

3.0 INDIAN WELLS VALLEY WATER DISTRICT

The Indian Wells Valley Water District (IWVWD or District) provides water services that are described within this Municipal Service Review (MSR).

3.1 LOCATION AND BOUNDARIES

The IWVWD provides water to the City of Ridgecrest (City) and the surrounding unincorporated areas, as shown in Figure 3.1. IWVWD's service area comprises approximately 24,813 acres (ac), and has a population of approximately 29,000 people. The District's Sphere of Influence (SOI) encompasses approximately 22,742 ac outside of the District's boundary.

Approximately 8 square miles included in the District's boundary are public lands that are under the jurisdiction of the United States Bureau of Land Management (BLM) and are undevelopable. In addition, approximately 4 square miles of the District is within the jurisdiction of the Naval Air Weapons Station (NAWS) at China Lake. Some of these lands overlap, which results in approximately 10 square miles of land within the District's boundary that are undevelopable. Similarly, as shown on Figure 3.1, the District's SOI includes large land areas within NAWS China Lake and under Bureau of Land Management (BLM) jurisdiction.

3.2 DISTRICT SERVICES AND FACILITIES

In 2008, the District had 11,859 potable water service connections. As shown in Table 3.A, over 91 percent of the District's customer base is single-family residential uses, which utilize over 76 percent of the District's water deliveries.

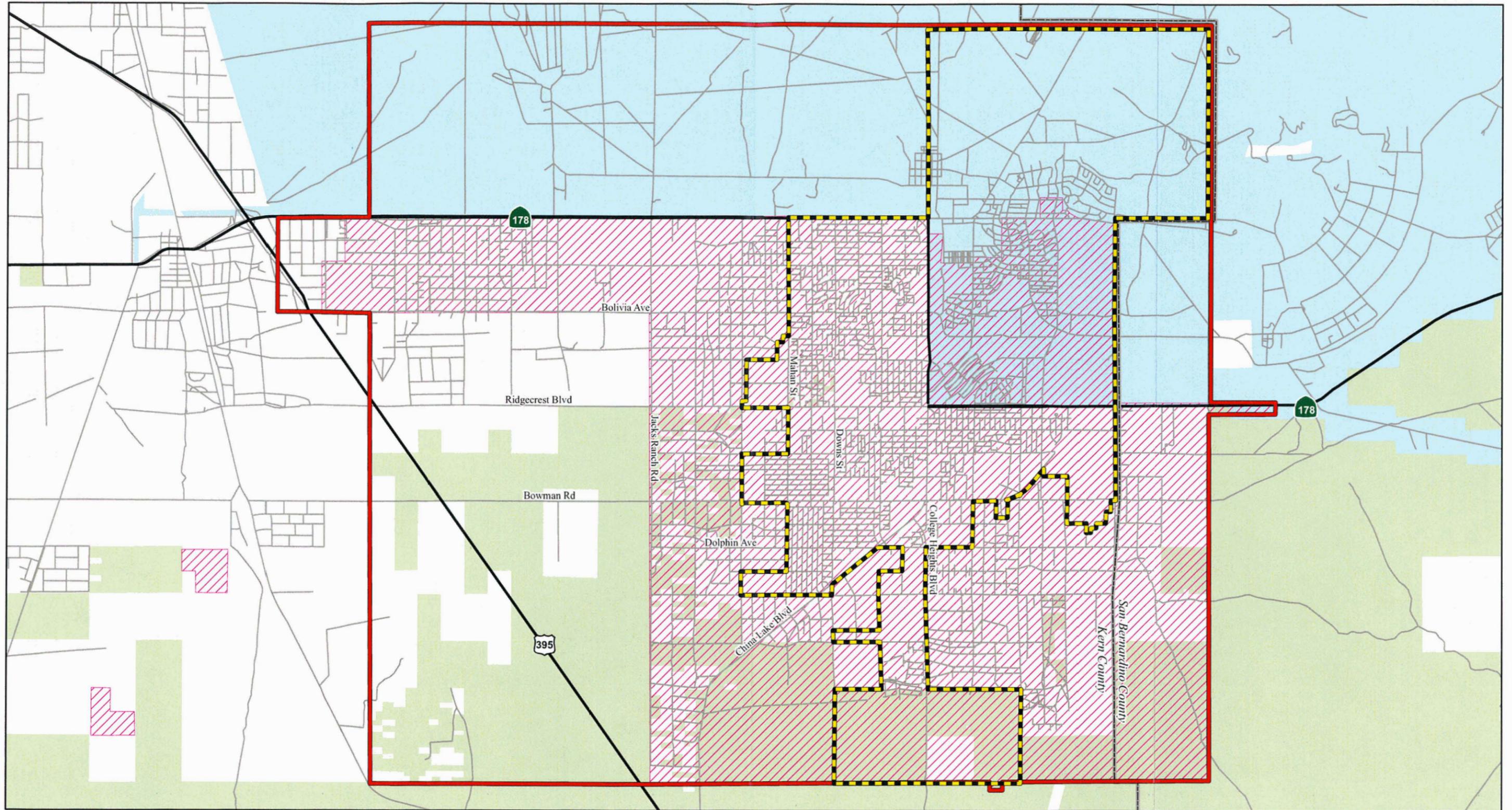
Table 3.A: Summary of 2007 Water Service Provided by IWVWD

	Connections	Percentage of Total Connections	Acre-Feet Delivered	Percentage of Water Demand
Single-Family Residential	10,894	91.9	6,338	76.4
Multifamily Residential	353	3.0	645	7.8
Commercial/Institutional	612	5.2	1,314	15.8
Total	11,859	-	8,297	-

Source: Department of Water Resources Public Water System Statistics for the 2007 calendar year.
IWVWD = Indian Wells Valley Water District

IWVWD's domestic water system infrastructure consists of:

- Ten active wells and two standby wells, with a combined pumping capacity of 11,800 gallons per minute (gpm) (not including the standby wells, which are only used for emergencies);



LSA

FIGURE 3.1

LEGEND

-  Ridgecrest City Limits
-  IWVWD Boundary
-  IWVWD Sphere of Influence
-  NAWS China Lake
-  BLM Land
-  County Boundary



SOURCE: City of Ridgecrest (2008), Krieger-Steward (2008), Bureau of Land Management (2006).

E:\KCT0801\GIS\IWVWD.mxd (2/2/2009)

- Six booster stations, with a pumping capacity of 5,250 gpm (each booster station has multiple pumps, but they do not all run at the same time);
- Ten water storage reservoirs, with a total storage capacity of 16.6 million gallons (MG);
- Over 1,000,000 linear feet of transmission and distribution pipelines, ranging between 4 and 30 inches in diameter; and
- Division into five interconnected pressure zones.

The District's existing wells have the capacity to pump 17 million gallons per day. The District's maximum demand day in 2008 was 12.6 million gallons. However, the District's maximum demand is estimated by the District to be higher than 12.6 million gallons during a typical hot summer. The District has stated that it is currently in need of the capacity equivalent of two new wells to meet maximum day production demands. The District has stated that it is currently short approximately 2,320 gpm in production capacity in order to meet the maximum day with a 20 percent redundancy. At this time if the District has one or two wells that become inoperable for any reason during our maximum day, we could have trouble meeting demand. The District has states that it is also in need of a new storage tank for the D-zone and A-zone service areas. The District's Capital Improvement Budget details the District's infrastructure needs and provides cost estimates to provide finance planning assistance. As described in Section 3.5, infrastructure improvements are largely funded by development impact fees and rates charged for water services; and the District utilizes its Capital Improvement Reserve Fund to accrue funds for needed facility improvements and expansions.

3.3 WATER SUPPLY AND GROWTH

The sole source of water supply for IWVWD is groundwater that is pumped from the Indian Wells Valley Ground Water Basin. This aquifer is also used by NAWS China Lake, Inyokern Communities Service District, private wells, and industrial and agricultural users. The demand for groundwater from this aquifer continues to increase. Likewise, IWVWD's annual water production has increased steadily from approximately 1,300 acre-feet (af) in 1965, to approximately 8,500 af in 1996, to 8,971 af in 2007. To provide adequate facilities to serve the growing customer base, the District charges all new connections a capital facility fee. This is a one-time charge that is levied to finance new or upgraded facilities, such as water mains and pipelines.

The District is working on several water supply projects, which include a study of the aquifer to locate new well sites and increase existing well production, an alternate water supply project, a brackish water pilot program, and aquifer storage and recovery projects.

The District has also worked on reducing water demand by replacing leaking or deteriorated pipelines, utilizing water-efficient devices, conducting a water audit and leak detection program, and promoting water efficiency through education programs. In addition, the District has recently hired a consultant to draft a landscape ordinance for new construction, which would require water efficiency.

3.4 GOVERNANCE

The District is governed by a five-member Board of Directors elected by voters within the IWVWD. Directors are elected to four-year staggered terms, with elections held in even-numbered years. The regular meetings for the Board of Directors are held on the second Monday of every month at 7:00 p.m. The meetings are located in the Board Room at the District office. The Board meetings are open to the public and noticed in accordance with the Brown Act.

The District also has five committees, which are focused on specific district topics, as listed below:

- **Administration/Executive Committee:** Personnel, Legal Matters, General Plan, Community Relations, Board Meeting Agendas, Ordinances, Rules, Regulations, Policies, Procedures, Customer Service, Variances, Director's Manual, etc.
- **Finance Committee:** Rates, Cost-of-Service, Budget, Audits, Cost Allocation, Investments, Financial Services, Insurance, Loans/Grants, Water Sales and Service Policy Manual, Accounting, Assessment Districts, Billing, etc.
- **Water Management Committee:** Water Management, Water Policy, Water Quality, Conservation, Urban Water Management Plan, California Urban Water Conservation Council, Title 22 Compliance, etc.
- **Plant and Equipment Committee:** Transmission/Distribution System, Vehicles and Equipment, Wells, Reservoirs, Real Property Management, Telemetry, etc.
- **Alternate Water Supply Committee:** Alternative sources for water supply, including Blending, Importation, Reuse, etc.

3.5 FINANCE

The District's General Manager prepares the proposed annual budget for the Board of Directors' review and approval prior to July 1 of each year. As shown in Table 3.B, the District obtains its revenue largely from water sales, and the District's largest expenditures are those involving the delivery of potable water. Table 3.B provides the District's sources of operating revenues uses and operating expenses for the fiscal years (FY) 2006–2007 and 2005–2006. Additionally, Table 3.C provides a summary of the District's total revenues and expenditures. As shown, the District's 2007 revenues exceeded expenses, and the District is anticipating revenues meeting expenses in FY 2009.

**Table 3.B: Summary of Operating Revenue and Expenses,
FY 2007 and 2006**

Operating Revenue	2007 Percentage	2006 Percentage
Water Sales	91.7	88.5
Capital Facilities Fees	5.5	8.8
New Service Connections	0.2	0.2
Other Operating Revenue	2.7	2.5
Operating Expenses	2007 Percentage	2006 Percentage
Pumping Plant	19.8	18.4
Water Treatment	2.3	2.5
Water Distribution	12.2	9.7
Engineering	3.6	4.2
Customer Accounts	4.0	4.5
Field Services	5.2	5.3
Administrative	23.5	24.6
Legislative	1.5	1.5
Depreciation	27.6	29.2
Amortization	0.2	0.2

Source: Indian Wells Valley Water District Audited Financial Statements June 30, 2007 and 2006.

FY = fiscal year

**Table 3.C: Summary of Total District Revenues and
Expenses**

	FY 2007 Actual	FY 2009 Budgeted
Operating Revenues	\$8,676,728	\$9,154,500
Operating Expenses	\$7,822,179	\$9,153,500
Net Revenues (Loss)	\$854,549	\$1,000

Source: Indian Wells Valley Water District Audited Financial Statements June 30, 2007 and 2006; District Budget, FY 2008–2009.

FY = fiscal year

Rates for Services

All of the District's customers have metered connections and are billed based upon usage. Monthly bills include a base service charge, plus a water charge based on usage, and a zone charge if applicable. The zone charge is intended to recover additional costs of power needed to supply water to higher zones. Table 3.D provides a summary of the District's water service rates.

Table 3.D: IWVWD Monthly Service Rates

	Effective February 2008	Effective February 2009
5/8" x 3/4" Meter Base Charge	\$14.55	\$15.28
Zone Charges Per 100 Cubic Feet of Water		
Zone B	\$0.097	\$0.101
Zone C	\$0.194	\$0.204
Zone D	\$0.291	\$0.305
Zone E	\$0.389	\$0.408
Metered Quantity Rates for 5/8" x 3/4" Meter per 100 Cubic Feet of Water		
0-5	\$0.67	\$0.71
5.01-10	\$0.84	\$0.88
10.01-15	\$1.04	\$1.09
15.01-20	\$1.26	\$1.32
20.01-25	\$1.51	\$1.59
25.01-30	\$1.68	\$1.76
30.01 and over	\$1.82	\$1.91

Source: Indian Wells Valley Water District, Ordinance No. 89, February 2007.
IWVWD = Indian Wells Valley Water District

To provide a comparison in water service rates in the eastern portion of Kern County, the rates for one month of water service providing 1,000 cubic feet of water have been provided in Table 3.E. As shown, the cost of water from the IWVWD is higher than water service from the City of California City, but much lower than water service from the Rand Communities Water District.

Table 3.E: Comparison of Monthly Water Service Rates

Agency	Size of Meter	Amount of Water (cubic feet)	Monthly Rate
Rand Communities Water District	3/4"	1,000	\$72.68
California City	3/4"	1,000	\$17.26
Indian Wells Valley Water District	3/4"	1,000	\$24.08

Investments

The District has an investment policy that authorizes investment of the District's idle or surplus funds in the state investment pool administered by the State of California and the local government investment pool administered by Kern County. Additionally, the District may invest funds in accordance with California Government Code Section 53601, which includes a variety of investments, such as local agency bonds and United States Treasury instruments. As shown in the District's Audited Financial Statements of June 30, 2007, the District's investments had a fair value of \$6,315,155 (restricted investments) and \$1,201,603 (unrestricted investments).

Long-Term Debt

The District has outstanding debt related to a pooled financing program with other agencies, whereby the City received funds for capital improvements. The Financial Statements of June 30, 2008, show the District's balance as \$12,329,659.

Financial Reserve Policies

The IWVWD has no Board of Directors-adopted Financial Reserve Policy; however, the District's Finance Committee has established the following guidelines:

- **Emergency Reserve:** The District is to make every effort possible to maintain an emergency reserve equaling the equivalent of 6 months of operating expenses, excluding depreciation and debt service. At present, the reserve is quantified as a total of all nonrestricted reserves. The Finance Committee has directed staff to work toward accumulating a stand-alone emergency reserve that is a fund of and by itself.
- **Vehicle Reserve:** This reserve is to be used for new and replacement vehicles and heavy equipment within the District. The reserve shall not exceed a balance of \$350,000.
- **Computer Replacement Reserve:** The funds in this reserve are to be used within the District for the purchase of new and replacement computer technology. The balance of this reserve shall not exceed \$100,000.
- **Capital Improvement/Replacement Reserve:** This fund shall have no set maximum balance. All reserve funds may be used for the acquisition/construction of capital improvements of or replacement of improvements that have met or exceeded their estimated useful lives.
- **Future Sources of Supply Reserve:** This fund shall have no set maximum balance. All reserve funds may be used for the acquisition, investigation, development, or construction of future sources of water supply.

Purchasing Policy

The District has an adopted purchasing policy, which details the requirements related to expenditures, including procedures for direct purchases, open market purchases, formal contracts, and emergency purchases.

3.6 GROUNDWATER/COOPERATIVE AGREEMENTS

The District has mutual aid agreements with the United States Navy and a neighboring mining operation. These agreements establish a reciprocal arrangement that allows the District to receive water from either/both parties' water production in the event of an emergency as well as the District serving water from its water production to either/both entities should either/both experience an emergency situation.

The District has entered into an agreement to jointly finance the creation and publication of a conservation book for distribution in California high desert communities. This project was invested in by the following:

- IWVWD
- Rosamond Community Services District
- Palmdale Water District
- City of Palmdale
- Kern County Water Agency
- NAWS China Lake

More recently, the District entered into an agreement to jointly finance a groundwater monitoring program in the Indian Wells Valley. This venture was supported by:

- California Department of Water Resources
- IWVWD
- Kern County Water Agency
- NAWS China Lake
- Searles Valley Minerals
- BLM

Currently, the District is involved in a joint venture to produce a groundwater flow model for the water resources located in the Indian Wells Valley. This model is being financed by:

- IWVWD
- Searles Valley Minerals
- NAWS China Lake

The District is carrying debt that was issued in 1999 as a pooled financing program. The bond instruments were issued on behalf of the following participants:

- IWVWD
- Lake Arrowhead Community Services District
- City of Ripon

3.7 DETERMINATIONS FOR THE IWVWD

The MSR guidelines prepared by the State Office of Planning and Research recommend that issues relevant to the jurisdiction be addressed through written determinations called for in the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000. Based on the above information, the following are the written determinations for the IWVWD.

Infrastructure Needs and Deficiencies

1. The District has stated that it is currently short approximately 2,320 gpm in production capacity in order to meet the maximum day with a 20 percent redundancy. At this time if the District has one or two wells that become inoperable for any reason during our maximum day, we could have trouble meeting demand.
2. The District has states that it is also in need of a new storage tank for the D-zone and A-zone service areas.

Growth and Population Projections

1. Population within the District's boundary is strongly linked to changes in employment at NAWS China Lake. As a result of changes in the operation of NAWS, the City area experienced a population decrease between 1990 and 2000 and an increase since 2000. As a result of the employment changes at NAWS China Lake, the population of the City area in 2008 is similar to the population in 1990.
2. Regional projections for the District's service area are anticipated to be similar to that of the City, which is anticipated to grow approximately 1.49 percent annually through 2030.

Financing Constraints and Opportunities

1. The District's revenues have met and exceeded (and are anticipated to meet or exceed) expenditures and are not an operational financing constraint.
2. The District is a participant in many joint financing opportunities, such as water conservation book, groundwater monitoring program, and pooled infrastructure financing.
3. The District levies development impact fees on new developments to finance infrastructure improvements or expansions to accommodate growth.

Cost Avoidance Opportunities

1. The IWVWD currently pursues many joint financing opportunities, which provide programs and/or equipment at a reduced cost to the District.

2. The IWVWD should continue to pursue joint financing opportunities and grant funding where possible to reduce the cost of infrastructure projects. This is a potential cost avoidance opportunity.

Opportunities for Rate Restructuring

1. The District's water service rates are based upon water usage, which is intended to promote conservation. Monthly bills include a zone charge if applicable. The zone charge is intended to recover additional costs of power needed to supply water to higher zones. No opportunities of rate restructuring have been identified.

Opportunities for Shared Facilities

1. The IWVWD does not have shared facilities. The District should explore potential opportunities to share facilities, equipment, or personnel with other agencies in the area, such as the City and NAWS China Lake. It may be possible to share maintenance equipment, personnel, and vehicles, or other similar resources.

Government Structure Options

1. Based on the current provision of service, it is reasonable to conclude that water services should continue to be provided by the IWVWD.

Evaluation of Management Efficiencies

1. The provision of domestic water service to the IWVWD service area is efficient, as one entity is providing water service within the area. There are no other potable water service providers within or near the existing service area.

Local Accountability and Governance

1. The IWVWD ensures that local accountability and governance standards are met by holding meetings pursuant to the Ralph M. Brown Act. Additionally, the District's website provides governance, finance, and water quality information.