LOCAL AGENCY FORMATION COMMISSION
FOR SAN BERNARDINO COUNTY

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PROPOSAL NO.: **LAFCO 3148**

HEARING DATE: **April 18, 2012**

RESOLUTION NO. 3155

A RESOLUTION OF THE LOCAL AGENCY FORMATION COMMISSION OF THE COUNTY OF SAN BERNARDINO MAKING DETERMINATIONS ON LAFCO 3148 – A SERVICE REVIEW AND SPHERE OF INFLUENCE UPDATE FOR THE BIGHORN-DESERT VIEW WATER AGENCY (sphere of influence reduction by approximately 11,882 acres, expansion by a total of approximately 8,140 acres, and affirmation of the balance of its existing sphere of influence, as shown on the attached map).

On motion of Commissioner Bagley, duly seconded by Commissioner Coleman, and carried, the Local Agency Formation Commission adopts the following resolution:

WHEREAS, a service review mandated by Government Code 56430 and a sphere of influence update mandated by Government Code Section 56425 have been conducted by the Local Agency Formation Commission of the County of San Bernardino (hereinafter referred to as "the Commission") in accordance with the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code Sections 56000 et seq.); and,

WHEREAS, at the times and in the form and manner provided by law, the Executive Officer has given notice of the public hearing by the Commission on this matter; and,

WHEREAS, the Executive Officer has reviewed available information and prepared a report including her recommendations thereon, the filings and report and related information having been presented to and considered by this Commission; and,

WHEREAS, a public hearing by this Commission was called for January 18, 2012 at the time and place specified in the notice of public hearing, adoption of the resolution was continued to the February 15, 2012 hearing at which time the Commission directed staff to conduct a community meeting and schedule further discussion for consideration at the April 18, 2012 hearing; and,

WHEREAS, at the hearing, this Commission heard and received all oral and written protests; the Commission considered all plans and proposed changes of organization, objections and evidence which were made, presented, or filed; it received evidence as to whether the territory is inhabited or uninhabited, improved or unimproved; and all persons present were given an opportunity to hear and be heard in respect to any matter relating to the application, in evidence presented at the hearing; and,

WHEREAS, at this hearing, this Commission certified that the sphere of influence update including sphere amendments is statutorily exempt from environmental review pursuant to the provisions of the California Environmental Quality Act (CEQA) and such exemption was adopted by this Commission on April 18, 2012. The Commission directed its Executive Officer to file a Notice of Exemption within five working days of its adoption; and,

WHEREAS, based on presently existing evidence, facts, and circumstances filed with the Local Agency Formation Commission and considered by this Commission, it is determined that the sphere of influence for the Bighorn-Desert View Water Agency (hereafter shown as the "BDVWA" or the "Agency") shall be amended as shown on the map attached as Exhibit "A" to this resolution, defined as follows:

(1) Reduce the Agency's existing sphere of influence to exclude Area 1 (containing approximately 11,882 acres);

(2) Expand the Agency's sphere of influence to include Area 2, as modified by the Commission (containing approximately 8,054 acres);

(3) Expand the Agency's sphere of influence to include Areas 3a, 3b, and 3c (containing a total of approximately 86 acres); and,

(4) Affirm the balance of the Agency's existing sphere of influence.

WHEREAS, the determinations required by Government Code Section 56430 and local Commission policy are included in the report prepared and submitted to the Commission dated January 9, 2012 and received and filed by the Commission on January 18, 2012, a complete copy of which is on file in the LAFCO office. The determinations of the Commission are:

1. Growth and population projections for the affected area:

The rural desert character of Homestead Valley is defined by its geographic location, the area's desert landscape and environment, and the predominance of very low-density residential development. Low-density residential development within the plan area is characterized by large lots, the varied placement of homes, and open spaces around the homes. The character of the community is further defined by the natural environment and by the limited commercial and industrial uses.

According to the *Homestead Valley Community Plan*, several issues set Homestead Valley apart from other desert communities, suggesting that different strategies for future growth may be appropriate. Among these are the preservation of community character, infrastructure, and commerce and services. As for preservation of community character, residents are concerned with the preservation of the natural environment and their community character amidst the pressures of growth in the plan area and surrounding desert communities. The preservation of the community's natural setting, small town atmosphere and rural character becomes important not only from an environmental perspective but from a cultural and economic point of view. The *Community Plan* further states that the Homestead Valley area will continue to experience growth as the desert region continues to develop. The rural nature and availability of vacant land will continue to attract development to the area. As the area develops it will be important to ensure that the rural features of the area are preserved and that adequate services and infrastructure are provided.

Land Ownership

Within the Agency's entire sphere, roughly 46% of the land is privately owned and the remainder, 54%, is public, which are devoted primarily to resource protection and recreational use.

Land Ownership Breakdown (in Acres)
Within Bighorn-Desert View Water Agency

Ownership Type	Boundary	Sphere (outside boundary)	Total Area
Private	17,943	5,384	**23,327**
Public Lands – Federal (BLM), State, & others	9,380	18,498	**27,878**
Total	27,323	23,882	**51,205**

Land Use

Within the study area, approximately 53 percent is designated RL (Rural Living, 2.5 acres minimum), RL-5, and RL-40, 45 percent is Resource Conservation, and the remainder of the land use designations comprises two percent (Special Development-Commercial, Neighborhood Commercial, Rural Commercial, General Commercial, Service Commercial, and Institutional). The commercial developments within the Agency are generally located along State Route 247 and Reche Road.

General Plan Land Use Districts (In Acres)
Within Bighorn-Desert View Water Agency

Land Use	Boundary	Sphere (outside boundary)	Total Area
Homestead Valley Community Plan			
Resource Conservation (HV/RC)	3,310	5,058	8,368
Rural Living (HV/RL)	20,480	1,985	22,465
HV/RL-5	2,025		2,025
HV/RL-40	320		320
Special Development (HV/SD-COM)	658		658
Neighborhood Commercial (HV/CN)	5		5
Rural Commercial (HV/CR)	222	38	260
General Commercial (HV/CG)	5		5
Service Commercial (HV/CS)	8		8
Institutional (HV/IN)	10		10
County General Plan			
Resource Conservation (RC)	280	14,806	15,086
Rural Living (RL)		1,450	1,450
RL-5		545	545
Total	**27,323**	**23,882**	**51,205**

Population Projections

In 2000, the population within the Agency's boundaries was 2,297. Based on the 2010 Census, the current population for the area is 3,018. This represented an average annual growth rate of approximately 2.8 percent within the given period.

The *Community* Plan population forecast is not used in this report for the Agency. Instead, the projected growth for the Agency's boundaries was calculated utilizing a combination of the growth rates identified in the Regional Council of the Southern California Association of Governments (SCAG) Draft 2012 Regional Transportation Plan (RTP) Integrated Growth Forecast, SCAG's 2008 RTP, and the use of average annual growth rate. By 2040, the population within the Agency's boundaries is estimated to reach 6,154. This represents a projected annual growth rate of approximately 2.4 percent between 2010 and 2040, which also represents a total population increase of 49 percent from 2010.

Population Projection 2010-2040
Within Bighorn-Desert View Water Agency

Census		Population Projection					
2000	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**
2,297[1]	3,018[2]	3,069[3]	3,700[4]	4,313	4,902	5,466	6,154[5]

[1] 2000 population was derived from the 2000 Census block data for the Agency's boundary
[2] 2010 population data was derived from the 2010 Census block data for the Agency's boundary.
[3] 2015 growth rate projection was adjusted to reflect the rate for the County's unincorporated area from SCAG's 2012 RTP Revised Draft Integrated Growth Forecast using local input and latest data from the 2010 Census, the California Employment Development Department, and the California Department of Finance - (published May 2011)
[4] 2020-2035 growth rate projections were calculated based on the growth rate identified by SCAG's 2008 RTP for each of the TAZ's (Traffic Analysis Zones) that corresponded to each of the Census Tracts within the Agency's boundary. The growth rates for each of the TAZ's were then used to derive the projection of the population for each of the corresponding Census Tract numbers.
[5] 2040 projection was calculated using Average Annual Growth Rate based on the compounded rate between 2010-2035 since SCAG's projections only went to 2035

Build-out

The table below provides the potential build-out within the Agency's boundaries. This build-out scenario takes into consideration the existing land use designations assigned for the area and the dwelling unit densities assigned for each residential land use (densities for all residential land uses were derived from the densities identified in the Homestead Valley Community Plan Potential Build-Out Table).

Land Use Maximum Build-Out
Within Bighorn-Desert View Water Agency

Land Use	Acreage	Density (D.U. Per Acre)	Maximum Build-out
Resource Conservation	3,590	0.025	90
Rural Living	20,480	0.2	4,096

RL-5	2,025	0.4	810
RL-40	320	0.025	8
Total Residential	**26,415**		**5,004**

The population projections identified earlier indicates that the population within the Agency's boundaries will be 6,154 by 2040. Based on the maximum residential build-out within the Agency's boundaries, the projected maximum population is anticipated to reach 11,759 (at @ 2.35 persons per household based on the ratio identified in the Homestead Valley Community Plan Potential Build-Out table). Likewise, based on the projected population for 2040, it is anticipated that the number of households within the Agency's boundaries will be 2,619 with a maximum potential build-out to reach approximately 5,005. These imply that the study area will reach 52 percent of its potential household and population capacity by 2040.

Population and Household Projection
Within Bighorn-Desert View Water Agency

	Projection 2040	Maximum Build-out	Ratio of 2040 Projection with Maximum Build-out
Population	6,154	11,759	0.52
Households	2,619	5,004	0.52

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

Regional Water

The Homestead community is located in the Colorado River Hydrologic Region, and is in the South Mojave Watershed as designated by the California Department of Water Resources (California Water Plan, Update 2009, Integrated Water Management, DWR, Bulletin 160-09, Vol. 3, Colorado River). The community is also within the boundaries of the Mojave Water Agency (MWA), a state water contractor.

State Water Project (SWP)

As LAFCO has stated on many occasions, water is the lifeblood for communities in the desert regions due to its limited nature. The availability of water will ultimately determine whether or not a community will prosper in the desert environs of San Bernardino County. Therefore, the most significant regional issue for the Homestead community is present and future water supply. The *2007 State Water Project Delivery Reliability Report* indicates that SWP deliveries will be impacted by two significant factors. First, it is projected that climate change is altering hydrologic conditions in the State. Second, a ruling by the Federal Court in December 2007 imposed interim rules to protect delta smelt which significantly affects the SWP. Further, the *Report* shows, "...a continued eroding of SWP delivery reliability under the current method of moving water through the Delta" and that "annual SWP deliveries would decrease virtually every year in the future..." The *Report* assumes no changes in conveyance of water through the Delta or in the interim rules to protect delta smelt.

The Department of Water Resources prepares biennial SWP water delivery reliability reports in order to provide the public with reliability estimates for both current and projected 20 year conditions. This is accomplished by modeling the effects of current hydrologic and SWP facility conditions and changes that are projected to occur. The table below summarizes the history of the current and future MWA contractual maximum annual amount from the SWP and the SWP reliability factors that have been and are being used for water supply planning purposes since 2005.

Year	MWA Table A[1] Annual Maximum	SWP Reliability Factor (long-term)	Average Annual SWP Yield (Acre-feet)
2005	75,800	77%	58,366
2007	75,800	66-69%	50,028 – 52,302
2009	75,800	61%	46,238
2010	82,800	61%	50,508
2015	85,800	61% [2]	52,338[2]
2020	89,800	61% [2]	54,778[2]

(1) Table A refers to the section within the MWA contract with DWR which specifies the maximum annual amount of water that the MWA can receive from the State Water Project.

(2) The 2009 Reliability Report estimated an average reliability of 60% for the SWP, but also modeled reliability for each Contractor, concluding that the average annual supply for MWA would be 61%. The 2009 Reliability Report estimate is the only known reliability variable at this time and is used for the purposes of this discussion and for water supply estimates in the MWA 2010 UWMP. Current court proceedings and efforts to address issues in the Delta (supply source for the SWP) may result in future changes to SWP supply reliability.

Source: Mojave Water Agency, 2010. Footnote (2) updated by LAFCO staff in 2011.

The 2007 Reliability Report concluded that contractors to the SWP could anticipate average reliability of 66-69% through the year 2027. The range was provided to account for variable impact associated with different conclusions about the potential effects of modeled climate change. The average assumes that in some years contractors are likely to be allocated less than the stated average and in some years contractors are likely to be allocated more than the stated average.

In 2009 the DWR provided an updated reliability report incorporating new biological opinions in place of the referenced interim rules promulgated by the Federal Court. The new biological opinions were significantly more restrictive than the interim rules and consequently the 2009 reliability analysis indicated a reduction in reliability to 61% for long-term (2029) conditions. MWA has subsequently acquired additional contractual amounts to SWP water, increasing the maximum annual amount from 75,800 acre-feet to 82,800 acre-feet in 2010, 85,800 acre-feet in 2015 and 89,800 acre-feet in 2020. Considering the DWR modeling results, the average annual yield to MWA would be 50,508 acre-feet in 2010 and 54,778 acre-feet in 2029.

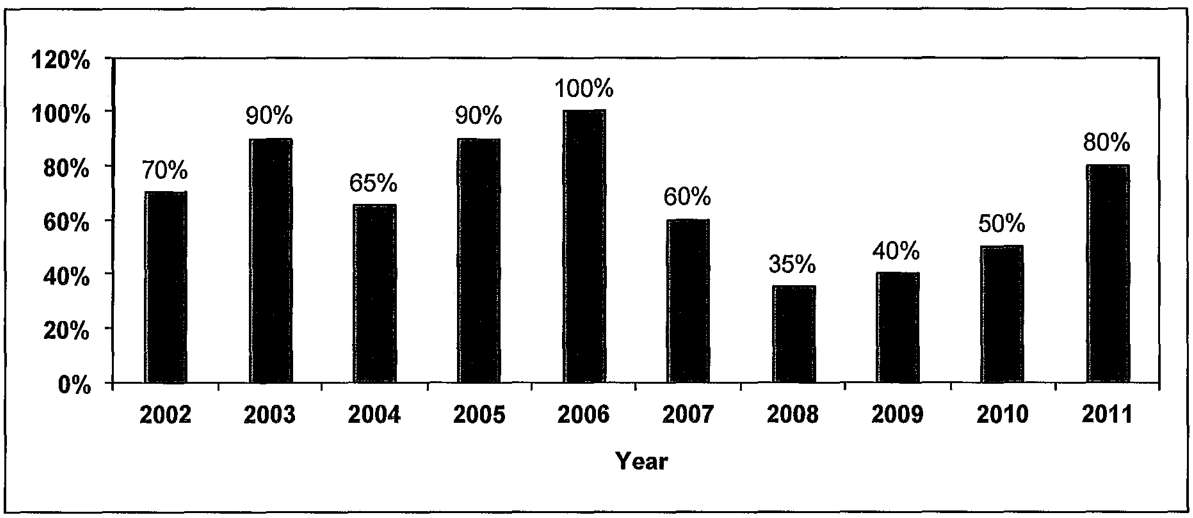
Since preparation of the 2009 Reliability Report, the same Federal Court has found the new biological opinions to be unacceptable (and inappropriately restrictive to Delta water exports) and has ordered them to be redone. There is also a major effort underway to develop a habitat conservation plan to address the myriad of issues impacting water supply exports from the Delta. That effort, if accomplished in a manner consistent with the "co-equal goals" of ecosystem restoration and water supply reliability envisioned by the State Legislature's 2009 Comprehensive Water Package, is anticipated to significantly increase reliability of the

SWP water supply. The eventual success and/or resulting increase to reliability are unknown at this time; however, the outcome will eventually be reflected in the biennial DWR reliability assessments.

MWA operates under the guidance of its Board adopted integrated regional water management plan and is also required by State law to submit an Urban Water Management Plan ("UWMP") to the State of California every 5 years ending in "0" and "5". The MWA UWMP compiles information on all known water supplies and demand on a sub-regional scale for the entire MWA. Future water supplies and demand (population growth) are also projected for at least the ensuing 20 years. MWA adopted its 2010 UWMP in June 2011 which incorporates the most recent reliability information provided by DWR (2009), indicating a reliability of 61% on average. Initial analysis indicates that given projected growth rates, the modeled decrease in reliability for the SWP by DWR, and the acquisition of additional SWP contractual amounts by MWA, there will be sufficient supply to meet anticipated increased demands through the required 20 year planning horizon (Mojave Water Agency, Final 2010 Urban Water Management Plan, Adopted June 2011. Also see Appendix F of the 2010 UWMP).

The figure below shows the allocation percentage that State Water Contractors were allowed to purchase since 2000, which averages 68% over the 10 years summarized. For example, MWA is entitled to purchase up to 82,800 acre-feet of imported water per year. For 2011, the allocation percentage was 80% (State of California. Department of Water Resources. "State Water Project Allocation Increased to 80 Percent", Press Release. 20 April 2011); therefore, MWA could purchase up to 66,240 acre-feet. MWA mitigates for this variability in supply by utilizing the significant water storage capability within the agency ground water basins to take delivery of SWP water when it is available. Water available from the SWP in excess of local demand is delivered and stored in the ground water basins to be used to meet demand during those years when the amount of water available from the SWP is less than the annual demand.

Department of Water Resources State Water Project
Final Allocation Percentages Statewide (2002-2011)



source: Department of Water Resources

Morongo Basin Pipeline (Mojave Water Agency Improvement District M)

In 1990, the southeastern portion of the MWA's territory voted in favor of forming Improvement District M and to incur bonded indebtedness of $66.5 million to finance the construction costs of the Morongo Basin Pipeline. Construction on the approximately 71 mile Morongo Pipeline began in 1992 and was completed in 1995 and serves the areas of Johnson Valley, Joshua Tree, Landers, and Yucca Valley. The Pipeline delivers water from Hesperia to a five million gallon reservoir in Landers. From there, water is delivered to percolation ponds in the Yucca Valley area that act as natural filtration systems where water seeps back into the ground to recharge the aquifer.

The landowners of the improvement district are obligated to pay for 75% of the costs for construction of the Pipeline, and the participating agencies are obligated to pay the remaining 25%. The participating agencies each pay a share of the 25% as follows:

Improvement District M - Participating Agency Share

Agency	Original Share	Current Share
Hi-Desert Water District	59%	59%
Joshua Basin Water District	27%	27%
Bighorn-Desert View Water Agency	9%	9%
CSA 70 Zone W-1 (Goat Mountain)	4%	1%
CSA 70 Zone W-4 (Pioneertown)	1%	0%
MWA	0%	4%

Originally, County Service Area ("CSA") 70 Zone W-1 was obligated to pay 4% and CSA 70 W-4 to pay 1%. However, in 1995, MWA acquired 3% of the rights from CSA 70 W-1 and 1% from CSA W-4. According to County Special Districts Department staff, MWA was requested by the County Board of Supervisors to buy CSA 70 W-1 and W-4 shares due to lack of utilization of the water. The percentage share identified for each participating agency also reflects the percentage of water which they are entitled. The Board of Supervisors action relinquished its rights to purchase supplemental water from the Pipeline when they sold the W-1 and W-4 shares.

Improvement District M has entitlement of up to one seventh of MWA's original State Water Project water allotment of 50,800 acre-feet/year ("AFY"); this equates to 7,257 AFY (under maximum delivery conditions the Morongo Basin Pipeline could deliver 15,000 AFY; delivery of the difference between the Improvement District M contracts and 15,000 would be per MWA Ordinance 9 and the equitable policies concerning water allocation adopted by MWA as most recently amended by MWA). The BDVWA has a nine percent share of the Improvement District M entitlement, or 653 AFY. At the time the Morongo Basin Pipeline agreement was executed among the participants and MWA in 1990, MWA's SWP allotment was 50,800 AFY. Subsequently, MWA has acquired additional allotment, currently at 82,800 AFY. Discussion continues as to whether the BDVWA and others within Improvement District M are entitled to a proportionate share of MWA's SWP allotment above 50,800.

The chart below shows the amount of supplemental water sent through the Morongo Basin Pipeline (Improvement District M) from 1998 to September 2010. Subsequent data is not yet available. Currently, the Agency does not utilize State Water Project resources but utilization of the Morongo Basin Pipeline is planned in the future. However, the entitlement extends only until 2022, at which time all agencies participating in Improvement District M will have access to supplemental water in the same manner as all other municipal water customers.

Mojave Water Agency Morongo Pipeline Deliveries

Year	Improvement District M Entitlement	BDVWA Share (9%)	SWP Allocation	BDVWA Share times SWP Allocation	Improvement District M Delivery
1998	7,257	653	100%	653	2,121
1999	7,257	653	100%	653	2,412
2000	7,257	653	90%	588	3,786
2001	7,257	653	39%	255	2,878
2002	7,257	653	70%	457	2,390
2003	7,257	653	90%	588	2,427
2004	7,257	653	65%	425	4,821
2005	7,257	653	90%	588	2,041
2006	7,257	653	100%	653	3,451
2007	7,257	653	60%	392	4,779
2008	7,257	653	35%	229	3,195
2009	7,257	653	40%	261	2,137
2010	7,257	653	50%	327	3,572
Total				6,068	40,010

source: Department of Water Resources, Mojave Water Agency
units in acre-feet unless otherwise noted
Year is reported from October through September

Additionally, MWA has a four percent entitlement share of the Morongo Pipeline. MWA delivers water through the pipeline for storage in the Warren Basin (Yucca Valley area) for potential sale at a later date. The BDVWA could purchase the water when there is not sufficient water to deliver because of reductions to the State Water Project allocation. The chart below shows the MWA storage from 1998 through 2009.

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Delivery	236	270	144	0	0	0	0	919	1,216	0	0	0

source: Mojave Water Agency
units in acre-feet
Data for 2009 is through September

Bulk Hauled Water

In remote areas of the south desert, the hauling of domestic water is the sole means for water acquisition. In a joint letter to county planning and building departments in 2003, the California Department of Health Services and the California Conference of Directors of Environmental Health specify that, "bulk hauled water does not provide the equivalent level of public health protection nor reliability as that provided from a permanent water system or from an approved onsite source of water supply." This statement is based on five potential public health risks for hauled water:

1. The potential for contamination exists when water is transferred from tanker trucks to water storage tanks.
2. Storage tanks are often the source of bacterial contamination. The Agency states that it provides bacteriological monitoring to any bulk hauler that would desire to obtain such a service.
3. There is no assurance that licensed water haulers follow State guidelines at all times.
4. The future reliability of hauled water is susceptible to economic conditions.
5. There is generally a higher risk for contamination.

The letter further states that hauled water for domestic purposes should only be allowed to serve existing facilities due to a loss of quantity or quality and where an approved source cannot be acquired. A copy of this letter is on-file at the LAFCO staff office.

The County of San Bernardino recognizes the potential health hazards with hauled water. Future development will be restricted unless there is access to an individual well or domestic water system. Therefore, new development could not be approved without verification of access to a domestic water system. However, existing units without connection to a domestic water system or without individual wells on their property must rely on hauled water for domestic and other uses. County Code of San Bernardino Section 33.0623 (last amended in 1996) under Health and Sanitation and Animal Regulations reads:

> *Water furnished by a domestic hauler shall not be used as a source of water by any public water supply system unless it has been demonstrated to DEHS (Department of Environmental Health Services) that there are no reasonable means of obtaining an acceptable quality and quantity of groundwater, and that water treatment methods have been approved by DEHS. Exception: During an officially declared state or local emergency, a public water system may utilize hauled water as a temporary source of supply.*

Adherence to these parameters will limit new development within the Johnson Valley area for the future as it has no current mechanism for providing an organized retail water system for water delivery. Further, a review of the Agency's water plans does not identity plans for a water system in the Johnson Valley even though Johnson Valley is within the boundaries of the Agency.

<u>Water Rates</u>

Due to the limited size and type of outdoor landscaping that is prevalent throughout the South Desert, the average water usage is comparatively lower than other water agencies in San Bernardino County. A comparison of the residential water rates charged by the agencies within the Morongo Basin is identified in the chart below. As shown in the footnotes, some agencies receive a share of the one percent general levy property tax and/or assessments or additional charges.

Water Agency Rate Comparison (as of July 2011)
(rates measured in units, or one hundred cubic feet)

Agency	Water Use Fee				Monthly Meter Charge (3/4" Meter)	Monthly Average Cost (10 units of water)
	Tier One	Tier Two	Tier Three	Tier Four		
Bighorn-Desert View Water Agency [1]	$3.00	-	-	-	$27.50	$57.50
CSA 70 Zone F (Morongo Valley) [1]	$4.51	$5.02	$5.73	-	$57.25	$102.35
CSA 70 Zone W-1 (Landers) [1]	$3.87	$4.31	$5.54	-	$23.87	$62.57
CSA 70 Zone W-3 (Morongo Valley) [1]	$3.21	$3.57	$3.65	-	$40.84	$72.94
CSA 70 Zone W-4 (Pioneertown)	$5.86	$7.31	$9.88	$10.87	$31.05	$89.65
Golden State Water Company (Morongo)	$2.47	-	-	-	$28.15	$52.85
Hi-Desert Water District [1,2]	$3.59	$5.69	$6.89	$9.08	$11.80 [4]	$60.30
Joshua Basin Water District [1,3]	$2.14	$2.39	$2.57	$2.75	$23.82	$46.47
Twentynine Palms Water District [3]	$2.33	-	-	-	$11.00 [5]	$34.30

[1] Receives a share of the one percent ad valorem general tax levy
[2] District also charges monthly a pipeline surcharge and capital replacement charge
[3] District also charges a standby charge
[4] Charge is for 5/8" and 1" meter with 5/8" demand
[5] Charge is for 5/8" meter

Note: Standby charges are not included or referenced in this chart as they are not related to active connections.

Bighorn-Desert View Water Agency

For the remainder of this service review factor, cited materials include excerpts from the Agency's narrative response to the factors for a service review, 2007 Water Master Plan, 2010 Initial Study for Water Infrastructure Restoration Program, 2011 Reche Spreading Grounds Recharge Feasibility Report, and the Mojave Water Agency 2010 Urban Water Management Plan. Other materials have been referenced but not cited.

Currently, the BDVWA is the sole retail water provider within the community, actively providing retail water service via a pressurized system to the Landers and Flamingo Heights areas. Most of the customers are residential with lots varying from 2.5 to 5 acres. Outdoor landscaping is mostly zeroscape requiring little, if any, water. Not all areas in the community have direct access to a piped retail water service; therefore, it is understood that water service to those developed properties is provided through on-site wells or through hauling of domestic water. Specifically, the Johnson Valley area is within the Agency but does not have a pressurized water system. In this area, bulk water is either retrieved by customers from an Agency well or delivered by a bulk-water hauler. Although local groundwater is currently the sole source of its water supply, BDVWA holds capacity in the Morongo Pipeline and may purchase State Water Project water from Mojave Water Agency ("MWA"), who is a contractor with the California Department of Water Resources ("DWR"). Currently, BDVWA does not have the necessary infrastructure to utilize this supply.

Groundwater Basins

The BDVWA service area overlies three groundwater basins, historically identified by the DWR as the Ames Valley, the Means Valley, and the Johnson Valley basins. Private individuals and municipal water providers pump groundwater from the Ames Valley and the Johnson Valley basins. The Ames Valley Basin coincides with portions of the United State Geological Survey ("USGS") Morongo Groundwater Basin, including the Pioneertown, Pipes, Reche, Giant Rock and Emerson Sub Basins. Most of the pumping is from the Ames Valley Basin. County Service Area 70 Zone W-1 as well as the Hi-Desert Water District ("HDWD") also pump groundwater from the Ames Basin. Water pumped from the Johnson Valley Basin is pumped into a 10,000 gallon reservoir. Residents in that area receive water using a truck delivery service or via self-hauling.

- *Ames Valley Groundwater Basin*

  The Department of Water Resource's Bulletin 118 (last updated February 2004) describes the Ames Valley Groundwater Basin as follows:

  > This groundwater basin underlies Ames Valley, Homestead Valley, and Pipes Wash in the south central San Bernardino County. The basin is bounded by nonwater-bearing rocks of the San Bernardino Mountains on the west, of Iron Ridge on the north, and of Hidalgo Mountain on the northeast (Rogers 1967). The Emerson, Copper Mountain, and West Calico faults form parts of the eastern and northern boundaries. The southern boundary and parts of the northern and eastern boundaries lie along surface drainage divides. The valley is drained northeastward by Pipes Wash to Emerson (dry) Lake. Average annual precipitation ranges from 4 to 12 inches.
  >
  > Natural recharge of the basin is mainly from percolation of stream flow from the San Bernardino Mountains and precipitation to the valley floor (Mendez and Christensen 1997; Bookman-Edmonston Engineering 1994). Percolation of septic tank effluent from the town of Landers and surrounding communities also contributes to recharge of groundwater. Some subsurface inflow may come from Means Valley Groundwater Basin, and subsurface outflow probably crosses the Emerson fault into Deadman Valley Groundwater Basin (French 1978; Mendez and Christensen 1997).

- *Means Valley Groundwater Basin*

  Bulletin 118 states the principal source of recharge to the basin is likely percolation of runoff from surrounding mountains, with a minor contribution from percolation of precipitation to the valley floor and subsurface flow across the Johnson Valley fault southwest of Means Lake. Groundwater may migrate through fractures in bedrock toward Emerson Lake as subsurface outflow. The following description of the Means Valley Groundwater Basin is taken from Bulletin 118:

  > This groundwater basin underlies Means Valley in southcentral San Bernardino County. The basin is bounded by nonwater-bearing rocks and a drainage divide on the north, by a drainage divide on the south, by the Johnson Valley fault on the west, and by the Homestead Valley fault on the east. Drainage is to Means (dry) Lake in the central part of the valley. Annual average precipitation ranges from about 4 to 8 inches.

- *Johnson Valley Groundwater Basin*

  The following description of the Johnson Valley Groundwater Basin is taken from Bulletin 118.

  > Upper Johnson Valley Subbasin underlies the Upper Johnson Valley in the southern Mojave Desert. The subbasin is bounded on the north by the Fry Mountains and on all other sides principally by other unnamed crystalline rocks. The western boundary follows the Johnson Valley fault, and surface drainage divides form parts of the southern and eastern boundaries. Upper Johnson Valley has internal surface drainage that converges to Melville (dry) Lake. Average annual precipitation ranges from 4 to 6 inches.

<u>Ames Valley Basin Water Agreement</u>

Although not a full adjudication (Adjudication is defined in the *2005 California Water Plan* as the "Act of judging or deciding by law. In the context of an adjudicated groundwater basin, landowners or other parties have turned to the courts to settle disputes over how much groundwater can be extracted by each party to the decision."), the court approved Ames Valley Basin Water Agreement is a 1991 Agreement between the Agency and HDWD. The agreement was initiated by BDWVA due to concerns about a proposed well called the Section 24 Well (the location of this well is the same as the proposed Ames-Means Recharge Project - a 160-acre government-owned parcel, APN 0629-211-01), sometimes called the Mainstream Well in the Ames Valley Basin and possible export of water from that well out of the basin. The Ames Valley Water Basin Agreement provides a partial solution to management of the Ames Valley Basin. The agreement sets forth a legal description of the Ames Valley Basin that does not conform to either the DWR or USGS descriptions and refers to the combined Ames Valley and Means Valley Basins. The basic terms of the agreement are as follows.

1. *Production from the Section 24 Well and any additional wells owned by HDWD, within the Ames Valley Water Basin would be limited to 800 acre-feet per year.*

2. *The production could be increased beyond 800 acre-feet per year depending on the needs of the property owners in the basin by an amount not to exceed one-half of an acre-foot per year per each new water meter installation by HDWD.*

3. *Water from the wells in the Ames Valley Basin would be used only within that basin.*

4. *Establish a monitoring program to mitigate potential environmental damage to the hydrologic resources of the basin caused by the Section 24 Well.*

5. *An environmental review is required if criteria set forth in the agreement with respect to water quality and groundwater level elevations are exceeded. The agreement was amended on two separate occasions. These amendments changed the manner in which a consultant was selected to implement the monitoring program. The terms of the judgment were the similar to those in the agreement. Portions of the agreement were revisited by the court at the request of HDWD who sought to expand the areas of use of water from the Section 24 Well. The court did not rule in favor of HDWD and the agreement remains.*

At the time the Agreement was entered, the HDWD service area included areas within the Ames Valley Basin and the Warren Valley Basin. The agreement is currently in the process of being revised to include BDVWA, MWA, HDWD, County Service Area 70 Zone W-1 (Landers) and County Service Area 70 Zone W-4 (Pioneertown) to provide a monitoring and management plan for operation of the Basin with the Ames Valley Recharge Project. The revision will require the parties to enter into a Stipulation to Enter an Amended and Restated Judgment which shall then supersede the existing 1991 judgment. When approved, this agreement will replace the 1991 Stipulated Judgment and will be incorporated into the groundwater monitoring program ("GWMP") discussed in further detail below. A basin-wide GWMP will provide the necessary data for effective management into the future. Collectively, the agreement and GWMP will provide the institutional framework for the purchase, recharge, and recovery of imported SWP water through the Morongo Basin Pipeline Agreement.

Current Supply and Demand

Facilities and Connections

BDVWA provides water service to customers in portions of Flamingo Heights, Landers, and Johnson Valley. The existing BDVWA infrastructure consists of eight wells, nine reservoirs located in seven active pressure zones, booster pumps, 14 pressure reducing valves, and 108 miles of pipelines.

As of June 2011, there are eight wells all of which are active. Well 4 is in inactive status with the Department of Public Health. Wells 2 and 4 share a single power supply limiting operation to one well at any given time. The same case exists with Wells 6 and 7. The wells produce on average about 500 gallons per minute totaling over 1.8 million cubic feet per day. This equates to roughly 500 acre-feet annually. Two of the wells in the northern portion of the Agency (Bighorn portion of the Agency) are for bulk service (via four separate hauling stations) and produce roughly 66,000 cubic feet, or roughly five percent of all water consumed.

BDVWA has more than 108 miles of pipe within its system. The majority of its pipeline is 6-inch (71%) and 8-inch (22%) mains. BDVWA also has minor amounts of 10-inch, 12-inch and 20-inch mains. All of the pipes are asbestos cement and polyvinyl chloride with the exception of the 20-inch pipe which is mortar lined and cement coated steel pipe. All three of these types of pipe meet American Water Works Association standards. In the past, records were not kept of length and date of installation of each type of pipe. Thus, the Agency is unable to define the exact age, although the system in general is approximately 30 years old. Most of the pipe however is thought to be asbestos cement.

Pressure reducing valves ("PRVs") are generally used to transfer water from one pressure zone to another. In areas of substantial elevation, PRVs are used to provide reasonable pressure in lower lying areas where pressure would otherwise be too high. BDVWA has fourteen PRVs that take water from a higher pressure zone and deliver it to a lower pressure zone. All of the valves are either 8-inch or 6-inch valves. Some of the pressure reducing valves are equipped with a bypass which allows smaller amounts of water to flow into the lower pressure zone during times of minimal use. PRV bypasses are also necessary to maintain pressure during repair of the primary reducing valve.

The Agency's intertie with Hi-Desert Water District ("HDWD") is currently disconnected and isolated from cross-connection. According to the Agency, the pump was removed many years ago; however, with minimal effort a connection could be made whereby the Agency could receive water via gravity flow from HDWD. More work would be needed for the Agency to pump water into HDWD's system. The two agencies are actively seeking a new, permanent emergency intertie solution. In addition, the Agency has the ability to "high line" a connection between fire hydrants to create an emergency intertie with CSA 70 Zone W-1.

Many of the Agency's fire hydrants do not produce sufficient flow and pressure to meet the current fire flow standard of 1,000 gallons per minute with a residual pressure of 20 pounds per square inch. This fire flow standard is identified in the County Development Code.

Connections and Water Use

Historic Annual Use				
Calendar Year	**Customers (active meters)**	**Recorded Water Sales (acre-feet)**	**Production per Customer (af/cust)**	**Production per Customer (ccf/ cust)**
2000	1,533	488	0.32	139
2001	1,529	429	0.28	122
2002	1,532	527	0.34	150
2003	1,532	488	0.32	139
2004	1,522	519	0.34	149
2005	1,549	462	0.30	130
2006	1,584	508	0.32	140
2007	1,566	504	0.32	140
2008	1,554	491	0.32	138
2009	1,592	452	0.28	124
2010	1,554	411	0.26	115
Average	**1,550**	**480**	**0.31**	**135**

Since at least 2000, the Agency has provided water service via pipeline to about 1,550 metered connections, most of which are residential consumers. The area served in this manner is approximately 18,720 acres (68% of the Agency's area). In looking at the average use in the chart above, total water use and production per customer has decreased each year since 2006. According to the Agency, the reason for less water production is due to the area's water conservation efforts. Currently, the Agency has approximately 400 inactive meters.

The Agency's rate structure is based upon a single rate for water use – it does not utilize tiered rates. Tiered rates, in which customers are charged different rates according to the amount of water used, are utilized as an incentive for conservation. The Agency has stated that until the old and under-reported meters are replaced, consumption charges cannot be addressed.

Johnson Valley

The entire area known as Johnson Valley does not have a pressurized water system. The Agency states that it has approached the Johnson Valley community regarding the potential for a future water system and that the community has responded in general that the implementation of a water system would be too costly in addition to fostering development. Population densities are so low that there are not enough customers to financially support the construction of a water system.

- *Johnson Valley Water Hauling Station*

  BDVWA operates and maintains four bulk water hauling stations. Three are connected to the pressurized water systems constructed by the predecessor agencies Bighorn Mountains Water Agency and Desert View Water District. One of the bulk hauling stations connected to the pressurized system is located on the east end of Johnson Valley at Bodick Rd. and Kickapoo Trail. Residents of the Johnson Valley community utilize this facility as well as others who utilize the Well No. 10 facility.

  The fourth is a "standalone" water system located in Johnson Valley located within the boundaries of the predecessor Bighorn Mountains Water Agency. Johnson Valley has a standalone water hauling station supplied by a single groundwater well and a 10,000 gallon storage reservoir. The single well in the community was constructed from grant funding obtained by the County and the Agency now operates this well. This site serves approximately 41 residential self-hauling customers and approximately four commercial (licensed and unlicensed) water hauling customers who deliver water to an unknown number of customers. The Agency has no current plans to extend pipeline service to the Johnson Valley area. Population densities are so low that there are not enough customers to financially support the construction of a water line and appetent water system. The Agency states that redundancy in the Johnson Valley bulk system is needed and is seeking financial participation for an existing U.S. EPA STAG grant to conduct a hydro-geologic investigation in Johnson Valley to determine where a new well should be located.

  The Agency has provided the following explanation of its actions regarding bringing a retail water system to Johnson Valley:

  > *Attempts to bring a pressurized water system were first evaluated in 1967 by Albert A. Webb & Assoc. on behalf of the proposed Johnson Valley County Water District Committee. The JV County Water District was never formed and eventually JV became part of the Bighorn Mountains Water Agency service area. Since that time the Agency has actively engaged in its mission to provide water to its service area. The following summarizes activities to date:*
  >
  > - *In 1994, a Community Development Block Grant was awarded and the Agency executed a Maintenance and Operations Agreement (No. 94-340) for the construction of a community well in JV. In 1995, an Addendum was issued to the original Agreement and the County Special Districts Department began construction of the well in 1996 and Notice of Completion was filed in 1998. The Agency committed*

contractually to operation and maintenance of the well for 10 years from the Notice of Completion. The ten year commitment has expired but the Agency continues to maintain Well No. 10.

- *In 2005, an EPA State and Tribal Assistance Grant was awarded which provided for 55% funding for Johnson Valley Hydrologic Investigation ("JVHI"). The basis for the award was to perform additional studies to better define the characteristics of the basin for the benefit of the region. This project includes the construction of an 8-inch diameter test well.*

- *In April 2007, the Agency received the final report entitled, Basin Conceptual Model and Assessment of Water Supply and Demand for the Ames Valley, Johnson Valley and Means Valley Groundwater Basins.*

- *In 2008, the Agency received federal authorization under the Water Resources Development Act (WRDA) for $15 million to assist in the construction of a water system in JV and to interconnect it with the existing B-zone of the Agency.*

- *In December 2010, the Board of Directors authorized staff to proceed with completion of the JVHI using the EPA Grant funds remaining.*

- *In April 2011, Board of Directors authorized staff to actively seek a willing property seller for the location of the JVHI test well.*

- *In July 2011, Board authorizes purchase of 5-acres of real property for locating the JVHI test well.*

- *In November 2011, Board of Directors authorizes the execution of a Professional Services Agreement with Daniel B. Stephens & Associates for the completion of the JVHI test well. The contract total is $171,000 with EPA providing matching grant funds.*

The BDVWA does not consider hauled water to be an enterprise function of the Agency in the classic sense because it is obligated to operate under the conditions of the consolidation with respect to segregation of funds (Section 33305 of the Water Code, known and cited as the Desert View Water District-Bighorn Mountains Water Agency Consolidation Law). However, the Agency is interested in the overall cost to operate and maintain the bulk system to ensure rates and charges are fair and equitable across the Agency. Therefore, the Agency has set up subaccounts in the general ledger to track revenue from bulk water sales and direct expenses to the Bulk system. According to the Agency, in the future this procedure will add labor efforts and Agency overhead as well.

As mentioned, the lack of a pressurized water system results in either on-site wells or water hauling from the single well operated by the Agency. Adherence to the parameters outlined in the County Development Code will limit new development within the Johnson Valley area for the future as it has no current mechanism for providing an organized retail system for water delivery. Further, a review of the

Agency's current water plans does not identity plans for a water system in the Johnson Valley even though Johnson Valley is within the boundaries of the Agency.

In February 2010, the Agency conducted a survey regarding community desires for water supply. The survey was mailed to all property owners in Tax Rate Areas 88015, 94036 and 94043. Three primary questions were asked and they were directed at any interest in pressurized water, an interest in a redundant bulk water supply, or a "do nothing" option. With a 30% return rate approximately 60% of the respondents expressed a desire for pressurized water service. The primary written comment was a question of cost. At two public hearings, the Agency has presented a task list for developing and completing a pressurized water system in JV as well as outlining parcel identities, basic facilities needed and other features.

- *Johnson Valley Improvement Association*

The Johnson Valley Improvement Association ("JVIA") operates a food facility at its community center. The JVIA community center was notified by the County Department of Public Health ("DPH") that it was not meeting the requirements of a Transient Non-Community Water System. In letters from the DPH to the JVIA from February 2011 and September 2011, the DPH states that hauled water is not a viable potable source for a food facility, and that the water system must be connected to an approved well.

As part of the 2011-12 budget process, the Board of Supervisors set aside an allocation for the five supervisorial districts to finance unbudgeted priority policy needs as identified by the Board throughout the fiscal year. One such project identified by the Third District involves providing financial assistance to JVIA to assist in funding for drilling and installation of a water well, tanks and storage, hood fire suppression system, kitchen equipment to include freezer and/or refrigerator, permits and fees for the Community Center. The Community Center and adjacent County Fire Station does not have access to retail water lines and has to rely on hauled water. In October 2011, the County and the JVIA entered into a contract for the distribution and use of the funds.

The contract between the County and the JVIA reads that the funds would assist the Johnson Valley Community Center to become more self-sufficient; and assist the local Fire Station by acquiring, drilling and installing a water well, tanks and storage, a hood fire suppression system, and kitchen equipment to be used in those two facilities. The estimated cost for the project total was $82,000 and this amount was provided to the JVIA by the County. According to the contract, all funds provided under this contract must only be spent on the acquisition, installation and completion of the project to provide water to the Community Center and Fire Station. In the event there are funds remaining after completion of the project, the JVIA may use remaining funds to purchase a generator, kitchen upgrades and other kitchen equipment. The JVIA has until October 1, 2012 to complete the project.

The Agency states that it informally attempted to assist the JVIA in finding an acceptable resolution to this issue, such as reverse osmosis treatment of the bulk water entering the facility, but the JVIA Board of Directors declined to formally seek the assistance from the Agency. The Agency has identified that is does not have issue with the JVIA having its own well, as it is entitled to its overlying groundwater rights, for its on-site water needs. The Agency has, however, expressed concern that the water produced from the well could be utilized off-site, as the JVIA is not a licensed public or private water purveyor (the only licensed retail water purveyor overlaying the Johnson Valley is the Agency). To allay these concerns, the contract includes the following, "Water from the well which constitutes the project may only be used for the Community Center's and Fire Station's internal use; water from the well may not be circulated or distributed for use in any manner outside the Community Center and Fire Station except in the event of an emergency." Further, Section 49 of the Agency's Special Act prohibits the establishment of a competing water provider within its boundaries without the consent of the Agency. Therefore, the exportation of water from the parcel would be in violation of the contract and Bighorn-Desert View Water Agency Law.

At first glance, this may seem to be a governmental inefficiency – the County assisting in the acquisition of a local water source when the area is already under the retail water responsibility of the Agency. However, the contracted use of the water is for on-site purposes and is not intended as a source for off-site use such as water hauling. Further, this method serves the JVIA as property owner and community center patrons financially best because the drilling of the well is funded with a County grant and not paid by the property owners.

As mentioned above, the Johnson Valley community in general has expressed interest in a pressurized water system but that the implementation of a water system would be too costly. Population densities are so low that there are not enough customers to financially support the construction of a water system.

County Service Area 70 Zone W-1

In 1995 the Agency submitted a proposal to detach approximately eight square miles from its boundaries in the Landers area (LAFCO 2792) constituting the territory of CSA 70 W-1. Since the formation of CSA 70 W-1, there were a number of disputes between the residents served by CSA 70 W-1 and those served by the Agency. LAFCO 2792 was a means of resolving these periodic disputes. The justification for the application was that residents of CSA 70 W-1 received no specific benefits from the Agency but that CSA 70 W-1 residents voted on the Agency's ballot measures, affected Agency board decisions, and the area could have representation on the Bighorn board. The Commission approved the proposal because it eliminated an overlap of similar-purpose agencies and could possibly lead to a less contentious relationship between the residents of the two agencies.

However, BDVWA was best suited to continue providing retail water to approximately 17 customers within the boundaries of CSA 70 W-1 because the CSA 70 W-1 system for that area deteriorated and could not provide adequate water service and pressure. The arrangement for this service is a contract between the Agency and the County (as the governing body for CSA 70 W-1) signed in December 1997, County Contract No. 97-1059, for the purpose of providing water service to specific properties located within the CSA 70 W-1 service area. At this time, BDVWA does not charge a special rate to these customers that are outside of the Agency's boundaries.

Future Supply and Demand

According to the MWA 2010 Urban Water Management Plan, the local groundwater supply available to BDVWA is estimated to be 500 acre-feet. It is estimated that during the current planning horizon the population could increase by 49 percent. BDVWA will need between 749 and 829 acre-feet per year in order to supply its current and future customers (shown in first figure below taken from BDVWA 2007 Master Plan). The MWA 2010 UWMP further states that BDVWA will need facilities to produce about 2,388 gallons per minute to meet the maximum day plus-fire flow. Looking at the second figure below taken from the MWA 2010 UWMP indicates that the Ames Valley groundwater basin, where most of the pumping occurs, should have a safe yield of 900 acre-feet/year in normal and dry years.

Table 2.6
Present and Future Water Requirements Without Section 35

Year	2006	2010	2015	2020	2025
Number of Connections	1,582	1,742	1,942	2,142	2,342
Annual Requirement (af/yr)	506	557	621	685	749
Average Day (gpm)	314	346	385	425	465
Maximum Day (gpm)	847	933	1,040	1,147	1,254
Peak Hour (gpm)	1,356	1,493	1,664	1,836	2,007
Maximum Day Plus Fire Flow (gpm)	1,847	1,933	2,040	2,147	2,254

TABLE 3-11
MORONGO BASIN/JOHNSON VALLEY AREA GROUNDWATER BASINS
SUPPLY RELIABILITY

Anticipated Supply	Normal Year[a] (afy)	Single-Dry Water Year (afy)	Multiple Dry Water Year (afy)
Regions			
Ames Valley[b]	900	900	900
Johnson Valley[c]	900	900	900
Means Valley[c]	20	20	20
Copper Mountain Valley/Joshua Tree[d]	200	200	200
Warren Valley[e]	100	100	100
Total	**2,120**	**2,120**	**2,120**

Notes:
(a) To avoid double counting with MWA's demand forecast model which includes return flows from septic tanks, this normal year has been calculated as the safe or perennial yield of the basin and does not include return flows in the safe yield calculation.
(b) Todd Engineers is completing a "Hydrogeologic Feasibility Study and Groundwater Management Plan for the Ames/Reche Project" for the Bighorn Desert View Water Agency, in 2011, that will better define the Ames Valley perennial yield. The perennial yield of 900 afy shown above represents subsurface inflow/recharge to the region only and no return flows are included.
(c) Source: "Basin Conceptual Model and Assessment of Water Supply and Demand for the Ames Valley, Johnson Valley, and Means Valley Groundwater Basins", April 2007, Kennedy/Jenks/Todd. Tables in ES.
(d) USGS Nishikawa, Izbicki et al., 2004.
(e) USGS Nishikawa, Densmore et al., 2003.

In April 2007, BDVWA adopted the Bighorn-Desert View Water Agency Water System Master Plan ("WSMP"). The master plan identified the following deficiencies in the existing infrastructure: heavy reliance on 6-inch and 8-inch water mains which do not provide adequate fire flow; inability of most reservoirs to refill overnight after a 500-gallons-per-minute (gpm) fire; need for spreading grounds for groundwater storage and recovery; a groundwater management plan and the inefficient operation of portions of the system. Once the deficiencies were identified, the Agency prepared the Bighorn-Desert View Water Agency Water Infrastructure Restoration Program ("WIRP"). The WIRP outlines specific system improvements to remediate these deficiencies.

Two WIRP projects that are near completion include a Groundwater Management Plan ("GWMP") and the Ames Valley Recharge Project. Local groundwater is currently the sole source of its water supply, but BDVWA has annual nine percent capacity from the Morongo Basin Pipeline and may purchase State Water Project ("SWP") water from MWA. Although the infrastructure needed to deliver SWP water to the Ames Valley region already exists, additional facilities are needed to convey imported SWP water to spreading grounds for recharge, storage, and subsequent recovery. A Feasibility Study, including a groundwater model, is scheduled for completion in 2012 which will document the ability to store and recover SWP water in the basin. This document will also outline the ability of water to be routed to Pioneertown (CSA 70/W-4) enabling the area to supplement its groundwater supply.

BDVWA is the Lead Agency for the WIRP and the GWMP, but the implementation also includes other participating agencies. MWA is a financial participant, while Hi-Desert Water District and County Service Area 70 are cooperative partners who will benefit through participation in the groundwater storage and recovery program. The GWMP will address the purchase of SWP water for recharge and pumping restrictions in the event that overdraft conditions are not controlled.

Ames Valley Recharge Project

The proposed Ames Valley Recharge Project will deliver SWP water to the Ames Valley for recharge at the Pipes Wash Spreading Grounds to mitigate historical overdraft conditions in the Region. This project was originally identified as the Ames/Means Valley Recharge Project in the MWA 2004 Regional Water Management Plan, but since recharge is occurring only in the Ames Valley, it is also referred to as the Ames Valley (or Reche) Recharge Project. This report will refer to it as the Ames Valley Recharge Project. The recharge project will serve water agencies using groundwater in the basin including BDVWA, HDWD, and CSA 70 (through its zones W-1 and W-4). BDVWA, in cooperation with MWA, is implementing the project, which consists of a feasibility study, approximately 0.75 miles of conveyance pipeline to connect to the Morongo Basin Pipeline, recharge to the Pipes Wash, and the installation of monitoring wells. The initial recharge capacity is planned at 1,500 AFY.

The project envisions the banking of water from the State Water Project. Each participating entity would accrue water in a water storage account. The water would be purchased, and percolated into the groundwater basin. There would be no restrictions on the use of that water and inter-entity transfers could occur as well. This project is intended to mitigate impacts from over pumping of the Ames Valley Basin, provide for beneficial use of water and insure the conjunctive use of local groundwater and imported water from the State Water Project.

The proposed project will utilize an Environmental Protection Agency State and Tribal Assistance Grant (grant) to complete tasks associated with environmental proceedings for the WIRP and the Ames Valley recharge basin. Additionally, the Agency and MWA have executed a memorandum of understanding to secure the 45% matching funds for the remainder of the grant as well as MWA pledging up to $1 million to construct the project. According to the Agency, at this time the project is expected to be operational by July 2012.

3. Financial ability of agencies to provide services:

The Commission reviewed the Agency's budgets and audits, State Controller reports for special districts, and County filing records. The first three sections of this determination review activities that relate to the two predecessor districts. The remaining sections review the financial ability and requirements of the Agency.

<u>Net Assets and Property Tax Assessments</u>

According to the Agency's financial statements, the bond resolutions of the Agency and those of its predecessor districts contain provisions that require the tracking of certain operational funds with respect to the geographical areas of the two predecessor districts. The following is a description of this matter taken from the FY 2009-10 financial statements.

> *Prior to fiscal year 2010, the Agency took the position that property tax assessments associated with each predecessor district were restricted solely for the payment of principal and interest associated with the debt of that predecessor district.*
>
> *However, legal research conducted in fiscal year 2010, disclosed the following:*
>
> *Section 9 of the Resolution No. 174 of the Bighorn Mountains Water Agency dated June 21, 1977 states: "The Board of Directors, so far as practicable, shall fix such rate or rates for water in Improvement District No. 1 as will result in revenues which will pay the operating expenses of the improvement district, which provide for the operating expenses of the improvement district, provide for repairs and depreciation of works, provide a reasonable surplus for improvements, extensions, and enlargements, pay the interest on the bonded debt, and provide a sinking or other fund for the payment of the principal of such debt as it may become due. If the revenues of the improvement district will be inadequate for any cause to pay the expenses set forth above, the Agency must provide for the levy and collection of a tax sufficient to raise the amount of money determined by such Board of Directors to be necessary for the purpose of paying such charges and expenses as set forth above and the principal and the interest on the bonds as the same become due."*
>
> *Similarly, Section 5.11 of Resolution No. 304 of the Desert View Water District provides that revenues of the Agency will be used to pay "any reasonable and necessary maintenance and operation costs of the Enterprise.*

Section 33305 of the Desert View Water District-Bighorn Mountains Water Agency Consolidation Law and Section 31012 of the County Water District Law provide as follows:

a) All funds derived from the operation of the former district system shall be separately accounted for and used exclusively for the purposes of maintenance, operation, betterments, and bond debt service of the acquired system.

b) No funds derived from the former district system shall be used for any other such purpose until all debt of that former system has been paid in full or until a former system has authorized such other expenditures.

The above restrictions remain in effect until a vote of the electorate of each predecessor district authorizes differently.

Based on the language above, legal counsel has concluded that all revenues (not just property tax levies) of each predecessor district are restricted for the expenditures of that district. It was also determined that qualified uses of such restricted revenues include the operating expenses (not just principal and interest payments) associated with that district.

As of June 30, 2011, the portions of net assets associated with this restriction are as follows:

Bighorn Mountains Water Agency ("Bighorn"):	
Invested in capital assets, net of related debt	$ 2,302,548
Resources restricted for Bighorn	(182,214)
Total Bighorn Mountains Water Agency	$ 2,120,334
Desert View Water District ("Desert View")	
Invested in capital assets, net of related debt	$ 1,028,625
Resources restricted for Desert View	1,164,613
Total Desert View Water District	$ 2,193,238

LAFCO Resolution No. 2255, approving the consolidation of the two predecessor agencies, included a condition of approval that required the indebtedness of each district remain the legal obligation of only the lands and areas which incurred such indebtedness, and that improvement districts of each entity shall be the improvement districts of the consolidated agency. Additionally, LAFCO's review of the legislation allowing for the consolidation identifies specific reference regarding the use of the revenues from the predecessor districts and identifies that it can only be changed when "until a former system has authorized such other expenditures". That would mean that the funds from the former districts would have to be used within the former territory and separately accounted. Whereas the separation may be inefficient, the law requires it until the Agency takes the matters to the voters.

The Agency has identified to LAFCO that it acquired new legal counsel since the completion of the FY 2009-10 audit, and the legal counsel is currently reviewing this matter. Questions at this time generally revolve around how the Agency should operate its finances. Would keeping the separate books increase expenses as the staff workload and operational activities are tracked and then split accordingly? Would this lead to a different rate structure with a single administration operating and tracking essentially two different systems? At this time, the Agency is not taking any action until a proper analysis can be undertaken. The Commission determines that the Agency shall provide LAFCO with its determinations on these matters.

Long-Term Debt

The Agency is presently repaying two bond issues: (1) the 1979 Bighorn Mountains Water Agency General Obligation Bonds; and (2) the 1980 Desert View Water District Revenue Bonds. Additionally, the Agency has also entered into an agreement with Mojave Water Agency for Construction, Operation and Financing of the Morongo Basin Pipeline Project. Each of these bond issues and the agreement with Mojave Water Agency includes a series of covenants to which the Agency, or its predecessors, has agreed. One of the covenants in each issue is that the Agency will, at a minimum set its rates in a manner to provide sufficient revenue to cover operating costs, pay the principal and interest due on the bond installments, pay the annual payment required by the agreement with Mojave Water Agency, and have a specified coverage. The 1980 Desert View bonds have a coverage requirement of 20% over the annual principal and interest payment, while the agreement with Mojave Water Agency requires additional coverage of 25% over the annual principal and interest payment.

(4) **Long-term debt**

Bonds Payable:

	June 30, 2011
General obligation bonds:	
Original issue $1,875,000, 5%, maturing in 2019; secured by tax levy revenues	$ 702,000
Water revenue bonds:	
Original issue $700,000, 5%, maturing in 2019; secured by a pledge of all revenues	286,977
Improvement District 71-2 bonds:	
Original issued $275,000; 7%; matured July 2, 1988	2,000
Total bonds payable	990,977
Less portion due within one year	(100,000)
	$ 890,977

For the year ended June 30, 2010, the aggregate debt service coverage of the Agency was approximately 77%. Future debt service of the Agency through 2019 is $1,085,977. The Agency expects debt service coverage to be comparable to that of the current year throughout the period to which the coverage requirement applies.

Future long-term debt maturities are as follows:

Year Ending	General Obligation Bonds		Water Revenue Bonds	
June 30	Principal	Interest	Principal	Interest
2012	74,000	35,100	26,000	14,530
2013	77,000	31,400	28,000	13,250
2014	81,000	27,550	29,000	11,850
2015	85,000	23,500	31,000	10,400
2016	89,000	19,250	32,000	8,850
2017	94,000	14,800	34,000	7,250
2018	98,000	10,100	35,000	5,550
2019	104,000	5,200	37,000	3,800
2020	-	-	34,977	1,950
Total	702,000	166,900	286,977	77,430

The Pledge of Revenues and Funds of the 1980 Desert View Water District Revenue Bonds (the "pledge") requires that a Reserve Fund be established to further secure the payment of the principal of and interest on those bonds. Pursuant to the pledge, the balance of this Reserve Fund is to be maintained at the average of all future payments. As of June 30, 2011, the Agency has sufficient reserves to meet this requirement.

Tax Rate Areas

The State Board of Equalization (BOE) identifies five different taxing categories for the Agency:

- Bighorn-Desert View Water Agency – this represents all of the 13 tax rate areas (TRAs) of the Agency. The Agency is assigned to receive a share of the one percent general ad valorem property tax levy from each parcel within its boundaries. The County classifies this tax share as GA01. The Agency does not receive a share of the one percent general levy from one TRA since it was annexed to the Agency post-Prop. 13 (there was no concurrent detachment from another agency so there was no property tax transfer). The average share to the Agency from GA01 is 3.6% of the general levy.

- Bighorn-Desert View, 1974 Anx. (BLO) – This territory was annexed into the Agency in 1974 (pre-Prop 13) and was assigned a separate TRA by the BOE at that time as a result of the annexation. It appears that there is no need for a separate category. Therefore, the Agency can request that the County remove this separate category in order to clean up the tax rolls.

- Bighorn-Desert View, Imp. 01 – The voters within this territory approved a bond proposition to "issue general obligation bonds for its Improvement District 1 for $2,500,000 for the purpose of acquisition/ construction/ completion or repair of a waterworks system ... for the benefit of Improvement District 1 (Resolution No. 121 adopted June 21, 1977). County Assessor records indicate that the additional tax levy to pay the debt did not begin until FY 1978-79. The bonds are scheduled to mature in 2019.

- Bighorn-Desert View, Imp. A – There are no records available as to the purpose of Improvement District A. In FY 1977-78 (pre-Prop 13) Bighorn Mountains Water Agency levied a tax for Improvement District A. This was converted as a separate share of the one percent ad valorem in FY 1978-79 (post-Prop.13). Therefore, the Agency receives two shares of the one percent general property tax levy from those within this territory (comprising only one, although large, TRA). The County classifies this second tax share as GA02. The average share to the Agency from GA01 is 3.6% of the general levy, and the share to the Agency from GA02 is 10.3%. Roughly 31% of the assessed valuation of the Agency comes from this TRA. Therefore, this second share of the general levy generates significant additional revenue for the Agency.

- Bighorn-Desert View, Imp. B. In 1981, Agency Resolution 200 formed Improvement District B to finance an engineering study for a domestic water system. It is believed that voter approval of the tax to pay for the study raised $50,000. There is no current additional tax associated with for these three TRAs. It is clear that the use for this improvement district is extinguished. Therefore, the Agency can request that the County remove this separate category in order to clean up the tax rolls.

Net Assets and Fund Balances

In reviewing the Agency's financial documents, net assets have increased by 22% since FY 2006-07 as shown on the chart below. As of June 30, 2010, the Agency had $4.3 million in net assets. Not including capital assets value and debt, the Agency had roughly $982,399 in restricted funds. Of concern is the lack of any unrestricted assets, which for a water agency can provide for unanticipated occurrences.

	2006-07	2007-08	2008-09	2009-10	2010-11
Net Assets					
Invested in capital assets – net of related debt	2,619,161	2,816,559	2,546,637	3,087,501	3,311,173
Restricted	442,820	0	940,679	766,463	982,399
Unrestricted	403,128	423,169	0	0	0
Total Net Assets	**$3,537,109**	**$3,269,728**	**$3,487,316**	**$3,853,964**	**$4,313,572**

Considering net assets does not indicate if an agency has enough fund balance to operate short and long-term operations. The chart below shows cash flow activities for the past five fiscal years. During this time, the decline and rise of total cash flow corresponded with the receipt of grants, increase in water rates, improvements, and decline and increase of water sales. For FY 2008-09, four substantial reasons contributed to the slowing of losses: water rate increases, identifying customer accounts that were not being charged the basic connection fee, reduction in staff, and additional reductions in expenses.

For FY 2009-10, the increase is generally attributed to a $105,324 increase in basic surcharge revenue due to identification of accounts that had not been paying (first full year), and significant revenue in form of an EPA grant for the Ames Valley Recharge Project ($232,343 earned in 2010 for costs incurred through the fiscal year).

	2006-07	2007-08	2008-09	2009-10	2010-11
NET CASH FLOW FROM:					
Operating Activities	$137,223	$(112,047)	$19,735	$245,237	$79,950
Non-capital Financing	88,604	108,998	113,960	113,732	95,783
Capital & Related Financing	(368,449)	(291,028)	(211,902)	(48,298)	(121,464)
Investing	43,371	28,175	9,537	4,234	3,549
NET INCREASE (DECREASE)	**(99,251)**	**(265,902)**	**(68,670)**	**314,905**	**57,818**
Total Cash Flow	**724,068**	**458,166**	**389,496**	**704,401**	**762,219**

Operating Revenues and Expenses

Operational Revenues (water sales) totaling over $1.1 million comprise the majority of the Agency's revenue. Roughly a similar amount is spent on Operating Expenses (operations and maintenance, labor, and depreciation). For FY 2008-09 and FY 2009-10, Operating Expenses exceeded Operational Revenues by two percent, an amount not statistically significant. For FY 2009-10, the Agency experienced an increase in basic surcharge revenue by $105,324 due to identification of accounts that had not been paying. Without this revenue, Operating Loss would have been greater. However, for FY 2010-11 Operating Expenses exceeded Operating Revenues by eight percent. The primary reasons for the net operating loss are due to a reduction in water sales in combination with an increase in general and administrative expenses.

Non-Operating Revenues and Expenses

1. *Tax Levy: Property Tax*

   Making up the operating loss and paying for debt and other expenses is primarily through the receipt of a share of the one percent general ad valorem property tax levy (the Agency's financial statements classify the share of the 1% general levy as a part of "Tex Levy" under Non-Operating Revenue). However, the budgets separately identify the share of the 1% general levy under Operating Revenue, roughly $104,000 per year.

   In 1977-78, before Proposition 13, the Agency levied the following taxes, as identified in the County's 1977-78 tax rate book:

Bighorn Mountains (General Levy)	$0.0000
Bighorn Mountains (Improvement A)	$1.0000
Desert View (General Levy)	$0.5285
Desert View (Bond, Land Only)	$3.5906

Following Proposition 13, the Legislature enacted statutes to implement its provisions. Under these statutes, a local government's share of the one percent general property tax levy was based on the property tax rate and any tax levied for bond debt going to that local government before Proposition 13 in relation to other agencies. The debt for Improvement District A has been retired and is not shown in the County Tax Rate book. LAFCO understands that the Agency's FY 1977-78 property tax rate and the tax rate for Improvement District A were converted into the Agency's share of the one percent general levy.

The FY 2010-11 County Tax Rate book identifies that the Agency receives a share of the one percent general tax levy and levies a tax for Improvement District 1 at a rate of $0.2399 per $100 of assessed valuation. The bond for Improvement District A has been retired and is not shown in the County Tax Rate book. However, FY 2009-10 was the first year within the past five years that experienced a decline in property tax revenues, which continued for FY 2010-11. This overall trend correlates with the stable number of active water meters during this time period.

Foreclosure Activity

Foreclosure activity has affected the nation in general and the Homestead Valley is no exception. The County of San Bernardino Assessor's Office has identified that 221 housing units have been foreclosed from 1994 to 2010 for the areas identified as Flamingo Heights, Landers, and Johnson Valley. From 2004 to 2006 the area had nine foreclosures. The number rose sharply to 26 in 2007 and escalated to 58, 60, and 68 for the next three years.

For the purposes of generally representing the extent of the foreclosure activity, LAFCO identifies that there are 2,479 total housing units within the Agency. The foreclosure of 221 homes represents 9% of the household units within the Agency have been in foreclosure since 2004. Even with the current economic conditions, the long-term population trend remains – the Agency is projected to experience 104% growth through 2040.

Real property values have declined as a result of foreclosures and short-sale activity coupled with property owner requests for temporary reductions in assessed valuation under Proposition 8 have resulted in a corresponding reduction in ad valorem property tax revenues. These factors have been anticipated by the Agency in its budgets.

2. *Tax Levy: Bighorn Mountains service area - Improvement District 1*

Those within the Bighorn Mountains Improvement District 1 ("BH ID 1") pay an assessment to generate revenue for the annual bond payment and a repair/refurbishment fund to maintain the BH ID 1 water system which was constructed with a fixed interest rate, forty-year general obligation bond (secured by tax levy revenues), purchased through the Farmers Home Administration (FHA).

According to the Agency's resolutions that set this tax, if the revenues of the agency or any improvement district are inadequate to pay the operating expenses of the agency, provide for repairs and depreciation, and to meet all obligations of the agency, then the Agency must provide for a levy to raise the amount of money determined for such purposes. The cited sections allowing for the levy are Sections 26 and 27 of the Agency's law.

Up until FY 2009-10, the Agency set the tax rate itself (for example $0.21 per $100 of assessed valuation). However, the tax roll is not static. Therefore, the Agency made educated guesses as to what rate to levy. This resulted in either a collection of either too much or too little to cover the required expenses. Realizing the difficulties in determining the correct levy rate, in FY 2009-10 the Agency changed it methodology and now requests that the County collect levy a tax at the rate necessary to raise the identified amount (for example $125,900). This change in methodology has reduced the guessing game and provides for more clarity to the levy.

According the Agency's annual adoption of the tax levy, the tax rate statement that accompanied the 1977 bond proposition discussed the impact of the bond proposition on property tax rates. This tax rate statement estimated that the property tax rates would be about $4.70 per $100 of assessed valuation in the first fiscal year after the bond sale and $0.76 per $100 by the 20th year after the bond sale.

Fiscal Year	ID #1 Net Valuation (Secured)	Debt Payable	ID #1 Tax Rate (per $100 assessed valuation)	Revenue Budgeted	Budgetary Notes
2011-12	n/a	$109,000	$0.3100	$175,900	Additional $70,000 for replacement and refurbishment of Bighorn water system
2010-11	$42,762,325	109,000	0.2399	125,900	Additional $20,000 for replacement and refurbishment of Bighorn water system
2009-10	46,126,106	105,900	0.2274	125,900	Additional $20,000 for replacement and refurbishment of Bighorn water system
2008-09	47,138,976	105,900	0.2100	106,315	
2007-08	43,327,983	105,900	0.2000	76,000	Used $29,000 from Local Agency Investment Fund (LAIF) debt service reserves

Sources: County of San Bernardino. Valuations-Tax Rates, Code Area Tax Rates, Bonded Indebtedness For Fiscal Years 2007-08 through FY 2010-11; Agency Budgets

The chart above shows the Improvement District 1 tax levy for the past five years. For comparison, the levy imposed in FY 2010-11 equated to approximately $0.2399 per $100 of assessed value (or a gain of $125,900). In FY 2011-12 the levy is estimated at $0.3100 (29% increase) per $100 of assessed value based on $175,900 identified by the Agency as the required amount. The breakdown of the $175,900 required amount is:

- Annual principal and interest payments are approximately $109,000. Payments will be made in FY 2011-12 according to the following schedule: December (interest only approximately $17,500) and June (interest approximately $17,500.00 and principal approximately $74,000).

- Any additional funds collected, estimated at $20,000, will be used for needed infrastructure improvements within BH ID 1.

- The additional $50,000 was proposed and adopted in the FY 2011-12 budget to begin to close the deficit in net assets of the Bighorn Mountains service area against the Desert View service area as outlined in the FY 2009-10 Audit Report. The bond payments will conclude in 2019.

The Agency has identified that its independent auditors review the Agency's Improvement District 1 collections and the use of those funds for its debt and that the remaining funds collected are utilized within the boundaries of Improvement District 1.

3. *Mojave Water Agency Surcharge*

The Agency collects this surcharge on the water bill to fund the Agency's share of the debt service for the Morongo Basin Pipeline. This debt will be paid in full in 2021.

4. *Desert View service area - Surcharge*

Those within the Desert View portion of the Agency pay a $9.30 bi-monthly surcharge to generate revenue for the annual bond payment for the Desert View Water District Revenue Bonds. This surcharge on the bi-monthly water bill generates roughly $50,000 annually with an annual required payment of roughly $40,500. The remaining amount is collected and used for needed infrastructure improvements within the Desert View Water System (Flamingo Heights area). The bond payments will conclude in 2019.

5. *Grant Revenue*

For FY 2009-10, the Agency received significant revenue in the form of an EPA grant for the Ames Valley Recharge Project ($232,343 earned in 2010 for costs incurred through the fiscal year). This was one-time revenue and is not-reflective of annual activity.

6. *Standby charge*

The Agency currently does not receive a standby charge. This assessment was removed in 1998 by voter action (Measures Q, S, and T of the November 1998 election successfully removed the standby charges of the Agency. The assessments have not been reinstated).

The chart below taken from the FY 2010-11 financial statements shows the revenue and expenditure categories with respective amounts.

		2011	2010
OPERATING REVENUES			
Water sales	$	457,078	513,026
Water services		50,253	33,881
Basic surcharge		595,583	597,680
TOTAL OPERATING REVENUES		1,102,914	1,144,587
OPERATING EXPENSES			
Transmission and distribution		351,065	406,370
General and administrative		605,744	535,884
Depreciation		239,331	229,766
TOTAL OPERATING EXPENSES		1,196,140	1,172,020
OPERATING INCOME (LOSS)		(93,226)	(27,433)
NON-OPERATING REVENUES (EXPENSES)			
Interest income		4,472	3,266
Tax levy		223,764	237,111
Desert View debt surcharge		50,206	50,345
Grant income		430,605	232,343
Gain/loss on disposal of asset		(38,832)	(1,170)
Other income/Expense		9,036	(4,099)
Interest expense		(51,309)	(50,461)
Mojave Water Agency pipeline interest (note 6)		(73,097)	(73,254)
Amortization of debt issuance costs		(2,011)	-
TOTAL NON-OPERATING REVENUES (EXPENSES)		552,834	394,081
CHANGE IN NET ASSETS		459,608	366,648
NET ASSETS BEGINNING, JULY 1		3,853,964	3,487,316
Prior period adjustment		-	-
NET ASSETS ENDING, JUNE 30	$	4,313,572	3,853,964

Non-Agency Related Charges on Property Tax Bill

MWA DEBT 1 – Assessed by the Mojave Water Agency after voter approval. These funds are used primarily for the payment of debt service and maintenance in connection with the State Water Project (The California Aqueduct).

MWA DEBT 2 – Assessed by the Mojave Water Agency after voter approval. These funds are used primarily to supplement the MWA 1 tax and additionally provide funding for Mojave Water Agency administration.

MWA ID "M" – Assessed by the Mojave Water Agency after voter approval. These funds are used to fund 40% of the debt service for the pipeline extension from the California Aqueduct to the Morongo Basin (MWA Improvement District M).

FY 2011-12 Budget

The FY 2011-12 Budget totals $1,407,043 – an increase of $84,147. However, the FY 2011-12 Budget identifies that $91,647 from operational and non-operational revenue is available to allocate. Therefore, the two budgets are statistically similar. Nonetheless, there are a few noteworthy differences:

- Administration expense is increasing by 15% due to salary merit increases and the hiring of a new executive secretary at a higher starting pay than the previous employee as well as an additional 20% for overtime.

- Operating expense is decreasing by 16% due to the resignation of the field supervisor and no current intent for the Agency to fill the position.

- As for Non-Operating Revenue, the debt income to pay for the Bighorn FMHA loan is increasing by 40% to pay for infrastructure improvements and to close the deficit in net assets of the Bighorn Mountains service area.

Salaries and benefits for FY 2011-12 include seven full-time employees and no seasonal or temporary employees. The Field Supervisor position remains vacant and there is no intent to fill the position at this time.

Exec. Sec./Personnel Administration (1 position – filled FT)
Accounting Technician II/Customer Service Rep. (1 position – filled FT)
Customer Service Rep – (1 position –filled FT)
Water Distribution II (2 positions – filled FT)
Water Distribution I (1 position – filled FT)
Field Supervisor (1 FT position – vacant, not actively recruiting)
General Manager (1 position – filled FT)

In reviewing the Agency's budgets submitted for this review, the budgets do not include at least one year's worth of actual financial data, as recommended by the *Best Practices* of the Government Finance Officers Association. The Commission recommends that for the future the Agency include at least one year's worth of actual figures.

Commitments

On March 15, 1991, the Agency entered into an agreement with the MWA to become a participant in the Morongo Basin Pipeline project. Under the agreement, the Agency was obligated to pay its project allotment percentage of the estimated fixed project cost commencing July 1, 1991. The payment made to MWA for the current year was $73,524. The payments commencing June, 1996, and thereafter will be determined by MWA based upon various factors.

Internal Control over Financial Reporting

The FY 2009-10 financial statements have identified significant deficiencies in the internal controls of the Agency. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance. The independent auditors noted the following matters that provide an opportunity for the Agency to enhance its existing internal controls. A detailed description of each matter with the auditor's recommendation and the Agency's comments are included at the back of the FY 2009-10 audit, included as Attachment #2).

1. Positive Pay - the Agency does not use positive pay. Positive pay is a process by which an organization's bank would be electronically provided a list of check numbers and check amounts that the bank would be authorized to allow to process for payment.

   The Agency has responded to LAFCO that the costs for positive pay are high in addition to concerns about the effect on customers. At this time, Agency staff has not taken this matter to a committee.

2. Lock Box - The Agency does not use a "lock box" service (P.O. Box under the control of the Agency's bank) for collecting its revenues. A lock box service significantly reduces the risk of theft of funds by employees of the Agency.

   The Agency has responded to LAFCO that the Agency board rejected this recommendation based on cost and the fact that many customers pay at the office with checks and cash. Therefore, implementation of this expense does not eliminate this concern.

3. Inventory Controls - The inventory custodian currently performs data entry for service orders that involve inventory requisitions. He also has system access rights to make adjustments to inventory records. Internal control is maximized when those persons that have physical access to inventory do not also have the ability to adjust the inventory data recorded in the system.

   The Agency has responded to LAFCO that implementation of recommendations 3 and 4 were implemented by the Agency staff without going to the board.

4. Bank Reconciliations - Bank reconciliations of the Agency are performed by the individual that performs data entry for cash disbursements. Best practice provides that reconciliations be performed by individuals that are not involved in the creation of cash disbursements and that do not have direct or indirect access to the funds in the bank account.

5. Ethical Culture - New auditing standards recommend that organizations consider certain best practices to reinforce a strong ethical culture. Accordingly, the auditors recommended that the Agency consider inclusion of certain ethical conduct policies into its Employee Handbook.

The Agency has responded to LAFCO that the policy recommendation for Ethical Conduct Policies were brought before the Board of Directors and approved as a revision to the Employee Handbook in April 2011.

Other Information

Regular Audits

Government Code Section 26909 requires all districts to provide for regular audits; the Agency conducts annual audits and meets this requirement. Section 26909 also requires districts to file a copy of the audit with the county auditor within 12 months of the end of the fiscal year. According to records from the County Auditor, the last audit received was in March 2011 for FY 2009-10.

Pension and Post-Employment Benefits

The Agency contributes to the California Public Employees Retirement System (PERS), an agent multiple-employer public employee defined benefit pension plan. PERS provides retirement, disability benefits, and death benefits to plan members and beneficiaries. PERS acts as a common investment and administrative agent for participating public entities within the State of California. According to the FY 2009-10 financial statements, the actuarial value of PERS assets was determined using techniques that smooth the effects of short-term volatility in the market value of investments over a three-year period (smoothed market value). PERS unfunded actuarial accrued liability is being amortized as a level percentage of projected payroll on a closed basis (copies of PERS' annual financial report may be obtained from their executive office: 400 P Street, Sacramento, CA 95814). A review of the financial statements identifies that the Agency has a zero net pension obligation. The financial statements do not identify if there are any other Post Employment Benefits. However, the Agency states that there are no Post Employment Benefits offered to employees.

Appropriations Limit

Article XIIIB of the State Constitution, the Gann Spending Limitation Initiative (in 1979, the voters amended the California Constitution by passing Proposition 4, the Gann Initiative), mandates local government agencies receiving the proceeds of taxes to establish an appropriations limit. Without an appropriations limit, agencies are not authorized to expend the proceeds of taxes. Section 9 of this Article provides exemptions to the appropriations limit, such as Section 9(a) provides exemption for debt service, and Section 9(c) exempts the appropriations limit for special districts which existed on January 1, 1978 and which did not levy an ad valorem tax on property in excess of $0.125 (12 ½ cents) per $100 of assessed value for the 1977-78 fiscal year. According to the *County of San Bernardino 1977-78 Valuations/Tax Rates* publication (excerpt included as a part of Attachment #2), the tax rate for the two predecessor districts were as follows:

Bighorn Mountains (General Levy)	$0.0000
Bighorn Mountains (Improvement A)	$1.0000
Desert View (General Levy)	$0.5285
Desert View (Bond, Land Only)	$3.5906

Prior to consolidation the Bighorn Mountains Water Agency never established an appropriations limit based upon its lack of general levy. However, the general levy tax rate for Desert View for FY 1977-1978 was $0.5285 per $100 of assessed value. Being over the $0.125 tax rate, at that time Desert View did not qualify for an exemption from the requirement of an appropriations limit and fulfilled this mandate through annual adoption. As a part of the LAFCO resolution approving the consolidation of the two predecessor districts in 1990, LAFCO imposed the condition that the appropriations limit of the consolidated agency, if any, shall be the aggregate appropriations limits of the two agencies (a copy of the resolution is on file in the LAFCO office). Therefore, in the years following consolidation, the Agency was required to annually set an appropriation limit in compliance with Article XIIIB of the Constitution and implementing legislation contained in Government Code Section 7910 and the Agency's audits were required to review and ascertain its accuracy.

The Agency has indicated in the materials submitted to LAFCO that is has relied upon a legal opinion from its attorney that it was not required to comply with the provisions related to setting an appropriation limit based upon an analysis of the previous Bighorn Mountains Water Agency. LAFCO has identified its position that the conditions of approval for the consolidation clearly stated that it was required to do so and without an appropriations limit, the agency is not authorized to expend the proceeds of ad valorem property taxes. The Commission determines that the Agency shall comply with the requirements of the consolidation requiring the annual establishment of an appropriation limit. The Agency has provided a copy of its Resolution adopting an appropriation limit

4. Status of, and opportunities for, shared facilities:

The Agency's intertie with Hi-Desert Water District ("HDWD") is currently disconnected and isolated from cross-connection. The pump was removed many years ago. According to the Agency, with minimal effort a connection could be made whereby the Agency could receive water via gravity flow from HDWD. However, more work would be needed for the Agency to pump water into HDWD's system. The two agencies are actively seeking a new, permanent emergency intertie solution. In addition, the Agency has the ability to "high line" a connection between fire hydrants to create an emergency intertie with CSA 70 Zone W-1.

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

Current Board Composition

The BDVWA is an independent special district governed by a five-member board of directors elected at-large. Membership elections are held in odd years as a part of the consolidated November election. A review of records available though the County Registrar of Voters identifies an election for director membership has been held every two years since at least 1997.

As a result of the November 2011 elections, the board is composed of the following, effective December 2011 along with board positions:

Board Member	Title	Term	Elected/Appointed
Terry Burkhart	President	2013	Elected full term
Vacant *		2013	To be appointed in lieu of election - short term
Judy Corl-Lorono	Director	2013	Elected short term
Michael McBride	Director	2015	Appointed (ran unopposed)
David Larson	Director	2015	Appointed (ran unopposed)

* The director-elect from the November 2011 election neglected to file his Oath of Office by noon December 2 as required by the Election Code and the position was subsequently declared vacant by the remaining Board members on December 8, 2011. The Board then acted to appoint a new director for which advertising has begun, again in accordance with the Election Code.

Regular Board Meetings are scheduled at 6:00p.m. on the fourth Tuesday of each month. The location of the meetings is not at the Agency office at 622 South Jemez Trail; rather meetings are held at 1720 North Cherokee Trial in Landers at the former Bighorn office. Standing committees include the Finance/Public Relations/Education/Personnel Committee and the Planning/Engineering/Legislative/Grant/Security Committee. Each committee meets bi-monthly. Additionally, a member of the Board is also appointed to the Morongo Basin Pipeline Commission.

Board and General Manager Turnover

As stated in the introduction to this service review portion of this report for the Agency, LAFCO has adopted the Governor's Office of Planning and Research (OPR) Municipal Service Review Guidelines by reference for its use during the conduct of service reviews. The Guidelines read that in evaluating an agency's local accountability and governance structure, LAFCO may wish to address agency representatives in its review (OPR Guidelines, Page 42, item 9.3).

Board Members

Up until 2007, the bi-annual election was typical with other special districts with five member boards – with either two or three candidates running each year with modest director turnover. However, at the August 2007 election the voters successfully recalled three members with the regularly scheduled election taking place three months later in November. The past four elections have had 13 seats open with eight changes in membership, representing a 62% election turnover rate (77% turnover rate when adding appointments). Taking into account 13 open seats and seven seats not up for election, the overall turnover rate has been 54% since August 2007.

Election	Seats open	Newly elected/appointed	Voter turnout
Aug 2007	3	3 elected	45%
Nov 2007	2	1 elected	15%
Nov 2009	4	3 elected (2 resigned, replaced by appointments)	26%
Nov 2011	4	1 elected	25%
TOTAL	**13**	**10 total (8 elected with 2 appointments)**	

Whereas a modest turnover is natural and even healthy, the high turnover rate coupled with low voter turnout is a cause for concern. In a recent edition of its report, *What's So Special about Special Districts*, the state Senate Local Government Committee states that the, "narrow and technical nature of a district's activities often results in low civic visibility until a crisis arises." The August 2007 recall election had a 45% voter turnout. However, the past three elections have had voter turnouts of 15%, 26%, and 25% (it should be noted that the elections conducted by the County Registrar of Voters for November 2007 and November 2009 had a grand total turnout of 13%, 10%, and 10%, respectively). The high turnover and low voter turnout has resulted in the two longest tenured board members being elected in 2007. The three other members were either elected or appointed since the 2009 election.

General Managers

The employee leadership has also experienced a high turnover rate within the past ten years. In that time, there have been six general managers (nine since 1998) in charge of the Agency's operations, administration, and policy implementation.

In general, a high turnover rate of elected members in conjunction with general manager turnover could produce a lack of continuity and institutional knowledge, possible missteps in administrative compliance, and the resetting of the learning curve with each turnover. This agency continues to operate without an appropriation limit and has not segregated the operations and funds of the two predecessor agencies. This service review cannot offer a remedy for this occurrence other than to point out that a reduced turnover rate of elected membership and employee leadership would, in the Commission's opinion, result in increased steady direction for the Agency.

<u>Brown Act</u>

The OPR Guidelines read that in evaluating an agency's local accountability and governance structure, LAFCO may wish to address in its review an agency's compliance with state disclosure laws and the Brown Act (OPR Guidelines, Page 42, item 9.1).

Within the past four years, the Agency has been notified by the Office of the District Attorney, County of San Bernardino that it has violated the Brown Act (Open Meeting Law, Gov. Code §54950 et seq.). First, in 2007 County prosecutors strongly criticized the board for repeatedly violating the Brown Act, especially its refusal to address public concerns over secret meetings.

Second, the District Attorney's Office in March 2011 responded to Agency legal counsel regarding a Brown Act violation stemming from a complaint that the Agency Board approved four items of compensation for an Agency officer without providing notice of its actions. A copy of the letter is on file at the LAFCO office.

According to the District Attorney's letter, the Agency noticed and held a closed session meeting regarding the officer's evaluation, and at the open session meeting announced that the officer received a favorable review and the Board voted on compensation items. Based on the below items, the District Attorney's letter identifies its opinion that the Board's actions were a violation of the Brown Act.

- §54957(b)(4) expressly states: "Closed sessions held pursuant to this subdivision shall not include discussion or action on proposed compensation except for a reduction of compensation that results from the imposition of discipline." In other words, there are statutes that require compensation to be called out on an open session agenda even when an evaluation of the same employee is noticed for the closed session portion of the same meeting (Gov. Code §54957(b)(4) states that the term "employee" shall include an officer or an independent contractor who functions as an officer or an employee but shall not include any elected official, member of a legislative body or other independent contractors).

- Discussions about the salaries of non-elected officers must be discussed in open session. Gov. Code §54954.2(a) specifically states that the agenda must describe "each item of business" to be discussed or transacted. Hence, the statute plainly requires that compensation be called out specifically on the agenda if it will be discussed at the Board meeting.

- In San Diego Union v. City Council of the City of San Diego (1983) 146 Cal. App. 3d 947, the court expressly held that compensation must be discussed – *and properly noticed* – in an open session. Hence, San Diego Union clarifies that after an evaluation of a public employee is held in a closed session; compensation of that employee must be discussed in "a *properly noticed*, open session."

The letter further identifies the Agency's statement that in the future the Board will provide separate notice on the open session agenda when employee compensation is to be considered even if notice of consideration of an employee's evaluation is also placed on the same agenda for closed session. Based upon the Agency's statement that it will not repeat its above-described actions, the District Attorney considered the matter closed.

Nonetheless, the District Attorney voiced concern about the Board's future compliance with the Brown Act since the Board failed to admit a violation. Therefore, the District Attorney recommended that the current Board members obtain training on the requirements of the Brown Act. The Agency has responded to LAFCO regarding this recommendation, and state that Board members attended the Special District and Local Government Institute Brown Act, Public Records Act and Conflict of Interest Workshop, San Diego, CA June 2011.

The November 2011 election has resulted in new membership on the Board. The Commission determines that the Agency should implement a policy that Board members obtain periodic training on the requirements of the Brown Act.

Operational Efficiencies

Operational efficiencies are realized through several joint agency practices, for example:

- Mojave Water Agency (MWA) provides professional guidance and services to BDVWA in areas such as geohydrology, engineering, and grant assistance. MWA also advises on and provides technical support towards project grant applications.

- The Agency is a member of the Special District Risk Management authority (SDRMA), a Joint Powers authority, which provides medical benefits, property and liability insurance and workers compensation insurance to the Agency as well as safely and loss prevention services.

- The Agency is a member of the Association of California Water Agencies (ACWA), a statewide non-profit Joint Powers Insurance Authority with a mission to assist members in the areas of leadership, advocacy and information. In addition, ACWA-HBA (Health Benefits Authority) provides dental, vision and life insurance benefits to all Agency employees.

- The Agency is a partner, through MOU, in the Morongo Basin Alliance for Water Awareness and Conservation ("AWAC"). The mission of AWAC is to promote the efficient use of water and increase the communities' awareness of conservation as an important tool to help ensure an adequate water supply.

- The Agency works closely with the Open Space Group, a collaborative effort between all of the towns, the Morongo Basin Open Space Group, the U.S. Marine Corps, Joshua Tree National Park, Mojave Desert Land Trust, Defenders of Wildlife, and the Wildlands Conservancy among others.

<u>Government Structure Options</u>

There are two types of government structure options:

1. Areas served by the Agency outside its boundaries through "out-of-agency" service contracts;

2. Other potential government structure changes such as consolidations, reorganizations, dissolutions, etc.

Out-of-Agency Service Agreements:

Pursuant to Government Code Section 56133, LAFCO is charged with the responsibility for reviewing and taking action on any city or district contract to extend service outside of its jurisdiction. Correspondence from the Agency in 1994, on file at the LAFCO office, identifies that the Agency did not have any out-of-agency service contracts at that time. However, amendments to Section 56133 (subsection e) effective January 2, 2002, indicate the provision of this subsection do not apply to an extended service that a city or district was providing on or before January 1, 2001. For this review, the Agency has notified LAFCO that it serves three connections outside of its boundaries located in Section 24. Agency records identify that service was provided before 2001, and therefore further review by LAFCO is not required.

BDVWA provides retail water outside of its boundaries to approximately 17 customers within the boundaries of County Service Area 70 Zone W-1. The arrangement for this service is between the Agency and the County (as the governing body for CSA 70 Zone W-1) though a contact signed in December 1997. This contract is exempt from LAFCO review since it is solely between two public agencies. At this time, BDVWA does not charge a special rate to these customers that are outside of the Agency's boundaries. There are four additional parcels within this area that are undeveloped at this time. Service to these parcels by the Agency would require either: 1) an amendment to the December 1997 contract, or 2) an out-of-agency service contact approved by LAFCO since the four parcels are to be within the Agency sphere of influence.

As noted in the Water section of this report, Johnson Valley does not have a pressurized water system. Johnson Valley has a standalone water hauling station supplied by a single groundwater well and a 10,000 gallon storage reservoir operated by the Agency. This site serves approximately 30 residential hauling customers and approximately three commercial water hauling customers who deliver water to an unknown number of customers. The Agency has no current plans to extend pipeline service to the Johnson Valley area. Population densities are so low that there are not enough customers to financially support the construction of a water line. At issue is if the water is hauled outside of the Agency's sphere of influence. Government Code Section 56133 limits the provision of service to within an agency's sphere. With a pressurized system with pipes in the ground, it is easy to ascertain the location of the recipient. However, with hauled water, it is difficult to ascertain the final destination from a hauler. Furthermore, this single well is the sole public source of water for the Johnson Valley. Given this circumstance, the Agency's parent law and policies do allow for water to be delivered outside of its boundaries. Section 15, Item 7, of the Agency's operating law does allow the Agency to sell water to anyone if it finds that there is a surplus of water above that which may be required by consumers within the agency. Expanding on Section 15, Item 7, the Agency's Rules and Regulations (Section 1.6 – Service Outside Agency Boundaries) provide a mechanism to supply bulk water to properties located outside of the Agency's boundaries.

Government Structure Options:

The State has published advisory guidelines for LAFCOs to address all of the substantive issues required by law for conducting a service review ("Local Agency Formation Commission Municipal Service Review Guidelines", State of California Governor's Office of Planning and Research, August 2003). The Guidelines address 49 factors in identifying an agency's government structure options. Themes among the factors include but are not limited to: more logical service boundaries, elimination of overlapping boundaries that cause service inefficiencies, economies of scale, opportunities to enhance capital improvement plans, and recommendations by a service provider.

In some cases, functional consolidation or integration can reduce costs so that services can be maintained and improved with fewer dollars. The following scenarios are not being presented as options for the Commission to consider for action as a part of this service review. Rather, a service review should address possible options, and the following are theoretical, yet possible, scenarios for the community to consider for the future. Movement towards these scenarios would include, but not be limited to, a plan for service, fiscal impact analysis, and any other required studies.

- <u>Expansion of boundaries.</u>
    - In 1995 the Agency submitted a proposal to detach approximately eight square miles from its boundaries in the Landers area (LAFCO 2792). The Commission approved the proposal because it eliminated an overlap of similar-purpose agencies and could possibly lead to a less contentious relationship between the residents of the two agencies.

      The current staff of the Agency has expressed desire to explore the option of returning this area to the boundaries of the Agency. At this time, the Agency serves 17 customers within the area through contract with the County. The Agency, residents, or landowners could submit an application to expand the boundaries of the Agency to the east to include the Goat Mountain area. Such an application would be processed to include the dissolution of CSA 70 W-1 with the Agency identified as the successor agency. The Agency would then be responsible for extending its services to the area, including continuing the services of the dissolved CSA 70 zone.

Including the area of CSA 70 W-1 would allow those that the Agency currently serves within the area the opportunity to participate in Agency elections and have a voice in Agency matters. The Agency would obtain additional tax revenue and be able to allocate any cost savings to all of its customers. Before the detachment, these properties were within the Agency's Improvement District 1 and contributed to the Improvement District 1 bond debt for the Bighorn water system. Currently, these properties outside of Agency's boundaries pay the same amount for the water but do not contribute to the debt repayment that provided funding for the water infrastructure.

- The Proposed Ames Valley Recharge Facility is located in the Pipes Wash area of Section 24 which is within the BDVWA Sphere of Influence. The Agency has stated that eventual annexation of this area as well as Sections 25 and 35 would be best to manage and protect the underlying water resources and promote continuity in institutional arrangements. Should any Agency facilities be located within these areas, annexation would provide the opportunity for the facilities to be removed from the tax rolls.

- <u>Consolidation with one of the bordering water districts.</u> Consolidation with the neighboring Joshua Basin Water District and/or Hi-Desert Water District would allow for economies of scale and allow for a more consolidated voice to address water issues and potentially future wastewater treatment issues. Given the historical sentiment in the areas, this option is unlikely at this time, even if it would pose benefits to the customers and citizens of the area.

- <u>Wastewater Services provided by the Agency.</u> There is no wastewater service in the area; all the properties are on septic systems. Should the Regional Water Quality Control Board require the community to install a sewer system to handle wastewater, the Agency would be best suited to provide wastewater collection and transportation.

- <u>Joint Powers Agency for Sewer Treatment.</u> The Mojave Water Agency ("MWA") is authorized by LAFCO an active sewer function (although it does not actively provide such a service at this time), and being a regional entity it could help shepherd the development of a regional wastewater treatment facility.

  A similar situation occurred in the late 1970s in the Victor Valley region of the County. To meet the requirements of the federal Clean Water Act and provide wastewater treatment for the growing population, the communities of the Victor Valley requested that the MWA, being a regional entity, help shepherd the development of a regional wastewater treatment facility. In accepting the request, MWA was designated by the Lahontan Regional Water Quality Control Board as the responsible entity for the design of the Victor Valley Regional Wastewater Reclamation Project. A few years later, the communities of the Victor Valley completed the creation of the joint powers authority, which became known as the Victor Valley Wastewater Reclamation Authority ("VVWRA"). VVWRA was expressly created for the purpose of providing the operation and management of the treatment of wastewater through a regional facility and the ultimate disposal of effluent and solids. On June 1, 1978, VVWRA assumed the assets and authority for the Project, and MWA divested itself from the Project and the provision of sewer service.

A similar response could occur in the Morongo Basin portion of MWA. In February 2010, the LAFCO Commission approved the Hi-Desert Water District's request to expand the service description of its sewer function in order to actively provide for development of a regional wastewater treatment plant. The District is undertaking a project titled "Hi-Desert Water District Water Reclamation Facility, Wastewater Treatment Plant, and Sewer Collection System Project". The project anticipates a treatment facility to treat the collected effluent within the project's boundaries. Both agencies, and more, could form a joint powers agency for treatment of wastewater from within each agency. In general, each agency would collect wastewater within its own boundaries through collection systems owned independently, and transport the collected wastewater to a regional treatment plant. Governance of the joint powers agency would be the participating agencies. Such an agreement could reduce duplication of treatment plants and provide the opportunity for economies of scale while maintaining the independence of each agency.

- <u>Detachment of the Johnson Valley area from the Agency and formation of an independent Community Services District.</u> The historical record reveals those within the Johnson Valley area expressing dissatisfaction with their water situation. Those within Johnson Valley directly (through special taxes) or indirectly (as a share of the general tax levy) pay for the State Water Project, Mojave Water Agency, MWA Improvement District M, and Bighorn-Desert View Water Agency. With all the payments, they still lack a pressurized water system. At this time, the Agency has no current plans to extend pipeline service to the Johnson Valley area. However, population densities are so low that there are not enough customers to financially support the construction of a water system.

  In this scenario, the Johnson Valley area would detach from the Agency and form a community services district. The new agency would have local control over board representation and any operational matters to include assumption of the well that is currently used for water hauling. However, with a population of less than 500 and being sparsely developed, it is questionable if the tax base is adequate to fund not only a new district but also construction of a pressurized water system.

- <u>Maintenance of the status quo.</u> This option would maintain the existing governmental structure of the Agency.

At this time, the Agency, landowners, or residents have not formally expressed interest in any of the options outlined above. As stated above, movement towards these scenarios would include, but not be limited to, a plan for service, fiscal impact analysis, and any other required studies.

The preamble to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 reads that while the Legislature recognizes the critical role of many limited purpose agencies, especially in rural areas, it finds and declares that a single multipurpose governmental agency accountable for community service needs and financial resources may be the best mechanism for establishing community service priorities. Further, the law states that the

Commission may recommend governmental reorganizations to particular agencies using the spheres of influence as the basis for those recommendations.

At this time, the Commission is not recommending any reorganization be considered. However, the Commission is recommending modifications to the Agency's sphere of influence to address the community definition for Homestead Valley.

WHEREAS, the following determinations are made in conformance with Government Code Section 56425 and local Commission policy:

1. Present and Planned Uses in the Area, Including Agricultural and Open-Space Lands:

Within the Agency's entire sphere, roughly 46% of the land is privately owned and the remainder, 54%, is public, which are devoted primarily to resource protection and recreational use.

Approximately 53 percent of the County of San Bernardino land use designations is designated Rural Living (RL, RL-5, and RL-40), 45 percent is Resource Conservation, and the remainder of the land use designations comprises two percent (Special Development-Commercial, Neighborhood Commercial, Rural Commercial, General Commercial, Service Commercial, and Institutional). The commercial developments within the Agency are generally located along State Route 247 and Reche Road.

By 2040, the population within the Agency's boundaries is estimated to reach 6,154. This represents a projected annual growth rate of approximately 2.4 percent between 2010 and 2040, which also represents a total population increase of 49 percent from 2010.

The population projections identified earlier indicates that the population within the Agency's boundaries will be 6,154 by 2040. Based on the maximum residential build-out within the Agency's boundaries, the projected maximum population is anticipated to reach 11,759. Likewise, based on the projected population for 2040, it is anticipated that the number of households within the Agency's boundaries will be 2,619 with a maximum potential build-out to reach approximately 5,005. These imply that the study area will reach 52 percent of its potential household and population capacity by 2040.

2. Present and Probable Need for Public Facilities and Services in the Area:

<u>Johnson Valley</u>

The entire area known as Johnson Valley does not have a pressurized water system. Johnson Valley has a standalone water hauling station supplied by a single groundwater well and a 10,000 gallon storage reservoir. The single well in the community was constructed from grant funding obtained by the County and the Agency now operates this well. This site serves approximately 41 residential hauling customers and approximately four commercial water hauling customers who deliver water to an unknown number of customers. The Agency has no current plans to extend pipeline service to the Johnson Valley area. Population densities are so low that there are not enough customers to financially support the construction of a water line. The Agency states that redundancy in the Johnson Valley bulk system is needed.

Ames Valley Recharge Project

The proposed Ames Valley Recharge project will deliver SWP water to the Ames Valley for recharge at the Pipes Wash Spreading Grounds to mitigate historical overdraft conditions in the Region. The recharge project will serve water agencies using groundwater in the basin including BDVWA, HDWD, and CSA 70 (through its zones W-1 and W-4). BDVWA, in cooperation with MWA, is implementing the project, which consists of a feasibility study, approximately 0.75 miles of conveyance pipeline to connect to the Morongo Basin Pipeline, recharge to the Pipes Wash, and the installation of monitoring wells. The initial recharge capacity is planned at 1,500 AFY.

The project envisions the banking of water from the State Water Project. Each participating entity would accrue water in a water storage account. The water would be purchased, and percolated into the groundwater basin. There would be no restrictions on the use of that water and inter-entity transfers could occur as well. This project is intended to mitigate impacts from over pumping of the Ames Valley Basin, provide for beneficial use of water and insure the conjunctive use of local groundwater and imported water from the State Water Project. This is a regional project with multiple beneficiaries including the piped area of the Agency, the Hi-Desert Water District, CSA 70 Zone W-1 (Landers), CSA 70 Zone W-4 (Pioneertown), and the Mojave Water Agency.

3. Present Capacity of Public Facilities and Adequacy of Public Services

Current Supply and Demand

The agency has seven pressure zones in the primary water system. Well No. 10 in Johnson Valley serves as a stand-alone water system for the purposes of Department of Public Health Consumer Confidence Reporting. There are seven active production wells operated by the Agency. There are four separate bulk hauling station locations around the Agency, one being the Well No. 10 facility. The other three are located within the larger pressurized water system with two stations located in the predecessor Bighorn Mountains Water Agency area. The last station is located in Flamingo Heights is in the predecessor Desert View Water District area. The three hauling stations inside the pressurized system are supplied by the 6 active production wells (not by Well No. 10).

The agency's intertie with Hi-Desert Water District ("HDWD") is currently disconnected and isolated from cross-connection. The pump was removed many years ago. According to the Agency, with minimal effort a connection could be made whereby the Agency could receive water via gravity flow from HDWD. However, more work would be needed for the Agency to pump water into HDWD's system. The two agencies are actively seeking a new, permanent emergency intertie solution. In addition, the Agency has the ability to "high line" a connection between fire hydrants to create an emergency intertie with CSA 70 Zone W-1.

Many of the fire hydrants do not produce sufficient flow and pressure to meet the current County Fire Flow standard of 1,000 gallons per minute with a residual pressure of 20 pounds per square inch.

Future Supply and Demand

According to the MWA 2010 Urban Water Management Plan, the local groundwater supply available to BDVWA is estimated to be 500 acre-feet annually. It is estimated that during the current planning horizon the population could increase by 60 percent. BDVWA will need between 749 and 829 acre-feet per year in order to supply its current and future customers (an additional minimum of 249 acre-feet). The MWA 2010 UWMP further states that BDVWA will need facilities to produce about 2,388 gallons per minute to meet the maximum day plus-fire flow. With the potential for future reductions in the State Water Project allocation, the Agency may or may not be able to meet its future requirements with water from the State Water Project.

In April 2007, BDVWA adopted the Bighorn-Desert View Water Agency Water System Master Plan ("WSMP"). The master plan identified the following deficiencies in the existing infrastructure: heavy reliance on 6-inch and 8-inch water mains which do not provide adequate fire flow; inability of most reservoirs to refill overnight after a 500-gallons-per-minute (gpm) fire; need for spreading grounds for groundwater storage and recovery; a groundwater management plan and the inefficient operation of portions of the system. Once the deficiencies were identified, the Agency prepared the Bighorn-Desert View Water Agency Water Infrastructure Restoration Program ("WIRP"). The WIRP outlines specific system improvements to remediate these deficiencies.

Two WIRP projects that are near completion include a Groundwater Management Plan ("GWMP") and the Ames Valley Recharge Project. Local groundwater is currently the sole source of its water supply, but BDVWA has annual nine percent capacity in the Morongo Basin Pipeline and may purchase SWP water from MWA. Although the infrastructure needed to deliver SWP water to the Ames Valley region already exists, additional facilities are needed to convey imported SWP water to spreading grounds for recharge, storage, and subsequent recovery. A Feasibility Study, including a groundwater model, is scheduled for completion in late 2011/early 2012 and documents the ability to store and recover SWP water in the basin. This document will also include assistance to Pioneertown (CSA 70/W-4) enabling them to secure a potable water supply. The GWMP will address the purchase of SWP water for recharge and pumping restrictions in the event that overdraft conditions are not controlled.

4. Social and Economic Communities of Interest:

The social communities of interest are the unincorporated areas of Landers, Flamingo Heights, and Johnson Valley. The Lucerne Valley Unified School District overlays Johnson Valley while the Morongo Unified School District overlays Landers and Flamingo Heights. There is a little commercial activity is along Highway 247.

5. Additional Determinations

- As required by State Law notice of the hearing was provided through publication in a newspaper of general circulation, the *Hi-Desert Star*. Individual notice was not provided as allowed under Government Code Section 56157 as such mailing would include more than 1,000 individual notices. As outlined in Commission Policy #27, in-lieu of individual notice the notice of hearing publication was provided through an eighth page legal ad.

- As required by State law, individual notification was provided to affected and interested agencies, County departments, and those agencies and individuals requesting mailed notice. In addition, on December 6, 2011, LAFCO staff met with the agencies and representatives to review the determinations and recommendations made within its draft report, to solicit comments on the determinations presented and to respond to any questions of the affected agencies.

- Comments from landowners/registered voters and any affected agency have been reviewed and considered by the Commission in making its determinations.

WHEREAS, pursuant to the provisions of Government Code Section 56425(i) the range of services provided by the Bighorn-Desert View Water Agency shall be limited to the following:

FUNCTIONS	**SERVICES**
Water	Acquisition, retail, distribution

WHEREAS, having reviewed and considered the findings as outlined above, the Commission determines to reduce the Bighorn-Desert View Water Agency's existing sphere of influence by approximately 11,882 acres, expand its sphere of influence by a total of approximately 8,140 acres, and affirm the balance of its existing sphere of influence.

NOW, THEREFORE, BE IT RESOLVED by the Local Agency Formation Commission of the County of San Bernardino, State of California, that this Commission shall consider the territory shown on the map attached as Exhibit "A" as being within the sphere of influence of the Bighorn-Desert View Water Agency; it being fully understood that establishment of such a sphere of influence is a policy declaration of this Commission based on existing facts and circumstances which, although not readily changed, may be subject to review and change in the event a future significant change of circumstances so warrants;

BE IT FURTHER RESOLVED that the Local Agency Formation Commission of the County of San Bernardino, State of California, does hereby determine that the Bighorn-Desert View Water Agency shall indemnify, defend, and hold harmless the Local Agency Formation Commission of the County of San Bernardino from any legal expense, legal action, or judgment arising out of the Commission's designation of the modified sphere of influence, including any reimbursement of legal fees and costs incurred by the Commission.

THIS ACTION APPROVED AND ADOPTED by the Local Agency Formation Commission of the County of San Bernardino by the following vote:

AYES:	**COMMISSIONERS:**	**Bagley, Coleman, Curatalo, Rutherford**
NOES:	**COMMISSIONERS:**	**Cox, Mitzelfelt, McCallon**
ABSENT:	**COMMISSIONERS:**	**None**

RESOLUTION NO. 3155

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STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN BERNARDINO)

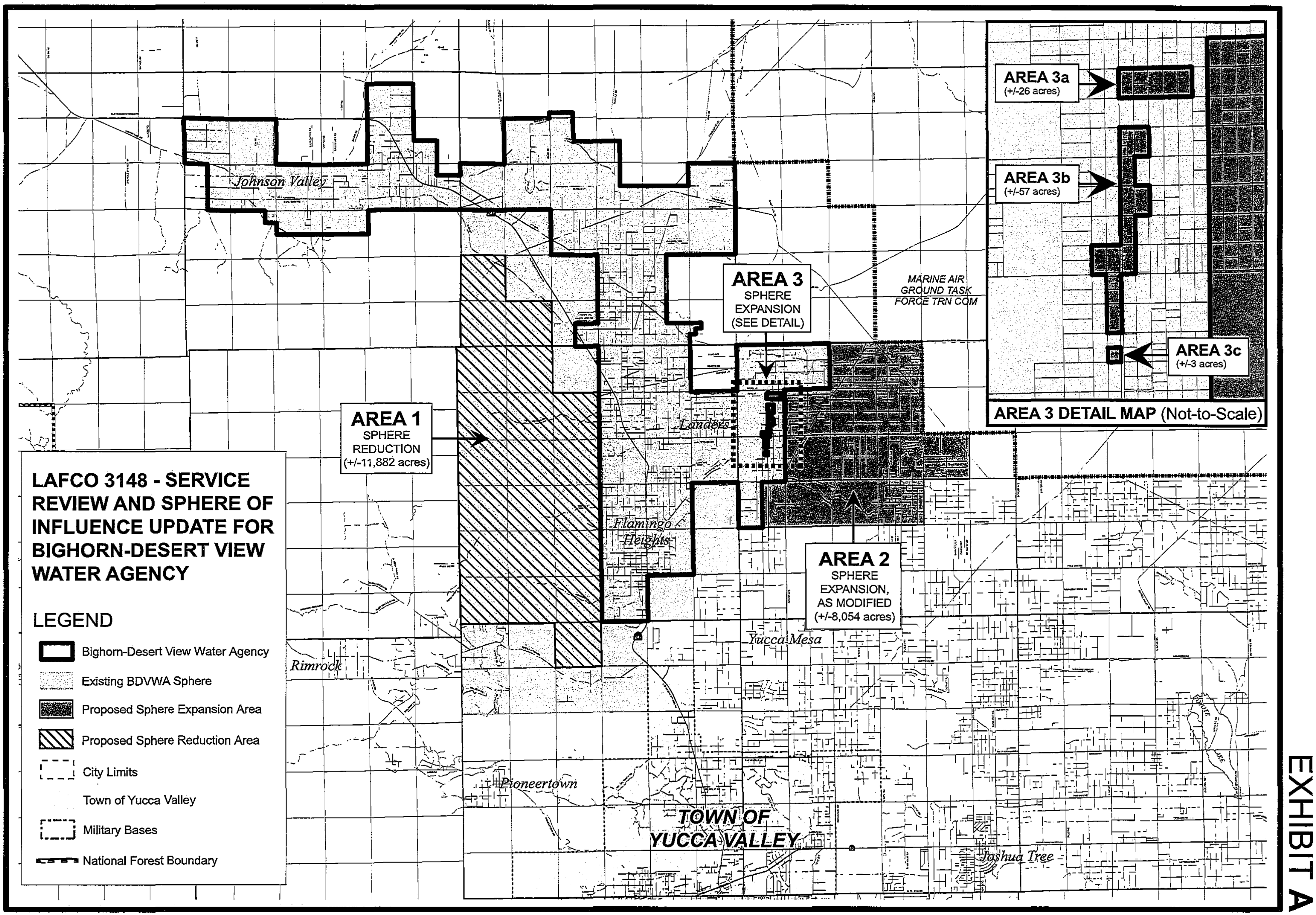
I, KATHLEEN ROLLINGS-McDONALD, Executive Officer of the Local Agency Formation Commission of the County of San Bernardino, California, do hereby certify this record to be a full, true, and correct copy of the action taken by said Commission, by vote of the members present, as the same appears in the Official Minutes of said Commission at its meeting of April 18, 2012.

DATED: April 19, 2012

LOCAL AGENCY FORMATION COMMISSION CO. OF SAN BERNARDINO

Kathleen Rollings-McDonald

KATHLEEN ROLLINGS-McDONALD
Executive Officer


LAFCO 3148 - SERVICE REVIEW AND SPHERE OF INFLUENCE UPDATE FOR BIGHORN-DESERT VIEW WATER AGENCY
LEGEND
Bighorn-Desert View Water Agency
Existing BDVWA Sphere
Proposed Sphere Expansion Area
Proposed Sphere Reduction Area
City Limits
Town of Yucca Valley
Military Bases
National Forest Boundary
AREA 1
SPHERE
REDUCTION
(+/-11,882 acres)
AREA 2
SPHERE
EXPANSION,
AS MODIFIED
(+/-8,054 acres)
AREA 3
SPHERE
EXPANSION
(SEE DETAIL)
AREA 3a
(+/-26 acres)
AREA 3b
(+/-57 acres)
AREA 3c
(+/-3 acres)
AREA 3 DETAIL MAP (Not-to-Scale)
MARINE AIR
GROUND TASK
FORCE TRN COM
Johnson Valley
Landers
Flamingo Heights
Yucca Mesa
Rimrock
Pioneertown
TOWN OF
YUCCA VALLEY
Joshua Tree
EXHIBIT A
EXHIBIT A