



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: John Stufflebean

SUBJECT: SEE BELOW

DATE: 09-27-06

Approved

Date

10-4-06

COUNCIL DISTRICT: 2

**SUBJECT: SAN JOSÉ MUNICIPAL WATER SYSTEM'S WATER SUPPLY
ASSESSMENT FOR COYOTE VALLEY SPECIFIC PLAN**

RECOMMENDATION

Approval of San José Municipal Water System's Water Supply Assessment for Coyote Valley Specific Plan.

OUTCOME

Approval of the Water Supply Assessment (WSA) is required in order for the City Municipal Water System (Muni Water) to be considered as a potential water supplier for the Coyote Valley Specific Plan (CVSP) in the development of the CVSP EIR.

BACKGROUND

For over two decades, the City has endeavored to provide for balanced, long-term growth in Coyote Valley. The CVSP is a comprehensive urban planning document that embodies this vision and lays the foundation for a self-contained community that will integrate over 50,000 new, industry-driving jobs and 25,000 new residences. The CVSP area is divided into three sub-areas (Campus Industrial Area, Urban Reserve, and Greenbelt) that together extend from the Coyote Narrows in the north to near Burnett Avenue in the south. The Campus Industrial Area (1,400 acres) and the Urban Reserve (2,000 acres) together make up the "Urban Area." The Greenbelt has been included in the CVSP to ensure comprehensive planning for the entire Coyote Valley area; however, no development is planned for the Greenbelt area (3,600 acres), which instead is planned to remain as a non-urban buffer between the cities of San José and Morgan Hill.

As required by California Water Code Section 10910 (Senate Bill 610), Muni Water has prepared a WSA (Attachment 1) to assess whether its existing and future water supplies for the

Coyote service area would be adequate to meet the CVSP water demands. California Water Code Section 10910, which became effective January 1, 2002, requires that a water supply assessment be provided to cities and counties by any retailer that may serve a project involving 500 or more residential units. The water supply assessment documents sources of water supply, quantifies water demands, evaluates drought impacts, and provides a comparison of water supply and demand so that a determination of water supply sufficiency can be made for large development projects.

The Department of Planning, Building and Code Enforcement (PBCE) notified Muni Water, San José Water Company and Great Oaks Water Company of their need to prepare a water supply assessment if they might serve water for CVSP. PBCE and their consultants, HMM Engineering, performed an analysis of the anticipated water demands associated with the project, and coordinated with the Santa Clara Valley Water District (District), the wholesale supplier and manager of the groundwater basin, to aid in the estimation of future water supply to the area. This information was provided to each of the potential retailers.

ANALYSIS

Muni Water retained the services of Todd Engineers to prepare a draft WSA for CVSP. The assessment concludes that Muni Water has sufficient water supplies to meet projected water demands during normal and dry years. Future water demands are based on proposed land use, housing, population, and other demographic data from the CVSP project. Projected maximum water demands in the Coyote Valley area attributable to the CVSP development are expected to increase by 15,540 acre-feet per year (AFY) at project build out.

Because the CVSP urban development will significantly increase water demand, all available water sources were analyzed to explore the possible alternatives for a cost-effective, reliable and flexible water supply system for the entire Coyote Valley region. A diversified portfolio of water supply sources will be essential in satisfying the future water demands of the CVSP and the Coyote Valley region as a whole. Water demands could be met from a combination of the following sources:

1. Groundwater Supply (District)

Groundwater is the current supply source for all potable water demands within Muni Water's Coyote Valley service area. Groundwater is available from the Santa Clara Valley Groundwater Basin, which is managed by the District in collaboration with other agencies. Muni Water currently operates three wells within the unconfined Coyote Valley subbasin portion of the larger groundwater basin. Combined capacity of the existing wells is approximately 4,400 AFY. The construction of additional wells, at an estimated cost of \$750,000 each, could increase the available groundwater supply to the Coyote Valley Subbasin's perennial yield of 8,000 AFY. If an additional 6,000

AFY of imported water were available for managed groundwater recharge, the perennial yield would increase to 13,000 AFY.

2. Imported Water (District)

The District has contracts with the California Department of Water Resources and the United States Bureau of Reclamation to receive, treat, and distribute surface water in the Santa Clara Valley. In 1972, the District entered into the first contract to supply the City with imported water. Another contract initiated in 1981 remains in effect until 2051.

Although no treated water is currently provided to Coyote Valley by the District, Muni Water receives treated water in the Evergreen service area. Muni Water's Evergreen and Coyote Valley service areas are considered to be parts of the same water system according to the Department of Health Services; therefore, delivery of treated water to Coyote Valley would be appropriate under the existing water system permit. In order to use imported water as a water supply source in Coyote Valley, Muni Water would need to extend a treated water transmission line into the Coyote Valley area. The estimated cost of an extension from the District's Snell Pipeline to Coyote Valley is \$8.5 million.

3. Tertiary-treated Recycled Water

Recycled water has been identified as a water supply source for the Coyote Valley service area. Tertiary-treated recycled water can provide for industrial processing, cooling, and non-potable restroom water demands. The existing recycled water distribution system extends into Coyote Valley to supply non-potable water for industrial cooling uses. The current recycled water system could be expanded to supply up to 5,600 AFY for the CVSP development.

4. Advanced-treated Recycled Water

The Coyote Valley Subbasin is an unconfined aquifer system, where surface water can readily percolate and recharge groundwater. The District's analyses indicate that any recycled water which could percolate into the subbasin should be advanced-treated to avoid possible negative impacts to the groundwater quality. Full advanced treatment includes both reverse osmosis and ultraviolet light treatment, or similarly effective treatment options. The District estimates that the cost to construct a plant capable of treating 5,600 AFY specifically for use in Coyote Valley is \$33 million. Energy costs may range from \$250 to \$400 per acre-foot, but may vary as energy costs fluctuate in the future. The maximum available supply of recycled water would be reduced by approximately 25% after treatment, due to the loss of water in the waste stream. After treatment, 4,200 AFY would be available to supply the non-potable demands of the CVSP development.

5. Increased Demand Conservation

Water use efficiency is a clear part of environmental sustainability. The City continues to work with the District and other agencies to conserve water and decrease overall system demand. In addition to the ongoing work in conservation, additional water efficiency measures could be promoted and implemented in the CVSP project to further decrease demand, including the use of high-efficiency fixtures and devices, use of drought tolerant and native plantings in landscaping, and dual plumbing of commercial and industrial buildings.

The water supply sufficiency was assessed under the following three supply scenarios:

- Scenario 1: Treated water, groundwater, and tertiary-treated recycled water for industrial uses
- Scenario 2: Treated water, groundwater, and advanced-treated recycled water for both irrigation and industrial uses
- Scenario 3: Treated water, groundwater, tertiary-treated recycled water for industrial uses, and increased demand conservation

Future demands can only be met through a portfolio of water supplies, and can be satisfied by each scenario assessed. The City will continue to work with the District to ensure long-term water supply reliability and avoid water shortages.

POLICY ALTERNATIVES

Alternative #1: Decline to approve WSA

Pros: Unknown.

Cons: Muni Water could not be considered as a potential water supplier to CVSP.

Reason for not recommending: Approval of the WSA will allow Muni Water to continue to be considered as a potential water supplier to CVSP, along with Great Oaks and San José Water Company, and will allow the project EIR to analyze the maximum number of available supply scenarios.

Alternative #2: Provide direction for revision of the WSA.

Pros: Unknown.

Cons: All options for which adequate information was available were analyzed; revision of the WSA could delay preparation of the project EIR.

Reason for not recommending: Lack of information to support; project delay.

PUBLIC OUTREACH/INTEREST

- Criteria 1:** Requires Council action on the use of public funds equal to \$1 million or greater. **(Required: Website Posting)**
- Criteria 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**
- Criteria 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

Although this action does not meet any of the criteria above, this memorandum is posted on the City's Council Agenda Website.

COORDINATION

The WSA was coordinated with the Department of Planning, Building, and Code Enforcement, the City Attorney's Office, and the Santa Clara Valley Water District.

COST SUMMARY/IMPLICATIONS

There is no cost associated with approval of the recommendation.

CEQA

Exempt, File No. PP06-158.


JOHN STUFFLEBEAN
Director

For questions please contact Mansour Nasser, Acting Deputy Director, at (408) 277-3671.

Attachment: Water Supply Assessment for Coyote Valley Specific Plan