LOCAL AGENCY FORMATION COMMISSION OF NAPA COUNTY

LAKE BERRYESSA REGION: MUNICIPAL SERVICE REVIEW

Agencies Evaluated:
Lake Berryessa Resort Improvement District
Napa Berryessa Resort Improvement District
Spanish Flat Water District

Final Report
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Prepared By:

LAFCO of Napa County
1700 Second Street, Suite 268
Napa, California 94559
http://napa.lafco.ca.gov

Committed to serving the citizens and government agencies of its jurisdiction by encouraging the preservation of agricultural lands and open-space and coordinating the efficient delivery of municipal services.

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Brendon Freeman, Staff Analyst
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TABLE OF CONTENTS

Section	Page
I. INTRODUCTION	
A. Local Agency Formation Commissions…….....	**4**
B. Municipal Service Reviews ……..…….....	**4**
C. Lake Berryessa Region…….……...……	**5**
II. EXECUTIVE SUMMARY	
A. Overview……	**8**
B. Determinations……	**9**
Growth and Population Projections…….....	9
Present and Planned Capacities of Public Facilities……	11
Financial Ability of Agencies to Provide Service…….	14
Status and Opportunities for Shared Facilities……...…….	14
Accountability for Community Service Needs……	15
Relationship with Regional Growth Goals and Policies…….....	17
III. AGENCY PROFILES	
A. Lake Berryessa Resort Improvement District (LBRID)	**18**
Overview…….....	18
Formation and Development…….....	18
Adopted Commission Boundaries……...	21
Population and Growth……...	22
Organizational Structure……	23
Municipal Services…….....	24
Financial……	30
B. Napa Berryessa Resort Improvement District (NBRID)	**36**
Overview…….....	36
Formation and Development…….....	36
Adopted Commission Boundaries……...	39
Population and Growth……...	40
Organizational Structure……	42
Municipal Services…….....	43
Financial……..	51
C. Spanish Flat Water District (SFWD)	**54**
Overview…….....	54
Formation and Development…….....	54
Adopted Commission Boundaries……...	56
Population and Growth……...	58
Organizational Structure……	60
Municipal Services…….....	61
Financial……	72

IV. SOURCES
A. LBRID…….…… 76
B. NBRID…….. 78
C. SFWD…..…….. 80

APPENDICES **No.**
Government Code Section 56430…… A
Commission Policy on Municipal Service Reviews……... B
Memorandum on Other Municipal Services in Region……. C
Senate Bill 1023 (Patricia Wiggins), Chaptered July 9, 2010……. D
Comparison Table: RIDs v. CSDs……... E
Correspondence from NBRID, Dated November 9, 2010…….. F
Correspondence from the Pensus Group, Dated November 29, 2010. G
Correspondence from NBRID, Dated March 3, 2011……. H
Correspondence from USBR, Dated March 10, 2011……... I
Correspondence from NBRID, Dated March 15, 2011…… J
Correspondence from NBRID, Dated March 25, 2011…… K
Full Page Map of LBRID……. L
Full Page Map of NBRID…… M
Full Page Map of SFWD…….. N
Regional Comparisons in Region: Fact Sheet……... O

FIGURES **Page**
1. Map of Lake Berryessa Region…….....… 6
2. Vicinity Map of LBRID……... 21
3. Vicinity Map of NBRID……... 40
4. Vicinity Map of SFWD……...…..…… 57

I. INTRODUCTION

A. Local Agency Formation Commissions

Local Agency Formation Commissions (LAFCOs) are political subdivisions of the State of California and are responsible for administering a section of Government Code now known as the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 ("CKH"). LAFCOs are located in all 58 counties and are delegated regulatory responsibilities to coordinate the logical formation and development of local governmental agencies and services. Specific regulatory duties include approving or disapproving proposals involving the establishment, expansion, and reorganization of cities and special districts. LAFCOs inform their regulatory duties through a series of planning activities, namely preparing municipal service reviews and sphere of influence updates. Underlying LAFCOs regulatory and planning responsibilities is fulfilling specific objectives outlined by the California Legislature under Government Code (G.C.) Section 56301, which states:

> *"Among the purposes of the commission are discouraging urban sprawl, preserving open-space and prime agricultural lands, efficiently providing governmental services, and encouraging the orderly formation and development of local agencies based upon local conditions and circumstances."*

LAFCOs are generally governed by a five-member commission comprising two county supervisors, two city councilmembers, and one representative of the general public.[1] Members must exercise their independent judgment on behalf of the interests of residents, landowners, and the public as a whole. LAFCOs have sole authority in administering its legislative responsibilities and its decisions are not subject to an outside appeal process.

B. Municipal Service Reviews

> *A municipal service review is a comprehensive evaluation of the availability and adequacy of one or more services within a defined area or of the range and level of services provided by one or more agencies.*

As part of the aforementioned CKH, LAFCOs are now required to prepare municipal service reviews in conjunction with establishing and updating each local agency's sphere of influence ("sphere").[2] The legislative intent of municipal service review is to proactively inform LAFCOs with regard to the availability and sufficiency of governmental services provided within their respective jurisdictions. Municipal service reviews vary in scope and can focus on particular agency, service, or geographic region. Municipal service reviews may also lead LAFCO to take other actions under its authority, such as forming, consolidating, or dissolving one or more local agencies. Municipal service reviews culminate with LAFCO making determinations on a number of governance-related factors. This includes addressing infrastructure needs or deficiencies, growth and population trends, and financial standing. LAFCOs may also

[1] Several LAFCOs also have two members from independent special districts within their county. Each category represented on LAFCO has one alternate member.

[2] LAFCO establishes, amends, and updates spheres to designate the territory it believes represents the appropriate and probable future service area and jurisdictional boundary of the affected agency. All jurisdictional changes, such as annexations and detachments, must be consistent with the spheres of the affected local agencies with limited exceptions. CHK requires LAFCO to review and update spheres every five years, as needed, beginning January 1, 2008.

consider other factors if required by local policy. LAFCOs must complete the municipal service review process prior to making related sphere determinations.

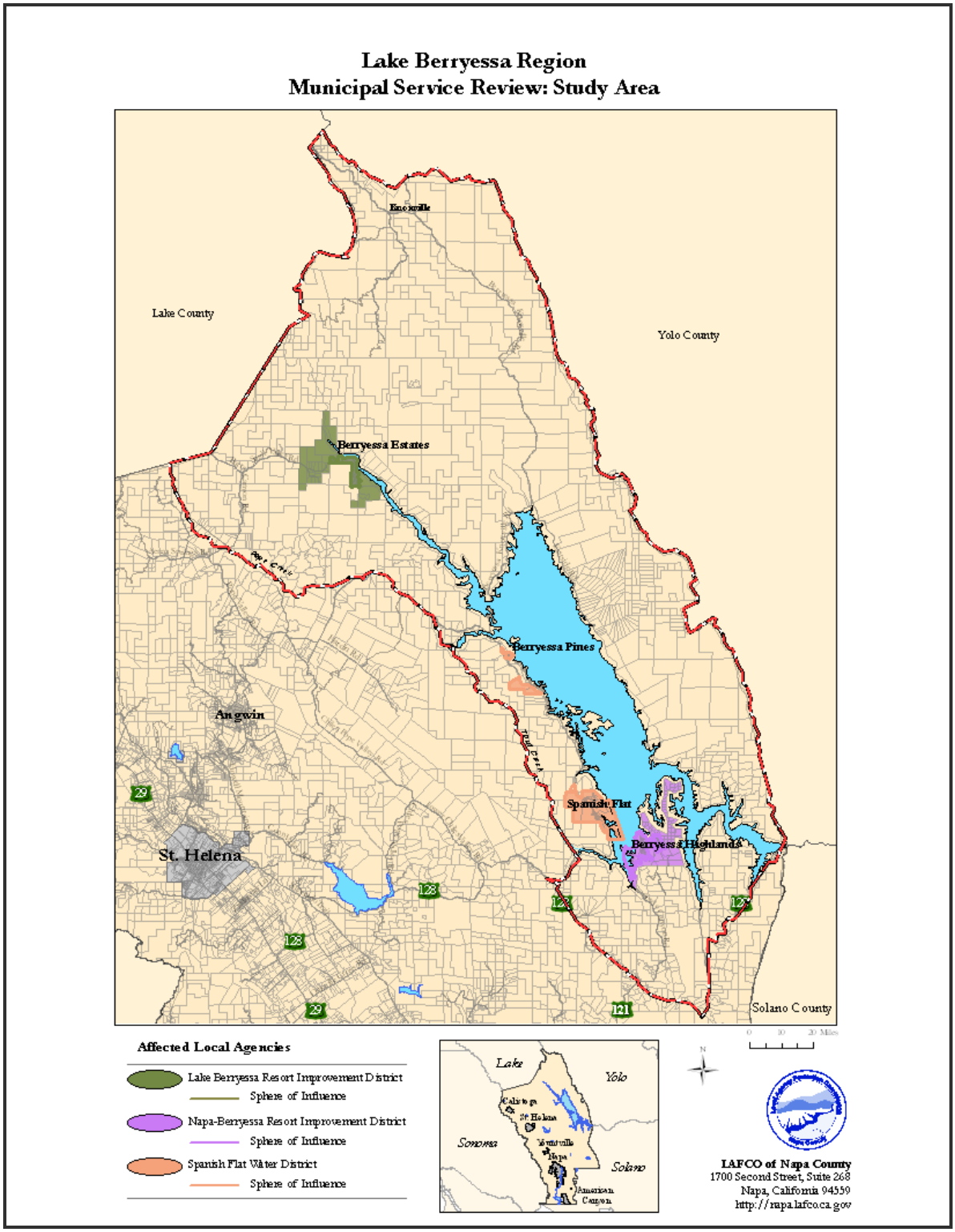
C. Lake Berryessa Region

This report represents LAFCO of Napa County's ("Commission") scheduled municipal service review of the Lake Berryessa region. The municipal service review's immediate objective is to develop and expand the Commission's knowledge and understanding of the current and planned provision of local governmental services in the region relative to present and projected community needs. This includes evaluating the availability and adequacy of public services provided by the three principal local service providers operating in the region: Lake Berryessa Resort Improvement District (LBRID); Napa Berryessa Resort Improvement District (NBRID); and Spanish Flat Water District (SFWD). The municipal service review is also an opportunity to consider whether reorganization alternatives involving one or more of three service providers would measurably improve governance within the region.[3] Finally, the Commission will also use the municipal service review to inform its decision-making as it relates to performing subsequent sphere updates for the three service providers as needed.

The report has been prepared in a manner consistent with the Commission's *Policy on Municipal Service Reviews* and is organized into two principal sections. The first section is an executive summary that includes determinations addressing the specific factors required as part of the municipal service review process. The second section provides a comprehensive review of the LBRID, NBRID, and SFWD in terms of their formation and development, relevant population and growth trends, organizational structure, municipal service provision, financial standing, and regional comparisons. Standard service indicators are incorporated into the review to help contextualize and evaluate service levels.

[3] As part of its *Comprehensive Water Service Study* completed in 2005, the Commission noted future municipal service reviews involving the local agencies serving the Lake Berryessa region should explore reorganization options given the diseconomies of scale and other issues raised in the review.

Figure One


Lake Berryessa Region
Municipal Service Review: Study Area
Knoxville
Lake County
Yolo County
Berryessa Estates
Berryessa Pines
Angwin
Spanish Flat
Berryessa Highlands
St. Helena
29
128
121
Solano County
Affected Local Agencies
Lake Berryessa Resort Improvement District
Sphere of Influence
Napa-Berryessa Resort Improvement District
Sphere of Influence
Spanish Flat Water District
Sphere of Influence
Lake
Yolo
Sonoma
Solano
Napa
LAFCO of Napa County
1700 Second Street, Suite 268
Napa, California 94559
http://napa.lafco.ca.gov

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II. EXECUTIVE SUMMARY

A. Overview

The Lake Berryessa region is home to close to 10% of the total unincorporated population in Napa County. Nearly all of this population resides within one of four distinct unincorporated communities: Berryessa Estates; Berryessa Highlands; Berryessa Pines; and Spanish Flat. All four communities began developing subdivided lots in the early 1960s with the expectation they would eventually and collectively result in roughly 7,000 residential units with a permanent population of over 15,000. The development of these communities, however, currently stands at one-tenth relative to initial expectations with approximately 700 residential units and an estimated population of 1,800.

Governmental services in the region are principally limited to public water and sewer provided by LBRID (Berryessa Estates), NBRID (Berryessa Highlands), and SFWD (Berryessa Pines and Spanish Flat); other pertinent public services available in the region, including public safety, roads, and waste disposal, are provided at a basic level by the County of Napa. The lack of planned development in the region has resulted in significant diseconomies of scale for LBRID, NBRID, and SFWD in which they must spread out their increasing service costs among relatively small customer bases. Markedly, the diseconomies of scale coupled with past policy decisions to limit user charges have directly contributed to all three Districts developing structural deficits with no operating reserves while deferring needed capital improvements – especially to the sewer systems. These financial challenges appear most pressing for LBRID and NBRID as they have become entirely dependent on the County over the last two years for emergency loans to maintain cash flow. The pending redevelopment of the United States Bureau of Reclamation's seven concession sites in the region has also created additional financial constraints on NBRID and SFWD with respect to losses in past and future operating revenues. Specifically, the two concession sites served by NBRID and SFWD were closed in 2008 and are not expected to be fully operational until 2021. Uses within these two concession sites are also expected to be developed at significantly lower densities indicating a measurable decline in associated revenues.

In step with the financial and service challenges permeating the region, there appears to be a growing desire among landowners and residents within both LBRID and NBRID to reorganize the respective agencies to become independent from the County. The desire for independence appears most strong among NBRID constituents based on ongoing communication with the Commission. This includes support from the new concessionaire contracted to develop and operate the former Steele Park Resort site, the Pensus Group. The County Board of Supervisors – serving as the NBRID Board – agrees with this sentiment and has formerly requested the Commission expeditiously reorganize the District into a community services district as allowed under Senate Bill 1023.[4] The County's request includes allowing the Supervisors to continue to serve as the District Board as part of a transition plan negotiated with community stakeholders with the goal of calling for an election to seat new board members on or before November 2012. Importantly, though it will not in and of itself improve solvency, reorganizing NBRID into a community services

[4] Senate Bill 1023 became effective January 1, 2011 and authorizes LAFCOs to reorganize resort improvement districts into CSDs with the same powers, duties, and boundaries while waiving protest proceedings. The legislation also authorizes LAFCOs to condition approval to include the election of five resident voters to serve as board members.

district with the same powers and jurisdiction is merited. Reorganization would position the community to become more responsive to changes in constituent needs by having the power to provide additional municipal services in support of Berryessa Highlands' continued development. This statement is particularly pertinent given State law restricts NBRID to only provide water and sewer services due to a 1971 amendment to its principal act. In contrast, State law would allow the new community services district – subject to future Commission approval – to provide a full range of municipal services, such as roads, parks, and fire protection. Reorganization would also improve public accountability by presumably facilitating the delegation of responsibilities in planning for the present and future service needs of the community from the County to local residents.

B. Determinations

As mentioned, as part of the municipal service review process, the Commission must prepare written determinations addressing the service factors enumerated under G.C. Section 56430. The service factors range in scope from considering infrastructure needs and deficiencies to relationships with growth management policies. The determinations serve as statements or conclusions and are based on information collected, analyzed, and presented in the individual agency reviews.

1. Growth and population projections for the affected area.

Regional Statements

a) LBRID, NBRID, and SFWD are the governmental agencies solely responsible for providing public water and sewer services in support of the four unincorporated communities located within the region: Berryessa Estates; Berryessa Highlands; Berryessa Pines; and Spanish Flat. The current and future welfare of these communities is dependent on the solvent operations of these three agencies.

b) The combined estimated resident service population within LBRID, NBRID, and SFWD totals 1,804 and represents 6.3% of the overall unincorporated population.

c) It is estimated LBRID, NBRID, and SFWD have experienced a combined 1.9% annual growth rate over the last five years resulting in 153 new residents within their respective jurisdictional boundaries. This combined growth rate exceeded growth in the remaining unincorporated areas over the last five years by a ratio of six to one.

d) It is reasonable to assume the rate of population growth within LBRID, NBRID, and SFWD relative to the last five years will decrease by nearly one-half from its current annual estimate of 1.9% to 1.0% based on demographic information recently issued by the Association of Bay Area Governments. If this assumption proves accurate, the combined resident population in all three districts will be 1,896 by 2015.

e) Current non-residential growth within the Lake Berryessa region is primarily limited to relatively small commercial and local-serving sites predominantly located within SFWD's Spanish Flat service area. Limited public recreational uses also currently exist throughout the region and are tied to private concessionaire arrangements managed by the United States Bureau of Reclamation. These existing non-residential uses have relatively minimal impact on public water and sewer service demands.

f) It is reasonable to assume public recreational uses in the Lake Berryessa region will significantly expand in the timeframe of this review in conjunction with the United States Bureau of Reclamation's redevelopment plans for the seven concessionaire sites located along the shoreline. Two of the seven concessionaire sites, Lupine Shores and Foothill Pines Resorts, are located within NBRID and SFWD's respective jurisdictional boundaries and will – based on the development plans recently approved by the Bureau – measurably impact these agencies' water and sewer systems.

g) The planned uses for the remaining five concessionaire sites in the Lake Berryessa region suggest it would be appropriate to consider including the affected lands within the spheres of influence of existing or new special districts to help support their orderly growth and uses given the Commission's policies and objectives. Consideration should incorporate and defer, as appropriate, to the input and preferences of the United States Bureau of Reclamation.

Agency Specific Statements

a) Residential uses comprise nearly all development within LBRID and currently include 188 developed single-family lots with an estimated resident population of 483. Buildout would presumably involve the development of the remaining 193 privately-owned lots in Berryessa Estates' Unit One and Unit Two and result in the District's resident population more than doubling to 979.

b) Residential uses in NBRID currently comprise 358 developed single-family lots with an estimated resident population of 920. Buildout would presumably involve the development of the remaining 267 privately-owned lots in Berryessa Highlands' Unit One and Unit Two and result in the District's resident population increasing by over one-half to 1,606.

c) NBRID's buildout is also expected to include the opening of Lupine Shores Resort with demands equivalent to 88 lots or users; an amount measurably less than the 228 equivalent lots associated with the former Steele Park Resort.

d) Residential uses in SFWD currently comprise 167 single-family and mobile home residences with an estimated population of 401. Buildout would presumably involve the development of the remaining 62 privately-owned lots within Berryessa Pines and Spanish Flat and result in the District's resident population increasing by over one-third to 560.

e) SFWD's buildout is also expected to include the opening of Foothill Pines Resort with demands equivalent to 36 lots or users; an amount measurably less than the 221 equivalent lots associated with the former Spanish Flat Resort.

2. Present and planned capacity of public facilities and adequacy of public services, including infrastructure needs or deficiencies.

Regional Statements

a) LBRID, NBRID, and SFWD's infrastructure systems – particularly relating to sewer – are becoming increasingly inefficient in meeting current demands as a result of antiquated facilities coupled with new regulatory standards.

b) Contracted water supplies with the Napa County Flood Control and Water Conservation District are sufficient with respect to accommodating current and projected annual demands at buildout within LBRID, NBRID, and SFWD's respective jurisdictional boundaries. These supplies are a byproduct of the United States Bureau of Reclamation's Solano Project and considered reliable during single and multiple-dry year conditions based on historical levels at Lake Berryessa.

c) LBRID, NBRID, and SFWD's water treatment and storage capacities are adequately sized to meet current and projected peak day demands within the timeframe of this review. These existing capacities help to ensure adequate reserves are available during an emergency or interruption in service as required under State law.

d) Moderate to significant water treatment and storage capacity expansions will be needed to meet projected peak day demands at buildout within LBRID, NBRID, and SFWD's Spanish Flat service area.

e) Other pertinent public services in the region, including law enforcement, fire protection, street maintenance, and waste disposal, are provided directly or indirectly by the County of Napa and appear to have sufficient capacities relative to existing community needs. Community preferences to elevate the range and level of these County-provided services would require local funding and presumably need to delegate to an existing or new special district.

Agency Specific Statements

a) The buildout of LBRID's jurisdictional boundary is expected to more than double its annual water demand from 29.5 to 65.7 acre-feet. This projected buildout demand can be reliably accommodated by the District given the total would represent only 33% of its contracted water supply.

b) LBRID's water treatment and storage facilities have surplus capacity in meeting the current peak day demand total of 0.40 acre-feet. This total represents 52% and 32% of the District's available treatment and storage capacities, respectively, and is expected to accommodate peak day demands through the timeframe of this review.

c) A moderate expansion to LBRID's water treatment capacity in the amount of 0.08 acre-feet would be needed for the District to meet its projected peak day demand of 0.85 acre-feet at buildout within Berryessa Estates.

d) LBRID's sewer system is designed with sufficient capacity to meet average day demands within its jurisdictional boundary through the timeframe of this review. Current peak day wet-weather demands, however, substantially exceed existing capacities by over 40%. These excessive totals are attributed to increasing infiltration into the collection system and have directly resulted in a series of unauthorized spills leading to two substantial fines by the Regional Water Quality Control Board.

e) Excessive peak day wet-weather demands for LBRID are expected to continue without significant improvements to the collection system to reduce infiltration, and therefore subject the District to additional fines and related sanctions.

f) The buildout of NBRID's jurisdictional boundary – including the planned development of Lupine Shores Resort – is expected to nearly double the District's current annual water demand from 71.4 to 132.6 acre-feet. This projected buildout demand can be reliably accommodated by the District given the total would represent only 44% of its contracted water supply.

g) NBRID's water treatment and storage facilities have surplus capacity in meeting the current peak day demand total of 1.5 acre-feet. This total represents 79% and 98% of the District's available treatment and storage capacities, respectively, and is expected to accommodate peak day demands through the timeframe of this review.

h) Significant improvements would be needed to increase NBRID's water treatment and storage capacities to meet the projected peak day demand of 2.6 acre-feet at buildout within Berryessa Highlands.

i) NBRID's sewer system is designed with sufficient capacity to meet current average day demands within its jurisdictional boundary through the timeframe of this review. Current peak day wet-weather demands, however, substantially exceed the District's existing capacity by over 50% due to pervasive infiltration into the collection system as well as poor drainage at its spray field site.

j) Excessive demands on the sewer system during extended storm events have directly resulted in NBRID receiving multiple violation notices from the Regional Water Quality Control Board as well as a recent Cease and Desist Order directing the District to limit its average day sewer flows to 50,000 gallons; an amount the District will continue to exceed without significant improvements to its collection system.

k) The need for substantial improvements to NBRID's sewer collection system to reduce infiltration is evident given current average day demands during dry weather equal close to 100% of the District's daily water demands.

l) The buildout of SFWD's entire jurisdictional boundary – including the planned development of Foothill Pines Resort – is expected to raise the District's annual water demand by over three-fifths from 59.0 to 94.5 acre-feet. This projected buildout demand can be reliably accommodated by the District given the total would represent only 47% of its contracted water supply.

m) SFWD's water treatment and storage facilities within the Berryessa Pines service area have surplus capacities in meeting the current peak day demand total of 0.17 acre-feet. This total represents 39% and 55% of the District's available treatment and storage capacities, respectively, in the service area and is expected to accommodate peak day demands through the timeframe of this review.

n) No additional capacity expansions would be needed to SFWD's water treatment and storage facilities within the Berryessa Pines service area to meet the projected peak day demand of 0.22 acre-feet at buildout.

o) SFWD's sewer system in the Berryessa Pines service area appears to be adequately designed to accommodate current average and peak day demands, although specific capacity levels are not documented. The lack of documentation creates uncertainty in assessing the ability of the District to sufficiently accommodate additional sewer demands within Berryessa Pines.

p) SFWD's water treatment capacity within the Spanish Flat service area has surplus capacity in meeting the projected peak day demand total of 0.31 acre-feet. This total represents 58% of SFWD's available treatment capacity and is expected to accommodate peak day demands through buildout.

q) Overall storage capacities within SFWD's Spanish Flat service area are presently operating beyond capacity relative to accommodating the current peak day demand total of 0.31 acre-feet. This existing constraint is specifically tied to deficient storage within the initial pressure zone, which currently serves close to three-fourths of the customer base and is undersized by one-fifth in meeting its proportional share of the peak day water demand.

r) Significant improvements would be needed to nearly double SFWD's overall water storage capacities within the Spanish Flat service area to meet the projected peak day demand of 0.52 acre-feet at buildout.

s) SFWD's sewer system in the Spanish Flat service area is designed with sufficient capacity to meet current and projected average as well as peak day demands through the timeframe of this review. Improvements would be needed to increase capacity during wet-weather conditions at buildout.

3. Financial ability of agencies to provide services.

Regional Statements

a) The ability of LBRID, NBRID, and SFWD to generate adequate operating revenues in the absence of high user charges is difficult given the lack of planned development within their respective jurisdictional boundaries. The diseconomies of scale associated with the lack of planned development coupled with past policy decisions to limit user charges have directly contributed to all three agencies developing structural deficits with no operating reserves.

Agency Specific Statements

a) Solvency for LBRID and NBRID remains a critical issue as both districts have experienced precipitous declines in their unrestricted reserves due to persistent operating shortfalls resulting in negative balances.

b) LBRID has experienced over a 400% decline in its unrestricted fund balance over the last five years from $0.14 to $(0.72) million. This decrease is attributed to $1.01 million in net income losses since 2006.

c) NBRID has experienced over a 300% decline in its unrestricted fund balance over the last five years from $0.25 to $(0.58) million. This decrease is attributed to $0.96 million in net income losses since 2006.

d) Due to their structural deficits in which expenses have been consistently exceeding revenues, LBRID and NBRID have become entirely dependent on discretionary loans from the County of Napa to maintain positive cash flows.

e) The ability and consent of LBRID and NBRID constituents to assume additional costs is uncertain since they currently pay on average $304 and $217 per month, respectively, for water and sewer related services; totals believed to be the highest in Napa County.

f) The current financial position of SFWD is uncertain given no audit has been prepared on the District's financial statements since the 2006-2007 fiscal year; a year in which the District finished with an unrestricted fund balance of ($0.26 million).

4. Status and opportunities for shared facilities.

Regional Statements

a) LBRID, NBRID, and SFWD serve unincorporated communities with common social and economic interests directly tied to residential, commercial, and recreational activity at Lake Berryessa. These common interests suggest all three districts continue to pursue existing and new opportunities to share resources for the collective benefit of their respective constituents.

b) LBRID, NBRID, and SFWD should explore opportunities to contract with a single vendor to provide administrative and operational support services. This type of arrangement may help economize limited resources while establishing more uniform levels of management services. This type of arrangement may also serve as a litmus test in considering the merits of other resource-sharing alternatives in the region.

Agency Specific Statements

a) LBRID and NBRID's organizational dependency to the County of Napa provides continual cost-savings with respect to the districts sharing staff, equipment, and materials. It is reasonable to assume separating one or both of the districts from the County would result in moderate to significant cost increases to the agencies.
b) SFWD reports it has made a concerted effort to no avail in the past to explore mutually beneficial opportunities to share resources with other districts in the greater area, including NBRID and Circle Oaks County Water District. The Commission commends these efforts and encourages SFWD to continue pursuing cost sharing efficiencies with other neighboring agencies.

c) A significant portion of SFWD's potable water system is located on federal property under an easement with the United States Bureau of Reclamation that expired in 1999. It is imperative SFWD renew its easement with the Bureau to ensure the District has immediate and timely access to its service infrastructure.

5. Accountability for community service needs, including governmental structure and operational efficiencies.

Regional Statements

a) LBRID, NBRID, and SFWD are governed and managed by responsive and dedicated public servants operating under challenging circumstances with respect to maximizing the use and benefit of limited resources on behalf of their respective constituents.

b) LBRID and NBRID have made concerted efforts over the last several years to improve outreach with their respective constituents. These efforts have helped clarify the roles and responsibilities of the Districts apart from the County of Napa and contributed to strengthening the social and economic interests within the communities.

c) It would be advantageous for LBRID, NBRID, and SFWD to each develop and maintain agency websites for purposes of posting pertinent service and financial information for public viewing. These actions will strengthen the Districts' accountability to their respective constituents while helping to foster needed civic engagement regarding the current and planned services of the agencies.

Agency Specific Statements

a) LBRID and NBRID were formed to provide a broad range of municipal services for the Berryessa Estates and Berryessa Highlands communities. However, due to an amendment to their principal act, the Districts are limited to providing only water and sewer services with all other pertinent public services generally provided at a basic level by the County of Napa.

b) It is reasonable to assume the continued development of the Berryessa Estates and Berryessa Highlands communities will eventually necessitate the need for other elevated public services to support existing development; services that would require either expanding LBRID and NBRID's powers through reorganizations or creating new special districts.

c) LBRID and NBRID are governed by the County of Napa Board of Supervisors who are elected by, and accountable to, registered voters residing in their assigned ward. This governance system diminishes local accountability given constituents are limited to voting for only one of the five District board members.

d) There is increasing acrimony among LBRID and NBRID constituents with respect to the County of Napa's management of the two Districts. This acrimony has led to growing desire among landowners and residents within both Districts to reorganize their respective agencies to become independent. The desire for reorganization appears strongest among NBRID constituents based on communication with the Commission.

e) Given underlying governance and service challenges, it would be appropriate to expedite NBRID's reorganization into a community services district with the same powers and jurisdiction as authorized under Senate Bill 1023. Reorganization would position the community to become more responsive to changes in constituent needs by having the power – subject to subsequent Commission approval – to provide additional municipal services in support of Berryessa Highlands' continued development. Reorganization would also improve public accountability by presumably facilitating the delegation of responsibilities in planning for the present and future service needs of the community from the County to local residents.

f) Reorganization of NBRID into a community services district can serve as a model for LBRID and its constituents in assessing preferences and objectives as it relates to the governance of public services in the community.

g) Reorganization of SFWD is not a priority given the constituents' apparent satisfaction of the District's governance and management. Nonetheless, given the potential future need for additional public services that are outside SFWD's existing powers, reorganization may be appropriate at a later time.

6. Relationship with regional growth goals and policies.

Regional Statements

a) LBRID, NBRID, and SFWD serve vital roles in supporting the County of Napa's land use policies with regard to providing necessary public water and sewer services to four of the largest planned unincorporated communities in Napa County.

III. AGENCY REVIEWS

A. Lake Berryessa Resort Improvement District

1.0 Overview

LBRID was formed in 1965 to provide a full range of municipal services in support of the development of Berryessa Estates, an unincorporated community remotely located along Putah Creek in northeast Napa County. Initial development plans included the construction of approximately 2,000 residential units along with various commercial and recreational accommodations to serve an expected permanent resident population of 5,000 along with 40,000 annual visitors. Due to economic conditions, however, development within Berryessa Estates has been primarily limited to the creation of a 351-lot residential subdivision. Additionally, a 1971 amendment to its principal act has restricted LBRID to providing only sewer and water services.[5]

Lake Berryessa RID	
Date Formed:	1965
District Type:	Dependent
Resident Population:	483
Services Provided:	Sewer/Water

LBRID currently has an estimated resident service population of 483. LBRID is a dependent special district governed by the County Board of Supervisors. Daily operations are managed by the County Public Works Department. The current adopted operating budget is $0.91 million resulting in a per capita cost of $1,884. The unrestricted fund balance totaled ($0.72 million) as of July 1, 2010.[6] Markedly, this portion of the fund balance is expected to further decrease to ($0.87 million) by the end of the current fiscal year due to a budgeted operating shortfall.

2.0 Formation and Development

2.1 Formation Proceedings

LBRID's formation was proposed by the Labry Corporation as the principal landowner within the affected area to help facilitate and support the planned development of Berryessa Estates. The Commission approved the formation proceedings in February 1965 and authorized LBRID to provide a full range of municipal services, including water, sewer, fire, police, roads, lighting, and public recreation. LBRID's formation coincided with an ordinance change by the County to rezone the affected area from *Watershed Recreation* to *Planned Community*; an action that paralleled a concurrent change for another planned development near Lake Berryessa, Berryessa Highlands. Formation proceedings were approved by the Commission in conjunction with the Board of Supervisors agreeing to serve as LBRID's initial governing body with the expectation residents would eventually assume governance control over the District as allowed under the principal act. Voters confirmed the formation of LBRID in April 1965.

[5] Other municipal services directly provided within Berryessa Estates are limited and include a basic level of fire, law enforcement, and road maintenance from the County as well as interment from the Pope Valley Cemetery District.

[6] LBRID's unrestricted fund balance for budgeting purposes is $0.19 million with $590,250 coming from loans from the County of Napa to provide emergency cash flow.

2.2 Initial Development and Activities

Application materials associated with LBRID's formation proceedings assert Berryessa Estates' development was expected to occur in five distinct phases. Development commenced in late 1965 with the construction of "Unit One" and "Unit Two." Unit One involved the construction of Stagecoach Canyon Road to connect the community to the nearest paved road, Snell Valley.[7] Unit Two involved the creation of 351 single-family residential lots ranging in size from 15,000 to 18,000 square feet. During this period, LBRID authorized $0.875 million in general obligation bonds to finance the construction of water and sewer systems for Unit Two, including the installation of lateral connections for all 351 lots. Water supplies were initially secured through an informal agreement with the Napa County Flood Control and Water Conservation District (NCFCWCD) for an annual raw water entitlement of 200 acre-feet from Lake Berryessa. This water supply agreement was formalized in 1975 and currently extends through 2024.

The remaining three phases planned for Berryessa Estates were anticipated to include additional single-family residential lot subdivisions and certain recreational amenities, such as a marina and golf course. Construction on these additional phases, however, did not materialize as planned as the Labry Corporation canceled the remaining project presumably due to low sales within Unit Two. A marina and adjoining campground site were eventually built for Berryessa Estates as part of a legal ruling after the County – at the request of Estates landowners – sued the Labry Corporation in 1975 for false sales advertisement.

UNIT TWO

LBRID remained relatively stagnant between 1970 and 2000 in terms of infrastructure expansions or improvements. Two factors appear to underlie this period of general inactivity. First, as mentioned, no new phases of Berryessa Estates were developed. Second, LBRID's principal act was amended in 1971 to prohibit all affected special districts from engaging in any additional services not already provided or budgeted as of July 1, 1970. As a consequence, LBRID is authorized to only provide water and sewer services; all other services that were expected to be provided by the District are either provided at a basic level by the County, such as fire and police protection, or do not exist in the community.

By the 1990s, LBRID's financial difficulties began to escalate due to years of undercharged user rates, inadequate capital improvement planning, and an increasing dependency on the County to provide subsidized funding. A lack of adequate financial resources contributed to LBRID receiving a Cease and Desist Order in 1996 from the California Regional Water Quality Control Board (RWQCB) after the District's holding ponds overflowed and spilled an estimated 50,000 gallons of raw sewage into Putah Creek. LBRID responded by preparing a facility status report to inform a financial plan required by RWQCB, which concluded both water and sewer systems needed expansive improvements to replace worn

[7] Stagecoach Canyon Road was immediately dedicated to the County of Napa.

and failing equipment. In 1998, LBRID voters approved replacing water and sewer availability charges with a special annual tax ("T-1") applied to each parcel within the District with access to infrastructure. Voters approved a second special tax ("T-2000") in 2000 to fund specific improvements and replenish reserves through 2009-2010.

2.3 Recent Development and Activities

In addition to underfunded operations and capital improvements, LBRID's financial difficulties have been exacerbated by a series of fines issued by the RWQCB due to repeated sewage spills into the Lake Berryessa watershed. The first RWQCB fine was issued in March 2005 in the amount of $400,000. This fine was issued for repeated and unauthorized spills between January and February 2005 totaling approximately 4.1 million gallons. At the same time, the State Attorney General also sued LBRID for an additional $1.2 million for failure to make necessary and timely improvements to its sewer system over the prior 10 year period. LBRID ultimately negotiated a settlement agreement with both parties in which the District agreed to pay the original $400,000 fine over a 10 year period beginning in August 2009. The settlement agreement was reached in conjunction with LBRID establishing a voter-approved bond measure to fund $4.7 million in infrastructure improvements to both its water and sewer systems as well as adopting significant increases to user rates.[8] LBRID received a second fine from RWQCB in the amount of $375,000 in May 2010 for additional sewage spills. LBRID is currently negotiating with RWQCB on a settlement agreement.

Summary Timeline

1965	...…….LBRID formed to provide multiple services
1965	…….Unit One (Stagecoach Canyon Road) completed
1969	…….Unit Two (Estates Subdivision) completed
1969	……...LBRID establishes water and sewer charges
1971	….LBRID limited to only providing water and sewer
1991	…LBRID approves first water/sewer charge increase
1996	……..State issues LBRID Cease and Desist Order
1998	……..Voters approve special tax (T-1)
2000	……Voters approve special tax (T-2000)
2005	…..LBRID fined $400,000 for repeated sewage spills
2007	…….Voters approve $5.2 million bond measure
2008	LBRID approaches private utility to purchase systems
2009	…….LBRID receives $595,000 in loans from County
2009	...LBRID receives ARRA $1.7 million forgivable loan
2010	..…..LBRID fined $375,000 for repeated sewage spills

Solvency remains a critical issue for LBRID as the District has experienced a precipitous decline in its unrestricted fund balance over the last five completed fiscal years from $0.14 to ($0.72 million) due to escalating operating shortfalls. These operating shortfalls have resulted in LBRID becoming dependent on discretionary loans from the County totaling $590,000 to maintain positive cash flows. It is unclear whether LBRID will be able to repay these loans or receive additional funding from the County given its persistent structural imbalance in which the District's operating expenses exceed revenues. The ability of LBRID's constituents to assume additional costs is also uncertain since they currently pay approximately $304 per month for water and sewer related services; one of the highest monthly totals in Napa County.[9]

[8] The total assessment costs are $5.2 million with $4.2 million allocated to construction. The assessment is secured by recorded lien to all properties. Each landowner is responsible for either pre-paying their total assessment in the amount of $15,450 or paying $1,100 each year through 2037.

[9] The monthly cost estimate incorporates four distinct charges or fees: (a) water usage charge; (b) sewer usage charge; (c) T-1 special assessment fee; and (d) bond/parcel special assessment fee. Estimate assumes water usage per lot is 138 gallons per day, with sewer usage equaling 80% of water delivery.

3.0 Adopted Commission Boundaries

3.1 Jurisdictional Boundary

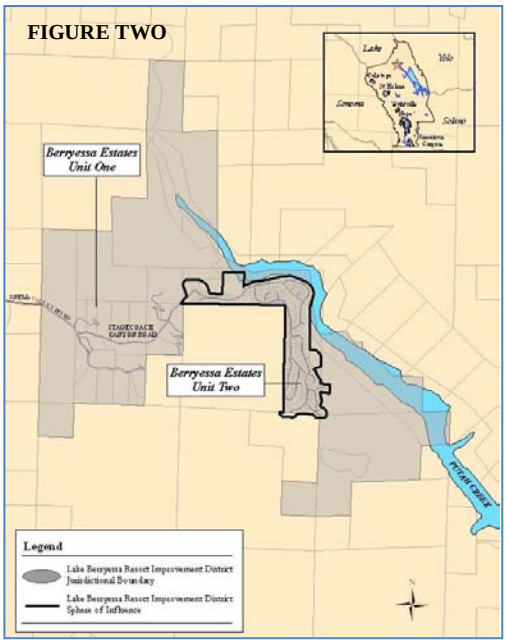
LBRID's jurisdictional boundary is approximately 3.2 square miles or 2,033 acres in size. There are approximately 400 parcels lying within LBRID with an overall assessed value of $33.1 million. A review of the database maintained by the County Assessor's Office indicates only one-half of the parcels have been developed as measured by the assignment of situs addresses.[10] There have been no changes to LBRID's jurisdictional boundary since the District's formation in 1965.

Jurisdictional Characteristics in LBRID
(Source: LAFCO)

Total Acreage……..	…….2,033
Acreage Tied to Existing Development…...	…….14.0%
Predominant Zoning.....…….....	……...*Planned Development* (Unit Two) ……..……..*Agricultural Watershed*
Assessed Value…….....	……$33.1 Million
Assessed Value/Acre…….....	……..$16,281
Registered Voters……	……219

3.2 Sphere of Influence

The Commission adopted LBRID's sphere in 1985 to include only parcels lying in Unit Two along with certain adjacent lands that were expected to be developed for residential or public recreational uses over the following 10 year period as depicted in Figure Two. The Commission updated the sphere with no changes in 2007 in deference to first completing a review of reorganization options in the Lake Berryessa region due to diseconomies of scale and other issues identified in earlier studies.



In terms of current dimensions, LBRID's sphere encompasses 0.2 square miles or 176 acres. This amount means there are a total of 1,857 jurisdictional acres encompassing 48 parcels in LBRID that lie outside the District's sphere. There are no non-jurisdictional acres currently eligible for annexation.

[10] Developed assessor parcels with situs addresses in LBRID represent only 14% of the total land acres within the District.

4.0 Population and Growth

4.1 Residential Trends

Population Breakdown	
Unit One	21
Unit Two	463
Total:	483

Residential uses comprise nearly all development within LBRID and currently include 188 developed single-family lots with an estimated population of 483.[11] These residential uses are disproportionately divided between Berryessa Estates' Unit One and Unit Two. Unit One includes only eight developed single-family lots with an estimated population of 21.[12] These lots are outside the range of LBRID's infrastructure and therefore served by private wells and septic systems. The remaining 180 developed residential lots with an estimated population of 463 lie within Unit Two and receive water and sewer services from LBRID. No residents reside within the remaining LBRID lands located outside Units One and Two.

LBRID has experienced a higher rate of new residential growth compared to the remaining unincorporated area over the last five years. This new growth has been tied to the development of nine single-family lots within Unit Two with the largest percentage increase occurring in 2006. The development of these new lots has increased LBRID's resident population by an estimated 23 or 5.0% since 2006. This increase represents a 1.0% annual rise and is 2.5 times the population growth rate in the remaining unincorporated area.

Past and Present Population Estimates in LBRID
(Source: LAFCO)

Population	2006	2007	2008	2009	2010
LBRID	460	468	481	483	483
% Increase From Prior Year	----	1.7	2.8	0.4	0.0
Remaining Unincorporated Area	27,607	27,640	28,251	28,231	28,170
% Increase From Prior Year	----	0.1	2.2	(0.1)	(0.2)

In terms of future projections, it is reasonable to assume the rate of population growth in LBRID relative to the last five years will slightly decrease from its current annual estimate of 1.0% to 0.875%. This projected growth rate incorporates an adjustment to estimates prepared by the Association of Bay Area Governments (ABAG) and assumes growth in LBRID will continue to outperform growth in the remaining unincorporated area 2.5 to 1 consistent with recent percentage totals.[13] Any new development will presumably be limited to developing the 166 remaining privately-owned vacant lots in Unit Two given their ready access to LBRID's public water and sewer systems. The following chart incorporates these assumptions in projecting LBRID's future resident population over the next five years.

Future Population Projections in LBRID
(Source: LAFCO)

Category	2011	2012	2013	2014	2015
LBRID	487	491	496	500	505

** Assumes a uniform annual growth rate of 0.875%.*

[11] Population assumes 2.57 residents per dwelling unit consistent with projections issued by the Department of Finance.
[12] There are an additional 19 undeveloped lots within Berryessa Estates' Unit One. There is no expectation these lots will be developed within the timeframe of this review.
[13] The adjustment reflects LBRID's population increase over the remaining unincorporated area of 2.5 to 1 since 2006. (Specific adjustment involves multiplying ABAG's projected growth rate for the unincorporated area (0.35%) by 2.5.)

4.2 Non-Residential Trends

Non-residential uses in LBRID are currently limited to a local convenience store located on Stagecoach Canyon Road. This non-residential use was established in the 1970s and receives water and sewer services from LBRID through separate metered connections. A marina and adjoining campground adjacent to Putah Creek are also located within LBRID. The campground is maintained by the Berryessa Estates Property Owners Association and can accommodate 10 to 12 recreational vehicles.[14] No water or sewer services, however, are provided in the campground. No additional non-residential uses of an urban-type are expected within LBRID given the County's zoning regulations.

5.0 Organizational Structure

5.1 Governance

LBRID operates under Public Resources Code Sections 13000-13233, which is known as the "Resort Improvement District Law."[15] The law was enacted in 1961 for purposes of providing an alternative method for funding and furnishing a full range of extended municipal services – including land use planning powers – within large unincorporated areas to support seasonal recreational resort uses. The law was fashioned by the California Legislature to facilitate recreational resort sites similar to the Squaw Valley in Placer County, which had been developed to host the 1960 Winter Olympic Games. In 1965, after hearings were held by the Assembly into suspected land use abuses by affected special districts, the law was amended to prohibit the creation of new resort improvement districts. The law was further amended in 1971 to allow affected special districts to only provide those municipal services already provided or budgeted as of July 1, 1970.

LBRID was organized at the time of its formation as a dependent special district governed by the County Board of Supervisors.[16] As a result of the aforementioned principal act amendment in 1971, LBRID is authorized only to provide water and sewer services. Supervisors are elected by division and serve staggered four-year terms. LBRID lies entirely within County Supervisorial District 3. LBRID meetings are generally scheduled once monthly on the first Tuesday at the County Administration Building with special meetings calendared as needed. Elections are based on a registered-voter system. The County reports there are currently 219 registered voters residing in LBRID.

5.2 Administration

LBRID contracts with the County for administrative services. The County Public Works Director serves as District Manager/Engineer and is principally responsible for overseeing day-to-day operations, which includes operating and maintaining LBRID's water and sewer systems. Public Works assigns a full-time technician to provide onsite operational services at

[14] The marina and campground were constructed in the mid 1970s as part of a settlement agreement between the County of Napa and the developer of Berryessa Estates, Labry Corporation. The marina and campground are located on private property with access provided by way of an easement to landowners within Berryessa Estates who pay an annual fee to the Berryessa Estates Property Owners Association for a gate key. The fee for the gate key is currently $135.

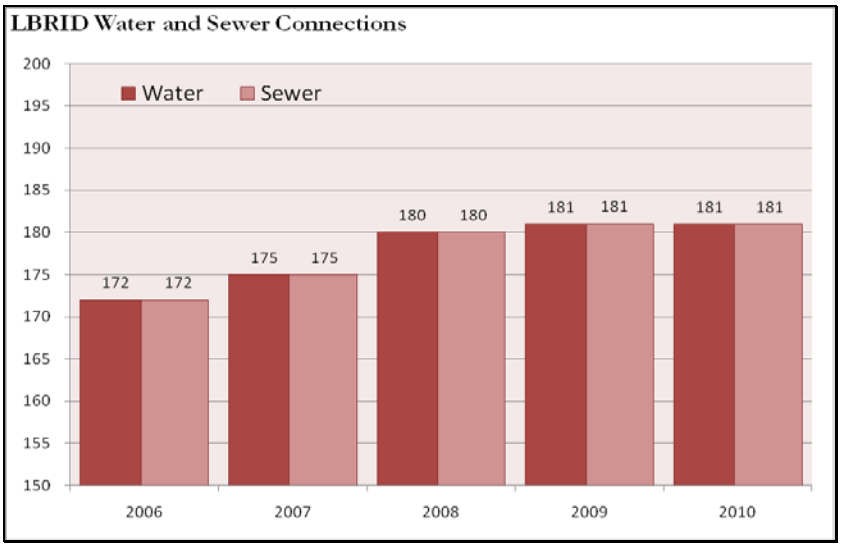
[15] There are a total of seven resort improvement districts operating in California.

[16] The Board of Supervisors may delegate governance authority of LBRID to a five-member board of directors, four of which shall be elected from the District and the fifth shall be the supervisor representing the area.

LBRID. The onsite technician is supervised by a licensed operator who generally divides his or her time on a 60 to 40 split between LBRID and NBRID. Other continual administrative duties performed by Public Works include budgeting, purchasing, billing, contracting, and customer service. LBRID's legal and accounting services are provided by County Counsel and County Auditor-Controller's Office, respectively.

6.0 Municipal Services

LBRID's municipal services are limited to public (a) water and (b) sewer. LBRID currently maintains an equal number of metered water and sewer connections at 181 each. All connections are located within LBRID's jurisdiction and serve 180 single-family residential users and one commercial user. LBRID has experienced a 5.3% overall increase in both its water and sewer connections as reflected in the following chart.



6.1 Water Service

A review of LBRID's water service is provided below with respect to assessing the relationship between availability, demand, and capacity through (a) the five-year timeframe of this review period and (b) buildout of the District's service area.

Supply

LBRID's water supply is entirely drawn from Lake Berryessa and secured through an agreement with NCFCWCD. The agreement was initially entered into in 1966 and most recently amended in 1999. It provides LBRID an annual entitlement of 200 acre-feet of raw water through 2024. The agreement also includes an option for LBRID to purchase an additional 40 acre-feet of annual entitlement. Raw water from Lake Berryessa is captured from a floatable intake system submerged at

PUTAH CREEK

Putah Creek and powered by an electric pump with a daily capacity of 1.1 acre-feet.[17]

Water Supply	Annual Entitlement
Lake Berryessa	200 Acre-Feet

* *LBRID's water supply originates from NCFCWCD's contract with USBR for the right to divert up to 1,500 acre-feet annually from Lake Berryessa. Annual entitlement runs through 2024.*

The full delivery of LBRID's entitlement is considered reliable given the current and historical storage levels at Lake Berryessa relative to the location of the District's floatable intake system. The supply entitlement also appears more than sufficient to accommodate current and projected water demands within LBRID in the timeframe of this review, which has been calculated by staff to total 22.0 acre-feet by 2015. Buildout demands in LBRID are addressed in the succeeding section.

Demand

LBRID's total water demand in 2009-2010 equaled approximately 29.5 acre-feet. This amount represents an average daily demand of nearly 26,300 gallons or 0.08 acre-feet. LBRID has experienced over a one-third decline in usage over the last five years despite population increases in the District. This decrease is principally tied to conservation resulting from user rate increases, which have more than doubled since 2006 with the average monthly charge increasing from $27.15 to $69.50.[18] The current peak day water demand equals 0.4 acre-feet and is five times greater than the daily average.

Recent and Current Water Demands in LBRID
(Source: LBRID/LAFCO)

Category	2005-06	2006-07	2007-08	2008-09	2009-10
Average Day Demand	0.13	0.10	0.09	0.09	0.08
Annual Demand	47.6	36.9	34.9	34.0	29.5
% of Supply	23.8	18.5	17.5	17.0	14.8

* *All amounts are in acre-feet.*

Projecting future water demands within LBRID is challenging given the contrast in which usage has decreased by 38.0% despite a 5.0% increase in population over the previous five years. If this usage trend continues, future water demands are projected to decrease by 7.6% annually until reaching a minimum threshold necessary to provide at least 100 daily gallons to each developed lot.[19] These assumptions would result in LBRID's annual water demand gradually declining to 21.8 acre-feet in 2014 before beginning to experience slight increases consistent with projected new development as shown in the following table.

[17] Pump capacity is based on a manufacture rating of 250 gallons per minute.
[18] The average monthly charge amount assumes the usage of 250 gallons per day.
[19] LAFCO projects there will be 196 developed lots served by LBRID by 2015.

Projected Water Demands in LBRID Through 2015
(Source: LAFCO)

Category	2010-11	2011-12	2012-13	2013-14	2014-15
Number of Users	190	191	193	195	196
User Annual Demand	0.14	0.13	0.12	0.11	0.11
Total Annual Demand	27.3	25.2	23.3	21.8	22.0
% of Supply	13.7	12.6	11.7	10.9	11.0

** All amounts are in acre-feet.*
** Projected demands assume an annual decrease per user of 7.6%.*
** Users within LBRID represent individual lots connected to the system.*

It is presumed the buildout of LBRID's jurisdictional boundary will be limited to the development of the remaining 193 privately-owned lots in Berryessa Estates' Unit One (27) and Unit Two (166) that are already within the District, but have not connected to its water system.[20] Assuming all 193 new lots eventually connect, the annual water demand at buildout is projected to total 65.7 acre-feet based on current average usage amounts. This projected buildout demand can be adequately accommodated by LBRID given the amount would represent only 33% of its supply entitlement.[21]

Capacity

LBRID's water treatment facility was constructed in 1967 and disinfects and filters raw water conveyed from Lake Berryessa. Coagulants (poly aluminum chloride) and disinfectants (chlorine) are the primary chemical treatment agents added to the raw water as it enters into the facility's clarifier. Raw water is detained in the clarifier to facilitate the sedimentation of solids. Solids are removed from the treatment process as water is cycled through a two-stage filtering process before entering into a 10,000 gallon clearwell tank. The clearwell tank completes the disinfection process by allowing the water to complete its contact time with the chlorine. Finished water remains in the clearwell tank until storage levels in the distribution system require recharge.

The water treatment facility is designed to process up to 174 gallons per minute, resulting in a daily capacity of 250,000 gallons or 0.77 acre-feet.[22] The current peak day demand totals 0.40 acre-feet and equals only 52% of the facility's daily capacity. This capacity is also sufficient to address the projected peak day demand at the end of the timeframe of this review. A moderate addition of 0.08 acre-feet in daily capacity will be needed, however, for the facility to sufficiently accommodate the expected peak day

[20] There are an additional 23 lots within LBRID that lie outside Unit One and Unit Two. The development of these lots is not expected due to their topography.

[21] Projected water demands at buildout assume the remaining 166 lots in Unit Two will on average require an annual amount equal to 0.16 acre-feet for each lot. It is assumed the average annual water demand for each of the 27 lots in Unit One will be double at 0.32 acre-feet.

[22] LBRID received a $1.74 million forgivable loan in 2009 from the American Recovery and Reinvestment Act (ARRA) to comprehensively update the water treatment facility as required by RWQCB. The improvements are scheduled to be completed in 2011 and will address turbidity at Putah Creek and reduce backwash to the sewer system.

demand at buildout based on current usage trends. A summary of the existing treatment capacity relative to current and projected peak day demands at buildout follows.

Water Treatment Capacity and Demand in LBRID
(Source: LBRID/LAFCO)

Existing Day Capacity	Current Peak Day Demand	Timeframe (2015) Peak Day Demand	Buildout Peak Day Demand
0.77 Acre-Feet/ 250,000 Gallons	0.40 Acre-Feet/ 130,400 Gallons	0.30 Acre-Feet/ 98,200 Gallons	0.90 Acre-Feet/ 293,300 Gallons

** Peak day demand projected for 2015 reflects a 0.1 decrease consistent with anticipated declines in overall water consumption based on current trends. Peak day demand at buildout has been calculated based on the present-year consumption rate calculated against all expected development. It is assumed there will be an increase in water consumption per user/connection at buildout as rates presumably stabilize.*

The water distribution system comprises three independent pressure zones that are each maintained by their own storage tank. The distribution system operates on a supply and demand basis and responds to storage levels within LBRID's primary pressure zone. The primary pressure zone lies below the other two zones and currently serves approximately one-half of the customer base. The primary zone is maintained by a storage tank with a holding capacity of 200,000 gallons or 0.61 acre-feet. Treated water is discharged from the clearwell tank and pumped into the primary pressure zone when storage levels fall below a designated marker adjusted seasonally.[23] Treated water pumped into the second pressure zone serves one-third of the customer base and is maintained by a 100,000 gallon or 0.31 acre-foot storage tank. Treated water pumped into the third and final pressure zone serves the remaining one-fifth of the customer base and is also maintained by a 100,000 gallon or 0.31 acre-foot storage tank.

LBRID's existing water storage capacities within the distribution system are presently operating under capacity with respect to accommodating the current peak day demand within each of the three pressure zones. The existing storage capacities are also sufficient to accommodate the projected peak day demand through buildout. A summary of the existing storage capacities relative to current and projected peak day demands at buildout are shown in the following table.

Storage Capacities Compared to Demands in LBRID
(Source: LBRID/LAFCO)

Zone	Storage Capacity	Current Peak Day Demand	Timeframe (2015) Peak Day Demand	Buildout Peak Day Demand
One	0.61 Acre-Feet/ 200,000 Gallons	0.19 Acre-Feet/ 64,000 Gallons	0.14 Acre-Feet/ 46,400 Gallons	0.45 Acre-Feet/ 145,000 Gallons
Two	0.31 Acre-Feet/ 100,000 Gallons	0.13 Acre-Feet/ 42,000 Gallons	0.10 Acre-Feet/ 31,800 Gallons	0.25 Acre-Feet/ 80,000 Gallons
Three	0.31 Acre-Feet/ 100,000 Gallons	0.08 Acre-Feet/ 25,000 Gallons	0.06 Acre-Feet/ 19,600 Gallons	0.21 Acre-Feet/ 69,000 Gallons
	1.25 Acre-Feet	0.40 Acre-Feet	0.30 Acre-Feet	0.90 Acre-Feet

** Peak day demand projected for 2015 reflect a 0.1 decrease consistent with anticipated declines in overall water consumption based on current trends. Peak day demand at buildout has been calculated based on the present-year consumption rate calculated against all expected development. It is assumed there will be an increase in water use per user at buildout as rates presumably stabilize.*

[23] The maximum daily pump capacity at the clearwell tank is 215,000 gallons or 0.66 acre-feet.

** Current users total 181; projected users at buildout total 374. Users represent individual lots connected to the water system.*

** Projected peak day demands at buildout for purposes of this review assume the additional 166 lots in Unit Two will be evenly distributed between the three pressure zones. It is also assumed that all 27 lots within Unit One would be added to the first pressure zone. The peaking factor of 5:1 applied to the projections is consistent with the current ratio.*

6.2 Sewer Service

A review of LBRID's sewer service is provided below with respect to assessing the relationship between availability, demand, and capacity through (a) the five-year timeframe of this review period and (b) buildout of the District's service area.

Collection and Treatment Systems

LBRID's sewer collection system consists of approximately 7.5 miles of sewer lines and three pump stations. Nearly all of the sewer lines comprise clay and are 25 years or older. LBRID provides a secondary level of treatment to raw sewage as it enters its collection system through individual laterals and initially settles in a 91,000 gallon or 0.28 acre-foot above-ground holding tank, which is supplemented as needed by a 21,000 gallon or 0.06 acre-foot overflow tank. Raw sewage is pumped out of the holding tank through a 1.2 mile long force main before entering one of three gravity flowing aerobic/anaerobic ponds to facilitate the settlement of solids. From the third pond, sewage gravity flows into a fourth finishing pond for final treatment. After the fourth pond the sewage can either flow directly into a fifth pond or be pumped to a sixth and seventh pond for chlorination, storage, and disposal through a spray irrigation system comprising six acres of LBRID-owned land.[24] Ponds five, six, and seven are considered storage and have a total capacity of 7.86 million gallons or 24.1 acre-feet.

HOLDING TANK

STORAGE POND

LBRID's Collection and Treatment Systems
(Source: LBRID/LAFCO)

Collection System

Miles of Gravity Sewer Lines	6.5 Miles
Miles of Forced Sewer Lines	1.0 Miles
Percent of Sewer Lines 25 Years or Older	99%

Treatment System

Treatment Level	Secondary
Treated Storage Capacity	7.86 Million Gallons
Discharge Type	Sprayfield Irrigation/6.0 Acres

[24] LBRID also uses up to four wastewater evaporation units to assist with disposal.

Capacity and Demand

LBRID's wastewater treatment facility has design daily dry-weather and wet-weather flow capacities of 44,000 and 84,000 gallons, respectively. These capacities sufficiently accommodate LBRID's current average dry-weather and wet-weather flow demands of 21,000 and 30,000 gallons. Peak day wet-weather flow totals, though, substantially exceed LBRID's design capacities as well as temporary overflow facilities by over 40% and currently total 270,000 gallons. The excessive peak day wet-weather flow totals are attributed to increasing inflow/infiltration into the aging collection system and have directly resulted in a series of unauthorized spills beginning in the mid 1990s leading to numerous violation notices and fines from the RWQCB. The following table summarizes LBRID's existing sewer capacities and demands.

LBRID's Daily Sewer Capacity and Current Demand Totals
(Source: LBRID/ LAFCO)

Daily Dry-Weather Capacity	Daily Wet-Weather Capacity	Average Dry Weather Demand	Average Wet Weather Demand	Peak Wet Weather Demand
44,000 Gallons 0.14 Acre-Feet	84,000 Gallons 0.26 Acre-Feet	21,000 Gallons 0.06 Acre-Feet	30,000 Gallons 0.09 Acre-Feet	270,000 Gallons 0.83 Acre-Feet

** LBRID reports it has the temporary capacity to accommodate up to 190,000 gallons or 0.58 acre-feet of sewer during peak day wet-weather conditions by utilizing a series of pumps to convey flows from various holding/storage ponds.*

With respect to projecting future demands in the timeframe of this review, it is reasonable to assume average dry-weather sewer flows will continue to equal 80% of projected water usage in LBRID. It is also reasonable to assume average wet-weather flows will continue to equal 150% of average dry-weather flows. If these assumptions prove accurate, LBRID will experience decreases in sewer flows consistent with projected water consumption through 2014. To this end, LBRID has sufficient treatment capacities to accommodate average dry-weather and wet-weather flows in the timeframe of this review. Peak day wet-weather flows, however, are expected to continue to overwhelm the system by over 40% during extended storm events until significant improvements are made to reduce inflow and infiltration in the collection system.[25] The following table summarizes projected daily sewer flows compared to existing system capacities through 2015.

[25] In response to the most recent fine issued by RWQCB, LBRID has retained an outside engineering firm to prepare a scope of work regarding system improvements to reduce inflow and infiltration and related spillage problems with its storage ponds. LBRID has also recently worked with PG&E in extending an electrical line to operate the District's evaporation sprayers, which is expected to provide a reliable system to convey treated wastewater to its storage ponds.

Projected Sewer Demands in LBRID Through 2015
(Source: LAFCO)

Category	2010-11	2011-12	2012-13	2013-14	2014-15
Number of Users	190	191	193	195	196
Daily Dry-Weather Flow	19,500	18,000	16,600	15,500	15,700
Daily Dry-Weather Capacity	44,000	44,000	44,000	44,000	44,000
Capacity Difference	24,500	26,000	27,400	28,500	28,300
Daily Wet-Weather Flow	29,250	27,000	24,900	23,250	23,550
Daily Wet-Weather Capacity	84,000	84,000	84,000	84,000	84,000
Capacity Difference	54,750	57,000	59,100	60,750	60,450
Peak Day Wet-Weather Flow	263,250	243,000	224,100	209,250	211,950
Peak Day Wet-Weather Capacity	190,000	190,000	190,000	190,000	190,000
Capacity Difference	(73,250)	(53,000)	(34,100)	(19,250)	(21,950)

** Amounts are shown in gallons.*
** Projections assume a baseline in which inflow and infiltration flows will reflect current percentages.*
** Users represent individual lots connected to the sewer system.*
** LBRID reports it has the ability to temporarily increase its wet-weather capacity from 84,000 to 190,000 gallons if needed by utilizing a series of pumps and storage ponds.*

As discussed in the preceding section on water, buildout within LBRID is expected to be limited to the development of the remaining 193 privately-owned lots in Berryessa Estates' Units One and Two that are already in the District, but not connected to the sewer system. If all 193 remaining lots are connected, and based on current demands, the daily average dry-weather and wet-weather flows would increase to 43,900 and 70,400 gallons, respectively. These projected demands could be accommodated based on existing design capacities. However, the expected peak day wet-weather flow – in the absence of significant improvements to the collection system to limit inflow/infiltration – would increase to 633,500 gallons and exceed existing capacity over three to one.

7.0 Financial

7.1 Assets, Liabilities, and Equity

LBRID's financial statements are prepared by the County Auditor-Controller and included in its annual report at the conclusion of each fiscal year. The most recent issued report was prepared for the 2009-2010 fiscal year and includes audited financial statements identifying LBRID's total assets, liabilities, and equity as of June 30, 2010. These audited financial statements provide quantitative measurements in assessing LBRID's short and long-term fiscal health and are summarized below.

Assets

LBRID's assets at the end of the fiscal year totaled $7.41 million. Assets classified as current with the expectation they could be liquidated into currency within a year represented slightly less than one-half of the total amount with the majority tied to cash and investments.[26] Assets classified as non-current represented the remaining amount with the largest portion associated with depreciable structures.[27]

Category	2005-06	2006-07	2007-08	2008-09	2009-10
Current Assets	0.178	0.628	3.867	3.327	3.679
Non-Current Assets	0.772	0.721	2.519	3.005	3.732
Total Assets	$0.950	$1.349	$6.385	$6.332	$7.411

** Current assets significantly increased in 2007-2008 due to bond issuances.*

Liabilities

LBRID's liabilities at the end of the fiscal year totaled $5.82 million. Current liabilities representing obligations owed within a year accounted for only one-tenth of the total amount and primarily tied to debt obligations within the upcoming year. Non-current liabilities accounted for the remaining amount with the majority tied to outstanding debt payments associated with LBRID's 2007 special assessment bond measure.[28] The remaining non-current liability amount is the result of LBRID's stipulated judgment in favor of RWQCB for previous sewage spills.[29]

Category	2005-06	2006-07	2007-08	2008-09	2009-10
Current Liabilities	0.037	0.100	0.308	0.295	0.506
Non-Current Liabilities	0.000	0.000	4.655	4.945	5.315
Total Liabilities	$0.037	$0.100	$4.963	$5.240	$5.821

** Non-current liabilities significantly increased in 2007-2008 due to bond issuances.*

Equity/Net Assets

LBRID's equity, or net assets, at the end of the fiscal year totaled $1.59 million and represents the difference between the District's total assets and liabilities. The end of year equity amount incorporates a ($0.73 million) balance in unrestricted funds. This negative unrestricted fund balance is attributed to a net operating loss of ($0.29 million) and a stipulated judgment of ($0.40 million) against LBRID for repeated sewage spills.

Category	2005-06	2006-07	2007-08	2008-09	2009-10
Capital Asset Funds	0.772	0.721	1.271	1.180	2.021
Restricted Funds	0.000	0.000	0.480	0.479	0.293
Unrestricted Funds	0.140	0.527	(0.329)	(0.567)	(0.725)
Total Equity	$0.912	$1.248	$1.422	$1.093	$1.589
Change	*($0.203)*	*$0.336*	*$0.174*	*($0.330)*	*$0.496*

[26] Current assets totaled $3.679 million and include cash investments ($2.719 million), taxes receivable ($0.012 million), accounts receivable ($0.059 million), and assessments receivable ($0.111 million).

[27] Non-current assets totaled $3.005 million and include land ($0.005 million), structures and improvements ($3.342 million), and equipment ($0.225 million) minus accumulated depreciation ($1.471 million).

[28] The 2007 special assessment bond was issued at $4.75 million. The outstanding due amount is currently $4.49 million.

[29] The stipulated judgment totals $400,000 and is to be paid over a 10 year period with no interest.

2009-10 Financial Statements	
Assets	$7.411 million
Liabilities	$5.821 million
Equity	$1.589 million

LBRID's financial statements for 2009-2010 reflect the District experienced a positive change in its fiscal standing as its overall equity, or fund balance, increased by nearly one-half from $1.09 to $1.59 million. This increase in the overall fund balance is directly attributed to capital contributions tied to the special assessment. However, financial statements also reflect the unrestricted portion of the fund balance continued to decrease in value during the fiscal year and has fallen by over 400% over the last five completed fiscal years from $0.14 million to ($0.72 million). This decrease in the unrestricted fund balance has been credited to recurring net income losses in each of the last five fiscal years totaling $1.01 million. No significant deficiencies or material weaknesses were identified with respect to LBRID's financial statements.

Calculations performed assessing LBRID's liquidity, capital, and profitability indicate the District finished 2009-2010 with sufficient resources to remain operational in the short-term, but with questions regarding its long-term financial health. Specifically, short-term liquidity remained exceedingly high given LBRID finished the fiscal year with sufficient current assets to cover its current liabilities seven-to-one.[30] LBRID, however, finished with significant long-term debt as its non-current liabilities exceeded its net assets by three-to-one, reflecting a strained capital structure.[31] LBRID also finished the fiscal year with a negative operating margin as expenses exceeded revenues by over one-half.[32] An expanded discussion on revenues-to-expenses is provided in the following section.

7.2 Revenue and Expense Trends

A review of LBRID's audited revenues and expenses identifies the District has finished each of the last five completed fiscal years with operating shortfalls reflecting an entrenched structural imbalance. The 2009-2010 year marked the largest end-of-year shortfall at $0.29 million and is primarily tied to booking the aforementioned $0.40 million judgment in favor of the RWQCB for repeated sewage spills. Overall, non-operating revenues, such as special assessment proceedings, have allowed LBRID to finish three of the last five fiscal years with positive end-of-year fund balances.

LBRID segregates its revenues and expenses into three broad fund categories: (a) operations; (b) non-operations; and (c) transfers/special items. An expanded review of LBRID's audited end-of-year revenues and expenses in these three fund categories follows.

[30] LBRID also finished with cash reserves sufficient to cover 1,405 days of operating expenses, but this measurement is misleading given the majority of available cash was tied to special assessment proceedings.
[31] LBRID's debt-to-equity ratio as of June 30, 2010 was 3.34.
[32] LBRID's operating margin as of June 30, 2010 was (0.52).

Fund Category	2005-06	2006-07	2007-08	2008-09	2009-10
Operations					
Revenues	658,117	543,516	446,722	517,297	566,054
Expenses	(886,976)	(642,667)	(662,455)	(692,589)	(859,276)
Non-Operations					
Revenues	25,707	49,355	227,849	140,620	79,962
Expenses	0	0	(182,575)	(266,798)	(272,779)
Special Items					
Revenues	0	386,184	344,767	371,568	982,566
Expenses	0	0	0	(400,000)	(486,039)
	($203,152)	$336,058	$174,308	($329,902)	$10,488

** All information reflects audited financial statements in CAFRs and based on GAAP accrual basis accounting.*
** LBRID began collecting special assessment proceedings in 2006-2007.*
** LBRID received and paid back a $400,000 loan to the County of Napa in 2008-2009.*

7.3 Current Budget

LBRID's adopted amended budget for the 2010-2011 fiscal year totals $3.5 million.[33] This amount represents LBRID's total approved expenses or appropriations for the fiscal year within its four budget units: (a) operating; (b) capital improvement; (c) capital improvement – recovery act; and (d) bond account. An expanded review of expenses and revenues within each of the four budget units follows.

Operating

LBRID's operating budget unit supports basic District water and sewer activities. Approved expenses total $0.91 million with three-fifths of the apportionments dedicated to services and supplies. Estimated revenues are projected at $0.76 million with two-thirds of proceeds expected to be generated from usage charges and T-1 assessments.[34] A $0.09 million loan from the County is also budgeted.

2010-11 Adopted Operations	
Revenues	$0.76 million
Expenses	$0.91 million
Difference	($0.15 million)
Beginning Balance	$0.19 million
Est. Ending Balance	$0.04 million

In the absence of an unexpected positive net revenue total, LBRID is projected to experience a $0.15 million operating shortfall and would further draw down its budgeted unreserved/unrestricted fund balance from $0.19 million to $0.04 million. (The budgeted amount incorporates $590,250 in earlier loans from the County provided over the last several years to provide emergency cash flow.) Additionally, due to the projected shortfall, no operating contingencies have been budgeted for the fiscal year.

Capital Improvement

LBRID's capital improvement unit accounts for the receipt and expense of acquiring or constructing major infrastructure commonly through grants and inter-fund transfers. Approved expenses are estimated at $1.0 million and entirely allocated to repairing LBRID's three water storage tanks. New revenues are budgeted at $0.03 million and will be entirely drawn from interest earnings. These new revenues will help offset the

[33] Amended budget as of August 3, 2010.
[34] LBRID approved a 4% increase in the annual T-1 charge for 2010-2011 raising the individual fee from $665 to $693.

approved expenses once undertaken, with the remaining amount to be drawn from the fund balance, which is currently $2.7 million as of July 1, 2010.[35]

Capital Improvement – Recovery Act

LBRID's capital improvement – recovery act unit accounts for the receipt and expense of the $1.7 million awarded to the District in September 2009 through the ARRA. Approved expenses total $1.2 million and are entirely allocated to replacing LBRID's water treatment facility. As referenced, matching revenues to cover actual expenses will be provided to LBRID through the administrators of the ARRA, the Recovery Accountability and Transparency Board.

Bond Account

LBRID's bond account unit is for the receipt and expense of monies associated with the $4.7 million bonded special assessment approved by District landowners in 2007. Approved expenses total $0.3 million and are entirely dedicated to paying interest, principal, and related administrative fees tied to the 2007 bond. Matching revenues are drawn from collecting special assessments tied to each parcel in LBRID at an annual amount of $515.

[35] As previously detailed, LBRID was awarded a $1.74 million forgivable loan from ARRA to finance a comprehensive update to the water treatment facility to address turbidity levels at Putah Creek and reduce backwash to the sewer system.

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B. Napa Berryessa Resort Improvement District

1.0 Overview

NBRID was formed in 1965 to provide a full range of governmental services in support of the planned development of Berryessa Highlands, an unincorporated community located along Lake Berryessa's southern shoreline in eastern Napa County. Development of Berryessa Highlands was expected to occur over two distinct planning phases and eventually result in the construction of approximately 4,000 residential units along with various commercial and recreational uses. Due to various factors, however, the development of Berryessa Highlands has been primarily limited to the creation of two residential subdivisions in the western portion of NBRID collectively totaling 561 single-family lots. Additionally, a 1971 amendment to its principal act limits NBRID to providing only sewer and water services.[36]

Napa Berryessa RID	
Date Formed:	1965
District Type:	Dependent
Resident Population:	920
Services Provided:	Sewer/Water

NBRID currently has an estimated resident service population of 920. NBRID is a dependent special district governed by the County Board of Supervisors. Daily operations are managed by the County Public Works Department. The current adopted operating budget is $1.49 million resulting in a per capita cost of $1,620. The unrestricted fund balance totaled ($0.58 million) as of July 1, 2010.[37] This portion of the fund balance is expected to decrease to ($0.82 million) by the end of the fiscal year due to a budgeted operating shortfall.

2.0 Formation and Development

2.1 Formation Proceedings

NBRID's formation was proposed by the Berryessa Highlands Development Company to help facilitate and support the planned development of Berryessa Highlands. The Commission approved formation proceedings in January 1965 and authorized NBRID to provide a full range of municipal services, specifically water, sewer, fire, police, roads, lighting, and recreation. NBRID's formation coincided with an ordinance change by the County to rezone the affected area from *Watershed Recreation* to *Planned Community*; an action paralleling a concurrent change in the Berryessa Estates community. Formation proceedings were approved in conjunction with the County Board of Supervisors agreeing to serve as NBRID's governing body. Voters confirmed the formation of NBRID in March 1965.

[36] Other municipal services directly provided in Berryessa Highlands are limited and include a basic level of fire protection, law enforcement, and road maintenance from the County as well as interment from Monticello Public Cemetery District.

[37] NBRID's unreserved/undesignated fund balance for budgeting purposes is $0.29 million with $474,000 coming from loans from the County of Napa to provide emergency cash flow.

2.2 Initial Development and Activities

Application materials associated with NBRID's formation proceedings state the development of Berryessa Highlands was anticipated to occur in two distinct planning phases. The first planning phase was expected to develop the western portion of NBRID and anchored by 1,700 residential units that were anticipated to serve primarily as secondary homes. Development of the western portion commenced in the middle of 1965 with the construction of "Unit One" and "Unit Two," which involved the creation of 202 and 359 single-family lots, respectively. The development of Units One and Two coincided with NBRID issuing $0.90 million in general obligation bonds to help finance the construction of water and sewer facilities to serve both subdivisions as well as the adjacent Steele Park Resort.[38] NBRID also secured water supplies in 1964 through an agreement with NCFCWCD for an annual raw water entitlement of 200 acre-feet from Lake Berryessa. The water supply agreement was amended in 1975 and again in 2007 with the latter change providing 300 acre-feet annually through 2028.

The remaining planned development of Berryessa Highlands was expected to occur throughout the 1970s and include an additional 1,000 residential units in the western portion along with 1,400 residential units in the eastern portion of NBRID. Expansion of the Steele Park Resort was also expected, which at the time of formation included a 156-space trailer park. These additional development phases, however, did not materialize presumably due to low lot sales in Units One and Two and eventually Berryessa Highlands Development Company closed due to bankruptcy by the early 1970s. The only additional planned development within Berryessa Highlands occurred in the early 1980s with the construction of 10-lot subdivision known as "Oakridge Estates."[39]

The abandonment of the remaining planned development phases in Berryessa Highlands in the early 1970s corresponded with an amendment to NBRID's principal act to prohibit all affected special districts from engaging in any other services not already provided or budgeted as of July 1, 1970. This amendment has restricted NBRID to providing only water and sewer services; all other services that were expected to be provided by the District are either provided at a basic level by the County, such as fire and police, or do not exist in the community.

Initial development within NBRID remained slow with only 71 lots built in Berryessa Highlands by 1980. An improving economy underlined an accelerated rate of growth as the number of built lots in Berryessa Highlands more than doubled to 170 by 1990. Incremental growth continued throughout the 1990s resulting in 300 built lots by 2000.

[38] Additional financing for NBRID's water and sewer facilities was drawn from an assessment district and developer contributions.

[39] Services to Oakridge Estates were established in 1982 and facilitated through an intertie to the main distribution and collection systems.

Despite improving development activity, NBRID had established a persistent structural budget imbalance by the 2000s due to increasing service costs tied to new regulatory requirements paired with a small customer base and stagnant service rates.[40] Another key issue emerging during this time was the lack of operating reserves, which were effectively depleted after NBRID made numerous repairs to its water and sewer facilities following a series of damaging winter storms in 1995. Further, an attempt to reestablish reserves to fund needed capital improvements through a special parcel tax aimed at replacing the monthly availability charges was also rejected by voters 52 to 48 percent in 1997.

2.3 Recent Development and Activities

Recent development and activities within NBRID have largely focused on addressing deficiencies involving the aging District's water and sewer systems. The deficiencies involving the sewer system have been the most persistent and have resulted in repeated sewage spills into Lake Berryessa, leading RWQCB to issue several notices of violation and three separate cease and desist orders between 1995 and 2010. Markedly, the last two cease and desist orders issued in 2006 and 2010 established and expanded restrictions on adding sewer connections until specific improvements are performed. This includes submitting an inflow and infiltration assessment for RWQCB review by November 2011 and constructing a new or improved wastewater treatment facility before December 2015.

Summary Timeline

1965	...…….NBRID formed to provide multiple services
1968	...……Lots in Units One and Two completed
1969	……...NBRID establishes water and sewer charges
1971	….NBRID limited to only providing water and sewer
1982	….……...…Lots in Oakridge Estates completed
1991	…NBRID approves first water/sewer charge increase
1995	.....….State issues first NBRID cease and desist order
1997	……Voters reject special parcel tax
2006	…..State issues second NBRID cease and desist order
2007	..……...Voters approve $13.9 million bond measure
2008	……..….Steele Park Resort closes for redevelopment
2009	..…….NBRID receives $474,000 loan from County
2010	…….New contract to operate former Steele Park site
2010	...…….NBRID receives $395,000 loan from County
2010	.....County requests reorganizing NBRID
2010	…….State issues third NBRID cease and desist order

NBRID's current ability to fund needed capital improvements to both its water and sewer systems has been adversely effected by the uncertainties associated with USBR's redevelopment plans for Steele Park Resort, which is now known as Lupine Shores Resort. Specifically, the concession site has been left undeveloped since early 2010 due to delays in the USBR's competitive bid process for new contractors to assume control.[41] A new contractor, the Pensus Group, was selected in April 2010 to redevelop and improve the concession site. USBR approved the Pensus Group's development and management plan for Lupine Shores Resort in February 2011. Notably, the approved plan will accommodate a significantly smaller use than previously expected as part of a $13.9 million bond measure approved by NBRID voters in April 2007 to make expansive improvements to both water and sewer systems.[42] The bond measure – as approved – is secured by a special assessment levied against all lands within NBRID and calculated based on expected benefit from the system-wide improvements. This includes one-third of the calculated benefit tied to the improvements would go to the concession site and therefore the Pensus Group would be

[40] NBRID's first increase to its water and sewer rates did not occur until 1991.

[41] The majority of services at Steele Park Resort were closed in May 2008. USBR reports limited services were provided through early 2010 through an interim contract between the Bureau and the previous concession contractor.

[42] The bond measure is secured by a special assessment district that applies an annual $563.96 charge for every dwelling unit over a 30 year period. At the time the bond measure was approved by voters, it was expected Steele Park Resort/Lupine Shores Resort would include 228 equivalent dwelling units. The Pensus Group's development plan, however, will only use the equivalent of 88 dwelling units; a total significantly lower than the originally anticipated amount.

responsible for approximately $4.6 of the $13.9 million bond. Importantly, the downsizing of the concession site's redevelopment may preclude NBRID from going forward and implementing the bond assessment if the District concludes a reasonable nexus no longer exists within the calculation made in determining benefits and costs.

In November 2010, in response to an increasing desire by residents for self-governance, the County formally requested the Commission consider reorganizing NBRID from a dependent to an independent special district. The request follows a successful protest by landowners in objecting to proposed raises in water and sewer user charges by NBRID, an outcome reflecting an increasing dissatisfaction with the management of the District. The request also succeeds the County's support of Senate Bill 1023, which became effective January 2011 and expedites reorganizing resort improvement districts into community services districts with identical powers and boundaries while eliminating protest proceedings. NBRID subsequently amended its earlier filed request in March 2011. The amended request no longer seeks conditioning reorganization to include an election to transition governance to an independent board; NBRID now wishes to directly oversee a transition period with the goal of calling for an election on or before November 2012.[43]

Addressing NBRID's existing financial instability remains the critical issue going forward regardless of whether the District remains dependent or transitions to independent. This instability is evident given NBRID has experienced a steep decline in its unrestricted fund balance over the last five fiscal years from $0.25 to ($0.58 million) due to persistent operating shortfalls. Significantly, these shortfalls have necessitated NBRID to request and receive discretionary loans from the County totaling $0.87 million over the last few years to maintain positive cash flows. It is unclear whether NBRID will be able to repay these loans or seek additional funding from the County given its persistent structural imbalance. The consent of residents to authorize rate increases to help address the operating shortfall is also in question given their successful protest vote of a proposed rate increase in 2009. However, a recent effort by NBRID to raise both charges by close to 60% was successfully passed in February 2011. The increase results in average monthly water and sewer related services costing constituents $217; second only to LBRID in terms of highest monthly cost in Napa County.

3.0 Adopted Commission Boundaries

3.1 Jurisdictional Boundary

NBRID's jurisdictional boundary is approximately 2.1 square miles or 1,320 acres in size. There are approximately 630 parcels lying within NBRID with an overall assessed value of $83.2 million. A review of the database maintained by the County Assessor's Office indicates 352 of the parcels have been developed as measured by the assignment of situs addresses.[44] There have been no changes to NBRID's jurisdictional boundary since formation in 1965.

[43] An election to transition governance from the Board of Supervisors to an independent board would require seating five registered voters residing within the affected territory.

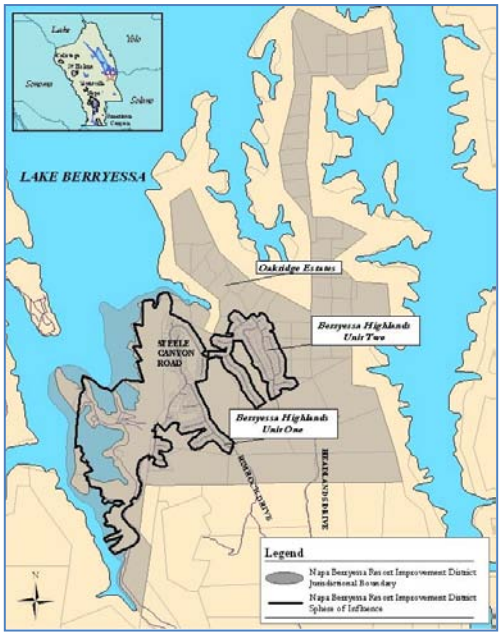
[44] Developed assessor parcels with situs addresses in NBRID represent only 39.9% of its total land acres.

Jurisdictional Characteristics in NBRID
(Source: LAFCO)

Total Acreage……..	…….1,320
Acreage Tied to Existing Development…...	……39.9%
Predominant Zoning.....…….....	*Planned Development* (Units One/Two) ……...*Residential Country* ……..*Agricultural Watershed*
Assessed Value……...	……$83.2 Million
Assessed Value/Acre…….....	……..……$63,030
Registered Voters……	…….……529

3.2 Sphere of Influence

FIGURE THREE



The Commission adopted NBRID's sphere in 1985 to include only assessor parcels in Unit One, Unit Two, and the present day Lupine Shores Resort site as depicted in Figure Three. The Commission updated the sphere with no changes in 2007 in deference to first completing a review of reorganization options due to diseconomies of scale and other issues raised in earlier studies.

In terms of current dimensions, NBRID's sphere encompasses 0.4 square miles or 251 acres. This amount means there are a total of 972 jurisdictional acres encompassing 56 parcels in NBRID that lie outside the District's sphere. There are no non-jurisdictional acres currently eligible for annexation.

4.0 Population and Growth

4.1 Residential Trends

Population Breakdown

Highlands: Units 1 and 2	897
Highlands: Other	23
Total:	920

Residential uses comprise nearly all development within NBRID and currently include 358 developed single-family residences with an estimated population of 920. All of these residences receive water and sewer services from NBRID. Berryessa Highlands' Units One and Two include 349 residences with an estimated population of 897. The remaining nine residences with an estimated population of 23 are located outside Berryessa Highlands with the majority lying within Oakridge Estates.

NBRID has experienced a relatively high rate of new residential growth compared to the remaining unincorporated area over the last five years. This new growth has been tied to the development of 41 residential lots within Units One and Two with the largest percentage increase occurring in 2006. The development of these new lots has contributed to increasing NBRID's total resident population by an estimated 118 or 2.94% annually since 2006 despite a moratorium on new sewer connections. The population growth rate, however, has

decelerated in conjunction with the economic downturn beginning in earnest in early 2007 to 1.62%. Nonetheless, despite the downturn, NBRID's population growth rate during this latter period is still approximately four times greater than the remaining unincorporated area.

Past and Present Population Estimates in NBRID
(Source: LAFCO)

Population	2006	2007	2008	2009	2010
NBRID	802	864	907	917	920
% Increase From Prior Year	--	7.7	5.0	1.1	0.3
Remaining Unincorporated Area	27,265	27,244	27,825	27,797	27,733
% Increase From Prior Year	--	(0.1)	2.1	(0.1)	(0.2)

** Does not include previous seasonal residents associated with Steele Park Resort*

It is reasonable to assume the rate of new population growth in NBRID relative to the last four years will slightly decrease within the timeframe of this review from 1.62% to 1.26% annually.[45] This projected growth rate incorporates adjustments made to ABAG estimates and assumes growth in NBRID will continue to outperform growth in the remaining unincorporated area 3.6 to 1 consistent with recent percentage totals.[46] New growth will presumably be limited to developing the 212 remaining vacant and privately-owned lots in Units One and Two of Berryessa Highlands given their ready access to NBRID's public water and sewer systems. The following table incorporates these assumptions in projecting future resident populations within NBRID.

Future Population Projections in NBRID
(Source: LAFCO)

Category	2011	2012	2013	2014	2015
NBRID	932	943	955	967	979

** Assumes a uniform annual growth rate of 1.26%*

4.2 Non-Residential Trends

Existing non-residential uses in NBRID are limited to recreational day camping at Lupine Shores Resort. No public water or sewer services, however, are provided at Lupine Shores Resort by NBRID at this time.

Future non-residential uses are expected to increase within the timeframe of this review consistent with the Pensus Group's development plan for Lupine Shores Resort that was approved by USBR in February 2011 to replace Steele Park Resort, which closed in 2008.[47] Notably, prior to its closure, Steele Park Resort provided a range of seasonal/temporary residential, recreational, and limited commercial uses. These previous uses resulted in an

[45] NBRID is currently restricted from authorizing new sewer service connections by the RWQCB until certain improvements are made to the sewer collection and treatment system. For purposes of this review, staff assumes these improvements will be accomplished by NBRID within the next year, allowing for population increases.

[46] NBRID's population increase over the remaining unincorporated area is specifically 3.6:1 since 2007.

[47] USBR assumed management responsibilities from the County for the seven concession areas operating along the Lake Berryessa shoreline beginning in 1975. USBR required all permit holders (trailer or mobile home owners) to maintain a permanent residence elsewhere not located in a concession area. Permit holders could not register a voting residence in a concession area and could not occupy the resort premises more than six months in a calendar year or more than 90 days continual occupancy without written approval from the concessionaire and USBR. In practice, however, many of the concessionaires failed to enforce USBR requirements and effectively allowed for year-round residency.

annual water and sewer demands from NBRID equivalent to 228 residential units and represented a significant portion of the District's annual operating revenues. Markedly, the development plan approved by USBR provides for an approximate 60% decrease in facility uses that previously existed under Steele Park Resort by reducing the equivalent residential units from 228 to 88.[48] Development is expected to commence in 2012 with campground and recreational vehicle uses along with a limited number of guest cabins. Buildout of Lupine Shores Resort is expected to be completed by 2020. A summary of approved facility uses at Lupine Shores Resort is provided below.

Planned Facility Uses at Lupine Shores Resort
(Source: USBR/The Pensus Group)

Category	2012	2014	2016	2018	2020
Recreational Vehicle Sites	59	59	59	59	59
Campground Sites	110	110	110	110	110
Guest Cabins	0	20	80	135	135
Wet Slips	0	280	399	399	399
Boat Rental Slips	5	10	20	20	20
Day Use Sites	10	10	10	10	10
House Boat Rentals	0	10	10	15	15

Other types of non-residential uses are not expected within NBRID given the County's zoning regulations.

5.0 Organizational Structure

5.1 Governance

NBRID operates under Public Resources Code Sections 13000-13233, and as previously noted, is known as the Resort Improvement District Law.[49] The law was enacted in 1961 for purposes of providing an alternative method for funding and furnishing a full range of extended municipal services – including land use planning powers – within large unincorporated areas to support seasonal recreational resort uses. The law was fashioned by the Legislature to facilitate recreational resort sites similar to the Squaw Valley in Placer County, which had been developed to host the 1960 Winter Olympic Games. In 1965, after the hearings were held by the Assembly into suspected abuses by affected special districts, the law was amended to prohibit the creation of new resort improvement districts. The law was further amended in 1971 to allow affected special districts to only provide those municipal services already provided or budgeted as of July 1, 1970. There are currently six other special districts operating under this law in California.

[48] LAFCO staff has calculated the equivalent resident unit amount of 88 for Lupine Shores Resort by dividing the projected annual water demand at the concession site based on The Pensus Group's estimates (17.59 acre-feet) by the current annual per user consumption rate (0.20 acre-feet). This calculation has been performed solely by LAFCO staff and its intended use is limited to this municipal service review.

[49] There are a total of seven resort improvement districts operating in California.

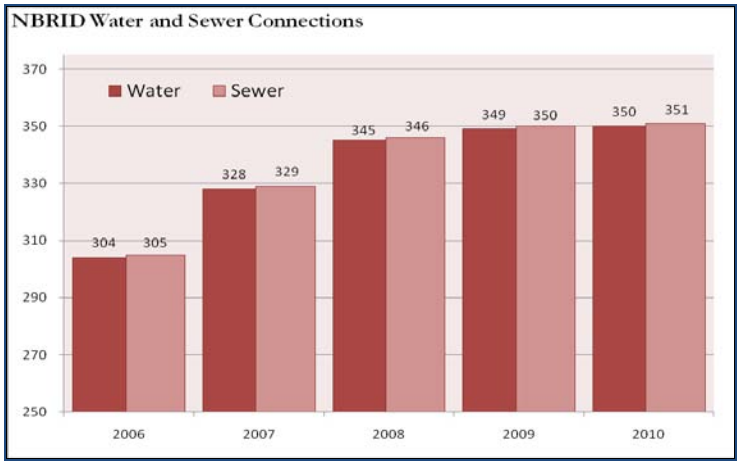
NBRID was organized at the time of its formation as a dependent special district governed by the County Board of Supervisors.[50] As a result of the aforementioned principal act amendment in 1971, NBRID is authorized only to provide water and sewer services. Supervisors are elected by division and serve staggered four-year terms. NBRID lies entirely within County Supervisorial District 3. NBRID meetings are generally scheduled once per month on the first Tuesday at the County Administration Building with special meetings calendared as needed. Elections are based on a registered-voter system. The County reports there are currently 529 registered voters residing in NBRID.

5.2 Administration

NBRID contracts with the County for administrative services. The County Public Works Director serves as District Manager/Engineer and is principally responsible for overseeing day-to-day operations, which includes operating and maintaining the agency's water and sewer systems. Public Works assigns a full-time technician to provide onsite operational services at NBRID. The onsite technician is supervised by a licensed operator who generally divides his or her time on a 60 to 40 split between LBRID and NBRID. Other continual administrative duties performed by Public Works include budgeting, purchasing, billing, contracting, and customer service. NBRID's legal and accounting services are provided by County Counsel and County Auditor-Controller's Office, respectively.

6.0 Municipal Services

NBRID's municipal services are limited to public water and sewer services. NBRID currently maintains 350 metered water connections and 351 metered sewer connections. All connections are located within NBRID and serve 358 single-family residential users. NBRID has experienced nearly a 15% overall increase in the number of its water and sewer connections in the last five years as reflected in the following chart.



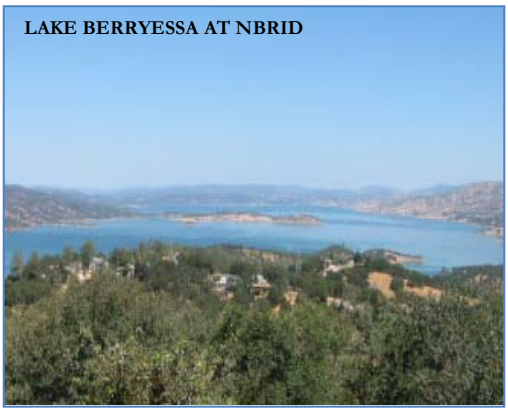
[50] The Board of Supervisors may delegate governance authority of NBRID to a five-member board of directors, four of which shall be elected from the District and the fifth shall be the supervisor representing the area.

6.1 Water Service

A review of NBRID's water service is provided below with respect to assessing the relationship between availability, demand, and capacity through (a) the five-year timeframe of this review period and (b) buildout of the affected service area.

Supply

NBRID's water supply is entirely drawn from Lake Berryessa and secured through an agreement with NCFCWCD. The agreement was initially entered into in 1966 and most recently amended in 2007. It provides NBRID an annual entitlement of 300 acre-feet of raw water through 2028. The agreement also allows NBRID to purchase an additional 40 acre-feet of annual entitlement. Raw water from Lake Berryessa is captured from a floatable submerged intake system and powered by two electric pumps with a combined daily conveyance capacity of 755,000 gallons or 2.3 acre-feet.


LAKE BERRYESSA AT NBRID

Water Supply	Annual Entitlement
Lake Berryessa	300 Acre-Feet

** NBRID's water supply originates from NCFCWCD's contract with USBR, which authorizes the countywide agency to divert up to 1,500 acre-feet annually from Lake Berryessa with the condition it serves only uses within the watershed. The annual entitlement runs through 2028.*

The full delivery of NBRID's entitlement is considered reliable based on current and historical storage levels at Lake Berryessa relative to the location of the District's floatable intake system. The supply entitlement also appears sufficient to accommodate current as well as projected demands within NBRID in the timeframe of this review, which have been calculated by staff to total 47.7 acre-feet by 2015. Buildout demands are addressed in the succeeding section.

Demand

NBRID's total water demand in 2010 equaled approximately 71.4 acre-feet. This amount represents an average daily demand of nearly 0.2 acre-feet, or 63,750 gallons. NBRID has experienced over a two-thirds decline in annual water demands over the last five years. This decrease is principally attributed to the closure of Steele Park Resort in May 2008 and water conservation resulting from user charge increases. In particular, monthly user charges have increased on average from $23.68 to $68.72 since 2006; an approximate 190% increase. The current peak day water demand equals 1.5 acre-feet and is nearly eight times greater than the daily average.

Recent and Current Water Demands in NBRID
(Source: NBRID)

Category	2005-06	2006-07	2007-08	2008-09	2009-10
Average Day Demand	0.56	0.38	0.38	0.29	0.20
Annual Demand	204.9	137.4	137.7	105.9	71.4
% of Supply	68.3	45.8	45.9	35.3	23.8

** All amounts are in acre-feet.*
** Steele Park Resort closed in May 2008.*

Similar to LBRID, projecting future water demands within NBRID is challenging given the contrast in which usage has decreased despite an increase in the population over the last five year period. Specifically, usage had decreased by 48.0% in the three years immediately preceding Steele Park Resort's closure while the population had increased by 1.4%. Also underlying short-term projections is the pending development of Lupine Shores Resort. Construction on the concession site is expected to commence in 2012 with campground and recreational vehicle uses as well as a limited number of guest cabins, which will incrementally increase until reaching a total of 135 by 2020. It is reasonable to assume, therefore, two distinct use patterns will occur within NBRID within the timeframe of this review. These assumptions are as follows:

- Usage for the portion of NBRID's service area comprising Berryessa Highlands is expected to continue to decline at an annual rate of 16.0% consistent with the three years leading up to Steele Park Resort's closure until reaching a minimum threshold necessary to provide 100 daily gallons to each developed lot.[51] This would result in this portion of the service area's water demand eventually declining to 42.7 acre-feet by 2014 before beginning to experience slight increases consistent with projected new development as outlined earlier.

- Usage for the portion of NBRID's service area comprising Lupine Shores Resort will largely be driven by guest cabins. Accordingly, water demands for Lupine Shores Resort are presumed to increase at a rate directly correlating with the planned rate of guest cabin development through 2015.[52]

The preceding assumptions produce an overall projected annual water demand for NBRID totaling 47.7 acre-feet by 2015 as reflected in the following table.

Projected Water Demands in NBRID Through 2015
(Source: LAFCO)

Category	2010-11	2011-12	2012-13	2013-14	2014-15
Number of Highlands Users	363	367	372	376	381
Highlands Annual Demand Per User	0.17	0.14	0.11	0.11	0.11
Highlands Annual Demand	60.0	50.4	42.3	42.2	42.7
Lupine Shores Resort Annual Demand	0.0	0.0	1.8	3.5	5.0
Total Annual Demand	60.0	50.4	44.1	45.7	47.7
% of Supply	20.0	16.8	14.7	15.2	15.9

[51] LAFCO projects there will be 381 developed lots served by NBRID by 2015.
[52] Guest cabin development at Lupine Shores Resort relative to its total buildout of 135 is expected to reach 10% by 2013, 20% by 2014, and 30% by 2015.

** All amounts are in acre-feet and assume an annual decrease for Berryessa Highlands users of 16.0% consistent with pre-closure patterns. Berryessa Highlands users represent the total number of customers defined by LAFCO staff to include all single-family residences, commercial sites, and mobile home units.*

** Water usage within Lupine Shores Resort is assumed to be directly tied to the percentage of guest cabins constructed relative to the anticipated buildout of 135.*

The buildout of NBRID's current jurisdictional boundary is anticipated to involve the development of the remaining 268 privately owned lots already within the District, but not connected to its water system. Buildout would also involve the full development of Lupine Shores Resort as discussed in the preceding paragraph. The water demand projected at buildout is expected to total 132.6 acre-feet.[53] This projected buildout demand can be adequately accommodated by NBRID given the amount would only represent 44.2% of its supply entitlement.

Capacity

NBRID's water treatment facility was constructed in 1968 and disinfects and filters raw water conveyed from Lake Berryessa.[54] Coagulants (poly aluminum chloride) and disinfectants (chlorine) are added and mixed as raw water is conveyed into the treatment facility's clarifier, which facilitates the sedimentation of solids. Solids are removed as water is cycled through a filter take before entering into a 30,000 gallon clearwell tank. The clearwell tank finalizes the disinfection process by allowing water to complete its necessary chlorine contact time. Finished water remains in the clearwell tank until storage levels within the distribution system require recharge.

The water treatment facility is designed to process up to 425 gallons per minute, resulting in a daily capacity of 612,000 gallons or 1.9 acre-feet. The current peak day demand totals 1.5 acre-feet and equals 79% of the facility's daily capacity. This capacity is also sufficient to address the projected peak day demand at the end of the timeframe of this review.[55] However, the addition of 0.7 acre-feet in daily capacity will be needed to sufficiently accommodate the expected peak day demand at buildout based on current usage trends. A summary of the existing water treatment capacity relative to current and projected peak day demands at buildout follows.

[53] The projected buildout water demand for NBRID assumes the development/connection of the remaining 268 privately-owned lots within the District. Of this amount, 218 lots lie within Berryessa Highlands' Units One and Two. Buildout assumes the development/connection of the remaining 218 lots lying within Units One and Two would require annual water demands equal to projected per lot usage requirements of 0.17 acre-feet. Buildout assumes the remaining 50 lots lying outside Units One and Two would require an annual water demand equal to twice the projected per-lot average demand at 0.34 acre-feet. Usage at Lupine Shores is expected to total 17.59 acre-feet annually based on 88 equivalent users at 0.20 acre-feet per year.

[54] USBR reports major components of NBRID's potable water treatment and distribution facilities are located on federal land under an easement issued by USBR in 1968. The easement remains in effect with specific requirements governing expansion, modification, and operation of NBRID's facilities.

[55] The projected peak day demand in 2014-2015 is 1.03 acre-feet. (Calculation performed by LAFCO staff and assumes individual peak day demands within Berryessa Highlands at 0.93 acre-feet and Lupine Shores at 0.10 acre-feet.)

Water Treatment Capacity and Demand in NBRID
(Source: NBRID/LAFCO)

Existing Day Capacity	Current Peak Day Demand	Timeframe (2015) Peak Day Demand	Buildout Peak Day Demand
1.9 Acre-Feet 612,000 Gallons	1.5 Acre-Feet 488,000 Gallons	1.0 Acre-Feet 310,000 Gallons	2.6 Acre-Feet 854,000 Gallons

** Peak day demand projected for 2015 reflect a 0.5 decrease consistent with anticipated declines in overall water consumption based on current trends. Peak day demand at buildout has been calculated based on the present-year consumption rate calculated against all expected development. It is assumed there will be an increase in water consumption per user/connection at buildout as rates presumably stabilize.*

The water distribution system overlays six interconnected pressure zones ranging in elevation from 540 to 1,110 feet. Pressure is maintained by a 500,000 gallon or 1.53 acre-foot storage tank, which is located above the six zones and charges the distribution system through gravity. Recharge occurs when levels in the storage tank fall below a designated marker adjusted seasonally and is accomplished by discharging and lifting treated water from the clearwell tank into the distribution system.[56]

NBRID's existing water storage capacity within the distribution system is presently operating under capacity with respect to accommodating the current peak day demand within the six interconnected pressure zones. The existing storage capacity is also sufficient to accommodate the projected peak day demand at the end of the timeframe of this review. Storage capacity will need to be increased by approximately one-half to accommodate projected peak day demands at buildout. A summary of the existing storage capacity relative to current and projected peak day demands at buildout are shown in the following table.

Storage Capacities Compared to Demands in NBRID
(Source: NBRID/LAFCO)

Zone	Storage Capacity	Current Peak Day Demand	Timeframe (2015) Peak Day Demand	Buildout Peak Day Demand
One to Six	1.53 Acre-Feet/ 500,000 Gallons	1.5 Acre-Feet/ 488,000 Gallons	1.0 Acre-Feet/ 310,000 Gallons	2.6 Acre-Feet/ 854,000 Gallons

** Peak day demand projected for 2015 reflects a 0.5 decrease consistent with anticipated declines in overall water consumption based on current trends. Peak day demand at buildout has been calculated based on the present-year consumption rate calculated against all expected development.*

** Current users total 358; projected users at buildout total 726. Current users include all lots connected to NBRID's sewer system.*

** The peaking factor of 8:1 applied to the projections tied to uses within NBRID and is consistent with the current ratio.*

** Peak day demand for Lupine Shores Resort calculated at 0.10 acre-feet based on information provided by the Pensus Group.*

[56] Recharge is dependent on an electric pump with a backup diesel engine that has a daily capacity of 1.9 acre-feet.

6.2 Sewer Service

A review of NBRID's sewer service is provided below with respect to assessing the relationship between availability, demand, and capacity through (a) the five-year timeframe of this review period and (b) buildout of the District's service area.

Collection and Treatment Systems

NBRID's collection system consists of approximately 6.4 miles of sewer lines and four pump stations.[57] All sewer lines comprise clay pipe and are 25 years or older. NBRID provides a secondary level of treatment to raw sewage as it enters the collection system through individual laterals and conveyed through a series of gravity lines, force mains, and pump stations into the District's wastewater treatment facility.

The wastewater treatment facility was constructed in 1968. Treatment begins as raw sewage is initially screened as it enters the facility before settling in an aeration basin with a holding capacity of 89,266 gallons. Solids are removed and conveyed to an adjacent digester/holding basin before their disposal at a nearby drying pond. Oxidized sewage from the aeration basin is conveyed into two rectangular clarifiers before being pumped into a finishing pond with a holding capacity of 370,000 gallons. Sewage is disinfected with chlorine in the finishing pond prior to being pumped approximately one mile for spray discharge onto four contiguous hillside fields that are collectively 60 acres in size. The spray irrigation system is pressurized by a 50,000 gallon tank.

NBRID's Collection and Treatment Systems
(Source: NBRID and LAFCO)

Collection System

Miles of Gravity Sewer Lines	5.2 Miles
Miles of Forced Sewer Lines	1.2 Miles
Percent of Sewer Lines 25 Years or Older	100%

Treatment System

Treatment Level	Secondary
Treated Storage Capacity	0.37 Million Gallons
Discharge Type	Sprayfield Irrigation/60 Acres

[57] USBR reports major components of NBRID's wastewater collection, treatment, and disposal facilities are located on federal land under an easement issued by USBR in 1968. The easement remains in effect with specific requirements governing expansion, modification, and operation of NBRID's facilities.

Capacity and Demand

NBRID's wastewater treatment facility has design daily dry-weather and wet-weather flow capacities of 113,000 and 200,000 gallons, respectively. These design treatment capacities sufficiently accommodate NBRID's current average dry-weather and wet-weather flow demands of 63,000 and 80,000 gallons. Peak day wet-weather flow totals, however, substantially exceed NBRID's design capacities by over one-third and currently total 310,000 gallons. The excessive peak day wet-weather flow totals are principally attributed to pervasive inflow/infiltration as evident by current average dry-weather flows equaling close to 100% of present daily water usage. These factors along with poor drainage at the sprayfield site have directly resulted in a series of spills beginning in the mid 1990s leading to numerous violations and three cease and desist orders from RWQCB between 1995 and 2010. Significantly, given the repeated violations, NBRID is prohibited from adding any new sewer connections and directed to limit its average daily sewer flows to no more than 50,000 gallons; an amount the District continues to exceed. The following table summarizes NBRID's existing sewer capacities and demands.

NBRID's Daily Sewer Capacity and Current Demand Totals
(Source: NBRID/LAFCO)

Daily Dry-Weather Capacity	Daily Wet-Weather Capacity	Average Dry Weather Demand	Average Wet Weather Demand	Peak Wet Weather Demand
113,000 Gallons	200,000 Gallons	63,000 Gallons	80,000 Gallons	310,000 Gallons
0.45 Acre-Feet	0.61 Acre-Feet	0.19 Acre-Feet	0.25 Acre-Feet	0.95 Acre-Feet

** Due to repeated spills, NBRID is currently under a Cease and Desist Order from RWQCB to limit its average daily sewer flows to no more than 50,000 gallons or 0.15 acre-feet.*

In terms projecting future demands in the timeframe of this review, it is reasonable to assume two distinct patterns will emerge with respect to sewer flows emanating from Berryessa Highlands and Lupine Shores Resort and consistent with projected water use. These assumptions are summarized below:

- It is reasonable to assume average dry-weather sewer flows from Berryessa Highlands will continue to equal projected water usage one-to-one unless significant improvements are made to the collection system. It is also reasonable to assume average wet-weather flows in Berryessa Highlands will continue to equal 127% of average dry-weather flows. The peak day wet-weather flow is also expected to remain constant at 3.9:1 over average wet-weather flows. If these assumptions prove accurate, Berryessa Highlands will experience across-the-board decreases in all sewer flows consistent with projected water consumption through 2013 before incremental increases begin consistent with increased water usage tied to new development.

- Usage for the portion of NBRID's service area comprising Lupine Shores Resort will largely be driven by guest cabins. Relative to the eventual buildout of 135 guest cabins, it is assumed that 10% of buildout will be completed by 2012-2013, 20% by 2013-2014, and 30% by 2014-2015. Average dry-weather, average wet-weather, and peak day wet-weather sewer flows are also expected to equal 80%, 100%, and 120%, respectively, of daily water consumption.

Accordingly, based on design, NBRID will continue to experience a short-term capacity shortfall in accommodating projected peak day wet-weather flows for the next two years with deficits returning beginning in 2015 as new development in Berryessa Highlands and Lupine Shores Resort occurs as expected. These assumptions are reflected in the following table.

Projected Sewer Demands in NBRID Through 2015
(Source: LAFCO)

Category	2010-11	2011-12	2012-13	2013-14	2014-15
Number of Highlands Users	363	367	372	376	381
Daily Dry-Weather Flow (Highlands)	53,000	44,500	37,400	37,300	37,700
Daily Dry-Weather Flow (Lupine)	0.0	0.0	1,260	2,510	3,770
Total Daily Dry-Weather Flow	53,000	44,500	38,660	39,810	41,470
Daily Dry-Weather Capacity	113,000	113,000	113,000	113,000	113,000
Capacity Difference	60,000	69,000	74,340	73,190	71,530
Daily Wet-Weather Flow (Highlands)	67,300	56,500	47,500	47,400	47,900
Daily Wet-Weather Flow (Lupine)	0.0	0.0	1,570	3,140	4,710
Total Daily Wet-Weather Flow	67,300	56,500	49,070	50,540	52,610
Daily Wet-Weather Capacity	200,000	200,000	200,000	200,000	200,000
Capacity Difference	132,700	143,500	150,930	149,460	147,390
Peak Day Wet-Weather Flow (Highlands)	262,500	220,400	185,300	184,900	186,800
Peak Day Wet-Weather Flow (Lupine)	0.0	0.0	1,890	3,770	5,660
Total Peak Day Wet-Weather Flow	262,500	220,400	187,190	188,670	192,460
Daily Wet-Weather Capacity	200,000	200,000	200,000	200,000	200,000
Capacity Difference	(62,500)	(20,400)	12,810	11,330	7,540

** Amounts are shown in gallons.*

** Projections for Berryessa Highlands assume a baseline in which inflow and infiltration flows will reflect current percentages relating to water consumption. Users in Berryessa Highlands represent individual lots connected to the sewer system. Projections for Lupine Shores incorporate standard sewer to water ratios for new systems beginning in 2012-13 based on referenced planning assumptions.*

** As referenced, NBRID is currently subject to a Cease and Desist Order limiting its average dry-weather and wet-weather flows of 50,000 gallons. No new connections are permitted to the sewer system until specified improvements mandated by RWQCB are made. Sewer projections assume the lifting of the Cease and Desist Order.*

As discussed in the preceding section on water, buildout in NBRID is expected to involve the development of the remaining 267 privately-owned lots already in the District, but not connected to the sewer system. Buildout is also anticipated to involve the opening of Lupine Shores Resort with demands equivalent to 88 lots or users. In all, buildout is expected to generate daily average dry-weather and wet-weather flows at 115,250 and 146,100 gallons, respectively. These projected demands could be accommodated based on existing design capacities *assuming* NBRID's Cease and Desist Order is lifted (emphasis added). The expected peak day wet-weather flow – in the absence of significant improvements to the collection system – nonetheless would increase to 527,100 gallons and exceed existing capacity close to three to one.

7.0 Financial

7.1 Audited Assets, Liabilities, and Equity

NBRID's financial statements are prepared by the County Auditor-Controller and included in its annual report at the conclusion of each fiscal year. The most recent issued report was prepared for the 2009-2010 fiscal year and includes audited financial statements identifying NBRID's total assets, liabilities, and equity as of June 30, 2010. These audited financial statements provide quantitative measurements in assessing NBRID's short and long-term fiscal health and are summarized below.

Assets

NBRID's assets at the end of the fiscal year totaled $0.85 million. Assets classified as current, with the expectation they could be liquidated into currency within a year, represented slightly more than 43% of the total amount with two-thirds tied to cash investments.[58] Assets classified as non-current represented the remaining amount with the largest portion associated with depreciable structures.[59]

Category	2005-06	2006-07	2007-08	2008-09	2009-10
Current Assets	0.295	0.155	0.105	0.097	0.361
Non-Current Assets	0.612	0.579	0.553	0.514	0.487
Total Assets	$0.907	$0.734	$0.658	$0.611	$0.848

Liabilities

NBRID's liabilities at the end of the fiscal year totaled $0.94 million. Current liabilities representing obligations owed within a year accounted for the majority of the total amount and are primarily tied to debt obligations owed to the County due within the upcoming year. NBRID's non-current liabilities representing long-term obligations are tied to additional loans payable to the County.

Category	2005-06	2006-07	2007-08	2008-09	2009-10
Current Liabilities	0.042	0.070	0.533	0.529	0.547
Non-Current Liabilities	0.000	0.000	0.000	0.000	0.395
Total Liabilities	$0.042	$0.070	$0.533	$0.529	$0.942

Equity/Net Assets

NBRID's equity, or net assets, at the end of the fiscal year totaled ($0.09 million) and represents the difference between NBRID's total assets and total liabilities. Markedly, the end of year equity amount incorporates ($0.58 million) in unrestricted funds. This negative unrestricted fund balance is attributed to recurring net operating losses with the 2009-2010 fiscal year totaling ($0.18 million).

[58] Current assets totaled $0.361 million and include cash investments ($0.273 million), taxes receivable ($0.018 million), accounts receivable ($0.053 million), and assessments receivable ($0.016 million).

[59] Non-current assets totaled $0.487 million and include land ($0.044 million), structures and improvements ($1.718 million), and equipment ($0.126 million) minus accumulated depreciation ($1.401 million).

Category	2005-06	2006-07	2007-08	2008-09	2009-10
Capital Asset Funds	0.612	0.579	0.553	0.514	0.487
Restricted Funds	0.000	0.000	0.000	0.000	0.000
Unrestricted Funds	0.253	0.085	(0.428)	(0.433)	(0.581)
Total Equity	$0.865	$0.664	$0.125	$0.081	($0.094)
Change	*($0.008)*	*($0.201)*	*($0.539)*	*($0.043)*	*($0.175)*

NBRID's financial statements for 2009-2010 reflect the District experienced a significant negative change in its fiscal standing as its overall equity, or fund balance, decreased by over two-fold from $0.08 million to ($0.09 million). The financial statements also reflect NBRID's unrestricted fund balance has further fallen by 330% over the last five audited fiscal years from $0.25 million to ($0.58 million). This decrease in the unrestricted fund balance has been attributed to recurring and escalating net income losses beginning in 2006-2007 totaling $0.96 million. No significant deficiencies or material weaknesses were identified with respect to NBRID's financial statements.

2009-10 Financial Statements	
Assets	$0.848 million
Liabilities	$0.942 million
Equity	($0.094 million)

Calculations performed assessing NBRID's liquidity, capital, and profitability for 2009-2010 indicate the District finished the fiscal year with marginally adequate resources to meet short-term operational costs with significant uncertainties regarding its long-term solvency. In particular, NBRID finished with low liquidity as measured by current liabilities exceeding current assets by close to one-half. NBRID did finish with cash reserves sufficient to cover 141 days of operating expenses, but this measurement is misleading given the majority of available cash was tied to a loan from the County. In addition to finishing with long-term debt equal to nearly half of its net assets, NBRID's operating expenses exceeded operating revenues by one-half.[60] An expanded discussion on revenues-to-expenses is provided in the following section.

7.2 Revenue and Expense Trends

A review of NBRID's audited revenues and expenses identifies the District has finished each of the last five fiscal years with negative end-of-year balances. The 2007-2008 year marked the largest end-of-year shortfall at $0.54 million during this period and is primarily tied to a sharp increase in service expenses tied to NBRID contracting with HydroScience Engineers to provide design services for capital improvements and assist with regulatory reporting requirements. An expanded review of NBRID's audited end-of-year revenues and expenses within its two fund categories follows.

Fund Category	2005-06	2006-07	2007-08	2008-09	2009-10
Operations					
Revenues	676,043	389,059	627,018	619,520	519,467
Expenses	(709,907)	(657,015)	(1,232,966)	(725,094)	(758,134)
Non-Operations					
Revenues	26,041	67,097	72,072	74,857	70,991
Expenses	0	0	(5,459)	(12,686)	(7,705)
	($7,823)	($200,859)	($539,335)	($43,403)	($175,381)

** All information reflects audited financial statements in CAFRs and based on GAAP accrual basis accounting*

[60] NBRID's operating margin as of June 30, 2010 was (0.46).

7.3 Current Budget

NBRID's adopted amended budget for 2010-2011 totals $1.49 million. This amount represents NBRID's total approved expenses or appropriations for the fiscal year within its lone budget unit: operations. An expanded review of expenses and revenues follows.

Operations

NBRID's operations budget unit supports basic District water and sewer activities. Approved expenses total $1.49 million with 55% of the apportionment dedicated to services and supplies with the majority of costs tied to performing general maintenance and repair for the water and sewer systems. Approved expenses also include $0.13 million to Lescure Engineers to provide supplemental staff support services as well as County administrative costs. Estimated revenues are projected at $1.30 million with service charges with 54% of the proceeds expected to be generated from usage and availability charges. A new $0.47 million loan from the County is also budgeted for the fiscal year.

2010-11 Adopted Operations	
Revenues	$1.30 million
Expenses	$1.49 million
Difference	($0.19 million)
Beginning Balance	$0.29 million
Est. Ending Balance	$0.12 million

In absence of an unexpected positive net revenue total, NBRID is expected to experience a $0.19 million operating shortfall in 2010-2011. This operating shortfall would further draw down its budgeted unrestricted fund balance from $0.29 million to $0.12 million (rounded). (This budgeted amount incorporates $474,000 in earlier loans from the County provided over the last several years to provide emergency cash flow.) Additionally, due to the projected shortfall, no operating contingencies have been budgeted for the fiscal year.

C. Spanish Flat Water District

1.0 Overview

SFWD was formed in 1963 to provide municipal sewer and water services in support of existing and planned development in Spanish Flat, an unincorporated community located along the western shoreline of Lake Berryessa. This included SFWD assuming water and sewer responsibilities for an existing shopping center and mobile home court that had been developed in the late 1950s in conjunction with the construction of a nearby recreational resort under contract with the County as part of an initial management plan for Lake Berryessa. SFWD also assumed water and sewer responsibilities for expected new development in the area, which was to include, among others uses, 1,100 residential units. Actual new development, however, has been primarily limited to date to the construction of a 53-lot residential subdivision known as the "Woodlands." SFWD has also subsequently assumed water and sewer responsibilities for a distinct second service area known as "Berryessa Pines," which comprises a 99-lot residential subdivision located approximately seven miles north of Spanish Flat.

Spanish Flat Water District	
Date Formed:	1963
District Type:	Independent
Resident Population:	401
Services Provided:	Sewer/Water

SFWD currently has an estimated resident service population of 401.[61] SFWD is an independent special district governed by an elected five-member board of directors consisting of local landowners. The current operating budget for both service areas totals $0.31 million resulting in a per resident cost of $775. No audited information is currently available with respect to SFWD's unexpended fund balance as of the beginning of the fiscal year.

2.0 Formation and Development

2.1 Formation Proceedings

SFWD's formation was petitioned by local landowners to provide municipal water and sewer services for existing and planned development within the Spanish Flat area. Existing development in the area at the time was limited to a small number of single-family residences, a 48-space mobile home court (Spanish Flat Mobile Villa), public cemetery (Monticello), and two public maintenance facility yards owned by the State of California and the County. A commercial shopping center had also been recently constructed in conjunction with the development of the adjacent Spanish Flat Resort; one of seven original concessionaire sites contracted by the County to provide public recreational and commercial services at Lake Berryessa beginning in 1959. New development for the area was expected to include a range of seasonal recreational and residential uses consistent with other planned projects along the Lake Berryessa shoreline. Formation proceedings were approved by the Commission in September 1963 and confirmed by voters in November 1963.

[61] Population estimate includes one residence served by SFWD located immediately outside its jurisdictional boundary and adjacent to the Berryessa Pines subdivision.

2.2 Initial Development and Activities

SPANISH FLAT VILLAGE CENTER

Application materials associated with SFWD's formation proceedings indicate petitioners anticipated the development of an additional 1,100 residential units within the District. New development was expected to be concentrated within SFWD's eastern jurisdictional boundary and commenced in late 1964 with the construction of the 53-lot Woodlands residential subdivision. During this time, SFWD authorized $0.24 million in general obligation bonds to finance the purchase and expansion of the private water and sewer systems that had been previously constructed and operated in the area by the Spanish Flat Mutual Water Company and Spanish Flat Incorporated, respectively. This included installing water and sewer lateral connections for all 53 lots in the Woodlands subdivision. It was also during this time SFWD entered into an informal agreement with NCFCWCD for an annual raw water entitlement of 200 acre-feet from Lake Berryessa. The water supply agreement was formalized in 1975 and currently extends through 2024.

SPANISH FLAT WOODLANDS

Additional development and activities within SFWD following the construction of the Woodlands subdivision remained stagnant through the early 1970s as other planned projects anticipated at the time of the District's formation failed to materialize. It was not until 1976 when SFWD experienced its first significant service expansion with the annexation of the adjacent Spanish Flat Resort, an approximate 225 acre site developed in the late 1950s in partnership with the County to provide public recreational and commercial services along Lake Berryessa. Annexation was sought by Spanish Flat Resort to connect to SFWD's water system for purposes of receiving potable supplies after the site's private treatment system proved inadequate to meet growing demands; sewer service at the site remained private.

BERRYESSA PINES

In 1977, SFWD established a second distinct service area with the annexation of the 99-lot Berryessa Pines residential subdivision. The annexation was petitioned by Berryessa Pines' landowners in order for SFWD to assume water and sewer service responsibilities as part of the sale of the pre-existing provider, Berryessa Water Company, to the District. Water supplies for the 32 acre subdivision, which was constructed in 1959, were drawn from local wells and springs. These supply sources, however, had become increasingly taxed by the mid 1970s as shortages began occurring during summer months. The County responded to the shortages by issuing a moratorium on new water service connections. This moratorium restricted development within the

planned 99-lot subdivision by limiting the number of permitted water service connections to 50 pending the development of additional supplies. The moratorium was eventually lifted by the County following SFWD's annexation of the subdivision and construction of an intake system to Lake Berryessa, which was financed by a voter-approved special assessment as part of a capital improvement program for Berryessa Pines.

2.3 Recent Development and Activities

Recent activities undertaken by SFWD have focused on making needed infrastructure improvements to both of its water and sewer systems serving the Spanish Flat and Berryessa Pines service areas. This includes constructing new water treatment plants for both service areas within the last few years at a combined cost of approximately $1.5 million. Financing for these two projects were primarily drawn from grants ($1.1 million) and loans ($0.27 million) from the State with the latter secured from a special user fee approved by voters in February 2005.[62]

Timeline of Events

1963	.SFWD formed to provide water/sewer to Spanish Flat
1965	……..SFWD purchases private water/sewer systems
1966	……Woodlands subdivision completed
1976	……...SFWD annexes Spanish Flat Resort
1977	……..SFWD annexes Berryessa Pines subdivision
2005	…….Voters approved new assessment districts
2007	……...SFWD completes new water treatment plants
2008	……..…Spanish Flat Resort closes for redevelopment

3.0 Adopted Commission Boundaries

3.1 Jurisdictional Boundary

SFWD's jurisdictional boundary is approximately 1.9 square miles or 1,185 acres in size and comprises four non-contiguous areas highlighted by Spanish Flat and Berryessa Pines. In all, there are approximately 190 parcels lying within SFWD with an overall assessed value of $32.3 million. A review of the database maintained by the County Assessor's Office indicates less than two-thirds of the total number of parcels have been developed as measured by the assignment of situs addresses.[63]

The Commission has approved and recorded three changes to SFWD's jurisdictional boundary since formation, all involving annexations. The first annexation was in 1965 and involved the addition of approximately 170 acres of non-contiguous land along Berryessa-Knoxville Road near the Rancho Monticello Resort. The annexation was intended to provide water and sewer services to an approved 800-lot residential subdivision with various commercial accommodations. The developers, however, cancelled the project and the site remains vacant. The second annexation was in 1976 and involved the addition of the adjacent Spanish Flat Resort for purposes of providing potable water supplies to the site. The third and final annexation was in 1977 and involved the addition of the non-adjacent Berryessa Pines subdivision.

[62] The loans from the State of California total $176,867 for Spanish Flat and $96,146 for Berryessa Pines. All metered water connections within SFWD are charged $8.15 per month as part of the special user fee approved by voters in 2005. The special user fee runs through May 2025.

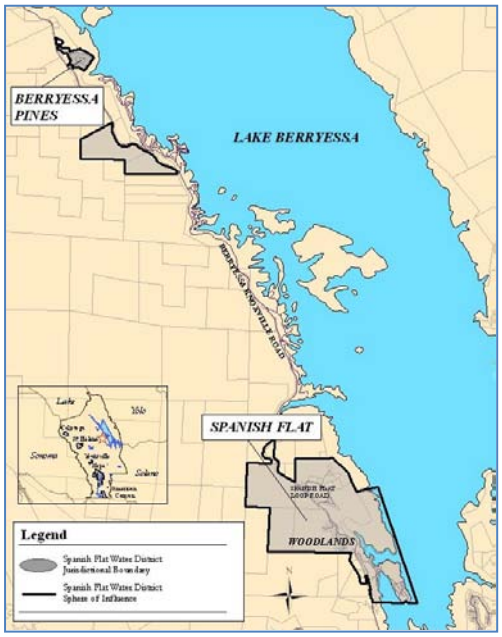
[63] Developed assessor parcels with situs addresses in SFWD represent only 13% of the total land acres within the District.

Jurisdictional Characteristics in SFWD
(Source: LAFCO)

Total Acreage……..	…….1,185
Acreage Tied to Existing Development…...	..…….13%
Total Assessor Parcels……	…….186
Predominant Zoning.....…….....	……..……*Agricultural Watershed* ……..……*Residential Single: B-1* ....…..…….*Commercial Neighborhood*
Assessed Value……...	……$32.3 Million
Assessed Value/Acre……..	……..……$27,257
Registered Voters……	……135

3.2 Sphere of Influence

FIGURE FOUR



The Commission adopted SFWD's sphere in 1976 to include its entire jurisdictional boundary along with the adjacent Spanish Flat Resort in anticipation of the site's annexation to the District as depicted in Figure Four. The Commission has approved two applicant-requested amendments to the sphere since its establishment. The first amendment was approved in 1978 as part of the concurrent annexation of Berryessa Pines. The second amendment was approved in 1992 and involved the addition of a recreational storage facility north of Berryessa Pines along Berryessa Knoxville Road.[64]

The Commission updated SFWD's sphere with no changes in 2007 as part of a comprehensive review. Importantly, the review noted changes may be appropriate to include nearby lands designated for urban use or currently used as public recreational sites. The review ultimately concluded, however, it would be appropriate to defer considering any sphere changes until an evaluation of potential reorganization options for the entire region is completed.

In terms of current dimensions, SFWD's sphere encompasses 2.1 square miles or 1,334 acres. This amount means there are 149 total jurisdictional acres encompassing five parcels in SFWD lying within its sphere and eligible for annexation.

[64] The recreational storage facility remains outside SFWD's jurisdictional boundary.

4.0 Population and Growth

4.1 Residential Trends

Residential uses comprise the majority of development within SFWD's two service areas and currently include 167 total residential units with an estimated population of 401. All existing units receive water from SFWD with nearly nine-tenths also receiving sewer from the District. Berryessa Pines is the slightly smaller of the two service areas with 78 residential units comprised entirely of single-family homes with a projected population of 200.[65] Spanish Flat's projected population is 201, which is divided between 41 single-family homes and a 48-space mobile home park.[66]

Residential Development

Berryessa Pines	78 Units
Spanish Flat	89 Units
Population:	401

SFWD has experienced an overall positive residential growth rate over the last five years as the District's estimated population has increased from 389 to 401. The new growth is tied to the construction and occupancy of five new single-family residences within Berryessa Pines and Spanish Flat. The development of these new residences has increased SFWD's overall resident population by 12, or 3.08%, since 2006. The increase represents a 0.62% annual rise and is 1.51 times the population growth rate in the remaining unincorporated area.

Past and Present Population Estimates in SFWD
(Source: LAFCO)

Population	2006	2007	2008	2009	2010
Berryessa Pines Service Area	198	200	200	203	200
Spanish Flat Service Area	191	194	194	201	201
SFWD Total	389	394	394	404	401
% Increase From Prior Year	--	1.3	0.0	2.5	(0.1)
Remaining Unincorporated Area	27,678	27,714	28,338	28,310	28,252
% Increase From Prior Year	--	0.1	2.3	(0.1)	(0.2)

It is reasonable to assume SFWD will continue to experience an overall population increase within the timeframe of this review albeit at a slightly decreased annual rate from 0.62% to 0.60%. This projected annual growth rate incorporates an adjustment to the estimates prepared by ABAG and assumes the population within SFWD will continue to outpace the remaining unincorporated area 1.51 to 1 consistent with recent percentage totals.[67] It is assumed all new population growth will be directly tied to developing the 35 remaining vacant and/or unserved lots in the Berryessa Pines (23) and Woodlands' (12) subdivisions.[68] The following chart incorporates these assumptions in projecting SFWD's future population.

[65] One residence served by SFWD within the Berryessa Pines service area lies outside its jurisdictional boundary at 7100 Berryessa Knoxville Road.

[66] Population estimates assumes 2.57 residents for each single-family residence consistent with projections issued by the Department of Finance and 2.00 residents for each mobile home unit consistent with past LAFCO practice.

[67] The adjustment reflects SFWD's population increase over the remaining unincorporated area of 1.51:1 since 2006. (Specific adjustment involves multiplying ABAG's projected growth rate for the unincorporated area (0.4%) by 1.51.)

[68] There are an additional 27 undeveloped lots outside the Woodlands subdivision that lie outside the Spanish Flat service area. It is not anticipated any of these lots will be developed within the timeframe of this review.

Future Population Projections in SFWD
(Source: LAFCO)

Category	2011	2012	2013	2014	2015
Berryessa Pines Service Area	200	201	201	202	202
Spanish Flat Service Area	203	204	206	208	210
SFWD Total	403	405	407	410	412

** Assumes an overall uniform annual growth rate of 0.60% in SFWD. Assumption also incorporates annual growth rates within the Berryessa Pines and Spanish Flat service areas at 0.20% and 1.05%, respectively.*

The buildout population within SFWD is expected to total 560. This projection assumes the development of all 62 existing undeveloped lots presently within SFWD.

4.2 Non-Residential Trends

Current non-residential uses within SFWD are limited to the Spanish Flat service area with eight current metered water and sewer connections located on or near Spanish Flat Loop Road. The majority of the metered water and sewer connections serve the Spanish Flat Village Center, a multi-space retail site that presently includes a convenience market, restaurant, museum, antique store, a postal box kiosk, and realty office. The remaining metered non-residential water and sewer connections in Spanish Flat serve a boat storage facility, community senior center, and the Spanish Flat Mobile Villa Park.

Future non-residential uses in SFWD are expected to increase within the timeframe of this review as a result of the planned and pending redevelopment of the Spanish Flat Resort site, which closed in 2008. Notably, prior to its closure, the Spanish Flat Resort provided a range of seasonal/temporary residential, recreational, and limited commercial uses.[69] These previous uses resulted in an annual water demand from SFWD equivalent to 221 residential units and represented on average one-fifth of the District's annual operating revenues; sewer service was provided by a private system. The Pensus Group was contracted by USBR in 2010 to redevelop and operate the Spanish Flat Resort site, which is to be now known as the Foothill Pines Resort. Markedly, the development plan approved by USBR in February 2011 provides for an approximate 80% decrease in facility uses that previously existed under Spanish Flat Resort by reducing the equivalent residential units from 221 to 36.[70] Development is expected to commence in 2012 with campground and recreational vehicle uses with more intensified uses – including 130 guest cabins – slated for construction between 2016 and 2020. A summary of the planned facility uses at Foothill Pines Resort is provided below.

[69] USBR assumed management responsibilities from the County for the seven concession areas operating along the Lake Berryessa shoreline beginning in 1975. USBR required all permit holders (trailer or mobile home owners) to maintain a permanent residence elsewhere not located in a concession area. Permit holders could not register a voting residence in a concession area and could not occupy the resort premises more than six months in a calendar year or more than 90 days continual occupancy without written approval from the concessionaire and USBR. In practice, however, many of the concessionaires failed to enforce USBR requirements and effectively allowed for year-round residency.

[70] LAFCO staff has calculated the equivalent resident unit amount of 36 for Foothill Pines Resort by dividing the projected annual water demand at the concession site based on the Pensus Group's estimates (14.26 acre-feet) by the current annual per user consumption rate (0.39 acre-feet). This calculation has been performed solely by LAFCO staff and its intended use is limited to this municipal service review.

Planned Facility Uses at the Foothill Pines Resort
(Source: USBR/The Pensus Group)

Category	2012	2014	2016	2018	2020
Recreational Vehicle Sites	30	30	30	30	30
Campground Sites	38	38	38	38	38
Guest Cabins	0	0	0	50	130
Boat Rental Slips	10	20	20	20	20
Day Use Sites	10	10	10	10	10

Aside from the planned development of the Foothill Pines Resort, the potential for other non-residential uses in and around SFWD's two services areas is effectively prohibited due to County zoning regulations. Exceptions include three separate legal parcels presently zoned *Marine Commercial* that are already located within SFWD's sphere of influence and eligible for annexation. All three parcels have been developed consistent with their zoning regulations to include recreational vehicle and boat storage facilities and would not be expected to have significant service demands on SFWD if annexed and connected to the District's water and sewer systems.

5.0 Organizational Structure

5.1 Governance

SFWD operates independently under California Water Code Sections 34000-38501, which is known as the "California Water District Law." The law was enacted in 1951 for purposes of providing landowners an alternate method to establish, fund, and operate public water, sewer, and drainage services in support of both urban and non-urban uses.

SFWD provides only water and sewer services and is governed by a five member board of directors serving staggered four-year terms. Directors must be a landowner within SFWD or their legal representative. Elections are based on a landowner-voter system, which provides each landowner one vote for each dollar that his or her property is assessed.[71] [72] SFWD meetings are scheduled once a month on the second Thursdays at the District's office located at 4340 Spanish Flat Loop Road.

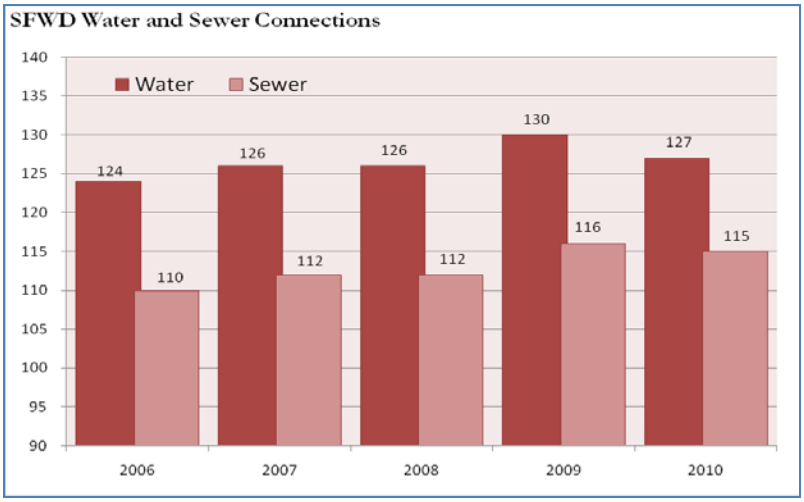
5.2 Administration

SFWD's administration is the collective responsibility of 2.5 full-time equivalent employees. A senior plant operator and maintenance worker are full-time positions and manage SFWD's water and sewer systems. Both employees are SFWD residents and are on-call at all times to respond to reported emergencies. A part-time office manager is also employed to respond to constituent inquiries as well as perform billing and payroll services. SFWD also regularly contracts with outside consultants to provide operational support as needed. Legal services are provided by contract from the County of Napa Counsel's Office.

[71] A separate election system applies for protest votes tied to Proposition 218.
[72] The County reports there are currently 135 registered voters residing in SFWD.

6.0 Municipal Services

SFWD directly provides water and sewer services within its Berryessa Pines and Spanish Flat service areas. The number of metered water connections currently exceeds sewer connections 127 to 115. All connections are located within SFWD's existing jurisdictional boundary with the exception of one outside water/sewer user located adjacent to the Berryessa Pines subdivision.[73] SFWD has experienced moderate increases in both its water and sewer connections over the last five years at 2.4% and 4.5%, respectively, as depicted in the following chart.



6.1 Water Service

A review of SFWD's water service is provided below with respect to assessing the relationship between availability, demand, and capacity through (a) the five-year timeframe of this review period and (b) buildout of the District's two service areas.

Supply

SFWD's water supply for use within both the Berryessa Pines and Spanish Flat service areas is entirely drawn from Lake Berryessa and secured through an agreement with NCFCWCD. This agreement was initially entered into 1965 and most recently amended in 1999 to provide SFWD an annual entitlement of 200 acre-feet of raw water through 2024; an amount to be divided between the two service areas.[74] Raw water from Lake Berryessa is captured from separate stationary intake systems serving each service area. Both intake systems are powered by dual pump systems with daily conveyance capacities of 0.5 acre-feet at Berryessa Pines and 1.1 acre-feet at Spanish Flat.

[73] The lone outside SFWD service connection belongs to 7020 Berryessa Knoxville Road. This residence receives both water and sewer services from SFWD.

[74] The agreement allows SFWD to purchase an additional 20 percent or 40 acre-feet of annual entitlement.

Water Supply	Annual Entitlement
Lake Berryessa	200 Acre-Feet

** SFWD's water supply originates from NCFCWCD's contract with USBR, which authorizes the countywide agency to divert up to 1,500 acre-feet annually from Lake Berryessa with the condition it serves only uses within the watershed. The annual entitlement runs through 2024.*

The full delivery of SFWD's entitlement is considered reliable given the current and historical storage levels at Lake Berryessa relative to the location of the intake systems. The supply entitlement also appears more than sufficient to accommodate current as well as projected demands in SFWD's Berryessa Pines and Spanish Flat service areas within the timeframe of this review, which have been calculated by staff to total 16.6 and 35.7 acre-feet, respectively, by 2015. Buildout demands within both service areas are addressed in the succeeding section.

Demand

Berryessa Pines

SFWD's total water demand within its Berryessa Pines service area in 2009-2010 equaled approximately 21.0 acre-feet. This amount represents an average daily demand of nearly 0.06 acre-feet or 18,750 gallons. The Berryessa Pines service area has experienced an approximately one-quarter decline in usage despite corresponding population increases within the service area. The decline appears to be attributed to conservation efforts partially motivated by increases in user rates. The current peak day water demand equals 0.17 acre-feet and is three times the daily average.[75]

Recent and Current Water Demands in Berryessa Pines
(Source: SFWD)

Category	2005-06	2006-07	2007-08	2008-09	2009-10
Average Day Demand	0.07	0.08	0.08	0.07	0.06
Annual Demand	27.3	29.0	28.5	25.1	21.0
% of Supply	13.6	14.5	14.3	12.6	10.5

** All amounts are in acre-feet.*
** Users within the Berryessa Pines service area represent individual lots connected to the system.*

Projecting future water demands within the Berryessa Pines service area is challenging given the contrast in which usage has decreased by 23% despite a 1.0% increase in population over the previous five years. In the absence of new inputs, such as changes in usage rates or conservation habits, water demand projections incorporated in this review assume this trend will continue over the next five year period as adjusted to accommodate anticipated new development as outlined earlier.[76] These assumptions result in a projected annual water demand in the Berryessa Pines service area declining to 16.6 acre-feet by 2015 as reflected in the following table.

[75] The peak day water demand was recorded in August 2010.
[76] Maintaining minimum demand requirements (100 daily gallons per lot/user) are not factored into the projections given the current per lot/usage demand is relatively high at 237.5 gallons per day in the Berryessa Pines service area.

Projected Water Demands in Berryessa Pines Through 2015
(Source: LAFCO)

Category	2010-11	2011-12	2012-13	2013-14	2014-15
Number of Users	78	78	79	79	79
User Annual Demand	0.25	0.24	0.23	0.22	0.21
Total Annual Demand	19.8	18.9	18.3	17.4	16.6
% of Supply	9.9	9.4	9.2	8.7	8.3

** All amounts in acre-feet and assume an annual decrease per user of 4.6%*
** Users within the Berryessa Pines service area represent individual lots connected to the system*

The buildout of the Berryessa Pines service area would involve the development of an additional 23 lots already within SFWD, but not connected to the District's water system. Assuming all 23 new lots would be connected, the annual water demand at buildout would total 26.9 acre-feet based on current average usage amounts. This projected buildout demand within Berryessa Pines coupled with the projected buildout demand in Spanish Flat can be adequately accommodated by SFWD given the combined amount (94.5 acre-feet) would only represent 47% of the District's available supply.

Spanish Flat

SFWD's total water demand within its Spanish Flat service area in 2009-2010 equaled approximately 38.0 acre-feet. This amount represents an average daily demand of nearly 0.10 acre-feet or 34,000 gallons. The Spanish Flat service area experienced close to a one-half decrease over the last five years and is attributed to the closure of the Spanish Flat Resort in 2008.[77] The peak day water demand in 2009-2010 totaled 0.31 acre-feet and was over three times the daily average.[78]

Recent and Current Water Demands in Spanish Flat
(Source: SFWD/LAFCO)

Category	2005-06	2006-07	2007-08	2008-09	2009-10
Average Day Demand	0.19	0.19	0.18	0.22	0.10
Annual Demand	68.9	69.9	65.1	79.5	38.0
% of Supply	34.5	35.0	32.6	39.8	19.0

** All amounts are in acre-feet.*
** Spanish Flat Resort closed in June 2008; unattended waterline breaks in the vacated site are attributed with the excessive water uses totaled for 2008-2009.*

Similar to the Berryessa Pines service area, projecting future water demands within the Spanish Flat service area is challenging given usage has decreased despite an increase in population over the last five year period. Notably, water usage had decreased by 5.5% in the three years immediately prior to the Spanish Flat Resort's recent closure while the population had increased by 1.5%. Also underlying short-term projections is the pending development of the Foothill Pines Resort. Construction on the concession site is expected to commence in 2012 with campground and recreational vehicle uses followed by more intensified uses slated for construction between 2016 and 2020. Accordingly, for purposes of this review, it is assumed substantive water demands within the timeframe of this review will be limited to the portion of the service area lying

[77] Despite closing in June 2008, the Spanish Flat Resort remained connected to SFWD throughout 2008-2009. Unattended waterline breaks during this period attribute to the spike in overall demand identified for the fiscal year.
[78] The peak day water demand was recorded in July 2010.

outside the Foothill Pines Resort – i.e. Spanish Flat. It is also assumed demands within this portion of the service area will continue to decline at an annual rate of 1.8% consistent with the three years leading up to Spanish Flat Resort's closure. This would result in the total water demand continuing to decline and reaching 35.7 acre-feet by 2015 despite a anticipated increase in projected users tied to the development of additional lots within the Woodlands.[79] These water demand assumptions are reflected in the following table.

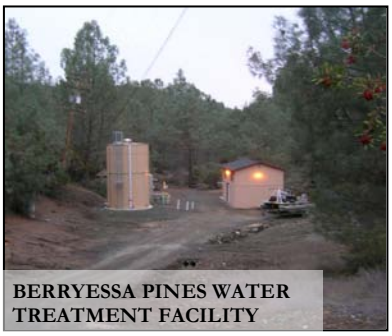
Projected Water Demands in Spanish Flat Through 2015
(Source: LAFCO)

Category	2010-11	2011-12	2012-13	2013-14	2014-15
Number of Users	96	96	97	97	98
Annual Demand Per User	0.39	0.39	0.38	0.37	0.36
Total Annual Demand	37.6	37.3	36.7	36.4	35.7
% of Supply	18.8	18.7	18.4	18.2	17.9

** Users represent the total number of customers defined by LAFCO staff to include all single-family residences, commercial sites, and mobile home units.*
** All amounts are in acre-feet and assume an annual decrease in consumption of 1.8% consistent with pre-closure patterns*
** Based on the USBR's approved development plan, substantive water demands tied to the development of the Foothill Pines Resort is not expected until 2016 and commences with the construction of guest cabins.*

The buildout of the Spanish Flat service area would involve the development of the remaining 39 lots already within SFWD, but not connected to the District's water system. Buildout would also involve the development of the Foothill Pines Resort as discussed in the preceding paragraph. This includes the construction of 130 guest cabins. The water demand projected at buildout is expected to total 67.6 acre-feet.[80] This projected buildout demand within Spanish Flat coupled with the projected buildout demand in Berryessa Pines can be adequately accommodated by SFWD given the combined amount (94.5 acre-feet) between the two service areas would only represent 47% of the available supply.

Capacity


BERRYESSA PINES WATER TREATMENT FACILITY

Berryessa Pines

SFWD's Berryessa Pines water treatment facility was constructed in 2007 and disinfects and filters raw water conveyed from Lake Berryessa. Coagulants (brenfloc) and disinfectants (hypochloride) are added and mixed as raw water is conveyed through the treatment facility's pressurized sand filters. Solids are separated and suspended from the treatment process and discharged into an adjacent sludge pond. Filtered water

[79] Dissimilar to LBRID and NBRID, maintaining minimum demand requirements (100 daily gallons per lot/user) are not factored into the projections given the current per lot/usage demand is relatively high at 349.8 gallons per day in the Spanish Flat service area.

[80] The total buildout projection for the Spanish Flat service area has been calculated by LAFCO staff by adding the current annual water demand (38.0 acre-feet), the annual demand for the 39 undeveloped lots (15.4 acre-feet), and the buildout demand for the Foothill Pines Resort (14.3 acre-feet). (Calculation for the Foothill Pines Resort assumes a daily water demand between Memorial Day and Labor Day of 25,990 gallons with the remaining period requiring 7,797 gallons.)

is conveyed to an onsite 1,800 gallon clearwell tank to complete the disinfection process by allowing the water its necessary contact time with chlorine. Finished water remains in the tank until storage levels in the distribution system require recharge. The facility is designed to process up to 100 gallons per minute resulting in a daily capacity of 144,000 gallons or 0.44 acre-feet. The current peak day demand totals 0.17 acre-feet and equals only 38.6 % of the facility's daily capacity. The projected peak day demand at buildout is expected to total 0.22 acre-feet and can be accommodated by the facility's existing daily capacity without any further expansions. A summary of the existing treatment capacity relative to current and buildout peak day demands follows.

Water Treatment Capacity and Demand in Berryessa Pines
(Source: SFWD/LAFCO)

Existing Day Capacity	Current Peak Day Demand	Timeframe (2015) Peak Day Demand	Buildout Peak Day Demand
0.44 Acre-Feet 144,000 Gallons	0.17 Acre-Feet 55,400 Gallons	0.14 Acre-Feet 44,465 Gallons	0.22 Acre-Feet 72,000 Gallons

* *Peak-day demand at the end of the timeframe of this review is expected to decrease consistent with current usage patterns and reflect a three-to-one increase over daily usage. Peak day demand at buildout has been calculated based on present year daily usage. It is assumed there will be an increase in water consumption per user/connection at buildout as rates presumably stabilize.*

The distribution system comprises one contiguous pressure zone serving all current 78 users within the Berryessa Pines service area. Topography requires finished water in the treatment facility's adjacent 1,800 gallon clearwell tank be lifted through a single electric pump to recharge the distribution system when levels within the pressure zone's 100,000 gallon or 0.31 acre-foot storage tank fall below a designated operating level.[81]

The existing storage capacity within the Berryessa Pines' distribution system is presently operating with excess capacity with respect to accommodating the current peak day demand. The existing storage capacity is also sufficient to accommodate the projected peak day demand within the service area through buildout without requiring any additional improvements. A summary of the existing storage capacity relative to current and projected peak day demands at buildout follows.

Storage Capacities Compared to Demands in Berryessa Pines
(Source: SFWD/LAFCO)

Zone	Storage Capacity	Current Peak Day Demand	Timeframe (2015) Peak Day Demand	Buildout Peak Day Demand
One	0.31 Acre-Feet/ 100,000 Gallons	0.17 Acre-Feet/ 55,400 Gallons	0.14 Acre-Feet 44,465 Gallons	0.22 Acre-Feet/ 72,000 Gallons

* *Current users as defined by LAFCO staff include all single-family residences, commercial sites, and mobile home unit and total 78. It is expected the total number of users will increase to 101 at buildout.*

[81] The maximum daily pump capacity at the clearwell tank is 86,400 gallons or 0.26 acre-feet.

Spanish Flat

SFWD's water treatment facility serving the Spanish Flat service area was constructed in 2007 and disinfects and filters raw water conveyed from Lake Berryessa.[82] Coagulants (brenfloc) and disinfectants (hypochloride) are added and mixed as raw water is conveyed through the treatment facility's pressurized sand filters. Solids are separated and suspended from the treatment process and discharged into an adjacent sludge pond. Filtered water is conveyed to an onsite 5,200 gallon clearwell tank to complete the disinfection process by allowing the water its necessary contact time with chlorine. Finished water remains in the tank until storage levels in the distribution system require recharge. The facility is designed to process up to 120 gallons per minute resulting in a daily capacity of 172,800 gallons or 0.53 acre-feet. The current peak day demand totals 0.31 acre-feet and equals 58.5% of the facility's daily capacity. The projected peak day demand at buildout is expected to increase the peak day demand to 0.52 acre-feet. This amount includes development of Foothill Pines Resort consistent with uses approved by USBR in February 2011 and would equal 98% of the facility's daily capacity. A summary of the existing treatment capacity relative to current and projected buildout peak day demands follows.

Water Treatment Capacity and Demand in Spanish Flat
(Source: SFWD and LAFCO)

Current Day Capacity	Current Peak Day Demand	Timeframe (2015) Peak Day Demand	Projected Peak Day Demand at Buildout
0.53 Acre-Feet 172,800 Gallons	0.31 Acre-Feet 101,000 Gallons	0.32 Acre-Feet 105,100 Gallons	0.52 Acre-Feet 167,800 Gallons

** Peak day demand at buildout has been calculated based on present year daily usage.*

The distribution system serving the Spanish Flat service area comprises three independent pressure zones that are each maintained by storage tanks totaling six. The distribution system operates on a supply and demand basis and responds to storage levels at the Spanish Flat service area's main pressure zone. The main pressure zone currently serves approximately three-fourths of the customer base and is maintained by two storage tanks with a combined holding capacity of 72,000 gallons or 0.22 acre-feet. Treated water is discharged from the clearwell tank and pumped into the main pressure zone when storage levels fall below a designated marker adjusted seasonally.[83] The second pressure zone comprises the remaining one-quarter of current customers located along Sugar Loaf Road in the Woodlands subdivision and includes two storage tanks with a combined holding capacity of 48,000 gallons or 0.15 acre-feet.[84] The third pressure zone is automatically recharged through the main zone given its lower topography and serves the Foothill Pines Resort, which is currently closed pending the site's planned redevelopment.[85]

[82] USBR reports portions of SFWD's potable water system are located on federal property under an easement granted by the Bureau in 1979. USBR notes this easement expired in 1999.
[83] The maximum daily pump capacity conveying water into the main pressure zone is 358,500 gallons or 1.1 acre-feet.
[84] The maximum daily pump capacity conveying water into the second pressure zone is 24,000 gallons or 0.07 acre-feet.
[85] USBR reports Foothill Pines Resort will be open and offering basic services beginning Memorial Day 2011. The start of construction for new permanent facilities is expected to begin at the end of 2011.

Overall storage capacities within the Spanish Flat distribution system are presently operating beyond capacity relative to accommodating the current and system-wide peak day demand. This existing capacity constraint is specifically tied to deficient storage within the initial pressure zone, which appears to be undersized by one-fifth in meeting its proportional share of the peak day water demand. This existing deficiency gap would expand to a total of one-half of demand over capacity at buildout and require increasing the current storage capacity from 72,000 to 128,800 gallons to meet projected peak day demands. A slight increase in storage capacity within the third pressure zone, which is dedicated to Foothill Pines Resort, would also be needed to raise the available level from 24,000 to 25,990 gallons to meet projected peak day demands. No additional storage would be required within the second pressure zone. A summary of existing storage capacities relative to current and projected peak day demands at buildout follows.

Storage Capacities Compared to Demands in Spanish Flat
(Source: SFWD/LAFCO)

Zone	Storage Capacity	Current Peak Day Demand	Timeframe (2015) Peak Day Demand	Buildout Peak Day Demand
One	0.22 Acre-Feet/ 72,000 Gallons	0.27 Acre-Feet/ 88,000 Gallons	0.28 Acre-Feet 92,100 Gallons	0.40 Acre-Feet/ 128,800 Gallons
Two	0.07 Acre-Feet/ 24,000 Gallons	0.04 Acre-Feet/ 13,000 Gallons	0.04 Acre-Feet/ 13,000 Gallons	0.04 Acre-Feet/ 13,000 Gallons
Three	0.07 Acre-Feet/ 24,000 Gallons	0.0 Acre-Feet/ 0 Gallons	0.0 Acre-Feet/ 0 Gallons	0.08 Acre-Feet/ 25,990 Gallons
	0.36 Acre-Feet	0.31 Acre-Feet	0.32 Acre-Feet	0.52 Acre-Feet

** Users within the first two pressure zones represent total number of customers defined by LAFCO staff to include all single-family residences, commercial sites, and mobile home units. Users within the third pressure zone represent the equivalent residential units within the Foothill Pines Resort based on information provided by the Pensus Group.*

** It is assumed the distribution of all additional connections/users other than Foothill Pines Resort will be served by the initial pressure zone and will increase from its current total of 84 to 123 at buildout; connections/users within the second zone are expected to remain at 12 through buildout. The projected peak day demand within the initial pressure zone has been calculated by extrapolating the current daily demand per connection/user multiplied by the present peak day factor of 3.1 to one. The projected peak day demand at buildout for the third pressure zone was provided by the Pensus Group and represents the expected high daily water use at Foothill Pines Resort between Memorial Day and Labor Day.*

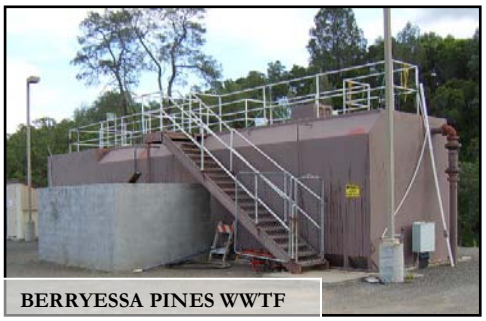
6.2 Sewer Service

A review of SFWD's sewer service is provided below with respect to assessing the relationship between availability, demand, and capacity through (a) the five-year timeframe of this review period and (b) buildout of the District's two service areas.

Collection and Treatment Systems

Berryessa Pines

SFWD's Berryessa Pines collection system consists of approximately 10 miles of sewer lines and one pump station. The majority of the sewer lines comprise clay pipe and are 40 years of age. SFWD provides a secondary level of treatment to raw sewage as it enters Berryessa


BERRYESSA PINES WWTF

Pines' collection system through individual laterals and conveyed through gravity lines and a pump station into the District's wastewater treatment facility located at the eastern end of the subdivision. Treatment begins as raw sewage is initially screened as it enters the facility before settling in an aeration basin. Oxidized sewage from the aeration basin is pumped into two finishing ponds with a combined design holding capacity of 2.5 million gallons. Chlorine is added in the finishing ponds to complete disinfection.

SFWD's Berryessa Pines Sewer Collection and Treatment Systems
(Source: SFWD/LAFCO)

Collection System

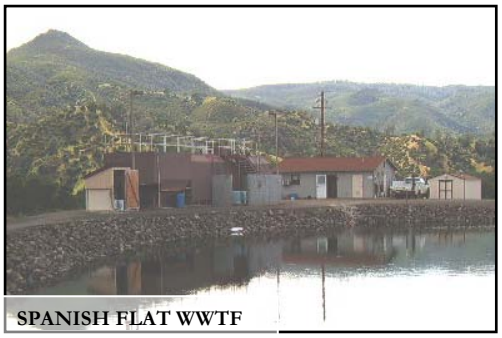
Miles of Gravity Sewer Lines	10 Miles
Miles of Forced Sewer Lines	0 Miles
Percent of Sewer Lines 25 Years or Older	95%

Treatment System

Treatment Level	Secondary
Treated Storage Capacity	2.5 Million Gallons
Discharge Type	Evaporation/Percolation Ponds

Spanish Flat

SFWD's Spanish Flat collection system consists of approximately 16 miles of sewer lines and one pump station. The majority of the sewer lines comprise clay pipe and are 40 years of age. SFWD provides a secondary level of treatment to raw sewage as it enters Spanish Flat's collection system through individual laterals and conveyed through a series of gravity lines, force mains, and a pump station into the District's wastewater treatment facility located off Spanish Flat Loop Road and near the Spanish Flat Mobile Villa Park. The treatment process was updated in the 1990s and begins with raw sewage entering the facility's aeration basin to accelerate the biological breakdown of solids before cycling through a clarifier to remove solids before finally settling in a chlorine contact chamber. Treated wastewater is then discharged to an adjacent 4.2 million gallon holding pond with eventual disposal to two spray irrigation areas.[86]


SPANISH FLAT WWTF

SFWD's Spanish Flat Sewer Collection and Treatment Systems
(Source: SFWD/LAFCO)

Collection System

Miles of Gravity Sewer Lines	15 Miles
Miles of Forced Sewer Lines	1 Mile
Percent of Sewer Lines 25 Years or Older	95%

Treatment System

Treatment Level	Secondary
Treated Storage Capacity	4.2 Million Gallons
Discharge Type	Sprayfield Irrigation/6.2 Acres

[86] Spray irrigation areas include a 2.5 acre-foot field owned by SFWD and the 3.7 acre-foot Monticello Public Cemetery.

Capacity and Demand

Berryessa Pines

SFWD's wastewater treatment facility for the Berryessa Pines service area was originally constructed in 1960 and upgraded in 1980. The facility has a design daily dry-weather capacity of 14,000 gallons. This design capacity sufficiently accommodates the service area's current dry-weather sewer flow demand of 3,000 gallons. The current daily average wet-weather and peak wet-weather demand are 12,000 and 22,000 gallons, respectively. The daily wet-weather capacity is unknown as the facility was constructed and sold to SFWD by the previous provider, Berryessa Water Company, in 1977. It is reasonable, however, to assume that the facility is adequately designed to accommodate the peak day wet-weather flow of 22,000 gallons given no violations have been issued by RWQCB. The following table summarizes capacity and demand information.

SFWD's Daily Sewer Capacity and Current Demand in Berryessa Pines
(Source: SFWD/ LAFCO)

Daily Dry-Weather Capacity	Daily Wet-Weather Capacity	Average Dry Weather Demand	Average Wet Weather Demand	Peak Wet Weather Demand
14,000 Gallons/ 0.04 Acre-Feet	Information Unavailable	3,000 Gallons/ 0.01 Acre-Feet	12,000 Gallons/ 0.04 Acre-Feet	22,000 Gallons/ 0.07 Acre-Feet

For purposes of projecting future demands within the timeframe of this review, it is reasonable to assume existing sewer flow ratios will remain constant given no significant infrastructure improvements are anticipated within the next five year period. If this assumption proves accurate, average dry-weather sewer flows will continue to equal 16% of water demand in the Berryessa Pines service area; average wet-weather sewer flows will continue to equal four times the average dry-weather flows; and peak wet-weather flows will nearly double average the wet-weather flow.[87] Sewer flows will therefore incrementally decrease along with anticipated declines in water use and will presumably be adequately accommodated by SFWD's existing capacities. The following table summarizes projected sewer flow demands within the service area through 2015.

[87] The relatively low ratio between the daily average dry-weather sewer flows and daily average water consumption appears to be principally attributed to high landscaping uses within the Berryessa Pines service area.

Projected Sewer Demands in Berryessa Pines Through 2015
(Source: LAFCO)

Category	2010-11	2011-12	2012-13	2013-14	2014-15
Number of Users	78	78	79	79	79
Daily Dry-Weather Flow	2,800	2,700	2,600	2,500	2,400
Daily Dry-Weather Capacity	14,000	14,000	14,000	14,000	14,000
Capacity Difference	11,200	11,300	11,400	11,500	11,600
Daily Wet-Weather Flow	11,250	10,800	10,350	10,050	9,600
Daily Wet-Weather Capacity	N/A	N/A	N/A	N/A	N/A
Capacity Difference	N/A	N/A	N/A	N/A	N/A
Peak Day Wet-Weather Flow	21,000	20,000	19,100	18,200	17,400
Peak Day Wet-Weather Capacity	N/A	N/A	N/A	N/A	N/A
Capacity Difference	N/A	N/A	N/A	N/A	N/A

** Amounts are shown in gallons.*
** Projections assume a baseline in which inflow and infiltration flows will reflect current percentages.*
** Users represent individual lots connected to the sewer system.*
** No information regarding design capacity during wet-weather periods is available.*

The buildout of the Berryessa Pines service area is expected to involve the development of the remaining 23 privately-owned lots already in the service area, but not connected to the sewer system. If this assumption proves accurate, and all new development connects with usage similar to current demands, the daily average dry-weather and wet-weather flows would increase to 3,800 and 15,400 gallons, respectively. These projected demands could be accommodated based on existing design capacities. The expected peak day wet-weather flow – in the absence of significant improvements to the collection system – nonetheless would increase to 28,100 gallons; an amount uncertain to be adequately accommodated given the uncertainty regarding the facility's design capacity.

Spanish Flat

SFWD's wastewater treatment facility for the Spanish Flat service area was constructed in 1993 and has design daily dry-weather and wet-weather flow capacities of 25,000 and 53,000 gallons, respectively. These design treatment capacities sufficiently accommodate the service area's current average dry-weather and wet-weather flow demands of 8,000 and 22,000 gallons. The peak day wet-weather flow is nearing the facility's capacity at 48,000 gallons. The following table summarizes existing sewer capacities and demands.

SFWD's Daily Sewer Capacity and Current Demand in Spanish Flat
(Source: SFWD/LAFCO)

Daily Dry-Weather Capacity	Daily Wet-Weather Capacity	Average Dry Weather Demand	Average Wet Weather Demand	Peak Wet Weather Demand
25,000 Gallons/ 0.08 Acre-Feet	53,000 Gallons/ 0.16 Acre-Feet	8,000 Gallons/ 0.02 Acre-Feet	22,000 Gallons/ 0.07 Acre-Feet	48,000 Gallons/ 0.15 Acre-Feet

For purposes of projecting future demands within the timeframe of this review, it is reasonable to assume existing sewer flow ratios will remain constant given no significant infrastructure improvements are anticipated within the next five year period. If this assumption proves accurate, average dry-weather sewer flows will continue to equal 23.5% of water demand in the Spanish Flat service area; average wet-weather sewer flows will equal nearly three times the average dry-weather flows; and peak wet-weather flows will more than double average the wet-weather flow.[88] Accordingly, based on design, SFWD has sufficient capacities to accommodate projected sewer flows through the entirety of the review period. The following table summarizes projected demands within the service area through 2015.

Projected Sewer Demands in the Spanish Flat Service Area Through 2015
(Source: LAFCO)

Category	2010-11	2011-12	2012-13	2013-14	2014-15
Number of Users	96	96	97	97	98
Daily Dry-Weather Flow	7,889	7,833	7,707	7,644	7,497
Daily Dry-Weather Capacity	25,000	25,000	25,000	25,000	25,000
Capacity Difference	17,111	17,167	17,293	17,356	17,503
Daily Wet-Weather Flow	21,695	21,541	21,194	21,021	20,617
Daily Wet-Weather Capacity	53,000	53,000	53,000	53,000	53,000
Capacity Difference	31,305	31,459	31,806	31,979	32,383
Peak Day Wet-Weather Flow	47,729	47,390	46,627	46,246	45,357
Peak Day Wet-Weather Capacity	53,000	53,000	53,000	53,000	53,000
Capacity Difference	5,271	5,610	6,373	6,754	7,643

** Amounts are shown in gallons.*
** Projections assume a baseline in which inflow and infiltration flows will reflect current percentages.*
** Users represent individual lots connected to the sewer system.*

Buildout of the Spanish Flat service area is expected to involve the development of the remaining 39 privately-owned lots already in the service area, but not connected to the sewer system. Connection to Foothill Pines Resort is not expected based on past practices of the site's concessionaire to operate a private sewer system. If this assumption proves accurate, and all new development connects with usage similar to current demands, the daily average dry-weather and wet-weather flows would increase to 20,300 and 56,000 gallons, respectively. These projected demands could be accommodated based on existing design capacities. The expected peak day wet-weather flow – in the absence of significant improvements to the collection system – nonetheless would increase to 122,000 gallons and exceed existing capacity over two to one.

[88] The relatively low ratio between the daily average dry-weather sewer flows and daily average water consumption appears to be attributed to high landscaping uses as well as the existence of 11 additional water connections in the Spanish Flat service area that are not tied to the District's sewer system.

7.0 Financial

7.1 Assets, Liabilities, and Equity

SFWD's financial statements are prepared by an independent third party contractor. The most recent audit prepared to date was issued in March 2008 and covered both the 2005-2006 and 2006-2007 fiscal years. These audited financial statements provide quantitative measurements in assessing SFWD's short and long-term financial standing as late as June 30, 2007 and are summarized below.

Assets

SFWD's assets at the end of the 2006-2007 fiscal year totaled $3.25 million. Assets classified as current with the expectation they could be liquidated within a year represented less than five percent with nearly the entirety tied to cash. Assets classified as non-current represented the remaining 95% tied to the water and sewer facilities.

Category	2005-06	2006-07	2007-08	2008-09	2009-10
Current Assets	0.085	0.142	N/A	N/A	N/A
Non-Current Assets	2.117	3.113	N/A	N/A	N/A
Total Assets	$2.202	$3.255			

Liabilities

SFWD's liabilities at the end of the 2006-2007 fiscal year totaled $0.61 million. Current liabilities representing obligations owed within a year accounted for over one-half of the total amount and are primarily tied to accounts payable. SFWD's non-current liabilities represent slightly less than one-half of the total amount and are tied to notes payable.

Category	2005-06	2006-07	2007-08	2008-09	2009-10
Current Liabilities	0.012	0.336	N/A	N/A	N/A
Non-Current Liabilities	0.206	0.272	N/A	N/A	N/A
Total Liabilities	0.218	0.608			

Equity/Net Assets

SFWD's equity, or net assets, at the end of the 2006-2007 fiscal year totaled $2.65 million and represents the difference between total assets and liabilities. The end of year equity amount incorporates a ($0.262 million) balance in unrestricted funds. This negative unrestricted fund balance is attributed to a ($0.077 million) operating loss coupled with significant cost overruns to repair a levee at its main sewage treatment pond.

Category	2005-06	2006-07	2007-08	2008-09	2009-10
Capital Assets	1.910	2.840	N/A	N/A	N/A
Designated	0.068	0.068	N/A	N/A	N/A
Undesignated	0.004	(0.262)	N/A	N/A	N/A
Total Equity	$1.982	$2.646			
Change	*N/A*	*$0.664*			

2006-07 Financial Statements	
Assets	$3.255 million
Liabilities	$0.608 million
Equity	$2.646 million

SFWD's financial statements for 2006-2007 reflect the District experienced an overall positive change in its fiscal standing as its total equity increased by nearly one-third from $1.982 to $2.646 million. This increase in the overall fund balance is attributed to the construction of new water treatment facilities for both its Berryessa Pines and Spanish Flat service areas. Nonetheless, the financial statements also reflect the unrestricted/undesignated portion of SFWD's fund balance experienced a significant decrease in value by falling from $0.004 million to ($0.262 million). This decrease in the unrestricted/undesignated fund balance was the result of an operating shortfall along with addressing emergency repairs to its sewer pond levee. A number of significant deficiencies as well as material weaknesses were identified regarding SFWD's internal control of its financial statements for the fiscal year. Recommendations were made to improve internal control ranging from establishing standardized procedures to additional training.

Calculations performed assessing SFWD's liquidity, capital, and profitability for 2006-2007 indicate the District finished with mixed results with respect to its short and long-term financial health. Measurements for liquidity varied from good with over 180 days of cash sufficient to cover operating expenses to poor with its current liabilities exceeding current assets by over double. Additionally, SFWD finished with a relatively low amount of long-term indebtedness while at the same time having a poor operating margin as expenses exceeded revenues by over one-fourth.

7.2 Revenue and Expense Trends

A review of SFWD's financial statements identifies the District has finished each of the last three reported fiscal years (2005-2006 through 2007-2008) with negative year-end balances. The magnitude of the year-end deficits has remained relatively constant with minor variations. Both revenues and expenses have increased during the three years reviewed with the former slightly outpacing the latter by one-fifth. Nearly all revenues during the period were generated directly from user fees with no monies from property tax or other special assessments. Close to three-fifths of all expenses were tied to operations and maintenance with the remaining two-fifths divided between administrative and long-term debt. A summary of overall recent revenues and expenses follows.

Fund Category	2005-06	2006-07	2007-08	2008-09	2009-10
Operations					
Revenues	0.269	0.276	0.296	N/A	N/A
Expenses	0.313	0.351	0.338	N/A	N/A
Non-Operations					
Revenues	0.000	0.000	0.000	N/A	N/A
Expenses	0.000	0.003	0.000	N/A	N/A
	($0.043)	($0.077)	($0.042)		

** Information for 2005-2006 and 2006-2007 are drawn from audited financial prepared by Constance Coughlan, Certified Public Accountant. Information for 2007-2008 is drawn from non-audited financial statements filed with the California State Controller's Office.*

7.3 Current Budget

SFWD's adopted budget for 2010-2011 totals $0.31 million. This amount represents total approved expenses or appropriations for the fiscal year for both the Berryessa Pines and Spanish Flat service areas within SFWD's lone budget unit: operations. An expanded review of expenses and revenues follows.

Operations

SFWD's operations budget unit supports basic District water and sewer activities. Approved expenses total $0.31 million with close to one-half of the apportionment dedicated to services and supplies with the largest allocation tied to miscellaneous maintenance costs for projects under $1,000. The remaining amount of approved expenses is dedicated to payroll and currently funds the equivalent of 2.9 full-time employees. Estimated revenues are projected at $0.32 million with nearly the entire amount drawn from water and sewer related service charges.[89]

2010-11 Adopted Operations	
Revenues	$0.318 million
Expenses	$0.310 million
Difference	$0.008 million
Beginning Balance	N/A
Est. Ending Balance	N/A

[89] SFWD reports its beginning fiscal year unrestricted fund balance totals approximately $0.10 million and therefore is projected to slightly increase by $0.008 million by the end of 2010-2011.

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IV. SOURCES

A. Lake Berryessa Resort Improvement District

Principal Agency Contacts

- Kevin Berryhill, Supervising Civil Engineer, County of Napa
- Helene Franchi, Principal Management Analyst, County of Napa
- Felix Riesenberg, Deputy Public Works Director, County of Napa (Former)
- Anna Maria Martinez, Engineer, County of Napa
- John Taylor, Consultant to Public Works, County of Napa

Additional Agency Contacts

- Tom Capriola, County Counsel, County of Napa
- Larry Florin, Intergovernmental Affairs Director, County of Napa
- Nate Galambos, Engineering Manager, County of Napa
- Hillary Gitelman, Planning Director, County of Napa
- Bob Minahen, Assistant Auditor-Controller, County of Napa
- Cynthia Phillips, Mapping and Title Supervisor, County of Napa
- Christy Redford, Property Tax Specialist, County of Napa
- Don Ridenhour, Public Works Director, County of Napa
- Xioneida Ruiz, Election Services Manager, County of Napa
- Tracy Schulze, Auditor-Controller, County of Napa
- Dan Woods, Appraiser III, County of Napa

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B. Napa Berryessa Resort Improvement District

Principal Agency Contacts

- Kevin Berryhill, Supervising Civil Engineer, County of Napa
- Helene Franchi, Principal Management Analyst, County of Napa
- Phil Miller, Deputy Public Works Director, County of Napa
- Felix Riesenberg, Deputy Public Works Director, County of Napa (Former)
- Anna Maria Martinez, Engineer, County of Napa
- John Taylor, Consultant to Public Works, County of Napa

Additional Agency Contacts

- Tom Capriola, County Counsel, County of Napa
- Larry Florin, Intergovernmental Affairs Director, County of Napa
- Nate Galambos, Engineering Manager, County of Napa
- Hillary Gitelman, Planning Director, County of Napa
- Bob Minahen, Assistant Auditor-Controller, County of Napa
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C. Spanish Flat Water District

Contacts

- Al Colon, Board Member, SFWD
- Bob Lowdermilk, Board Member, SFWD
- Marcia Ritz, Administration, SFWD
- Steve Silva, Administration/Operations, SFWD

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