

CITY OF AMERICAN CANYON

Public Works Department

December 13, 2007

Gateway to the Napa Valley



Hilary Gitelman
Napa County Planning Department
1195 Third Street, Room 210
Napa, CA 94559

RECEIVED

DEC 17 2007

SUBJECT: October 16, 2007, Request for Water Service "Will Serve" Letter
Napa County APN 057-090-075
Napa Airport Corporate Center, Phase I

NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

Dear Ms. Gitelman:

The City of American Canyon ("City") has received a request from Panattoni Development company ("the Applicant") through Chris Tibbits of Reichers Spence Associates for a "Will Serve" letter for improvements and use as described below related to the proposed improvement of real property located on Devlin Road south of South Kelly Road at Napa County Assessor's Parcel Number 057-090-075 ("the Property"). The request is subject to both City and State legal requirements as detailed below.

At the May 6, 2000, City Council meeting, the City of American Canyon adopted Ordinance No. 2000-04, which revised the City's "Will Serve" policy for development outside the City's Urban Limit Line but inside its Water Service Area. Under City Ordinance No. 2000-04, the City is required to impose certain conditions and exactions prior to receiving water service for the above parcel. On October 23, 2007, the City Council of the City of American Canyon adopted a Zero Water Footprint Policy, further defining its water policy. The City's understanding of the development of this property is based on the representations of the Applicant in a communication dated October 16, 2000, from Mr. Chris Tibbits which states that the proposed development and use of the Property is warehouse and industrial space.

The Applicant is proposing to develop a 50.7-acre industrial business park project entitled "Napa Airport Corporate Center Phase I", which will consist of 170,000 square feet on approximately 12.44 acres of the Property. The attached Water Supply Report outlines the anticipated water usage at the proposed development.

The use and water use are as follows:

General industrial:	170,000 square feet
Total lot acreage:	12.44 acres

Maximum Daily Water Demand in gallons per day:

Irrigation:	7,140 gpd
Office/industrial:	13,156 gpd
Combined peak daily water usage:	20,296 gpd

Annual Average Daily Water Demand in gallons per day:

Irrigation:	3,570 gpd
Industrial:	6,578 gpd
Combined peak daily water usage:	10,148 gpd

City Review

The City review of the proposed development is required as described previously, as well as established by City procedures which are meant to ensure that Will Serve Letters are only issued based on assumed water and sewer demands for specified allowed densities of development, taking into account the overall demand for water and the overall demand for effluent discharge within the City's system.

The City will provide the level of water service requested by the Applicant, subject to the following conditions and/or the continued existence of the following described conditions:

1. Applicant shall be subject to the City's rules and regulations in force at the time application for service for the authorized and described development is made, including all fees and charges, unless otherwise agreed in writing.
2. Applicant shall construct all facilities required to serve the development property which shall be determined by the City based on the authorized and described development. In this case, potable water main and recycled water main facilities shall be constructed in the Devlin Road extension. Applicant shall bear 100% of the costs of the facilities required to serve the development property, subject to review and approval of the City's Public Works Department. Applicant shall also be responsible for paying its proportionate fair-share allocation of any additional regional facilities required to serve the development property, including, but not limited to, participation in a mutual beneficial assessment district to be initiated by others.
3. Applicant shall submit to the City cost estimates for the construction of all on- and off-site public water facilities required for the authorized and described development. If the City finds the costs reasonable, the Applicant shall pay to the City an amount equal to Applicant's proportionate fair share of 5% of the agreed-upon construction costs to cover inspection services by the City during construction. This inspection fee is fixed and non-refundable. This Will Serve Letter is conditional upon the City's agreeing in writing to the estimated costs.
4. The Applicant shall waive all present and future protest(s) to a 40% surcharge on water rates for outside-the-City users or such other surcharge on water rates for outside-the-City uses as may be formulated by the City.
5. Because the City faces a cutback of up to 96% in its allocation from the State Water Project during extremely dry years, as documented by the City's Urban Water Management Plan, it is seeking additional water supply in the form of transfers of rights. The cost of this water supply is not known, nor is it included in the current City rates. The City is considering a drought surcharge on all customers, existing and new, in order to finance a drought reserve. The Applicant agrees to waive any protest to such a drought surcharge during its formulation and implementation and review under the California Environmental Quality Act, Public Resources Code section 21000 *et seq.* ("CEQA").
6. The City of American Canyon has submitted an application to the Local Agency Formation Commission ("LAFCO") to expand the City's Sphere of Influence to be consistent with its approved and adopted General Plan. The Applicant, Owner and its agents agree to actively support in writing the City in its SOI application before LAFCO.

7. LAFCO is currently considering how the City may extend water service outside its City Limits and SOI in association with the provisions of Government Code section 56133. The City represents that the provision of water service set forth in this communication is subject to LAFCO review as may be provided consistent with the provisions of Government Code 56133.
8. As a result of *Vineyard Area Citizens for Responsible Growth v. Rancho Cordova* (2007) 40 Cal.4th 412, the lead agency as defined under CEQA, here the County, in its environmental review of a development project, including what is currently proposed by the Applicant, must at a minimum accomplish an environmental review under CEQA that: (a) presents sufficient facts to evaluate the pros and cons of supplying the water that the project will need; (b) presents an analysis that assumes that all phases of the project will be built and will need water, and includes an analysis to the extent reasonably possible of the consequences of the impacts of providing water to the entire project; and (c) where it is impossible to determine that anticipated future water sources will be available, some discussion of possible replacement sources or alternatives to use of anticipated water and of the environmental consequences of those impacts must be presented. *Vineyard, supra*, 40 Cal.4th 430-434.
9. The Project shall be subject to the long-term and short-term mitigation recommended in the attached Water Supply Report.

This Will Serve Letter supersedes all prior purported Will Serve Letters and service commitments to the development of the Property with any use. This Will Serve Letter will remain valid for a period of two years from its date and is only valid for the authorized development. The City reserves the right to further condition extension of water service if development different from that presently proposed and authorized is pursued or if events out the City's control impact the City's ability to furnish water.

Except to the extent set forth, this letter does not create a liability or responsibility to the Applicant or to any third party on behalf of the City. The City does not make a determination as to land use entitlements required for the proposed project, and the issuance of this Will Serve Letter shall not be construed to be an expression of the City of a position regarding the use or intensity of use of the development property or that the County has complied with applicable law in assessing the proposed project under CEQA.

This Will Serve Letter only becomes effective upon acceptance of the conditions set forth in this letter by execution of the acceptance provision set forth below and the transmittal of the executed acceptance to the City Public Works Department.

Very truly yours,



Robert C. Weil
Public Works Director

cc: Richard Ramirez, City Manager
William D. Ross, City Attorney
George Condon, Panattoni Development Company
WillServe, Panattoni, Napa Airport Corp Park Ph1, Dec6, 07

ACCEPTANCE

I, _____, on behalf of Panattoni Development Company, who has authorized me to execute this document, accept the conditions set forth in this communication.

(Title) Date: _____

(Title) Date: _____



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NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

CITY OF AMERICAN CANYON
PUBLIC WORKS DEPARTMENT
205 WETLANDS EDGE ROAD
AMERICANCANYON, CA 94503

WATER SUPPLY REPORT

Napa Airport Corporate Center, Phase I

Napa County Assessor's Parcel Numbers
057-090-075

Prepared by:

Robert C. Weil, P.E.
Public Works Director/City Engineer

RCW
Approved



12/4/07
Date

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WATER SERVICE REQUEST

DESCRIPTION OF PROJECT

Panattoni Development Company is seeking a Use Permit and Tentative Map for an initial 12.44-acre phase of a project entitled the Napa Airport Corporate Center, located on Devlin Road in the vicinity of South Kelly Road. The zoning is IP (Industrial Park)/AC (Airport Compatible) and the anticipated usage for all of the buildings will be office/warehouse.

WATER SERVICE REQUEST

Average Daily Demand

Reichers and Spence prepared a report dated 10/12/07 calculating the water demand for the project, based on three similar warehouse projects in the American Canyon Water Service Area. The report concludes that the total water demand, excluding landscape irrigation, will be 6,578 gallons per day. Based on my review of water usage for other office/warehouse projects served by the City of American Canyon, this is a reasonable estimate.

Based on four years of data for five landscaped industrial projects in the City of American Canyon, the average landscape irrigation demand is 287 gallons per acre per day. Thus, the estimated average landscape irrigation demand for this project will be 3,570 gallons per day.

The total annual demand equals 11.36 acre feet per year (AFY).

Peak Day Demand

Reichers Spence, in their response to the City of American Canyon Will Serve Questionnaire, estimates that maximum day demands will be twice the average day demands. Thus, the maximum day demand is 20,296 gallons per day.

Conservation Measures Included in Project

The project includes several water conservation measures, including:

- Dual plumbing for future conversion of toilets to recycled water
- Drought-tolerant landscaping

CONSISTENCY

URBAN WATER MANAGEMENT PLAN

The project's estimated total annual demand, 11.36 AFY, is substantially consistent with the demands estimated in the Urban Water Management Plan. The Urban Water Management Plan estimated 9.05 AFY, but assumed that only 16% of the non-vineyard demands outside of the then-approved sphere of influence would be met by recycled water. The Reichers Spence report dated 10/12/07 estimates that 1,645 gallons per day of interior demand will be met with recycled water based on dual plumbing. All of the 3,570 gallon per day landscape irrigation demand can be met with recycled water. Thus,

the project's estimated average demand for potable water is 4,933 gallons per day, or 5.52 AFY, well below the Urban Water Management Plan estimate after subtracting 16% for recycled water.

RECYCLED WATER FACILITIES PLAN

The project is consistent with the Recycled Water Facilities Plan, which included service to industrial properties along Devlin Road and South Kelly Road. The project's 5.84 AFY of estimated demand will provide a stable rate base for the recycled water enterprise.

WATER CONSERVATION GUIDELINES

The project has not yet been reviewed for consistency with the Water Conservation Guidelines adopted by the City Council on 10/23/07. This should be accomplished prior to issuance of a building permit.

CONSISTENCY WITH ORDINANCE 2000-08

Ordinance 2000-08 states that all projects within the City of American Canyon water service area, both within and outside of City limits, are subject to a limit of 650 gallons per acre per day average annual water demand. The project's potable water demand is 397 gallons per acre per day. Thus, it is consistent with the ordinance.

WATER FOOTPRINT

ZERO WATER FOOTPRINT DEFINITION

On October 23, 2007, the City Council of the City of American Canyon adopted the following definition of Zero Water Footprint (ZWF):

No loss in water service reliability or increase in water rates to the City of American Canyon's existing customers due to the requested increased demand for water in the City's water service area.

Appendix A provides the process for water service requests considered by the City Council as part of their policy decision on Zero Water Footprint.

The important ZWF policy decision followed shortly after the Napa County Local Agency Formation Commission (LAFCO) adopted Policy Resolution 07-27 on October 15, 2007, which established that water service requests outside the City of American Canyon city limits but within the Airport Industrial Area are not subject to LAFCO review. Because the City of American Canyon lacks land use jurisdiction in this area, it became necessary to implement a policy and process that protects the reliability and financial viability of the City's water enterprise while providing a predictable outcome for those seeking new or increased water service.

It is the City of American's policy that the ZWF policy and process apply equally both within the City limits and within the approved extraterritorial service area.

PROJECT'S IMPACT ON RELIABILITY

The Urban Water Management Plan finds that, as of 2005, the City of American Canyon would experience a shortfall in water supplies in multiple-dry-years of up to 427 acre feet and single-dry-years of up to 897 acre feet. Due to increased demand, the shortfall would worsen even as additional supplies are obtained. By the year 2015, the City of American Canyon would experience a shortfall in multiple-dry-years of up to 1,037 acre feet and in single-dry-years of up to 1,557 acre feet. By contributing to the shortfall, the project would reduce the reliability of American Canyon water service.

PROJECT'S IMPACT ON RATES

The project would not have an impact on rates.

PROJECT'S WATER FOOTPRINT

The project does not have a zero water footprint. It would result in a loss in water service reliability due to the increased annual water demand without an offsetting source of supply. Thus, this Water Supply Report has been prepared to analyze the project's contributions and impacts in detail.

PROJECT'S CONTRIBUTION

CAPACITY FEE

Based on the Water and Wastewater Rate and Fee Study prepared by Bartle Wells and Associates for the City of American Canyon and the December 4, 2007 approval of the first reading of a Water Capacity Fee Ordinance, the project would generate water capacity fees of \$347,264, based on the peak day demand of 20,296 gpd times \$17.11 per gallon.

REIMBURSEABLE IMPROVEMENTS

The project will be required to complete a recycled water main along Devlin Road frontage. This recycled water main is not eligible for reimbursement from the City under Ordinance 2001-03.

The project will also be required to complete a new water main along the Devlin Road frontage. To the extent that this water main exceeds the standard water main size, it will be eligible for reimbursement.

CAPITAL PROGRAM STATUS

SUMMARY

The City of American Canyon's Water Capital Program will address the supply shortfalls identified in the 2005 Urban Water Management Plan and will meet the treatment, storage, and distribution needs as the City implements its General Plan. Appendix B describes the program in detail.

SYSTEM PLANNING STATUS

The City of American Canyon is currently preparing an Integrated Water Management Plan, which will address all water resources – drinking water, recycled water, wastewater, groundwater, creeks and wetlands in a comprehensive way. The study was initiated in December 2006 and Phase I is nearing completion. The work products within Phase I include a technical review of the water treatment plant, goal setting and performance criteria, a water loss audit, an analysis of existing conditions, a report on threatened and endangered species constraints, an estimate of anticipated resource demands, feasibility study of a high capacity well field, feasibility study of a well in the Newell Open Space Preserve, a funding assistance survey, a facilities plan for wastewater improvements, and an analysis of the alternative water resource solutions.

Phase II of the Integrated Water Management Plan has been initiated. Phase II will include a wastewater source identification and local limits study, an investigation into corrosion problems in a portions of the water system, a water conservation feasibility study, a unified hydrology analysis, and a feasibility report for a dispersed well system.

Concurrently, a water and wastewater rate and capacity fee report was prepared. It proposes substantial increases in water and wastewater rates and in capacity fees. It has been approved by the City Council at a public hearing on December 4, 2007.

The Blue Ribbon Committee on Water Resources was formed in March 2007 to serve as a sounding board on all water related issues. The committee includes elected and appointed City leaders, long-term residents, newer residents, developers with interests inside and outside the City limits, vineyard owners, business owners, agency

representatives, a County Supervisor and a retired water professional. Water, Wastewater, Recycled Water, Finance and Creeks/Wetlands Subcommittees have been formed. The full committee has met eight times, and the subcommittees have met numerous additional times. The Blue Ribbon Committee is expected to remain active for the next two years as the Integrated Water Management Plan is completed and initial projects are implemented.

WATER SUPPLY

Water Supply Implementation Status

The status of the water supply projects in the Draft Final Water and Wastewater Rate and Fee Study is as follows:

- Water rights - Purchase of 1,560 annual acre feet of water rights from Sacramento Valley agricultural interests. The City of American Canyon, the City of Napa and the Napa County Flood Control and Water Conservation District have met with one interested seller, who provided a letter summarizing the availability and possible terms for the water supply. They indicated that the requested amount would be available to the City of American Canyon for long-term transfer. During cutbacks north of the Delta of the Central Valley Project, the transfer would be subject to a reduction of 25%. The long-term transfer of appropriative rights would require approval by the State Water Resources Control Board. About three years would be needed to complete the long-term transfer. Short-term transfers are also available on a year-to-year basis.

Water Code Section 109 contains a declaration of state policy favoring voluntary water transfers, and directs the Department of Water Resources, the State Water Resources Control Board and all other state agencies to encourage voluntary water transfers. Water Code section 475 contains legislative findings and declarations favoring voluntary water transfers.

The Sacramento Valley Integrated Water Management Plan promotes water transfers, both within the Sacramento Valley and outside of it, as one of its key water management strategies.

- North Bay Aqueduct expansion - Project to expand the ability of the North Bay Aqueduct to deliver more water. An increase of 5.5 cubic feet per second (cfs) in conveyance capacity would allow the City of American Canyon to treat an additional 3.5 million gallons per day during peak months of the year. It would provide conveyance capacity for approximately 3,300 acre feet per year.

The Department of Water Resources completed a study in 2005 which confirmed the feasibility of expanding the conveyance capacity of Reach 3a of the North Bay Aqueduct from 46 to 65 cfs. The project would replace the four existing pumps and motors, furnish and install a new air chamber, furnish and install new check valves, furnish and install required electrical equipment, and furnish and install a parallel 36-inch steel pipeline from the surge tank to the terminal tank(s).

Currently, the County of Napa and the California Department of Transportation (Caltrans) are performing environmental review on a

project to widen Jameson Canyon Road (SR 12). When it is constructed, about half of the length of the North Bay Aqueduct will need to be relocated out of the roadway at the expense of the highway project. This would be an appropriate time to expand the North Bay Aqueduct. The agenda for the November 2007 meeting of the Napa County Water Technical Advisory Committee includes a discussion of this opportunity.

- North Bay Aqueduct terminal tank replacement - Project to replace and expand the seismically deficient water tank at the end of the North Bay Aqueduct. One 7 million-gallon open air tank is being replaced with two 5-million gallon enclosed tanks. This project is under construction.
- Vallejo water rights purchase - Exercise remaining potable water contract options from city of Vallejo for use in times of drought. The 1996 contract between the City of American Canyon and the City of Vallejo currently provides the City of American Canyon with treated water in the following amounts:
 - A maximum of 2.15 million gallons per day on a peak day or
 - A maximum of 1.3 million gallons per day for a peak month or
 - A maximum of 1,351 acre feet per year

The contract also provides for 500 acre feet of raw water, available through Vallejo's riparian permit. It also provides for an additional 500 acre feet of raw water per year during emergency conditions.

The contract provides options for the City of American Canyon to purchase additional capacity in the following periods:

- 2007-2011, 1.15 million gallons per day on a peak day
- 2012-2016, 0.9 million gallons per day on a peak day
- 2017-2021, 0.9 million gallons per day on a peak day

The total water supply available under the remaining options is 1,854 AFY.

The Integrated Water Management Plan will guide the City's decision on whether to execute the remaining potable water contract options with Vallejo or to use the capacity fees for more cost-effective supply sources.

- Emergency groundwater bank - American Canyon's share of project to "bank" groundwater for times of emergency. The feasibility of this project is currently being investigated as part of the Integrated Water Management Plan. It is conceived as a high-yield well field which serve as a regional facility for municipalities in Napa County. Based on initial hydrogeology investigation, Soscol Creek would be one probable location for such a high-yield well field. Wells in this vicinity have been found to produce high-quality water at rates of 800 – 1,200 gpm,
- Water conservation program implementation - Project to fully implement the City-approved Water Conservation Guidelines. The City's current water conservation program includes rebates for low-flow toilets, public education, leak detection, and a master irrigation controller for City parks. A Water Conservation Implementation Plan has been drafted to fully

implement the Best Management Practices of the California Urban Water Conservation Council, of which the City of American Canyon is a member. It sets forth guidelines for new development and provides an implementation plan for new programs such as conservation pricing, a water conservation ordinance, enhancement of the leak detection programs, enhancements to the public awareness program, and enhancements to the rebate programs. It estimates that 744 AFY will ultimately be supplied through water conservation. Startup costs for several of these programs are included in the capacity fee, and several startups are already in progress.

On January 1, 2008, the City will initiate a clothes washer rebate program in partnership with other Bay Area water agencies and PG&E. The rebate program is partly funded through a State of California Proposition 50 grant. It will provide rebates ranging from \$125 - \$200 depending on the washing machine efficiency.

- Recycled water implementation – Project to implement the Recycled Water Facilities Plan approved by the City Council in 2003. Currently, the City of American Canyon recycles 100 AFY of wastewater to a vineyard directly adjacent to the Wastewater Treatment Plant. The permit for recycled water distribution was issued in 2005. Further expansion of the system will require completion of one remaining segment of pipeline and a storage tank. The 1.0 million gallon storage tank, Recycled Water Tank #1, has been designed and has received environmental approval and all necessary permits. It will be completed concurrently with East Tank #1 by December 31, 2009. The pipeline will be completed with the American Canyon Road project, which is being designed and will be completed by December 31, 2010. The City has received a \$2.5 million Proposition 50 grant for constructing the recycled water distribution system, which requires that the system be completed by 2010 and achieve 1,000 AFY of distribution by 2011.

Additionally, the Napa Sanitation District is implementing a recycled water system in the City's extraterritorial service area, which includes the Airport Industrial Area. Landscape irrigation within significant portions of the Napa Valley Gateway Business Park have been converted to recycled water. Based on analysis of the water use since this conversion has taken place, potable water use has been reduced by approximately 50% for the properties served by recycled water. The Napa Sanitation District has adopted a Recycled Water Strategic Plan which calls for converting all of the landscape irrigation in the Airport Industrial Area to recycled water. Additionally, several industrial users are committed to using recycled water for their process demands. The Urban Water Management Plan estimated the ultimate yield from this source of supply to be 226 acre feet per year, which represents less than 20% of the ultimate Airport Industrial Area demand and appears to be conservative (low). The scope of the Integrated Water Management Plan includes a more comprehensive estimate of ultimate recycled water demand in this area.

The Napa Sanitation District is also pursuing a recycled water Aquifer Storage and Recovery (ASR) project. They have completed a

hydrogeological investigation of five alternate sites, which concluded that two locations in Jameson Canyon were feasible. They are now performing detailed investigation of the preferred site, which is located in lower Jameson Canyon. The ASR project would benefit American Canyon's water supply by improving the reliability of the NSD recycled water supply. It could also serve as a supplemental source to the City of American Canyon during peak summer irrigation periods when the wastewater treatment plant does not generate sufficient supply.

In summary, the City's long term water supply and demand situation is as follows:

Table 1

LONG TERM WATER SUPPLY AND DEMAND			
Source	Normal Year	Multiple-Dry-Year	Single-Dry-Year
State Water Project	3,640	1,976	1,508
Current Vallejo Potable Water Contract	1,351	1,216	1,216
Current Vallejo Contract for Raw Permit Water	500	450	450
Current Vallejo Contract for Raw Water during Emergencies		450	450
Subtotal, Current Supplies	5,491	4,091	3,623
City of American Canyon Recycled Water	1,000	900	900
Napa Sanitation District Recycled Water	226	203	203
Water Conservation	744	744	744
Water Transfer from Sacramento Valley	1,560	1,170	1,170
Remaining Vallejo Potable Water Contract Options	1,854	1,668	1,668
Subtotal, Additional Supplies	5,384	4,685	4,685
Total Long Term Water Supply	10,875	8,776	8,308
(Demand)	(7,026)	(7,026)	(7,026)
Surplus/(Shortfall)	3,849	1,750	1,282

The City of American Canyon has developed a capacity fee program which, when implemented, will ensure an adequate supply of potable and recycled water to meet demands under normal years, multiple-dry-years and single-dry-years

Water Supply Alternatives

The Blue Ribbon Committee is currently evaluating alternative water supplies. One of the most promising would be to harvest the rain that currently falls on American Canyon by tapping into groundwater supplies. If groundwater wells yielding 4.5 mgd could be developed, it would not be necessary to purchase additional Vallejo options or to expand the North Bay Aqueduct. Bulletin 118 from the California Department of Water Resources states that wells up to 300 gallons per minute are found in American Canyon's groundwater subbasin, the Napa-Sonoma Lowlands. A well reportedly yielding 400 gallons per minute is located on the American Canyon High School property, and the Napa Valley Unified School District has indicated that they would willingly negotiate with the City of American Canyon to make this well available for municipal use. It would require 11 wells yielding 300 gallons per minute to meet the peak demand. Groundwater research was recommended by the Urban Water Management Plan and is being completed through the Integrated Water Management Plan.

WATER TREATMENT

Water Treatment Implementation Status

The City has two water treatment facilities, side-by-side on the same site at 205 Kirkland Ranch Road: a 2.5 million gallon per day (mgd) conventional treatment plant completed in 1976, and a 3.0 mgd advanced technology treatment plant completed in 2004. The advanced technology treatment plant uses membranes manufactured by Zenon Corporation, as does the wastewater treatment plant.

Additional treatment capacity is needed to achieve the General Plan EIR peak day demand estimate of 10.0 mgd. The membrane plant was designed to accommodate an additional 3.0 mgd expansion within the existing structure. This is included in the capital fee capital program. Expansion to the North Bay Aqueduct (NBA), as discussed above, would be needed to meet the peak day flow requirements for this additional treatment. Under this approach, the total treatment plant capacity would be 8.5 mgd. The remaining 1.5 mgd of peak treated water capacity could come from the City of Vallejo through the water supply contract discussed above. The Vallejo contract currently provides up to 1.3 mgd of peak day capacity during a peak month, which would be more than adequate to meet the treatment gap. If all of the remaining options were executed, the Vallejo contract would provide up to 3.1 mgd of peak day capacity during a peak month. An additional metering station would be needed to deliver this water to the City of American Canyon distribution system; this metering station is included in the capacity fee capital program.

Water Treatment Alternatives

The City of American Canyon also enjoys a physical connection to the City of Napa's treated water supply. Currently, the City of Napa treated water is provided on an informal basis in the absence of an agreement. The City of American Canyon is currently negotiating with the City of Napa on a long-term contract.

WATER STORAGE, TRANSMISSION, AND DISTRIBUTION STATUS

Two additional storage tanks for treated water are needed to support anticipated fire flows and daily demands for the cumulative condition. East Tank #1, a 2.5 million gallon potable water tank, has been designed for a site to the east of Newell Drive. The base

of the tank will be set at elevation 195 to match the existing Oat Hill #1 tank. The two tanks together will serve the main pressure zone in the City of American Canyon. Negotiation is underway for the site for East Tank #1. A mitigated negative declaration has been completed, the plans and specifications are 95% complete, and regulatory permits have been obtained. The land is to be acquired by June 30, 2008 and construction is to be completed by December 31, 2009.

A variety of projects are included in the capacity fee capital program to expand the water distribution system, to repair existing deficiencies, or a combination of the two. Currently, Flow Control Valve (FCV) #9 overly restricts water flow from the treatment plant to distribution system. A project is planned to relocate it, expanding flow capacity. The backbone of the distribution system is a 14" diameter transmission main which runs down SR 29; it was built in the 1950s, is badly corroded and is being replaced in segments. As it is replaced, additional capacity will be added and water loss will be reduced. As demands grow, there is a need for additional connections across SR 29; project is planned to complete three connections. Similarly, development on the east side of SR 29 will require closing gaps in the existing water main. Ultimately, increased flows from the water plant will require transmission improvements, either a pump station or another pipeline, on the east side of SR 29.

WATER CAPITAL PROGRAM FINANCIAL STATUS

The Water Capital Program is primarily funded by capacity fees, supplemented by capital funds from the Water Operations Fund. The City of American Canyon has adopted a fiscal policy which requires new development to fully fund improvements needed to serve that development. Accordingly, the City's Blue Ribbon Committee on Water Resources recommended that the City Council approve a significant increase in the water capacity fee. The capacity fee for a single-family residence is proposed to increase from the current rate of \$6,445 to a new rate of \$11,634. The fees were approved at a public hearing on December 4, 2007.

VINEYARDS ANALYSIS

VINEYARDS DECISION

The California Supreme Court decision "Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova and Sunrise Douglas Property Owners Association et. al" sets forth guidelines for evaluating the water supply of a project under the California Environmental Quality Act (CEQA). It requires that water supplies not be illusory or intangible, that water supply over the entire length of the project be evaluated, and that environmental impacts of likely future water sources, as well as alternate sources, be summarized.

Facts with respect to solutions to water supply problems

The City of American Canyon has developed a capacity fee capital program which, when implemented, will ensure an adequate supply of potable water and recycled water to meet demands under normal years, multiple-dry-years, and single-dry-years.

Water supply over the life of the project

The water demands evaluated in this report represent the first phase of a larger project which will ultimately occupy 50.7 acres. However, the usage per acre on the later phases of the project are expected to be similar to those on the first phase, and these demands are substantially consistent with the demands assumed in the 2005 Urban Water Management Plan and the 2003 Recycled Water Facilities Plan.

Impacts of likely future water sources

Potential environmental impacts of purchasing a permanent transfer of 1,560 acre feet per year of water rights from Sacramento Valley agricultural interests have not yet been evaluated. However, because the water would be used to make up shortfalls in the State Water Project supplies and would be conveyed using existing State Water Project facilities, the transfer would not require the construction of any new facilities. Also, such an intra-regional transfer would be consistent with the Sacramento Valley Integrated Regional Water Management Plan, which has been subject to significant public input and environmental review. Lastly, several of the potential sellers of water rights have completed environmental review of similar permanent transfers.

The environmental review of North Bay Aqueduct expansion has not been initiated. However, the area of disturbance of the pipeline would largely be included within the area impacted by the Jameson Canyon (SR 12) widening project, which is currently being evaluated by Caltrans through a mitigated negative declaration.

No environmental review has been performed for a potential emergency groundwater bank. However, such a groundwater bank is intended to improve the reliability of water supplies and is not serve as a primary water source. Also, it should be noted that wells in the vicinity of Soscol Creek historically served the American Canyon area as well as portions of Solano and Contra Costa counties with potable water supply. The wells have been inactive since the mid-20th century.

No additional environmental review would be needed to execute the remaining options for treated water supply from the City of Vallejo because these options are

included within the 1996 contract. An Environmental Impact Report was prepared when this agreement was executed.

Water conservation would result in no negative impacts to the physical environment.

A mitigated negative declaration was prepared for the recycled water distribution system when the Recycled Water Facilities Plan was adopted by the City Council in November 2003. Impacts were minimal because the pipelines were to be located in existing public rights of way.

Possible replacement sources and their impacts

Development of groundwater as an alternative municipal supply is currently under study as part of the Integrated Water Management Plan. Potential environmental impacts have not yet been evaluated. However, 41 existing wells are included in the Department of Water Resources records for the City of American Canyon area. The average flow rate for these wells varies from approximately 5 to 20 gpm, with the total between all wells of approximately 500 gpm. This does not include the well on the high school property. Most, if not all, of these wells will eventually go out of service as City of American water service is supplied. Thus, a minimum of 500 gpm, which would equate to 807 AFY, would be available without increasing the rate of withdrawal of groundwater.

RECOMMENDED MITIGATIONS

LONG TERM WATER MITIGATIONS

The potable and recycled water impacts of the Napa Airport Corporate Center will be fully mitigated by the financial contribution it will make to the water capacity fee program.

SHORT TERM WATER MITIGATIONS

It is assumed that the project will be occupied by April 1, 2009.

The additional source of supply from acquiring a permanent transfer of water rights from Sacramento Valley agricultural interests will not be available until the 2011-12 water year at the earliest, based on three years from the anticipated approval of the capacity fee capital program in December 2007.

The recycled water system will not be implemented in this vicinity until the 2011-12 water year, assuming formation of a Community Facility District in 2008 and a three year design and construction period.

A decision will not be made as to executing the 2007-2011 option under the Vallejo water contract until after the Integrated Water Management Plan is completed in 2009. If an alternate supply is chosen, it would require a minimum of two years to implement.

Thus the project would result in potential reliability impacts during multiple-dry-year and single-dry-year conditions during the 2009-10 and 2010-11 water years. This impact can feasibly be mitigated, however, by providing funds to the City of American Canyon to purchase dry-year water, if necessary. Dry-year water is available either through the State Water Project Contractor's Association or from individual sellers. The cost of dry-year water is currently on the order of \$200 per AF per year, and no environmental review is required on a one-year transfer. Acquisition of one-year water transfers for the 2009-10 and 2010-11 water years will mitigate short term impacts, as follows:

Table 2

SHORT TERM MITIGATION					
Water Year	Percent occupied	Annual demand (AF)	Water needed (AF)	Estimated cost/AF	Short-term mitigation
2009-10	50%	11.36	5.68	\$220	\$1,250
2010-11	100%	11.36	11.36	\$240	\$2,726
Total					\$3,976

The project will contribute the above amounts as non-refundable payments to the water operations fund to allow the City to acquire dry-year water, if necessary. If the long-term mitigations are not in place prior to the 2011-12 water year, the project will continue to make annual non-refundable payments until the short-term impacts are mitigated by completion of long-term improvements.

OPPPORTUNITIES TO REDUCE PROJECT'S WATER FOOTPRINT

ON-SITE CONSERVATION OPPORTUNITIES

The project will be reviewed for additional on-site conservation opportunities during the building permit plan review process.

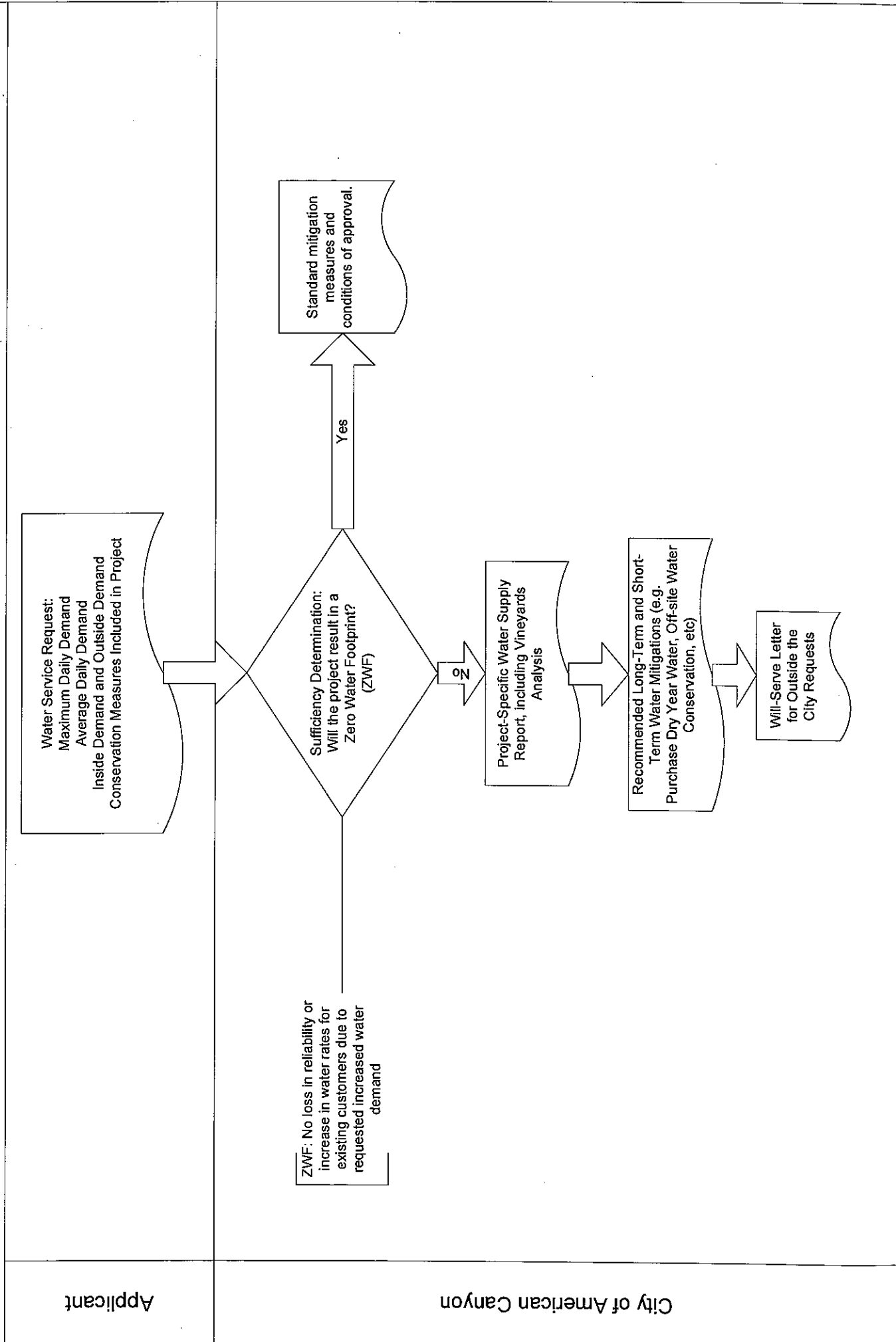
OFF-SITE CONSERVATION OPPORTUNITIES

The project could reduce its water footprint by including one or more of the following off-site water conservation opportunities:

- Conversion of existing toilets to high-efficiency toilets
- Conversion of existing washing machines to high-efficiency, front-loading washing machines
- Conversion of existing urinals to waterless urinals
- Conversion of existing irrigation demands from potable water to recycled water
- Conversion of existing industrial demands from potable water to recycled water

APPENDIX A
WATER SERVICE REQUEST PROCESS

City of American Canyon Water Service Request Process



APPENDIX B

WATER CAPACITY CAPITAL PROGRAM PROJECTS

City of American Canyon

Water Enterprise Capital Improvement Program Summary

Project Name	Project Description/Need	Cost	Ratepayers	Development
Water supply				
Water rights	Purchase of 1,560 annual acre feet of water rights from Sacramento Valley agricultural interests	\$7,500,000	0%	100%
North Bay Aqueduct expansion	Project to expand the ability of the North Bay Aqueduct to deliver more water	4,400,000	0%	100%
North Bay Aqueduct interest payments	Ongoing interest payments for loan to build North Bay Aqueduct	1,440,000	47%	53%
North Bay Aqueduct terminal tank replacement	Project to replace and expand the seismically deficient water tank at the end of the North Bay Aqueduct	2,165,000	47%	53%
Vallejo water rights purchase	Exercise remaining potable water contract options from city of Vallejo for use in times of drought	12,295,908	0%	100%
Emergency groundwater bank	American Canyon's share of project to "bank" groundwater for times of emergency	1,200,000	0%	100%
Water conservation program implementation	Project to fully implement the City-approved Water Conservation Guidelines	400,000	0%	100%
Water treatment				
Zenon cassette addition	Project to improve treatment of water at membrane treatment plant, anticipating future regulations	50,000	0%	100%
Zenon plant expansion	Project to expand potable water treatment from 5.5 mgd to 8.5 mgd	3,000,000	0%	100%
Sludge handling expansion	Project to increase ability to handle sludge generated during water treatment	500,000	0%	100%
Recycled water				
Phases 1-6	Projects required to develop recycled water as a water source, includes new pipelines and a recycled water reservoir	15,608,500	0%	100%
Transmission, Distribution and Storage				
East Tank #1	New water tank in main pressure zone required to meet needs of future growth	4,500,000	0%	100%
East Tank #2 (High School Tank)	New water tank in high pressure zone provides benefits for both new growth and reduced pumping costs to City	4,000,000	0%	100%
Hwy. 29 crossings	Projects required to increase connections across SR 29 as demand grows	400,000	0%	100%
14" realignment/replacement	Replacement of badly corroded pipeline to reduce water loss and increase capacity	3,000,000	47%	53%
Waterline Eastside of 29 (W-14 and W-15)	Project to close gaps in new water line to serve development on east of SR 29	1,500,000	30%	70%
Broadway Vallejo potable water metering station	Required to increase the capacity of potable water delivery from Vallejo	300,000	0%	100%
Eastern sphere transmission improvements	Improvements to handle increased water supply from treatment plant	400,000	0%	100%
Repairs/Upgrades				
Conventional plant electrical upgrade	Electrical system at conventional water treatment plant require replacement	300,000	100%	0%
Conventional plant valve replacement	Flow control valves at conventional water treatment plant require replacement	75,000	100%	0%
FCV #9 Modification (relocation of tank outfall)	The flow control valve #9 overly restricts water flow from the plant and will be relocated	100,000	100%	0%
Enhanced treatment process	Enhancements at treatment plant to meet higher water quality standards	750,000	47%	53%
Conventional plant filter media replacement	The treatment media at the conventional water treatment plant is due for replacement and upgrade	125,000	47%	53%
Acid addition system	Project to upgrade treatment to allow for acid addition during treatment process	175,000	47%	53%
Water system SCADA	Supervisory Control and Data Acquisition system allows for remote sensing and control of water system.	300,000	47%	53%
Other				
Integrated Water Management Plan - Phase I and II	Long-range planning project that allow the City to develop comprehensive technical plan for entire water system	500,000	47%	53%
Corp yard improvements	Project to replace the City Corporation Yard, which lies in the floodplain and is subject to disruption in emergency situations	5,000,000	47%	53%
		\$69,984,408	\$7,304,154	\$62,680,254

City of American Canyon
Wastewater Enterprise Capital Improvement Program Summary

Project Name
Pump station upgrades Phase 1
Wellands Edge Rd force main upgrade
Zenon cassette
Phase 1 treatment upgrades (1)
Phase 2A treatment upgrades (2)
Phase 2B treatment upgrades (3)
Sludge pond #2 liner replacement
WWTP electrical system repair
Wastewater system SCADA
IWMP (50%)
I/I Reduction
Force main addition (Sunset to WWTP)
Corp yard improvements
Lombard pump station
Main pump station replacement
Broadway & American Canyon Road Sewer Upsizing
Broadway & S. Napa Jct. Rd. Sewer Upsizing
Upgrade Green Island Pump Station

Project description/need	Projected cost and financing
Pumps replaced to handle increased wastewater flows	\$320,000 0% 100%
Critical project required to replace and upgrade force main which carried 90% of wastewater flow in City	2,100,000 67% 33%
Additional cassettes to increase wet weather flow capacity	887,631 67% 33%
Increases capacity from current 1.9 mgd to 2.5 mgd	3,000,000 0% 100%
Increases capacity from 2.5 mgd to 2.75 mgd and lays foundation for future expansions	6,600,000 0% 100%
Increases capacity from 2.75 mgd to 3.75 mgd to meet General Plan requirements	10,950,000 0% 100%
Liner in Pond #2 must be replaced	1,200,000 100% 0%
Existing electrical system in plant must be repaired and upgraded	1,200,000 80% 20%
System for monitoring and controlling the wastewater treatment system	300,000 67% 33%
Long-range planning project that allow the City to develop comprehensive technical plan for entire water system	500,000 0% 100%
Program that reduces wet weather infiltration into sewer pipes which improves function of wastewater treatment plant	6,000,000 10% 90%
Second forcemain required to bring wastewater flows to treatment plant to meet buildout flow levels	3,000,000 0% 100%
Project to replace the City Corporation Yard, which lies in the floodplain and is subject to disruption in emergency situations	5,000,000 67% 33%
New pump station required to meet planned flows in northeastern portion of City	2,500,000 0% 100%
Project to replace the Main Pump Station to meet code requirements when expanded	2,000,000 0% 100%
Gravity sewers along Broadway from Donaldson Way and American Canyon Rd. must be upsized to handle increased flows	2,100,000 0% 100%
Gravity sewers along Broadway from Napa Jct. Rd. to Donaldson Way must be upsized to handle increased flows	700,000 0% 100%
Pump station must be expanded to handle increased industrial flows from Green Island area	250,000 0% 100%
	\$48,607,631 \$8,312,713 \$40,294,918

APPENDIX C
NAPA AIRPORT CORPORATE CENTER WATER DEMAND
CALCULATION

Napa Airport Corporate Center
Water Demand Calculation
#4105077.0
10/12/07

This study was conducted to determine the feasibility of the City of American Canyon to provide water for the proposed 12.92 acre project. The City has expressed an upper bound of 650 GPD/Acre. This equates to 8400 GPD maximum for the site. With water demand data from similar projects and a few assumptions, we were able to project a more accurate figure.

Knowns:

Project	Average Demand ¹ (GPD/SF)	Bldg SF	Site Acreage
770 Skyway	0.028	101,200	5.39
660 Airpark	0.055	119,430	6.22
21 Executive	0.04	150,117	7.81

¹ Gallons per day calculation based from past water bills provided by Panattoni Construction. Please see attached water bills and calculation for reference.

Assumptions:

Mixed use, office and warehouse
25% savings for recycled toilet water
90% warehouse, 10% office for buildings with unknown SF allocations
36" of water over landscaping areas for irrigation during one year

Key:

A_T = Total Building Area
 A_O = Office Area
 A_W = Warehouse Area
 W_D = Total Water Demand
 W_O = Office Water Demand
 W_W = Warehouse Water Demand

The following is a summary of the methodology used to generate the water demand numbers on the Will Serve Questionnaire.

Total Building SF	= 170,561 <i>sf</i>
Total Site Area	= 12.44 Acres
Total Landscape Area	= 23,050 <i>sf</i> (AutoCAD)

Due to inconsistent data for 21 Executive, only the water demand data from 770 Skyway and 660 Airpark (Non-Crossroads) were considered into the calculation.

$$\text{Average Warehouse Consumption} = 0.0415 \text{ gpd/sf}$$

Reduction for irrigation (assume 10% landscape area for Non-Crossroads sites)

Irrigation Usage	= $0.1 \times 43,560 \text{ sf} \times 3 \text{ ft} \times 7.48 \text{ gal / cf} = 270 \text{ gpd}$
Assume 50% bldg coverage	= $270 \text{ gpd} \div 21,780 \text{ sf} = 0.0126 \text{ gpd / sf}$

***Based on the assumption that $A_T = 1$

This gives us one equation: $W_D = 0.0415 - 0.0126 = 0.0289 \text{ gpd/sf}$
 $0.0289 = 0.9W_w + 0.1W_o(1)$

Assuming $W_o = 4 W_w$ (2), we may solve two unknowns with two equations

$$\begin{aligned} \therefore W_o &= 0.199 \text{ gpd / sf} \\ \therefore W_w &= 0.01 \text{ gpd / sf} \end{aligned}$$

Projected consumption (building square footage allocation taken from Architectural drawing A-SP-3, dated August 29, 2007)

$$\begin{aligned} W_D &= A_o \times W_o + A_w \times W_w \\ &= A_o \times W_o + A_w \times W_w \\ &= 25,778 \times 0.199 + 144,783 \times 0.01 \\ &= 6578 \text{ gpd} \end{aligned}$$

Assume a 25% reduction for recycled toilet water

$$= 6578 \text{ gpd} \times 0.25 = 1,645 \text{ gpd}$$

Total projected consumption accounting for irrigation and recycled toilet water

$$\begin{aligned} W_D &= 6578 \text{ gpd} - 1645 \text{ gpd} \\ &= 4933 \text{ gpd} \\ &= \boxed{397 \text{ gpd/Acre}} \end{aligned}$$

Based on a coverage factor of 31% we can expect a water demand of 397 gpd/Acre

City of American Canyon Will Serve Questionnaire

Owner Name: Pamattoni Construction		Applicant Name: Pamattoni Construction	
Owner Address: 8401 Jackson Road Sacramento, CA 95826		Applicant Address: 8401 Jackson Road Sacramento, CA 95826	
Owner Phone #: (916) 379-1108		Applicant Phone #: (916) 379-1108	
Owner Signature:		Project Engineer: Christopher M. Tibbets	
Project Name: Napa Airport Corporate Center		Project Address:	
Project APN: 057-090-075, 057-090-076		TBA	
Project Description:			
Permit Number: Pending Submittal		Time of Operation: 8A - 4P	
Status of Environmental Clearance: Not Yet Obtained		hours/day: 8	
Permit Status: Not Yet Submitted		days/week: 6	
Land Use: Commercial		months/year: 12	
Property Zoning: IP/AC			
Lot Size (acres): 12.44		Building Size (sqft): 170,000	
Anticipated Potable Water Demand*			
Average day demand (annual):		Maximum day demand: x 2 (peak factor)	
domestic 4933 gpd		domestic 9866 gpd	
irrigation 0 gpd		irrigation 0 gpd	
industrial 0 gpd		industrial 0 gpd	
Total 4933 gpd		Total 9866 gpd	
* attach references used and calculations for water demand			
<p>The City of American Canyon Municipal Code 13.10 (Code) gives first priority for new water and sewer connections and services to residences and businesses located within the city corporate boundary. The Code states the City shall provide water and sewer connections and services to other residences and businesses located within the urban limit line of the city only after one of the following two conditions has occurred; upon annexation to the city and the district, where that has not already occurred; or upon securing a revenue sharing agreement involving the county, the city and where applicable the district. The Code also states the City may provide water service to developments outside of the city urban limit line but within the water service area of city, as available, provided the applicant agrees to an "In lieu of" revenue-sharing agreement with city.</p>			
<p>If outside the corporate city boundary please describe how you intend to address the provisions of the Code.</p>			

APPENDIX D

WATER CAPACITY CAPITAL PROGRAM SCHEMATIC

10/10/2018 10:00 AM

City of American Canyon
Capacity Fee Capital Program Schematic

