Table 1.4.1-2: Supply and Demand Comparison with Single-Dry Year Supplies (AFY)

	Years				
	2009/2010	2015	2020	2025	2030
Supplies[1]	31,963	31,963	31,963	31,963	31,963
Demand[2]	32,526	32,526	32,526	32,526	32,526
DTSP Net Increase in Demand	371	371	371	371	371
Difference Between Supply & Demand	-934	-934	-934	-934	-934
More Water Conservation? / (% More)	Yes / 2.9%	Yes / 2.9%	Yes / 2.9%	Yes / 2.9%	Yes / 2.9%

Notes:
1. Table 1.1.8-4.
2. Demand is the sum of 2008 demand (31,691 AFY) plus previous evaluated projects (835 AFY).

Table 1.4.1-3 shows the comparison of anticipated supply and calculated demand over the next 20 years under a Multiple-Dry Year scenario. With this understanding, the City can anticipate a supply deficit of 2,521 AFY in each year between 2010 and 2030, which will require an additional 8.3% in water conservation to balance demand with supply.

Table 1.4.1-3: Supply and Demand Comparison with Multiple-Dry Year Supplies (AFY)

	Years				
	2009/2010	2015	2020	2025	2030
Supplies[1]	30,376	30,376	30,376	30,376	30,376
Demand[2]	32,526	32,526	32,526	32,526	32,526
DTSP Net Increase in Demand	371	371	371	371	371
Difference Between Supply & Demand	-2,521	-2,521	-2,521	-2,521	-2,521
Require Additional Water Conservation?	Yes / 8.3%	Yes / 8.3%	Yes / 8.3%	Yes / 8.3%	Yes / 8.3%

Notes:
1. Table 1.1.8-4.
2. Demand is the sum of 2008 demand (31,691 AFY) plus previous evaluated projects (835 AFY).

Although water deficits are shown under both Single-Dry Year and Multiple-Dry Year scenario, the ability for the City to pump additional groundwater, known as BEA and currently at 2% above BPP, is a viable short-term solution that can greatly increase supply, especially when combined with additional water conservation efforts. The next section will illustrate the increase in supply through the additional BEA 2% pumping of groundwater.

1.4.2 Single-Dry, and Multiple-Dry Year Supply and 2008 Demand Comparison (With Up To BEA 2%)

Table 1.4.2-1 shows the comparison of anticipated supply and calculated demand over the next 20 years under a Single-Dry Year scenario. With this understanding, the City can anticipate a supply surplus in each year between 2010 and 2030. A surplus under this scenario implies there is no need to pump up to the current maximum BEA 2% level.

Table 1.4.2-1: Supply and Demand Comparison with Single-Dry Year Supplies (AFY) With Up To BEA 2%

	Years				
	2009/2010	2015	2020	2025	2030
Supplies[1]	33,739	33,739	33,739	33,739	33,739
Demand[2]	32,526	32,526	32,526	32,526	32,526
DTSP Net Increase in Demand	371	371	371	371	371
Difference Between Supply & Demand	842	842	842	842	842
More Water Conservation? / (% More)[3]	N/A	N/A	N/A	N/A	N/A

Notes:
1. Table 1.1.8-4.
2. Demand is the sum of 2008 demand (31,691 AFY) plus previous evaluated projects (835 AFY).
3. Surplus in this example implies no need to pump up to the BEA 2%

Table 1.4.2-2 shows the comparison of anticipated supply and calculated demand over the next 20 years under a Multiple-Dry Year scenario. With this understanding, the City can anticipate a supply deficit of 833 AFY in each year between 2010 and 2030, which will require an additional 2.6% in water conservation to balance demand with supply.

Table 1.4.2-2: Supply and Demand Comparison with Multiple-Dry Year Supplies (AFY) With Up To BEA 2%

	Years				
	2009/2010	2015	2020	2025	2030
Supplies[1]	32,064	32,064	32,064	32,064	32,064
Demand[2]	32,526	32,526	32,526	32,526	32,526
DTSP Net Increase in Demand	371	371	371	371	371
Difference Between Supply & Demand	-833	-833	-833	-833	-833
More Water Conservation? / (% More)	Yes / 2.6%	Yes / 2.6%	Yes / 2.6%	Yes / 2.6%	Yes / 2.6%

Notes:
1. Table 1.1.8-4.
2. Demand is the sum of 2008 demand (31,691 AFY) plus previous evaluated projects (835 AFY).

In summary, with the ability to increase supply using groundwater through the allowable maximum BEA, the City can meet the demand for all previously evaluated projects, plus the demand from the proposed project, for both the Normal and Single-Dry year scenario. Under the Multiple-Dry year scenario, an additional 2.6% in water conservation would be necessary to balance demand and supply.

As stated earlier, the net increase in projected water demand from DTSP is insignificant when compared to the overall water demand from the City. The following section illustrates a comparison of supply-demand with only DTSP and other previously approved projects, including the pending BECSP project.

1.5 SUPPLY-DEMAND COMPARISON FOR CITY OF HUNTINGTON BEACH (WITH DTSP & OTHER PREVIOUSLY APPROVED PROJECTS & PENDING BECSP PROJECT)

This WSA for the proposed Downtown Specific Plan area was prepared during a very unique period in California's water history. Water year 2007 was a dry year throughout California, with parts of Southern California setting new records for minimum annual precipitation (California DWR 2009). As previously stated, statewide water supplies are currently limited by below-normal precipitation in much of the State, nine dry years in the Colorado River Basin, and SWP currently having pumping restrictions. These circumstances continue to threaten statewide water supplies; however, the statewide supply situation is subject to change and precipitation could return to normal or above-normal in the near-term and then extend over many years. This assumes that precipitation history will repeat itself and cyclical wet hydrologic periods return. In addition, forthcoming case law or new pumping technology could lift the SWP pumping restrictions; thereby, returning the system to firm delivery capacity. Therefore, for comparison purposes normal "Base Year" supply, Water Supply Allocation Plan Year "WSAP Year" supply, and various demand scenario comparisons will be presented in this analysis.

For the purpose of this WSA, and for conservative planning purposes, supplies are held constant according to the prescribed allocation rate. For example, Base Year supplies of 33,323 AFY remain the same over the 20-year planning horizon and each WSAP Stage is presented in the same manner. In other words, water supply increases are not proportional to population rate increases. Additionally, the following supply-demand comparison will be based on the following:

- Demands - 2008 demands 31,691 AFY assumed to remain the same for 2009 and 2010 (based on historical trend of water use and current Stage 1 of voluntary water conservation under the City's Water Management Plan), plus the sum of previously evaluated projects of 835 AFY, pending BECSP project, and the net increase of 371 AFY from the Downtown Specific Plan area, held constant for the purpose of this study. For very conservative purpose in water supply analysis, it is also assumed that demand will increase starting 2009/2010 to the sum of the ultimate built-out of the DTSP Update, all other previously evaluated projects, and the pending BECSP project.

- Supplies – Two supply scenarios, one under current WSAP Stage 2 and Stage 3 allocations (Table 1.1.8-4), and the other under a BEA 2% pumping allowance (Table 1.1.8-5), held constant for the purpose of this study.

1.5.1 Normal, Single-Dry, and Multiple-Dry Year Supply and 2008 Demand Comparison

Table 1.5.1-1 shows the comparison of anticipated supply and calculated demand over the next 20 years under a Normal Year scenario. With this understanding, the City can anticipate a supply deficit of 754

AFY in each year between 2010 and 2030, which will require an additional 2.3% in water conservation to balance demand with supply.

Table 1.5.1-1: Supply and Demand Comparison with Normal Year Supplies (AFY)

	Years				
	2009/2010	2015	2020	2025	2030
Supplies[1]	33,323	33,323	33,323	33,323	33,323
Demand[2]	32,526	32,526	32,526	32,526	32,526
DTSP Net Increase in Demand	371	371	371	371	371
BECSP Net Increase in Demand (Pending)[3]	1,180	1,180	1,180	1,180	1,180
Difference Between Supply & Demand	-754	-754	-754	-754	-754
More Water Conservation? / (% More)	Yes / 2.3%	Yes / 2.3%	Yes / 2.3%	Yes / 2.3%	Yes / 2.3%

Notes:
1. Table 10.1.8-4.
2. Demand is the sum of 2008 demand (31,691 AFY) plus previous evaluated projects (835 AFY).
3. Although project demand of 1,180 AFY is shown for Beach/Edinger Corridor Study, this project has yet been approved or adopted by the City.

Table 1.5.1-2 shows the comparison of anticipated supply and calculated demand over the next 20 years under a Single-Dry Year scenario. With this understanding, the City can anticipate a supply deficit of 2,114 AFY in each year between 2010 and 2030, which will require an additional 6.6% in water conservation to balance demand with supply.

Table 1.5.1-2: Supply and Demand Comparison with Single-Dry Year Supplies (AFY)

	Years				
	2009/2010	2015	2020	2025	2030
Supplies[1]	31,963	31,963	31,963	31,963	31,963
Demand[2]	32,526	32,526	32,526	32,526	32,526
DTSP Net Increase in Demand	371	371	371	371	371
BECSP Net Increase in Demand (Pending)[3]	1,180	1,180	1,180	1,180	1,180
Difference Between Supply & Demand	-2,114	-2,114	-2,114	-2,114	-2,114
More Water Conservation? / (% More)	Yes / 6.6%	Yes / 6.6%	Yes / 6.6%	Yes / 6.6%	Yes / 6.6%

Notes:
1. Table 1.1.8-4.
2. Demand is the sum of 2008 demand (31,691 AFY) plus previous evaluated projects (835 AFY).
3. Although project demand of 1,180 AFY is shown for Beach/Edinger Corridor Study, this project has yet been approved or adopted by the City.

Table 1.5.1-3 shows the comparison of anticipated supply and calculated demand over the next 20 years under a Multiple-Dry Year scenario. With this understanding, the City can anticipate a supply deficit of 3,701 AFY in each year between 2010 and 2030, which will require an additional 12.2% in water conservation to balance demand with supply.

Table 1.5.1-3: Supply and Demand Comparison with Multiple-Dry Year Supplies (AFY)

	Years				
	2009/2010	2015	2020	2025	2030
Supplies[1]	30,376	30,376	30,376	30,376	30,376
Demand[2]	32,526	32,526	32,526	32,526	32,526
DTSP Net Increase in Demand	371	371	371	371	371
BECSP Net Increase in Demand (Pending)[3]	1,180	1,180	1,180	1,180	1,180
Difference Between Supply & Demand	-3701	-3,701	-3,701	-3,701	-3,701
Require Additional Water Conservation?	Yes / 12.2%	Yes / 12.2%	Yes / 12.2%	Yes / 12.2%	Yes / 12.2%

Notes:
1. Table 1.1.8-4.
2. Demand is the sum of 2008 demand (31,691 AFY) plus previous evaluated projects (835 AFY).
3. Although project demand of 1,180 AFY is shown for Beach/Edinger Corridor Study, this project has yet been approved or adopted by the City.

Although water deficits are shown under Normal Year, Single-Dry Year and Multiple-Dry Year scenario, the ability for the City to pump additional groundwater, known as BEA and currently at 2% above BPP, is a viable short-term solution that can greatly increase supply, especially when combined with additional water conservation efforts. The next section will illustrate the increase in supply through the additional BEA 2% pumping of groundwater.

1.5.2 Normal, Single-Dry, and Multiple-Dry Year Supply and 2008 Demand Comparison (With Up To BEA 2%)

Table 1.5.2-1 shows the comparison of anticipated supply and calculated demand over the next 20 years under a Single-Dry Year scenario. With this understanding, the City can anticipate a supply surplus in each year between 2010 and 2030. A surplus under this scenario implies there is no need to pump up to the current maximum BEA 2% level.

Table 1.5.2-1: Supply and Demand Comparison with Normal Year Supplies (AFY) With Up To BEA 2%

	Years				
	2009/2010	2015	2020	2025	2030
Supplies[1]	35,174	35,174	35,174	35,174	35,174
Demand[2]	32,526	32,526	32,526	32,526	32,526
DTSP Net Increase in Demand	371	371	371	371	371
BECSP Net Increase in Demand (Pending)[3]	1,180	1,180	1,180	1,180	1,180
Difference Between Supply & Demand	1,097	1,097	1,097	1,097	1,097
More Water Conservation? / (% More)[4]	N/A	N/A	N/A	N/A	N/A

Notes:
1. Table 1.1.8-4.
2. Demand is the sum of 2008 demand (31,691 AFY) plus previous evaluated projects (835 AFY).
3. Although project demand of 1,180 AFY is shown for Beach/Edinger Corridor Study, this project has yet been approved or adopted by the City.
4. Surplus in this example implies no need to pump up to the BEA 2%

Table 1.5.2-2 shows the comparison of anticipated supply and calculated demand over the next 20 years under a Single-Dry Year scenario. With this understanding, the City can anticipate a supply deficit of 338 AFY in each year between 2010 and 2030, which will require an additional 1.0% in water conservation to balance demand with supply.

Table 1.5.2-2: Supply and Demand Comparison with Single-Dry Year Supplies (AFY) With Up To BEA 2%

	Years				
	2009/2010	2015	2020	2025	2030
Supplies[1]	33,739	33,739	33,739	33,739	33,739
Demand[2]	32,526	32,526	32,526	32,526	32,526
DTSP Net Increase in Demand	371	371	371	371	371
BECSP Net Increase in Demand (Pending)[3]	1,180	1,180	1,180	1,180	1,180
Difference Between Supply & Demand	-338	-338	-338	-338	-338
More Water Conservation? / (% More)	Yes / 1.0%	Yes / 1.0%	Yes / 1.0%	Yes / 1.0%	Yes / 1.0%

Notes:
1. Table 1.1.8-4.
2. Demand is the sum of 2008 demand (31,691 AFY) plus previous evaluated projects (835 AFY).
3. Although project demand of 1,180 AFY is shown for Beach/Edinger Corridor Study, this project has yet been approved or adopted by the City.

Table 1.5.2-3 shows the comparison of anticipated supply and calculated demand over the next 20 years under a Multiple-Dry Year scenario. With this understanding, the City can anticipate a supply deficit of 833 AFY in each year between 2010 and 2030, which will require an additional 2.6% in water conservation to balance demand with supply.

Table 1.5.2-3: Supply and Demand Comparison with Multiple-Dry Year Supplies (AFY) With Up To BEA 2%

	Years				
	2009/2010	2015	2020	2025	2030
Supplies[1]	32,064	32,064	32,064	32,064	32,064
Demand[2]	32,526	32,526	32,526	32,526	32,526
DTSP Net Increase in Demand	371	371	371	371	371
BECSP Net Increase in Demand (Pending)[3]	1,180	1,180	1,180	1,180	1,180
Difference Between Supply & Demand	-2,013	-2,013	-2,013	-2,013	-2,013
More Water Conservation? / (% More)	Yes / 6.3%	Yes / 6.3%	Yes / 6.3%	Yes / 6.3%	Yes / 6.3%

Notes:
1. Table 1.1.8-4.
2. Demand is the sum of 2008 demand (31,691 AFY) plus previous evaluated projects (835 AFY).
3. Although project demand of 1,180 AFY is shown for Beach/Edinger Corridor Study, this project has yet been approved or adopted by the City.

In summary, with the ability to increase supply using groundwater through the allowable maximum BEA, the City can meet the demand for all previously evaluated projects, plus the demand from the proposed project, and pending demand from BECSP, for the Normal year scenario. Under both the Single-Dry year and the Multiple-Dry year scenario, an additional 6.3% in water conservation would be necessary to balance demand and supply.

1.6 CITY POLICY, WATER EFFICIENCY AND CONSERVATION MEASURES

Water conservation can play a significant role in ensuring that the City will meet its future water demands. Water conservation has been shown to reliably reduce water demands; thereby, extending existing water supplies and reducing the need for new supplies. This conservation is realized through hardware (water efficient fixtures), irrigation and landscape design, and behavioral changes in water use of residents and other customers.

As shown in Table 1.2.3-1 (10 Year Historical Demands 1999–2008), the average demand between 1999 to 2001 is 34,686 AFY, while the average demand in the last 3 years is 32,099, a difference of 2,587 AFY (7.5% reduction from 34,686 AFY). Furthermore, last year's demand is even lower at 31,691 AFY, a total difference of 2,995 AFY (8.6% reduction from 34,686 AFY). Although demand may increase per capita in the future, based on historical trends and data, along with continued water conservation technology improvements, efforts, education, and public awareness, it is not expected that demand per capita will increase.

1.6.1 City Policy: Water Efficient Landscape

City of Huntington Beach has a Water Efficient Landscape ordinance (Municipal Code 14.52.00) to reduce the new demands at the development. The ordinance guides new development projects through the process of designing, installing and maintaining water efficient landscaping.

1.6.2 City Policy: Water Management Program

City of Huntington Beach has a Water Management Program codified in Municipal Code 14.82.00. California Water Code Section 375 et seq. permit public entities, which supply water at retail to adopt and enforce a Water Management Program to reduce the quantity of water used by the people therein for the purpose of conserving the water supplies of such public entity. The City Council established a Water Management Program pursuant to California Water Code Section 375.

The Director of Public Works determines the extent of conservation or water use efficiency required through the implementation and/or termination of particular conservation stages in order for the City to prudently plan for and supply water to its customers.

As defined in Chapter 14.18 of the City's Municipal Water Code, a water shortage is declared based on one or more of the following conditions:

(a) A general water supply shortage due to increased demand or limited supplies.

(b) A major failure of the supply, storage and distribution facilities of the Metropolitan Water District of Southern California, or of the City occurs.

(c) A local or regional disaster, which limits the water supply.

On April 9, 2009, the City Council of Huntington Beach unanimously approved the Stage 1 Voluntary Conservation program of the City's Water Management Program.

1.6.3 City Policy: Water Use and Efficiency Master Plan

City efforts have begun preparation of a Water Use Efficiency Master Plan (WUEMP). In general, this proposed WUEMP is a key to creating reliable water for current and future water supply through more aggressive water conservation. This document will be comprised of methodologies, implementation strategies, plumbing fixture requirements and policies that will help the City efficiently use water and effectively reduce demands over the next 20 years. It is believed that the Master Plan will provide more creative and aggressive methodologies to help reduce overall outdoor water use throughout the City, to help the City customers to achieve the 20 percent per capita reduction in water use by 2020.

1.6.4 Water Conservation Measures

As Signatory to the Memorandum of Understanding (MOU) with the California Urban Water Conservation Council (CUWCC), the City has committed to a good faith effort in implementing the 14 cost-effective Demand Management Measures (DMM). "Implementation" means achieving and maintaining the staffing, funding, and in general, the priority levels necessary to achieve the level of activity called for in each DMM's definition, and to satisfy the commitment by the signatories to use good faith efforts to optimize savings from implementing DMM's as described in the MOU. A DMM as defined in the MOU is a "practice for which sufficient data are available from existing water conservation practices to indicate that significant conservation or conservation related benefits can be achieved; that the practice is technically and economically reasonable and not environmentally or socially unacceptable; and that the practice is not otherwise unreasonable for most water agencies to carry out."

1.6.5 Demand Management Measures

As signatory to the MOU, the City has committed to use good-faith efforts to implement the 14 cost-effective DMMs established by the CUWCC.

1.6.6 Necessary Water Conservation

Optimization of the conservation programs or strategies listed above along with implementation of the WUEMP will reduce demands throughout the City's service area. Water efficient fixtures in new developments, landscape and design improvements, and indoor fixture replacements and retrofits at existing connections would reduce indoor demands. In new developments this could be as high as 40 percent. In general, outdoor irrigation demands exceed indoor demands, for this reason, the City should focus its conservation efforts on reducing outdoor irrigation demands by requiring drought-tolerant landscaping at new developments, such as this project, replacing the existing high water use landscaping throughout the City and encouraging replacement or installation of drought-tolerant landscaping at residential connections.

As presented in Tables 1.4.1-1 – 1.5.2-3 above, with modest to aggressive conservation efforts employed during different supply scenarios—depending on the BPP and BEA—could effectively balance the supply and demand situations that may exist under the projected supply deficits.

If the City chooses to boost its conservation programs, consumption reductions would have a long-term benefit to the local groundwater basin. Future participation in other conservation programs may be funded as an option to offset additional water demands.

Upon implementation of various aggressive conservation measures, the City can balance supply and demands. Empirical evidence reported by other jurisdictions indicates that upon request for conservation, consumers in these service areas have responded positively and these jurisdictions have achieved 20 to 25 percent water savings.[4] However, under certain hydrologic conditions, or more specifically, due to further curtailments in the SWP only very aggressive conservation measures could overcome the supply deficit.

1.7 SUMMARY OF ANALYSIS

Notably, the statewide supply situation is subject to change annually and could return to normal or above-normal year precipitation in the near-term and then extend over many years. This assumes that water year history will repeat itself and these cyclical wet hydrologic periods return. In addition, forthcoming case law or new pumping technology could lift the SWP pumping restrictions; thereby, returning the system to firm delivery capacity.

The DTSP Update project is estimated to require a net increase of 371 AFY at build-out. Within the context of the City of Huntington Beach's projected demands through 2030, this represents slightly over 1 percent of total anticipated demands in the City. The proposed DTSP Update project's demands will be served through supplies from the Orange County groundwater basin managed by OCWD and imported water available from Metropolitan via MWDOC. As stated above, under the current supply situation, due to cutbacks in the SWP and reduced groundwater pumping - in all hydrologic years using BEA 2% additional pumping of the groundwater basin, supplies will be sufficient now and over next 20 years for both the Normal year, and Single-Dry year, while an additional 2.6% of water conservation will be necessary to balance supply and demand for Multiple-Dry years scenario.

If BECSP separately is approved by the City, the additional demand of 1,180 AFY, using BEA 2% additional pumping of the groundwater basin, supplies will be sufficient now and over next 20 years for the Normal year, while an additional 1.0% and 6.3% of water conservation will be necessary to balance supply and demand for Single-Dry year and Multiple-Dry years scenarios respectively.

As stated above, assuming the City of Huntington Beach chooses not to utilize its 2% BEA to reduce reliance on imported supplies without additional surcharge, City will then need to tighten some of the necessary conservation measures that the City will need to employ to balance supply and demand. Depending on the level of demand at the time, the difference in conservation ranges for all scenarios,

4 City of South San Francisco, 2005 Urban Water Management Plan, page 41.

with or without projected increase in water demand from BECSP, would vary between zero percent to 12.2% under a WSAP Stage 3.

At the present time, regardless of the programs, plans and strategies that Metropolitan, MWDOC or OCWD are engaged in, due to the supply deficiency in future Single-Dry and Multiple-Dry years as modeled in this WSA, it will be necessary for the City of Huntington Beach to use effective conservation measures including installation of water savings fixtures and drought-tolerant landscaping to alleviate the current and projected supply and demand situation.

1.7.1 Plan for Obtaining Sufficient Supply

SB 610 as stated in Water Code Section 10911(a) requires that if a WSA concludes there is insufficient supply or infrastructure to serve the project, that the plan to obtain sufficient supplies be presented in the WSA.

Seawater Desalination Plant

Desalination is a viable water supply for Huntington Beach at this time the City has approved a desalination facility, to be located on the AES property that will produce up to 50 million gallons per day of potable water. Conditions of approval for the project give the City the option of purchasing up to 3,360 AF per year (3.2 million gallons per day) on a firm basis and up to 8.4 million gallons per day of additional water in a declared water emergency for up to seven consecutive days, with additional water on an as-available basis.

Progress to Date: Poseidon Resources Corporation (Poseidon) is the project applicant/proponent for a desalination facility in Huntington Beach and the City has entered into an agreement with Poseidon. The City Council certified the Recirculated Environmental Impact Report for the project in September 2005 and approved the Conditional Use Permit and Coastal Development Permit in February 2006. Poseidon is in the process of obtaining a Coastal Development Permit from the California Coastal Commission. The project has also received several key permits, and construction could begin within the next five years.

Reclaimed Urban Runoff for Non-Potable Irrigation

When there is an opportunity to capture urban runoff, treated captured water can be distributed for non-potable irrigation purposes. For example, the City of Santa Monica captures 500,000 gpd (560 AFY) of urban runoff at its Santa Monica Urban Runoff Recycling Facility. After treatment the reclaimed runoff is distributed for irrigation purposes throughout Santa Monica.

OCWD Long Term Facilities Plan

In response to the requirements in Water Code Section 10911(a), OCWD through implementation of projects identified in the LTFP has taken the necessary steps to address multiple dry year deficiencies as well to provide continued reliable water service through the year 2030.

The LTFP provides a list of proposed projects that could be implemented to (1) increase the Basin's annual sustainable yield, and therefore accommodate additional pumping, and (2) protect water quality in the Basin. The various projects considered in the LTFP are grouped within the following five categories:

- Recharge Facilities
- New Water Supply Facilities
- Basin Management Facilities
- Water Quality Management Facilities
- Operational Improvement Facilities

LTFP project excerpts Executive Summary of the LTFP are listed herein:

> The LTFP considers 29 potential projects among the five [water supply] portfolios that could produce as much as 125,000 AFY of new water and corresponding similar increase in groundwater pumping over the next 20 years. Additionally these projects result in basin management, water quality, and operational improvements.
>
> Sixteen of the 29 projects within the LTFP create new water, subject to the availability of sufficient recharge water. The capital cost of these projects is $311 million. They have a total annual cost of $60 million, which includes O&M and debt service. Their estimated unit cost is $480/acre-feet. These estimated costs, which are based on year 2005 costs, do not include any grant funding, which, if received, would lower the cost.
>
> Thirteen of the 29 projects are within the seawater intrusion control, water quality management, and operational improvement categories. Calculation of a simple unit cost per acre-foot is not possible for these projects.
>
> If all 29 projects were constructed, capital costs for all projects would total $432 million with related O&M costs at about $64 million per year. Total annual costs are estimated at $89 million per year as presented in Table 7-1.[5]

[5] Orange County Water District. Draft Long-Term Facilities Plan. September 2005.

Table 1.6.1-1: Summary of Recommended Portfolios

Portfolio	Number of Projects	Maximum			
		Capacity (AFY)	Capital Cost ($M)	O&M Cost ($M/year)	Annual Cost ($M/year)
Recharge	7[a]	93,000[b]	124	14.3	21.5
New Water Supply	6[a]	22,000[c]	150	24.7	33.4
Basin Management – West Orange County	3	10,000[d]	37	3	5.1
Subtotal - New Water	16	125,000	311	42	60
Basin Management - Seawater Intrusion	3	~	90	18.1	23.3
Water Quality	4	~	22.5	2.8	4.1
Operational Improvements	6	~	8.8	1.3	1.9
Totals	29	125,000	432	64	89

Notes: Source: OCWD Draft Long-Term Facilities Plan 2005.

$M = million dollars

a. Mid-basin Injection included in New Water Supply Portfolio

b. Equivalent to 128 cfs additional percolation. Includes: Santiago Creek Recharge, Four New Recharge Basins, Desalting Facility, Vadose Recharge - Fletcher Basin, 5 Basin Cleaning Vehicles - Deep Basins, and Future Basins.

c. 23,600 AFY of GWR System Phase 1 flows for Mid-Basin Injection and Radial Recharge - Ball Basin, not included. Subsurface Recharge

d. Includes: Shallow Aquifer Development, Colored Water Development.

1.7.2 Summary of Plan for Obtaining Sufficient Supply

Water Code Section 10911 is specific in its legal descriptions in paragraphs (1), (2) and (3) for obtaining sufficient supply. The entire southern region of California is grappling with insufficient water supplies, and each water wholesaler and retailer has a responsibility to supply adequate supplies to its customers or member agencies. To that end, Metropolitan is working to bolster its regional supplies through a number of programs, plans, contracts, and new or expanded facilities. In order to help reduce regional demands, MWDOC as a member of Metropolitan enacted its WSAP the results of the rationing and savings on a regional level are not fully known.

OCWD as the groundwater basin manager prepared a GMP and established its LTFP to bolster and sustain the Orange County groundwater basin. As discussed above the LTFP has water supply goals, programs for increasing water supplies and financial accountability to obtain those goals and increase groundwater supplies.

City as the water provider to the project area has put forth adequate due diligence evaluations that show good faith efforts in both short and long-term water supply planning. Environmental review was completed for a desalination facility and the City has entered into agreements with Poseidon, the desalination proponent. The City has also granted its approval of the desalination facility.

The City will be also expanding and enhancing its conservation efforts through its WUEMP. Combined with creative and innovative water conservation recommendations through various resources, including from various previously approved to pending water supply assessments, all of which will be to reduce the City's regional demands and help to stabilize local groundwater supplies in the Orange County groundwater basin. Furthermore, when there is an opportunity to capture urban runoff, treated captured water can be distributed for non-potable irrigation purposes; thereby, firming up the reliability of potable water within the City boundaries.

Appendix H –
Gray Letter Attachment

THE ORANGE COUNTY REGISTER
ocregister.com

Distributed to Library Board on 8/18/09

Tuesday, June 23, 2009

Poll: Readers oppose Huntington Beach cultural center proposal

75% who answered poll said they did not want center to replace Main Street park and library.

By ANNIE BURRIS

The Orange County Register

HUNTINGTON BEACH – Readers overwhelmingly gave a thumbs down to a proposal to turn a Main Street library and local park into a cultural center, according to a recent Orange County Register online poll.

More than 420 people responded to a poll about preliminary city plans to put a cultural center in a downtown area that now has a library and a grassy field dubbed Triangle Park. City leaders said the plans are in their infancy and they are paving the road for developers to present projects that best utilize the area while working with the community .

The poll question posted Thursday asked, "What do you think should happen to Triangle Park and the Main Street library?"

Seventy-five percent did not want a cultural center in the area, with 47 percent asking that the park and library stay the same and 28 percent saying the library should be updated but the park left alone.

Only 24 percent said they wanted a cultural center that preliminary city plans say could be four stories tall and include a new library, performing arts venue, restaurant, museum, art gallery and underground parking.

What do you think should happen to Triangle Park and the Main Street library?

The city should not change the park or library.
47%

The city should update the library and leave the park.
30%

The city should make the area into a cultural center.
24%

Total Votes: 473