the Two Harbors facility would require an additional housing facility for the new deputy.

A third challenge was raised by servicing a particular neighborhood in Avalon—Middle Terrace—where the street is narrow and on steep terrain. The deputies have difficulty patrolling this

area and reaching it quickly because they cannot always drive down the street or turn around in the area.³⁰

A fourth challenge is raised by the 911 dispatching center, which several interviewees described as outdated. All 911 calls are routed to the Avalon Sheriff station where a single dispatcher monitors four live-camera screens while receiving and routing 911 calls on several different computers. Through grant funds distributed to the Avalon Fire Department, the Sheriff is replacing 911 equipment, placing emergency communication on the same standard as all other Sheriff stations on the mainland, and upgrading the UPS backup system.

Although the sheriff is not reimbursed for dispatching fire and paramedics, the Avalon fire department is scoping the use of state 911 funds for dispatch equipment upgrades. In addition, the Avalon fire department is working with the phone company to have cell phone 911 calls routed directly to Avalon dispatch to eliminate the several-minute delay from such calls being routed through California Highway Patrol.³¹

Policy Alternatives

There are no potential major changes in law enforcement provision on the island. The City pays the Sheriff \$828,000 annually for service, which is more cost effective than Avalon running a police department directly.

The Sheriff is to be commended for coordinating the island's dispatch operation without benefit of remuneration from the other agencies; however, the Sheriff should investigate a formalization of the dispatch collaboration in order to ensure fair and adequate funding of the dispatch modernization effort needed. The City of Avalon is investigating using fire department funds to equip the Avalon Sheriff dispatch operation with GIS-based dispatch service. The Sheriff and the Consolidated Fire Protection District (CFPD) should review dispatch adequacy and availability of funds for modernization of the dispatch operation.

The Sheriff should review the adequacy of its Catalina housing supplement for attraction and retention of entry-level staff on the island. The City of Avalon should assess the Sheriff's concerns regarding the current inadequacy of off-street parking.

³⁰ Access on this narrow street by wide public safety vehicles is prevented when residents or visitors park their cars in the street.

³¹ Cellular phones equipped with GPS technology will be routed directly to the Avalon station. By 2005, all new cellular phones will be equipped with GPS technology and callers may be routed directly to the nearest first-response emergency services provider.



Table 2-2: Catalina Island Map

FIRE AND PARAMEDIC SERVICE

The Avalon Fire Department and the Consolidated Fire Protection District of Los Angeles County (“CFPD”) provide fire, paramedic, rescue and fire inspection service on the island and along its shores, with aerial support from the County Sheriff, City of Los Angeles Fire Department, Medical Alert Center, U.S. Coast Guard, and private medi-vac providers, and hovercraft support from the U.S. Navy. Fire and paramedic service on the island is unique compared with service on the mainland due to the isolated nature of the island, the large service area, the rugged terrain and the marine-related nature of many incidents.

The CFPD carries primary responsibility for fire, lifeguard and paramedic service in the 73 square miles of unincorporated territory on the island and its 50 miles of coastline.³² The City of Avalon provides land-based fire and paramedic service in the 2.8 square mile service area inside the city limits. Under contract with the City of Avalon, the CFPD is responsible for lifeguard and paramedic service in Avalon Harbor, on cruise boats that dock outside the city limits, and also provides ground-based coverage in the city limits.

The relatively scattered population and isolation of unincorporated Catalina translates into a lighter workload than on the mainland. There are 25 percent fewer fire and paramedic incidents on the island as a whole than at the average county fire station. Given the rugged terrain, large service area and concentration of activity in Avalon; however, the island is served by three fire stations and two Baywatch rescue boats. The fire stations on Catalina are staffed with fewer professional firefighters and a greater proportion of volunteers than on the mainland, and rely to a greater extent on mutual and automatic aid between the City of Avalon and the CFPD. The CFPD fire station in Avalon has two professional firefighters on staff and ten volunteer firefighters,³³ compared with the countywide CFPD average of fifteen professionals.

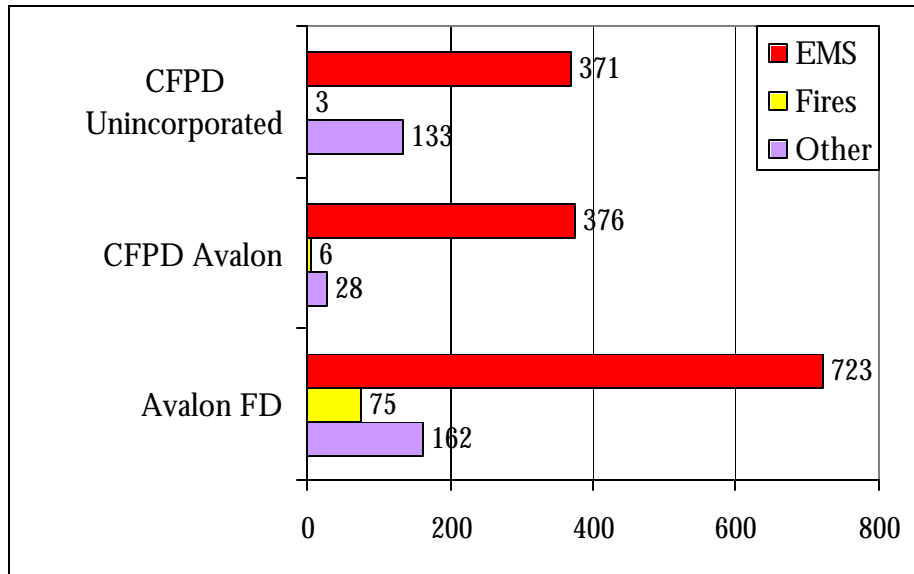
³² Baywatch paramedic service to Avalon Harbor has been provided since the 1970s; however, the service was transferred from the County Department of Beaches and Harbors to the Consolidated Fire Protection District in 1994.

³³ The county deploys patrol firefighters (also known as “call firefighters”) on an as-need part-time basis, and compensates them at a \$10.50 hourly wage. Patrol firefighters on Catalina are drilled every 2 weeks, and subject to emergency call for brush and structure fires. Patrol firefighters are also used in Malibu and the Antelope Valley.

Service Demand

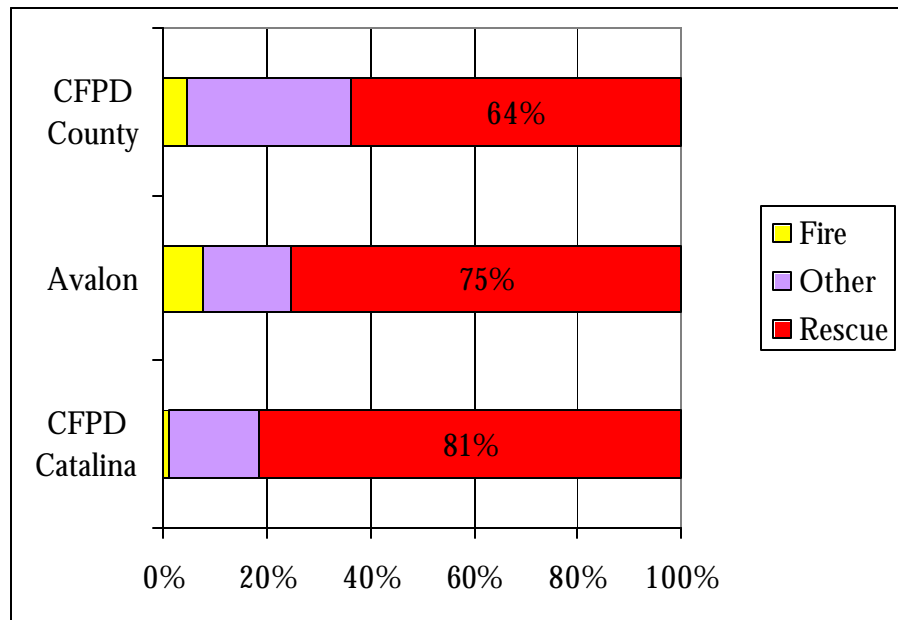
On average, there are four incidents daily on the island, primarily emergency medical calls. The actual daily volume varies seasonally with more rescues and evacuations occurring on days when the island receives more visitors. Although the majority of calls are dispatched to the Avalon City Fire Department, the actual workload of the County's Catalina fire stations is greater than depicted in Figure 2-3 due to the heavy reliance on automatic and mutual aid on the Island.

Figure 2-3: Fire and EMS Incidents, 2002



The fire and paramedic emergencies in Avalon Harbor and unincorporated areas are much more likely to be medical calls and rescues than the typical emergency on the mainland. In 2002, 81 percent of 911 calls dispatched to the CFPD on Catalina were emergency medical and rescue calls.

Figure 2-4: Fire Department 911 Incidents by Type, 2002



Service Standards

For fire and paramedic service, there are service standards relating to response times, dispatch times, staffing, and water flow.

Table 2-5: Fire and Medical Response Time Standards (minutes)

Agency Providing Guideline	Fire	Full-Structure Fire	Basic Life Support	Advanced Life Support	Ambulance Transport
National Fire Protection Association	6	10	6	10	
Commission on Fire Accreditation	5:50		5:50		
CA EMS Agency					
Urban/Metro			5	8	8
Suburban/Rural			15	20	20
Wilderness (1)			AQAP	AQAP	AQAP
<i>(1) AQAP means as quickly as possible.</i>					

Particularly in cases involving patients who have stopped breathing or are suffering from heart attacks, the chances of survival are related to how quickly the patient receives medical care. Similarly, a quick fire suppression response can potentially prevent a structure fire from reaching the “flashover” point at which very rapid spreading of the fire occurs—generally in less than 10 minutes.³⁴

The guidelines established by the National Fire Protection Association³⁵ (NFPA) and the Commission on Fire Accreditation International for fire response times at least 90 percent of the time is six minutes and five minutes, 50 seconds respectively with response time measured from the 911 call time to the arrival time of the first-responder at the scene.³⁶ For medical response times, NFPA recommends a six-minute response time for basic life support (BLS) and ten minutes for advanced life support (ALS) at least 90 percent of the time. The BLS medical response time guideline established by the California EMS Agency is five minutes in urban areas, 15 minutes in suburban areas, and as quickly as possible in wilderness areas; for ALS first-response, the guideline is eight minutes in urban areas and 20 minutes in suburban areas.

NFPA recommends a 60-second standard for dispatch time—the time between the placement of the 911 call and the notification of the emergency responders. The Commission on Fire Accreditation International recommends a 50-second benchmark for dispatch time.³⁷

For structure fires, NFPA recommends that the response team include 14 personnel—a commander, five water supply line operators, a two-person search and rescue team, a two-person ventilation team, a two-person initial rapid intervention crew, and two support people. The NFPA guidelines require fire departments to establish overall staffing levels to meet response time standards, and to also consider the hazard to human life, firefighter safety, potential property loss, and the firefighting approach. NFPA recommends that each engine, ladder or truck company be staffed by four on-duty firefighters, and that at least four firefighters (two in and two out), each with protective clothing and respiratory protection, be on scene to initiate fire-fighting inside a structure.

³⁴ NFPA Standard 1710, 2004.

³⁵ The National Fire Protection Association is a non-profit association of fire chiefs, firefighters, manufacturers and consultants.

³⁶ For a full structure fire, the guideline is response within ten minutes by a 12-15 person response team at least 90 percent of the time.

³⁷ Commission on Fire Accreditation International, 2000.

The Occupational Safety and Health Administration standard states that when at least two firefighters enter a structure fire, two will remain on the outside and maintain visual or voice contact to assist in emergency rescue activities.³⁸

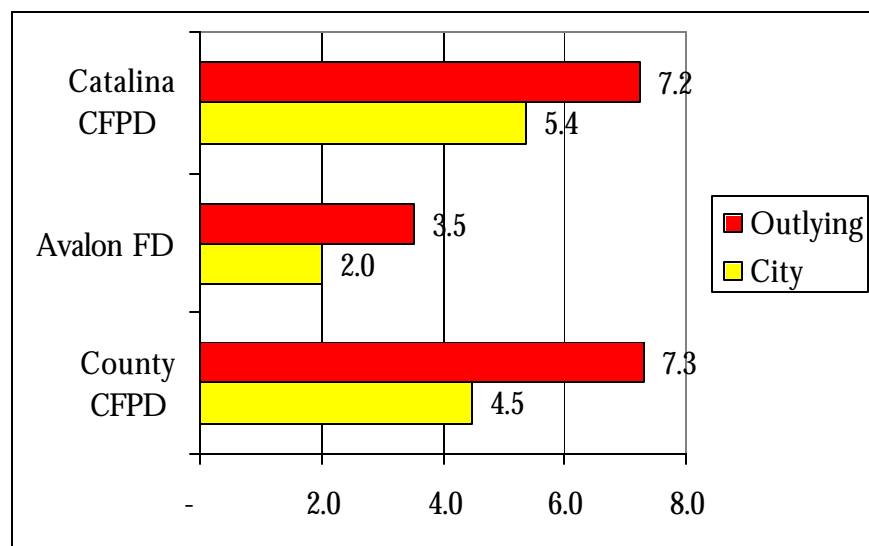
For emergency medical response with advanced life support needs, NFPA recommends the response team include two paramedics and two basic-level emergency medical technicians.

For structure fires, NFPA recommends the availability of an uninterrupted water supply for 30 minutes with enough pressure to apply at least 400 gallons of water per minute.

Service Adequacy

Figure 2-6: Fire Department 911 Response Times (minutes), 2002

Fire and EMS response times on the island are comparable to response times on the mainland. The City of Avalon Fire Department's response times are lower than the response times for CFPD service, primarily due to the smaller service area. An average mainland CFPD station covers a 15 square mile service area compared with Avalon's service area of 2.8 square miles. CFPD



response times in urban areas on the mainland are slightly lower than the Baywatch response times in Avalon Harbor.³⁹ Response times in the unincorporated areas of Catalina Island are comparable to CFPD response times in rural areas of Los Angeles County, as shown in Figure 2-6.

Response times reflect the time elapsed between the 911 call dispatch and the arrival of the first responder on scene. As such, response times do not include the time required to transport a victim to a hospital. In remote areas of Catalina Island, it may take as long as 1.5 hours in foul weather for a victim to be evacuated by helicopter to a mainland hospital. A rural Avalon hospital and a hyperbaric chamber for scuba diving emergencies at the USC facility are the only medical facilities on the island.

The Insurance Service Office (ISO), an advisory organization, classifies communities from 1 to 10. Communities with the best systems for water distribution, fire department equipment, firefighting personnel and fire alarm facilities receive a rating of 1. A Public Protection Classification (PPC) rating has a direct bearing on the cost of property insurance for every home and building in a

³⁸ 29 CFR 1910.134

³⁹ Consolidated Fire Protection District response time countywide reflects a median for largely land-based service, whereas the Avalon District response time reflects an average for largely sea-based service. The response times are not strictly comparable.

community. Fire protection in the City of Avalon has received a Public Protection Classification rating of seven out of nine, as awarded by the ISO. Fire protection elsewhere on the island is not rated by ISO.

The Consolidated Fire Protection District receives one to two dozen letters of commendation for service provided on Catalina Island each year, which the CFPD described as an above-average number of commendations. The CFPD was awarded the Golden Eagle award by the County in fiscal year 2003-04 for its high productivity.

Facilities

Table 2-7: Catalina Fire and Paramedic Staffing

Fire and paramedic service on Catalina is provided from four facilities. At any given time, there are four firefighters and two Baywatch paramedics on duty in Avalon. In Two Harbors, there are two Baywatch paramedics on duty with reserve paramedics and patrol firefighters on call.

Station	Location	On Duty	Permanent	Volunteer
Avalon FD	Avalon	3	8	25
CFPD Station 55	Avalon	1	2	10
Baywatch Avalon	Avalon	2	4	0
CFPD Station 155	2 Harbors	0	0	4
Baywatch Isthmus	2 Harbors	2	4	0

The City of Avalon fire station is currently housed in several old garages on a congested downtown street. Avalon has three firefighters on duty, and 25 volunteers on call. The station is equipped with three pumper engines, a ladder truck, two ambulances, and a command vehicle. The Avalon fire department will be relocating to a new fire station as soon as April 2004. The City and the CFPD are currently negotiating a contract in which the City may share its bunkroom facilities at the new fire station with Baywatch Avalon's reserves and summer lifeguards.

The Avalon CFPD station (#55) is run from a private home built in 1929, which serves as the residence of the captain on duty. Prior to the 1997 Avalon annexation, it was located outside the city limits. The station is staffed by a captain and engineer who are each compensated for a 40-hour week and any overtime when they are actually called to duty. There are ten patrol firefighters who may be paged for service on an as-needed basis. The station is equipped with an engine, a patrol vehicle with pump and EMS equipment, and a 4-wheel drive vehicle for transporting volunteer fire fighters. The station is not equipped with an ambulance, and its staff is not trained in Advanced Life Support.

The Baywatch Avalon station is located on the Avalon pier in a relatively new office. Baywatch is staffed by a boat captain and paramedic at any given time, with two additional paramedics on call. The CFPD leases housing facilities for these staff. In the summer months, the station is assigned five lifeguards. The station provides emergency assistance for vessel distress calls, boat fires, SCUBA accidents, medical emergencies and recovery and salvage operations. The station serves the coastline areas south of Long Point and China Point from a 34-foot rescue boat with a top speed of 30 knots.⁴⁰

⁴⁰ Speed in knots is approximately equivalent to speed in miles per hour. Knots account for curvature of the earth, whereas miles per hour are calculated as if the earth were flat.

Figure 2-8: Two Harbors Fire Station

The Two Harbors CFPD station (#155) is a metal garage structure built in 1965. It is staffed by four patrol firefighters who may be paged for service on an as-needed basis, and supervised by the professionals at station 55. They respond to incidents north of Long Point and China Point.

Station 155 is inadequate for purposes of housing the engine and patrol vehicle assigned to it. The station is currently equipped with a 1961 engine, which will be retired to a fire museum once the facility is able to accommodate its new engine. The station's patrol vehicle is stationed at the Middle Ranch residence of a patrol fighter due to a lack of covered parking at station 155. The CFPD reports that the facility will be expanded in 2004 to accommodate the new fire engine.



The Baywatch Isthmus station is located in a housing facility midway between Isthmus and Catalina Harbors which the CFPD leases from the Island Company. The facility is relatively new, includes an office and housing for two of the four personnel. The station's rescue boat is moored in Isthmus Harbor, and a 4-wheel drive ambulance is located at the station. The facility lacks covered parking for the ambulance. Although the Baywatch Isthmus station is not large enough to house two of the four personnel assigned to it currently, CFPD reports that it has procured additional housing recently.

Regional Collaboration

Emergency helicopter evacuation and support is provided primarily by the CFPD's Air Operations which flies out of Whittier during the day and Pacoima at night. For scuba diving accidents, the CFPD pilots transport a USC dive doctor out to the island. For search and rescue cases, the Sheriff's Long Beach helicopter unit often responds. During inclement weather, aerial support is provided by the U.S. Coast Guard. The Medical Alert Center coordinates helicopter evacuation of Avalon hospital patients requiring more specialized care on the mainland; most calls are handled by Mercy Air—a private company.

911 phone calls are dispatched by the Avalon Sheriff's station to the Avalon Fire Department and the CFPD units. CFPD units then report the call to the CFPD Command and Control facility on the mainland, and indicate whether or not additional manpower or aerial support is required for the particular incident. The California Highway Patrol provides initial dispatch of cell phone 911 calls, which are dispatched to the Avalon Sheriff station. GPS-equipped cell phone 911 calls are answered directly by the Avalon Sheriff Station. The Baywatch units monitor emergency marine radio mayday calls, and may also receive mayday dispatches from the U.S. Coast Guard.

The Catalina Search and Rescue team is coordinated by the Avalon Sheriff station, and includes team members from the various CFPD units. The team responded to approximately 16 missing person cases in 2002, and receives about six cases annually in which hikers are trapped on the cliffs

of the island. Although initial search and rescue is handled by vehicle or boat, the team may call upon the Sheriff or CFPD mainland units for helicopter support.

The City has an automatic aid agreement with the CFPD in which Station 55 supplements the Avalon Fire Department in responding to fire calls within the city limits, and Avalon Fire Department supplements Station 55 in responding to EMS calls in the unincorporated area within one mile of the city limits. Avalon Fire Department sometimes sends a volunteer crew in its reserve ambulance as far as the airport (where the paved road ends) to assist CFPD Station 55 in responding to interior EMS calls. CFPD crew in Avalon supplements Baywatch in responding to boat fires and other rescues at the camps and anchorages outside Avalon Harbor, and coordinates helicopter evacuations of patients.

In transporting patients from Two Harbors to the Avalon hospital, there is a heavy reliance on collaboration among providers. Baywatch Isthmus usually transfers the patient from its boat to the Baywatch Avalon boat near Long Point. When Baywatch Avalon is unavailable, the Avalon Harbor Department provides similar assistance with boat transfers. For emergencies in the interior, the Avalon Fire Department provides mutual aid and meets the Baywatch ambulance mid-island at the airport for transferring patients to the Avalon hospital. The Two Harbors Harbor Department supplements Baywatch Isthmus by providing boat transportation to incidents in the vicinity of Catalina Harbor. Baywatch Isthmus also reports handling certain law enforcement incidents at Two Harbors on the resident sheriff's days off.

When a major wildfire occurs on the island, the U.S. Navy provides high-speed transport of heavy emergency fire equipment and vehicles to and from the island under an agreement between CFPD and the Navy. Major wildfires occur on the island every few years. The last such fire occurred in January 2003 in Cottonwood Canyon, and affected 245 acres. The U.S. Navy assisted the CFPD in transporting personnel and equipment by hovercraft to the island.

Service Challenges

There are numerous challenges in providing adequate fire and paramedic service on Catalina Island, particularly outside the city limits.

Within the City of Avalon, where most incidents occur, the primary facility challenges relate to inadequate water flow in certain areas for fire-fighting and the currently inadequate fire station. Both problems are being addressed by the City. The fire station is being relocated to a new facility in April 2004. The City has upgraded its saltwater distribution system which is used for suppressing fires below an elevation of 170 feet, and is installing freshwater fire hydrants in newly developed areas above that elevation.

The City's three-man firefighting crew does not meet NFPA and OSHA requirements for a four-man crew for structure fires in which two firefighters on the outside are supposed to support the two firefighters working on the inside of the structure.⁴¹ This challenge is addressed currently by the automatic aid agreement between the City and CFPD Fire Station 55. The City Fire Chief

⁴¹ The Cal OSHA confined space requirement (CCR Ch.8, §5156) stipulates that there be as many employees on the outside as the inside of a confined space in a hazardous atmosphere. The federal OSHA respiratory protection standard (29 CFR 1910.134) requires that workers engaged in fighting interior structural fires work in a buddy system; at least two workers must enter the building together, and there must also be at least two standby personnel outside the fire area. The federal OSHA standard does not apply when the fire is still in the incipient stage or when life is in jeopardy.

reported that in order to service growth such as the proposed Descanso Beach development, the City would need to expand its crews to four-man crews.

One-fifth of fire and medical incidents in the Avalon city limits are either false alarms or ambulance “dry-runs” in which no one is at the place to which the ambulance has been called. Although the City has false alarm fees in its ordinance, these are not currently enforced because the Fire Department is uncertain whether a false alarm was caused by the user, the phone lines or the computer system. The City does not currently fine prank callers requesting an ambulance.

In the community of Two Harbors where most unincorporated area incidents occur, the primary facility challenge is a lack of garage facilities for the three emergency response vehicles assigned to the area. The existing garage houses a 1961 fire engine; although the CFPD purchased and assigned a replacement engine to the island, it is parked in Avalon because it cannot clear the Station #155 facility door. The patrol vehicle is located approximately an hour’s drive away from the Two Harbors Fire Station because there is no covered parking and the vehicle would depreciate quickly if left to the elements in Two Harbors. The CFPD is considering replacing station 155 with a facility that would accommodate all three emergency response vehicles in the Two Harbors area, including the engine and the Baywatch vehicles. The CFPD plans to expand the existing facility in 2004. If the CFPD decides to pursue a shared facility, it would be the first CFPD facility shared by the fire and lifeguard divisions. Currently, financing constraints are the primary obstacle to construction of a shared facility.

Another facility challenge relates to the location of Station 55. Station 55 represents the second station within the 3-square mile Avalon city limits. Its current location enhances Station 55’s usefulness by providing a critical fourth man through automatic aid for fire-fighting within the Avalon city limits and a critical third man for Avalon Baywatch’s rescue of children at camps along the coast. Station 55 is located one hour away from Two Harbors, and is not available to supplement Baywatch Isthmus quickly. The Two Harbors area by comparison is served currently by a volunteer squad. If Station 55 were more centrally located on the island, it would complicate the task of recruitment and retention of professional firefighters due to the isolated nature of the island’s interior and the fact that most patrol firefighters live and work in Avalon.

Other service challenges relate to staffing. Baywatch Isthmus reports difficulty in responding with a two-man crew to marine incidents, particularly on windy days and for rescues at the camps housing children along the coast. With two men, one must keep the rescue boat under control while the other transfers the victim to the rescue boat. In these circumstances, Baywatch must enlist a bystander for assistance with CPR and with transferring the victim to the rescue boat. The CFPD’s lifeguard division reported that it often uses a third person on the mainland for lifeguard operations on busy weekends and during adverse weather situations. Adding a third person to the Baywatch Isthmus crew during adverse weather is impractical due to the isolation and difficulty traveling to the Two Harbors area during adverse weather. The CFPD reported that it would like to add a third person to staff the Baywatch Isthmus operation on a seasonal basis, but financing constraints due to budget cutbacks pose an obstacle to increasing the staffing for Baywatch Isthmus.

Yet another service challenge relates to communications. The lone Avalon sheriff dispatcher must telephone LA Command and Control in the critical period after sending a dispatch to CFPD staff, and the Baywatch teams must radio LA Command and Control while mobilizing to respond to marine mayday dispatches. CFPD personnel report that there are numerous “radio shadows” on the island where they are unable to communicate with LA Command and Control. CFPD personnel in

Two Harbors indicated that they are unable to receive dispatches when not physically on the boat or ambulance, which happens during handling of certain emergencies and while handling maintenance and supply duties. The Baywatch Isthmus boat captain recommended this problem be addressed with radios that receive off local repeater sites.

Policy Alternatives

Service configuration on Catalina Island is not efficient by comparison to the mainland. There are more stations on the island handling fewer incidents and a larger service area than on the mainland. The need for costly helicopter response is much greater on the island than on the mainland. Addressing this inefficiency without impairing the safety of island residents and visitors is challenging. Clearly the City of Avalon cannot patrol the 50 miles of coastline and 76 square miles of land on the island. The only potential reconfiguration of fire and paramedic service on the island would involve the CFPD providing service island-wide. The City of Avalon has neither proposed to annex to nor contract with the CFPD, and clearly prefers to maintain an independent fire department.⁴²

The City of Avalon is mobilizing its own fire department as well as CFPD staff for response to a relatively high number of false alarms. The City reported not enforcing false alarm fees because it was unknown whether the false alarms were caused by the user, the telephone lines or the dispatch system. The City of Avalon should review and address the cause of this problem, and enforce false alarm fees. The current approach to false alarms imposes unnecessary costs not only on the City but also on the CFPD which is providing automatic aid.

The CFPD personnel complained about relatively high housing costs on the island. The CFPD is currently working on developing new housing units on the island under leaseback agreements. The use of patrol firefighters in Two Harbors appears to be ineffective in timely emergency response due to hiring, retention, and paging communication inadequacy. The CFPD has identified financing constraints as an obstacle to increased staffing in the Two Harbors area.

Replacement of the Two Harbors facility is being evaluated in comparison to the depreciation cost associated with leaving emergency response vehicles exposed to the elements and to the service impacts associated with being unable to utilize two vehicles. The CFPD is reviewing facility alternatives.

CFPD personnel are not in communication with the dispatch center when not physically on the rescue boat or the ambulance. CFPD patrol firefighters in Two Harbors are apparently not reachable in a timely fashion through their pagers. The CFPD is not currently contributing to the ongoing cost of dispatch operations on Catalina. The CFPD should investigate availability of affordable technology for purposes of modernization of dispatch and communications operations. One potential option involves radios that receive off local repeater sites.

⁴² Interview with City Manager Robert Clark, 2003.

CHAPTER 3: UTILITIES

This chapter discusses the provision of utility services—water, wastewater and solid waste—on Catalina Island. The section is designed to address questions relating to the efficiency and adequacy of services, the adequacy of infrastructure, along with opportunities for sharing facilities, reducing costs and rate restructuring. The chapter provides an overview of the service configuration, the level and type of service demand, facilities, current and potential regional collaboration between service providers, service delivery challenges, and an analysis of potential policy alternatives relevant to the particular service.

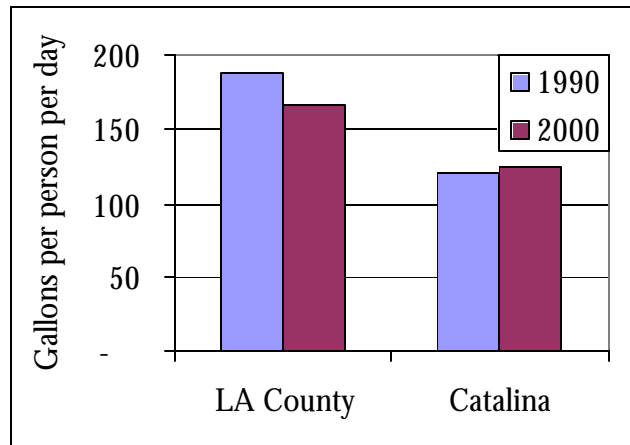
WATER

Water service on Catalina is unique in that the island is entirely self-reliant and separated from mainland fresh water supplies. The only potential method of importing fresh water involves barging it in from the mainland, a practice that was discontinued in 1924.⁴³ The island relies on rainfall, seawater desalination, and saltwater to meet its water needs.⁴⁴

Fresh water is provided throughout the island by Southern California Edison (SCE). The island has a groundwater safe annual yield of 515 acre-feet, and its seawater desalination plant is expected to add at least 85 additional acre-feet of fresh water. In Avalon, there is a dual fresh and saltwater system with saltwater provided for toilet-flushing and fire suppression purposes by Avalon city. Avalon provides approximately 265 acre-feet of saltwater annually.

Figure 3-1: Fresh Water Consumption: LA vs. Catalina

Islanders use less fresh water per capita compared with mainland Angelenos. Islanders consume about half as much fresh water as Los Angeles County residents as a whole. Figure 3-1 depicts average consumption on Catalina Island and in the County without accounting for Catalina’s significant visitor population. Including tourists, Catalina consumes 52 percent as much fresh water as do County residents.⁴⁵ About half of this



⁴³ In the aftermath of the 1915 fire, the Island Company built the Thompson Dam and Middle Ranch Reservoir to collect rainwater runoff. Importing water by barge is more costly than seawater desalination in many island environments such as St. Nicholas Island and the U.S. Virgin Islands. San Clemente Island continues to rely on barging in freshwater due to power limitations.

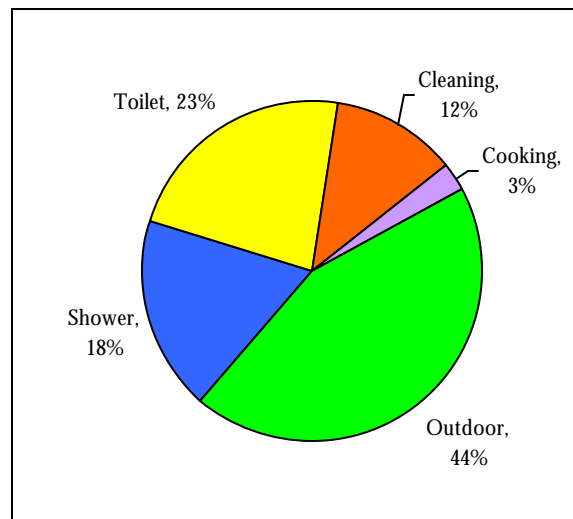
⁴⁴ Groundwater wells are replenished by rainwater.

⁴⁵ Average daily visitor counts were estimated on the basis of daily arrivals by ferry, and exclude cruise ship visitors who typically spend only a few hours on the island.

difference can be explained by the use of saltwater for toilet-flushing in Avalon.⁴⁶

Figure 3-2: California Fresh Water Uses

The average Californian uses 228 gallons of water each day.⁴⁷ Outdoor uses like landscaping, swimming pools and washing cars consume 44 percent of domestic water. Toilet-flushing constitutes about 23 percent of use. Showering and bathing consume about 18 percent of domestic water. Dishwashers and clothes washing machines consume twelve percent of domestic water. The remainder of California water consumption relates to cooking, other kitchen uses, and drinking water.



Tourists in Catalina's hotels use more water than do residents,⁴⁸ hence Catalina's residents are consuming less than half as much as mainland residents. The use of saltwater for toilet-flushing in Avalon—where most Islanders live—constitutes water savings of 20-25 percent compared with the mainland where fresh water is used for this purpose. The other major area where Islanders conserve on water involves outdoor use. The typical Avalon resident lives in an apartment rather than a detached home. Landscaped lawns are rare in Avalon, where native shrubbery, potted plants and apartment living are much more common. Islanders are much more likely to rely on golf carts than cars, hence car washing is another area of water savings.

Service Demand

In addition to residential population growth, water demand is affected by the visitor population, economic growth among commercial and agricultural water users, temperature, rainfall, housing mix, household size, conservation efforts, and pricing. Growth in the visitor population and in economic sectors with greater water needs tend to increase water demand. Weather affects water demand in that people tend to consume more water on hotter and drier days, primarily due to outdoor water uses such as pools and lawn-watering. Single-family homes tend to use more water than multi-family homes because single-family homes tend to have more water-using appliances and more landscaping; hence, changes in the housing mix affect water demand. Conservation efforts and higher prices tend to reduce the per capita demand for water, as has been documented in southern California in recent years.⁴⁹ Conservation efforts may include water recycling, public outreach, and water price increases designed to encourage conservation.

⁴⁶ In California, approximately one-quarter of water is used for toilet-flushing purposes, based on figures from Southern California Edison.

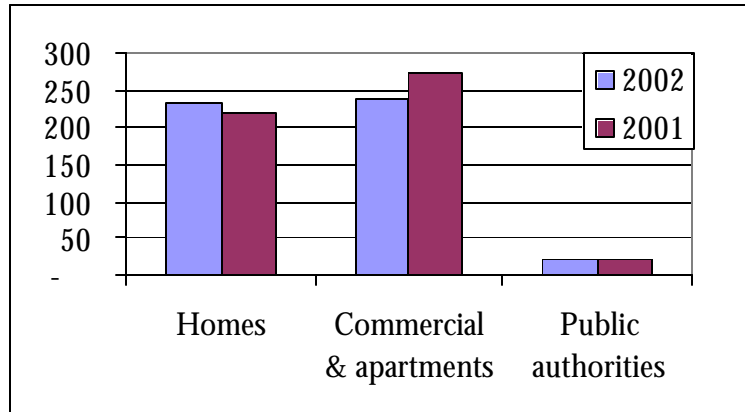
⁴⁷ U.S. EPA, 1995. Figure reflects domestic consumption per capita per day.

⁴⁸ The PUC tariff schedule for Catalina establishes 75 gallons per day use for hotel occupants and 45 gallons per day use for apartment occupants as basic water requirements for purposes of water rationing allocations.

⁴⁹ Metropolitan Water District of Southern California, 2003, Appendix A.

Figure 3-3: Catalina Fresh Water Annual Demand (acre-feet)

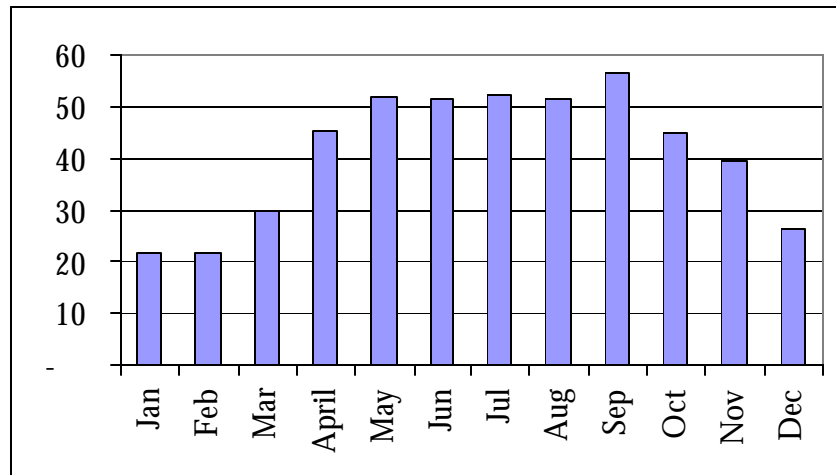
Fresh water service demand on the Island was 494 acre-feet in 2002 and 515 acre-feet in 2001. The average single-family residence consumed 52 gallons per person per day, less than one-third of average consumption on the mainland. The relatively low demand is explained by a relatively high proportion of seasonal home occupancy, use of saltwater for toilet-flushing, and relatively low outdoor use of water.



Many residents live in apartments, most of which appear to be individually metered for water service. Fresh water service is provided to 1,915 separate service connections, which is comparable to the number of housing units counted in the 2000 Census. Average demand among apartment residents cannot be separated from average demand of hotel occupants, because the two are combined in SCE’s annual report.

Figure 3-4: Catalina Fresh Water Seasonal Demand (acre-feet)

Fresh water demand varies over the year with peak demand in the summer months when the island’s hotels, moorings, and vacation homes are filled. Figure 3-4 depicts fresh water consumed monthly based on SCE customer billings.⁵⁰ Peak demand occurs in late summer, several months prior to the onset of the rainy season.



Average daily saltwater demand is approximately 240,000 gallons per day. Peak demand was not provided by the City. However, the City’s saltwater reservoirs contain 2.5 acre-feet of saltwater, and the City is currently able to replenish 2 acre-feet of saltwater daily. Hence, demand for saltwater is met by the City’s existing storage and pumping capacity.

Service Standards

Water service standards relate to water quality, reliability and water pressure for purposes of fire suppression.

⁵⁰ Monthly demand is calculated as a three-month moving average based on figures reported in the SCE 2002 Annual Report.

In California, water quality is measured by monitoring contaminant levels in the water supply. The state establishes maximum contaminant levels (MCL) of numerous chemicals allowed in the water supply, and cites water suppliers with contamination exceeding those levels. Hence, water suppliers without significant contaminant violations meet state regulatory standards.

Another standard relates to reliability of the water supply. The water supply is expected to be delivered to customers on a continuous basis without significant interruptions.

The third standard relating to water service is that water be supplied at sufficient pressure and reliability for fire suppression purposes. For structure fires, NFPA recommends the availability of an uninterrupted water supply for 30 minutes with enough pressure to apply at least 400 gallons of water per minute.

Service Adequacy

Service adequacy depends on the quality, reliability and cost of the water provided.

The fresh water quality on Catalina Island is generally good and meets or exceeds federal and state requirements. There have been no maximum contaminant level (MCL) violations in the last ten years. SCE routinely monitors for contaminants in drinking water.⁵¹ The California Department of Health Services reported that the only serious contamination on Catalina was MTBE contamination discovered at the original Pebbly Beach desalination wells.⁵² These wells are not currently used and replacement wells have been developed which are one mile southeast of the contaminated well site. According to SCE and the California Department of Health Services, the replacement wells for the desalination plant are not contaminated.⁵³

When groundwater is extracted below a certain depth, seawater permeates into wells causing them to produce non-potable water. Depletion of certain groundwater wells has occurred on Catalina Island in the Avalon Canyon area. The affected Golf Links Tunnel site only produces three acre-feet per year, so the problem is minor in the context of total water production on the island. Wells with seawater intrusion may be replenished and redeveloped if rainwater adequately flushes out the sea water.

Although the water supply on Catalina Island is a constraint on growth, it is delivered reliably to existing development on the Island.⁵⁴ There is a water rationing program in place under which outdoor uses may be curtailed, and supply restricted depending on the water level in the Island's main reservoir. Within the last year, the Island has been subject to phase-one rationing which means that lawn watering is limited to a few hours daily, and that cars and sidewalks may only be washed by

⁵¹ SCE has installed an aeration treatment facility to reduce the level of copper in the fresh water system. The level of copper had been slightly above the action level in some cases prior to installation of this facility.

⁵² MTBE, a refinery product whose full name is methyl tertiary butyl ether, is an oxygenate added to gasoline to make it burn cleaner and reduce air pollution. MTBE has contaminated some drinking water systems in California by leaking from underground gasoline tanks. Studies have linked MTBE to cancer in lab animals.

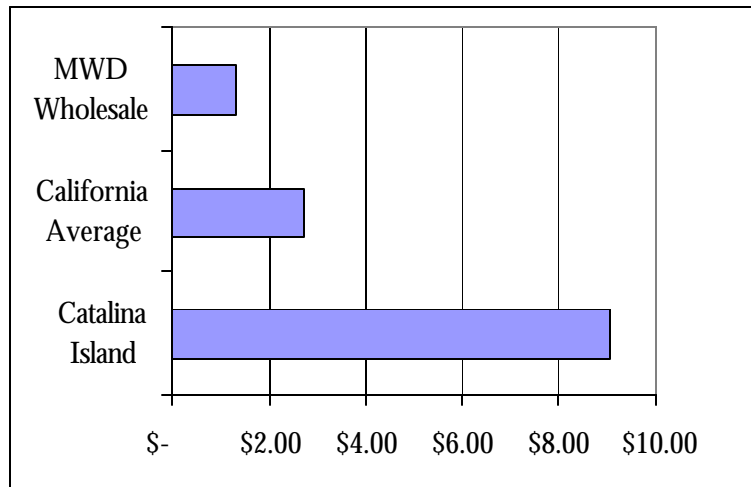
⁵³ Interviews with Southern California Edison Manager Gary Huffman, 2003 and California Department of Health Services Engineer Chi Diep, 2004.

⁵⁴ Interviews with Avalon City Manager Robert Clark, Two Harbors Enterprises General Manager John Phelps, Santa Catalina Island Company President Ron Doult and Southern California Edison Manager Gary Huffman, 2003.

bucket. A seawater desalination plant has come on line in October 2003, and has increased the island's water supply and reliability.⁵⁵

Figure 3-5: Water Rates per 1,000 gallons, 2003

The rate structure on Catalina is uniform across types of users, with tiered rates for usage above 2,000 gallons per month and higher rates charged in the summer. Although the summer rate is \$3.50 per 1,000 gallons for the first 2,000 gallons, most consumption is in excess of 2,000 gallons and is charged the peak rate of \$9.57 per 1,000 gallons.



Water rates on Catalina Island are relatively high compared with the mainland. The average price paid per 1,000 gallons consumed on

Catalina was \$9.06 in 2002. By comparison, the state average in 2003 was \$2.72. By comparison, the U.S. Navy estimates that its water cost at approximately \$7.50 per 1,000 gallons for San Clemente Island; the Navy's costs do not include customer billing and distribution.

Facilities

Table 3-6: Catalina Surface and Groundwater Facilities

Water Supply

Catalina Island's groundwater facilities supply 515 acre-feet of fresh water annually to the island's residents and visitors.

Middle Ranch Reservoir is the largest water system on the island.⁵⁶ It is fed by Thompson Dam which impounds runoff from Middle and Cape Canyons, a drainage area of 5,000 acres. The Dam was built in 1924, and raised to its present height of 115 feet in 1965.

	Safe Annual Yield	Amount Pumped 2002
Integrated Fresh Water System	515	526
Cottonwood Canyon Well	52	27
Howland's Landing Well	32	26
Poultry Farm Tunnel	7	-
Golflinks Tunnels (2)	3	-
Bullrush (3)	24	16
Eagles' Nest Well	32	12
Sweetwater Well	13	20
White's Landing	16	16
Toyon Canyon Well	16	10
Middle Ranch Wells (1,3,5,6)	372	401
Leakage	(52)	
Isolated Fresh Water	N/A	4
Black Jack Spring	N/A	4

⁵⁵ Ibid.

⁵⁶ Although Middle Ranch Reservoir is the official name of the reservoir used by the California Public Utilities Commission, Thompson Reservoir is another name used to refer to this reservoir.

In addition, there are groundwater wells located throughout the island.⁵⁷ The Howland's Landing well is the primary source of fresh water for the community of Two Harbors and private camps in the vicinity. The Toyon Canyon and White's Landing wells supply private camps located north of Avalon.

The seawater desalination plant recently began producing fresh water, but has not yet been incorporated into the official safe annual yield for the island. During its brief stint in the early 1990s, the desalination plant was rated with a safe annual yield of 85 acre-feet per year by PUC, but SCE indicated the plant yield might be as high as 145 acre-feet per year.⁵⁸ In 1991, the facility became the second desalination plant ever constructed in the U.S. After a several month period of operation, SCE closed the facility due to ample water from rainfall and high costs of operating the facility. In 2000, MTBE contamination was discovered at seawater well sites on Pebbly Beach Road. SCE subsequently tested and constructed two seawater wells approximately one mile southeast, along with a pipeline to convey the extracted seawater to the Pebbly Beach desalination facility.⁵⁹ The facility came online in October 2003. The SCE operations manager indicates that the plant's maximum capacity is 134 acre-feet annually, and actual production will be somewhat lower due to routine maintenance needs.

On an average day, saltwater demand is approximately three-quarters of an acre foot. The City of Avalon's saltwater supply for toilet-flushing purposes is limited only by its pumping and storage capability. Currently, the City's two saltwater reservoirs have a combined capacity of 2.5 acre-feet, and the City is able to replenish the reservoirs by pumping as much as 2 acre-feet daily into the reservoirs.

Water Treatment

Groundwater is relatively clean as it has already been filtered through its natural production process; the groundwater is filtered and chlorinated before being distributed to consumers.⁶⁰ Saltwater used for toilet-flushing and fire suppression purposes is simply filtered as it is not intended to be potable.

Seawater is desalinated using the reverse osmosis principle. Once the seawater reaches the desalination plant, silt is filtered from the seawater and it is then passed through salt-removing filament membranes. Seawater places pressure along one side of a minutely porous membrane. Gradually, fresh water works its way through the membrane and collects on the other side, leaving salt and other impurities in solution. After about 30-35 percent of the original saltwater is converted, the balance is returned to the ocean through an outfall. The fresh water resulting from the reverse osmosis process is chlorinated and then pumped into the water mains located just outside the SCE facility.

⁵⁷ Public Utilities Commission, Decision 90-05-033, May 4, 1990; Tariff Schedules applicable to Water Service of Southern California Edison Company, Santa Catalina Island; 2002 Annual Report of SCE to the PUC.

⁵⁸ PUC Decision 90-05-033, May 4, 1990.

⁵⁹ State Lands Commission, Calendar Item C10, June 18, 2002.

⁶⁰ Interviews with California Regional Water Quality Control Board and Southern California Edison, 2003.

Water Storage and Distribution

The primary water system on the island lies 11 miles west of Avalon in Middle Canyon, where runoff water is directed into an earthen reservoir known as Middle Ranch Reservoir. With a capacity of 1,143 acre feet, the reservoir is capable of holding a two-year supply of water for the Island.

Water is pumped from groundwater aquifers beneath Middle Ranch Reservoir to a booster pump station and then to Wrigley Reservoir which is located 1500 feet above the City of Avalon. Wrigley Reservoir is an earthen distribution reservoir which is lined and covered. Its capacity is 29 acre feet, which supplies Avalon's fresh water needs for approximately one month. From Wrigley Reservoir, water flows by gravity to the 285,000 gallon concrete distribution reservoir on Whittley Avenue. From the Whittley reservoir, water flows into the City of Avalon's distribution system. The distribution system consists of steel, cement-asbestos, and standard screw pipeline, most of which is 10 inches in diameter. There are approximately 46 miles of water pipeline.

In addition, there are 18 metal tanks for water storage at various locations throughout the Island. The tanks are primarily for distribution of groundwater in the unincorporated areas. Certain tanks constitute emergency supplies, such as the one million gallon tank in the Two Harbors area for emergency fire-fighting purposes.

Saltwater is pumped from two 72-foot wells up to two reservoirs located at an elevation of 228 feet. The Falls Canyon reservoir holds 500,000 gallons and the Mt. Ada reservoir holds 300,000 gallons. Saltwater is distributed through pipelines to properties up to 170 feet in elevation. The City is scheduled to replace the main saltwater pump station, which has structural problems, this year.

Regional Collaboration

SCE is the exclusive supplier of fresh water, and the City of Avalon is the sole supplier of saltwater. The Island is separated from mainland fresh water supplies. There were no opportunities for regional collaboration or shared facilities identified.

Service Challenges

The most significant service challenge relates to inadequacy of the existing fresh water supply to accommodate growth on the Island. Another service challenge relates to inadequacy of water flow for fire suppression in certain areas.

New development may not occur without verification of adequate water supplies and extension of water mains. For relatively small developments, the property owner or developer completes a questionnaire and application with SCE for water allocation rights. The applicant is placed on the SCE Fresh Water Allocation list, and is informed when SCE determines that it has enough fresh water to grant a water allocation to the applicant. Major new developments must finance additional water supply.⁶¹

⁶¹ Interviews with Avalon Assistant City Manager Pete Woolson, Island Company President Ron Doult, Southern California Edison Manager Gary Huffman, 2003.

Hamilton Cove Associates, developers of the largest recent development on Catalina, financed the seawater desalination plant in order to build out 330 residential units.⁶² The development only required a portion of the fresh water produced by the desalination plant, hence additional water was made available for applicants on the Fresh Water Allocation waiting list.

Currently, major proposed developments include an addition of 88 units at Hamilton Cove and a 100-250 room resort at Descanso Beach with support housing for workers in Bird Park. These projects would require development of additional water resources. The developer must finance expansion of the local water supply to increase the safe annual fresh water yield of the island, and receive approval from the Public Utilities Commission before construction may commence. SCE reports that it has hired a consultant to study the costs of expanding the current desalination capability on the Island.

The first service challenge relates to the effect of the available water supply on solid waste service adequacy. As discussed later in the report, the Los Angeles County Department of Health Services recently inspected the Avalon disposal site, and raised concerns about the failure to compost adequately. In response, the City raised concerns about water conservation and the fact that composting was precluded at that time by phase-one water rationing. It is unclear how Avalon will accommodate the competing concerns of fresh water scarcity and landfill space scarcity.

A second service challenge relates to the lack of saltwater availability above 170-foot elevation and in the proposed SOI expansion area. The City Manager reports that saltwater service in the SOI expansion area is currently impractical due to the cost of building another saltwater intake and pipelines, and relatively low water usage in that area. Hence, the City is accommodating with fresh water the needs at the landfill and would use fresh water for toilet-flushing purposes if City warehouses are constructed in the SOI expansion area in the future.

A third service challenge relates to inadequacy of the water system for the flow needed for fire suppression. In Avalon, the City has budgeted \$1 million to develop a master plan of fire flow including salt water and fresh water systems over the next two fiscal years. In the Two Harbors community, the property owner is not currently expanding development because its resources are focused on development of properties in Avalon.⁶³

Policy Alternatives

Seawater desalination is cheaper than barging water in from the mainland in many island environments.⁶⁴

Currently, there are no retail water demand forecasts prepared for Catalina Island. However, SCE reported that it has retained a consultant to assess growth and the cost of expanding seawater

⁶² Hamilton Cove Associates originally sought approval for 425 units, but only 330 units were approved by the California Coastal Commission.

⁶³ Interview with Island Company President Ron Doust, 2003.

⁶⁴ Catalina Island, St. John in the U.S. Virgin Islands, and various island installations of the U.S. Navy (including St. Nicholas) have switched from barged water to seawater desalination in order to reduce costs. San Clemente Island continues to rely on barged water because the barge also brings other needed supplies and, therefore, barged water continues to be more cost-effective under this unique arrangement.

desalination capabilities. Due to economies of scale in desalination costs, incremental increases in seawater desalination to accommodate major development projects may not be the most cost-efficient approach to growth on the island.

The major stakeholders on Catalina have expressed interest in further development.⁶⁵ SCE's current efforts to begin forecasting water demand and estimate the costs of expanding the water supply could form the groundwork for the major stakeholders on Catalina—SCE, the City of Avalon, and the Island Company—to initiate efforts to consider and address the relationship between growth, water supplies and water costs.

The City should consider the significant freshwater needs of development in areas above the elevation of the saltwater reservoirs.

WASTEWATER

Wastewater service on Catalina Island is provided by the United Water Company in Avalon, and by Two Harbors Enterprises in the Two Harbors community. Outside these areas, the property owner or leaseholder is responsible for disposing of wastewater.

Service Demand

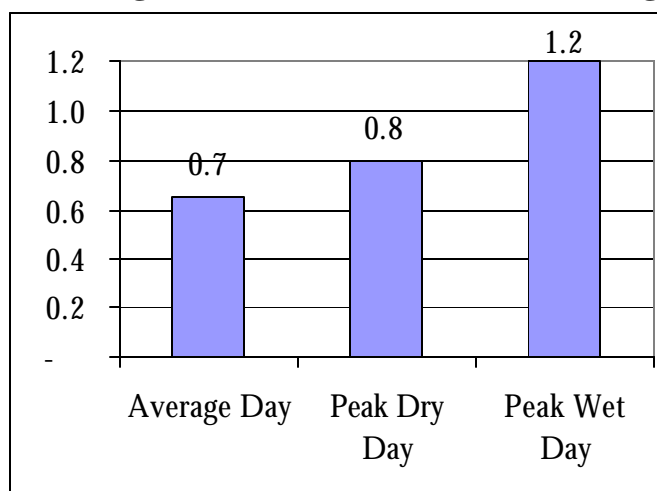
Wastewater demand is affected primarily by growth in the residential and visitor population as well as rainfall.

The Avalon Wastewater Treatment Facility (AWTF) receives freshwater and saltwater used indoors. To protect Avalon Harbor, the plant treats dry weather surface runoff, which is pumped from the storm drain to the treatment plant via a low flow diversion system.

The plant has an average dry weather design treatment capacity of 1.2 million gallons per day (mgd). Peak demand occurs on rainy days when the plant is pushed to its capacity. Peak dry weather demand in Avalon typically occurs on the 4th of July weekend, with 0.8 mgd in 2003. By comparison, the annual average daily discharge was .65 mgd this year and .56 mgd in 2000.

In Two Harbors, the Two Harbors Sewage treatment plant has a design capacity of 57,000 gallons per day. Peak demand occurs the first weekend of October when the area hosts its Buccaneer Days festivities. Peak and average demand are unknown.

Figure 3-7: Avalon Wastewater Demand (mgd)



⁶⁵ See growth areas discussed in Chapter 1.

Service Standards

For wastewater service, the most appropriate benchmarks for evaluating service adequacy are the number of spills, regulatory sanctions, and pollution of the water and air.

Service Adequacy

For the purposes of this MSR, service adequacy is gauged based on spills, regulatory sanctions and pollution.

Avalon

There have been several raw sewage discharges from the City's collection system and pumping stations, but there has not been a spill related to exceeding capacity at the AWTF itself over the last five years.

Table 3-8: Avalon Sewage Spills (gallons)

The most significant spills occurred in 2001 due to electrical malfunction at the Pebbly Beach Lift Station. The California Regional Water Quality Control Board cited the City for failure to provide emergency power facilities at the lift station in violation of its permit. The City subsequently installed back-up power generators at the lift stations, and paid the \$36,244 fine.⁶⁶ The Board renewed the City's NPDES permit subsequent to the 2001 spills.

Date	Cause	Gallons
12/25/1996	Blocked sewer main	Unknown
12/23/1998	Blocked private line	Unknown
2/22/2000	Rock slide breaking force main	<200
10/6/2000	Blocked private line	<100
10/8/2000	Sewer line blockage	<100
3/17/2002	Blocked sewer main	<100
2/25/2001	Lift station electric malfunction	130,000
5/22/2001	Lift station electric malfunction	13,000
5/26/2001	Lift station electric malfunction	750

The Los Angeles County Department of Health Services (DHS) began monitoring Avalon Beach in 1999 on a routine basis as part of AB-411, which increased pollution monitoring at public beaches and set uniform health standards for monitoring programs.⁶⁷ DHS found that water quality often exceeded state pollution standards for beach bathing water. A team of USC and UC Irvine researchers found that decaying sewage pipes in the downtown area adjacent to Avalon Bay had been leaking human waste into the shoreline water. As a result of this research, Avalon officials sliplined the city's sewer lines to seal the leaks; bacteria levels along the shoreline have decreased by more than 50 percent.⁶⁸

⁶⁶ State of California Regional Water Quality Control Board, Los Angeles Region, Complaint No. R4-2003-0001-R in the matter of City of Avalon.

⁶⁷ Assembly Bill 411 was passed in 1997 and codified in California Health and Safety Code §115880.

⁶⁸ Sliplining is a method of rehabilitating sewer pipe by inserting a new liner pipe into the existing pipe.

Two Harbors

In the Two Harbors area, there have been no reported spills. The California Regional Water Quality Control Board fined the Island Company \$127,000 for discharging 21,600 gallons of sludge to an illegal point of disposal between 1997 and 2000.⁶⁹ The Company had reported to the Board that it was disposing sludge in its landfill, although the landfill had been closed in 1995. The Board's inspectors found three-inch thick sludge along an unlined slope near the treatment plant in 2000. Although the inspectors found no evidence of contamination downhill in the town, the inspector expressed concern about the potential for contamination in the town. The Board issued a cease and desist order, prompting the Company to implement methods of preventing the sludge from migrating downhill. The Company now disposes of the sludge by barging it to mainland landfills along with solid waste.

Facilities

Avalon

The AWTF is owned by the City and operated by United Water Company, under contract to the City. The AWTF is located in the industrial area of Avalon on Pebbly Beach Road. The treated wastewater is discharged into the Pacific Ocean through an outfall 400 feet off Pebbly Beach at a depth of 130 feet below the surface.

Raw sewage is pumped from the City to the AWTF through two lift stations. First, the sewage is pumped to the Catherine Lift Station from which the sewage is pumped through one mile of force main to the Pebbly Beach Lift Station. Three pumps transport the sewage from the Pebbly Beach Lift Station to the plant.

The waste flow is unique in that it is approximately 40-50 percent salt water due to the use of saltwater for toilet-flushing in Avalon. Wastewater at the plant is treated through a rotating screen for removal of large particles, a trickling filter and activated sludge reactors. The effluent is chlorinated, and solids are separated. Sludge is dried before being hauled to a landfill.

The goal of the City's capital upgrade plan for the Avalon wastewater system is to maintain and improve the reliability and efficiency of the existing infrastructure and extend its useful life for several years. Considering declining wastewater flow trends at the AWTF over the past few years, the expansion plans of the AWTF have been postponed and the City's focus is on rehabilitation and upgrade efforts at the facility and more generally on the wastewater and saltwater systems. This year, the City is upgrading its sludge drying beds, upgrading a pump station, studying the pumps' electrical requirements, and sliplining the sewer collection system.

Two Harbors

The Island Company owns and, through its subsidiary Two Harbors Enterprises, operates the Two Harbors Sewage Treatment Plant one-quarter mile south of the town of Two Harbors. Sewage treatment consists of aeration in two small treatment plants. Sludge generated in these plants is dried and barged to mainland landfills. Effluent from the treatment system is chlorinated, pumped into a concrete holding pond, and used for spray irrigation and dust control.

⁶⁹ State of California Regional Water Quality Control Board, Los Angeles Region, Complaint No. 00-102-R in the matter of Santa Catalina Island Company.

The treatment plants have a capacity of 57,000 gallons, and the holding pond has a capacity of 270,000 gallons.

Regional Collaboration

The City of Avalon provides wastewater treatment and disposal service in Avalon, which is a one-hour drive from the Island Company's wastewater treatment service in Two Harbors. The island is separated from mainland wastewater systems.

No opportunities for regional collaboration or shared facilities were identified.

Service Challenges

The Avalon wastewater system's weak points are the Catherine Lift Station which a 1992 EIR described as inadequate to handle additional flows, and the City's leaking sewer pipes in the vicinity of Avalon Bay. The City is addressing both problems in its capital improvement plans this year. The City has already invested a substantial amount in sliplining sewer pipes to reduce pollution in the Avalon Bay, and is continuing this project in the current fiscal year. The City plans to replace the Catherine Lift Station this year.

There have been no sewage spills involving the wastewater plant; the plant has the capacity to process peak demand and is adequate to meet existing demand. With the planned pumping station and pipe upgrades, the Avalon sewer system is expected to accommodate future growth. As sewer fees are based on service costs, there are no financing constraints with respect to wastewater treatment in the event that growth should cause the plant's capacity to be inadequate.

The Two Harbors facility is relatively small and would need to be expanded to accommodate significant growth in this area.

Policy Alternatives

No wastewater policy alternatives were identified.

SOLID WASTE

Solid waste disposal is provided in Avalon by Seagull Sanitation under contract with the City of Avalon. In Two Harbors, the Island Company's subsidiary Two Harbors Enterprises is responsible for solid waste disposal. Outside these areas, the property owner or leaseholder is responsible for disposing of solid waste.

A new regulatory environment has had a profound effect on solid waste disposal on Catalina Island. Solid waste on Catalina Island was burned in landfills until recently. In 1997, the City was cited for violating state regulations that solid waste be disposed unburned.

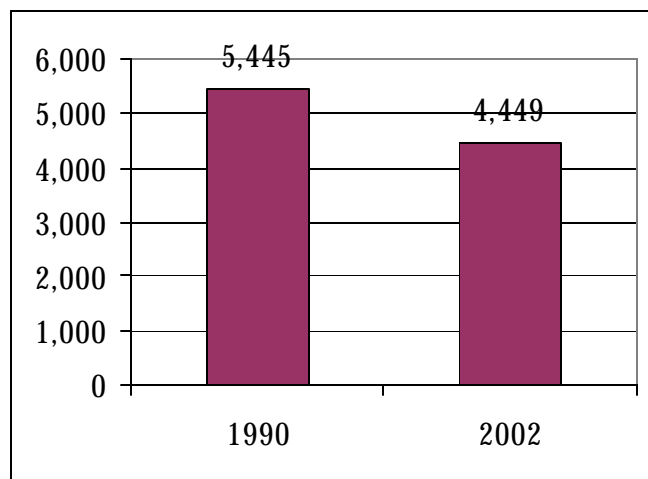
In 1989, California passed historic legislation that sought to radically decrease the amount of materials deposited in the state's landfills. Assembly Bill 939 mandates that cities must have 50 percent less trash going to landfills in the year 2000 than it was estimated to be sending in 1990. Under the law, the state can fine a city \$10,000 a day for failing either to prepare an approved

diversion plan or to make a good faith effort to implement such a plan.⁷⁰ A Senate bill passed in 1997 offers extensions through 2005 to jurisdictions falling short of the AB 939 standards that have made a “good faith effort” to comply.

The Two Harbors Landfill stopped accepting waste in 1995, and closed officially in 1997. The Island Company’s subsidiary now ships its waste by barge to the mainland, where it is disposed in landfills. The Island Company reported that this change in disposal practices increased its infrastructure operating costs by ten percent.

Avalon’s Pebbly Beach landfill successfully converted from burning trash to recycling and placing unburned trash in its landfill. The Avalon City Manager considers this conversion the most significant public works undertaking in recent years. Nonetheless, the City continues to struggle with the challenge of meeting the goal of recycling 50 percent of its waste, given its distance from markets for recycled products and challenges in educating its residents and visitors about recycling.

Figure 3-9: Avalon Trash disposed (tons)



Service Demand

There were 4,449 tons of trash buried in the Pebbly Beach landfill in 2002. Avalon is supposed to reduce the amount of waste buried in the landfill by 50 percent compared with 1990 demand. However, this has proved difficult to measure due to Avalon’s practice of burning trash in 1990.

The California Integrated Waste Management Board permits the landfill to accept 49 tons of trash daily. The landfill inspector estimated that the remaining life of the landfill at current demand levels is approximately 10 to 15 years; however, the lifespan may extend to 20 years or longer due to recently adopted Avalon ordinances prohibiting construction and demolition debris from being put in the landfill and requiring trash separation to improve recycling.⁷¹

Service Adequacy

By 2002, Avalon had succeeded in diverting 47 percent of its solid waste from landfills.⁷² By comparison, the median diversion rate in 2002 in Los Angeles County was 46 percent. Avalon has been allowed an extension on the 50 percent diversion requirement due to good faith effort.

⁷⁰ California Integrated Solid Waste Management Act of 1989, California Public Resources Code §40050 et seq.

⁷¹ Landfill life estimate provided by Pebbly Beach Landfill Manager Duane Stout at LAFCO workshop, April 1, 2004.

⁷² The 2002 diversion rate is preliminary, and has not yet been reviewed and finalized by the California Integrated Waste Management Board (CIWMB). The 2002 diversion rate was calculated by Avalon with the assistance of CIWMB staff, and involves a Board-approved adjustment from the 1990 base year to a base year of 2002.

Facilities

The Pebbly Beach disposal site is located approximately two miles from downtown Avalon in a former hard rock quarry site. The disposal site consists of four facilities—a landfill, a transfer facility, a materials recovery facility (recycling), and a composting facility.

The landfill has a permitted capacity of 143,142 cubic yards and is slated for closure by 2033.⁷³ The trash is offloaded and separated at the transfer facility. The waste is tipped and sorted at the materials recovery facility. Recyclable waste is removed for recycling. Non-recyclable waste is compacted, baled and placed in the landfill.

Compostable material is shredded at the composting facility. The composting operation is slated to accommodate 3,000 cubic yards of material at any time, and will be separated into high quality compost for on-island use and other material to be used as daily cover of the landfill. However, the composting operation is constrained by water scarcity, and has not yet been fully implemented.

Service Challenges

Based on current demand, the estimated 2033 closure date appears optimistic. The landfill will be filled by 2019 if Avalon meets the 50 percent diversion target.⁷⁴ The landfill is located in an abandoned rock quarry. An active rock quarry exists south of the landfill in an area not included in the recommended SOI expansion area. The remaining life of the active quarry is estimated by the Island Company as another 30 or 40 years. Whether or not some portion of the active quarry would become available for landfill purposes in the future and approved for landfill usage is unknown.

The Los Angeles County Department of Health Services (DHS) recently inspected the disposal site, and raised concerns about the failure to compost adequately. In response, the City raised concerns about water conservation and the fact that composting was precluded at that time by phase-one water rationing. It is unclear how Avalon will accommodate the competing concerns of fresh water scarcity and landfill space scarcity.

Policy Alternatives

According to DHS, the County's policy of not authorizing future landfills does not apply to Catalina. Once the island exhausts the Avalon landfill, another landfill will be required and there are no potential sites within the city limits. However, the landfill is not expected to be filled within the next ten years; hence, the impact of future landfill siting decisions is not expected to affect the city limits for at least a decade.

The City of Avalon has recommended that the Pebbly Beach disposal site be included within the Avalon SOI expansion area. If this area were to be annexed, the City would be exempt from property taxation on the disposal site. Further, the City would be able to relocate warehouse facilities

⁷³ The site life projection assumes an average annual quantity disposed of 3,663 cubic yards, which equates approximately with 1,353 tons. The site life projection assume that the base year (1990) waste amount will not be increased; however, the Integrated Waste Management Board determined on July 23, 2002 willingness to adjust the base year to more accurately reflect waste generation on the island.

⁷⁴ Remaining life estimate is based on the assumption that the average pound of trash has a landfill density of 739 pounds per cubic yard—the measure published in National Solid Wastes Management Association Research Bulletin 02-02.

from the vicinity of the school, which would enable expansion of the school facility at its current site.

ELECTRICITY AND GAS

Southern California Edison (SCE) provides electricity island-wide, and provides gas service in Avalon. Electricity and gas do not present significant growth challenges on the Island. Both services are regulated by the California Public Utilities Commission.

SCE's diesel powered generators are housed at its facility on Pebbly Beach Road, which is completely separate from SCE's mainland system. The Generating Station's major equipment systems include six power generating units with a total capacity of 9.3 megawatts and a maximum dependable output of 6.5 megawatts.⁷⁵ The diesel fuel is shipped in by barge from the Port of Los Angeles.

Within Avalon, electrical distribution lines are located both overhead and underground; outside the City, most lines are concealed below ridges. The nominal voltage is 12,000 volts. In the City of Avalon, electric distribution facilities are located in alleys and in underground facilities; outside the City, substations are located at Pebbly Beach and Two Harbors. New developments are required to gain approval from SCE that there is adequate electrical supply for the development, and must provide extension of electrical lines where they are not already constructed. Large new developments may increase Island energy demand beyond current supply. In such case, SCE may require investment in additional generation facilities.

Natural gas is shipped to SCE's Pebbly Beach facility on tanker trucks weekly, with shipments based on expected consumption. The SCE storage tank has a capacity to supply about two months of Avalon's demand for gas. The gas is vaporized and distributed by pipeline through the City of Avalon and adjacent areas. SCE has accommodated development and growth in Avalon by extending the gas main pipelines and increasing gas purchases. Most gas main pipeline extensions are financed directly by SCE. Hence, gas availability and infrastructure does not impinge on Avalon's growth potential.

The fact that gas is not available outside Avalon means that Two Harbors, the private camps and other inland areas rely on their own LPG tanks. The CFPD reported that the reliance on private gas tanks increases fire risks in the inland areas.

⁷⁵ California Public Utilities Commission, Decision 02-04-016, April 4, 2002.

CHAPTER 4: PUBLIC WORKS

This chapter discusses the provision of public works—street maintenance, airport, harbors and transportation—on Catalina Island. The section is designed to address questions relating to the efficiency and adequacy of services, the adequacy of infrastructure, along with opportunities for sharing facilities and reducing costs. The chapter provides an overview of the service configuration, current service delivery challenges, and an analysis of any potential policy alternatives relevant to the particular service.

PARKS

The City of Avalon maintains 3 small parks: Mole Park, People’s Park and City Park. Each has playground equipment and constitutes less than one acre.

In addition, there are two public beaches in Avalon, and several more north of the City.

Approximately 41,000 of the Conservancy’s 42,134 acres are under an open-space easement agreement with LA County. This 50-year agreement was established in 1974 between the Island Company and Los Angeles County before the Island Company transferred the lands to the Conservancy. The agreement provides for recreational access to the island by the public. The Conservancy receives a welfare exemption through which it is exempted from paying certain property taxes on these lands.

The Conservancy provides limited camping and hiking related services on the island. Through Two Harbors Enterprises, it operates Black Jack and Little Harbor campgrounds. Ongoing maintenance costs are paid by the Conservancy. The County has played a role in accessing grant funds for campground refurbishment.

In the Two Harbors area, there is a small park and playground, as well as a number of public beaches and nearby trails.

STREET MAINTENANCE

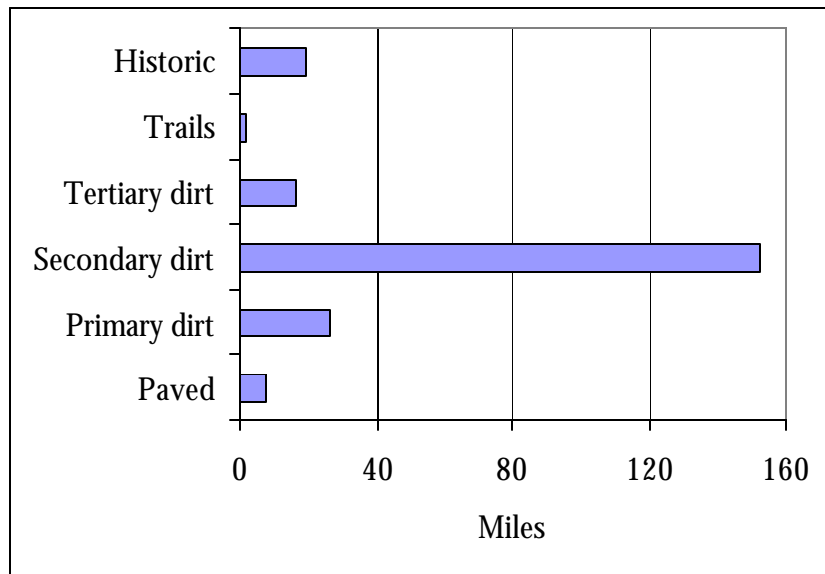
Street maintenance service is provided in unincorporated Catalina by the property owner—typically either the Island Company or the Conservancy.

In Avalon, about two-thirds of the 17.5 miles of paved roads are owned and maintained by the City of Avalon. The remaining 6 miles of Avalon’s roads are owned and maintained by the Island Company, and are being gradually transitioned to municipal ownership and maintenance for several reasons:

1. The City has access to redevelopment agency funding and grants for street maintenance, while the Island Company does not;

2. The City has higher road maintenance standards and spends significantly more on road and maintenance than does the Island Company;
3. The City is responsible for the overall functioning of the stormwater system which is simpler to coordinate with a single set of standards; and
4. The use of separate sets of maintenance crews and equipment is inefficient.

Figure 4-1: Unincorporated Area Roads and Trails, 1997



Outside Avalon, the Island Company and the Catalina Island Conservancy have responsibility for maintenance of 7.4 miles of paved roads—primarily the Conservancy-maintained road between Avalon and the airport. The road is used for emergency access, sightseeing, and other traffic between the airport and the city. This road is generally in poor repair, and the Conservancy has determined that the road would require a \$3-5 million replacement as it has become a patchwork after decades of pothole repair.

In addition, there are 26 miles of primary dirt roads to which the public is granted access through road permits or sightseeing operations. Only Conservancy, utility and emergency response vehicles have access to 152 miles of secondary and 17 miles of tertiary dirt roads. Finally, there are trails and historic roads that have not been precisely mapped.⁷⁶

Service Challenges

Maintenance standards are poor and financing is scarce for privately-owned roads on the island. There are six miles of such roads in the Avalon city limits, and these are being transitioned from the Island Company to the City of Avalon.

The paved road connecting the City of Avalon to the airport is in poor repair. The Catalina Island Conservancy does not have access to public street funding sources. The Conservancy has the right but not the obligation to improve, maintain or repair the roads per the agreement granting land to the Conservancy. The Conservancy reported that it is seeking assistance from other government agencies reliant on the road, specifically the City of Avalon and the County of Los Angeles.

⁷⁶ Bushing, et al., 1997.

The Conservancy has received property tax-exempt status for much of its land due to its agreement with L.A. County providing for recreational public access to the island's interior and beaches. This access would not be available without roadway and trail access to the island's beaches and campgrounds.

Policy Alternatives

The non-profit Conservancy is not the ideal caretaker of the paved road between the airport and the City of Avalon. Other roads maintained by the Conservancy are not critical to public services. If another government agency were to take lease and operate the airport, an alternative service arrangement for maintenance of the road should be considered.

STORMWATER

The City of Avalon provides stormwater maintenance service within Avalon. Stormwater infrastructure does not exist outside the City, where stormwater is allowed to drain directly into the ocean.

A large portion of the developed area of Avalon is located within the Avalon Canyon floodplain, where soil has moderately low infiltration rates and moderately high runoff rates. During the rainy season between December and March, drainage flows to the valley floor in the golf course and is then directed through swales into a channel that runs along the eastern side of Avalon Canyon. In order to protect the quality of water in Avalon Bay, the City directs drainage runoff from all the mains in the City via gravity flow to the wastewater treatment facility.

Development tends to increase runoff when the area of paved surfaces is increased, as the stormwater is unable to seep into the soil. The City requires developers to mitigate flood effects to the standards established by FEMA in its study of flooding in the Avalon vicinity. With respect to proposed development, the City has conducted an EIR and established flood drain standards and requirements to mitigate the impact.

TRANSPORTATION

AIRPORT

The airport is located in the middle of the island. It was built by the Wrigley family immediately after World War II, and was transferred from the Island Company to the non-profit Conservancy in 1972.

The airport is used by private pilots as well as for commercial freight purposes. Catalina Flying Boats, a subcontractor to Federal Express and UPS, brings overnight shipments to the island by landing DC-3s at the airport. Catalina Flying Boats brings perishables to the camps, and carries 30,000 lbs. at its summer peak including furniture, online orders, and catalog orders.

Service Challenges

Although the Conservancy levies landing fees on the pilots, the airport does not currently supply airplane fuel as do many other resort community airports, and is operating at an annual loss of approximately \$25,000. The Conservancy reports that the runway is in such poor condition that Catalina Flying Boats is restricted to landing on the ground next to the runway, and that \$2 million is needed to rebuild the runway. Further, the Conservancy reports that it cannot access Federal Aviation Administration (FAA) grant funds for runway repair because it is not a local government agency.

Helicopter travel for tourists and barge shipment for freight are existing alternatives to airplane transportation.

Policy Alternatives

Runway construction could be financed by an FAA grant only if the airport were operated and held as a leasehold of a government agency. The Conservancy is exploring leasing of the airport to the City of Avalon, the County, or to an airport district.

Receipt of FAA funds is contingent upon a long-term agreement to keep the airport open. No government agency would be likely to undertake operation of the airport unless the airport is capable of sustaining itself financially.

Airport districts exist in other California resort towns such as Truckee and Big Bear, where FAA grant funds have been used for runway renovation, street maintenance and other improvements. Formation of an airport district would require an application, LAFCO approval, and approval by the majority of voters in the district.

HARBORS

The City of Avalon owns and maintains the Avalon Harbor. The Island Company provides harbor infrastructure and services to Isthmus and Catalina Harbors in the Two Harbors area. Maintenance of recreational harbors involves providing a harbor master, harbor patrols, transportation service between boats and the pier, pier and ramp maintenance, mooring maintenance, marine fuel, fresh water and solid waste collection.

The Avalon Harbor Department collects wharfage fees from the ferry and cruise ships bringing visitors to the island, in addition to mooring fees. Fees are used to defray the cost of providing police, fire, solid waste, beach maintenance and other municipal services in the harbor.

SERVICES

Transportation services on the island are provided by the City of Avalon and private companies for access and site-seeing purposes. Transportation providers are regulated by the California Public Utilities Commission.

CHAPTER 5: CONCLUSIONS

This chapter sets forth recommended findings with respect to the nine service-related evaluation categories based upon this review of municipal services for Santa Catalina Island. Further, this chapter sets forth recommended findings with respect to the four agency-specific determinations related to updating the sphere of influence for the City of Avalon.

INFRASTRUCTURE NEEDS OR DEFICIENCIES

This determination refers to the adequacy of existing and planned public facilities in accommodating future growth and the efficient delivery of public services. The adequacy of public facilities depend on supply factors—location, regulatory and environmental constraints on the facility, capacity, condition, and other quality indicators—and demand factors—current and future customer base size, customer characteristics affecting service demand, proximity to related service providers like hospitals, and complexities such as terrain and elevation. In addition, the analysis considered infrastructure duplication among neighboring providers.

Police Service

In police service, the dispatch technology was described as outdated by comparison with the mainland; however, the dispatch system is currently being modernized by the Sheriff through grant funds received by the Avalon Fire Department. The Sheriff is in the process of replacing 911 equipment, placing the emergency communication system on the same standard as all other Sheriff stations, and has recently implemented Emergency Medical Dispatch (pre-arrival instructions for those witnessing emergency medical events) services for 911 callers on the island. Until recently, the Sheriff had not received remuneration from the other agencies—Avalon and CFPD. The Sheriff should investigate a formalization of the dispatch collaboration in order to ensure fair and adequate funding of dispatch modernization efforts in the future.

Fire and Paramedic Service

Within the City of Avalon, where most incidents occur, the primary facility challenges relate to inadequate water flow in certain areas for fire-fighting and the currently inadequate fire station. Both problems are being addressed by the City. The fire station is being relocated to a new facility in April 2004. The City has upgraded its saltwater distribution system which is used for suppressing fires below an elevation of 170 feet, and is installing freshwater fire hydrants in newly developed areas above that elevation.

In the community of Two Harbors where most unincorporated area incidents occur, the primary facility challenge is a lack of garage facilities for the three emergency response vehicles assigned to the area. The CFPD personnel recommended that the Two Harbors facility be replaced with a new garage to accommodate all three vehicles.

Water

The most significant infrastructure deficiency relates to inadequacy of the existing fresh water supply to accommodate growth on the Island. New development may not occur without verification of adequate water supplies and extension of water mains. Major new developments must finance additional water supply.

Currently, major proposed developments include an addition of 88 units at Hamilton Cove and a 100-250 room resort at Descanso Beach with support housing for workers in Bird Park. These projects would require additional water production facilities to be added. The developer must finance an increase in the safe annual fresh water yield of the island, and receive approval from the Public Utilities Commission before construction may commence.⁷⁷ SCE reports that it has hired a consultant to study the costs of expanding the current desalination capability on the Island.

A second infrastructure deficiency relates to the lack of saltwater availability above 170-foot elevation and in the proposed SOI expansion area. The City Manager reports that saltwater service in the SOI expansion area is currently impractical due to the cost of building another saltwater intake and pipelines, and relatively low water usage in that area. Hence, the City is accommodating with fresh water the needs at the landfill and would use fresh water for toilet-flushing purposes if City warehouses are constructed in the SOI expansion area in the future.

A third infrastructure deficiency relates to inadequacy of the water system for the flow needed for fire suppression. In Avalon, the City has budgeted \$1 million to develop a master plan of fire flow including salt water and fresh water systems over the next two fiscal years.

Wastewater

The Avalon wastewater system's weak points are the Catherine Lift Station which a 1992 EIR described as inadequate to handle additional flows, and the City's leaking sewer pipes in the vicinity of Avalon Bay. The City is addressing both problems in its capital improvement plans this year. The City has already invested a substantial amount in sliplining sewer pipes to reduce pollution in the Avalon Bay, and is continuing this project in the current fiscal year. The City plans to replace the Catherine Lift Station this year.

There have been no sewage spills involving the wastewater plant itself lacking the capacity to process peak demand, hence the plant is adequate to meet existing demand. With the capital upgrades being planned, the Avalon sewer system is expected to accommodate future growth.

The Two Harbors facility is relatively small and would need to be expanded to accommodate significant growth in this area.

Solid Waste

The Los Angeles County Department of Health Services recently inspected the Avalon disposal site, and raised concerns about the failure to compost adequately. In response, the City raised concerns about water conservation and the fact that composting was precluded at that time by

⁷⁷ The CPUC provides a method for developers to contribute to the development of new fresh water resources.

phase-one water rationing.⁷⁸ It is unclear how Avalon will accommodate the competing concerns of fresh water scarcity and landfill space scarcity.

Streets

The majority of the paved roads within Avalon are owned and maintained by the City of Avalon. Both police and fire service providers in Avalon reported difficulty with service on Middle Terrace Road because the road is so narrow and steep that they have difficulty turning around their vehicles there.

The privately-owned paved roads in and near Avalon are not well-maintained. There are six miles of such roads in the Avalon city limits, and these are being transitioned from the Island Company to the City of Avalon.

The paved road connecting the City of Avalon to the airport is owned and maintained by the Conservancy and is in poor repair. The road is used for emergency access, site-seeing, and other traffic between the airport and the City. The Conservancy has determined that the road would require a \$3-5 million replacement as it has become a patchwork after decades of pothole repairs. The Conservancy does not have access to public street funding sources, and faces financing constraints with respect to replacing the road. The Conservancy reported that it is seeking assistance from other government agencies reliant on the road, specifically the City of Avalon and the County of Los Angeles.

Airport

The Catalina Island Conservancy reported that the island's airport runway is in poor repair and that it would cost \$3.5 - \$5 million to rebuild the runway and taxiway.⁷⁹ The Conservancy does not have access to FAA grant funding, and faces financing constraints with respect to replacing the runway. The Conservancy reported that it is reviewing several options for leasing the airport to a government agency that would have access to grant funding.

GROWTH AND POPULATION PROJECTIONS

This determination refers to the expected demand for services within the particular area, as measured by current and future population. The report provided evidence as to population and other measures of service demand on the island, as well as projected growth over the next 20 years.

There were 3,127 people in Avalon, 268 in Two Harbors, and 301 scattered throughout the remainder of the island in April of 2000.

⁷⁸ The inspection occurred just prior to the November 2003 initiation of service by the new seawater desalination facility and to the onset of the winter 2003-04 rainy season.

⁷⁹ Estimate provided by Conservancy Chief Financial Officer in interview with author. Note that this estimate does not include other improvement costs associated with meeting FAA standards.

On a peak day with a cruise ship visit, the Avalon population may as much as quadruple. On an average day, there are more visitors than there are residents due to cruise ship visitors and other day-trippers. The Two Harbors population may increase by a factor of nearly 20 on a peak summer day.

Major proposed developments in Avalon include addition of 88 units to the coastal Hamilton Cove development and a 100-250 room resort at Descanso Beach with support housing for workers in Bird Park. In order to be built, these projects would require additional water production facilities to be constructed at the developers' expense.

The Avalon population is projected to grow to 3,401 by the year 2010 and to 3,837 by the year 2025. The projected annual growth rates for Catalina are comparable to the projected growth rates for the county as a whole, except that SCAG expects Catalina to grow at a much faster rate between 2005 and 2010 than the county as a whole. Whether or not this forecast is likely to be accurate will depend on Catalina's continued success in attracting the tourist population, and on the development of new fresh water resources.

Police Service

Serious crime tends to vary over the course of the business cycle, rising along with unemployment. Crime and calls for police service on Catalina Island have declined in recent years. Over the same time period, the resident population has increased and the visitor population has decreased. The visitor population has declined somewhat since the year 2000 when one of the two ferry lines ceased operations. Serious crime has also decreased on the mainland despite a growing population; however, vehicle offenses and misdemeanors have increased on the mainland. Hence, calls for police service are expected to grow over the coming years along with population growth, particularly during times of relatively high unemployment.

Fire and Paramedic

The fire and paramedic providers on the island perceived the number of service calls as increasing over the last five years. The CFPD Baywatch units reported that demand for paramedic service had increased due to an increase in year-round use of camps along the shore as well as an increase in year-round use of the USC research facility at Two Harbors.

Similarly, the Avalon Fire Department and the CFPD reported an increase in service demand in the last five years. The CFPD reported that the trend toward year-round use of the private camps is expected to continue to increase its workload in providing fire protection and inspection service in the unincorporated areas of the island. The CFPD expects that the Conservancy's efforts to reduce the number of non-native wild goats, pigs and buffalo on the island will increase the amount of grass—fuel for brush fires.

Water

In addition to residential population growth, water demand is affected by the visitor population, economic growth among commercial and agricultural water users, temperature, rainfall, household size, conservation efforts, and pricing. Southern California Edison reported that it does not currently have a retail water demand forecast for the island.

Fresh water consumption on the island declined between 2001 and 2002. The demand for water is regulated through development limits and water pricing on the island; in addition, water rationing is imposed on the island when groundwater supplies fall below a certain level.

Wastewater

Wastewater service demand is affected by growth in the residential and visitor populations as well as rainfall. Wastewater demand at the Avalon Wastewater Treatment Facility has declined over the past few years. Wastewater demand is expected to grow over the next several years along with the population.

Solid Waste

The amount of solid waste disposed has declined over the last decade. Assembly Bill 939 mandates that cities must have 50 percent less trash going to landfills in the year 2000 than it was estimated to be sending in 1990. By 2002, Avalon had succeeded in diverting 47 percent of its solid waste from landfills. Solid waste demand is expected to decline in the coming years.

Parks

The use of parks in Avalon is expected to increase along with the projected residential population, particularly as the number of children increases.

Street Maintenance

The use of streets on the island is limited by the relatively low number of autos and trucks; however, the streets are also used by golf carts, pedestrians and bicyclists particularly in the Avalon vicinity. The use of streets is expected to increase along with the projected residential population and to also be affected significantly by the visitor population.

Stormwater

The demand for stormwater facilities in Avalon is related to population growth as well as rainfall and the proportion of the surface paved. There are no stormwater facilities outside Avalon.

Airport

Assuming that airport runway and airport access road deficiencies and financing constraints are addressed, the use of the airport for freight service is expected to increase along with the residential population and visitor population. The use of the airport by private pilots is expected to be affected by the visitor population and the use of alternative transportation by helicopter, ferry and private boats.

FINANCING CONSTRAINTS AND OPPORTUNITIES

Under this determination, a community's public service needs are weighed against the resources available to fund the services. The municipal service review identified the financing constraints and opportunities that have an impact on the delivery of services.

Street maintenance services and airport runway rehabilitation are financed by private owners without access to public grant funds. The airport is owned by the non-profit Conservancy. A substantial portion of the streets in Avalon are owned by the Island Company, and the streets in unincorporated Catalina are owned by the Conservancy and the Island Company.

The Consolidated Fire Protection District identified financing constraints due to budget cutbacks as an obstacle to both increased staffing in Two Harbors and construction of a shared garage facility at Two Harbors.

COST AVOIDANCE OPPORTUNITIES

This determination relates to identifying service duplication issues, inefficiencies related to overlapping boundaries, and cost reduction opportunities related to economies of scale. The municipal service reviews shall identify cost avoidance opportunities by assessing duplicative services, duplicative costs, and other inefficiencies.

Fire

The City of Avalon could reduce its own and the CFPD's fire response costs by reviewing its fire alarm monitoring system and implementing effective false alarm fees.

OPPORTUNITIES FOR RATE RESTRUCTURING

Under this criterion, LAFCO might recommend sphere of influence changes, consolidations or other reorganizations that would reduce service costs to constituents.

Municipal service reviews describe the existing rate structure and compare it with those of neighboring service providers, where relevant. Service reviews identify strategies for rate restructuring, which would further the LAFCO mission of ensuring efficiency in providing public services. Further, the service review will assess conditions that may impact future rates. The service review may identify opportunities for rate reductions through annexations or other reorganizations.

In the context of Catalina Island, there were no neighboring service providers for purposes of rate comparisons or for purposes of assessing consolidations or other reorganizations. The island's water, wastewater and solid waste systems are geographically removed from other service providers and exist in a unique environment due to the island's isolation. Hence, rates are not comparable to other jurisdictions in the County of Los Angeles.

Water

Proposed development projects with significant fresh water needs are generally required to finance fresh water resources in order to ensure adequate water supply. An incremental approach to development may not consider the significant economies of scale in seawater desalination; a larger desalination plant would most likely deliver water at lower rates. SCE recently began to assess the fresh water system and future water needs, and is in the process of developing a long term strategy for upgrade plans that are consistent with growth requirements on the island.⁸⁰

OPPORTUNITIES FOR SHARED FACILITIES

Under this determination, LAFCO may consider how sphere of influence changes could create better opportunities for agencies to share facilities and eliminate costly duplications of service. The service review identified facilities used by local government agencies providing municipal services on the island as well as contract service providers. The service review evaluated whether efficiencies can be achieved by accommodating the facility needs of adjacent agencies, and assessed the compatibility between the facility needs of neighboring service providers. Options for planning for future shared facilities and services were also considered.

Fire and Paramedic Service

The City of Avalon's new city hall and fire station includes housing facilities that could potentially be shared with CFPD relief and seasonal personnel. This opportunity is being discussed in contract negotiations between the CFPD and the City.

CFPD fire and paramedic operations in Two Harbors could potentially share a facility to protect emergency response vehicles from the elements. The CFPD has identified financing constraints as an obstacle to construction of a shared facility, but has also indicated that the option is being considered.

GOVERNMENT STRUCTURE OPTIONS

Although the objective of the service review is to update spheres of influence, LAFCO may determine that another type of policy change under its jurisdiction is warranted. LAFCO is empowered to initiate certain reorganizations such as district consolidation, dissolution, mergers and subsidiary district (Government Code §56375(a)). The Legislature has also encouraged the Commission to recommend governmental reorganizations to particular agencies in the county, using the spheres of influence as the basis for those recommendations (Government Code §56425 (g))

No policy alternatives were proposed by the affected agencies. The service review identified four government structure options.

⁸⁰ Letter from Southern California Edison's Catalina Island Utilities Manager Rosemary Rohaley to LAFCO, April 16, 2004.

Annexation of Avalon to the CFPD

It would be more efficient for the CFPD to provide service island-wide including the City of Avalon. The City of Avalon would likely pay more for service under such an arrangement due to the higher employee compensation rates at the CFPD compared with the City of Avalon. Further, the City wishes to maintain an independent fire department. Hence, annexation of Avalon to the CFPD would not likely be supported by the City.

Santa Monica Mountains RCD Detachment

The Santa Monica Mountain Resource Conservation District's mission duplicates the mission of the non-profit Santa Catalina Island Conservancy—the owner of 88 percent of the island. However, the RCD does not receive any property tax revenue from the Conservancy or other property owners on the island. Neither the Resource Conservation District nor the Conservancy has suggested or recommended detachment of the unincorporated portion of Catalina Island from the Santa Monica Mountain RCD.

Two Harbors Incorporation

The Two Harbors community is owned by a single property owner—the Island Company. The town is too small to consider incorporation as its population is less than 500. Further, the town lacks the infrastructure to reach the minimum population level for cityhood consideration. Although the town management is not accountable to residents—primarily its own employees—under the current governance structure, the town does not appear likely to qualify for cityhood consideration in the next twenty years.

Airport District Formation

The Conservancy faces financing constraints with respect to rehabilitation of the airport runway and replacement of the access road. If the airport were leased to a government agency, there would be opportunities to access FAA grant funds to finance infrastructure deficiencies. The Conservancy is exploring options to lease the airport to the City of Avalon or the County of Los Angeles. If those efforts prove unsuccessful, the Conservancy might consider formation of an airport district.

EVALUATION OF MANAGEMENT EFFICIENCIES

Where there are other potential service providers, the municipal service review shall consider the effectiveness of an agency's internal organization to provide efficient, quality public services. Efficiently managed agencies contain costs and deliver adequate services.

The City of Avalon is generally an efficiently-run city that conducts workload monitoring, benchmarking studies, and financial analysis.

LOCAL ACCOUNTABILITY AND GOVERNANCE

This determination encompasses multiple policy-making goals. In evaluating spheres of influence and other potential reorganizations, LAFCO will consider which agency best meets the

needs and desires of affected residents. In considering local governance issues, LAFCO will solicit and give great weight to the policy proposals initiated by the affected agency. In determining which agency is best poised to serve unincorporated territory, LAFCO shall also give weight to each agency's accountability to affected residents.

The service review documented the agency's form of governance, accountability to constituents and contract service recipients. The service review documented the agency's cooperation with LAFCO's requests for information as an indicator of its public accountability.

The service review assessed the City of Avalon's decision-making and operational and management processes, and found that the City of Avalon:

- (1) includes an accessible and accountable elected or appointed decision making body and agency staff;
- (2) encourages and values public participation; and
- (3) discloses budgets, programs, and plans.

The service review assessed policy proposals initiated or suggested by the affected agency. The City of Avalon recommended that its sphere of influence be expanded to include its landfill site and adjacent areas in which the City may relocate its warehouse facilities in order to provide expansion room for the school. Avalon's recommendation is discussed further in the subsequent chapter relating to the sphere of influence determinations.

AVALON SOI UPDATE

The City of Avalon has requested that its sphere of influence be expanded to include an uninhabited industrial area southwest of the city limits where its solid waste disposal site is located, as depicted in Figure 1-7. The City's warehouses may also be relocated to this area to create more space for expansion of the Avalon School. The City of Avalon and the Santa Island Company are the only property owners in the recommended SOI expansion area, and both agree to the SOI expansion recommendation.⁸¹

The landfill is owned by the City of Avalon, while the immediately adjacent areas are owned by the Island Company. The adjacent areas include properties currently held by the Island Company that are being considered for transfer and use by the City for warehousing purposes. Relocation of the city's current warehouse facility, currently located near the Avalon School, would create more space for expansion of the school facility and would place the warehouse in the more industrial area southeastern portion of the city.

Land Uses

The present and planned land uses in the area, including agricultural and open-space lands, is the first factor that LAFCO must consider. The recommended SOI expansion area is zoned for

⁸¹ The property owner's agreement with the recommended sphere of influence expansion is indicated both by the City Manager's correspondence and by personal interview.

industrial use. There is an eight-acre solid waste disposal facility in the SOI expansion area. There is a canyon on the city's current boundary in this area that is a potential site for municipal warehouses.

There is no present or planned change in the industrial zoning for the SOI expansion area in the City's General Plan.

Service Needs

The present and probable need for public facilities and services in the area is the second factor that LAFCO must consider.

The fresh water flow to the SOI expansion area is limited. Saltwater service is not available in this area.

The street in the SOI expansion area is privately owned and unpaved, although it is traveled heavily by residents transporting items to the disposal site. Transfer of this road to the City of Avalon would improve safety and decrease vehicle maintenance costs.

Service Adequacy

The present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide is the third factor that LAFCO must consider.

The road maintenance service provided by the City of Avalon achieves a higher service level than the service currently provided in the SOI expansion area by the Island Company.

If annexed, fire suppression to the SOI expansion area would be provided by the City of Avalon, with one of the four deployed firefighters provided by the CFPD through automatic aid. The area is currently served by the CFPD using 1-2 professionals, patrol firefighters, and mutual aid from the City of Avalon. The quality of fire service in the proposed SOI expansion area is not expected to decline as a result of the proposal.

Communities of Interest

The existence of any social or economic communities of interest in the area (if the commission determines that they are relevant to the agency) is the fourth factor that LAFCO must consider.

The SOI expansion area is located in an industrial community including the water utility, electric utility, wastewater treatment facility, and landfill.

The City of Avalon indicated that the quarry leasehold, which is located south of the proposed sphere expansion area, should not become part of the City's sphere of influence until the distant future when quarry operations cease. The quarry is owned by the Island Company, and is leased to the Connolly-Pacific Company for extraction of rock for breakwater and other construction purposes. The property owner predicted that the quarry may have 40 years remaining in its productive life.

Within the quarry lies a water well that is owned by Southern California Edison and used for extracting seawater for conveyance to the desalination plant.

Other lands in the vicinity of the recommended sphere expansion—along Renton Mine Road—are owned by the Catalina Island Conservancy, and are designated for conservation and recreation purposes under the Williamson Act. Those lands, however, are generally uphill from the SOI expansion area, would not be affected by an increase in industrial use in the SOI area, and are not included in the SOI expansion area.

The coastal accretions in the area are under the jurisdiction of the State Lands Commission.⁸² Annexation of the recommended sphere expansion area would require not only the approval of LAFCO, but also the approval of the California Coastal Commission.

RECOMMENDATION

It is recommended that LAFCO expand the City of Avalon's SOI to include an uninhabited industrial area southwest of the city limits where the City's solid waste disposal site is located, as depicted in Figure 1-7.

⁸² Coastal accretions are areas above sea level that were formed in a process that is the opposite of erosion by the gradual addition of material to pre-existing material.

CREDITS

As the first of a series of municipal service review (MSR) reports for different areas of the County of Los Angeles, this report benefited greatly from the guidance of the LAFCO Executive Officer Larry Calemine. County Counsel provided legal analysis and review. LAFCO staff prepared all maps in this report, and provided questionnaire administration and database support. The County of Los Angeles CAO's Urban Research Division assisted with parcel-based map verification and preparation of the geographic basis for demographic estimates.

The City of Avalon City Manager Robert Clark was instrumental in the expeditious preparation of the report by organizing and hosting interviews with the various department heads at the City of Avalon, and providing the author with access to the agencies, numerous documents and tours of various facilities. The County of Los Angeles Sheriff's Department and Fire Department were equally generous with their time and care in explaining service delivery in the unique island environment.

Beverly Burr authored this report with the assistance of Cecelia Griego.

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DATA SOURCES

Crime: Los Angeles County Sheriff Department; California Department of Justice

Demographic Data: U.S. Bureau of the Census

Maps: LAFCO archives; Los Angeles County Public Works Department; Thomas Brothers

Population Projections: Southern California Association of Governments, Regional Transportation Plan, 2001

Property Ownership: Los Angeles County Assessor

Registered Voters: California Secretary of State

Road Miles: Santa Catalina Island Conservancy

Solid Waste Data: California Integrated Waste Management Board

Visitor Counts: Catalina Island Chamber of Commerce & Visitors Bureau

Wastewater Data: California Regional Water Quality Control Board; U.S. Environmental Protection Agency

Water Consumption: Metropolitan Water District of Southern California; Southern California Edison

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