RESOLUTION NO. 2013-60

A RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF NAPA, STATE OF CALIFORNIA ADOPTING: (1) FINDINGS, A STATEMENT OF OVERRIDING CONSIDERATIONS AND A MITIGATION MONITORING AND REPORTING PROGRAM PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT; (2) A WATER SUPPLY ASSESSMENT PURSUANT TO WATER CODE 10911; AND (3) CONFORMING AMENDMENTS TO THE NAPA COUNTY GENERAL PLAN CONCERNING THE DEVELOPERS REVISED PROPOSAL NAPA PIPE PROJECT

SECTION 1. Recitals. 8
SECTION 2. Purpose of the Findings. 8
SECTION 3. Project Objectives. 8
SECTION 4. General Plan Amendment and Zoning Ordinance. 9
SECTION 5. Requirement for Findings of Fact. 10
SECTION 6. Findings Associated With Impacts That Will No Longer Occur or Mitigation Measures that are No Longer Necessary Because of Revisions to the Project. 12
SECTION 7. Findings Associated With Less Than Significant Impacts Without Need for Imposition of Mitigation. 13
SECTION 8. Findings Associated With Potentially Significant Impacts Which Can Be Mitigated To A Less Than Significant Level. 13
LAND USE AND PUBLIC POLICY 14
TRAFFIC AND TRANSPORTATION 14
BIOLOGICAL RESOURCES 18
NOISE 22
AIR QUALITY 23
HAZARDS AND HAZARDOUS MATERIALS 25
GEOLOGY, SOILS, AND SEISMICITY 26
HYDROLOGY AND WATER QUALITY 28
CULTURAL RESOURCES 31
PUBLIC SERVICES AND RECREATION 33
UTILITIES 35
SECTION 9. Findings Associated With Significant Unavoidable Impacts Which Cannot Feasibly Be Mitigated To A Less Than Significant Level. 37
POPULATION, EMPLOYMENT, AND HOUSING 37
AIR QUALITY 37
GREENHOUSE GAS EMISSIONS 41
CULTURAL RESOURCES 43
SECTION 10. Findings Associated With Significant Unavoidable Impacts Due to Mitigation Measures within the Jurisdiction of Another Public Agency. 44
SECTION 11. Rejection of Infeasible Mitigation Measures 53
SECTION 12. Project Alternatives. 54
A) Legal Requirements. 54

B) Range of Alternatives. 55
C) Significant, Unavoidable Impacts of the Project. 55
D) Scope of Necessary Findings and Considerations for Project Alternatives. 55
E) Description of Project Alternatives. 56
1) The No Project Alternatives. 56
2) Reduced Density Development Alternatives 58
4) Project Variation Alternatives 61
4) Off-site Alternatives - Regional Housing Needs Allocation Transfer Alternative 62
SECTION 13. Statement of Overriding Considerations. 64
SECTION 14. Adoption of a Mitigation Monitoring and Reporting Program. 65
SECTION 15. Adoption of Water Supply Assessment. 66
SECTION 16. Government Code Section 65589.5 Findings. 66
SECTION 17. Recirculation is Not Required. 67
SECTION 18. Record of Proceedings. 68
SECTION 19. Location and Custodian of Records. 69
SECTION 20. Adoption of Conforming Amendments to the General Plan. 69
SECTION 21. Filing Notice of Determination. 69
SECTION 22. Effective Date. 69

Exhibit A: General Plan Amendment

Exhibit B: Mitigation Monitoring & Reporting Program

Exhibit C: Water Supply Assessment

WHEREAS, on June 5, 2007, the Board of Supervisors directed the Conservation, Development and Planning Department (now the Planning, Building and Environmental Services Department, and hereafter "Planning Department") to formally commence preparation of a General Plan amendment (PO-00230) related to the Napa Pipe Project ("Project or "proposed Project") re-designating the Project site from "Study Area" to "Napa Pipe Mixed Use". The Project was generally proposed as a mixed use neighborhood including 3,200 dwelling units on the 154-acre industrial site south of the City of Napa; and

WHEREAS, the subject property, bearing Assessor's Parcel Numbers 046-100-030 and 046-412-005, is located at 1025 Kaiser Road in unincorporated Napa County on the west side of Kaiser Road southwest of its intersection with Syar Industrial Way approximately 3 miles south of the downtown of the City of Napa, and is adjacent to the City of Napa boundary. The site has a General Plan designation of Study Area, and is zoned I:AC (Industrial:Airport Compatibility); and

WHEREAS, in conjunction with the General Plan amendment, the Project also proposed zoning designation and text amendments, design guidelines, a subdivision map, and an entitlement referred to as a development plan; and

WHEREAS, the Project was the focus of three technical studies prepared at the direction of the City of Napa-County Study Group examining issues related to water supply, traffic, and public services; and

WHEREAS, the Planning Department determined through the preparation of an Initial Study that the Project might result in significant environmental effects, and required the preparation of an Environmental Impact Report ("EIR") consistent with the requirements of the California Environmental Quality Act ("CEQA"); and

WHEREAS, on January 2, 2009, a Notice of Preparation was distributed to appropriate agencies for the purpose of obtaining written comments from those agencies regarding the scope and content of environmental information and analysis which said agencies wanted to be addressed in the EIR; and

WHEREAS, during the scoping period (January 2, 2009 through February 2, 2009) public meetings were held on January 15 and January 29 where interested parties and members of the public submitted oral and written comments on the proposed Project, project alternatives and the scope of the EIR; and

WHEREAS, during preparation of the Napa Pipe Draft EIR, the Napa County Conservation, Development and Planning Commission ("Planning Commission" or "Commission") in 2009 held five public workshops with local residents and stakeholders to discuss the Project and EIR process. Each workshop had a specific topic and allowed attendees to offer comments or questions on the following topics:

- March 18: What Makes a Successful Neighborhood?
- April 22: Neighborhood Character and Design.
- May 20: Public Open Spaces, Drainage and Flooding.
- June 24: Potential Traffic Impacts and Mitigation Measures.
- July 15: Groundwater and Sustainability; and

WHEREAS, a Draft EIR ("2009 DEIR") for the Project was prepared. The 2009 DEIR was circulated for public review and comment originally from October 23, 2009 through December 22, 2009, and notice of availability of the 2009 DEIR was provided to appropriate agencies and the general public via a Notice of Completion sent to the State Clearinghouse and via a public notice published in the Napa Valley Register, a local newspaper of general circulation; and

WHEREAS, on November 17, and twice on December 16, the Planning Commission held public hearings on the 2009 DEIR at which time the Planning Commission heard and considered all verbal and written evidence and testimony presented on the 2009 DEIR. At the November 17 Planning Commission hearing, the Commission voted to extend the comment period from December 22, 2009 to January 21, 2010. That decision was appealed to the Board of Supervisors, and the Board further extended the comment period through February 5, 2010[1]; and

WHEREAS, subsequent to the close of the public comment period on the 2009 DEIR, the Project was modified to include a surface water transfer, elimination of discharges of treated wastewater to the Napa River, and to include possible donation of a school site; and

WHEREAS, to analyze those revisions to the Project and provide updated information about site clean-up and air pollutant emissions, the County caused to be prepared a Supplement to the 2009 DEIR (hereafter "Supplement" or "Supplement to the 2009 DEIR"), which was prepared and circulated for public and agency review from February 14 through May 2, 2011; and

WHEREAS, the 2009 DEIR concluded that the Project would have unavoidable significant impacts related to: population/employment/housing, traffic/transportation, air quality, green house gas emissions, and cultural resources. None of the conclusions of the 2009 DEIR was changed in the Supplement to the 2009 DEIR, except that air pollutant concentrations during remediation and grading were now considered significant under thresholds of significance contained in new BAAQMD guidance; and

WHEREAS, subsequent to the close of the comment period on the Supplement, the Project was modified to reduce the number of dwelling units from 2,580 to 2,050, consistent with studies prepared by the Napa Sanitation District for the use of that District's wastewater services and with the "Medium Density Alternative" described in the 2009 DEIR and Supplement as "environmentally superior;" and

WHEREAS, the proposed Project as refined constituted a mixed-use residential neighborhood of 2,050 units on 135 acres, containing attached housing in rowhouse and mid-rise form, neighborhood serving retail, light industrial /R&D/commercial space, a senior housing facility, a hotel, and parks and open space. Key project features are:

- *Brownfield Recycling*: Remediation, grading and site preparation to raise the elevation of the flat, largely paved 154-acre industrial site;

[1] The full text of the Appeal is contained in the appeal packet filed with the Clerk of the Board on November 25 and December 3, 2009. The Board rendered its decision on January 12, 2010.

- *Housing*: Development of approximately 2,050 units in three phases with varying dwelling unit sizes, heights and building types; 20 percent of the units constructed would be deed restricted as affordable to low and very low income households;
- *Seniors Facility*: Construction of a 150-unit Continuing Care Retirement complex with 225 beds that would provide independent living for seniors, with common dining, recreational activities, housekeeping and transportation as well as assisted care for seniors;
- *New Infrastructure and Public Open Space*: New roads, sidewalks and other infrastructure, plus approximately 56 acres of new public parks, open spaces and wetlands, including a new segment of the Napa River trail about 0.8 miles long.
- *Community Facilities*: Development of community facilities encompassing a total of 15,600 square feet, including a transit center, interpretive nature center, boat house, public safety building, café/visitor pavilion and drydock theater;
- *Office*: Approximately 50,000 square feet of office space;
- *Industrial/Research & Development/Warehousing:* Approximately 140,000 square feet (may include wine-related businesses);
- *Retail*: Approximately 40,000 square feet of neighborhood serving retail and restaurant uses;
- *Hotel*: 150 suites with associated uses, such as meeting space and spa;
- *School Site*: At the request of the Napa Unified School District, the Project proponents would reserve 10 acres across Kaiser Road from the 154-acre Napa Pipe site for possible use as a school site if Napa Unified School District determines that a new school is needed based on the school age population of the Project;
- *Special District and County Services*: The proposed development would be served by the Napa County Fire Department and Napa County Sheriff. A new investor-owned public utility, mutual water company, or special district would provide potable water, transferred from a tributary of the Sacramento River if feasible, with groundwater as a back-up source. Wastewater treatment and recycled water supplies (for irrigation) would be provided by the Napa Sanitation District; and
- *Reserve Area*: Nineteen acres of the site would be un-programmed, and would remain designated "Study Area" and zoned for industrial uses; thus the area would be available for a range of potential future uses.

WHEREAS, in accordance with California Environmental Quality Act (CEQA), all comments received on the 2009 DEIR and Supplement to the 2009 DEIR during the public comment period were responded to and included in a Final Environmental Impact Report (Final EIR or FEIR), and mailed to commenting state and local agencies, organizations and individuals on February 3, 2012; and

WHEREAS, included within the FEIR documents is a Water Supply Assessment ("WSA") prepared by Brownstein, Hyatt, Farber and Schreck, dated August 2011. The WSA was prepared in accordance with the requirements of Water Code sections 10910 et seq., and analyzes whether the total water supplies available during normal, single-dry and multiple-dry water years during a 20-year projection will meet the projected water demand associated with the proposed Project in addition to existing and planned future uses, and concludes sufficient water supplies exist and are available for serving the Project.

WHEREAS, the FEIR was prepared pursuant to CEQA, Public Resources Code section 21000 et seq., and the State CEQA Guidelines, California Code of Regulations, Title 14, section 15000 et seq.; and

WHEREAS, on or before February 10, 2012, the FEIR was made available to the public. In addition, the FEIR was sent to all public agencies that commented on the 2009 DEIR and the Supplement to the 2009 DEIR; and

WHEREAS, on or before February 10, 2012 the Planning Department recommended a less intensive development proposal than the proposed Project, and requested amendment of the General Plan for only that portion of the Napa Pipe site encompassed by Assessor's Parcel No. 046-412-005 consisting of approximately 63 acres; and

WHEREAS, this 63-are proposal, referred to as the "Modified (63 Acre) Project" (or "63 Acre Project"), reflects changes in economic conditions since the original application was filed and accepted for processing, balances land for housing and job creation, and still achieves most of the Project objectives; and

WHEREAS, the 63 Acre Project called for a new mixed-use neighborhood to be constructed on the portion of the Napa Pipe site between the Napa River and the railroad tracks. This new neighborhood would have a combination of residential uses, neighborhood-serving retail, a 150-unit senior/assisted living facility, a 150-room hotel, 100,000 additional square feet of non-residential uses in addition to public open spaces, new streets and other infrastructure; and

WHEREAS, under the Planning Department's recommendation, the 91 acre parcel east of the railroad tracks would retain its current General Plan land-use designation ("Study Area") and zoning (Industrial with Airport Compatibility Combination District overlay (I:AC)), and would contain project-related open space and infrastructure. The remaining area on the 91 acre parcel was forecasted to build out with up to 550,000 square feet of warehousing and other industrial uses permitted in the Industrial zoning district; and

WHEREAS, on March 7, 2012, the Napa County Airport Land Use Commission held a public hearing to consider whether the proposed Project was consistent with applicable airport land use compatibility plans pursuant to Public Utilities Code Section 21676(b) and concluded that the proposed Project was consistent with such plans; and

WHEREAS, on February 21, March 19, April 2, and May 2, 2012, the Planning Commission held a duly noticed public hearing to consider recommendations to the Board of Supervisors to adopt the proposed General Plan amendments, CEQA Findings of Fact, Statement of Overriding Considerations, Mitigation and Monitoring Reporting Program, and Water Supply Assessment; and

WHEREAS, after the May 2, 2012 public hearing was closed, the Commission deliberated, and by a 3 to 2 vote, modified the Planning Department's 63 Acre Project proposal by recommending to the Board of Supervisors that the entire Napa Pipe site comprised of APN's 046-412-005 and 046-400-030, with the exception of a 19 acre area within APN 046-400-030 to remain as "Study Area", be re-designated in the General Plan as "Napa Pipe Mixed Use", and recommended further General Plan amendments; and

WHEREAS, subsequent to the May 2, 2012 actions of the Planning Commission, and prior to a hearing by the Board of Supervisors, the Project applicant submitted a revised development

application, and asked that the revised development application be analyzed and resubmitted to the Planning Commission for its consideration; and

WHEREAS, the revised development application ("Developers Revised Proposal") mirrors the Modified 63 Acre Proposal as adopted by the Planning Commission with the following revisions:

- A 17.5-acre portion of the land located east of the railroad tracks (APN 046-400-030) in "Zone D," north of Bedford Slough would be rezoned to "Napa Pipe Industrial/Business Park Zoning District" (NP-IBP).

- The remainder of the 91 acres located east of the railroad tracks retains its existing "I:AC" zoning designation.

WHEREAS, the NP-IBP zoning would allow the same uses as proposed in the NP-IBP-W zoning district previously considered by the Planning Commission, but would also allow, upon approval of a development plan, "General Wholesale Sales Commercial Activities" to facilitate the development of a Costco on the 17.5 acre portion of the site.

WHEREAS, key project features of the Developers Revised Proposal include:

1) Remediation of hazardous materials on the entire 154-acre Napa Pipe site consistent with a clean-up plan approved by the Regional Water Quality Control Board;

2) Grading of the entire 154-acre site and filling to raise the elevation of the 63-acre waterfront site, approximately 17.5 acres of the site for the Costco, and the major access roads on the 91-acre parcel;

3) Development of approximately 700 dwelling units at densities of 20 dwelling units per acre (or up to 945 dwelling units if a State-mandated density bonus is obtained);

4) Construction of a 150-unit Continuing Care Retirement complex with 225 beds that would provide independent living for seniors, with common dining, recreational activities, housekeeping and transportation as well as assisted care for seniors;

5) Construction of new roads, sidewalks and other infrastructure, plus approximately 34 acres of new public parks, open spaces and wetlands, including a new segment of the Napa River trail about 0.8 miles long;

6) Development of community facilities encompassing a total of 15,600 square feet, including a transit center, interpretive nature center, boat house, public safety building, café/visitor pavilion and drydock theater, and approximately 40,000 square feet of neighborhood serving retail and restaurant uses;

7) Development of a 150 room hotel with associated uses, such as meeting space and spa;

8) Development of up to approximately 10,000 square feet of office, research & development, or food and/or wine production sales space on the 63-acre parcel. On the 91-acre parcel development of a 154,000 square foot Costco with the remaining area forecasted to build-out with up to 165,000 square feet of office, warehousing and other light industrial uses permitted in the Industrial zoning district;

9) Development of a five acre community farm and reservation of a ten acre school site;

10) The Developers Revised Proposal would be served by the Napa County Fire Department and Napa County Sheriff until/unless the site is annexed to the City, at which time it would be served by City fire and police;

11) Potable water would be supplied by the City of Napa or an alternative source, and groundwater will not be used unless the City of Napa declines to serve the site and the County expressly approves its use by an alternative water provider as part of a conjunctive use program;

12) Wastewater treatment and recycled water supplies (for irrigation) would be provided by the Napa Sanitation District; and

WHEREAS, in a Supplemental Environmental Analysis dated September 19, 2012 ("SEA"), the environmental effects of the Developers Revised Proposal were compared to the proposed Project as analyzed in the Final EIR. The SEA found, in comparison to the proposed Project, that the Developers Revised Proposal would not result in any new or increased environmental impacts which were not addressed in the Final EIR; and

WHEREAS, on September 14, 2012, a Notice of Public Hearing regarding the Developers Revised Proposal was published in a newspaper of general circulation in the County and mailed to interested persons within 300 feet of the Project and other parties as required by law; and

WHEREAS, on October 3, 2012, the Planning Commission held public hearings on the Project for purposes of considering making an advisory recommendation to the Board of Supervisors (Board) on certification of the FEIR and merits of the Developer's Revised Proposal, in accordance with Government Code Sections 65353(a) and 65354 and County Code Section 18.124.010; and

WHEREAS, the Planning Commission, prior to making its recommendation to the Board of Supervisors considered all testimony, both oral and written, regarding the Project. After closing the public hearing on October 3, 2012, the Planning Commission thereafter adopted, with respect to the Developers Revised Proposal Project, Resolution No. 2012-04 recommending that the Board of Supervisors certify the FEIR; Resolution No. 2012-05 recommending the Board adopt findings, a statement of overriding considerations and a mitigation monitoring program, water supply assessment, and adopt conforming general plan amendments, including re-designating the entire Project site to Napa Pipe Mixed Use in the General Plan. The Planning Commission also adopted Resolution No. 2012-06 recommending that the Board of Supervisors adopt a proposed zoning ordinance associated with the Developers Revised Proposal and rezone APN 046-412-005 and 16 acres of 046-400-030 to the new Napa Pipe Zoning District; and

WHEREAS, on January 14, 2013, the Board of Supervisors held a duly noticed public hearing and testimony was presented regarding the FEIR and the Developers Revised Proposal as recommended by the Commission. After considering the Planning Commission's recommendations contained in Planning Commission Resolution Nos. 2012- 04, 05, and 06 and all the evidence in the record, the Board closed the public hearing, thereafter adopted a resolution certifying the FEIR; and

WHEREAS, on January 14, 2013, the Board of Supervisors continued its deliberations on the other actions to allow time for negotiations with the City of Napa regarding potential future annexation, revenue sharing, water service, and other matters; and

WHEREAS, the Board's deliberations were first continued to February 5, 2013, and then to May 14, 2013, and then to May 21, 2013, when the Board reopened the public hearing to receive additional testimony, and to consider a revised Water Supply Assessment dated May 14, 2013 reflecting the Board's desire to avoid the use of groundwater; and

WHEREAS, on May 21, 2013, after considering the Planning Commission's recommendations contained in Planning Commission Resolution Nos. 2012- 05 and 06 and all the evidence in the record, the Board closed the public hearing and thereafter adopted (1) a resolution adopting findings, a statement of overriding considerations, a mitigation monitoring and reporting program, water supply assessment and adopting conforming General Plan amendments, and (2) a zoning ordinance amendment to Title 18 of the Napa County Code adding Chapter 18.66 (Napa Pipe Zoning District) and rezoning APN 046-412-005 and a portion of APN 046--400-030 to that District; and

WHEREAS, the FEIR referenced in subsequent sections of these Findings shall consist of the *Napa Pipe Draft EIR, Volumes I – IIIB (dated October 23, 2009)* [also referred to herein as the "2009 DEIR"], the *Napa Pipe Supplement to the Draft EIR, Volumes I & II (dated February 14, 2011)* [also referred to herein as the "Supplement" or "Supplement to the 2009 DEIR"], the *Napa Pipe Final Environmental Impact Report (dated February 3, 2012),* the *September 19, 2012 Supplemental Environmental Assessment ("SEA")*; as well as all of the comments and staff responses entered into the record orally and in writing between February 21, 2012 and January 14, 2013, as well as accompanying planning and other County records, files, minutes, technical memos or evidence entered into the record; and

WHEREAS, the Water Supply Assessment referenced in subsequent sections of these Findings shall consist of the May 14, 2013 document; and

WHEREAS, the Project referenced in subsequent sections of these Findings shall consist of the Developers Revised Proposal as described above and analyzed in the *September 19, 2012 Supplemental Environmental Assessment*; and

WHEREAS, the Board now desires to adopt findings, mitigation measures, a statement of overriding considerations, a mitigation monitoring and reporting plan in connection with the FEIR, and conforming amendments to the General Plan relating to the Project:

NOW, THEREFORE, BE IT RESOLVED as follows:

SECTION 1. Recitals.

The Board hereby finds that the foregoing recitals are true and correct.

SECTION 2. Purpose of the Findings.

The purpose of these Findings is to satisfy the requirements of Public Resources Code Section 21000, et seq., and Sections 15091, 15092, 15093 and 15097 of the CEQA Guidelines, Title 14 California Code of Regulations, associated with approval of the proposed Project. These Findings provide the written analysis and conclusions of the Board of Supervisors regarding the Project. The Findings are divided into general sections. Each of these sections is further divided into subsections, each of which addresses a particular impact topic and/or requirement of law. At times, these findings refer to materials in the administrative record, which are readily available for review in the County's Department of Planning, Building & Environmental Services.

SECTION 3. Project Objectives.

As noted in Section 3.0 of the 2009 DEIR, the Board of Supervisors finds that the objectives of the Project, with respect to the Applicant and the County are, respectively:

Project Applicant's Objectives

- Make a substantial contribution towards meeting the County's ABAG-defined Regional Housing Needs Allocation (RHNA), by developing 2,580 new residential units, including 20 percent for designated for low and very low income affordable housing categories.

- Integrate affordable housing within the market-rate housing development area.

- Reduce the pressure for residential development of properties within the County's Agricultural Preserve and the existing neighborhoods of the incorporated Cities by redeveloping County industrial lands as residential.

- Locate housing in proximity to jobs to reduce commuting traffic to and from the jobs within a 4-mile radius of the project.

- Provide workforce housing and housing appropriate for a variety of ages and life stages to create a multi-generational, mixed income community, in a location proximate to educational and recreational amenities (the Community College, Kennedy Park and the Napa River).

- Provide a financially feasible development program to allow for the remediation and revitalization of an industrially-contaminated site as a sustainable site, consistent with LEED for Neighborhood Design (LEED-ND), to reduce pressure on undeveloped land.

- Recycle one of the County's largest urbanized properties in a compact manner, consistent with principles of "smart growth" so as to promote walking, biking and transit use.

- Provide substantial additional public open space including public access to a broad reach of the Napa River across lands previously closed to the public, for active and passive recreation, as well as add a new riverfront segment to and connection with the Bay Trail.

- Improve the ability of local public-serving employers, such as hospitals and education institutions, to recruit and retain employees by increasing the housing stock suitable for members of their workforce.

- Develop a sufficiently dense residential project to support pedestrian, bicycle, bus and water taxi use, in a location with the potential for rail transit use.

- Ensure that the project provides fiscal benefits to the County and City of Napa and does not require either agency to divert resources from other residents/businesses.

- Ensure that benefits of the project outweigh environmental impacts.

- Provide a safe and attractive neighborhood with services suitable to an urban neighborhood.

County's Objectives

- Address a significant portion of the County's RHNA requirements for three cycles.

- Provide a location for moderate-priced and affordable housing that is protective of agriculture and of existing neighborhoods.

- Provide a location for a variety of housing types where sufficient densities can support transit services and development of pedestrian and bicycle facilities.

- Make sure that the pace of growth is measured, and that potentially significant environmental impacts are mitigated to the maximum extent feasible.

- Facilitate remediation of an underutilized industrial site, addressing soil contamination, improving water quality, and restoring wetlands.

- Ensure significant ongoing public benefits from site re-use, including river-front access, regional trail connections, and publicly accessible open space.

- Ensure short- and long-tem fiscal benefits for the county and the City of Napa.

- Enable a healthy, "walkable" neighborhood, with a focus on energy and water conservation, reducing green house gas emissions, and alternatives to the private automobile.

SECTION 4. General Plan Amendment and Zoning Ordinance.

A. In conjunction with the Developers Revised Proposal, the amendments to the General Plan shown in Exhibit A are being made to ensure internal consistency between and among

the elements. Those amendments include a new Policy AG/LU-41, and revisions to existing Policies AG/LU-25 and -52. Those changes are collectively referred to as the Conforming Amendments and are also considered part of the Developers Revised Proposal. The Conforming Amendments are found to be within the ambit of the FEIR and part of the Project.

B. Also in conjunction with the Developers Revised Proposal, there is proposed a zoning ordinance amendment to Title 18 of the Napa County Code adding Chapter 18.66 (Napa Pipe Zoning District) which would provide the zoning regulations governing the Napa Pipe site, and conditions of approval for its development. The ordinance is subject to separate approval by the Board, and is found to be within the ambit of the FEIR and part of the Project.

SECTION 5. Requirement for Findings of Fact.

CEQA requires public agencies to consider the potential effects of their discretionary activities on the environment and, when feasible, to adopt and implement mitigation measures that avoid or substantially lessen the effects of those activities on the environment. Specifically, Public Resources Code Section 21002 provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects[.]" The same statute states that the procedures required by CEQA "are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects." Section 21002 goes on to state that "in the event [that] specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof."

The mandate and principles announced in Public Resources Code Section 21002 are implemented, in part, through the requirement that agencies must adopt findings before approving projects for which EIRs are required. (See Pub. Resources Code, § 21081, subd. (a); CEQA Guidelines, § 15091, subd. (a).) For each significant environmental effect identified in an EIR for a proposed project, the approving agency must issue a written finding reaching one or more of three permissible conclusions. The three possible findings are:

(1) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment.

(2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

(3) Specific economic, legal, social, technological, other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

(Public Resources Code Section 21081, subd (a); see also CEQA Guidelines Section 15091, subd. (a).)

Public Resources Code section 21061.1 defines "feasible" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors." CEQA Guidelines section 15364 adds another factor: "legal" considerations. (See also *Citizens of Goleta Valley v. Board of Supervisors* (*Goleta II*) (1990) 52 Cal.3d 553, 565.)

The concept of "feasibility" also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project. (*Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1506-1509 (court upholds CEQA findings rejecting alternatives in reliance on applicant's project objectives); see also *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal. App. 4th 957, 1001 (*CNPS*) ("an alternative 'may be found infeasible on the ground it is inconsistent with the project objectives as long as the finding is supported by substantial evidence in the record'") (quoting Kostka & Zischke, *Practice Under the Cal. Environmental Quality Act* [Cont.Ed.Bar 2d ed. 2009] (*Kostka*), § 17.309, p. 825).)

Moreover, "'feasibility' under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors." (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417 (*City of Del Mar*); see also *CNPS*, *supra,* 177 Cal. App. 4th at p. 1001 (after weighing "'economic, environmental, social, and technological factors,' . . . 'an agency may conclude that a mitigation measure or alternative is impractical or undesirable from a policy standpoint and reject it as infeasible on that ground") (quoting Kostka, *supra,* § 17.29, p. 824).)

With respect to a project for which significant impacts are not avoided or substantially lessened, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a statement of overriding considerations setting forth the specific reasons why the agency found that the project's "benefits" rendered "acceptable" its "unavoidable adverse environmental effects." (CEQA Guidelines, §§ 15093, 15043, subd. (b); see also Pub. Resources Code, § 21081, subd. (b).) The California Supreme Court has stated, "[t]he wisdom of approving . . . any development project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law as we interpret and apply it simply requires that those decisions be informed, and therefore balanced." (*Goleta II*, *supra*, 52 Cal.3d at p. 576.) The Board of Supervisor's Statement of Overriding Considerations for the Project is included herein in Section 13 below.

The Board of Supervisors recognizes that there may be differences in and among the different sources of information and opinions offered in the documents and testimony that make up the FEIR and the administrative record; that experts disagree; and that the Board of Supervisors must base its decision and these Findings on the substantial evidence in the record that it finds most compelling. Therefore, by these Findings, the Board of Supervisors ratifies, clarifies, and/or makes insignificant modifications to the FEIR and resolves that these Findings shall control and are determinative of the significant impacts of the Project.

SECTION 6. Findings Associated With Impacts That Will No Longer Occur or Mitigation Measures that are No Longer Necessary Because of Revisions to the Project.

Because of revisions made to the Project during the course of environmental evaluation and up through the adoption of this Resolution, the Board finds the following impacts will no longer occur: **BIO-6, HYDRO-1, CULT-5, TRA-1, TRA-2, TRA-4, and TRA-7.** Because of revisions made to the Project during the course of environmental evaluation and up through the adoption of this Resolution, the Board finds the following Mitigation Measures are no longer necessary: **AQ-5a, PEH-1, and PS-3**. Because of revisions to the Bay Area Clean Air Plan made during preparation of the FEIR, the Board finds the following impact will no longer occur: AQ-1. Also, because of revisions to the Project to eliminate the potential use of groundwater, the Board finds the following impact will no longer occur: HYDRO-2 (impacts to groundwater).

The Project no longer proposes to construct and operate its own Wastewater Treatment Plant, but instead the Project will connect to and utilize the wastewater treatment system of the Napa Sanitation District. Based on this project revision, Impacts BIO-6 and HYDRO-1 will no longer occur, and no mitigation is necessary for them. On the same basis, the portion of Impact AQ-5 associated with potential odors from an onsite wastewater treatment facility will no longer occur and Mitigation Measure AQ-5a is no longer necessary.

With the reduction in the number of dwelling units included in the Project, the applicant is no longer proposing to obtain surface water supplies from a tributary of the Sacramento River and construction of a water supply pipeline as described in Impact CULT-5. As a result, Impact CULT-5 will no longer occur and no mitigation is necessary.

With the reduction in the number of dwelling units included in the Project and the addition of the proposed Costco, the traffic contribution of the Project will be reduced. As such, the Project will no longer result in significant impacts (project + existing conditions) at the following intersections: First St./Soscol Ave.; Third St/Silverado Trail (SR 121)/East Ave./Coombsville Rd.; SR 29 Northbound Ramps/Imola Ave.; Imola Ave (SR 121)/Jefferson St; and SR 221 (Napa-Vallejo Highway)/Kaiser Rd. As a result, Impacts TRA-1 through TRA-4 and TRA-7 will no longer occur and no mitigation is necessary with respect to these impacts. Mitigation Measures TRA-1b and TRA-7 are, however, still required to mitigate the Project's impacts to First St./Soscol Ave. and SR 221 (Napa-Vallejo Highway)/Kaiser Rd under cumulative conditions. (See Impact TRA-19) Mitigation Measure TRA-1a was previously determined to be infeasible due to the cost, physical constraints of the site, and lack of community support for changes to the new bridge. (See Section 9, below.)

The Developers Revised Proposal, with its reduction in dwelling units to a maximum of 945, would no longer exceed the number of units allowed by the County's Growth Management System, and would not result in development in excess of County projections, so Mitigation Measure PEH-1 is no longer necessary.

With the reduction in the number of dwelling units included in the Project, the payment of required school fees is considered legally sufficient mitigation pursuant to Government Code Section 65995. As a result, Mitigation Measure PS-3 is no longer proposed. However, the Project

applicant is offering to reserve a 10 acre school site for use by the Napa Valley Unified Scholl District.

With adoption of an updated Clean Air Plan in September 2010, the Bay Area Air Quality Management District included assumptions that were consistent with local agency's general plans at that time. Because the Napa Pipe site is identified in the County's 2009 Housing Element, development on the site would be included within the Clean Air Plan, and the inconsistency identified as significant in the FEIR would no longer occur;

SECTION 7. Findings Associated With Less Than Significant Impacts Without Need for Imposition of Mitigation.

The Board of Supervisors has reviewed and considered the information in the FEIR addressing environmental effects, mitigation measures, and alternatives. The Board of Supervisors, relying on the facts and analysis in the FEIR, which were presented to the Board of Supervisors and reviewed and considered prior to any approvals for the Project, concurs with the conclusions of the FEIR regarding the less than significant environmental effects.

The Board also finds that the following impact from implementation of the proposed Project is less than significant:

1) **Impact TRA-3:** State Route 29 Northbound Ramps/Imola Avenue. The project contributes to existing LOS F conditions (51 AM peak hour trips and 35 PM peak hour trips). The contribution to AM peak hour traffic volumes is greater than 50 trips. This was considered a *significant* impact in the 2009 DEIR, p. 4.3-54.

Mitigation Measure TRA-3: Install a traffic signal to reduce the vehicular delay, thus improving the intersection level of service to acceptable conditions. This traffic signal is being designed as part of developer project mitigation and will be funded through the City Street Improvement Program. Construction is expected to occur in 2009. Alternatively, implementation of Mitigation Measure TRA-1b would reduce the impact at this intersection to a less than significant level. (See 2009 DEIR, p. 4.3-54 to 55, as revised)

Finding: As noted in Table 2-1 "Summary of Impacts and Mitigation Measures" of the FEIR, the mitigation called for to address this Impact has already been constructed, and therefore Mitigation Measure TRA-3 is no longer necessary. Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.)

SECTION 8. Findings Associated With Potentially Significant Impacts Which Can Be Mitigated To A Less Than Significant Level.

Significant impacts of the Project are listed by topic below with applicable mitigation measures and findings. The mitigation measures have been incorporated into the Mitigation Monitoring and Reporting Program attached as Exhibit B and adopted herein.

LAND USE AND PUBLIC POLICY

A) **Impact LU-1:** The project proposes residential units in proximity to noise-generating land uses that would result in a "normally incompatible" noise exposure at the site as designated the Noise Element of the General Plan. The project's residential units would also be located in proximity to air pollutant emission sources. Both of these circumstances would constitute a potential significant land use compatibility issue, which would be reduced to **less than significant** with adoption and implementation Mitigation Measures NOISE-1 and AQ-4. (2009 DEIR, p. 4.1-25.)

Mitigation Measure LU-1: Implement Mitigation Measures NOISE-1 and AQ-4. (see 2009 DEIR, pgs. 4.5-25, 4.6-50

Finding and Rationale: Mitigation Measure NOISE-1 requires sound-rated building construction to achieve acceptable indoor noise levels in residential units, as well as mechanical ventilation for noise control, proper site planning and noise barriers. These measures would reduce noise levels to acceptable levels, thereby eliminating conflicts from siting residential units near vehicular and industrial land uses. Mitigation Measure AQ-4 requires measures to reduce exposure of residences to potential air quality nuisances, including air pollution and dust, associated with adjacent industrial uses. These measures will prevent the transport of dust and other pollutants to the project site, thereby eliminating conflicts from siting residential units near industrial land uses. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts Mitigation Measures NOISE-1 and AQ-4 and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect described as LU-1 to a **less than significant** level.

TRAFFIC AND TRANSPORTATION

B) **Impact TRA-8:** Soscol Ferry Road/Devlin Road. The addition of project traffic is expected to cause this intersection to deteriorate from LOS A in the AM peak hour and LOS E in the PM peak hour to LOS F in both the AM and PM peak hours. Additionally the average vehicular delay on the northbound stop-controlled approach would be greater than 4.0 vehicle hours. This is a significant impact. (2009 DEIR, p. 4.3-57; SEA, Attachment 3, September 7, 2012 Fehr & Peers Memorandum).

Mitigation Measure TRA-8: Forecasted volumes warrant a traffic signal; however, the intersection's close proximity to an adjacent signalized intersection renders a standard signalized intersection infeasible. Construct a median treatment on Soscol Ferry Road that essentially controls all movements except for the westbound through movement on Soscol Ferry Road. Widen Soscol Ferry Road to the west of its intersection with Devlin Road to allow for merging of the two lanes. The merge distance shall be in accordance with the standard roadway design criteria for lane merges. Please see the figure presented in the Traffic Impact Analysis in Appendix E. This improvement shall be constructed prior to the occupancy of the project. (See 2009 DEIR, p. 4.3-57-58, as revised at FEIR, p. 3-48.)

Finding and Rationale: Implementation of this mitigation measure would lessen this impact to a less than significant level. The County and Caltrans have considered the reconfiguration of the State Route 12-State Route 29/State Route 221 intersection. Due to the close proximity, this project

may have a large influence on the operations of this intersection. Alternatively, the combined implementation of Mitigation Measures TRA-9 and TRA-10 would reduce traffic demand at this intersection by adding capacity to State Route 29. If these two mitigation measures are implemented (Measures TRA-9 and TRA-10), the impact at this intersection would be reduced to a less than significant level and this Mitigation Measure would be unnecessary. However, absent implementation of those two measures, Mitigation Measure TRA-8 is adopted. Based on adoption of this mitigation measure, and pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect related to this impact to a **less than significant** level.

C) **Impact TRA-14:** Without a Construction Management Plan, construction activity may adversely affect vehicle, pedestrian and bicycle circulation in the area. This is a significant impact. (2009 DEIR, p. 4.3-62)

Mitigation Measure TRA-14: The Project Sponsor shall develop and implement a Construction Traffic Management Program (CMP) to minimize impacts of the project and its contribution to cumulative impacts related to both on and off site construction and remediation activities and traffic. The program shall provide necessary information to various contractors and agencies as to how to maximize the opportunities for complementing construction management measures and to minimize the possibility of conflicting impacts on the roadway system, while safely accommodating the traveling public in the area. The program shall supplement and expand, rather than modify or supersede, any manual, regulations, or provisions set forth by Napa County departments and agencies. Preparation of the CMP shall be the responsibility of the Project Sponsor, and shall be reviewed and approved by County staff prior to initiation of construction. The program shall:

- Identify construction traffic management practices in Napa County, as well as other jurisdictions that could provide useful guidance for a project of this size and characteristic.
- Describe procedures required by different departments and/or agencies in the county for implementation of a construction management plan, such as reviewing agencies, approval process, and estimated timelines.
- Identify construction traffic management strategies and other elements for the project, and present a cohesive program of operational and demand management strategies designed to maintain acceptable traffic operations during periods of construction activities in the project area. These could include construction strategies, construction staging areas, construction phasing, construction staging, demand management strategies, alternate route strategies, and public information strategies.
- Coordinate with other projects in construction in the immediate vicinity (i.e. Syar), so that they can take an integrated approach to construction-related traffic impacts.
- Identify barge routes to access the project site and other information as required by Napa County in the event soil import may be serviced by barge via the Napa River.
- Ensure that adequate pedestrian circulation is maintained when then-existing sidewalks must be closed or obstructed for construction purposes.
- Ensure that adequate bicycle facilities are maintained, including detour signs for then-existing bicycle routes.
- Ensure that construction-truck traffic follows established truck routes, where designated.

- Ensure that transit facilities, including stops locations and associated amenities, such as shelters, etc., are maintained, or that acceptable temporary facilities are established.

(See 2009 DEIR, p. 4.3-63, as revised and setting forth specific CMP measures in FEIR, pp. 3-15 to 3-52)

Findings and Rationale: Implementation of the CMP would help reduce the proposed project's construction- related traffic impacts by minimizing the possibility of conflicting impacts on the roadway system, while safely accommodating the traveling public in the area. Given the magnitude of the proposed development and the duration of the construction period, some disruptions and increased delays could still occur even with implementation of the CMP, although these disruptions would not be considered a significant impact because they would be intermittent over the course of the construction period. As such, implementation of a CMP, approved by Napa County staff, would mitigate this impact to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect related to construction activity on vehicle, pedestrian and bicycle circulation in the area related to a **less than significant** level.

D) **Impact TRA-15**: Construction traffic may adversely affect pavement conditions in the area. This is a significant impact. (2009 DEIR, p. 4.3-63)

Mitigation Measure TRA-15: Prior to beginning construction on the proposed project, survey road conditions for proposed trucking routes on the following roadways:

- Kaiser Road
- Napa Valley Corporate Drive
- Napa Valley Corporate Way
- Bordeaux Way
- Anselmo Court
- Soscol Ferry Road

This shall include roadway pavement and other surfaces that construction traffic may cross. The project applicant shall return roadway conditions to their pre-construction conditions (or better) following the remediation and grading phase of the project. For subsequent construction phasing, truck traffic to/from the project shall be monitored on the identified roadways to determine project's construction traffic contribution to overall truck traffic. Project applicant shall pay a fair share contribution to return roadway conditions to their pre-construction conditions following each phase of construction. (See 2009 DEIR, p. 4.3-63, as revised at FEIR p. 3-54.)

Findings and Rationale: By requiring the applicant to return roadway conditions to their pre-construction conditions (or better) following the remediation and construction of the project, implementation of this mitigation measure would mitigate this impact to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the

significant environmental effect from construction impacts on pavement conditions to a **less than significant** level.

E) **Impact TRA-16**: The design of the public promenade along the waterfront portion of the Napa Pipe project may present a situation with high levels of pedestrian and bicycle conflicts. This would be a significant impact. (2009 DEIR, p. 4.3-66)

Mitigation Measure TRA-16: The design shall minimize these conflicts through means such as channelizing pedestrians to discrete crossing points of the trail, widening the trail through areas where higher pedestrian volumes are expected, and where necessary, separating pedestrian and bicycle travel. (See 2009 DEIR, P. 4.3-66, as revised at FEIR, p. 3-54)

Finding and Rationale: The pedestrian and bicycle conflicts experienced in the public promenade would be local to the project and are not anticipated to be reflected in the mixed-use trail system. The conflicts in the promenade would occur due to the sporadic nature of travel in a public plaza. Bicycle and pedestrian travel on the pathways will be directional in nature and capacity constraints are not anticipated. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect from pedestrian and bicycle conflicts on the public promenade to a **less than significant** level.

F) **Impact TRA-18**: The proposed off-street parking supply is less than the shared parking demand and the suggested County parking rates and may not meet demand. This is a significant impact. (2009 DEIR, p. 4.3-75)

Mitigation Measure TRA-18: The project applicant shall collaborate with County Staff to develop a parking monitoring plan that assesses the utilization of available parking in each phase of the project development. Alternatively, implementation of a parking management program, a component presented in Mitigation Measure TRA-1b, could be implemented to monitor parking demand and carry out parking reduction strategies when needed. (See 2009 DEIR, p. 4.3-75)

Mitigation Measure TRA-1b: To lessen the severity of this and other significant peak hour impacts, the project applicant shall establish a transportation demand management (TDM) program which shall be funded and administered by the property owners association with the goal of reducing the forecasted auto trip generation from the project by 15 percent. The TDM program shall include certain required (immediate, long term) measures, as follows.

Required TDM Measures

- Establish a full-time, paid TDM coordinator to implement required TDM measures, monitor their effectiveness and implement additional measures as needed to meet the 15 percent goal. The coordinator shall also monitor volumes and delays at intersections where traffic mitigation measures have been called for.
- Implement peak period shuttle service to key employment centers (e.g. hospital, downtown) or provide funding to allow relocation of the nearby VINE route to serve the site, with added service in peak periods.
- Implement a parking management program to establish and monitor compliance with parking restrictions.

The effectiveness of these required measures shall be monitored on a biannual basis, and traffic counts will be conducted to determine if the 15 percent reduction of forecasted traffic levels is being achieved. If additional measures are necessary to achieve the 15 percent reduction, the TDM coordinator shall implement other measures to enhance the TDM program. Below is a selection of additional measures that may be considered to achieve a reduction in auto traffic:

- Develop incentives for employer programs
- Guaranteed Ride Home Program
- Information kiosk w/brochures
- Newsletter articles
- Advertised carpool information phone number
- Annual promotional events
- Car-share program
- Shuttles to regional transit like the Vallejo ferry
- Transit Subsidies
- Water taxis
- On-site Ticket Sales (some level also included in existing, initial, moderate)
- Carpool/Vanpool Subsidies (Start up, empty seat subsidies)
- Employer-owned/sponsored Vanpools
- Fleet Vehicles for mid-day trips
- On-site circulator shuttle or golf-carts and/or campus bicycles
- Aggressive flextime/telecommute programs

(See 2009 DEIR, p. 4.3-51 to 53)

Findings and Rationale: Implementation of this mitigation measure would mitigate this impact to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental parking effects to a **less than significant** level.

BIOLOGICAL RESOURCES

G) **Impact BIO-1:** Although no special-status plant species were encountered during surveys of the site, there remains a remote possibility that new populations could be established in shoreline areas before construction begins, that such populations cannot be avoided by shoreline activities, especially for bridge construction across Asylum Slough, and that additional mitigation and incidental take authorizations may be required from jurisdictional agencies. (2009 DEIR, p. 4.4-64.)

Mitigation Measure BIO-1: In the event that pre-construction surveys conducted in accordance with the Biological Resource Assessment ("BRA") identify any federally- or State-listed plant species that have become established along shoreline areas proposed for bank work, the applicant shall obtain all necessary permits and/or authorizations from the CDFG and USFWS as required by federal and State law to for incidental take of those species. If CNPS 1B plants are found in the area of proposed disturbance and cannot be avoided, a salvage/relocation plan shall be developed and approved by CDFG prior to initiation of bridge construction and other improvements in marshland habitat. Evidence that the applicant has secured any required authorization from these agencies shall be submitted to the Napa County Conservation, Development & Planning

Department prior to issuance of any grading or building permits for the project. (See 2009 DEIR, p. 4.4-65)

Finding and Rationale: After confirmation surveys, and any required permits or authorizations have been issued or obtained and submitted to the Napa County Conservation, Development & Planning Department, the impact would be reduced to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

H) Impact BIO-2: The Biological Resource Assessment (BRA) only provides for confirmation surveys on absence of Mason's lilaeopsis if the River Trail alignment includes a bridge crossing over Asylum Slough, and does not recognize the potential for occurrence of other special-status plant species associated with brackish water marsh that could occur in this area, as well as the Bedford Slough bridge crossing vicinity and shoreline of the Napa River where enhancement plantings are proposed. (2009 DEIR, p. 4.4-65)

Mitigation Measure BIO-2: If project improvements affecting or adjacent to brackish marsh habitat are not initiated until after 2010, supplemental confirmation surveys shall be conducted to determine whether Mason's lilaeopsis, Delta tule pea, and other marsh associated special-status plant species have become established at the Bedford Slough bridge crossing and shoreline of the Napa River where the bridge over Asylum Slough is proposed. The surveys shall be conducted by a qualified botanist in the year prior to the anticipated start of construction, and shall be appropriately-timed to allow for detection of all species of concern (typically between April and November). (See 2009 DEIR, p. 4.4-65)

Findings and Rationale: Implementation of *Avoidance/Minimization Measures During Construction* called for in the BRA and as refined above would reduce potential impacts on special-status plant species to a less-than-significant level. Limitations on construction timing, conduct of preconstruction surveys, and other measures would serve to avoid inadvertent take of any special-status species considered to have a remote potential for occurrence on the site. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

I) Impact BIO-3: Proposed development could result in inadvertent loss of bird nests in active use, which would be a violation of the Migratory Bird Treaty Act and CDFG Code. (2009 DEIR, p. 4.4-69.)

Mitigation Measure BIO-3(a): To avoid the potential for disturbance of nesting birds associated with marsh habitat on or near the site, schedule any construction activities that encroach within 300 feet of the brackish marsh, diagonal drainage, and Bedford Slough for the period of August 16 through February 14. If construction work cannot be scheduled during this period, a qualified biologist shall conduct pre-construction surveys for nesting birds in the wetland habitats. The surveys shall be conducted no later than 14 days prior to the start of work and shall focus on determining whether San Pablo song sparrow, saltmarsh common yellowthroat and/or tricolored

blackbird are nesting in these areas. If these or other birds protected under the Migratory Bird Treaty Act or CDFG Code 3503 are found nesting, then appropriate construction buffers shall be established to avoid disturbance of the nests until such time that the young have fledged. The size of the nest buffer shall be determined by the biologist in consultation with CDFG, and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. Typically, these buffers range from 150 to 250 feet from the nest site. Nesting activities shall be monitored periodically by a qualified biologist to determine when construction activities in the buffer area can resume. The nest buffer shall remain in effect and the nest protected until the young have fledged and the nest is no longer in active use, as determined by the qualified biologist. (See 2009 DEIR, p. 4.4-69, as revised at FEIR, p. 3-66)

Mitigation Measure BIO-3(b): Tree and brush removal on the remainder of the project site (those areas not subject to BIO-3(a) shall take place during the period of August 16 through February 14 to the maximum extent possible to avoid possible disturbance to nesting birds. If tree and brush removal cannot take place outside of this timeframe, a qualified biologist shall conduct pre-construction surveys for nesting birds in the trees and brush to be removed no later than 14 days prior to the start of work. If active nests of raptors or other birds protected under the Migratory Bird Treaty Act or CDFG Code 3503 are located in trees or brush to be removed, then appropriate construction buffers shall be established to avoid disturbance of the nests until such time that the young have fledged and the nest is no longer active, as determined by a qualified biologist. The size of the buffer shall be determined by the biologist in consultation with CDFG, and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. See 2009 DEIR, p. 4.4-69, as revised at FEIR, p. 3-66)

Mitigation Measure BIO-3(c): A qualified biologist shall conduct preconstruction surveys in the annual grassland and ruderal brushland habitats on the site to confirm that there are no burrowing owls or northern harriers nesting in these areas. The surveys shall be conducted no later than 30 days prior to the start of ground disturbing activities in these areas. If construction is initiated in these areas during the period of August 31 through January 31, then pre-construction surveys are not required. If active nests of either species are discovered in the proposed area of disturbance or within 300 feet of this area, the biologist shall consult with CDFG to determine the appropriate construction buffer. Once the biologist determines that the nests are no longer active, then construction activities can resume within the buffer area. (See 2009 DEIR, p. 4.4-70)

Findings and Rationale: Implementation of the *Avoidance/Minimization Measures During Construction* called for in the BRA and incorporated as mitigation above would reduce potential impacts on nesting birds to a less-than-significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts these mitigation measures and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

J) Impact BIO-4: Any in-channel construction activities could inadvertently affect steelhead and other special-status fish species if they were to seasonally disperse into the lower segment of Asylum Slough and Bedford Slough during construction. (2009 DEIR, p. 4.4-70.)

Mitigation Measure BIO-4(a): In the event that work is required below the Ordinary High Water Mark in the Napa River, Asylum Slough or Bedford Slough, the applicant shall obtain all

necessary authorizations from the CDFG and NOAA Fisheries as required by federal and State law for potential harm to special-status fish species. Such authorization would be obtained as a result of interagency coordination through USACE and/or Coast Guard permit(s) and the CDFG Streambed Alteration process (see Mitigation Measure BIO-5 below). Evidence that the applicant has secured any required authorization from these agencies shall be submitted to the Napa County Conservation, Development & Planning Department prior to issuance of any grading or building permits for the project. (See 2009 DEIR, p. 4.4-71)

Mitigation Measure BIO-4(b): To avoid potential impacts to Central California steelhead that may be in the Napa River, in-water construction in Asylum Slough or Bedford Slough shall not occur between January through April. (See 2009 DEIR, p. 4.4-71)

Mitigation Measure BIO-4(c): To avoid potential impacts to Delta smelt or Sacramento splittail that may be in the Napa River, in-water construction in Asylum Slough or Bedford Slough shall not occur between February through May. During the summer months, it is unlikely for these species to be in this area of the river due to increased salinity. (See 2009 DEIR, p. 4.4-71)

Mitigation Measure BIO-4(d): To avoid potential impacts to chum salmon that may be in the Napa River, in-water construction in Asylum Slough or Bedford Slough shall not occur between February through May. (See 2009 DEIR, p. 4.4-71)

Findings and Rationale: Implementation of the *Avoidance/Minimization Measures During Construction* called for in the BRA and incorporated as mitigation above, together with any conditions required as part of the possible incidental take authorizations (see Mitigation Measure BIO-5) would serve to adequately mitigate these potential impacts to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts these mitigation measures and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

K) **Impact BIO-5:** Fill in jurisdictional wetlands and waters would require authorization from the USACE and RWQCB while bridge crossings over Bedford Slough and Asylum Slough could require authorizations from the Coast Guard and CDFG (Streambed Alteration Agreement). Each of these agencies could include additional conditions to avoid, minimize or mitigate potential impacts on navigable and jurisdictional waters and stream zones. (2009 DEIR, p. 4.4-75.)

Mitigation Measure BIO-5: The *Avoidance/Minimization Measures During Construction* called for in the BRA along with the following additional measures shall be implemented.

- Where verified waters of the United States are present and cannot be avoided, authorization for modifications to these features shall be obtained from the USACE through the Section 404 permitting process. Similarly, a Section 401 Certification shall be obtained from the RWQCB where waters of the United States are directly affected by the project. All conditions required as part of the authorizations by the USACE and RWQCB shall be implemented as part of the project.

- A CDFG Stream Bed Alteration Agreement shall also be required where proposed project activities would affect the bed or banks of Bedford Slough, Asylum Slough and other regulated drainages on the site. The applicant shall submit a notification form to the CDFG, shall obtain all legally-required agreements, and implement any conditions contained within that agreement.
- Consultation or incidental take permitting may be required under the California and federal Endangered Species Acts (as discussed above under Mitigation Measures BIO-1 and BIO-3). The applicant shall obtain all legally required permits or other authorizations from the USFWS, NOAA Fisheries, and CDFG for the potential "take" of protected species under the Endangered Species Acts.
- Install orange construction fencing around the boundary of all wetland areas to be preserved so that they are not disturbed during construction. The fencing shall be placed a minimum of 25 feet out from the boundary of the wetland but may need to be adjusted if restoration activities are to be conducted within this area. Grading, trail construction and restoration work within the 50-foot wetland buffer zones shall be conducted in a way that avoids or minimizes disturbance of existing wetlands. In some cases (e.g. at the connection point of the new swale with the diagonal drainage), this may mean use of smaller equipment such as a Bobcat.
- A biologist/restoration specialist shall be available during construction to provide situation-specific wetland avoidance measures or planting recommendation, as needed. (See 2009 DEIR, p. 4.4-75 to 76, as revised at FEIR, p. 3-70)

Findings and Rationale: Implementation of the above mitigation measures, together with documentation submitted to Napa County Conservation, Development & Planning Department regarding issuance of permits and any conditions required, would reduce the potential impacts on jurisdictional wetlands and waters to less than significant levels. Functions and values of wetlands affected by the project would either be maintained or improved through implementation of these measures and conformance with agency permitting requirements. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

NOISE

L) **Impact NOISE-1:** The project proposes residential units in an area where noise levels would exceed the Napa County Noise and Land Use Compatibility Standards resulting from transportation noise or the Napa County Noise Ordinance limits resulting from industrial noise. (2009 DEIR, p. 4.5-25)

Mitigation Measure NOISE-1: In accordance with 2010 California Building Code (Chapter 12, Appendix Section 1207.11.2), sound-rated building construction shall be used to achieve acceptable indoor noise levels (45dBA Ldn) in residential units along the east and north perimeters of the site. Building sound insulation treatments include, but are not limited to sound retardant windows and doors, resilient wall constructions, heavy siding and roofing materials (e.g. stucco, Hardi-plank), ventilation silencers, and gasketing. The specification of these treatments shall be developed during the architectural design of the buildings. All residential units in the project

shall require mechanical ventilation to allow for air circulation while windows are closed for noise control. Through application of the design guidelines, residential outdoor use areas shall be shielded from traffic and industrial noise by locating buildings between these sources and the outdoor areas. Noise barriers would be utilized where additional shielding is required to achieve compatible noise levels in order to meet the requirements set forth in the Napa County Noise Ordinance, Section 8.16.070, Exterior Noise Limits. (See 2009 DEIR, p. 4.5-25, as revised at FEIR, p. 3-71)

Findings and Rationale: Through appropriate use of barriers and shielding and construction techniques, impacts due to traffic, aircraft, trains, and industrial sources on residences and other noise sensitive uses can be reduced to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

M) **Impact NOISE-2**: The project proposes residential units in an area where vibration levels may exceed the FTA Vibration Impact Criteria. (2009 DEIR, p. 4.5-27.)

Mitigation Measure NOISE-2: Locate proposed residential land uses no closer than 100 feet from the railroad tracks or require that railroad train vibration levels be confirmed by an analysis conducted by an expert in rail vibration during the detailed design phase of the project. Vibration levels shall not exceed the screening level threshold of 80 VdB or the detailed vibration impact criteria of 78 VdB during the day or 72 VdB at night at the proposed setback of residential units adjoining the tracks. The noise expert would recommend design level measures to mitigate any excessive vibration levels. Residential buildings shall not be constructed within 100 feet of active railroad tracks unless design measures that mitigate excessive vibration to levels below FTA impact thresholds are included in the project. (See 2009 DEIR, p. 4.5-27, as revised at FEIR, p. 3-72)

Findings and Rationale: The implementation of this mitigation measure will reduce vibration impacts to residential uses to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

AIR QUALITY

N) **Impact AQ-4**: The project could expose new residences to air quality nuisances associated with adjacent heavy industrial uses that may include gravel loading/unloading facilities. This would be a potentially significant impact. (2009 DEIR, p. 4.6-50.)

Mitigation Measure AQ-4: The following measures shall be implemented prior to construction of new residences near barge loading/unloading areas:

- Prior to occupation of the project by sensitive receptors (e.g. residents), the applicant will develop a detailed site plan that includes features to reduce dust nuisance exposures

to future project residences located near industrial activities. These features shall include the following:

- Wind break in the form of mature trees with sufficient density to reduce wind flow. BAAQMD recommends consideration of tiered plantings of trees such as redwood, deodar cedar, and live oak to reduce TAC and PM exposure.
- Buffers to avoid placement of residences near or adjacent to active or planned active industrial uses. Adequate buffers shall be determined through site-specific studies that take into account designs for new residences and anticipated future industrial activities or establish a 200-foot buffer.
- Install and maintain air filtration systems of fresh air supply either on an individual unit-by-unit basis, with individual air intake and exhaust ducts ventilating each unit separately, or through a centralized building ventilation system. The ventilation system should be certified to achieve a certain effectiveness, for example, to remove at least 80 percent of ambient PM25 concentrations from indoor areas. The air intake for these units shall be located away from areas producing the air pollution (i.e. toward the south).
- Require rerouting of nearby heavy-duty truck routes.
- Enforce parking restrictions and idling of heavy-duty diesel trucks in the vicinity. (See 2009 DEIR, p. 4.6-50, as revised at FEIR, pp. 3-79 to 3-80)

Findings and Rationale: Through the installation of air filtration systems, the implementation of windbreaks and buffers, and rerouting heavy-duty truck routes, dust will not significantly affect the project site, and the implementation of this mitigation measures would reduce this impact to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

O) Impact AQ-5: New restaurants could be a source of odors that could result in odor complaints from new residences that are part of the project. This would be a potentially significant impact. (2009 DEIR, p. 4.6-52.)

Mitigation Measure AQ-5: The County shall review plans for new restaurants in neighborhoods with residences to ensure that these uses install kitchen exhaust vents in accordance with accepted engineering practice, and shall install exhaust filtration systems or other accepted methods of odor reduction. (See 2009 DEIR, p. 4.5-52, as revised at FEIR, p. 3-80)

Findings and Rationale: With adequate odor controls and operational features in place, objectionable odors should not be generated by restaurant uses and the impact would be reduced to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

HAZARDS AND HAZARDOUS MATERIALS

P) Impact HAZ-1: The project may expose people to a significant risk related to the accidental release of hazardous materials during the cleanup, construction and operation phases of the project. (2009 DEIR, p. 4.8-30.)

Mitigation Measure HAZ-1: The project applicant shall fully implement the provisions of the RAP and RDIP including but not limited to the soil risk management protocols in the RDIP that address discovery of new or different contamination during earth-working and subsurface construction activities. As outlined in the RAP, such implementation would include multiple dust control strategies that would be employed during remediation. A water mist would be applied to the excavation and soil handling area and all truck haul routes, while the soil itself would be wetted, to reduce airborne dust generation. In addition, intermittent air monitoring would be conducted in accordance with local air quality management regulations, and equipment used to excavate, transport and manage soil would be decontaminated through a process of brushing and washing in a central decontamination area. In conjunction with amending the Site 1 WDRs, prepare and record a deed restriction acceptable to the RWQCB that ensures that no buildings are constructed on the WMU in a fashion that impairs access or functioning of the collection trench and drainage system, and that provides access for inspections and maintenance of a collection trench/drainage system sufficient to comply with the Site 1 WDRs. (See 2009 DEIR, p. 4.8-30)

Findings and Rationale: With full implementation of the RAP, including multiple dust control strategies, intermittent air monitoring, and equipment decontamination, potential to expose people to a significant risk related to the accidental release of hazardous materials during the cleanup, construction and operation phases of the project would be reduced to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

Q) Impact HAZ-2: The project site is currently listed by the Regional Board as a leaking underground fuel tank (LUFT) site as well as a spill, leak, investigation or cleanup (SLIC) site. Until implementation of the RAP has been successfully completed to the satisfaction of the RWQCB, materials and activities of the project site would create a hazard to the public or environment. (2009 DEIR, p. 4.8-33.)

Mitigation Measure HAZ-2: The applicant shall carry out the provisions set forth in the RAP and clean up the site to levels below the levels protective of human health and the environment agreed to by the RWQCB. Following full implementation, the applicant shall prepare and submit a report to the San Francisco Bay RWQCB for review and approval. The report shall document cleanup activities performed, quantities of soil reused on-site and disposed of off-site, facilities that received exported material, soil gas sample analytical results, and verification that the targeted cleanup levels have been achieved. (See 2009 DEIR, p. 4.8-34)

Findings and Rationale: Full implementation of the RAP and subsequent determination by the RWQCB that contaminant concentration levels pose no risk to people or the environment would reduce this impact to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure

and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

R) Impact HAZ-3: Previously unknown soil contaminants hazardous to the public and/or environment may be encountered during the process of project construction. (2009 DEIR, p. 4.8-34)

Mitigation Measure HAZ-3: To allow for the successful assessment and remediation of any previously unknown soil contaminants hazardous to the public and/or environment encountered during project construction, implement the protocols documented in the soil risk management plan portion of the RDIP in the event that such contaminants are encountered, and record in the deed records for the site a notice of the existence of the soil risk management protocols from the RDIP (including a full copy of those protocols) so that all owners of portions of the site have advanced notice of both the existence of the soil risk management plan and its terms and provisions. (See 2009 DEIR, p. 4.8-34)

Findings and Rationale: Development and implementation of the RDIP, which would provide for a soil risk management plan in the event unknown hazardous soil contaminants are encountered, would reduce this impact to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

GEOLOGY, SOILS, AND SEISMICITY

S) Impact GEO-1: Large earthquakes could generate strong to violent ground shaking at the site and could cause damage to buildings and infrastructure and threaten public safety. This is considered to be a *significant* impact. (2009 DEIR, p. 4.9-19.)

Mitigation Measure GEO-1: Prior to the issuance of permits for the construction of infrastructure, buildings and bridges, the applicant's geotechnical engineer shall prepare and submit to the County for review geotechnical reports incorporating the specific mitigation of seismic hazards pursuant to State law, as detailed in the California Building Code, and as required by the County of Napa to ensure that structures and infrastructure can withstand ground accelerations expected from seismic activity. The improvement plans shall incorporate all design and construction criteria specified in the report(s). The geotechnical engineer shall sign the improvement plans and approve them as conforming to their recommendations prior to parcel/final map approval. The project geotechnical engineer shall provide geotechnical observation during the construction, which will allow the geotechnical engineer to compare the actual with the anticipated soil conditions and to check that the contractors' work conforms to the geotechnical aspects of the plans and specifications. The geotechnical engineer of record will prepare letters and as-built documents, to be submitted to the County, to document their observances during constructions and to document that the work performed is in accordance with the project plans and specifications. (See 2009 DEIR, p. 4.9-19, as revised at FEIR, p. 3-85)

Findings and Rationale: Implementation of this mitigation measure would reduce potential ground shaking impacts to a less than significant level because the project would comply with

seismic safety regulations of the IBC and CBC, as required by the County of Napa. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

T) **Impact GEO-2:** The proposed project facilities could be damaged by liquefaction. This is considered to be a *significant* impact. (2009 DEIR, p. 4.9-20.)

Mitigation Measure GEO-2: The recommendations for both special foundations and other geotechnical engineering measures specified in the applicant's geotechnical reports (prepared by T&R, dated January 23, 2007 and May 21, 2007) shall be implemented during design and construction. These measures include engineering and compaction of new fills, removal or improvement of potentially liquefiable soils and compressible soils, and use of deep foundations. Documentation of the methods used shall be provided in the required design-level geotechnical report(s). (See 2009 DEIR, p. 4.9-20)

Findings and Rationale: Implementation of this mitigation measure would reduce potential liquefaction impacts to a less than significant level because these engineering mitigations will either eliminate the liquefaction hazard or protect facilities and people from significant damage or injury. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

U) **Impact GEO-3**: Lateral spreading during future earthquakes could cause severe damage to structures and threaten public safety. This is considered to be a significant impact. (2009 DEIR, p. 4.9-21)

Mitigation Measure GEO-3: Lateral spreading shall be mitigated by correcting the liquefaction hazard to which it is related. Corrective measures, which shall be included in the required design-level geotechnical report(s), shall include:

- Engineering and compaction of new fills.
- Removal or densification of liquefiable soils.
- Use of relatively rigid foundations.

(See 2009 DEIR, p. 4.9-21, as revised at FEIR, p. 3-86)

Findings and Rationale: Implementation of this mitigation measure would reduce potential lateral spreading impacts to a *less-than significant* level because these engineering mitigations will either eliminate the lateral spreading hazard or protect facilities and people from significant damage or injury. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

V) **Impact GEO-4:** The existing fill and native marine sediments could undergo settlement that could cause damage to foundations and pavements. Settlements of the estuarine

deposit could have adverse effects on site drainage, hardscape improvements, shallow foundations and transitions between ongrade and pile-supported structures. This is considered to be a significant impact. (2009 DEIR, p. 4.9-22.)

Mitigation Measure GEO-4: Poorly compacted fills shall be mitigated by excavation and/or additional compaction. Options to mitigate these effects include implementing a surcharge program, supporting structures with deep foundations that include drilled or driven piles and installing flexible connections for utilities. The geotechnical recommendations for mitigation of existing and proposed fills, and for settlement of native soils, that are contained in the applicant's geotechnical reports shall be implemented. These measures include removal and recompaction of preexisting loose fills, and proper engineering and compaction of all new fills. (See 2009 DEIR, p. 4.9-22, as revised at FEIR, p. 3-86)

Findings and Rationale: Implementation of this mitigation measure would reduce potential settlement impacts to a less than significant level because these engineering mitigations would protect facilities and people from significant damage or injury. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

W) **Impact GEO-5:** Expansive soils could cause damage to foundations and pavements. This is considered to be a significant impact. (2009 DEIR, p. 4.9-23.)

Mitigation Measure GEO-5: As a part of final design, the project geotechnical engineer shall make specific recommendations to minimize or eliminate expansive soil sunder pavements and structures. Such measures for buildings may include use of appropriate foundations, by capping expansive soils with a layer of non-expansive fill, or by lime treatment. Such measures for pavements may include special pavement design and/or subexcavation of expansive soils. These recommended measures shall be based on testing of the in-site fill materials. The recommendations shall be submitted to the County as a part of building and/or paving plan submittal prior to the issuance of building/construction permits. (See 2009 DEIR, p. 4.9-23, as revised at FEIR, p. 3-86)

Findings and Rationale: Implementation of this mitigation measure would reduce potential expansive soil impacts to a less than significant level because the recommended engineering mitigations would minimize or eliminate expansive soil movement and therefore would protect project facilities from expansive soil damage. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

HYDROLOGY AND WATER QUALITY

X) (Reserved)

Y) **Impact HYDRO-3**: The rerouting of drainage in the project area would potentially exceed the capacity of existing or planned stormwater drainage systems. (Prior Impact HYDRO 6, 2009 DEIR, p. 4.10-83, as revised at FEIR, p. 3-102)

Mitigation Measure HYDRO-3: Before the approval of grading plans and building permits, the project applicant(s) for all project phases shall submit final drainage plans to the County demonstrating that off-site upstream runoff would be appropriately conveyed through the project site, and that project-related on-site runoff would be appropriately detained to reduce flooding impacts. The plans shall adhere to the guidelines and requirements set forth for drainage in the Napa County Road & Street Standards. Design of BMPs for flood control shall comply with all regulations and be approved by the County. (See prior Mitigation Measure HYDRO 6, 2009 DEIR, p. 4.10-83, as revised at FEIR, p. 3-102)

Findings and Rationale: Design and construction of drainage facilities to County standards would reduce this impact to a *less-than significant* level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

Z) Impact HYDRO-4: The project may result in significant impacts to water quality for both the construction and post-construction phases if appropriate measures are not taken to control pollutants. The following mitigation measure has been included to guide the preparation of the appropriate documents, and would result in a less than significant impact to surface water quality when implemented. (Prior Impact HYDRO 7, 2009 DEIR, p. 4.10-88, as revised at FEIR, p. 3-102)

Mitigation Measure HYDRO-4: Prior to approval of grading permits and improvement plans (for each project phase), the project applicant shall prepare and submit an Erosion and Sediment Control Plan (ESCP) for review and approval by the County. The ESCP shall include the locations and descriptions of control measures (BMPs), such as straw bale barriers, straw mulching, straw wattles, silt fencing, and temporary sediment ponds to be used at the project site to control and manage erosion and sediment, control and treat runoff, and promote infiltration of runoff from new impervious surfaces. The Applicant shall also submit a Notice of Intent (NOI) to the State Water Resources Control Board for coverage under the NPDES Construction General Permit and prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the County prior to issuance of a grading permit. The SWPPP shall incorporate the ESCP and describe construction-phase housekeeping measures, such as spill prevention and cleanup measures, means of waste disposal, and best management practices training for on-site workers. The SWPPP shall incorporate the monitoring requirements and other provisions in the recently updated SWRCB General Permit for Construction Activities (approved September 2, 2009). A Stormwater Runoff Management Plan (SRMP) shall also be prepared for review and approval by the County, as specified in the Napa County Post-Construction Runoff Management Requirements. The SRMP shall include descriptions and designs of the post-construction BMPs to be implemented, such as bioswales, biofiltration features and stormwater retention basins, as well as non-structural BMPs, such as street sweeping and covered waste disposal areas. The SRMP shall also prescribe monitoring and maintenance practices for the BMPs to maintain treatment effectiveness. Where applicable, these BMPs shall be designed based on specific criteria from recognized BMP design guidance manuals, such as the California BMP Handbooks (available at www.napastormwater.org). (See prior Mitigation Measure HYDRO 7, 2009 DEIR, p. 4.10-88, as revised at FEIR, p. 3-102)

Findings and Rationale: Implementation of the ESCP, SWPPP and SRMP and the educational, operational and structural BMPs contained therein would reduce the project impacts to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

AA) Impact HYDRO-5: Improperly-decommissioned, unused wells may provide a conduit for poor-quality water in the alluvial aquifer to enter the underlying Sonoma Volcanics aquifer. (Prior Impact HYDRO 8, 2009 DEIR, p. 4.10-92, as revised at FEIR, p. 3-102)

Mitigation Measure HYDRO-5: Prior to beginning of construction of the project, the applicant shall abandon all existing wells on the project site that are not planned for water supply or groundwater monitoring consistent with Napa County Environmental Health standards and the standards described in State of California Bulletin 74-81 (Water Well Standards). (See prior Mitigation Measure HYDRO 8, 2009 DEIR, p. 4.10-92, as revised at FEIR, p. 3-102)

Findings and Rationale: Application of Mitigation Measure HYDRO-5 will reduce the potential for on-site wells to draw poor-quality water to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

BB) Impact HYDRO-6: The project would place housing within a 100-year flood hazard area as currently mapped on federal flood hazard delineation maps. (Prior Impact HYDRO 9, 2009 DEIR, p. 4.10-93, as revised at FEIR, p. 3-102)

Mitigation Measure HYDRO-6: Prior to approval of the final grading plan, the project shall submit a request for a Conditional Letter of Map Revision (CLOMR) for review and action by FEMA and/or their designated representative in order to remove the elevated parcels from the SFHA. With the approved CLOMR and placement of fill as described, the project shall submit a request for a Letter of Map Revision (LOMR). (See prior Mitigation Measure HYDRO 9, 2009 DEIR, p. 4.10-93, as revised, at FEIR, p. 3-102)

Findings and Rationale: With FEMA approval and issuance of the LOMR, all homes within the project would be out of the SFHA, and this impact would be reduced to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

CC) Impact HYDRO-7: The project would expose people to a potentially significant risk of loss, injury or death involving flooding in the low lying central parkway, at-grade crossings, and the wetland/nature area due to backwater flooding from the Napa River at 100-year flood stage. (Prior Impact HYDRO 10, 2009 DEIR, p. 4.10-97, as revised at FEIR, p. 3-103)

Mitigation Measure HYDRO-7a: The project proponents shall construct floodgates at either end of the railroad ROW as described in the PWA memorandum.[2] Operation and maintenance of the floodgates shall be established in an agreement authorized and approved by the Napa County Office of Emergency Services, (NCOES) and shall be the responsibility of the Home Owners Association (HOA) or such other responsible legal entity as determined in agreement with the NCOES.

Mitigation Measure HYDRO-7b: While the floodgates will provide protection for the area between them, the wetland area to the south and the adjacent park areas would remain vulnerable to potential flooding, as would the Northwest park area of the project site. The project proponents shall provide adequate public signage in the nature area, and wetland, and Northwest Park warning park patrons of the potential flood hazard. (See prior Mitigation Measure HYDRO 10, 2009 DEIR, p. 4.10-97, as revised at FEIR, p. 3-103)

Findings and Rationale: With incorporation of the floodgates and signage into the project, the potential to expose people to a significant risk due to backwater flooding from the Napa River at a 100-year flood stage would be reduced to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts these mitigation measures and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

CULTURAL RESOURCES

DD) Impact CULT-2: Ground disturbing activities could damage buried archaeological deposits. (2009 DEIR, p. 4.11-22.)

Mitigation Measure CULT-2: Prior to any excavation on-site, an archaeologist shall review excavation plans in areas identified as archaeologically/geologically sensitive and shall develop a monitoring plan based on depth of the excavation and data from boring logs. The plan shall include observation of ground disturbing activities (such as grading, trenching and boring) to be focused in areas that are most likely to contain buried resources (see 2009 DEIR, Figure 4.11-1). The archaeologist shall limit on-site monitoring to only areas where depth of excavation and information from boring logs suggests that sensitive resources may be encountered. In addition, project personnel shall be made aware of the types of materials that denote possible archaeological sites. If archaeological materials are discovered accidentally during the course of construction, all work within 50 feet of the find shall stop while an assessment of the find is made by an archaeologist who is called in. If needed, a treatment plan shall be developed that takes into account the nature and scope of the find. This could range in complexity from a relatively brief investigation of a scatter of lithic materials, to a far more extensive recovery of human remains. (See 2009 DEIR, p. 4.11-22, as revised at FEIR, p. 3-105)

Findings and Rationale: Preservation of archaeological resources in situ will not be feasible due to the need to remediate hazardous materials in soil and groundwater on the site, but having an archaeologist on-site during excavation of areas most likely to contain buried resources allows for

[2] / Philip Williams & Associates, Ltd, 2009, Railroad Track Flooding Hazards, August 4, 2009.

timely intervention if archaeological materials are unearthed. The archaeologist would be able to provide immediate feedback regarding the potential importance of the find and provide direction regarding the actions that should be taken, which may include analysis and/or recovery of significant resources. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

EE) Impact CULT-3: Ground disturbing activities could damage buried Pleistocene fossil deposits. (2009 DEIR, p. 4.11-24.)

Mitigation Measure CULT-3: If paleontological deposits are discovered, all work within 50 feet of the find shall stop until a geologist who is called in can determine its significance. Specific recommendations for the treatment of paleontological materials would depend on the nature of the discovery and could range from brief investigation of a limited deposit of invertebrate remains to more extensive exposure and removal of large vertebrate fossils. (See 2009 DEIR, p. 4.11-24)

Findings and Rationale: Stopping work and notifying a geologist if paleontological materials are encountered will allow the importance of the find to be evaluated, and completion of the recommended treatment will reduce the impact to a less than significant level. Preservation of paleontological resources in situ will not be feasible due to the need to remediate hazardous materials in soil and groundwater on the site. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

FF) Impact CULT-4: Ground disturbing activities could disturb human remains interred outside of formal cemeteries. (2009 DEIR, p. 4.11-24.)

Mitigation Measure CULT-4: Project personnel shall be briefed in the proper procedures to follow in the event that human remains are encountered during construction and an archaeologist is not on-site. If human remains are discovered by an archaeologist or by project personnel, all work shall stop within 50 feet of the find and the Napa County Coroner shall be notified. If it is determined that the remains are those of a prehistoric Native American, the Coroner shall notify the Native American Heritage Commission, which will identify the Most Likely Descendent to provide tribal recommendations regarding the disposition of the remains. To the extent feasible and reasonable, recommendations of the Most Likely Descendent shall be implemented. (See 2009 DEIR, p. 4.11-25)

Findings and Rationale: This mitigation measure ensures that any previously unidentified human remains that might be encountered will be treated in an appropriate manner. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

PUBLIC SERVICES AND RECREATION

GG) Impact PS-1: Public Safety. The project would place personnel and equipment demands on the Napa County Sheriff, for which adequate funding has not been identified. The project could also place unanticipated demands on the Napa City Police Department as a result of an existing mutual aid agreement. This is a significant impact. (2009 DEIR, p. 4.12-28.)

The County has prepared a fiscal impact analysis for the project (Fiscal Analysis Napa Pipe Site (September 27, 2012) which concludes that, at build-out, the project will generate positive net revenue. This analysis takes into account the cost of providing public services to the site and demonstrates that the project will ultimately generate sufficient revenue to pay for public safety services. There is a risk, however, that while the project is building out, there may be interim shortfalls in funding.

Mitigation Measure PS-1 has been revised to eliminate any reference to a community facilities district (CFD). This revision is based on recent County experience that in some instances revenues have proven to be insufficient to cover the cost of the facilities intended to be financed by the CFD, requiring the County to pay for the shortfall. Such a shortfall is not expected in this case, however, in order to address the County's concerns the reference to CFD has been eliminated. In addition, this measure has been revised to reflect the fact that the project will generate a variety of revenue sources other than property taxes. These changes do not affect the feasibility or effectiveness of this measure, since funding will still need to be provided to cover the cost of any funding shortfall.

Mitigation Measure PS-1: In order to ensure adequate law enforcement staff and equipment, the County shall prepare an updated fiscal analysis prior to or concurrent with the approval of design guidelines. If the updated analysis shows a shortfall in revenue on an interim or long-term basis, then:

1) Prior to, or concurrent with, the approval of the design guidelines, the County and the applicant shall identify and implement a financing mechanism to supplement expected property tax, sales tax, and other sources of revenues to provide sufficient funding for ongoing costs associated with law enforcement services at the Napa Pipe site. The County shall also require the applicant to provide an adequate level of interim financing for law enforcement services between project approval and when funding becomes available from the financing mechanism, property taxes, sales taxes, and other sources of revenue.

2) Prior to the initiation of construction, the County and the project applicant shall consult with law enforcement personnel within the City of Napa as provided for by General Plan Policy SAF-34, and shall seek to renegotiate the terms of the automatic Mutual Aid Agreement between NPD and NCSD to address concerns of each agency regarding potential increases in service calls. (See 2009 DEIR, p. 4.12-28, as revised at FEIR, p. 3-107)

Findings and Rationale: The above measure would ensure that the proposed project is self-sufficient, and that adequate, long-term funding for the expansion of policing services would be made available. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

HH) Impact PS-2: Fire Services. The proposed project would result in demand for 10 additional Department staff members, a new Type I Fire Engine and an Aerial Fire Apparatus, for

which funding is not currently available and new funding sources are not identified. This is a significant impact. (2009 DEIR, p. 4.12-31.)

The County has prepared a fiscal impact analysis for the project (Fiscal Analysis Napa Pipe Site (September 27, 2012) which concludes that, at build-out, the project will generate positive net revenue. This analysis takes into account the cost of providing public services to the site and demonstrates that the project will ultimately generate sufficient revenue to pay for fire services. There is a risk, however, that while the project is building out, there may be interim shortfalls in funding.

Mitigation Measure PS-2 has been revised to eliminate any reference to a community facilities district (CFD). This revision is based on recent County experience that in some instances revenues have proven to be insufficient to cover the cost of the facilities intended to be financed by the CFD, requiring the County to pay for the shortfall. Such a shortfall is not expected in this case, however, in order to address the County's concerns the reference to CFD has been eliminated. In addition, this measure has been revised to reflect the fact that the project will generate a variety of revenue sources other than property taxes. These changes do not affect the feasibility or effectiveness of this measure, since funding will still need to be provided to cover the cost of any funding shortfall.

Mitigation Measure PS-2: In order to ensure adequate staff and equipment for fire services, the County shall prepare an updated fiscal analysis prior to or concurrent with approval of design guidelines. If the updated analysis shows a shortfall in revenue on an interim or long-term basis, then:

1) The County and the applicant shall identify and implement a financing mechanism if necessary to supplement expected property tax, sales tax and other sources of revenues to fund increased fire protection services provided at the Napa Pipe site. The County shall also require the applicant to provide an adequate level of interim financing for fire services between project approval and when funding becomes available from the financing mechanism, property taxes, sales taxes, and other sources of revenue.

2) The County shall seek to renegotiate the terms of the automatic Mutual Aid Agreement between NCFD and the City of Napa Fire Department to address concerns of each agency regarding increases in service calls. (See 2009 DEIR, p. 4.12-31 to 32, as revised at FEIR, p. 3-108)

Findings and Rationale: The above measure would ensure that the Napa Pipe project is self-sufficient, and that adequate, long-term funding for the expansion of fire protection services would be made available. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

II) Impact PS-4: Library Services. The population increase associated with the proposed project could hinder adequate provision of services, given the current needs of the library system. This is a significant impact. (Prior Impact PS-3, 2009 DEIR, p. 4.12-38, as revised at FEIR, p. 3-109.)

Mitigation Measure PS-4 has been revised to eliminate any reference to a community facilities district (CFD). This revision is based on recent County experience that in some instances revenues have proven to be insufficient to cover the cost of the facilities intended to be financed by the CFD, requiring the County to pay for the shortfall. Such a shortfall is not expected in this case,

however, in order to address the County's concerns the reference to CFD has been eliminated. In addition, this measure has been revised to reflect the fact that the project will generate a variety of revenue sources other than property taxes. These changes do not affect the feasibility or effectiveness of this measure, since funding will still need to be provided to cover the cost of any funding shortfall.

Mitigation Measure PS-4: In order to ensure that adequate library services are provided, the County shall prepare an updated fiscal analysis prior to, or concurrent with, the approval of design guidelines. If the updated analysis shows a shortfall in revenue on an interim or long-term basis, then:

1) The County and the applicant shall establish a financing mechanism if necessary to supplement expected property tax, sales tax, and other sources of revenues to fund increased library services needed to serve Napa Pipe residents. The County shall also require the applicant to provide an adequate level of interim financing, if necessary, between project approval and when funding becomes available from the financing mechanism, property taxes, sales taxes, and other sources of revenue. (See prior Mitigation Measure PS-3, 2009 DEIR, p. 4.10-97, as revised at FEIR, p. 3-109)

Findings and Rationale: The measure would ensure that long-term funding for library services would be made available. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

UTILITIES

JJ) Impact UTIL-1: The NSD has evaluated the capacity of its facilities to serve the mid-range density alternative with 2,050 dwelling units. The evaluations determined that some improvements already identified in the District's master plans may need to be accelerated as well as construction of additional projects. (FEIR, p. 3-118; the Board notes that the FEIR incorrectly states "The NSD has **not** evaluated ....")

Mitigation Measure UTIL-1: The project applicant shall pay connection fees and sewer service charges to the NSD in compliance with the NSD's Sewer Use Ordinance in effect at the time the building permit is issued for each structure. Additionally, the project applicant shall be responsible for the costs associated with the planned improvements as described in the 2011 studies by NSD, or as may need to be revised based on the level of approved development. These studies determined the mid-range density alternative project impacts on the District's collection, treatment, and water recycling systems resulting from the additional flow and loading from the portion of the project that exceeds the current County General Plan and are included in FEIR Appendix N. All costs associated with the mitigation of these impacts must be paid for by the project applicant. Before the final map for the project is recorded, the applicant and NSD shall prepare and execute an agreement defining the design and construction schedule, scope and estimated cost of the planned improvements. The applicant shall make payment in a manner such that funds are provide to NSD when they are needed to implement the projects (See FEIR p. 3-118 to 3-119)

Findings and Rationale: Prior to completion of the FEIR, the NSD completed an evaluation of the capacity of its facilities to serve the site with construction of a 2,050 unit project. The studies concluded that NSD has sufficient capacity to serve the site with the expansion of identified NSD

facilities. Although these conclusions will need to be reevaluated based on the Developers Revised Proposal, because that proposal would include fewer residential uses but add a Costco, it can be expected that wastewater demand would be lower than for the 2,050 unit project, which would put less demand on NSD's facilities. Payment of fees to the NSD would contribute to the District's budget and ongoing planning activities. As described in Section 908 of District Ordinance 67, the District's Board of Directors may require connection fees over and above the standard fees established in Ordinance 67. Payment of fees in compliance with NSD's Sewer Use Ordinance would provide the District with a fair-share contribution toward the planning activities needed to adequately serve the project. Therefore, payment of fees under NSD's Sewer Use Ordinance would reduce this impact to a less than significant level. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

KK) Impact UTIL-2: The NSD has fully evaluated the capacity of its facilities to serve the proposed project in combination with other cumulative projects. If the proposed project were to connect to the existing NSD sewer system, some improvements identified in the District's master plans may need to be accelerated as well as construction of addition projects. (FEIR p. 3-120)

Mitigation Measure UTIL-2: Implement Mitigation Measure UTIL-1. (See 2009 DEIR, p. 4.13-27)

Findings and Rationale: As explained above in the Significance After Mitigation statement above under Mitigation Measure UTIL-1, payment of fees to the NSD, as described in Section 908 of District Ordinance 67, would allow for District planning and improvements to receive and treat increased, cumulative wastewater volumes over time. As a result, cumulative impacts related to wastewater treatment requirements would be less than significant. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

LL) Impact UTIL-3: As noted in the SEA, under the Developers Revised Proposal Project, potable water to the project may be provided by the City of Napa. In that event, the City has indicated the need for an expanded pipeline south of the project site. No new significant environmental effects are expected from construction, implementation of Mitigation Measures CULT-2, 3, and 4, would result in such activities having a less then significant effect on the environment.

Mitigation Measure UTIL-3: If the City of Napa agrees to provide potable water to the project, the applicant shall:

- fund an updated study by the City's Water Department (if needed) to confirm that the storage, treatment, and pumping facilities identified in 2008 are no longer needed, and that construction of an expanded pipeline south of the site is the only off-site infrastructure improvement required for service;
- if it is determined that off-site infrastructure improvements are necessary, construct or fund construction to the City's specifications.

Findings and Rationale: The measure would ensure that impacts associated with the provision of potable water by the City of Napa to the site would have a less than significant effect. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect to a **less than significant** level.

SECTION 9. Findings Associated With Significant Unavoidable Impacts Which Cannot Feasibly Be Mitigated To A Less Than Significant Level.

POPULATION, EMPLOYMENT, AND HOUSING

A) **Impact PEH-1**: By constructing up to 700 dwelling units (or up to 945 with a State-required density bonus) consistent with the County's Growth Management System, the Project would result in development in excess of regional projections. This is considered a significant impact. (2009 DEIR, p. 4.2-16)

No feasible mitigation.

Findings and Rationale: The proposed project would still result in residential development in excess of regional projections, an impact which would remain significant and unavoidable, although the impact is more limited under the Developers Revised Proposal. There are no feasible mitigation measures or alternatives that would reduce this impact to a less than significant level. Consequently, this impact is **significant and unavoidable.** Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby finds that specific economic, legal, social, technological and other benefits of the Project outweigh the remaining significant impact, as further set forth in the Statement of Overriding Considerations in Section 13 below.

AIR QUALITY

B) **(Reserved)**

C) **Impact AQ-2:** Construction activity during buildout of the proposed project would generate air pollutant emissions that could expose sensitive receptors to substantial pollutant concentration and would have a cumulatively considerable net increase of NOx emissions. This is a *significant* impact. (2009 DEIR, p. 4.6-37)

Mitigation Measure AQ-2: The following is a list of feasible control measures that the BAAQMD recommends to limit construction emissions of PM_{10}, $PM_{2.5}$, and NOx These mitigation measures shall be implemented for all areas (both on-site and off-site) where construction activities would occur.

Measures to Reduce Fugitive Particulate Matter (PM_{10}, and $PM_{2.5}$) Emissions

- All untreated exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probes.
- Limit traffic speeds on any unpaved roads to 15 mph.
- Suspend construction activities that cause visible dust plumes to extend beyond construction sites, especially during windy conditions.
- Vegetative ground cover (e.g. fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
- Prohibit the visible tracking of mud, dirt, or material onto public streets. If necessary, all trucks and equipment, including their tires, shall be washed off prior to leaving the site. Any visible mud or dirt tracked onto public roadways shall be removed using wet power vacuum sweepers at least once per day.
- During remediation and grading/fill import phases, site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel.
- Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than 1 percent.
- During renovation and demolition activities, removal or disturbance of any materials containing asbestos or other hazardous pollutants will be conducted in accordance with the BAAQMD rules and regulations.
- Remediation activities will be conducted in accordance with BAAQMD rules and regulations.

Mitigation to Reduce NOx Emissions

- The project shall develop a plan for approval by the County or BAAQMD demonstrating that the heavy-duty (>50 horsepower) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average for the year 2010.
- At least 80 percent of the equipment that will be used on-site for 40 hours or more shall meet current Tier 3 engine standards.
- The project applicant shall require the project developer or contractor to submit to the County or BAAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and projected hours of use or fuel throughput for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the remediation and grading (fill import and grading) phase of the project, except that an inventory shall not be required for any 30-day period in which little or no construction activity occurs.
- Opacity is an indicator of exhaust particulate emissions from off-road diesel powered equipment. The project shall ensure that emissions from all construction diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately.

- Diesel equipment standing idle for more than three minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were on-site and away from any residences. Clear signage indicating such idling restrictions shall be posted at construction site access points.
- The applicant shall consider alternative sites and methods to import fill material to the site to reduce NOx emissions. Alternative methods could include use of tug boats or trucks with newer engines that meet recent EPA emissions standards that result in lower emissions. The applicant shall provide an analysis of such alternatives, along with a calculation of emissions for each method. The analysis shall demonstrate that NOx emissions from import of fill shall not exceed 15 tons/year. The County shall use this information to determine the acceptable method for importing fill material to the site. This may include a mix of methods and fill sites.
- Planned construction activities on Spare the Air days shall be reduced in an attempt to lower emissions. Emissions shall not exceed 54 pounds per day on each day that the BAAQMD forecasts a "Spare the Air Day" at least 24 hours prior. The County shall be provided a record of steps taken to reduce NOx emissions when Spare the Air Days were forecasted at least 24 hours prior.
- Designate a Disturbance Coordinator during construction activities. This coordinator will ensure that all air quality mitigation measures are enforced. In addition, the Disturbance Coordinator will respond to complaints from the public regarding air quality issues (e.g. dust and odors) within 48 hours. The contact information for this Coordinator shall be posted in plain view at the project site. A phone number for the Air District shall also be posted to ensure compliance with applicable regulations.
- Implementation of Mitigation Measure TRA-14 would require a construction management plan to avoid traffic congestion and specify truck routes.

(See 2009 DEIR, p. 4.37 to 39, as revised at FEIR, pp. 3-73 to 3-77)

Findings and Rationale: Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid, the potentially significant environmental effect associated with Impact AQ-2. No mitigation is available to render the effects less than significant. Thus, even with the implementation of these mitigation measures effects (or some of the effects) of on-site construction on air pollutant emissions would remain **significant and unavoidable**. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that specific economic, legal, social, technological and other benefits of the Project outweigh the remaining significant impact, as further set forth in the Statement of Overriding Considerations in Section 13 below.

D) Impact AQ-3: The project would generate new emissions that would affect long-term air quality. A majority of the ROG emissions would be generated by the use of consumer products that cannot be controlled, while emission of NOx, PM10, and PM2.5 would be associated with vehicle travel. This would be a *significant* impact. (2009 DEIR, p. 4.6-45.)

Mitigation Measure AQ-3: The project applicant shall reduce air pollutant emissions from both traffic trips and area sources through the measures listed below.

- Bicycle amenities shall be provided for the project. This would include secure bicycle parking for retail employees, bicycle racks for retail customers, bicycle lockers, and bike lane connections. This vehicle trip reduction measure could reduce emissions by an additional 0.5 percent.
- Pedestrian facilities shall include easy access and signage to bus stops and roadways that serve the major site uses (e.g. retail and residential uses). This may reduce emissions by an additional 0.5 percent.
- Project site employers shall be required to promote transit use by providing transit information and incentives to employees. This measure may reduce emissions by about 0.5 percent.
- Provide exterior electrical outlets to encourage use of electrical landscape equipment at retail and residential uses.
- Prohibit idling of trucks at loading docks for more than five minutes and include signage indicating such a prohibition.
- Provide 110- and 220-volt electrical outlets at loading docks.
- Implement a landscape plan that provides shade trees along pedestrian pathways.
- Obtain LEED certification or achieve equivalent energy efficiency for new residential and commercial buildings, which would reduce the future energy demand caused by the project.
- Implementation of Mitigation Measure TRA-1b would require that the project applicant establish a transportation demand management (TDM) program which shall be funded and administered by the property owners association with the goal of reducing the forecasted auto trip generation from the project by 15 percent.
- The effectiveness of these required measures shall be monitored on a biannual basis, and traffic counts will be conducted to determine if the 15 percent reduction of forecasted traffic levels is being achieved. If additional measures are necessary to achieve the 15 percent reduction, the TDM coordinator shall implement other measures to enhance the TDM program.
- Implementation of Mitigation Measure TRA-17 would reroute the VINE Route #10 bus so that it would serve the proposed project's transit center.
- The Napa County Regional Park and Open Space District is in the process of obtaining permits for a 4,000-plus linear foot segment of the trail connecting the Project site to the City of American Canyon. The cost of constructing this segment is estimated to be $350,000. The Applicant shall contribute its fair share towards the cost of constructing this segment of the trail. (See 2009 DEIR, p. 4.6-46, as revised at FEIR, pp. 3-77 to 3-78)

Significance After Mitigation: Implementation of these mitigation measures would reduce ROG emissions by about 3 percent and NOx and PM10 emission by about 6 to 7 percent. This would be in addition to the 5 percent ROG, 16 percent NOx and 15 percent PM10 emission reductions that would occur as a result of features included in the project. However, the measure would not reduce emissions below the BAAQMD thresholds. As a result, the air quality impact would be **significant and unavoidable**.

The Board finds it is appropriate to view this impact as it relates to the whole of the Project. Viewed as such, there are no feasible mitigation measures or alternatives that would reduce this impact to a less than significant level. Consequently, this impact is **significant and unavoidable.**

Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that specific economic, legal, social, technological and other benefits of the Project outweigh the remaining significant impact, as further set forth in the Statement of Overriding Considerations in Section 13 below.

GREENHOUSE GAS EMISSIONS

E) Impact GHG-1: The project GHG emissions account for 2.4 percent of total 2020 countywide GHG emissions. The largest net impact in GHG is from project-related transportation GHG emissions at 22,836 metric tons CO2e. This equals 2.8 percent of total 2020 countywide transportation-sector GHG emissions in year 2020. The residential sector equals 3.5 percent commercial/industrial/construction sector equals 1.0 percent, and the waste sector equals 0.9 percent of year 2020 countywide emissions in these respective sectors. (2009 DEIR, p. 4.7-19)

Mitigation Measures:

GHG-1a: As part of phase one, the applicant shall construct and lease retail space to an on-site market that also sells fresh, locally grown produce. The applicant shall provide for rental subsidies if needed to ensure long term tenancy of a market providing on-site access to fresh food, thereby reducing VMT for project site residents and from food distributors. (See 2009 DEIR, p. 4.7-24)

GHG-1b: The applicant shall provide long term funding for marketing proposed housing units to members of the local workforce and shall market units to businesses in the project vicinity (for employee housing). Both marketing programs shall include a monitoring component to measure their effectiveness and shall be adjusted as needed to maximize the sale and lease of housing units to members of the local workforce for a period of time to be determined by the County and developer. (See 2009 DEIR, p. 4.7-24)

GHG-1c: As a means of reducing global warming related impacts of a project, the project applicant shall incorporate additional measures to reduce the project's contribution to the countywide GHG emissions associated with development assumed under the County's General Plan. Such measures shall include the following additional items from the California Attorney General's Office (2008) list of suggested measures for reducing global warming related impacts of a project:

Energy Efficiency

- Design buildings to meet LEED certification requirements applicable as of the project approval date.
- Install light colored "cool" roofs and cool pavements.
- Install efficient lighting in all buildings (including residential). Also install lighting control systems, where practical. Use daylight as an integral part of lighting systems in all buildings.
- Install light emitting diodes (LEDs) or other high efficiency lighting for traffic, street and other outdoor lighting.
- Limit the hours of operation or provide minimally acceptable light intensities for outdoor lighting.

Water Conservation and Efficiency

- Design buildings and lots to be water-efficient. Only install water-efficient fixtures and appliances.
- Restrict watering methods (e.g., prohibit systems that apply water to nonvegetated surfaces) and control runoff. Prohibit businesses from using pressure washers for cleaning driveways, parking lots, sidewalks, and street surfaces unless required to mitigate health and safety concerns. These restrictions shall be included in the Covenants, Conditions, and Restrictions of the community.

Solid Waste Measures

- Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- Provide interior and exterior storage areas for recyclables and green waste at all buildings.
- Provide adequate recycling containers in public areas, including parks, school grounds, paseos, and pedestrian zones in areas of mixed-use development.

Transportation and Motor Vehicles

- Promote ride sharing programs at employment centers (e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading zones and waiting areas for ride share vehicles, and providing a web site or message board for coordinating ride sharing).
- At commercial land uses, all forklifts, "yard trucks," or vehicles that are predominately used on-site at non-residential land uses shall be electric-powered or powered by biofuels (such as biodiesel [B100]) that are produced from waste products, or shall use other technologies that do not rely on direct fossil fuel consumption.
- At commercial land uses, limit idling time for commercial vehicles, including delivery and construction vehicles.
- Promote the use of alternative fuel vehicles and neighborhood electric vehicle programs through prioritized parking within new commercial and retail areas for electric vehicles, hybrid vehicles, and alternative fuel vehicles.
- Provide shuttle service from mixed-use and employment areas to public transit.
- Provide information on all options for individuals and businesses to reduce transportation-related emissions, including education and information about public transportation.
- Provide bicycle parking near building entrances to promote cyclist safety, security and convenience.
- Provide secure bicycle storage at public garage parking facilities. Locate facilities and infrastructure in all land use types to encourage the use of low or zero emission vehicles (e.g. electric vehicle charging facilities and conveniently located alternative fueling stations).

Performance Standard

- Demonstrate that, by implementation of the measures set forth above, the project achieves a reduction of greenhouse gas emissions, as compared to "Business As Usual," consistent with the target stipulated in the County's Climate Change Action Plan as adopted by the BOS on or before approval of the project. Incorporate additional measures, such as the installation of solar power or other renewable energy systems, if necessary to ensure this target is achieved. (See FEIR p. 3-82 to 3-84)

Findings and Rationale: Despite proposed project features aimed at reducing GHG emissions, implementation of the mitigation measures listed above, and regional, State and federal GHG emissions reduction policies listed in the regulatory discussion in this chapter, the Napa Pipe project would contribute to countywide increases in GHG emissions. This would constitute a **significant and unavoidable** impact. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts these mitigation measures and finds that specific economic, legal, social, technological and other benefits of the Project outweigh the remaining significant impact, as further set forth in the Statement of Overriding Considerations in Section 13 below.

CULTURAL RESOURCES

F) Impact CULT-1: Demolition of Basalt Shipyard buildings and structures (Basalt Shipyard District) would alter the significance of an historic resource. The project would retain the four dry docks and the railroad grade. The dry docks were an integral part of the shipyard and their continued presence would offer a glimpse of the property's history. However, by removing the majority of historical buildings and structures, the shipyard's ability to convey its importance to local and national history is virtually eliminated, and the resource could no longer meet criteria for inclusion on the California Register of Historical Resources or the National Register of Historic Places. (2009 DEIR, p. 4.11-20)

Mitigation Measure CULT-1a: Prior to the demolition of buildings and structures comprising the District, the Basalt Shipyard shall be documented to the Historic American Buildings Survey (HABS) documentation level III, as follows:
Documentation Level III

1. Drawings: sketch plan.
2. Photographs: photographs with large-format negatives of exterior and interior views.
3. Written data: architectural data form.

Documentation shall be completed by a qualified architectural historian and shall include large-format photography and historical documentation. These documents shall be provided to the Napa County Historical Society and to the Napa County Library, assuring that the public has access to the record of this historic resource. (See 2009 DEIR, p. 4.11-21)

Mitigation Measure CULT-1b: An interpretive display featuring the shipyard's history shall be incorporated into the project. This display shall be located in an area accessible to the public and shall provide information regarding the historical contributions of the Basalt Shipyard. The display will help to place the dry docks in context for the public. (See 2009 DEIR, p. 4.11-21)

Findings and Rationale: HABS documentation and interpretive display would lessen the impact to the Basalt Shipyard by preserving construction information, providing a photographic record of the district and its contributors, and providing archival access to the public. It should be noted that the project applicant has already undertaken several preservation-related activities, including photograph archiving and documented interviews, in an attempt to minimize the impact. However, demolition of a historical resource cannot be mitigated to a less-than-significant level, and the impact remains **significant and unavoidable**. Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts these mitigation measures and finds that specific economic, legal, social, technological and other benefits of the

Project outweigh the remaining significant impact, as further set forth in the Statement of Overriding Considerations in Section 13 below.

SECTION 10. Findings Associated With Significant Unavoidable Impacts Due to Mitigation Measures within the Jurisdiction of Another Public Agency.

Pursuant to Public Resources Code Section 21081(a)(2) and CEQA Guidelines Section 15091(a)(2), instead of adopting or rejecting a mitigation measure recommended in the EIR, a lead agency may make a finding that the measure is within another agency's responsibility and jurisdiction, and that the other agency has adopted the measure or can, and should, adopt it.

When the project being evaluated is a specific development project, it is the County's practice to require project developers and project managers to work with the affected agencies to implement the required measures (e.g., a project proponent would be required to fund and construct a turn lane on a state highway), as the County lacks the authority to implement mitigation measures in other agency's jurisdiction, or to require those agencies to do so. Thus, the following impacts and mitigation measures are identified as changes or alterations to the project that are within the jurisdiction of other public agencies that can and should adopt them:

A) Impact TRA-5: Imola Avenue/Soscol Avenue. The project contributes to existing LOS F conditions (647 AM peak hour trips and 485 PM peak hour trips). This is a significant impact. (2009 DEIR, p. 4.3-56)

Mitigation Measure TRA-5: Prior to issuance of building permits, the project applicant shall pay its fair share toward the construct of an additional through lane and left-turn lane on the eastbound approach, an exclusive right-turn lane on the westbound approach, and an additional through lane on Soscol Avenue in both directions. Provide protected phasing for the eastbound and westbound left-turn movements. (See 2009 DEIR, p. 4.3-56, as revised at FEIR p. 3-46 and as discussed above)

Findings and Rationale: The intersection would continue to operate at LOS E in both the AM and PM peak hours; however, it would operate better than it does under existing conditions. The project's impact would be reduced to a less than significant level. This is similar to recommendations from previous studies in the City of Napa. In determining whether to adopt this mitigation measure, consideration shall be given to the fact that such an extensive widening of roadways at this intersection would substantially increase pedestrian crossing distances and may not be consistent with the County's and City's desire to promote transit and bicycling as alternative transportation modes.

Implementation of Mitigation Measure TRA-5 has been required or incorporated into the project, which requires the project applicant to pay its fair share towards the construction of the improvements. The Board revises this mitigation measure presented in the FEIR by requiring the County, based on studies funded by the project applicant, to create a Napa Pipe Traffic Mitigation Fee Program. The identified impact fee shall be paid to the County program at the time of building permit issuance. County shall disperse that fee to the responsible jurisdiction at the time the improvement is made. The Board finds that while this revised mitigation would reduce the impact to a less than significant level, the mitigation contemplates action by other public agencies, Caltrans/City of Napa. A fair share payment would be considered to mitigate this impact to a less

than significant level if Caltrans/City of Napa are able to demonstrate to the County's satisfaction that such that a fair share payment will actually result in construction of the contemplated improvements. Because Caltrans/City of Napa control what occurs at the intersection, however, and because the County is uncertain as to whether the fair share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the Board conservatively concludes that the impact shall be treated as significant and unavoidable, given that the County has no control over Caltrans/City of Napa and thus cannot take for granted that the improvements contemplated by the mitigation will get implemented. Consistent with Public Resources Code Section 21081(a)(2) and CEQA Guidelines section 15091, subdivision (a)(2), the County concludes, however, that Caltrans/City of Napa can and should cooperate with the County in implementing the mitigation. In the event that Caltrans/City of Napa do cooperate with the County and is able to demonstrate to the County's satisfaction that the fair share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the impact of the project would be rendered less than significant, though at present, as noted above, the Board considers the impact **significant and unavoidable**. The Board hereby adopts this mitigation measure and finds that specific economic, legal, social, technological and other benefits of the Project outweigh the remaining significant impact, as further set forth in the Statement of Overriding Considerations in Section 13 below.

B) Impact TRA-6: State Route 221 (Napa-Vallejo Highway)/Streblow Drive: The addition of project traffic is expected to cause this intersection to deteriorate from LOS D to LOS E in the AM peak hour. This is a significant impact. (2009 DEIR, p. 4.3-56)

Mitigation Measure TRA-6: Construct an additional northbound left-turn lane on State Route 221 (Napa-Vallejo Highway) and a receiving lane on Streblow Drive pursuant to Caltrans standards. The TDM program manager shall monitor project-generated traffic and operations of this intersection on an annual basis with the County's oversight after permits are issued the project. Monitoring shall be used to determine if and when the required improvement is warranted by conditions at the intersection. If warranted, the property owners association shall be responsible for implementing the required improvement to the intersection. (See 2009 DEIR, p. 4.3-56, as revised at FEIR, p. 3-47 and as discussed above)

Finding and Rationale: 95th percentile queues for the northbound left-turn lanes are expected to be served by the available storage, assuming that the additional turn-lane is the same length as the existing turn-lane. This would result in the impact becoming less than significant.

Implementation of Mitigation Measure TRA-6 has been required or incorporated into the project. Although the mitigation is imposed on the applicant by the County, the mitigation, if warranted, contemplates action by other public agencies, Caltrans/City of Napa. Because Caltrans/City of Napa control what occurs at the intersection, and because the County is uncertain as to whether the construction of the contemplated improvement can occur within a reasonable period of time, the Board conservatively concludes that the impact shall be treated as significant and unavoidable, given that the County has no control over Caltrans/City of Napa and thus cannot take for granted that the improvements contemplated by the mitigation will get implemented. Consistent with Public Resources Code Section 21081(a)(2) and CEQA Guidelines section 15091, subdivision (a)(2), the County concludes, however, that Caltrans/City of Napa can and should cooperate with the County in implementing the mitigation. In the event that Caltrans/City of Napa do cooperate with the County and is able to demonstrate to the County's satisfaction that the construction of the

contemplated improvement will occur, the impact of the project would be rendered less than significant, though at present, as noted above, the Board considers the impact **significant and unavoidable**. The Board hereby adopts this mitigation measure and finds that specific economic, legal, social, technological and other benefits of the Project outweigh the remaining significant impact, as further set forth in the Statement of Overriding Considerations in Section 13 below.

C) **Impact TRA-9:** State Route 12-State Route 29/State Route 221 (Napa-Vallejo Highway): The project is expected to contribute to existing LOS F conditions in the AM and PM peak hours (562 AM peak hour trips and 544 PM peak hour trips). This is a significant impact. (2009 DEIR, p. 4.3-58)

Mitigation Measure TRA-9: Prior to issuance of building permits, the project applicant shall pay its pro-rated fair share toward the construction of a flyover ramp for the traffic traveling from southbound State Route 221 (Napa-Vallejo Highway) to southbound State Route 12/State Route 29. (See 2009 DEIR, p. 4.3-58, as revised at FEIR, p. 3-48 and as discussed above)

Findings and Rationale: Implementation of this mitigation measure would reduce the impact to a less than significant level. This improvement has been contemplated previously by the County and Caltrans, and is likely to be needed with or without development of the project. For this reason, the project applicant shall pay its fair share to the construction of this project. Removing the southbound left-turning traffic from the signalized portion of this intersection would improve this intersection to acceptable LOS D in the AM and PM peak hours.

Implementation of Mitigation Measure TRA-9 has been required or incorporated into the project. Although the mitigation is imposed on the applicant by the County, the mitigation contemplates action by other public agencies, Caltrans/City of Napa. A fair share payment would be considered to mitigate this impact to a less than significant level, however, if Caltrans/City of Napa is able to demonstrate to the County's satisfaction that such that a fair share payment will actually result in construction of the contemplated improvements within a reasonable period of time (i.e., prior to the issuance of building permits). Because Caltrans/City of Napa control what occurs at the intersection, however, and because the County is uncertain as to whether the fair share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the Board conservatively concludes that the impact shall be treated as significant and unavoidable, given that the County has no control over Caltrans/City of Napa and thus cannot take for granted that the improvements contemplated by the mitigation will get implemented. Consistent with Public Resources Code Section 21081(a)(2) and CEQA Guidelines section 15091, subdivision (a)(2), the County concludes, however, that Caltrans/City of Napa can and should cooperate with the County in implementing the mitigation. In the event that Caltrans/City of Napa do cooperate with the County and is able to demonstrate to the County's satisfaction that the fair share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the impact of the project would be rendered less than significant, though at present, as noted above, the Board considers the impact **significant and unavoidable**. The Board hereby adopts this mitigation measure and finds that specific economic, legal, social, technological and other benefits of the Project outweigh the remaining significant impact, as further set forth in the Statement of Overriding Considerations in Section 13 below.

D) **Impact TRA-10**: State Route 12/Airport Boulevard/State Route 29. The project would contribute to existing LOS F conditions in the AM peak hour and LOS E in the PM peak

hour (509 AM peak hour trips and 517 PM peak hour trips). This is a significant impact. (2009 DEIR, p. 4.3-58)

Mitigation Measure TRA-10: Prior to issuance of building permits, the project applicant shall pay pro-rated its fair share toward the construction of a grade-separated interchange as proposed in the Napa County General Plan. This improvement has been contemplated previously by the County and Caltrans, and is likely to be needed with or without development of the project. (See 2009 DEIR, p. 4.3-58, as revised at FEIR, p. 3-49 and as discussed above)

Findings and Rationale: Implementation of Mitigation Measure TRA-10 has been required or incorporated into the project, which requires the project applicant to pay its fair share towards the construction of the improvements. The Board revises this mitigation measure presented in the FEIR by requiring the County, based on studies funded by the project applicant, to create a Napa Pipe Traffic Mitigation Fee Program. The identified impact fee shall be paid to the County program at the time of building permit issuance. County shall disperse that fee to the responsible jurisdiction at the time the improvement is made. The Board finds that while this revised mitigation would reduce the impact to a less than significant level, the mitigation contemplates action by another public agency, Caltrans. A fair share payment would be considered to mitigate this impact to a less than significant level if Caltrans is able to demonstrate to the County's satisfaction that such that a fair share payment will actually result in construction of the contemplated improvements. Because Caltrans controls what occurs at the intersection, however, and because the County is uncertain as to whether the fair share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the Board conservatively concludes that the impact shall be treated as significant and unavoidable, given that the County has no control over Caltrans and thus cannot take for granted that the improvements contemplated by the mitigation will get implemented. Consistent with Public Resources Code Section 21081(a)(2) and CEQA Guidelines section 15091, subdivision (a)(2), the County concludes, however, that Caltrans can and should cooperate with the County in implementing the mitigation. In the event that Caltrans does cooperate with the County and is able to demonstrate to the County's satisfaction that the fair share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the impact of the project would be rendered less than significant, though at present, as noted above, the Board considers the impact **significant and unavoidable**. The Board hereby adopts this mitigation measure and finds that specific economic, legal, social, technological and other benefits of the Project outweigh the remaining significant impact, as further set forth in the Statement of Overriding Considerations in Section 13 below.

E) Impact TRA-11: State Route 29/Napa Junction Road. The project is expected to contribute to existing LOS F conditions in the AM peak hour (362 AM peak hour trips). This is a significant impact. (2009 DEIR, p. 4.3-59)

Mitigation Measure TRA-11: The Napa County General Plan calls for widening of State Route 29 from the State Route 221 (Napa-Vallejo Highway) interchange to the southern County Line. In order to mitigate the project's significant impact based on the criteria described earlier in this report, the additional through lane on State Route 29 in the northbound and southbound directions shall be constructed at this intersection, as is currently proposed. This improvement has been contemplated previously by the County and Caltrans, and is likely to be needed with or without development of the project. For this reason, the project applicant shall pay its fair share to the construction of this project prior to the issuance of building permits to avoid a significant

impact. With the widening of State Route 29, this intersection would improve to acceptable LOS C in the AM and PM peak hours. (See 2009 DEIR, p. 4.3-59, as revised at FEIR, p. 3-49 and as discussed above)

Findings and Rationale: Implementation of Mitigation Measure TRA-11 has been required or incorporated into the project, which requires the project applicant to pay its fair share towards the construction of the improvements. The Board revises this mitigation measure presented in the FEIR by requiring the County, based on studies funded by the project applicant, to create a Napa Pipe Traffic Mitigation Fee Program. The identified impact fee shall be paid to the County program at the time of building permit issuance. County shall disperse that fee to the responsible jurisdiction at the time the improvement is made. The Board finds that while this revised mitigation would reduce the impact to a less than significant level, the mitigation contemplates action by other public agencies, Caltrans/City of American Canyon. A fair share payment would be considered to mitigate this impact to a less than significant level if Caltrans/City of American Canyon are able to demonstrate to the County's satisfaction that such that a fair share payment will actually result in construction of the contemplated improvements. Because Caltrans/City of American Canyon control what occurs at the intersection, however, and because the County is uncertain as to whether the fair share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the Board conservatively concludes that the impact shall be treated as significant and unavoidable, given that the County has no control over Caltrans/City of American Canyon and thus cannot take for granted that the improvements contemplated by the mitigation will get implemented. Consistent with Public Resources Code Section 21081(a)(2) and CEQA Guidelines section 15091, subdivision (a)(2), the County concludes, however, that Caltrans/City of American Canyon can and should cooperate with the County in implementing the mitigation. In the event that Caltrans/City of American Canyon do cooperate with the County and is able to demonstrate to the County's satisfaction that the fair share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the impact of the project would be rendered less than significant, though at present, as noted above, the Board considers the impact **significant and unavoidable**. The Board hereby adopts this mitigation measure and finds that specific economic, legal, social, technological and other benefits of the Project outweigh the remaining significant impact, as further set forth in the Statement of Overriding Considerations in Section 13 below.

F) Impact TRA-12: State Route 29/Donaldson Way. The project is expected to contribute to existing LOS F conditions in the AM peak hour (362 AM peak hour trips). This is a significant impact. (2009 DEIR, p. 4.3-60)

Mitigation Measure TRA-12: The Napa County General Plan calls for widening of State Route 29 from the State Route 221 (Napa-Vallejo Highway) interchange to the southern County Line. In order to mitigate the project's significant impact based on the criteria described earlier in this report, the additional through lane on State Route 29 in the northbound and southbound directions shall be constructed at this intersection, as is currently proposed. For this reason, the project applicant shall pay its fair share to the construction of this project prior to the issuance of building permits to avoid a significant impact. With the widening of State Route 29, this intersection would improve to acceptable LOS B in both the AM and PM peak hours. (See 2009 DEIR, p. 4.3-60, as revised at FEIR, p. 3-50 and as discussed above)

Findings and Rationale: Implementation of Mitigation Measure TRA-12 has been required or incorporated into the project, which requires the project applicant to pay its fair share towards the construction of the improvements. The Board revises this mitigation measure presented in the FEIR by requiring the County, based on studies funded by the project applicant, to create a Napa Pipe Traffic Mitigation Fee Program. The identified impact fee shall be paid to the County program at the time of building permit issuance. County shall disperse that fee to the responsible jurisdiction at the time the improvement is made. The Board finds that while this revised mitigation would reduce the impact to a less than significant level, the mitigation contemplates action by other public agencies, Caltrans/City of American Canyon. A fair share payment would be considered to mitigate this impact to a less than significant level if Caltrans/City of American Canyon are able to demonstrate to the County's satisfaction that such that a fair share payment will actually result in construction of the contemplated improvements. Because Caltrans/City of American Canyon control what occurs at the intersection, however, and because the County is uncertain as to whether the fair share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the Board conservatively concludes that the impact shall be treated as significant and unavoidable, given that the County has no control over Caltrans/City of American Canyon and thus cannot take for granted that the improvements contemplated by the mitigation will get implemented. Consistent with Public Resources Code Section 21081(a)(2) and CEQA Guidelines section 15091, subdivision (a)(2), the County concludes, however, that Caltrans/City of American Canyon can and should cooperate with the County in implementing the mitigation. In the event that Caltrans/City of American Canyon do cooperate with the County and is able to demonstrate to the County's satisfaction that the fair share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the impact of the project would be rendered less than significant, though at present, as noted above, the Board considers the impact **significant and unavoidable**. The Board hereby adopts this mitigation measure and finds that specific economic, legal, social, technological and other benefits of the Project outweigh the remaining significant impact, as further set forth in the Statement of Overriding Considerations in Section 13 below.

G) Impact TRA-13: State Route 29/American Canyon Road. The project is expected to contribute to Existing LOS F conditions in the AM peak hour (279 AM peak hour trips) and to cause the intersection to deteriorate from LOS D to LOS E in the PM peak hour. This is a significant impact. (2009 DEIR, p. 4.3-60)

Mitigation Measure TRA-13: The City of American Canyon's General Plan recognizes that this intersection will likely operate at LOS E conditions during peak periods. The Napa County General Plan also calls for widening of State Route 29 from the State Route 221 (Napa-Vallejo Highway) interchange to the southern County Line. In order to mitigate the project's significant impact based on the criteria described earlier in this report, the additional through lane on State Route 29 in the northbound and southbound directions shall be constructed at this intersection, as is currently proposed. For this reason, the project applicant shall pay its fair share to the construction of this project prior to the issuance of building permits to avoid a significant impact. With the widening of State Route 29, this intersection would continue to operate at LOS F in the AM peak hour (primarily due to the extremely heavy westbound right turn to northbound State Route 29), but would operate better than Existing conditions without the project. The intersection would improve to LOS D in the PM peak hour. (See 2009 DEIR, p. 4.3-60, 61)

Findings and Rationale: Implementation of Mitigation Measure TRA-13 has been required or incorporated into the project, which requires the project applicant to pay its fair share towards the construction of the improvements. The Board revises this mitigation measure presented in the FEIR by requiring the County, based on studies funded by the project applicant, to create a Napa Pipe Traffic Mitigation Fee Program. The identified impact fee shall be paid to the County program at the time of building permit issuance. County shall disperse that fee to the responsible jurisdiction at the time the improvement is made. The Board finds that while this revised mitigation would reduce the impact to a less than significant level, the mitigation contemplates action by other public agencies, Caltrans/City of American Canyon. A fair share payment would be considered to mitigate this impact to a less than significant level if Caltrans/City of American Canyon are able to demonstrate to the County's satisfaction that such that a fair share payment will actually result in construction of the contemplated improvements. Because Caltrans/City of American Canyon control what occurs at the intersection, however, and because the County is uncertain as to whether the fair share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the Board conservatively concludes that the impact shall be treated as significant and unavoidable, given that the County has no control over Caltrans/City of American Canyon and thus cannot take for granted that the improvements contemplated by the mitigation will get implemented. Consistent with Public Resources Code Section 21081(a)(2) and CEQA Guidelines section 15091, subdivision (a)(2), the County concludes, however, that Caltrans/City of American Canyon can and should cooperate with the County in implementing the mitigation. In the event that Caltrans/City of American Canyon do cooperate with the County and is able to demonstrate to the County's satisfaction that the fair share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the impact of the project would be rendered less than significant, though at present, as noted above, the Board considers the impact **significant and unavoidable**. The Board hereby adopts this mitigation measure and finds that specific economic, legal, social, technological and other benefits of the Project outweigh the remaining significant impact, as further set forth in the Statement of Overriding Considerations in Section 13 below.

H) Impact TRA-17: A substantial portion of the Napa Pipe project would be located at a distance greater than what typical commuters are willing to walk to access transit, which would not be consistent with the County's goal of promoting transit use as a convenient option. This would be a significant impact. (2009 DEIR, p. 4.3-68)

Mitigation Measure TRA-17: Reroute the VINE #10 bus route through the project site to serve the proposed transit center as proposed in the project site plan and ensure that all development proposed would be within a reasonable walking distance to transit (less than ⅓-mile). The revised bus route through Napa Pipe could either be a loop, in which case existing stops along Napa Valley Corporate Drive would remain, or the route could be relocated. Under the latter option, the existing bus stop at Latour Court would be moved 450 feet to the north to Kaiser Road, the stop at Bordeaux Way would be moved 600 feet to the south to Anselmo Court, and the stop at Napa Valley Corporate Way would be eliminated. Stops at Napa Valley Corporate Drive's intersections with Kaiser Road and Anselmo Court will help maintain current patrons. Current ridership is expected to be maintained or surpassed by routing through the project. However, it should also be noted that the extension into the Napa Pipe site will lengthen the travel time from the City of Napa to the City of American Canyon, which may discourage current commuters. If the extension of the VINE #10 bus route is not feasible, the applicant shall include peak period shuttle service as included in Mitigation Measure TRA-1b. (See 2009 DEIR, p. 4.3-68, 69, as revised at FEIR, p. 3-54)

Findings and Rationale: Implementation of Mitigation Measure TRA-17 has been required or incorporated into the project and would reduce the impact to a less than significant level. Although the mitigation is imposed on the applicant by the County, the mitigation contemplates action by another public agency, the Napa County Transportation and Planning Agency. Because the Napa County Transportation and Planning Agency controls what occurs at the intersection, however, and because the County is uncertain as to whether the contemplated improvement can occur within a reasonable period of time, the Board conservatively concludes that the impact shall be treated as significant and unavoidable, given that the County has no control over the Napa County Transportation and Planning Agency and thus cannot take for granted that the improvements contemplated by the mitigation will get implemented. Consistent with Public Resources Code Section 21081(a)(2) and CEQA Guidelines section 15091, subdivision (a)(2), the County concludes, however, that the Napa County Transportation and Planning Agency can and should cooperate with the County in implementing the mitigation. In the event that the Napa County Transportation and Planning Agency does cooperate with the County and is able to demonstrate to the County's satisfaction that the contemplated improvements will occur within a reasonable period of time, the impact of the project would be rendered less than significant, though at present, as noted above, the Board considers the impact **significant and unavoidable**. The Board hereby adopts this mitigation measure and finds that specific economic, legal, social, technological and other benefits of the Project outweigh the remaining significant impact, as further set forth in the Statement of Overriding Considerations in Section 13 below.

I) **Impact TRA-19:** Development of the proposed project would contribute to a cumulative deterioration on roadway and intersection level of service operations throughout the study area. This would be a significant impact. (2009 DEIR, p. 4.3-86)

Mitigation Measure TRA-19: In addition to Mitigation Measures TRA-1 through TRA-13 (as applicable), the project applicant shall pay a fair share contribution to other long-term planned roadway improvements in the Regional Transportation Plan (assumed under the Cumulative Planned roadway network) at locations where the proposed project would contribute to cumulatively significant traffic impacts. The following improvements have been identified under this plan:

- Realignment of Silverado Trail at Soscol Avenue to match alignment of proposed Gasser Drive extension
- Widening of State Route 29 to six lanes between Airport Boulevard and southern Napa County line
- Extension of Devlin Road south to Green Island Road

Each of these roadway improvements would improve intersection operations and general roadway circulation in the project study area under Cumulative conditions; however, most intersections would continue to operate unacceptably. A comprehensive list of roadway improvements that would be required to achieve acceptable intersection level of service under cumulative conditions has been developed and is presented in the Transportation Impact Analysis (2009 DEIR, Appendix E; See also, SEA, Attachment 3, Fehr & Peers Traffic Analysis, September 7, 2012 identifying the mitigation measures from the TIA that are applicable to the Developers Revised Proposal). Many of these improvements would require major roadway widening in a fashion that may not be consistent with the stated desires of many communities, through their

General Plan documents, to maintain Napa County's rural atmosphere and promote pedestrian, bicycle, and transit as successful transportation modes. Many of the cumulative impacts would occur even without the project. (See 2009 DEIR, p. 4.3-90)

Findings and Rationale: Implementation of Mitigation Measure TRA-19 has been required or incorporated into the project, which requires the project applicant to pay its fair share towards the construction of the improvements. The Board revises this mitigation measure presented in the FEIR by requiring the County, based on studies funded by the project applicant, to create a Napa Pipe Traffic Mitigation Fee Program. The identified impact fee shall be paid to the County program at the time of building permit issuance. County shall disperse that fee to the responsible jurisdiction at the time the improvement is made. The Board finds that while this revised mitigation would reduce the project's contribution at most affected intersections to a less than significant level, the mitigation contemplates action by other public agencies, Caltrans/City of American Canyon/City of Napa. A fair share payment would be considered to mitigate the project's contribution at most affected intersections to a less than significant level if Caltrans/City of American Canyon/City of Napa are able to demonstrate to the County's satisfaction that such that a fair share payment will actually result in construction of the contemplated improvements. Because Caltrans/City of American Canyon/City of Napa control what occurs at the intersection, however, and because the County is uncertain as to whether the fair share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the Board conservatively concludes that the impact shall be treated as significant and unavoidable, given that the County has no control over Caltrans/City of American Canyon/City of Napa and thus cannot take for granted that the improvements contemplated by the mitigation will get implemented. Consistent with Public Resources Code Section 21081(a)(2) and CEQA Guidelines section 15091, subdivision (a)(2), the County concludes, however, that Caltrans/City of American Canyon/City of Napa can and should cooperate with the County in implementing the mitigation. In the event that Caltrans/City of American Canyon/City of Napa do cooperate with the County and is able to demonstrate to the County's satisfaction that the fair share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the impact of the project would be rendered less than significant, though at present, as noted above, the Board considers the impact **significant and unavoidable**. The Board hereby adopts this mitigation measure and finds that specific economic, legal, social, technological and other benefits of the Project outweigh the remaining significant impact, as further set forth in the Statement of Overriding Considerations in Section 13 below. Furthermore, at four intersections where the project would contribute traffic in the cumulative scenario (First Street/Soscol Avenue; Third St/Soscol Ave; Imola Ave (SR 121) / Soscol Avenue; Imola Ave. (SR 121)/ Soscol Ave; and State Route 29/State Route 37 Westbound Off-Ramp) there are no feasible means of achieving acceptable operations. The only potential improvements would be large-scale intersection treatments, such as grade separation, continuous-flow intersections, or approach realignment, which are undesirable options for the affected communities and are therefore infeasible. Thus, even with the improvements described above, the project's contribution to cumulative impacts in the study area would remain significant and unavoidable. There are no feasible mitigation measures or alternatives that would reduce this impact to a less than significant level. Consequently, this impact is **significant and unavoidable.** Pursuant to Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a), the Board hereby adopts this mitigation measure and finds that specific economic, legal, social, technological and other benefits of the Project outweigh the remaining significant impact, as further set forth in the Statement of Overriding Considerations in Section 13 below.

SECTION 11. Rejection of Infeasible Mitigation Measures

CEQA does not require that a lead agency adopt every mitigation measure recommended in an EIR. However, when an agency rejects any of the mitigation measures identified in the EIR for a significant impact, it must make specific findings that the rejected measures are infeasible. These findings must show the agency's reasons for rejecting the mitigation measures that the EIR recommends. An agency may reject a mitigation measure recommended in an EIR if it finds that it would be infeasible to implement the measure because of "specific legal, economic, social, technological, or other considerations, including the provision of employment opportunities for highly trained workers." (Public Resources Code Section 21081(a)(3); 14 CCR Section 15091(a)(3).)

The Board rejects Mitigation Measure TRA-1a, which provides: "Construct a new eastbound right-turn lane prior to the occupancy of the project." The Board concurs with finding in the FEIR that this Mitigation Measure is infeasible, in that it would require widening of the recently completed bridge structure over the Napa River, and that is would be infeasible due to the cost, physical constraints of the site, and lack of community support for changes to the new bridge.

In several comments on the 2009 DEIR and Supplement to the 2009 DEIR, commenters suggested additional mitigation measures and/or modifications to the measures recommended in the 2009 DEIR and Supplement to the 2009 DEIR. As is evident from the FEIR, the County modified several of the original proposed measures in response to such comments, as set forth in the FEIR in response to such comments. The Board commends staff for its careful consideration of those comments, agrees with staff in those instances when staff did not accept proposed language, and hereby ratifies, adopts, and incorporates staff's reasoning on these issues.

In considering specific recommendations from commenters, the County has been cognizant of its legal obligation under CEQA to substantially lessen or avoid significant environmental effects to the extent feasible. The County recognizes, moreover, that comments frequently offer thoughtful suggestions regarding how a commenter believes that a particular mitigation measure can be modified, or perhaps changed significantly, in order to more effectively, in the commenter's eyes, reduce the severity of environmental effects. The County is also cognizant, however, that the mitigation measures recommended in the 2009 DEIR and Supplement to the 2009 DEIR represent the professional judgment and long experience of the County's expert staff and environmental consultants. The County therefore believes that these recommendations should not be lightly altered. Thus, in considering commenters' suggested changes or additions to the mitigation measures as set forth in the 2009 DEIR and Supplement to the 2009 DEIR, the County, in determining whether to accept such suggestions, either in whole or in part, has considered the following factors, among others: (i) whether the suggestion relates to a significant and unavoidable environmental effect of the Project, or instead relates to an effect that can already be mitigated to less than significant levels by proposed mitigation measures in the 2009 DEIR and Supplement to the 2009 DEIR; (ii) whether the proposed language represents a clear improvement, from an environmental standpoint, over the draft language that a commenter seeks to replace; (iii) whether the proposed language is sufficiently clear as to be easily understood by those who will implement the mitigation as finally adopted; (iv) whether the language might be too inflexible to allow for pragmatic implementation; (v) whether the suggestions are feasible from an economic, technical,

legal, or other standpoint; and (vi) whether the proposed language is consistent with the project objectives.

As is often evident from the specific responses given to specific suggestions, County staff and consultants spent large amounts of time carefully considering and weighing proposed mitigation language, and in many instances adopted much of what a commenter suggested. In some instances, the County developed alternative language addressing the same issue that was of concern to a commenter. In no instance, however, did the County fail to take seriously a suggestion made by a commenter or fail to appreciate the sincere effort that went into the formulation of suggestions.

SECTION 12. Project Alternatives.

A) Legal Requirements.

Public Resources Code section 21002, a key provision of CEQA, provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects[.]" The same statute states that the procedures required by CEQA "are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects."

Where a lead agency has determined that, even after the adoption of all feasible mitigation measures, a project as proposed will still cause one or more significant environmental effects that cannot be substantially lessened or avoided, the agency, prior to approving the project as mitigated, must first determine whether, with respect to such impacts, there remain any project alternatives that are both environmentally superior and feasible within the meaning of CEQA. Although an EIR must evaluate this range of *potentially* feasible alternatives, an alternative may ultimately be deemed by the lead agency to be "infeasible" if it fails to fully promote the lead agency's underlying goals and objectives with respect to the project. (*City of Del Mar, supra,* 133 Cal.App.3d at p. 417.) "'[F]easibility' under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors." (*Ibid.*; see also *CNPS*, *supra*, 177 Cal. App. 4th at p. 1001.) Thus, even if a project alternative will avoid or substantially lessen any of the significant environmental effects of the project, the decision-makers may reject the alternative if they determine that specific considerations make the alternative infeasible.

Section 15126.6(f) of the CEQA Guidelines requires that an EIR include a "reasonable range of alternatives to the project, or to the location of the project, which would avoid or substantially lessen any significant effects of the project." Under CEQA Guidelines section 15126.6, the alternatives to be discussed in detail in an EIR should be able to "feasibly attain most of the basic objectives of the project[.]" Based on the analysis in FEIR the proposed Project would be expected to result in significant and unavoidable impacts to Population/Employment/Housing, Traffic/Transportation, Air Quality, Greenhouse Gas Emissions, and Cultural Resources. The FEIR alternatives were designed to avoid or reduce the significant unavoidable impacts, and to further reduce impacts that were found to be less than significant. The Board has reviewed the significant impacts associated with the reasonable range of alternatives as compared to the Project as originally

proposed, and in evaluating the alternatives has also considered each alternative's feasibility, taking into account a range of economic, environmental, social, legal and other factors. In evaluating the alternatives, the Board has also considered the important factors listed in the Statement of Overriding Considerations in Section 13 below.

Public Resources Code Section 21081(b)(3) provides that when approving a project for which an EIR has been prepared, a public agency may find that specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

B) Range of Alternatives.

Section 5.0 of the Supplement to the 2009 DEIR describes the alternatives considered and compares their impacts to the originally proposed Project's impacts. The four categories of alternatives to the proposed Project that were evaluated are: The No Project Alternatives, Reduced Development Alternatives, Project Variation Alternatives, and Off-Site Alternatives. Each alternative category and subsets thereof are discussed below.

The Board finds that that a good faith effort was made to evaluate all feasible alternatives in the EIR that are reasonable alternatives to the Project and could feasibly obtain the basic objectives of the Project, even when the alternatives might impede the attainment of the Project objectives and might be more costly. As a result, the scope of alternatives analyzed in the EIR is not unduly limited or narrow. The Board also finds that all reasonable alternatives were reviewed, analyzed and discussed in the review process of the EIR and the ultimate decision on the Project.

C) Significant, Unavoidable Impacts of the Project.

The Project will result in the significant and unavoidable impacts discussed in Sections 9 and 10, above.

D) Scope of Necessary Findings and Considerations for Project Alternatives.

As noted above, these findings address whether the various alternatives substantially lessen or avoid any of the significant unavoidable impacts associated with the Project and (though not legally necessary) also consider the feasibility of each alternative. Under CEQA, "(f)easible means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." (CEQA Guidelines § 15364.) As explained earlier, the concept of feasibility permits agency decision makers to consider the extent to which an alternative is able to meet some or all of a project's Objectives. In addition, the definition of feasibility encompasses "desirability" to the extent that an agency's determination of infeasibility represents a reasonable balancing of competing economic, environmental, social, and technological factors supported by substantial evidence. In identifying potentially feasible alternatives to the Project, the Project Objectives discussed in Section 3, above, were considered.

E) Description of Project Alternatives.

The 2009 DEIR and Supplement to the 2009 DEIR examined the project alternatives in detail comparing the alternatives to the originally proposed Project. The following findings compare the Alternatives to the Developers Revised Proposal.

1) The No Project Alternatives.

CEQA Guidelines Section 15126.6(e)(1) states that a "no project" alternative shall be analyzed. The purpose of describing a "no project" alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. The "no project" alternative analysis is not the baseline for determining whether the environmental impacts of a proposed project may be significant, unless the analysis is identical to the environmental setting analysis, which does establish that baseline. Here, the No Project Alternatives are identified and analyzed consistent with the requirements of CEQA Guidelines Section 15126.6(e)(2), which provides the analysis shall discuss the existing conditions at the time the notice of preparation is published, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

Description: Two No Project Alternatives are analyzed, the Existing Uses Alternative and the Industrial Uses/Business Parks Alternative.

a) Existing Uses Alternative.

Under the Existing Uses Alternative, the site would remain in its existing condition. This alternative includes reuse of the existing structures on the site but assumes that no new structures would be constructed. The project site would remain in its current Study Area General Plan land use designation and would maintain its current Industrial zoning with the Airport Compatibility Combination District overlay zoning. The project site would be utilized for industrial related uses or other uses that would not require the redevelopment of the site, although some remediation of the site would occur consistent with likely commercial and industrial uses. This alternative is not analyzed in detail because it is generally represented by the existing environmental setting described in Chapter 4, Environmental Evaluation of the 2009 DEIR and Supplement.

Finding: The Supplement to the 2009 DEIR pages 5-11 through 5-12 provides a description of this alternative and the impact effects of this alternative. As noted therein, this alternative would result in slight improvements in certain resources areas, but increased impacts in the areas of Traffic and Transportation, Greenhouse Gases and Aesthetics, as compared to the Project. In addition, pursuant to Public Resources Code Section 21081(b)(3) and CEQA Guidelines Section 15091(a), the Board finds that the Existing Uses Alternative is less desirable and infeasible because of specific economic, legal, social, technological, or other considerations, including:

1) It is unreasonable and therefore infeasible to expect a private property owner to maintain a 154-acre parcel in limited use and not to pursue development under existing zoning and general plan designations if a rezoning and general plan amendment is not approved.

2) This alternative would not allow the County to fulfill its obligations under General Plan Housing Program H-4e rezone 20 acres of the Napa Pipe site to allow housing development at a minimum density of 20 dwelling units per acre for 304 dwelling units with associated public open space.

3) It would make it infeasible to for the property owner to fund site remediation and infrastructure improvements.

4) This alternative would not provide for public access to and through the site to the Napa River.

For the reasons stated above, the Board finds the Existing Uses Alternative to be infeasible and rejects it as a viable alternative to the Developers Revised Proposal.

b) Industrial Uses/Business Park Alternative

Under the Industrial Uses/Business Park Alternative, the project site would be redeveloped under its current General Plan and zoning designations to include new industrial and business park uses, but no residential uses. The total amount of development onsite would be 2,000,000 square feet of office, R&D, light industrial, distribution center and warehousing uses. This alternative would also include a waterfront park area providing access to the Napa River. The site would be remediated, but only to the level necessary for industrial uses, and the site would be raised via the placement of fill. This alternative assumes that the City of Napa would continue to provide potable water and that the site would continue to rely in part on on-site groundwater, and that the Napa Sanitation District would continue to provide wastewater treatment. The Napa County Fire Department and Napa County Sheriff would continue to provide public safety services.

Finding: The Supplement to the 2009 DEIR pages 5-11 through 5-23 provides a detailed description of this alternative and the impact effects of this alternative. The Developers Revised Proposal would allow for development of the same uses as the Industrial Uses/Business Park Alternative on the 91 acre portion of the site, but a condition of approval would cap the developable square footage on the 91 acre portion of the site at 319,000 gross square feet. As such, in comparing the impacts of the Industrial Uses/Business Park Alternative, the Industrial Uses/Business Park Alternative would have similar impacts to the Developers Revised Proposal in the areas of Land Use and Public Policy, Population/Employment/Housing, Air Quality, Hazards and Hazardous Materials, and Cultural Resources. This alternative would also result in slight improvements in certain resources areas, including Noise, Geology/Soils/Seismicity, Hydrology and Drainage, Public Services and Recreation, and Utilities. The Industrial Uses/Business Park Alternative would result also result in increased impacts in the areas of Biological Resources, Traffic and Transportation, Greenhouse Gases, and Aesthetics, as compared to the Developers Revised Proposal. In addition, pursuant to Public Resources Code Section 21081(b)(3) and CEQA Guidelines Section 15091(a), the Board finds that the Industrial Uses/Business Park Alternative is less desirable and infeasible because of specific economic, legal, social, technological, or other considerations, including:

1) This alternative would not allow the County to fulfill its obligations under General Plan Housing Program H-4e rezone 20 acres of the Napa Pipe site to allow housing development at

a minimum density of 20 dwelling units per acre for 304 dwelling units with associated public open space.

2) It would result in more traffic than any other alternative, or the proposed Project.

3) Remediation of the site for industrial uses would be to lower cleanup levels.

4) It would provide less open space than other alternatives.

For the reasons stated above, the Board finds the Industrial Uses/Business Park Alternative to be infeasible and rejects it as a viable alternative to the Developers Revised Proposal.

2) Reduced Density Development Alternatives

a) Low Density Development Alternative I

Under the Low Density Development Alternative I, the Napa Pipe site would be redeveloped with 650 housing units in a residential subdivision of single-family, detached housing units at a density of approximately 11 units per acre. Twenty percent of the units would be affordable. This alternative would also include 190,000 square feet of office/R&D/light industrial/warehousing uses in ALUCP Zone D and 200,000 square feet in ALUCP Zone E, a 215-unit senior housing facility, a 150-suite hotel with associated uses and 38 acres of open space. This alternative would also include a 19-acre reserve area that would be left undeveloped and reserved for future uses. No public restaurant or retail uses would be included in this alternative.

Finding: The Supplement to the 2009 DEIR pages 5-25 through 5-37 provides a detailed description of this alternative and the impact effects of this alternative. This alternative would have similar impacts to the Developers Revised Proposal in the areas of Population/Employment/Housing, Biological Resources, Noise, Hazards and Hazardous Materials, Cultural Resources, and Aesthetics. This alternative would also result in slight improvements in certain resources areas, including Traffic and Transportation, Air Quality, Greenhouse Gases, Geology/Soils/Seismicity, Hydrology and Drainage, Public Services and Recreation, and Utilities. But this alternative would result in increased impacts in the area of Land Use and Public Policy, as compared to the Developers Revised Proposal. In addition, pursuant to Public Resources Code Section 21081(b)(3) and CEQA Guidelines Section 15091(a), the Board finds that the Low Density Development Alternative I is less desirable and infeasible because of specific economic, legal, social, technological, or other considerations, including:

1) This alternative would produce a conventional subdivision, not a "walkable" neighborhood in conformance with the Applicant's and County's project objectives.

2) By not producing multi-family housing, it would only partially address the County housing objectives by only deed restricting 130 single family homes as affordable.

3) Other housing on the site would not count towards the County's RHNA requirements for moderate, low, or very low units because it would not achieve densities of 20 dwelling units per acre in conformance with General Plan Housing Program H-4e and State law.

4) This alternative would not include development of a Costco, which is expected to generate significant sales tax revenue, which would be available to fund local services.

For the reasons stated above, the Board finds the Low Density Development Alternative I to be infeasible and rejects it as a viable alternative to the Developers Revised Proposal.

b) Low Density Development Alternative II.

Under the Low Density Development Alternative II, the project site would be redeveloped with 950 housing units, primarily consisting of single-family detached houses, with limited townhouses, at a density of approximately 14 units per acre. This alternative would also include 190,000 square feet of office/R&D/light industrial/warehousing uses in ALUCP Zone D, as well as a 215-unit senior housing facility, a 150-suite hotel with associated uses and 38 acres of open space. This alternative would also include a 19-acre reserve area that would be left undeveloped and reserved for future uses.

Finding: The DEIR pages 5-37 through 5-47 provides a detailed description of this alternative and the impact effects of this alternative. This alternative would have similar impacts to the Developers Revised Proposal in the areas of Population/Employment/Housing, Biological Resources, Noise, Hazards and Hazardous Materials, Cultural Resources, and Aesthetics. This alternative would also result in slight improvements in certain resources areas, including Traffic and Transportation, Air Quality, Greenhouse Gases, Geology/Soils/Seismicity, Hydrology and Drainage, Public Services and Recreation, and Utilities. But this alternative would result in increased impacts in the area of Land Use and Public Policy, as compared to the Developers Revised Proposal. In addition, pursuant to Public Resources Code Section 21081(b)(3) and CEQA Guidelines Section 15091(a), the Board finds that the Low Density Development Alternative II is less desirable and infeasible because of specific economic, legal, social, technological, or other considerations, including:

1) While this Alternative would resemble the staff recommendation of the Developers Revised Proposal in terms of the total number of units, it would use a greater portion of the site and would not include densities of 20 dwelling units per acre in conformance with General Plan Housing Element Program H-4e and State law.

2) This alternative would not include development of a Costco, which is expected to generate significant sales tax revenue, which would be available to fund local services.

For the reasons stated above, the Board finds the Low Density Development Alternative II to be infeasible and rejects it as a viable alternative to the Developers Revised Proposal.

c) Mid-Range Density Alternative.

Under the Mid-Range Density Alternative, the project site would be redeveloped with a mix of detached and attached housing types at a density of approximately 41 units per acre. With up to 2,050 housing units, this would enable a walkable, transit-oriented development. This alternative would include 190,000 square feet of office/R&D/light industrial/warehousing uses in ALUCP Zone D. In addition, this alternative would include 40,000 square feet of retail and restaurants, a 150-unit senior housing facility, a 150-suite hotel with associated uses and 53 acres of open space.

This alternative would also include a 19-acre reserve area that would be left undeveloped and reserved for future uses.

Finding: The Supplement to the 2009 DEIR pages 5-47 through 5-57 provides a detailed description of this alternative and the impact effects of this alternative. This alternative would have similar impacts to the Developers Revised Proposal in many areas, but would result in slight deteriorations in certain resources areas. In particular, this alternative would have similar impacts to the Modified 63-Acre/Costco Project in the areas of Land Use and Public Policy, Biological Resources, Hazards and Hazardous Materials, Cultural Resources, Hydrology and Drainage, and Aesthetics. In the areas of Population/Employment/Housing, Traffic and Transportation, Noise, Air Quality, Greenhouse Gases, Public Services and Recreation, and Utilities, the Originally Proposed Project Alternative would represent a slight deterioration compared to the Developers Revised Proposal. In addition, pursuant to Public Resources Code Section 21081(b)(3) and CEQA Guidelines Section 15091(a), the Board finds that the Mid-Density Alternative is less desirable and infeasible because of specific economic, legal, social, technological, or other considerations, including:

1) This alternative is the modified project currently proposed by the Applicant and would be feasible as an alternative to the Developers Revised Proposal recommendation. However, this alternative would:

a) Amend the County's growth management system to provide more growth at a faster pace than the Developers Revised Proposal;

b) Would reserve less of the site for non-residential uses in the future; and

c) Would not include development of a Costco, which is expected to generate significant sales tax revenue, which would be available to fund local services.

2) The Board also does not believe this alternative adequately takes into account changes to the housing market since 2007, and the reduced RHNA requirements the County expects to receive in the future.

For the reasons stated above, the Board finds the Mid-Range Density Alternative to be infeasible and rejects it as a viable alternative to the Developers Revised Proposal.

3) Originally Proposed Project Alternative.

Under the Originally Proposed Project Alternative, the project site would be redeveloped with a mix of housing types, with up to 2,580 housing units, which would enable a walkable, transit-oriented development. This alternative would include 140,000 square feet of office/R&D/light industrial/warehousing uses in ALUCP Zone D. In addition, this alternative would include 40,000 square feet of retail and restaurants, a 150-unit senior housing facility, a 150-suite hotel with associated uses and 56 acres of parks and open space. This alternative would also include a 19-acre reserve area that would be left undeveloped and reserved for future uses.

Finding: The SEA provides a detailed description of this alternative and the impact effects of this alternative in comparison to the Developers Revised Proposal. As noted therein, the Originally Proposed Project Alternative would have similar impacts to the Developers Revised Proposal in the areas of Land Use and Public Policy, Biological Resources, Hazards and Hazardous Materials, Cultural Resources, Hydrology and Drainage, and Aesthetics. In the areas of

Population/Employment/Housing, Traffic and Transportation, Noise, Air Quality, Greenhouse Gases, Public Services and Recreation, and Utilities, the Originally Proposed Project Alternative would represent a slight deterioration compared to the Developers Revised Proposal. In addition, pursuant to Public Resources Code Section 21081(b)(3) and CEQA Guidelines Section 15091(a), the Board finds that the Originally Proposed Project Alternative is less desirable and infeasible because of specific economic, legal, social, technological, or other considerations, including:

1) This alternative would amend the County's growth management system to provide more growth at a faster pace than the Developers Revised Proposal.

2) This alternative would reserve less of the site for non-residential uses in the future.

3) This alternative would not include development of a Costco, which is expected to generate significant sales tax revenue, which would be available to fund local services.

4) The Board also does not believe this alternative adequately takes into account changes to the housing market since 2007, and the reduced RHNA requirements the County expects to receive in the future.

For the reasons stated above, the Board finds the Originally Proposed Project Alternative to be infeasible and rejects it as a viable alternative to the Developers Revised Proposal.

4) Project Variation Alternatives

The Project Variation Alternatives described below consist of similar project components as the proposed project, and would be developed according to the site plan included as Figure 3-6 in this EIR. These alternatives consider variations in aspects of the proposed project that are intended to provide environmental benefits.

a) Reduced Carbon Emission Alternative.

Under the Reduced Carbon Emission Alternative, the project would be developed as proposed, but would include additional measures for reducing greenhouse gas outputs, with the goal of reaching a carbon neutral status. Greenhouse gas emission reduction measures would include implementation of passenger rail service between the site, Green Island Road (to the south) and Trancas Street (to the north). Other measures would include alternative energy generation on-site and carbon offsets, wherein the applicant would pay to improve energy conservation in existing buildings to offset new energy that is used on-site.

Finding: The DEIR pages 5-57 through 5-70 provides a detailed description of this alternative and the impact effects of this alternative. This alternative would have similar impacts to the Developers Revised Proposal in the areas of Biological Resources, Hazards and Hazardous Materials, Cultural Resources, Hydrology and Drainage, and Aesthetics. This alternative would provide an improvement over the Developers Revised Proposal in the areas Air Quality and Greenhouse Gases. In the areas of Land Use and Public Policy, Population/Employment/Housing, Traffic and Transportation, Noise, Public Services and Recreation, and Utilities, this alternative would represent a slight deterioration compared to the Developers Revised Proposal. In addition, pursuant to Public Resources Code Section 21081(b)(3) and CEQA Guidelines Section 15091(a),

the Board finds that the Reduced Carbon Emission Alternative is less desirable and infeasible because of specific economic, legal, social, technological, or other considerations, including:

1) This alternative includes substantial investments in rail service and other measures that are deemed infeasible at this time due to the lack of public support, detailed planning and environmental analysis, and funding.

2) This alternative would not include development of a Costco, which is expected to generate significant sales tax revenue, which would be available to fund local services.

For the reasons stated above, the Board finds the Reduced Carbon Emission Alternative to be infeasible and rejects it as a viable alternative to the originally proposed Project and the Developers Revised Proposal.

b) City Water Alternative

Under the City Water Alternative, the project would rely upon the City of Napa's water supply rather than groundwater. There are two options for the City Water Alternative. Under City Water Alternative-A, the project would rely exclusively on the City of Napa's water supply rather than groundwater. Under City Water Alternative-B, groundwater resources could be utilized to supplement City water during drought years, under a "conjunctive use" arrangement that could be a benefit to the City's water system. Under a conjunctive use arrangement, surface water and groundwater are utilized based on drought conditions. During wet years, surface water can be utilized, which allows for groundwater recharge; during dry years, groundwater can be utilized, thereby reducing strain on surface water supplies. By diversifying the water supply, conjunctive use arrangements allow for a flexible approach to water management.

Finding: The Supplement to the 2009 DEIR pages 5-70 through 5-76 provides a detailed description of this alternative and the impact effects of this alternative, which would have similar impacts to the Developers Revised Proposal. The Board finds that the City Water Alternative- A is desirable and is in fact an aspect of the project being approved, although the final decision to provide City water would be the City's.

The Board finds the City Water Alternative – Option B is not necessary and is environmentally inferior as the WSA has found the City has sufficient capacity to serve the project without the need of conjunctive groundwater use if the City elects to serve the project.

4) Off-site Alternatives - Regional Housing Needs Allocation Transfer Alternative

Under a Regional Housing Needs Allocation (RHNA) transfer, Napa County would enter into an agreement or agreements with one or more incorporated jurisdictions wherein the County would transfer all of its RHNA allocations for the next two (Option A) or three (Option B) housing cycles to the cities.

a) Option A of the RHNA Transfer Alternative

Under Option A of the RHNA Transfer Alternative, a 20-acre portion of the project site would be re-zoned to allow for high-density multi-family housing (up to 304 units), with associated

open space. The remainder of the site would be developed as described under the Industrial Uses/Business Park Alternatives. In addition, the County would negotiate one or more RHNA transfer agreements for approximately 1,000 to 1,200 housing units over two future housing cycles.

b) Option B of the RHNA Transfer Alternative

Under Option B of the RHNA Transfer Alternative, the County would transfer approximately 1,300 to 1,500 units to cities in the county for the current housing cycle as well as two future cycles. The project site would be developed as described under the Industrial Uses/Business Park Alternatives.

Although there are subtle variations between each of the RHNA Transfer Options, both with respect to on-site and off-site environmental effects, the FEIR came to the following conclusions with respect to overall environmental effects of this alternative compared to the originally proposed Project, which would also apply to a comparison of this alternative to the Developers Revised Proposal based on the analysis in the SEA. This alternative would have similar effects in the areas of Population/Employment/Housing, Noise, Air Quality, Hazards and Hazardous Materials, Geology/Soils/Seismicity, Cultural Resources, Public Services and Recreation, Aesthetics. This alternative would result in a slight improvement with respect to Public Services and Recreation. Compared to the originally proposed project, this alternative would be slight deterioration with respect to Land Use and Public Policy, Biological Resources, Hydrology and Drainage, and Aesthetics. Finally, with respect to Traffic and Transportation, it is expected this alternative would result in a substantial deterioration compared to the originally proposed project.

Finding: The Supplement to the 2009 DEIR pages 5-76 through 5-93 provides a detailed description of this alternative and the impact effects of this alternative both on-site and off-site. This alternative would have similar effects to the Developers Revised Proposal in the areas of Population/Employment/Housing, Noise, Air Quality, Hazards and Hazardous Materials, Geology/Soils/Seismicity, Cultural Resources, Public Services and Recreation, Aesthetics. This alternative would result in a slight improvement with respect to Public Services and Recreation. Compared to the Developers Revised Proposal, this alternative would be slight deterioration with respect to Land Use and Public Policy, Biological Resources, Hydrology and Drainage, and Aesthetics. Finally, with respect to Traffic and Transportation, it is expected this alternative would result in a substantial deterioration compared to the Developers Revised Proposal. In addition, pursuant to Public Resources Code Section 21081(b)(3) and CEQA Guidelines Section 15091(a), the Board finds that the Off Site RHNA Alternatives are less desirable and infeasible because of specific economic, legal, social, technological, or other considerations, including:

1) While Option A of the RHNA Alternative would implement the County's Housing Element Program H-4e, it would not result in a "walkable" neighborhood in conformance with the Applicant's and the County's objectives. Additionally, this alternative would necessitate revisions to the clean-up plan for the site, and may mean that a 20 acre residential area would be located adjacent to an industrial area that would not be remediated to desired cleanup levels. Open space and infrastructure improvements would not be extensive.

2) Under Option B of the RHNA Alternative, an inconsistency with the County's Housing Element would result, and the findings associated with the Industrial Uses/Business Park Alternative would remain.

3) Neither Option A nor Option B would include development of a Costco, which is expected to generate significant sales tax revenue, which would be available to fund local services.

For the reasons stated above, the Board finds the RHNA Transfer Alternatives to be infeasible and rejects it as a viable alternative to the Developers Revised Proposal.

SECTION 13. Statement of Overriding Considerations.

In approving the Developers Revised Proposal, the Board makes the following Statement of Overriding Considerations in support of its findings on the FEIR. The Board has considered the information contained in the FEIR (the 2009 DEIR and Supplement to the 2009 DEIR, and Comments and Responses to those documents, Supplemental Environmental Assessment, and all other public comments, responses to comments, and accompanying technical memoranda and staff reports included in the public record between February 21, 2012 through June 4, 2013).

The Board has carefully balanced the benefits of the Developers Revised Proposal against any adverse impacts identified in the FEIR that could not be feasibly mitigated to a level of insignificance and determines that several of the unavoidable impacts would occur regardless of the alternative that is adopted and implemented at the Napa Pipe site. For example:

Impact TRA-19 is considered significant and unavoidable because development on the site would contribute to increased traffic volumes and congestion in the region. Yet no matter what is developed on the Napa Pipe site, this congestion is expected to occur.

Impact GHG-1 is considered significant and unavoidable because development on the site would make it more difficult for the County to achieve the policy goals of AB 32 and the County's General Plan. If the project's emissions were compared to the BAAQMD's significance threshold of 4.6 metric tons per capita per year, its impacts would be considered less than significant.

Notwithstanding the identification and analysis of impacts that are identified in the FEIR as being significant and which have not been eliminated, lessened or mitigated to a level of insignificance, the Board, acting pursuant to CEQA Guidelines Section 15092 and 15093, hereby determines that remaining significant effects on the environment found to be unavoidable in Sections 9 and 10 above, are acceptable due to overriding concerns described herein. Specifically, the benefits of the Developers Revised Proposal outweigh the unmitigated adverse impacts and the Developers Revised Proposal should be approved.

Based on the objectives identified in the FEIR and administrative record, and through extensive public participation, the Board has determined that the Developers Revised Proposal should be approved, and any remaining unmitigated environmental impacts attributable to the Developers Revised Proposal are outweighed by the following specific environmental, economic, fiscal, social, housing and other overriding considerations, each one being a separate and independent basis upon which to approve the Developers Revised Proposal. Substantial evidence in the record demonstrates the County would derive the following benefits from approval of the Project:

1) The Developers Revised Proposal incorporates all feasible mitigation measures to reduce potential environmental impacts to the greatest extent feasible.

2) The Developers Revised Proposal would result in the remediation of hazardous materials on the entire Napa Pipe site consistent with a clean-up plan approved by the Regional Water Quality Control Board.

3) The Developers Revised Proposal would make a substantial contribution towards meeting the County's Regional Housing Needs Allocation (RHNA), by developing multifamily housing at densities of 20 dwelling units per acre or more, including units that are designated affordable housing categories.

4) The Developers Revised Proposal would integrate affordable housing within the market-rate housing development area.

5) The Developers Revised Proposal would reduce the pressure for residential development of properties within the County's Agricultural Preserve and the existing neighborhoods of the incorporated Cities by redeveloping County industrial lands as residential.

6) The Developers Revised Proposal would locate housing in proximity to jobs to reduce commuting traffic to and from the jobs within a 4-mile radius of the project.

7) The Developers Revised Proposal would recycle one of the County's largest urbanized and underutilized properties into a compact walkable neighborhood, promoting walking, biking, transit use and other environmental benefits when compared to traditional residential subdivisions.

8) The Developers Revised Proposal would provide river-front access, regional trail connections, and publicly accessible open space to residents and visitors, including regional trail connections if feasible.

9) The Developers Revised Proposal would generate more than sufficient revenues through increased property taxes, transient occupancy taxes, and other sources to pay for required services.

10) The Developers Revised Proposal would develop a Costco, which is expected to generate significant sales tax revenue, which would be available to fund local services.

Based on the foregoing, the Board believes the Project benefits outlined above override the significant and unavoidable environmental costs associated with the Project and hereby adopts this Statement of Overriding Considerations.

SECTION 14. Adoption of a Mitigation Monitoring and Reporting Program.

In accordance with CEQA Guidelines Section 15097, the Board adopts the Mitigation Monitoring and Reporting Program attached as Exhibit "B."

SECTION 15. Adoption of Water Supply Assessment.

The Board finds that the Water Supply Assessment (prepared by Brownstein, Hyatt, Farber and Schreck, dated May 14, 2013) complies with the requirements of Public Resources Code section 21151.9 and Water Code sections 10910 et seq., and adopts the same as set forth in Exhibit "C" attached hereto and incorporated herein by reference. The Board finds, based on substantial evidence in the record, that there are sufficient water supplies available during normal, single-dry and multiple-dry years during a at least a 20-year projection which will meet the projected water demand associated with the Developers Revised Proposal, in addition to existing and planned uses.

SECTION 16. Government Code Section 65589.5 Findings.

By approving the Developers Revised Proposal, the Board is denying the Napa Pipe Project as previously proposed by the project applicant. The applicant's previous proposal, as refined to 2,050 dwelling units, includes 20% of the dwelling units deed restricted as affordable to low and very low income households. In relation to the denial of the applicant's proposal, the Board makes the following findings pursuant to Government Code Section 65589.5(d)(5) and Section 65589.5(j):

Based on substantial evidence in the record:

1. The Board finds that the proposed Napa Pipe Project was inconsistent with both the County's zoning ordinance and General Plan land use designation for the site as of (February 3, 2012), the date the Napa Pipe Project application was deemed complete. On that date, the General Plan Land Use Element designated the site as a "Study Area," permitting only industrial uses (such as warehouses, manufacturing, wineries and food processing facilities, and research and development) and multifamily uses to the extent provided in the Housing Element (304 units) until a development plan was approved and a General Plan amendment adopted. The County's zoning ordinance designated the site "Industrial," permitting only industrial, agricultural, and limited ancillary uses.

The Napa Pipe Project proposal was inconsistent both the County's zoning ordinance and General Plan land use designation on February 3, 2012. The proposed Napa Pipe Project included 2,580 units, a continuing care retirement center, 40,000 sq. ft. of neighborhood-serving retail and restaurants, 50,000 sq. ft. of offices, and a 150-room hotel, all of which were inconsistent with the industrial uses and 304 units permitted by the Study Area designation. Further, these uses were inconsistent with the Industrial zoning district because none were permitted in the Industrial district. The Napa Pipe Project proposal requested a General Plan redesignation of the site from "Study Area" to "Napa Pipe Mixed Use" and a rezoning of the site to a newly created Napa Pipe Zoning District.

2. The Board finds that the County adopted a revised Housing Element on June 23, 2009 in accordance with Government Code Section 65588 (requiring adoption by June 30, 2009). Based on substantial evidence in the record of the Housing Element adoption, the Housing Element is in substantial compliance with Article 10.6 of Chapter 3, Division 1, Title 7 of the Government Code and has identified an inventory of land that can be developed for housing within the planning period that is sufficient to provide for the County's share of the regional housing need for all income levels pursuant to Government Code Section 65584. (The Napa County Superior Court has upheld the adequacy of the County's Housing Element in a Statement of Decision issued February 1, 2012

in the case of *Latinos Unidos Del Valle De Napa Y Solano, et al. vs. County of Napa, et al.*, NCSC Case No. 26-50568.)

3. The Board finds that approval of the Developers Revised Proposal includes the approval of residences on the Napa Pipe site, which was identified as suitable for lower income housing in the County's Housing Element.

The Board additionally finds, based on substantial evidence in the record, that the proposed Napa Pipe Project is not a "housing development project" as defined in Government Code Section 65589.5(h)(2), in that the proposed Napa Pipe Project is not a project that consists of residential units only (Section 65589.5(h)(2)(A)), nor is the Napa Pipe Project a mixed-use development where nonresidential uses are limited to neighborhood commercial uses and to the first floor of buildings that are two or three stories high (Section 65589.5(h)(2)(B)). The proposed Napa Pipe Project includes a 150-room hotel, 50,000 sq. ft. of offices, and 140,000 sq. ft. of research and development, industrial, and warehouse uses (Final EIR Page 3-5), none of which are "neighborhood commercial" uses consisting of small-scale general or specialty stores that furnish goods and services primarily to neighborhood residents (Section 65589.5(h)(2)(B)).

SECTION 17. Recirculation is Not Required.

In the course of responding to comments received during the public review and comment period on the 2009 DEIR and Supplement to the 2009 DEIR, certain portions of those documents have been modified and some new information amplifying and clarifying information in the 2009 DEIR and Supplement EIR has been added to the Final EIR. As part of the final approval package for the Developers Revised Proposal, the County prepared an analysis of the modifications to the originally proposed contained in the *September 19, 2010 Supplemental Environmental Assessment* ("SEA") and has assessed whether those modifications trigger the thresholds for recirculation as identified in Public Resources Code Section 21092.1 and in Section 15088.5 of the CEQA Guidelines. Also, in response to public testimony and consultation with the City of Napa, the County prepared a revised water supply assessment and made some small, and inconsequential, changes to the text of the proposed zoning ordinance and some of the mitigation measures, none of which trigger the thresholds for recirculation as identified in Public Resources Code Section 21092.1 and in Section 15088.5 of the CEQA Guidelines. Recirculation is required under CEQA only when significant new information added to an EIR results in a disclosure showing, in relevant part, that:

- A new significant environmental impact resulting from the project or from a new mitigation measure proposed to be implemented;
- A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance; or
- A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.

(See Pub. Resources Code, § 21092.1; CEQA Guidelines, § 15088.5; *Laurel Heights Improvement Association v. Regents of the University of California* (1993) 6 Cal. 4th 1112, 1130 (*Laurel Heights II*).)

The SEA demonstrated that the Developers Revised Proposal adopted by the Board falls within the scope of the 2009 DEIR and Supplement. Adoption and implementation of the Developers Revised Proposal will not result in any significant environmental impacts not identified in the Draft EIR or result in a substantial increase in the severity of a significant environmental impact identified in the 2009 DEIR and Supplement that cannot be mitigated to a less-than-significant level. There are no substantial changes in the Project as modified or the circumstances under which the Project as modified is being undertaken that necessitate revisions of the 2009 DEIR and Supplement than the significant new information analyzed in the Supplement, and no other significant new information has become available. "Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR." (CEQA Guidelines 15088.5(b).) The above standard is "not intend[ed] to promote endless rounds of revision and recirculation of EIRs." (*Laurel Heights Improvement Assn. v. Regents of the University of California* (1993) 6 Cal. 4th 1112, 1132.)

Notably, CEQA case law emphasizes that "'[t]he CEQA reporting process is not designed to freeze the ultimate proposal in the precise mold of the initial project; indeed, new and unforeseen insights may emerge during investigation, evoking revision of the original proposal.'" (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 736-737; see also *River Valley Preservation Project v. Metropolitan Transit Development Bd.* (1995) 37 Cal.App.4th 154, 168, fn. 11.) Thus, none of these changes involves "significant new information" triggering recirculation because the changes did not result in any new significant environmental effects or any substantial increase in the severity of any previously identified significant effects that could not be mitigated to a less-than-significant level, or otherwise trigger recirculation. Instead, the modifications were either environmentally benign or environmentally neutral, and thus represent the kinds of changes that commonly occur as the environmental review process works towards its conclusion. The Board of Supervisors hereby determines, based on the standards provided in Public Resources Code Section 21092.1 and Section 15088.5 of the CEQA Guidelines, that recirculation of the 2009 DEIR and Supplement is not required prior to adoption of the Developers Revised Proposal.

SECTION 18. Record of Proceedings.

The environmental analysis provided in the 2009 DEIR, Supplement to the 2009 DEIR, the Final EIR and the Findings provided herein are based on and are supported by the following document, materials and other evidence, which constitute the Administrative Record for the Developers Revised Proposal:

1) The NOP, comments received on the NOP and all other public notices issued by the County in relation to the Napa Pipe EIR (e.g., Notice of Availability).

2) The 2009 DEIR and Supplement to the 2009 DEIR, and associated appendices to those documents and technical materials cited in those documents.

3) The Final EIR, including comment letters, oral testimony, changes to the text of the 2009 DEIR and Supplement, technical materials cited in the document, responses to comments, as well as all of the comments and staff responses entered into the record orally and in writing between February 21, 2012 and January 14, 2013, as well as accompanying technical memos or evidence entered into the record.

4) All non-draft and/or non-confidential reports and memoranda prepared by the County and consultants related to the EIR, its analysis and findings.

5) All findings and resolutions adopted by the Board in connection with the Project and all documents cited or referred to therein.

6) Minutes and transcripts of the discussions regarding the Project and/or Project components at public hearings or scoping meetings held by the Planning Commission and the Board of Supervisors.

7) Staff reports associated with Planning Commission and Board Meetings on the Napa Pipe Project and supporting technical memoranda.

8) Any other materials required for the record of proceedings by Public Resources Code section 21167.6, subdivision (e).

SECTION 19. Location and Custodian of Records.

The documents and other materials that constitute the record of proceedings on which the Board's findings regarding the mitigation measures and statement of overriding considerations are based are located at the office and in the custody of the Napa County Department of Conservation, Development and Planning, at 1195 Third Street, Suite 210, Napa, California. The location and custodian of these documents is provided in compliance with Public Resources Code Section 21081.6(a)(2) and 14 Cal. Code of Regulations section 15091(e).

SECTION 20. Adoption of Conforming Amendments to the General Plan.

The Board hereby adopts the Conforming Amendments to the Napa County General Plan as set forth in Exhibit "A" attached hereto and incorporated herein by reference.

SECTION 21. Filing Notice of Determination.

The Board hereby directs the Conservation, Development and Planning Department to file a Notice of Determination regarding the proposed Project within five business days of adoption of this Resolution.

SECTION 22. Effective Date.

This resolution shall take effect immediately upon its adoption.

The foregoing resolution was read, considered, and adopted at a regular meeting of the Board of Supervisors of the County of Napa, State of California, on the 4th day of June, 2013, by the following vote:

AYES: SUPERVISORS DODD, CALDWELL, WAGENKNECHT, LUCE, and DILLON

NOES: SUPERVISORS NONE

ABSENT: SUPERVISORS NONE

BRAD WAGENKNECHT, Chairman
Napa County Board of Supervisors

ATTEST: GLADYS I. COIL
Clerk of the Board of Supervisors

By: _____

Attachments: Exhibit A - Conforming Amendments to the General Plan
Exhibit B - Mitigation and Monitoring Reporting Program
Exhibit C – Water Supply Assessment

cc\D\PL\Napa Pipe\DevelopersRevisedProposal\
BOS Approval\Reso BOS CEQA Findings Final (6.4.13)

APPROVED AS TO FORM
Office of County Counsel

By: *Robert Paul* (by e-signature)
Deputy County Counsel

Date: May 24, 2013

APPROVED BY THE NAPA COUNTY BOARD OF SUPERVISORS

Date: 6/4/2013

Processed by: _____
Deputy Clerk of the Board

EXHIBIT A

The text and illustrations in the existing Napa County General Plan are amended as shown below via tracked changes.

A. INTRODUCTION AND SUMMARY

1. p. SV-2, revise the first bullet about the 2008 General Plan Update to read as follows:

   - Re-designated about 230 acres of Industrial land immediately south of the City of Napa as a "Study Area," indicating the need for additional study to determine the appropriateness of the area for nonindustrial uses. (Approximately ~~20~~ 135 acres ~~at the Napa Pipe site~~ were subsequently ~~identified as a housing site in the 2009 Housing Element Update~~ re-designated Napa Pipe Mixed Use.)

2. p. SV-5 – Modify the last paragraph under the "Housing Element" heading to read as follows:

   The 2004 Housing Element Update provided the information and analysis required by statute, identified 14 sites that were zoned for high density multi-family housing, and memorialized agreements with the cities of Napa and American Canyon whereby the two cities accepted some of the County's state-mandated housing requirements in exchange for annexations and/or other considerations. The Housing Element was the only element that was not updated in the course of the 2008 General Plan Update, and was instead updated in 2009. The 2009 Housing Element Update eliminated three of the sites identified for high density housing in the prior version, and instead identified 20 acres of the approximately 150-acre Napa Pipe site as a location for high-density housing. Subsequent amendments to the Agricultural Preservation & Land Use Element identified a portion of the Napa Pipe site property as the location for high-density housing consistent with the Napa Pipe Mixed Use designation.

B. AGRICULTURAL PRESERVATION & LAND USE ELEMENT

1. p. AG/LU-2 – Revise the table of contents to reference the Napa Pipe Mixed Use policies.

2. p. AG/LU-18 – Revise Policy AG/LU-25 to read as follows:

   The County opposes the creation of new special districts planned to accommodate new residential developments outside existing urbanized areas, except as specified in the Housing Element or as permitted within the Napa Pipe Mixed Use designation.

3. p. AG/LU-21 – Revise the heading preceding Policy AG/LU-36 to read as follows:

   COMMERCIAL, INDUSTRIAL, NAPA PIPE MIXED USE, AND STUDY AREA LAND USE POLICIES

4. p. AG/LU-21 – Add a new Policy AG/LU-41 as follows:

   Notwithstanding any other standard to the contrary, the following standards shall apply to lands designated as Napa Pipe Mixed Use on the Land Use Map of this General Plan. Lands designated Napa Pipe Mixed Use are identified as Assessor's Parcel Numbers

046-412-005 and 046-412-005, with the exception of a 19 acre area within Assessor's Parcel Number 046-400-030, which is designated Study Area.

a) Intent: The designation provides for flexibility in the development of land, allowing either industrial, or commercial and residential uses. This designation is intended to be applied only to the Napa Pipe site in the unincorporated area south of the city of Napa where sufficient infrastructure may be available or readily constructed to support this type of development.

b) General Uses: Uses allowed in the Urban Residential, Commercial, and Industrial land use categories may be permitted. Office, open space and recreational uses may also be permitted as principal uses.

c) Minimum Parcel Size: Parcel sizes shall be as set forth in an approved development plan for the Napa Pipe Mixed Use designation, provided that the County shall allow 202 owner-occupied or rental units by right pursuant to Housing Element Program H-4e.

d) Maximum Residential Density: No more than 700 total dwelling units (945 with state required density bonus) shall be allowed within the Napa Pipe Mixed Use designation, with an estimated population of 1,540 (or 2,079) persons.

e) Maximum Non-Residential Building Density: No more than a total gross floor area of 319,000 gross square feet of enclosed non-residential uses shall be allowed east of the railroad track within the Napa Pipe Mixed Use designation. No more than 50,000 square feet of enclosed non-residential uses shall be allowed west of the railroad track within the Napa Pipe Mixed Use designation. In addition, on the parcel west of the railroad track, one hotel with no more than 150 suites and associated uses such as meeting space and spa, and up to 150 total units within continuing care retirement and assisted living or similar special use facilities for seniors shall be permitted, and shall not be included in the calculation of total gross floor area or total dwelling units.

5. p. AG/LU-28 – Revise Policy AG/LU-52 as follows:

The following standards shall apply to lands designated as Study Area on the Land Use Map of this General Plan.

Intent: This designation allows industrial uses to continue pursuant to existing zoning, but signals the need for further site- or area-specific planning to assess the potential for a mix of uses in this area~~, including multi-family housing. Zoning to allow multi-family housing shall be permitted in this designation only to the extent provided for in the Housing Element until further planning and amendment of this section of the General Plan is undertaken to revise the list of permitted uses, densities, and intensities provided below~~. The Study Area designation is intended to be applied only to the portion of the Napa Pipe site that is not designated Napa Pipe Mixed Use and to the Boca/Pacific Coast parcels in the unincorporated area south of the City of Napa, where sufficient infrastructure may be available to support mixed-use development.

General Uses: All uses allowed in the Industrial land use category may be permitted. ~~(Multi-family housing is permitted on sites identified in the Housing Element.)~~

Minimum Parcel Size: Parcel sizes shall be as established for the Industrial designation~~, except on sites identified for multifamily housing in the Housing Element, where no minimum parcel sizes shall apply~~.

Maximum ~~**Minimum**~~ **Building Density:** Maximum building intensity shall be as established for the Industrial designation. ~~(Multi-family housing shall be permitted at a density of 20 dwelling units per acre on sites identified in the Housing Element.)~~

6. p. AG/LU-52 – Amend the map of South County Industrial Areas to show the new Napa Pipe Mixed-Use designation at Napa Pipe (except on the portion that remains Study Area).

7. p. AG/LU-53 – Modify the paragraph about the Napa Pipe Property as follows:

   Napa Pipe Property – Napa Pipe is ~~located on~~ an approximately 150-acre site that ~~was purchased by new owners who filed and application~~ is proposed for a mixed-use development with a substantial residential component, including affordable housing. ~~Current tenants on the Napa Pipe site are principally involved in storage, distribution, and light assembly, and there are few heavy industrial users.~~ Napa Pipe is subject to airport overflights and is bordered by the Napa River, wetlands, and the Napa Valley Corporate Park (in the City of Napa). The site is accessible via Kaiser Road and Napa Valley Corporate Drive.

8. p. AG/LU-66 – Modify Table AG/LU-B General Plan & Zoning: For Use in Considering Changes in Zoning, to include the Napa Pipe Mixed Use designation with the following corresponding zoning designations: Napa Pipe Mixed Use Residential Waterfront, Napa Pipe Industrial/Business Park Waterfront, Napa Pipe Industrial/Business Park, and Industrial.

9. p. AG/LU-67 of the General Plan (Figure Ag/LU-3: Land Use Map), show the Napa Pipe Mixed Use designation at Napa Pipe (except on the portion that remains Study Area) and adjust the boundaries of incorporated cities to reflect any annexations that have occurred since the last time the map was revised.

Exhibit B:
NAPA PIPE MITIGATION MONITORING AND REPORTING PROGRAM

Note: for purposes of this MMRP, unless otherwise indicated the term "Project Applicant" shall mean the project applicant and successors in interest or other persons assuming responsibility for implementation of the mitigation measures under the Development Plan, Applicable Permits, or transfer documents.

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
TRAFFIC AND TRANSPORTATION				
TRA-1b: To lessen the severity of significant peak hour traffic impacts at all studied intersections (and potentially reduce impacts to less than significant at the intersections of First St/Soscol Ave; Third St/Silverado Tr.(SR 121)/East Ave/Coombsville Rd; SR 29 Northbound Ramps/Imola Ave, Imola Ave (SR 121)/Jefferson St, SR 221 (Napa-Vallejo Hwy)/Kaiser Road, the project applicant shall establish a transportation demand management (TDM) program which shall be funded and administered by the property owners association with the goal of reducing the forecasted auto trip generation from the project by 15 percent. The TDM program shall include certain required (immediate, long term) measures, as follows. Required TDM Measures • Establish a full-time, paid TDM coordinator to implement required TDM measures, monitor their effectiveness and implement additional measures as needed to meet the 15 percent goal. The coordinator shall also monitor volumes and delays at intersections where traffic mitigation measures have been called for. • Implement peak period shuttle service to key employment centers (e.g. hospital, downtown) or provide funding to allow relocation of the nearby VINE route to serve the site, with added service in peak periods. • Implement a parking management program to establish and monitor compliance with parking restrictions. The effectiveness of these required measures shall be monitored on a biannual basis, and traffic counts will be conducted to determine if the 15 percent reduction of forecasted traffic levels is being achieved. If additional measures are necessary to achieve the 15 percent reduction, the TDM coordinator shall implement other measures to enhance the TDM program. Below is a selection of additional measures that may be considered to achieve a reduction in auto traffic: • Develop incentives for employer programs	Project Applicant and Property Owners Assoc. are responsible for implementing this mitigation measure as stated.	Dept. of Public Works; County Counsel	TDM Program shall be established and set forth in conjunction with Conditions, Covenants and Restrictions of the Homeowners/Property Owners Association prior to issuance of Certificates of Occupancy (CC&R's to be reviewed and approved by County Counsel)	

[1] These Mitigation Measures reflect revisions arising from discussions with the City of Napa and Napa Redevelopment Partners since the Board of Supervisor's hearing of May 21, 2013. Additional revisions may be considered and adopted concurrent with the project's development plan, design guidelines, and development agreement

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
• Guaranteed Ride Home Program • Information kiosk w/brochures • Newsletter articles • Advertised carpool information phone number • Annual promotional events • Car-share program • Shuttles to regional transit like the Vallejo ferry • Transit Subsidies • Water taxis • On-site Ticket Sales (some level also included in existing, initial, moderate) • Carpool/Vanpool Subsidies (Start up, empty seat subsidies) • Employer-owned/sponsored Vanpools • Fleet Vehicles for mid-day trips • On-site circulator shuttle or golf-carts and/or campus bicycles • Aggressive flextime/telecommute programs				
TRA-5: At the intersection of Imola Avenue/Soscol Avenue, prior to issuance of building permits, the project applicant shall pay its fair share toward construction of an additional through lane and left-turn lane on the eastbound approach, an exclusive right-turn lane on the westbound approach, and an additional through lane on Soscol Avenue in both directions. Provide protected phasing for the eastbound and westbound left-turn movements.	Project Applicant or Property Owners Assoc. pays fair share to Napa Pipe Traffic Mitigation Fee Program prior to issuance of building permits.	TDM program manager; Dept. of Public Works.	County shall establish, based on studies funded by Project Applicant, a Napa Pipe Traffic Mitigation Fee Program. Fair share payment as determined by that Program shall be paid to Program prior to issuance of building permits, and dispersed for construction of improvement if and when improvement is constructed.	
TRA-6: At the intersection of State Route 221 (Napa-Vallejo Highway)/Streblow Drive, construct an additional northbound left-turn lane on State Route 221 (Napa-Vallejo Highway) and a receiving lane on Streblow Drive pursuant to Caltrans standards prior to the occupancy of the project. The TDM program manager shall monitor project-generated traffic and operations of this intersection on an annual basis with the County's oversight after permits are issued for the project. Monitoring shall be used to determine if and when	Property Owners Assoc. and TDM program manager to implement measure as stated. Owners Association shall	TDM program manager and Property Owners Assoc.; Dept. of Public Works.	Intersection monitored by TDM program manager on annual basis, and when traffic flows warrant, Owners	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
the required improvement is warranted by project generated traffic at the intersection. If warranted, the property owners association shall be responsible for implementing the required improvement to the intersection.	work with City of Napa and Caltrans to obtain consent to construct improvement if warranted.		Assoc. to work with City of Napa /Caltrans to obtain consent to construct improvement.	
TRA-8: At the intersection of Soscol Ferry Road/Devlin Road, forecasted volumes warrant a traffic signal; however, the intersection's close proximity to an adjacent signalized intersection renders a standard signalized intersection infeasible. Construct a median treatment on Soscol Ferry Road that essentially controls all movements except for the westbound through movement on Soscol Ferry Road. Widen Soscol Ferry Road to the west of its intersection with Devlin Road to allow for merging of the two lanes. The merge distance shall be in accordance with the standard roadway design criteria for lane merges. Please see the figure presented in the Traffic Impact Analysis in Appendix E of the Napa Pipe 2009 DEIR. This improvement shall be constructed prior to the occupancy of the project.	Project applicant to pay County costs associated with making the identified improvements and construction.	Planning Dept. and Dept. of Public Works	Department of Public Works shall verify construction of improvement prior to issuance of Certificates of Occupancy.	
TRA-9: At juncture of SR 12-SR 29/SR 221 (Napa-Vallejo Highway), prior to issuance of building permits the project applicant shall pay its pro-rated fair share toward the construction a flyover ramp for the traffic traveling from southbound State Route 221 (Napa-Vallejo Highway) to southbound State Route 12/State Route 29.	Project Applicant or Property Owners Assoc. pays fair share to Napa Pipe Traffic Mitigation Fee Program prior to issuance of building permits.	Planning Dept. and Dept. of Public Works.	County shall establish, based on studies funded by Project Applicant, a Napa Pipe Traffic Mitigation Fee Program. Fair share payment as determined by that Program shall be paid into Program prior to issuance of building permits, and dispersed for construction of improvement if and when improvement is constructed.	
TRA-10: At juncture of SR 12/Airport Boulevard/SR 29, prior to issuance of building permits the project applicant shall pay its pro-rated fair share toward the construction of a grade-separated interchange as proposed in the Napa County General Plan. This improvement has been contemplated previously by the County and Caltrans, and is likely to be needed with or without development of the project.	Project Applicant or Property Owners Assoc. pays fair share to Napa Pipe Traffic Mitigation Fee Program prior to issuance of build-	Planning Dept. and Dept. of Public Works	County shall establish, based on studies funded by Project Applicant, a Napa Pipe Traffic Mitigation Fee Program. Fair share	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
	ing permits.		payment as determined by that Program shall be paid to Program prior to issuance of building permits, and dispersed for construction of improvement if and when improvement is constructed.	
TRA-11: State Route 29/Napa Junction Road intersection: The Napa County General Plan calls for widening of State Route 29 from the State Route 221 (Napa-Vallejo Highway) interchange to the southern County Line. In order to mitigate the project's significant impact based on the criteria described earlier in the FEIR, the additional through lane on State Route 29 in the northbound and southbound directions shall be constructed at this intersection, as is currently proposed. This improvement has been contemplated previously by the County and Caltrans, and is likely to be needed with or without development of the project. For this reason, the project applicant shall pay its fair share to the construction of this project prior to issuance of building permits to avoid a significant impact. With the widening of State Route 29, this intersection would improve to acceptable LOS C in the AM and PM peak hours.	Project Applicant or Property Owners Assoc. pays fair share to Napa Pipe Traffic Mitigation Fee Program prior to issuance of building permits.	Dept. of Public Works.	County shall establish, based on studies funded by Project Applicant, a Napa Pipe Traffic Mitigation Fee Program. Fair share payment as determined by that Program shall be paid to Program prior to issuance of building permits, and dispersed for construction of improvement if and when improvement is constructed.	
TRA-12: State Route 29/Donaldson Way intersection: The Napa County General Plan calls for widening of State Route 29 from the State Route 221 (Napa-Vallejo Highway) interchange to the southern County Line. In order to mitigate the project's significant impact based on the criteria described in the FEIR, the additional through lane on State Route 29 in the northbound and southbound directions shall be constructed at this intersection, as is currently proposed. For this reason, the project applicant shall pay its fair share to the construction of this project prior to issuance of building permits to avoid a significant impact. With the widening of State Route 29, this intersection would improve to acceptable LOS B in both the AM and PM peak hours.	Project Applicant or Property Owners Assoc. pays fair share to Napa Pipe Traffic Mitigation Fee Program prior to issuance of building permits.	Dept. of Public Works.	County shall establish, based on studies funded by Project Applicant, a Napa Pipe Traffic Mitigation Fee Program. Fair share payment as determined by that Program shall be paid to Program prior to	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
			issuance of building permits, and dispersed for construction of improvement if and when improvement is constructed.	
TRA-13: State Route 29/American Canyon intersection: The City of American Canyon's General Plan recognizes that this intersection will likely operate at LOS E conditions during peak periods. The Napa County General Plan also calls for widening of State Route 29 from the State Route 221 (Napa-Vallejo Highway) interchange to the southern County Line. In order to mitigate the project's significant impact based on the criteria described in the FEIR, the additional through lane on State Route 29 in the northbound and southbound directions shall be constructed at this intersection, as is currently proposed. For this reason, the project applicant shall pay its fair share to the construction of this project prior to issuance of building permits to avoid a significant impact. With the widening of State Route 29, this intersection would continue to operate at LOS F in the AM peak hour (primarily due to the extremely heavy westbound right turn to northbound State Route 29), but would operate better than Existing conditions without the project. The intersection would improve to LOS D in the PM peak hour.	Project Applicant or Property Owners Assoc. pays fair share to Napa Pipe Traffic Mitigation Fee Program prior to issuance of building permits.	Dept. of Public Works.	County shall establish, based on studies funded by Project Applicant, a Napa Pipe Traffic Mitigation Fee Program. Fair share payment as determined by that Program shall be paid to Program prior to issuance of building permits, and dispersed for construction of improvement if and when improvement is constructed.	
TRA-14: The Project Sponsor shall develop and implement a Construction Traffic Management Program ("CMP") to minimize impacts of the Project and its contribution to cumulative impacts related to both on and off-site construction and remediation activities and traffic. The program shall provide necessary information to various contractors and agencies as to how to maximize the opportunities for complementing construction management measures and to minimize the possibility of conflicting impacts on the roadway system, while safely accommodating the traveling public in the area. The program shall supplement and expand, rather than modify or supersede any manual, regulations, or provisions set forth by Napa County departments and agencies. Preparation of the Construction Management Program shall be the responsibility of the Project Sponsor, and shall be reviewed and approved by County staff prior to initiation of construction. The program shall: • Identify construction traffic management practices in Napa County, as well as other jurisdictions that could provide useful guidance for a project of this size and characteristic.	Project Applicant is responsible for developing and obtaining approval of the CMP. Actual implementation of CMP measures is the responsibility of Project Applicant and its construction contractors.	Dept. of Public Works.	Prior to commencement of grading/construction activities and issuance of any related permits, Project Applicant shall submit CMP to Dept. of Public Works for approval. Project Applicant shall require adherence to CMP measures as a con-	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
• Describe procedures required by different departments and/or agencies in the County for implementation of a construction management plan, such as reviewing agencies, approval process, and estimated timelines. • Identify construction traffic management strategies and other elements for the Project, and present a cohesive program of operational and demand management strategies designed to maintain acceptable traffic operations during periods of construction activities in the Project area. These could include construction strategies, demand management strategies, alternate route strategies, and public information strategies. • Coordinate with other projects in construction in the immediate vicinity (i.e. Syar), so that they can take an integrated approach to construction-related traffic impacts. • Identify barge routes to access the project site and other information as required by Napa County in the event soil import may be serviced by barge via the Napa River. • Ensure that adequate pedestrian circulation is maintained when the-existing sidewalks must be closed or obstructed for construction purposes. • Ensure that adequate bicycle facilities are maintained, including detour signs for then-existing bicycle routes. • Ensure that construction-truck traffic follows established truck routes, where designated. • Ensure that transit facilities, including stops, locations and associated amenities, such as shelters, etc., are maintained, or that acceptable temporary facilities are established. Implementation of the CMP would help reduce the Proposed Project's construction-related traffic impacts. Given the magnitude of the proposed development and the duration of the construction period, some disruptions and increased delays could still occur even with implementation of the CMP, although these disruptions would not be considered a significant impact because they would be intermittent over the course of the construction period.			tractual condition with all construction contractors. During construction, Dept. of Public Works shall conduct periodic inspections to determine compliance with CMP measures.	
TRA-15: To mitigate potential adverse affects on roadway pavement conditions, prior to beginning construction on the proposed project, survey road conditions for proposed trucking routes on the following roadways: ♦ Kaiser Road ♦ Napa Valley Corporate Drive ♦ Napa Valley Corporate Way ♦ Bordeaux Way ♦ Anselmo Court	Project Applicant shall retain qualified consultant (approved by the County) to conduct the road survey and implement mitigation measure as	Dept. of Public Works.	Schedule shall be as stated in mitigation measure.	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
♦ Soscol Ferry Road This shall include roadway pavement and other surfaces that construction traffic may cross. The project applicant shall return roadway conditions to their pre-construction conditions (or better) following the remediation and grading phase of the project. For subsequent construction phasing, truck traffic to/from the project shall be monitored on the identified roadways to determine project's construction traffic contribution to overall truck traffic. Project applicant shall pay a fair share contribution to return roadway conditions to their pre-construction conditions following each phase of construction.	stated.			
TRA-16: The design of the public promenade along the waterfront portion of the project shall minimize pedestrian and bicycle conflicts through means such as channelizing pedestrians to discrete crossing points of the trail, widening the trail through areas where higher pedestrian volumes are expected, and where necessary, separating pedestrian and bicycle travel.	Project Applicant submits Site Plan for public promenade area to Planning Dept. and Dept. of Public Works for approval.	Planning Dept. and Dept. of Public Works.	Prior to any construction and permitting of the public promenade area.	
TRA-17: To promote transit use, reroute the VINE #10 bus route through the project site to serve the proposed transit center as proposed in the project site plan and ensure that all development proposed would be within a reasonable walking distance to transit (less than ⅓-mile). The revised bus route through Napa Pipe could either be a loop, in which case existing stops along Napa Valley Corporate Drive would remain, or the route could be relocated. Under the latter option, the existing bus stop at Latour Court would be moved 450 feet to the north to Kaiser Road, the stop at Bordeaux Way would be moved 600 feet to the south to Anselmo Court, and the stop at Napa Valley Corporate Way would be eliminated. Stops at Napa Valley Corporate Drive's intersections with Kaiser Road and Anselmo Court will help maintain current patrons. Current ridership is expected to be maintained or surpassed by routing through the project. However, it should also be noted that the extension into the Napa Pipe site will lengthen the travel time from the City of Napa to the City of American Canyon, which may discourage current commuters. If the extension of the VINE #10 bus route is not feasible, the Project Applicant shall include peak period shuttle service as included in Mitigation Measure TRA-1b.	County and Project Applicant shall work with NCTPA to obtain approval of the bus rerouting. Project Applicant shall provide shuttle service as stated if rerouting does not occur.	Planning Dept. and TDM program manager.	Negotiations shall occur, and if necessary shuttle instituted, prior to issuance of Certificates of Occupancy.	
TRA-18: To address issues associated with off-street parking supply, the project applicant shall collaborate with County Staff to develop a parking monitoring plan that assesses the utilization of available parking, to be included in the development plan. Alternatively, implementation of a parking management program, a component presented in Mitigation Measure TRA-1b, could be implemented to monitor parking demand and carry out parking reduction strategies when needed.	Project Applicant shall address parking issues, with approval of County, in development plan.	Planning Dept.	Adequacy of parking shall be determined by Planning Dept. prior to commencement of construction in accordance with zoning regulations, or in approved develop-	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
			ment plan.	
TRA-19: To address project contribution to cumulative deterioration on roadway and intersection level of service operations, in addition to Mitigation Measures TRA-1 through TRA-13 (as applicable), the project applicant shall pay a fair share contribution to other long-term planned roadway improvements in the Regional Transportation Plan (assumed under the Cumulative Planned roadway network) at locations where the proposed project would contribute to cumulatively significant traffic impacts. The following improvements have been identified under this plan: ♦ Realignment of Silverado Trail at Soscol Avenue to match alignment of proposed Gasser Drive extension ♦ Widening of State Route 29 to six lanes between Airport Boulevard and southern Napa County line ♦ Extension of Devlin Road south to Green Island Road Each of these roadway improvements would improve intersection operations and general roadway circulation in the project study area under Cumulative conditions; however, most intersections would continue to operate unacceptably. A comprehensive list of roadway improvements that would be required to achieve acceptable intersection level of service under cumulative conditions has been developed and is presented in the Transportation Impact Analysis (Appendix E) of the 2009 DEIR. (See also, September 7, 2012 "Napa Pipe Impact Comparison—Costco Alternative/Proposed Project" Memorandum prepared by Fehr & Peers identifying the mitigation measures from the TIA that are applicable to the Developers Revised Proposal.) Many of these improvements would require major roadway widening in a fashion that may not be consistent with the stated desires of many communities, through their General Plan documents, to maintain Napa County's rural atmosphere and promote pedestrian, bicycle, and transit as successful transportation modes. Many of the cumulative impacts would occur even without the project.	Project Applicant or Property Owners Assoc. pays fair share to Napa Pipe Traffic Mitigation Fee Program prior to issuance of building permits.	Dept. of Public Works and Planning Dept.	County shall establish, based on studies funded by Project Applicant, a Napa Pipe Traffic Mitigation Fee Program. Fair share payment as determined by that Program shall be paid to Program prior to issuance of building permits, and dispersed for construction of improvement if and when improvement is constructed.	
BIOLOGICAL RESOURCES				
BIO-1: In the event that pre-construction confirmation surveys conducted in accordance with the Biological Resource Assessment ("BRA") protocols identify any federally- or State-listed plant species that have become established along shoreline areas proposed for bank work, the applicant shall obtain all necessary permits and/or authorizations from the CDFG and USFWS as required by federal and State law for incidental take of those species. If CNPS 1B plants are found in the area of proposed disturbance and cannot be avoided, a salvage/relocation plan shall be developed and approved by CDFG prior to initiation of bridge construction and other improvements in marshland habitat. Evidence that the applicant has secured any required authorization from these agencies shall be submitted to the Napa County Conservation, Development & Planning Department prior to issuance of any grading or building permits for the project.	Project Applicant retains qualified biologist (subject to County approval) to conduct confirmation survey, and is responsible for implementing mitigation measure as stated.	Planning Dept.	Survey conducted, and any necessary State or Federal permits/authorizations obtained, prior to issuance by County of any grading or building permits.	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
BIO-2: If project improvements affecting or adjacent to brackish marsh habitat are not initiated until after 2010, supplemental confirmation surveys conducted in accordance with the Biological Resource Assessment ("BRA") protocols shall be conducted to determine whether Mason's lilaeopsis, Delta tule pea, and other marsh associated special-status plant species have become established at the Bedford Slough bridge crossing and shoreline of the Napa River where the bridge over Asylum Slough is proposed. The surveys shall be conducted by a qualified botanist in the year prior to the anticipated start of construction, and shall be appropriately-timed to allow for detection of all species of concern (typically between April and November).	Project Applicant retains qualified biologist (subject to County approval) to conduct supplemental confirmation survey and implements mitigation measure as stated. If plant species detected, Project Applicant to obtain and necessary CDFG and USFWS permits/authorizations; implement *Avoidance/Minimization Measures During Construction* set forth in the Biological Resource Assessment (BRA).	Planning Dept.	Survey conducted, and any necessary State or Federal permits/authorizations obtained, prior to issuance by County of any grading or building permits. Project Applicant implements applicable BRA requirements.	
BIO-3(a): To avoid the potential for disturbance of nesting birds associated with marsh habitat on or near the site, schedule any construction activities that encroach within 300 feet of the brackish marsh, diagonal drainage, and Bedford Slough for the period of August 16 through February 14. If construction work cannot be scheduled during this period, a qualified biologist shall conduct pre-construction surveys for nesting birds in the wetland habitats. The surveys shall be conducted no later than 14 days prior to the start of work and shall focus on determining whether San Pablo song sparrow, saltmarsh common yellowthroat and/or tricolored blackbird are nesting in these areas. If these or other birds protected under the Migratory Bird Treaty Act or CDFG Code 3503 are found nesting, then appropriate construction buffers shall be established to avoid disturbance of the nests until such time that the young have fledged. The size of the nest buffer shall be determined by the biologist in consultation with CDFG, and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. Typically, these buffers range from 150 to 250 feet from the nest site. Nesting activities shall be monitored periodically by a qualified biologist to determine when construction activities in the buffer area can resume. The nest buffer shall remain in effect and the nest protected until the young have fledged and the nest is no longer in active use, as determined by the quali-	Project Applicant implements mitigation measure as stated. Retention of qualified biologist if necessary is subject to County approval.	Planning Dept.	Planning Dept. shall monitor construction timing; If needed, qualified biologist to consult with CDFG, provide periodic monitoring of construction, and report results to Planning Dept.	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
fied biologist.				
BIO-3(b): Tree and brush removal on the remainder of the project site (those areas not subject to BIO-3(a)), shall take place during the period of August 16 through February 14 to the maximum extent possible to avoid possible disturbance to nesting birds. If tree and brush removal cannot take place outside of this timeframe, a qualified biologist shall conduct pre-construction surveys for nesting birds in the trees and brush to be removed no later than 14 days prior to the start of work. If active nests of raptors or other birds protected under the Migratory Bird Treaty Act or CDFG Code 3503 are located in trees or brush to be removed, then appropriate construction buffers shall be established to avoid disturbance of the nests until such time that the young have fledged and the nest is no longer active, as determined by a qualified biologist. The size of the buffer shall be determined by the biologist in consultation with CDFG, and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance.	Project Applicant implements mitigation measure as stated. Retention of qualified biologist if necessary is subject to County approval.	Planning Dept.	Planning Dept. shall monitor construction timing; If needed, qualified biologist to consult with CDFG, provide periodic monitoring of construction, and report results to Planning Dept.	
BIO-3(c): A qualified biologist shall conduct pre-construction surveys in the annual grassland and ruderal brushland habitats on the site to confirm that there are no burrowing owls or northern harriers nesting in these areas. The surveys shall be conducted no later than 30 days prior to the start of ground disturbing activities in these areas. If construction is initiated in these areas during the period of August 31 through January 31, then pre-construction surveys are not required. If active nests of either species are discovered in the proposed area of disturbance or within 300 feet of this area, the biologist shall consult with CDFG to determine the appropriate construction buffer. Once the biologist determines that the nests are no longer active, then construction activities can resume within the buffer area.	Project Applicant implements mitigation measure as stated. Retention of qualified biologist if necessary is subject to County approval.	Planning Dept.	Planning Dept. shall monitor construction timing; If needed, qualified biologist to consult with CDFG, provide periodic monitoring of construction, and report results to Planning Dept.	
BIO-4(a): In the event that work is required below the Ordinary High Water Mark in the Napa River, Asylum Slough or Bedford Slough, the applicant shall obtain all necessary authorizations from the CDFG and NOAA Fisheries as required by federal and State law for potential harm to special-status fish species. Such authorization would be obtained as a result of interagency coordination through USACE and/or Coast Guard permit(s) and the CDFG Streambed Alteration process (see Mitigation Measure BIO-5 below). Evidence that the applicant has secured any required authorization from these agencies shall be submitted to the Napa County Conservation, Development & Planning Department prior to issuance of any grading or building permits for the project.	Project Applicant implements mitigation measure as stated, and obtains all necessary state and federal authorizations.	Planning Dept.	Evidence of obtaining necessary authorizations submitted to Planning Dept. prior to issuance of any grading or building permit.	
BIO-4(b): To avoid potential impacts to Central California steelhead that may be in the Napa River, in-water construction in Asylum Slough or Bedford Slough shall not occur between January through April.	Project Applicant implements mitigation measure as stated	Planning Dept.	Planning Dept. periodically monitors construction activity during prohibited times.	
BIO-4(c): To avoid potential impacts to Delta smelt or Sacramento splittail that may be in the Napa River, in-water construction in Asylum Slough or Bedford Slough shall not occur between February through May. During the summer months, it is unlikely for these	Project Applicant implements mitigation measure as	Planning Dept.	Planning Dept. periodically monitors construction activity	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
species to be in this area of the river due to increased salinity.	stated.		during prohibited times.	
BIO-4(d): To avoid potential impacts to chum salmon that may be in the Napa River, in-water construction in Asylum Slough or Bedford Slough shall not occur between February through May.	Project Applicant implements mitigation measure as stated.	Planning Dept.	Planning Dept. periodically monitors construction activity during prohibited times.	
BIO-5: With respect to fill in jurisdictional wetlands and waters, the *Avoidance/Minimization Measures During Construction* called for in the BRA along with the following additional measures shall be implemented. ♦ Where verified waters of the United States are present and cannot be avoided, authorization for modifications to these features shall be obtained from the USACE through the Section 404 permitting process. Similarly, a Section 401 Certification shall be obtained from the RWQCB where waters of the United States are directly affected by the project. All conditions required as part of the authorizations by the USACE and RWQCB shall be implemented as part of the project. ♦ A CDFG Stream Bed Alteration Agreement shall also be required where proposed project activities would affect the bed or banks of Bedford Slough, Asylum Slough and other regulated drainages on the site. The applicant shall submit a notification form to the CDFG, shall obtain all legally-required agreements, and implement any conditions contained within that agreement. ♦ Consultation or incidental take permitting may be required under the California and federal Endangered Species Acts (as discussed above under Mitigation Measures BIO-1 and BIO-3). The applicant shall obtain all legally required permits or other authorizations from the USFWS, NOAA Fisheries, and CDFG for the potential "take" of protected species under the Endangered Species Acts. ♦ Install orange construction fencing around the boundary of all wetland areas to be preserved so that they are not disturbed during construction. The fencing shall be placed a minimum of 25 feet out from the boundary of the wetland but may need to be adjusted if restoration activities are to be conducted within this area. Grading, trail construction and restoration work within the 50-foot wetland buffer zones shall be conducted in a way that avoids or minimizes disturbance of existing wetlands. In some cases (e.g. at the connection point of the new swale with the diagonal drainage), this may mean use of smaller equipment such as a Bobcat. ♦ A biologist/restoration specialist shall be available during construction to provide situation-specific wetland avoidance measures or planting recommendation, as needed.	Project Applicant implements mitigation measure as stated, retaining a biologist/restoration specialist subject to County approval.	Planning Dept.	Project Applicant provides evidence of necessary state and federal authorizations prior to issuance of grading and building permits. Planning Dept. and retained biologist/restoration specialist periodically monitors construction activity during prohibited times.	
NOISE				

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
NOISE-1: In accordance with 2010 California Building Code (Chapter 12, Appendix Section 1207.11.2), sound-rated building construction shall be used to achieve acceptable indoor noise levels (45 dBA L_{dn}) in residential units along the east and north perimeters of the site. Building sound insulation treatments include, but are not limited to sound retardant windows and doors, resilient wall constructions, heavy siding and roofing materials (e.g. stucco, Hardi-plank), ventilation silencers, and gasketing. The specification of these treatments shall be developed during the architectural design of the buildings. All residential units in the project shall require mechanical ventilation to allow for air circulation while windows are closed for noise control. Through application of the design guidelines, residential outdoor use areas shall be shielded from traffic and industrial noise by locating buildings between these sources and the outdoor areas. Noise barriers would be utilized where additional shielding is required to achieve compatible noise levels in order to meet the requirements set forth in the Napa County Noise Ordinance, Section 8.16.070, Exterior Noise Limits.	Required mitigations shall be contained in the Design Guidelines and building plans submitted by Project Applicant to County for approval.	Building Dept.	Inclusion of identified measures in Development Plan and building plan submittals shall be confirmed by County prior to issuance of any building permit.	
NOISE-2: Locate proposed residential land uses no closer than 100 feet from the railroad tracks or require that railroad train vibration levels be confirmed by an analysis conducted by an expert in rail vibration during the detailed design phase of the project. Vibration levels shall not exceed the screening level threshold of 80 VdB or the detailed vibration impact criteria of 78 VdB during the day or 72 VdB at night at the proposed setback of residential units adjoining the tracks. The noise expert would recommend design level measures to mitigate any excessive vibration levels. Residential buildings shall not be constructed within 100 feet of active railroad tracks unless design measures that mitigate excessive vibration to levels below FTA impact thresholds are included in the project.	Project Applicant implements mitigation measure as stated. Retention of qualified vibration specialist subject to County approval. Location restrictions from vibration levels shall be confirmed in analysis and incorporated into Design Guidelines, site plan, and building submittal approvals.	Planning Dept.; Building Dept.	County shall confirm compliance with stated mitigations prior to issuance of building permits.	
AIR QUALITY				
AQ-2: The following is a list of feasible control measures that the BAAQMD recommends to limit construction emissions of PM_{10}, PM2.5, and NO_x. These mitigation measures shall be implemented for all areas (both on-site and off-site) where construction activities would occur. Even with mitigation measures imposed, this impact remains significant and unavoidable. Measures to Reduce Fugitive Particulate Matter (PM10 and PM2.5) Emissions All untreated exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or	Project Applicant and its contractors shall implement the mitigation measure as stated. Identified measures shall be a contractual condition of construction	Planning Dept., Dept. of Public Works.	Plans and inventory of construction vehicle equipment to be used, and method of importing fill, shall be approved by Planning Dept. and/or Dept. of	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
moisture probe. ♦ Limit traffic speeds on any unpaved roads to 15 mph. ♦ Suspend construction activities that cause visible dust plumes to extend beyond construction sites, especially during windy conditions. ♦ Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. ♦ Prohibit the visible tracking of mud, dirt, or material on to public streets. If necessary, all trucks and equipment, including their tires, shall be washed off prior to leaving the site. Any visible mud or dirt tracked on to public roadways shall be removed using wet power vacuum sweepers at least once per day. ♦ During remediation and grading/fill import phases, site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel. ♦ Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. ♦ During renovation and demolition activities, removal or disturbance of any materials containing asbestos or other hazardous pollutants will be conducted in accordance with the BAAQMD rules and regulations. ♦ Remediation activities will be conducted in accordance with BAAQMD rules and regulations. <u>Mitigation to Reduce NOx Emissions</u> ♦ The project shall develop a plan for approval by the County or BAAQMD demonstrating that the heavy-duty (>50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average for the year 2010. ♦ At least 80-percent of the equipment that will be used on site for 40 hours or greater shall meet current Tier 3 engine standards. ♦ The project applicant shall require the project developer or contractor to submit to the County or BAAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and projected hours of use or fuel throughput for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the remediation and grading (fill import and grading) phase of the project, except that an	contracts. County to be informed of designated Disturbance Coordinator.		Public Works prior to issuance of grading and building permits. During construction, Building Dept. and/or Dept. of Public Works shall conduct periodic inspections to determine compliance with BAAQMD measures.	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
inventory shall not be required for any 30-day period in which little or no construction activity occurs. ♦ Opacity is an indicator of exhaust particulate emissions from off-road diesel powered equipment. The project shall ensure that emissions from all construction diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. ♦ Diesel equipment standing idle for more than three minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were on-site and away from any residences. Clear signage indicating such idling restrictions shall be posted at construction site access points. ♦ Consider alternative sites and methods to import fill material to the site to reduce NOx emissions. Alternative methods could include use of tug boats or trucks with newer engines that meet recent EPA emissions standards that result in lower emissions. The applicant shall provide an analysis of such alternatives, along with a calculation of emissions for each method. The analysis shall demonstrate that NOx emissions from remediation activities under Option C shall not exceed 15 tons/year. The County shall use this information to determine the acceptable method for importing fill material to the site. This may include a mix of methods and fill sites. ♦ Planned construction activities on Spare the Air days shall be reduced to lower emissions. An attempt to reduce emissions, possibly below 54 pounds per day, would be made for each day that the BAAQMD forecasts a "Spare the Air Day" at least 24 hours prior. The County shall be provided a record of attempts to reduce NOx emissions when Spare the Air Days were forecasted at least 24 hours prior. ♦ Designate a Disturbance Coordinator during construction activities. This coordinator will ensure that all air quality mitigation measures are enforced. In addition, the Disturbance Coordinator will respond to complaints from the public regarding air quality issues (e.g. dust and odors) within 48 hours. The contact information for this Coordinator shall be posted in plain view at the project site. A phone number for the Air District shall also be posted to ensure compliance with applicable regulations. Implementation of Mitigation Measure TRA-14 would require a construction management plan to avoid traffic congestion and specify truck routes.				

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
AQ-3: The project applicant shall reduce air pollutant ROG, NOx, PM 10, and PM 2 emissions from both traffic trips and area sources through the measures listed below. ♦ Bicycle amenities shall be provided for the project. This would include secure bicycle parking for retail employees, bicycle racks for retail customers, bicycle lockers, and bike lane connections. This vehicle trip reduction measure could reduce emissions by an additional 0.5 percent. ♦ Pedestrian facilities shall include easy access and signage to bus stops and roadways that serve the major site uses (e.g. retail and residential uses). This may reduce emissions by an additional 0.5 percent. ♦ Project site employers shall be required to promote transit use by providing transit information and incentives to employees. This measure may reduce emissions by about 0.5 percent. ♦ Provide exterior electrical outlets to encourage use of electrical landscape equipment at retail and residential uses. ♦ Prohibit idling of trucks at loading docks for more than five minutes and include signage indicating such a prohibition. ♦ Provide 110- and 220-volt electrical outlets at loading docks. ♦ Implement a landscape plan that provides shade trees along pedestrian pathways. ♦ Obtain LEED certification or achieve equivalent energy efficiency for new residential and commercial buildings, which would reduce the future energy demand caused by the project. ♦ Implementation of Mitigation Measure TRA-1b would require that the project applicant establish a transportation demand management (TDM) program which shall be funded and administered by the property owners association with the goal of reducing the forecasted auto trip generation from the project by 15 percent. ♦ The effectiveness of these required measures shall be monitored on a biannual basis, and traffic counts will be conducted to determine if the 15 percent reduction of forecasted traffic levels is being achieved. If additional measures are necessary to achieve the 15 percent reduction, the TDM coordinator shall implement other measures to enhance the TDM program. ♦ Implementation of Mitigation Measure TRA-17 would reroute the VINE Route #10 bus so that it would serve the proposed project's transit center. ♦ The Napa County Regional Park and Open Space District is in the process of obtaining permits for a 4,000-plus linear foot segment of trail completing the connection between the project site and the City of American Canyon. This segment of the trail is not on the project site. The cost of constructing this segment is estimated to be $350,000. Prior to occupancy of the project, the applicant shall contribute its fair share towards the cost of constructing this segment of the trail.	Project Applicant and successors in interest shall be responsible for implementing mitigation measure as stated. Deeds conveying property shall reference required mitigations of retailers and employers.	Planning Dept.	Required site measures shall be set forth in approved Design Guidelines and site plan prior to construction. Fair share payment to be made prior to issuance of Certificates of Occupancy.	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
Even with mitigation measures imposed, this impact remains significant and unavoidable.				
AQ-4: To lessen air quality nuisances from exposure to adjacent heavy industrial uses, the following measures shall be implemented prior to construction of new residences near barge loading/unloading areas: ♦ Prior to occupation of the project by sensitive receptors (e.g. residents), the applicant will develop a detailed site plan that includes features to reduce dust nuisance exposures to future project residences located near industrial activities. These features shall include the following: ♦ Wind break in the form of mature trees with sufficient density to reduce wind flow. BAAQMD recommends consideration of tiered plantings of trees such as redwood, deodar cedar, and live oak to reduce TAC and PM exposure. ♦ Buffers to avoid placement of residences near or adjacent to active or planned active industrial uses. Adequate buffers shall be determined through site-specific studies that take into account designs for new residences and anticipated future industrial activities or establish a 200-foot buffer. ♦ Install and maintain air filtration systems of fresh air supply either on an individual unit-by-unit basis, with individual air intake and exhaust ducts ventilating each unit separately, or through a centralized building ventilation system. The ventilation system should be certified to achieve a certain effectiveness, for example, to remove at least 80 percent of ambient PM25 concentrations from indoor areas. The air intake for these units shall be located away from areas producing the air pollution (i.e. toward the south). ♦ Require rerouting of nearby heavy-duty truck routes. ♦ Enforce illegal parking and/or idling of heavy-duty diesel trucks in the vicinity.	Project Applicant is responsible for implementing this mitigation measure as stated.	Planning Dept.	Planning Dept. approves site plan incorporating mitigation measures as stated prior to issuance of residential building permits.	
AQ-5: The County shall review plans for new restaurants in neighborhoods with residences to ensure that these uses install kitchen exhaust vents in accordance with accepted engineering practice, and shall install exhaust filtration systems or other accepted methods of odor reduction.	Project applicant or successors in interest to implement mitigation measure as stated.	Planning Dept.	Measures to be confirmed prior to issuance of restaurant building permits.	
GREENHOUSE GAS EMISSIONS				
GHG-1a: To lessen GHG emissions associated with the project, as part of phase one the applicant shall construct and lease retail space to an on-site market that also sells fresh, locally grown produce. The applicant shall provide for rental subsidies if needed to ensure long term tenancy of a market providing on-site access to fresh food, thereby reducing VMT for project site residents and from food distributors. Even with mitigation measures imposed, this impact remains significant and unavoidable.	Project applicant is responsible for implementing mitigation measure as stated.	Planning Dept.	Prior to issuance of Certificates of Occupancy for Phase I.	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
GHG-1b: The applicant shall provide long term funding for marketing proposed housing units to members of the local workforce and shall market units to businesses in the project vicinity (for employee housing). Both marketing programs shall include a monitoring component to measure their effectiveness and shall be adjusted as needed to maximize the sale and lease of housing units to members of the local workforce for a period of time to be determined by the County and developer.	Project Applicant is responsible for implementing mitigation measure as stated.	County Dept. of Housing and Intergovernmental Cooperation.	County to approve funding and marketing program prior to issuance of Certificates of Occupancy for each Phase.	
GHG-1c: As a means of reducing global warming related impacts of a project, the project applicant shall incorporate additional measures to reduce the project's contribution to the countywide GHG emissions associated with development assumed under the County's General Plan. Such measures shall include the following additional items from the California Attorney General's Office (2008) list of suggested measures for reducing global warming related impacts of a project: *Energy Efficiency* ♦ Design buildings to meet LEED certification requirements applicable as of the project approval date. ♦ Install light colored "cool" roofs and cool pavements. ♦ Install efficient lighting in all buildings (including residential). Also install lighting control systems, where practical. Use daylight as an integral part of lighting systems in all buildings. ♦ Install light emitting diodes (LEDs) or other high efficiency lighting for traffic, street and other outdoor lighting. ♦ Limit the hours of operation or provide minimally acceptable light intensities for outdoor lighting. *Water Conservation and Efficiency* ♦ Design buildings and lots to be water-efficient. Only install water-efficient fixtures and appliances. ♦ Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff. Prohibit businesses from using pressure washers for cleaning driveways, parking lots, sidewalks, and street surfaces unless required to mitigate health and safety concerns. These restrictions shall be included in the Covenants, Conditions, and Restrictions of the community. *Solid Waste Measures* ♦ Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard). ♦ Provide interior and exterior storage areas for recyclables and green waste at all buildings. ♦ Provide adequate recycling containers in public areas, including parks, school grounds, paseos, and pedestrian zones in areas of mixed-use development. *Transportation and Motor Vehicles*	Project Applicant implements mitigation measures as stated. Requirements to be contained in Design Guidelines, Building Plans, Site Plan and Subdivision Maps, and Association Conditions, Covenants and Restrictions as appropriate.	Planning Dept.; Dept. of Public Works; County Counsel.	Required measures shall be included in referenced documents prior to approvals by listed departments, and confirmed during required inspections.	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
♦ Promote ride sharing programs at employment centers (e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading zones and waiting areas for ride share vehicles, and providing a web site or message board for coordinating ride sharing). ♦ At commercial land uses, all forklifts, "yard trucks," or vehicles that are predominately used on-site at non-residential land uses shall be electric-powered or powered by biofuels (such as biodiesel [B100]) that are produced from waste products, or shall use other technologies that do not rely on direct fossil fuel consumption. ♦ At commercial land uses, limit idling time for commercial vehicles, including delivery and construction vehicles. ♦ Promote the use of alternative fuel vehicles and neighborhood electric vehicle programs through prioritized parking within new commercial and retail areas for electric vehicles, hybrid vehicles, and alternative fuel vehicles. ♦ Provide shuttle service from mixed-use and employment areas to public transit. ♦ Provide information on all options for individuals and businesses to reduce transportation-related emissions, including education and information about public transportation. ♦ Provide bicycle parking near building entrances to promote cyclist safety, security and convenience. ♦ Provide secure bicycle storage at public garage parking facilities. ♦ Locate facilities and infrastructure in all land use types to encourage the use of low or zero emission vehicles (e.g. electric vehicle charging facilities and conveniently located alternative fueling stations). *Performance Standard* ♦ Demonstrate that, by implementation of the measures set forth above, the project achieves a reduction of greenhouse gas emissions, as compared to "Business As Usual," consistent with the target stipulated in the County's Climate Change Action Plan as adopted by the BOS on or before approval of the project. Incorporate additional measures, such as the installation of solar power or other renewable energy systems, if necessary to ensure this target is achieved.				
HAZARDS AND HAZARDOUS MATERIALS				
HAZ-1: To lessen the risk of exposure related to accidental release of hazardous materials during cleanup, construction and operation phases of the project, the project applicant shall fully implement the provisions of the RAP and RDIP including but not limited to the soil risk management protocols in the RDIP that address discovery of new or different contamination during earth-working and subsurface construction activities. As outlined in the RAP, such implementation would include multiple dust control strategies that would be employed during remediation. A water mist would be applied to the excavation and	Project Applicant is responsible for implementing mitigation measure as stated.	Planning Dept.; County Counsel re Deed Restriction	Planning Dept. confirms measures as stated.	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
soil handling area and all truck haul routes, while the soil itself would be wetted, to reduce airborne dust generation. In addition, intermittent air monitoring would be conducted in accordance with local air quality management regulations, and equipment used to excavate, transport and manage soil would be decontaminated through a process of brushing and washing in a central decontamination area. In conjunction with amending the Site 1 WDRs, prepare and record a deed restriction acceptable to the RWQCB that ensures that no buildings are constructed on the WMU in a fashion that impairs access or functioning of the collection trench and drainage system, and that provides access for inspections and maintenance of a collection trench/drainage system sufficient to comply with the Site 1 WDRs.				
HAZ-2: The applicant shall carry out the provisions set forth in the RAP and clean up the site to levels below the levels protective of human health and the environment agreed to by the RWQCB. Following full implementation, the applicant shall prepare and submit a report to the San Francisco Bay RWQCB for review and approval. The report shall document cleanup activities performed, quantities of soil reused on-site and disposed of off-site, facilities that received exported material, soil gas sample analytical results, and verification that the targeted cleanup levels have been achieved.	Project Applicant is responsible for implementing mitigation measure as stated.	Planning Dept.	Planning Dept. confirms in conjunction with required approvals and inspections.	
HAZ-3: To allow for the successful assessment and remediation of any previously unknown soil contaminants hazardous to the public and/or environment encountered during project construction, implement the protocols documented in the soil risk management plan portion of the RDIP in the event that such contaminants are encountered, and record in the deed records for the site a notice of the existence of the soil risk management protocols from the RDIP (including a full copy of those protocols) so that all owners of portions of the site have advanced notice of both the existence of the soil risk management plan and its terms and provisions.	Project Applicant is responsible for implementing mitigation measure as stated.	Dept. of Public Works; County Counsel.	County Counsel to review and approve deeds prior to recordation to ensure notice of required protocols; Dept. of Public Works to ensure compliance during grading inspections.	
GEOLOGY, SOILS, AND SEISMICITY				
GEO-1: To lessen potential damage from strong or violent ground shaking, prior to the issuance of permits for the construction of infrastructure, buildings and bridges, the applicant's geotechnical engineer shall prepare and submit to the County for review geotechnical reports incorporating the specific mitigation of seismic hazards pursuant to State law, as detailed in the California Building Code, and as required by the County of Napa to ensure that structures and infrastructure can withstand ground accelerations expected from seismic activity. The improvement plans shall incorporate all design and construction criteria specified in the report(s). The geotechnical engineer shall sign the improvement plans and approve them as conforming to their recommendations prior to parcel/final map approval. The project geotechnical engineer shall provide geotechnical observation during the construction, which will allow the geotechnical engineer to compare the actual	Project Applicant is responsible for implementing mitigation measure as stated. Retention of geotechnical engineer is subject to County approval.	Dept. of Public Works, Planning Dept.	Confirmation of recommendations in improvement plans by Dept. of Public Works prior to parcel/final map approval, and in building plans prior to approval by Planning Dept. Conformance to rec-	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
with the anticipated soil conditions and to check that the contractor's work conforms to the geotechnical aspects of the plans and specifications. The geotechnical engineer of record will prepare letters and as-built documents, to be submitted to the County, to document their observances during construction and to document that the work performed is in accordance with the project plans and specifications.			ommendations and engineers reports to occur during required County inspections.	
GEO-2: To lessen potential damage from liquefaction, the recommendations for both special foundations and other geotechnical engineering measures specified in the applicant's geotechnical reports (prepared by T&R, dated January 23, 2007 and May 21, 2007) shall be implemented during design and construction. These measures include engineering and compaction of new fills, removal or improvement of potentially liquefiable soils and compressible soils, and use of deep foundations. Documentation of the methods used shall be provided in the required design-level geotechnical report(s).	Project Applicant is responsible for implementing mitigation measure as stated.	Dept. of Public Works, Planning Dept.	Confirmation of inclusion of recommendations prior to issuance of grading/building permits. Conformance to recommendations and engineers reports to occur during required County inspections.	
GEO-3: Lateral spreading during potential future earthquakes shall be mitigated by correcting the liquefaction hazard to which it is related. Corrective measures, which shall be included in the required design-level geotechnical report(s), shall include: ♦ Engineering and compaction of new fills. ♦ Removal or densification of liquefiable soils. ♦ Use of relatively rigid foundations.	Project Applicant is responsible for implementing mitigation measure as stated.	Dept. of Public Works, Planning Dept.	Confirmation of inclusion of recommendations prior to issuance of grading/building permits. Conformance to recommendations and engineers reports to occur during required County inspections.	
GEO-4: To avoid excessive settlement that could cause damage to foundations and pavements, poorly compacted fills shall be mitigated by excavation and/or additional compaction. Options to mitigate these effects include implementing a surcharge program, supporting structures with deep foundations that include drilled or driven piles and installing flexible connections for utilities. The geotechnical recommendations for mitigation of existing and proposed fills, and for settlement of native soils, that are contained in the applicant's geotechnical reports shall be implemented. These measures include removal and recompaction of pre-existing loose fills, and proper engineering and compaction of all new fills.	Project Applicant is responsible for implementing mitigation measure as stated.	Dept. of Public Works.	Confirmation of inclusion of recommendations prior to issuance of grading. Conformance to recommendations and engineers reports to occur during required County inspections.	
GEO-5: As a part of final design, the project geotechnical engineer shall make specific recommendations to minimize or eliminate expansive soils under pavements and structures. Such measures for buildings may include use of appropriate foundations, by cap-	Project Applicant is responsible for implementing mitiga-	Planning Dept.	Confirmation of inclusion of recommendations prior	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
ping expansive soils with a layer of no-expansive fill, or by lime treatment. Such measures for pavements may include special pavement design and/or subexcavation of expansive soils. These recommendations shall be based on testing of the in-site fill materials. The recommendation measures shall be submitted to the County as a part of building and/or paving plan submittal prior to the issuance of building/construction permits.	tion measure as stated.		to issuance of building permits. Conformance to recommendations and engineers reports to occur during required County inspections.	
HYDROLOGY AND WATER QUALITY				
HYDRO-3: Before the approval of grading plans and building permits, the project applicant(s) for all project phases shall submit final drainage plans to the County demonstrating that off-site upstream runoff would be appropriately conveyed through the project site, and that project-related on-site runoff would be appropriately detained to reduce flooding impacts. The plans shall adhere to the guidelines and requirements set forth for drainage in the Napa County Road & Street Standards. Design of BMPs for flood control shall comply with all regulations and be approved by the County.	Project Applicant shall implement mitigation measure as stated.	Dept. of Public Works.	Final drainage plans to be submitted and approved prior to issuance of any grading/building permits.	
HYDRO-4: Prior to approval of grading permits and improvement plans (for each project phase), the project applicant shall prepare and submit an Erosion and Sediment Control Plan (ESCP) for review and approval by the County. The ESCP shall include the locations and descriptions of control measures (BMPs), such as straw bale barriers, straw mulching, straw wattles, silt fencing, and temporary sediment ponds to be used at the project site to control and manage erosion and sediment, control and treat runoff, and promote infiltration of runoff from new impervious surfaces. The Applicant shall also submit a Notice of Intent (NOI) to the State Water Resources Control Board for coverage under the NPDES Construction General Permit and prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the County prior to issuance of a grading permit. The SWPPP shall incorporate the ESCP and describe construction-phase housekeeping measures, such as spill prevention and cleanup measures, means of waste disposal, and best management practices training for on-site workers. The SWPPP shall incorporate the monitoring requirements and other provisions in the recently updated SWRCB General Permit for Construction Activities (approved September 2, 2009). A Stormwater Runoff Management Plan (SRMP) shall also be prepared for review and approval by the County, as specified in the Napa County Post-Construction Runoff Management Requirements. The SRMP shall include descriptions and designs of the post-construction BMPs to be implemented, such as bioswales, biofiltration features and stormwater retention basins, well as non-structural BMPs, such as street sweeping and covered waste disposal areas. The SRMP shall also prescribe monitoring and maintenance practices for the BMPs to maintain treatment effectiveness. Where applicable, these BMPs shall be designed based on specific criteria from recognized BMP design guid-	Project Applicant shall implement mitigation measure as stated.	Dept. of Public Works.	ESCP, SWPPP, and SRMP shall be reviewed and approved prior to issuance of grading permits for each phase.	

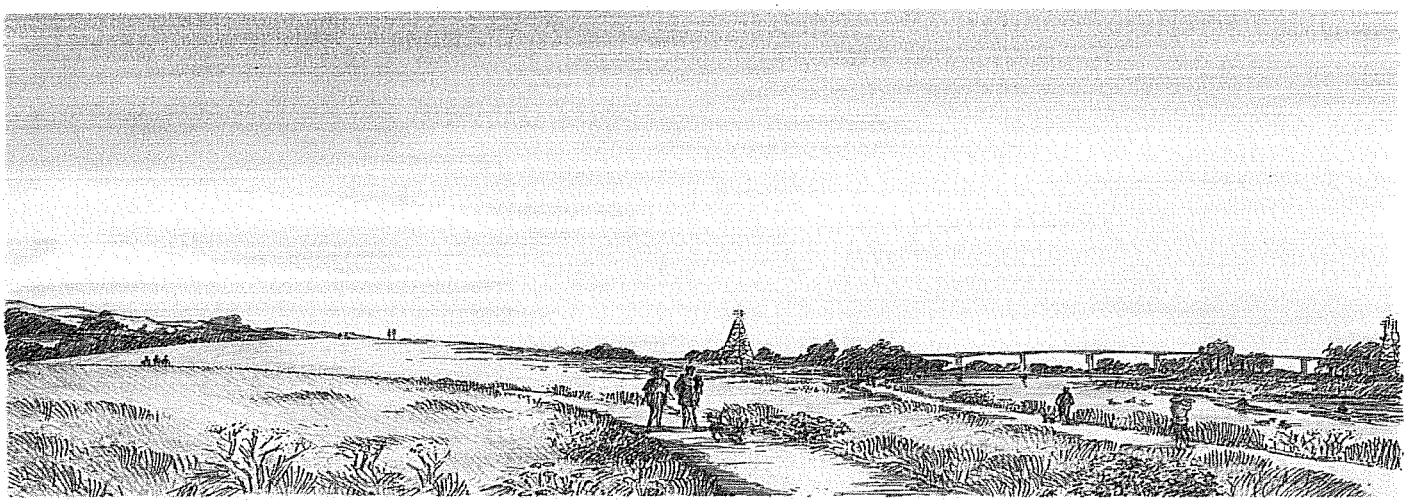
Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
ance manuals, such as the California BMP Handbooks (available at www.napastormwater.org).				
HYDRO-5: Prior to beginning of construction of the project, the applicant shall abandon all existing wells on the project site that are not planned for water supply or groundwater monitoring consistent with Napa County Environmental Health standards and the standards described in State of California Bulletin 74-81 (Water Well Standards).	Project Applicant shall implement mitigation measure as stated.	Dept. of Environmental Management.	Prior to issuance of grading/building permits.	
HYDRO-6: Prior to approval of the final grading plan, the project shall submit a request for a Conditional Letter of Map Revision (CLOMR) for review and action by FEMA and/or their designated representative in order to remove the elevated parcels from the SFHA. With the approved CLOMR and placement of fill as described, the project shall submit a request for a Letter of Map Revision (LOMR).	Project Applicant shall implement mitigation measure as stated.	Department of Public Works	Dept. of Public Works shall confirm approved CLOMR prior to approval of grading plans and issuance of grading permits.	
HYDRO-7a: The project proponents shall construct floodgates at either end of the railroad ROW as described in the PWA memorandum. Operation and maintenance of the floodgates shall be established in an agreement authorized and approved by the Napa County Office of Emergency Services, (NCOES) and shall be the responsibility of the Home Owners Association (HOA) or such other responsible legal entity as determined in agreement with the NCOES.	Project Applicant shall implement mitigation measure as stated.	Dept. of Public Works, Napa County Office of Emergency Services	Construction of floodgates and approval of operation/maintenance agreement prior to issuance of building permits.	
HYDRO-7b: While the floodgates will provide protection for the area between them, the wetland area to the south and the adjacent park areas would remain vulnerable to potential flooding, as would the northwest park area of the project site. The project proponents shall provide adequate public signage in the nature area and wetland, and northwest park warning park patrons of the potential flood hazard.	Project Applicant shall implement mitigation measure as stated.	Dept. of Public Works.	Adequate signage shall be confirmed prior to issuance of Certificates of Occupancy.	
CULTURAL RESOURCES				
CULT-1a: Prior to the demolition of buildings and structures comprising the Basalt Shipyard District, the District shall be documented to the Historic American Buildings Survey (HABS) documentation level III, as follows: Documentation Level III 1. Drawings: sketch plan. 2. Photographs: photographs with large-format negatives of exterior and interior views. 3. Written data: architectural data form. Documentation shall be completed by a qualified architectural historian and shall include large-format photography and historical documentation. These documents shall be provided to the Napa County Historical Society and to the Napa County Library, assuring that the public has access to the record of this historic resource.	Project Applicant shall implement mitigation measure as stated. County to approve qualified architectural historian and report submittal	Planning Dept.	Prior to issuance of demolition permits.	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
CULT-1b: An interpretive display featuring the shipyard's history shall be incorporated into the project. This display shall be located in an area accessible to the public and shall provide information regarding the historical contributions of the Basalt Shipyard. The display will help to place the dry docks in context for the public.	Project Applicant shall implement mitigation measure as stated.	Planning Dept.	Prior to issuance of certificates of occupancy	
CULT-2: To prevent damage to previously identified archaeological resources, prior to any excavation on-site, an archaeologist shall review excavation plans in areas identified as archaeologically/geologically sensitive and shall develop a monitoring plan based on depth of the excavation and data from boring logs. The plan shall include observation of ground disturbing activities (such as grading, trenching and boring) to be focused in areas that are most likely to contain buried resources (see Figure 4.11-1 of 2009 DEIR). The archaeologist shall limit on-site monitoring to only areas where depth of excavation and information from boring logs suggests that sensitive resources may be encountered. In addition, project personnel shall be made aware of the types of materials that denote possible archaeological sites. If archaeological materials are discovered accidentally during the course of construction, all work within 50 feet of the find shall stop while an assessment of the find is made by an archaeologist who is called in. If needed, a treatment plan shall be developed that takes into account the nature and scope of the find. This could range in complexity from a relatively brief investigation of a scatter of lithic materials, to a far more extensive recovery of human remains.	Project Applicant shall implement mitigation measure as stated, and require adherence by contractors. County shall approve of retained archaeologist.	Planning Dept., Public Works Department	Plan to be approved by County prior to issuance of grading permits. Compliance with plan to be monitored during County inspections.	
CULT-3: If paleontological deposits are discovered, all work within 50 feet of the find shall stop until a geologist who is called in can determine its significance. Specific recommendations for the treatment of paleontological materials would depend on the nature of the discovery and could range from brief investigation of a limited deposit of invertebrate remains to more extensive exposure and removal of large vertebrate fossils.	Project Applicant shall implement mitigation measure as stated, and require adherence by contractors.	Planning Dept., Dept. of Public Works.	Compliance with mitigation measure to be monitored during County inspections.	
CULT-4: Project personnel shall be briefed in the proper procedures to follow in the event that human remains are encountered during construction and an archaeologist is not on-site. If human remains are discovered by an archaeologist or by project personnel, all work shall stop within 50 feet of the find and the Napa County Coroner shall be notified. If it is determined that the remains are those of a prehistoric Native American, the Coroner shall notify the Native American Heritage Commission, which will identify the Most Likely Descendent to provide tribal recommendations regarding the disposition of the remains. To the extent feasible and reasonable, recommendations of the Most Likely Descendent shall be implemented.	Project Applicant shall implement mitigation measure as stated, and require adherence by contractors.	Planning Dept., County Coroner.	Compliance with mitigation measure to be monitored during County inspections.	
PUBLIC SERVICES AND RECREATION				
PS-1: In order to ensure adequate law enforcement staff and equipment, the County shall prepare an updated fiscal analysis prior to or concurrent with the approval of design guidelines. If the updated analysis shows a shortfall in revenue on an interim or long-term basis, then:	Project Applicant and County implement mitigation measure as stated.	Planning Dept., Napa County Sheriff's Department.	If needed, financing mechanism in place prior to, or concurrent with,	

Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
1. Prior to, or concurrent with, the approval of the design guidelines, the County and the applicant shall identify and implement a financing mechanism to supplement expected property tax, sales tax, and other sources of revenues to provide sufficient funding for ongoing costs associated with law enforcement services at the Napa Pipe site. The County shall also require the applicant to provide an adequate level of interim financing for law enforcement services between project approval and when funding becomes available from the financing mechanism, property taxes, sales taxes, and other sources of revenue. 2. Prior to initiation of construction, the County and Project Applicant shall consult with law enforcement personnel within the City of Napa as provided for by General Plan Policy SAF-34, and shall seek to renegotiate the terms of the automatic Mutual Aid Agreement between Napa City Police Department (NCPD) and Napa County Sheriffs' Department (NCSD) to address concerns of each agency regarding potential increases in service calls.			approval of design guidelines. NCPD and NCSD negotiations re Mutual Aid Agreement to occur prior to initiation of construction.	
PS-2: In order to ensure adequate staff and equipment for fire services, the County shall prepare an updated fiscal analysis prior to or concurrent with approval of design guidelines. If the updated analysis shows a shortfall in revenue on an interim or long-term basis, then: 1. The County and the applicant shall identify and implement a financing mechanism if necessary to supplement expected property tax, sales tax, and other sources of revenues to fund increased fire protection services provided at the Napa Pipe site. The County shall also require the applicant to provide an adequate level of interim financing for fire services between project approval and when funding becomes available from the financing mechanism, property taxes, sales taxes, and other sources of revenue. 2. The County shall seek to renegotiate the terms of the automatic Mutual Aid Agreement between NCFD and the City of Napa Fire Department to address concerns of each agency regarding increases in service calls.	Project Applicant and County implement mitigation measure as stated.	Planning Dept., Napa County Fire Department.	If needed, financing mechanism in place prior to, or concurrent with, approval of design guidelines. NCFD and City of Napa Fire Department negotiations re Mutual Aid Agreement to occur prior to issuance of certificates of occupancy.	
PS-4: In order to ensure that adequate library services are provided, the County shall shall prepare an updated fiscal analysis prior to concurrent with approval of design guidelines. If the updated analysis shows a shortfall in revenue on an interim or long-term basis, then: 1. The County and the applicant shall identify and implement a financing mechanism if necessary to supplement expected property tax, sales tax, and other sources of revenues to fund increased library services needed to serve Napa Pipe residents. The County shall also require the applicant to provide an adequate level of interim financing, if necessary, between project approval and when funding becomes available from the financing mechanism, property taxes, sales taxes, and other sources of revenue.	County and Applicant shall implement mitigation measure as stated.	Planning Dept.	If needed, financing mechanism in place prior to, or concurrent with, approval of design guidelines.	

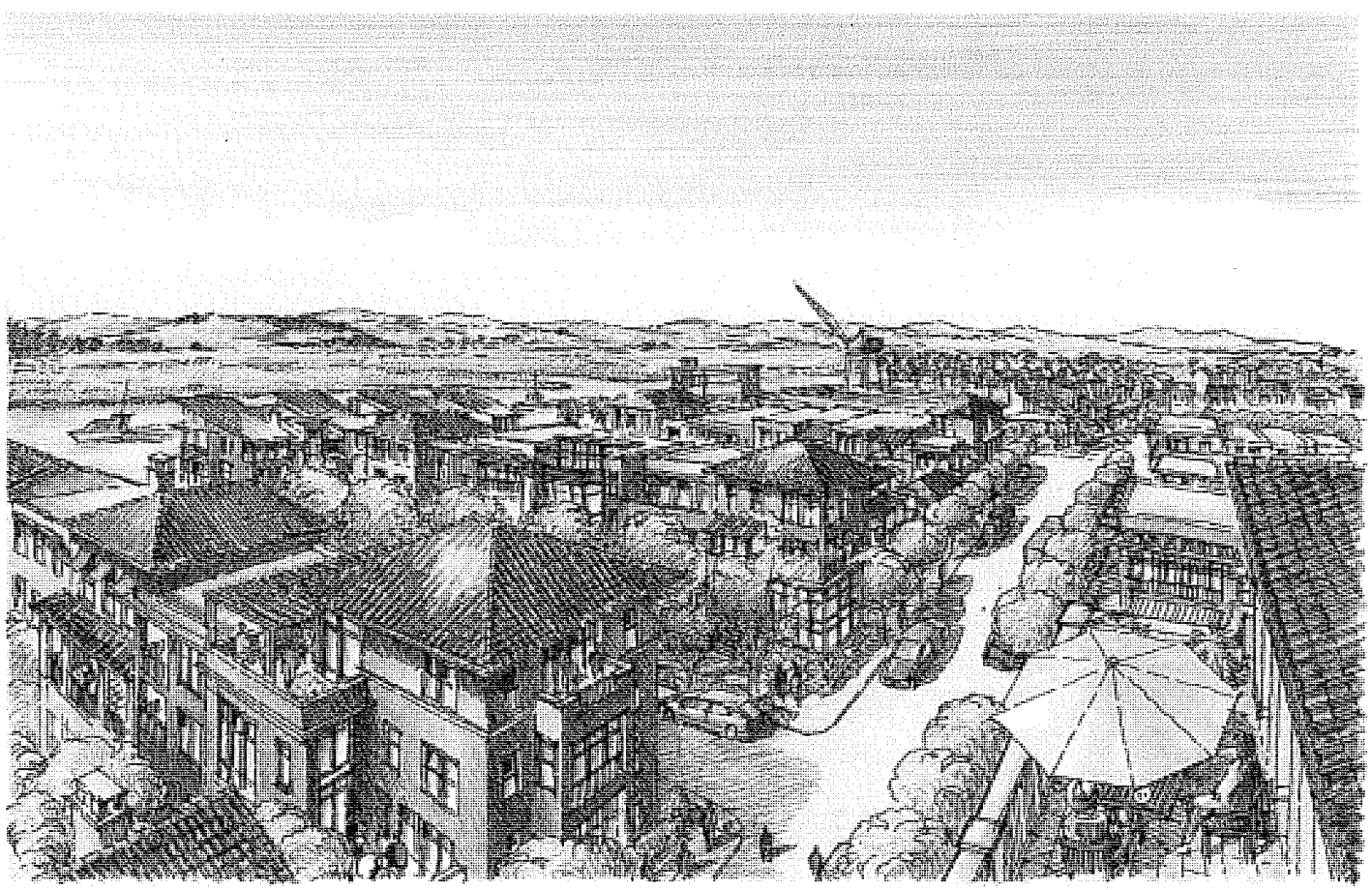
Mitigation Measures[1]	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action and Schedule	Monitoring Compliance Record (Name/Date)
UTILITIES				
UTIL-1: The project applicant shall pay connection fees and sewer service charges to the Napa Sanitation District (NSD) in compliance with the NSD's Sewer Use Ordinance in effect at the time the building permit is issued for each structure. Additionally, the project applicant shall be responsible for the costs associated with the planned improvements as described in the 2011 studies by NSD, or as may need to be revised based on the level of approved development. These studies determined the mid-range density alternative project impacts on the District's collection, treatment, and water recycling systems resulting from the additional flow and loading from the portion of the project that exceeds the current County General Plan and are included in FEIR Appendix N. All costs associated with the mitigations of these impacts must be paid for by the project applicant. Before the final map for the project is recorded, the applicant and NSD shall prepare and execute an agreement defining the design and construction schedule, scope and estimated cost of the planned improvements. The applicant shall make payment in a manner such that funds are provided to NSD when they are needed to implement the projects.	Project Applicant implements mitigation measures as stated.	Planning Dept.	Project Applicant provides proof to Planning Dept. of payment of fee at time of building permit issuance.	
UTIL-3: If the City of Napa agrees to provide potable water to the project, the applicant shall: • fund an updated study by the City's Water Department (if needed) to confirm that the storage, treatment, and pumping facilities identified in 2008 are no longer needed and that construction of an expanded pipeline south of the site is the only infrastructure improvement required for service; • if it is determined that off-site infrastructure improvements are necessary, construct or fund construction to the City's specifications.	Project Applicant shall work with City of Napa to implement mitigation measure as stated.	Planning Dept.	Project Applicant shall conduct negotiations with City of Napa and determine water provision option prior to recordation of first final subdivision map.	

cc/d/pl/NapaPipe/DevelopersRevisedProposal\BOS Approval\MMRP.Final(6-4-13).doc



REVISED
WATER SUPPLY ASSESSMENT
FOR THE
NAPA PIPE PROJECT
NAPA COUNTY, CALIFORNIA

MAY 14, 2013



REVISED
WATER SUPPLY ASSESSMENT
FOR THE
NAPA PIPE PROJECT
NAPA COUNTY, CALIFORNIA

MAY 14, 2013

PREPARED BY

Brownstein | Hyatt
Farber | Schreck

WITH TECHNICAL ASSISTANCE BY

HydroScience Engineers

STETSON
ENGINEERS INC.

TABLE OF CONTENTS

SECTION 1 INTRODUCTION 1
SECTION 2 PROJECT BACKGROUND 3
2.1 Description of the Project 3
2.2 Climate 6
2.3 Water Purveyor 8
2.4 Legal Requirements 8
SECTION 3 PROJECT WATER DEMANDS 11
3.1 Historical and Current Water Demands 11
3.2 Demands in Normal, Single Dry and Multiple Dry Water Years 12
3.3 Water Quality 12
3.4 Projected Water Demands 13
3.5 Water Efficiency Strategies 15
3.6 Phasing of Projected Water Demands 15
SECTION 4 CITY OF NAPA WATER DEMANDS 16
4.1 City Water Service Area 16
4.2 Historical Water Demands 18
4.3 Demand Methodology and Population Projection 20
4.4 Deliveries to Other Agencies 21
4.5 Proposed Development Projects 21
4.6 Future Water Demand Projections 23
SECTION 5 CITY OF NAPA WATER SUPPLIES 25
5.1 Milliken Reservoir 25
5.2 Lake Hennessey 26
5.3 State Water Project 27
5.3.1 Basic Description of the State Water Project 27
5.3.2 Barwick Jamieson Canyon Water Treatment Plant 29
5.3.3 State Water Project Supply Reliability 30
5.4 Other Potential Water Sources 32
5.4.1 Dry Year Supplies 32
5.4.2 Garden Bar Reservoir 33

5.4.3 Groundwater 33
5.4.4 Recycled and Desalinated Water 34
5.5 Total Supply Projections 34
SECTION 6 CITY WATER SUPPLY RISK 36
6.1 Assessment of Water Supply Risk 36
6.2 Mitigation of Water Supply Risk 39
6.3 Supplemental Water Sources 43
6.3.1 DWR Dry Year Programs 43
6.3.2 Water Transfers 44
6.4 Water Shortage Contingency Plan 45
SECTION 7 RECYCLED WATER 49
7.1 Overview of Napa Sanitation District 49
7.2 Strategic Plan 50
7.3 Milliken-Sarco-Tulucay Area Project 51
7.4 North Bay Water Recycling Program 52
7.5 Delivery of Recycled Water Within the City of Napa Water Service Area 55
7.6 Service to the Napa Pipe Project 56
SECTION 8 AVAILABILITY OF SUFFICIENT SUPPLIES 58

TABLES

Table 1. Irrigated Areas 6
Table 2. Average Climate Data for Project Area 7
Table 3. Projected Potable Water Demands for the Napa Pipe Project 13
Table 4. Projected Non-Potable Water Demands for the Napa Pipe Project 14
Table 5. City of Napa Accounts by Customer Type (2000-2010) 18
Table 6. City of Napa Water Demands by Customer Type (2000-2010) 19
Table 7. Population Served by City of Napa (2000-2050) 20
Table 8. Projected Potable Water Demands for Future Projects in City RUL 23
Table 9. City of Napa Projected Water Demands (2015-2035) 24
Table 10. City of Napa Projected Water Demands by Customer Type (2015-2035) 24
Table 11. Milliken Reservoir Yield 26
Table 12. Lake Hennessey Yield 27

Table 13. City of Napa SWP Table A Entitlement Schedule 29
Table 14. SWP Table A Reliability Assessments (2009 and 2011) 31
Table 15. City of Napa Projected Table A Deliveries (2010-2035) 32
Table 16. City of Napa Total Water Supplies (2010-2035) 34
Table 17. City of Napa Water Supplies Under Various Hydrologic Conditions (2010-2035) 35
Table 18. City of Napa Water Supplies and Demands (2015-2035) 37
Table 19. Risk of Water Shortage Without Corrective Action (2010-2035) 38
Table 20. SWP Deliveries to the City (2007-2011) 40
Table 21. Impact of Carryover Water on City Water Supplies and Demands 41
Table 22. City of Napa Water Shortage Stages of Action 46
Table 23. City of Napa Supply Action Trigger Levels 46
Table 24. City of Napa Annual Consumption Limit by Stage and Customer Group 48
Table 25. NSD Recycled Water Supply, Demand and Surplus Under NBWRP (2020) 54
Table 26. NSD Recycled Water Supplies and Demands 57

FIGURES

Figure 1. Project Location 4
Figure 2. Project Site Plan 5
Figure 3. City of Napa Water Service Area 17

ABBREVIATIONS

AF .....acre-feet
AFY.....acre-feet per year
CEQA.....California Environmental Quality Act
City.....City of Napa
County.....County of Napa
Delta.....Sacramento-San Joaquin Delta
DWR.....California Department of Water Resources
EIR.....environmental impact report
ET_0 .....evapotranspiration
FEIR.....final environmental impact report
gpcd.....gallons per capita per day
gpd.....gallons per day
gpm .....gallons per minute
KCWA .....Kern County Water Agency
LAFCO .....Napa County Local Agency Formation Commission
MGD .....million gallons per day
MST .....Milliken-Sarco-Tulucay
NBWRA.....North Bay Water Reuse Authority
NBWRP .....North Bay Water Recycling Program
NCFCWD .....Napa County Flood Control & Water Conservation District
NPDES.....National Pollutant Discharge Elimination System
NRP.....Napa Redevelopment Partners, LLC
NSD.....Napa Sanitation District
Project .....Napa Pipe Project
RUL.....Rural Urban Limit Boundary
SB 610.....California Senate Bill 610
SWP .....State Water Project
SWRCB.....California State Water Resources Control Board
SWRF.....Soscol Water Recycling Facility
UWMP .....urban water management plan
WSCP.....Water Shortage Contingency Plan

SECTION 1 INTRODUCTION

The purpose of this Revised Water Supply Assessment ("Revised WSA") is to provide an evaluation of the adequacy of water supplies available to serve the Napa Pipe Project ("Project") currently proposed for redevelopment in Napa County, California by Napa Redevelopment Partners, LLC ("NRP"). This Revised WSA has been prepared for review and approval by the County of Napa ("County") in accordance with the requirements of California Water Code §§ 10910 *et seq.*, commonly referred to as California Senate Bill 610 ("SB 610").

SB 610 established the primary legal standards for assessing the sufficiency of water supplies for new development projects. These statutes require that as part of the environmental review conducted for a qualifying project pursuant to the California Environmental Quality Act ("CEQA"), the relevant public water supplier or land use agency—in this case the County—must prepare a "water supply assessment" of the reliability of water supplies for the project, considering normal, single dry and multiple dry years over a 20-year horizon. The basic requirement is that a water supply assessment must "include a discussion with regard to whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses."[1]

This Revised WSA follows the publication of three public review documents:

- *Water Supply Assessment for the Napa Pipe Project, Napa County, California*, dated October 15, 2009, which was based on use of local groundwater supplies for the Project, but also analyzed the availability of water supplies from the City of Napa ("City") as an alternative;

- *Supplement to the Water Supply Assessment for the Napa Pipe Project, Napa County, California*, dated January 19, 2011, which analyzed the use of imported surface water supplies from Mill Creek in the Sacramento River watershed; and

- *Water Supply Assessment for the Napa Pipe Project, Napa County, California*, dated August 25, 2011 ("2011 WSA"), which was based on conjunctive use of imported surface water and local groundwater supplies, but also analyzed the availability of water supplies from the City as an alternative.

This Revised WSA hereby incorporates all information included in those documents. In contrast to earlier planning documents, this Revised WSA was modified to focus on subsequent modifications of the Project and the proposed use of water supplies of the City for the Project, as well as updated data where available. In addition to project modifications, this Revised WSA reflects the Napa County Board of Supervisors' expressed intention to broadly interpret general plan policies so as to reserve groundwater for agricultural and rural uses rather than allowing groundwater use for the intensification of urbanized areas such as the Project site.

[1] *See* CAL. WATER CODE § 10910(c)(3).

Figure 1. Project Location

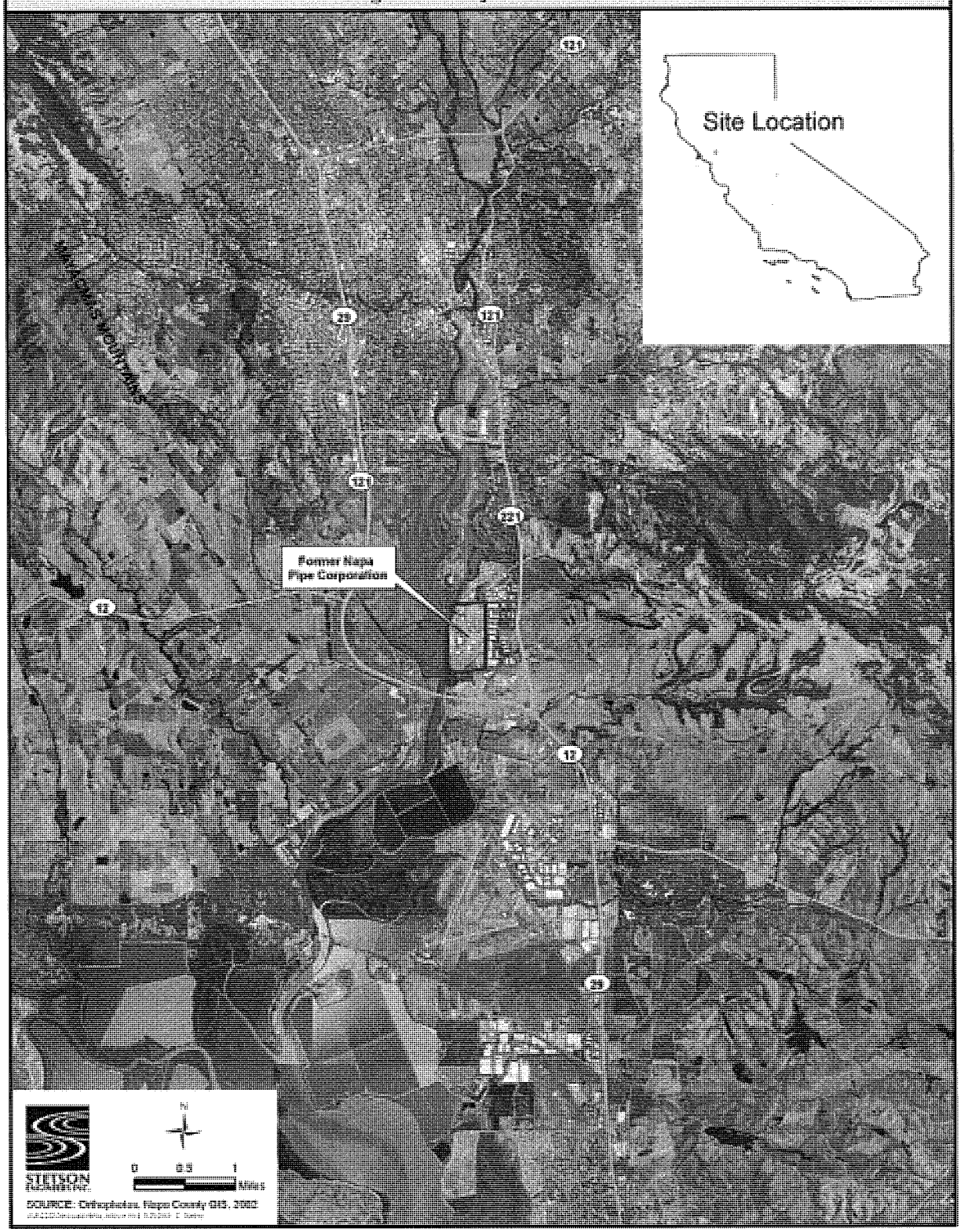


Figure 2. Project Site Plan

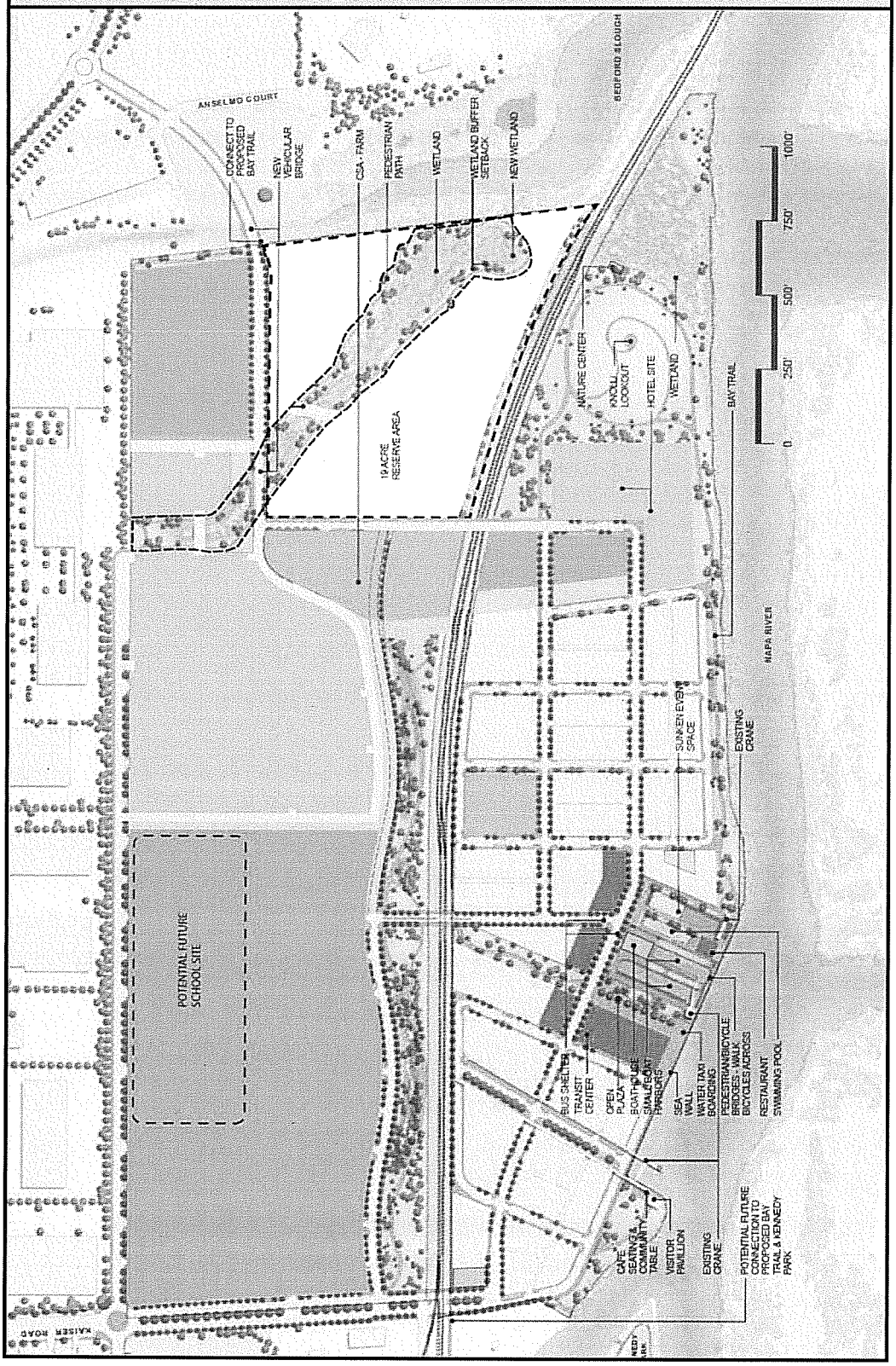


Table 1. Irrigated Areas				
Description	**Landscaping Type†**	**Total Area (ft^2)**	**Irrigated Area (ft^2)**	**Irrigated Area (acres)**
Areas Irrigated with Potable Water				
Rear Yards	TST	141,230	98,861	2.27
Subtotal		141,230	98,861	2.27
Areas Irrigated with Recycled Water				
Front Yards	NP	146,643	87,986	2.02
Curbside Biodetention Areas	NP	102,667	102,667	2.36
Open Parking Lots	NP	258,346	38,752	0.89
Wetland Setback Areas	NP	280,584	238,496	5.48
Wetlands	NP	206,562	0	0.00
Parks	TST	1,183,079	946,463	21.73
Podium Over Parking	TST	38,000	22,800	0.52
Commercial Areas Landscaping	TST	208,918	125,351	2.88
Community Gardens	RC	78,570	78,570	1.8
Urban Farm	RC	217,800	217,800	5.00
Subtotal		2,721,169	1,858,885	42.68
Grand Total		2,862,399	1,957,746	44.95

Source: Napa Redevelopment Partners, LLC.
† TST = turf, shrubs and trees; NP = native plants; RC = row crops.

2.2 Climate

The Napa Valley climate is similar to the Mediterranean region, characterized by hot dry summers and cooler wet winters.[5] Table 2 summarizes relevant climate data, including average monthly maximum and minimum temperatures, precipitation and evapotranspiration ("ET_0"), which represents the irrigation needs of standard cool-season turfgrass in Napa. Mild temperatures predominate in Napa, but highs in excess of 100°F have been observed at one time or another in every month from May through October. Nights cool off quickly. The average minimum temperature during the summer months is in the low 50s. Winter brings subfreezing temperatures nearly every year. Historically, temperatures below 32°F have been recorded during each month from October through May. During the winter, daily temperatures climb into the upper 50s on average.

[5] Hydroscience Engineers, Inc., *Napa Pipe Project, Water and Wastewater Feasibility Study*, at § 4.1.1 (August 2009) ("HSE Report"); City of Napa, *Urban Water Management Plan 2010 Update*, at 2-3 (2011) ("2010 UWMP") [http://www.cityofnapa.org/images/publicworks/Water/UWMP/uwmp%202010%20-%20final.pdf].

Table 2. Average Climate Data for Project Area				
Month	**Maximum Temperature (°F)**	**Minimum Temperature (°F)**	**Precipitation (inches per month)**	**ET_0 (inches per month)**
January	57.0	38.3	5.14	1.03
February	61.5	40.8	4.40	1.53
March	65.1	42.0	3.30	2.93
April	69.6	43.7	1.64	4.71
May	74.5	47.6	0.69	5.82
June	79.8	51.3	0.21	6.85
July	81.9	53.4	0.02	7.21
August	81.7	53.1	0.07	6.44
September	82.0	51.5	0.32	4.87
October	76.5	47.9	1.36	3.53
November	65.9	42.6	2.98	1.64
December	57.5	38.8	4.55	1.17
Annual	**71.1**	**45.9**	**24.68**	**47.73**

Source: 2010 UWMP, at Table 2-2, *citing* Western Regional Climate Center [http:www.wrcc.dri.edu] and California Irrigation Management Information System (CIMIS) [http://www.cimis.water.ca.gov].

Average annual precipitation in the Valley is 24.68 inches, ranging historically from a low of 9.52 inches in 1924 to a high of 50.24 inches in 1983.[6] More than 70 percent of annual ET_0 occurs in the months of May through September. This drives the demand for supplemental irrigation as these months have the lowest rainfall totals. There is, however, considerable variation in precipitation from year to year. An annual total of less than 13 inches can be anticipated one year out of 20, while more than 36 inches can be expected with about the same frequency. Annual precipitation averages over 20 inches, but approximately 80 percent of that total falls in the months of November through March, when plant water needs are at their lowest.

Under the influence of the nearby mountains and the flow of air through San Pablo Bay, wind direction is from the southwest most of the time and average speed is relatively light. Relative humidity average values during the summer may be around 60 percent, while in the winter they reach nearly 80 percent. ET_0 is somewhat affected by temperature, wind and humidity, but the primary driving force is simply the amount of sunlight. Long summer days mean higher ET_0 and more landscape irrigation.[7]

[6] Stetson Engineers, Inc., *Groundwater Report, Former Napa Pipe Corporation*, at 2-1 (August 31, 2009) ("Stetson Report"). *See also* 2010 UWMP, at 2-4.
[7] 2010 UWMP, at 2-4.

2.3 Water Purveyor

NRP is the developer of the Project, but as with most developments, NRP will not provide retail water utility service once the Project has been completed. Upon construction of the Project, ownership and operation of all water utility systems will be transferred to a qualified water purveyor. The City currently provides limited water supplies to the Project site, as a back-up for groundwater wells that serve industrial uses on the site. NRP and the City have discussed the terms and conditions under which the City would provide water service to the Project. This Revised WSA is written with the presumption that the City will be the water purveyor for the Project. In the event that the City does not become the water purveyor for the Project, Section 2.3 of the 2011 WSA discussed several alternatives that would be available.

The City currently provides limited water to the Project site for industrial purposes and already owns and operates water mains adjacent and up to the Project boundary. Sections 4 through 6 of this Revised WSA evaluate the feasibility of the City serving the Project. The City has requested that NRP file an application with the City, which would ask the City to file an application with the Napa County Local Agency Formation Commission ("LAFCO") to request an expansion of the City's sphere of influence to include the Project site and extension of water service to the property. If NRP's application were approved by the City Council pursuant to the City's Charter and ordinances, the City would apply to LAFCO for approvals to expand its sphere of influence and provide water service to the site.[8]

2.4 Legal Requirements

SB 610 established the primary legal standards for assessing the sufficiency of water supplies for new development projects.[9] Affected land developments are those that meet certain size thresholds. Those thresholds are met for developments that include more than 500 residential dwelling units, or industrial, manufacturing or processing plants, or an industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.[10] The Project, as described above, would exceed the size threshold for preparation of a water supply assessment.

These statutes require that as part of the environmental review conducted for a qualifying project pursuant to CEQA, the relevant public water supplier must prepare a "water supply assessment" of the reliability of water supplies for the project, considering normal, single dry and multiple dry years over a 20-year horizon. If no public water supplier is definitively identified, then the water supply assessment is prepared by the local land use agency. The city, county or other land use agency considering land use approval must then analyze the environmental impacts of providing water to the project based upon the public water supplier's analysis and any other relevant considerations. The County and developer have consulted the City in connection with their preparation of this Revised WSA.

---

[8] *See* CAL. GOVT. CODE § 56133; Napa County Local Agency Formation Commission, *General Policy Determinations*, at § V.(B) (April 4, 2011) [http://www.napa.lafco.ca.gov/uploads/documents/GeneralPolicy-Determinations.pdf].

[9] *See* CAL. WATER CODE §§ 10910-10914.

[10] CAL. WATER CODE § 10912(a).

The basic requirement is that a water supply assessment must "include a discussion with regard to whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses."[11] An assessment must identify the water supply entitlements, water rights or water service contracts related to the planned water supplies for the project, as demonstrated by written contracts, capital financing plans, federal, state and local permits for construction of infrastructure and regulatory approvals required to be able to convey or deliver the water supplies.[12] If the water demand for a proposed project is accounted for in an adopted urban water management plan ("UWMP"), the water supply assessment preparer may incorporate the plan information into the assessment.[13] If there is no current UWMP or the current UWMP does not account for the Project's projected water demand, such as is the case here where the Project was not accounted for in the City's 2010 UWMP, the water supply assessment must be based on the available evidentiary record.[14]

Upon adoption, the water supply assessment is incorporated into the CEQA document being prepared for the project, and the lead agency must determine, based on the entire record, whether projected water supplies will be sufficient to satisfy demands for the project, in addition to existing and future uses.[15]

There are several general principles for analyzing the sufficiency of water supplies for new development.[16] First, an environmental review document cannot simply ignore or assume a solution to any water supply constraint or limitation. Second, a review document for a large project to be built over a period of years cannot limit its analysis to water supplies needed for the first stage or first few years, but must assume the entire project will be built and analyze the impacts of supplying water to the entire project. Third, future water supplies must bear a likelihood of actually proving available; speculative sources and unrealistic allocations are generally insufficient. An environmental review document must include a reasoned analysis of the circumstances affecting the likelihood of availability for each water supply source. Finally, CEQA requires some analysis of the environmental impacts of possible alternative supplies that may be needed to supplement any uncertainty that may exist. Nonetheless, an analysis of alternative supplies is not necessary if it is clear that future water supplies will likely be available.[17]

For an assessment to be adequate when based on water supplies that are not yet available to the public water system, these future supplies need not be definitely assured through signed, enforceable agreements and already built or approved treatment and delivery infrastructure.

[11] CAL. WATER CODE § 10910(c)(3).
[12] *See* CAL. WATER CODE § 10910(d)(2).
[13] *See* CAL. WATER CODE § 10910(c)(2). *See also* CAL. WATER CODE §§ 10610 *et seq.* (Urban Water Management Planning Act).
[14] *See* CAL. WATER CODE § 10910(c)(3).
[15] CAL. WATER CODE § 10911(b)-(c).
[16] *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, 40 Cal.4th 412, 430-32 (2007).
[17] *See Santa Clarita Organization for Planning the Environment v. County of Los Angeles*, 157 Cal.App.4th 149, 162-63 (2007) (holding that "some legal uncertainty", caused by pendency of litigation related to the water supply, did not trigger the requirement of analyzing possible alternative supplies under the fourth principle, since the degree of uncertainty was insubstantial).

Rather, it is expected that land use and water supply planning will occur through roughly contemporaneous processes for those future supplies. An assessment reflects sufficient certainty if it demonstrates a reasonable likelihood that such contracts, financing programs and regulatory approvals will be obtained in the future.[18]

[18] *See Vineyard*, 40 Cal.4th at 432-34.

SECTION 3 PROJECT WATER DEMANDS

The Project consists of an approximately 154-acre redevelopment located within the County of Napa and adjacent to the southern limits of the City. The Project will convert development on the site from historical heavy industries to a mixture of residential, commercial and retail land uses. Potable water demands for the Project are projected to be approximately 300 AFY, with average daily demands of 266,400 gallons per day ("gpd"). Non-potable water demands are projected to be approximately 150 AFY.

3.1 Historical and Current Water Demands

Development of the Project site began as early as 1919-1920, when four groundwater wells were drilled on the site. By 1933, up to 13 wells had been drilled on the Project site and were used to extract groundwater for delivery to the cities of Crockett, Vallejo and Benicia, as well as the C&H (California & Hawaii) Sugar Refining Company facility located in Crockett.[19] There are no groundwater extraction records available from this time period, but it can reasonably be assumed that the use of groundwater from the site was substantial, given the number of wells and the beneficial uses to which that water was placed.

Beginning in 1939, the Basalt Rock Company used the Project site as the location of a shipbuilding facility, which was active through the end of World War II. As with the earlier period of development, no water records exist from this time, although water use can be assumed to have been substantial given the industrial activity on the site and the domestic water demands of up to 3,000 workers, a portion of whom lived at the adjacent Shipyard Acres Community.[20]

Following World War II, the Project site was used by the Napa Pipe Company, Kaiser Steel and Oregon Steel Mills as the location for manufacturing of steel pipe and other heavy steel products. Water use records from the end of World War II through 1989 are rare, but in 1949-1950, the U.S. Geological Survey estimated that water demands on the Project site were approximately 1,230 AFY.[21]

During the gradually declining industrial use of the Project site between 1989 and 2004, when the Napa Pipe facility finally closed, pumping records from wells located on the Project site indicate that an average of 150 AFY were used for heavy industrial and office purposes.[22] In addition, the site was connected to the potable water distribution system of the City during the period from 1955 to the present. During the period from 1990 through 2012, the City delivered a total of 86 AF to the Project site, for an average of approximately 4 AFY. If the Project were not to be developed, industrial use of an undetermined quantity of water might resume on the site. That water would likely be purchased from the City and pumped from groundwater aquifers below the property.

[19] Stetson Report, at 1-4.
[20] *Id.*
[21] *Id.*
[22] *Id.* at 2-7 to 2-8.

3.2 Demands in Normal, Single Dry and Multiple Dry Water Years

In order to evaluate water supply reliability, California statutes require the consideration of water supplies and demands in three types of water conditions: normal, single dry and multiple dry water years. There is no statute or regulation that dictates the proper method for calculating demands in single dry and multiple dry water years, and no consistent approach has been developed by water resource professionals within the state.[23]

For purposes of this Revised WSA, the water demands in single dry and multiple dry water years are projected to be equal to the demands in normal water years. This approach is conservative and the same as that used by the City in its most recent urban water management plan.[24] It likely overestimates water demands for the City and the Project because it does not take into account any of the water demand reductions that would be expected to occur based on the City's implementation of its Water Shortage Contingency Plan ("WSCP").[25]

3.3 Water Quality

A feature of the Project that affects water demands is that the Project will utilize two different sources of water based on the differing water quality requirements of Project demands. Specifically, indoor water uses for residential and commercial spaces, such as water for drinking, cooking and sanitation, require water treated to potable standards, while irrigation of exterior spaces may utilize high quality recycled water that does not meet potable standards. California state law encourages the use of recycled water whenever it is available and of adequate quality and reasonable cost, in order to conserve and optimize use of the state's valuable water resources.[26] The Project will seek to promote that important policy by using recycled water to meet the demands of landscape and garden irrigation.[27]

Community gardens and urban farms may be irrigated with disinfected tertiary recycled water, like that produced by the Napa Sanitation District, as described in Section 7.1.[28] There are several examples of community gardens and farms in California and the Bay Area that utilize recycled water, including the Guadalupe Community Garden in San Jose, and the Community Garden in El Dorado Hills, which has used recycled water since 2009.

[23] *See, e.g.*, DWR, *California Water Plan*, Bulletin 160-05, Vol. III, at 3-7 (Update 2005) ("Each district has different assumptions and policies that guide their planning").
[24] *See* 2010 UWMP, at 7-1, 7-2. The City modified its approach for the 2010 UWMP from the previous 2005 UWMP. In 2010, it used 100 percent of normal year demands for single dry and multiple dry years, while in 2005 it had used 85 percent of normal year demands for single dry and multiple dry years. *See* 2005 UWMP, at 9-1, 9-2.
[25] 2010 UWMP, at Chapter 8.
[26] *See* CAL. WATER CODE §§ 13550 *et seq.*
[27] HSE Report, at § 2.4.1.
[28] 22 Cal. Code of Regs. § 60304(a).

3.4 Projected Water Demands

Projected potable water demands for the Project are shown in Table 3. The average daily demands for potable water are 266,400 gpd, which equals 300 AFY. This number includes water for indoor residential, commercial and community facility uses, and a relatively small amount of water for irrigation of rear yards. Estimates for Costco facilities are taken from prior water demand estimates contained in environmental impact reports for Costco retail facilities of similar size.[29] Total potable water demands include 10 percent for unaccounted-for water, which is the difference between the quantity of water supplied to a water purveyor's system and the metered quantity of water used by the customers and includes water lost through leaky pipes, illegal service connections, meter inaccuracies and water used for fighting fires.

Table 3. Projected Potable Water Demands for the Napa Pipe Project

Land Use	Quantity	Water Use Factor	Water Use (gpd)	Water Use (AFY)
Residential				
Multi-Story Residential	945 units	165 gpu	155,900	175
Senior Housing Units*	150 units	113 gpu	16,900	19
Commercial				
Retail and Restaurant	40,000 ft^2	0.1 gpd/ft^2	4,000	4
Community Facilities**	15,600 ft^2	0.1 gpd/ft^2	1,600	2
Offices	100,000 ft^2	0.1 gpd/ft^2	10,000	11
R&D/Light Industrial	75,000 ft^2	0.1 gpd/ft^2	7,500	8
Hotel	150 rooms	150 gpd/room	22,500	25
Costco	154,000 ft^2	0.1 gpd/ft^2	15,400	17
Community Pool	1 unit	1,200 gpu	1,200	1
Irrigated Areas				
Rear Yards	2.3 acres	3,125 gpd/acre	7,200	8
Total Potable Water Demands			242,200	270
Total Potable Water Demands with 10% Unaccounted-For Water			266,400	300

† All gpd figures are rounded to the nearest 100 gpd. All AFY figures are rounded to the nearest AF, except the totals, which are rounded to the nearest 10 AF.
* The water use factor for senior housing units is based on adjusting the multi-story residential water use factor by the relative numbers of persons expected per dwelling, which is 1.5/2.2.
** The maximum area allowed for community facilities under the proposed zoning ordinance is 20,000 ft^2; water demands under that maximum area would remain at 2 AFY.

[29] *See* City of Redwood City, *Draft Environmental Impact Report for Costco Commercial Complex*, State Clearinghouse No. 2005092047 (2006) (150,000 ft^2 facility plus fuel station, water use factor of 0.1 gpd/ft^2) [http://www.redwoodcity.org/phed/planning/eir/costco_draft.html]; County of San Luis Obispo, *Final Costco/Froom Ranch Environmental Impact Report*, State Clearinghouse No. 2002051036 (2003) (140,000 ft^2 facility plus fuel station, water use factor of 0.068 gpd/ft^2) [http://www.ci.san-luis-obispo.ca.us/-communitydevelopment/download/costfeir.pdf].

The maximum (peak) day demand is projected to be approximately 352,500 gallons, based on a multiplier of 1.3 times average day demands for indoor water uses (equaling 336,100 gallons)[30] and the maximum day demands for irrigation of rear yards as identified by Hydroscience Engineers for the month of July (equaling 16,400 gallons).[31]

Annual and average daily demands are used to evaluate the adequacy of existing and future water supplies, which is the purpose of this Revised WSA. The maximum day demand and the peak hourly demand factors (multiples of the average daily demand) are used to size the related Project water and wastewater infrastructure, including pump stations, water and wastewater treatment plant capacity, water storage tanks and the water and sewer piping. The maximum day demand and peak hourly demand factors and engineering information pertaining to the Project water and wastewater infrastructure are provided in the HSE Report.[32]

Although the developer is making 10 acres available for a potential future school site on the 91 acres east of the railroad tracks, a school is not part of the Project.[33] If a school were eventually constructed and had water usage similar to the current highest-water using elementary school campuses in the City, its potable water demands would be approximately 25 AFY.[34] For purposes of this Revised WSA, such demands are not considered to be part of the Project water demands, but are added to overall City water demands as a cumulative impact.

Average annual demands for non-potable water to be used for irrigation of landscape, park and garden areas are shown in Table 4 and are projected to equal approximately 150 AFY, including 10 percent for unaccounted-for water. Maximum day demands are projected to be approximately 315,400 gallons, based on irrigation requirements in July of 0.68 acre-feet ("AF") per acre. Detailed information on projected seasonal irrigation demands relative to the availability of recycled water was analyzed by Hydroscience Engineers.[35] Those water demands can and will be fully met with recycled water, as described in Section 7 of this Revised WSA.

Table 4. Projected Non-Potable Water Demands for the Napa Pipe Project

Land Use	Quantity	Water Use Factor	Water Use (AFY)†
Irrigated Areas			
Native Landscaping	10.8 acres	2.1 AFY/acre	23
Parks and Turf Areas	25.1 acres	3.5 AFY/acre	88
Community Garden and Urban Farm	6.8 acres	3.5 AFY/acre	24
Total Non-Potable Water Demands			130
Total Non-Potable Water Demands with 10% Unaccounted-For Water			150

† All numbers rounded to the nearest AFY, except the totals, which are rounded to the nearest 10 AFY.

[30] HSE Report, at § 2.1.
[31] *Id.* at § 5.1.1.
[32] *Id.*
[33] *See* County of Napa, *Napa Pipe Supplement to the Draft EIR*, at § 4.3 (February 14, 2011).
[34] Personal communication with City Deputy Director of Public Works (May 9, 2013).
[35] HSE Report, at 25.

3.5 Water Efficiency Strategies

There are many water efficiency strategies that can be implemented to reduce potable water demands for the Project. The CALFED Water Use Efficiency Program Plan identifies the potential for water efficiency practices to reduce per capita water demand to approximately 52 gallons per capita per day ("gpcd") statewide, which is approximately 31 percent lower than the highly conservative estimate of 75 gpcd water demand used for planning purposes in this Revised WSA.[36] Specific methods to improve efficient water use identified in the CALFED study include the following:

- Installing ultra-low flush toilets that flush with 1.6 gallons per flush;
- Using showerheads that use no more than 2.5 gallons per minute ("gpm");
- Using faucets that flow at 2.2 gpm maximum and are sensor-activated in public spaces;
- Using high efficiency front-loading clothes washers; and
- Practicing routine common sense leak detection and control.[37]

It is intended that the Project will meet or exceed all of these CALFED water efficiency practice goals by complying with the California Plumbing Code and best management practices contained in the California Urban Water Conservation Council's Memorandum of Understanding, of which the City is a signatory.[38] In fact, water efficiency technology has progressed substantially since publication of the CALFED report,[39] and the Project will exceed many of those standards. For example, under current building codes all toilets in the Project will be high efficiency models that flush no more than 1.28 gallons per flush, and faucet and showerhead flow rates will be at least 20 percent lower than the CALFED rates listed above. Additionally, the use of recycled water for all common area irrigation eliminates the use of potable water for this purpose. Potable water will be used primarily indoors, with outdoor usage only for irrigation of private backyards, which constitute a relatively small area of approximately 2.3 acres compared to 42.7 acres of recycled water irrigation.

3.6 Phasing of Projected Water Demands

While the water demands for the Project will all occur within the 20-year timeframe analyzed in this Revised WSA, they will not arise at a single point in time. The Project is expected to be developed in phases, so that water demands associated with the Project would start as early as 2015 and reach their full levels at expected buildout by 2025. Since water supply planning is typically conducted in broad five-year intervals, and in order to ensure that adequate water supplies are available for each phase as it begins, this Revised WSA assumes that all Project water demands will commence in 2015.

[36] This Revised WSA uses a water demand factor of 165 gpd per unit, with 2.2 persons expected per unit.
[37] HSE Report, at § 2.3.
[38] *See* California Urban Water Conservation Council Website [http://www.cuwcc.org].
[39] *See* United States Environmental Protection Agency, WaterSense Program [http://www.epa.gov/watersense/].

SECTION 4 CITY OF NAPA WATER DEMANDS

The primary water source for the Project will be existing water supplies used by the City to provide service to its customers. This section analyzes the water demands of existing and planned future City customers.

Information in this section has been derived from official reports prepared or adopted by the City, especially the City of Napa, *Urban Water Management Plan 2010 Update* (2011) ("2010 UWMP"), City of Napa, *Urban Water Management Plan 2005 Update* ("2005 UWMP") and West Yost & Associates, *2050 Napa Valley Water Resources Study* (2005) ("2050 Study").

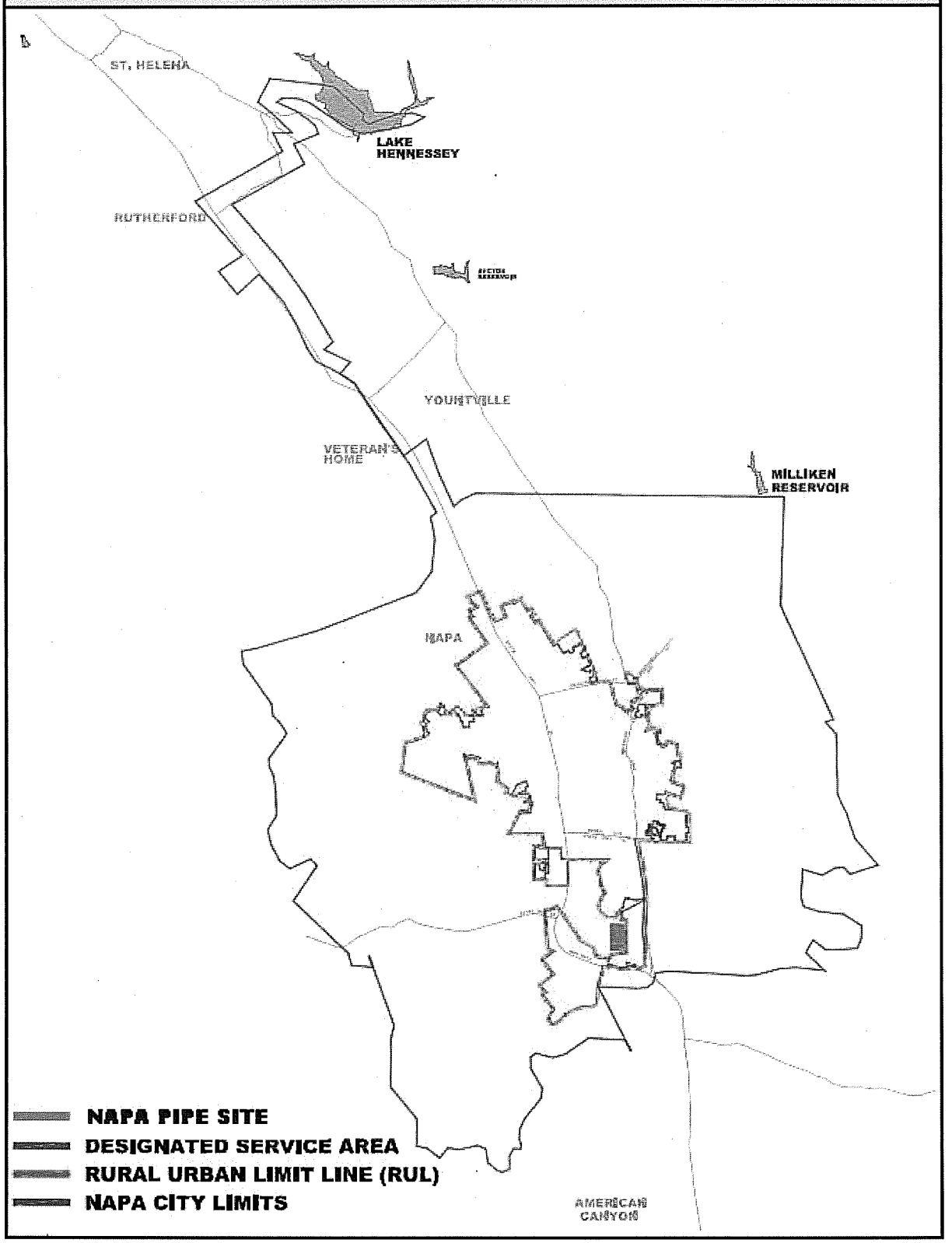
4.1 City Water Service Area

The City distributes potable water supplies within a service area encompassing much of the lower Napa Valley. The City's water service area contains three boundaries of importance, as shown on Figure 3: (1) the designated water service area; (2) the Rural Urban Limit ("RUL") line; and (3) the City limits.[40] The City serves the vast majority of its customers inside the RUL, but the City does provide water service outside the RUL to customers in the Monticello Road/Silverado Resort community and the independent Congress Valley Water District, as well as accounts along the Conn Transmission Line and the Napa State Hospital. Congress Valley Water District is scheduled to be dissolved and its water system purchased by the City in 2017.[41] As of 2002, the City provided water service to 2,187 connections outside its city limits.[42]

The City sells water to several entities on a bulk (non-water service) basis: the cities of American Canyon, Calistoga and St. Helena; the Town of Yountville; and the California Veterans Home. American Canyon and Calistoga each have contractual entitlements to SWP water, and the City simply treats and delivers their own water supplies to them. American Canyon owns and operates its own water treatment plant and receives treated water from the City when State Water Project supplies are not available due to scheduled maintenance or as needed during emergency shutdowns. Calistoga owns and operates its own local reservoir but relies on the City system to treat and deliver all of its SWP supplies. In contrast, water deliveries to St. Helena, Yountville and the Veterans Home are made out of City water supplies.

[40] 2010 UWMP, at 2-1 to 2-2.
[41] *Id.* at 2-1.
[42] *See* County of Napa, *Napa County General Plan Update Draft Environmental Impact Report*, at 4.13-19 (February 2007) [http://www.co.napa.ca.us/fileframe.asp?section=gov&exturl=http://www.napacountygeneralplan.-com/], *certified in* County of Napa, *Napa County General Plan Final Environmental Impact Report*, State Clearinghouse No. 2005102088 (December 20, 2007) [http://www.co.napa.ca.us/fileframe.asp?section=gov&-exturl=http://www.napacountygeneralplan.com/].

Figure 3. City of Napa Water Service Area



The Project site is located within the City's designated water service area for SWP supplies, as indicated in Exhibit A to the 1966 Contract for Water Supply from North Bay Aqueduct between Napa County Flood Control and Water Conservation District and City of Napa. Approximately 18.5 acres in the southwestern corner of the Project site are located within the City's LAFCO-approved sphere of influence. The whole Project site is located outside the RUL and city limits.[43] The City currently provides limited water service to the Project site, and the Project applicant and City have discussed the terms and conditions under which the City would provide increased water service to the Project. According to the City, the City Charter would require a four-fifths (4/5) vote of the City Council to extend water service to the Project. Additionally, LAFCO approval would be required, if service to the Project were considered new or extended service to the site.

4.2 Historical Water Demands

The City water distribution system has almost 25,000 connections, as summarized in Table 5. The dominant land use within the City's water service area is residential development, and as of 2010, more than 90 percent of the City's water accounts were for single-family or multi-family residences.[44] Commercial and institutional customers are primarily confined to the downtown area and shopping complexes along several major streets. The City serves approximately 20 agricultural accounts, which are primarily located along the Conn Transmission Main.[45] The five connections listed for other agencies are for American Canyon, Calistoga, St. Helena, Yountville and the California Veterans Home.

Table 5. City of Napa Accounts by Customer Type (2000-2010)

Customer Type	Number of Accounts		
	2000	2005	2010
Single-Family Residential	20,273	20,999	21,400
Multi-Family Residential	1,364	1,389	1,420
Commercial	1,418	1,434	1,444
Institutional	243	231	230
Landscape Irrigation	204	271	300
Agricultural Irrigation	11	19	19
Construction Hydrants	38	35	22
Other Agencies	0	5	5
Total	**23,556**	**24,383**	**24,840**

Source: 2010 UWMP, at 5-1; 2005 UWMP, at 5-1.

[43] *See id.*; Napa County Local Agency Formation Commission, *Comprehensive Study of the City of Napa Service Review Report*, at 3, 5-7 (April 2005) [http://www.napa.lafco.ca.gov/uploads/documents/Municipal%20Service-%20Review-City%20of%20Napa%202005.pdf].
[44] 2010 UWMP, at 2-1.
[45] *Id.* at 2-3.

Water use for each category of accounts is summarized in Table 6. In 2010, residential water use made up 62 percent of the total, with 48 percent for single-family residences plus 14 percent for multi-family residences. Commercial users consume the next largest share at 14 percent, with the remaining 24 percent divided among the other customer types and unaccounted-for water. These percentages are not expected to change significantly as the City experiences development in the future that is strongly weighted toward residential.[46] While the vast majority of accounts are for single-family residences, a lower proportion of water demands come from that sector. The commercial and institutional sectors represent a disproportionate share of demand, based on the demands from hotels, businesses and facilities that serve the public at large.

Table 6. City of Napa Water Demands by Customer Type (2000-2010)

Customer Type	Annual Water Use (AF)		
	2000	2005	2010
Single-Family Residential	7,161	7,293	6,626
Multi-Family Residential	2,017	1,889	1,961
Commercial	2,028	1,807	1,877
Institutional	712	1,048	930
Landscape Irrigation	529	663	643
Agricultural Irrigation	198	173	155
Construction Hydrants	0	47	34
Other Agencies	819	0	280
Known Unmetered Uses	89	85	79
Unaccounted For Water	1,817	1,359	1,292
Total	**15,370**	**14,364**	**13,877**

Source: 2010 UWMP, at 5-2; 2005 UWMP, at 5-2. Note: In 2000, the figure listed for Other Agencies was categorized as Miscellaneous Accounts.

Irrigation use of City water varies significantly within each year, with highest usage occurring in the summer months. The City requires all projects with 5,000 square feet or more of landscaping to have a dedicated irrigation account. Landscape and agricultural irrigation use also fluctuates from year to year based on weather conditions and the use of wells and other alternative sources. Service to agricultural irrigation accounts may be interrupted when the City declares a municipal water shortage.

Table 6 reflects total historical water demands for all water customers inside and outside the City limits, including sales to St. Helena, Yountville and the California Veterans Home, known unmetered uses and unaccounted for water. It does not include water delivered to American Canyon or Calistoga pursuant to those cities' own water supply entitlements. Total water demands decreased between 2000 and 2005, and again between 2005 and 2010 despite

[46] *Id.* at 5-3.

internalizing the demands from St. Helena and Yountville. It is important for the City's water supply planning that water use declined during the 2000s, even though population and connections to the water system increased. The decline in water use was based primarily on improvements in water use efficiency, which allowed a greater number of residents, businesses and institutions to be served with less water. City water demands in 2010 and 2011 were also influenced by the economy, rain patterns and relatively mild summers.

4.3 Demand Methodology and Population Projection

In order to project City water demands in future years, the 2010 UWMP and 2050 Study employed a per capita demand method. This method showed somewhat higher water use projections than a land use method, and the higher per capita results were used for conservative planning purposes. This Revised WSA follows that same approach.

Table 7 lists the historical and projected population served by the City water system from 2000 through 2050. For the past decade, the City has seen infill development within the RUL portion of its water service area, reflecting City housing obligations and the expansion of tourist accommodations to support the Napa Valley wine industry. According to the City's projections, its population is expected to grow more slowly after 2020. After publication of the original WSA for the Project in 2009, the Association of Bay Area Governments reported lower population projections in its *Projections 2009* study than were included in previous studies. That decrease in projected population results in lower anticipated water demands for the City, as listed in Table 7.[47]

Table 7. Population Served by City of Napa (2000-2050)

	2000	2005	2010	2015	2020	2025	2030	2035	2050
Population in RUL	78,959	81,200	86,743	89,243	90,743	91,743	92,643	93,543	108,010

Source: 2010 UWMP, at 2-3; 2050 Study, Tech. Memo 2, Tables 5 and A-3.

Historical levels of water use cannot be combined with population projections to directly calculate future water demands, because per capita rates of consumption vary over time. Since the 1987-1992 drought, residents and businesses in the City have reduced their per capita water usage significantly. Per capita usage by City water customers has fallen from a high of approximately 177 gpcd in 1997 to 138 gpcd by 2010, a decrease of more than 20 percent.[48] The City has taken and will continue to take a number of actions to encourage its customers to permanently improve their water use efficiency, as described at length in the 2010 UWMP.[49] Based on those actions, the City anticipates long-term water demands of 130 gpcd.[50]

[47] *Id.*
[48] *Id.* at 5-10.
[49] Id. at 5-3 through 5-14.
[50] *Id.* at 5-14.

4.4 Deliveries to Other Agencies

As noted above, in addition to retail sales to customers within its water service area, the City also delivers water to the cities of American Canyon, Calistoga and St. Helena, the Town of Yountville and the California Veterans Home on a bulk (non-water service) basis.[51]

The cities of American Canyon and Calistoga provide their own sources of supply and merely benefit from the City's treatment and transmission facilities.[52] They are charged wholesale rates for treat-and-wheel service. Accordingly, these water delivery arrangements do not impact City supplies and are excluded from the retail demands analyzed in City water planning documents and this Revised WSA.

In 2000, St. Helena purchased 1,000 AFY of SWP entitlement from the Kern County Water Agency ("KCWA"), even though it had no facilities to take delivery of that water. In 2006, St. Helena transferred its 1,000 AFY of SWP entitlement to the City, in exchange for the City agreeing to sell between 200 and 400 AFY to St. Helena, depending on how much water was available to the City from the SWP. On April 7, 2009, the Napa City Council approved a new contract to provide additional water to St. Helena, doubling the amount available to St. Helena to between 400 and 800 AF.[53] An amendment in 2011 requires that the City deliver a minimum of 600 AFY to St. Helena, regardless of SWP conditions. While under the original agreement the Napa-St. Helena connection was closed during the peak-demand summer months, the current agreement allows St. Helena to take delivery of water throughout the year. The agreement is effective through 2034, provided that the SWP maintains its agreement with the City. The City charges St. Helena its standard rate for customers located outside the city limits. The St. Helena supply and demand is accounted for in this Revised WSA by adding to both City supplies and demands.[54]

The City currently delivers water to the Town of Yountville pursuant to a water delivery contract executed in 2009. In exchange for the Town of Yountville assigning its SWP entitlement of 1,100 AFY to the City, the City agreed to deliver water to Yountville for fire flow and emergency needs, not to exceed 25 AFY. Deliveries to the California Veterans Home are similar, since the Veterans Home has its own source of supply that is ordinarily adequate to meet all its needs. Very limited deliveries to the Veterans Home could occur in emergency situations.[55]

4.5 Proposed Development Projects

While the 2010 UWMP and 2050 Study project future population and development growth and accompanying water demands in the City water service area, several specific land development projects are also the subject of City water supply planning efforts under SB 610 and CEQA.

---

[51] *Id.* at 2-1.
[52] *Id.* at 5-6.
[53] City of Napa Website [http://www.cityofnapa.org/images/cityclerk/Granicus/2009/Apr7/15a_apr7_2009.pdf]. *See also* Saint Helena Star, "St. Helena Will Receive More Napa Water" (April 16, 2009) [http://www.sthelenastar.com/articles/2009/04/16/news/local/doc49e698ff3453b091805754.txt].
[54] City of Napa Website [http://74.205.120.199/index.php?option=com_wrapper&Itemid=673] (Council agenda).
[55] 2010 UWMP, at 5-18.

Several potential projects have been identified that would be likely to request water service by the City. Those planning efforts are discussed below for consistency with the 2010 UWMP and 2050 Study conclusions. In addition, this Revised WSA has incorporated information from planning documents for those projects where relevant.

First, City water supplies were analyzed in the Gasser Master Plan Final Environmental Impact Report ("FEIR").[56] Proponents of the Gasser Master Plan requested water service from the City for residential, commercial, community facilities, landscape irrigation and firefighting purposes on an 80-acre site located within the city limits. Development of the proposed project was projected to increase demands for water by increasing the total population of the city by 1,409 residents, based on the addition of up to 500 housing units, 24 single-resident occupancy units of transitional housing, 60 homeless shelter beds and commercial and office space.[57]

The Gasser Master Plan FEIR uses water demand factors similar to those presented in this Revised WSA for the Project,[58] and projects that the total increased water demands will be an average of 144,832 gpd, which is equal to approximately 162 AFY.[59] With the addition of 10 percent unaccounted-for water and an additional 10 percent contingency for potential project changes, water demands of the project could be as high as 198 AFY.[60] The FEIR concluded that the impacts of the project on City water supplies would be less than significant.[61] Construction of buildings at the Gasser Master Plan site has begun, although it is expected to take several years for completion of the project.

Second, the 144-acre Ghisletta/Horseman's site is located south of the City limits but within the RUL. The City intends to annex the area before development. Projected uses for the land under the City General Plan include single-family detached residential, multi-family residential and business park, light industrial or warehouse uses. These uses will require refinement through subsequent master planning and environmental review efforts. The maximum total water demand for these uses on the site has been estimated by the City to be approximately 609 AFY of potable water, including 10 percent for unaccounted-for water and 10 percent as contingency based on the very preliminary information underlying the demand estimate.[62]

A third project proposed within the City water service area is the St. Regis Napa Valley Resort, which would be a destination resort on a 93-acre portion of the Stanly Ranch, located near the intersection of Stanly Lane and Highway 12/121 within the city limits. The City published a draft environmental impact report ("EIR") for the project on August 27, 2009. The resort site is currently planted with vineyards and obtains water supplies through an existing connection to the City potable water system. The current vineyard uses an estimated 60,560 gpd. Projected water demands for the project are 117 AFY of potable water and 68 AFY of non-potable water for

[56] City of Napa, *Gasser Master Plan Final EIR*, State Clearinghouse No. 2003032055 (August 16, 2006) ("Gasser FEIR") [http://www.cityofnapa.org/images/redevelopment/soscolgatewaydocs/comp%20gasser%20master%20plan-%20draft%20eir.pdf].
[57] *Id.* at 4.12-14.
[58] *Id.*
[59] *Id.* at 4.12-14, 4.12-15.
[60] West Yost & Associates, *Technical Memorandum: Task 1: Water Demand and City Water System Hydraulic Impacts*, Project No. 424-02-07-05, at 9 (August 21, 2008) ("WYA Technical Memorandum").
[61] Gasser FEIR, at 4.12-16.
[62] WYA Technical Memorandum, at 9-11.

irrigation. With the addition of available recycled water provided by either NSD or an onsite treatment facility, it is expected that recycled water would be used for irrigation and potable water would be used for domestic use. The draft EIR found that the increase in potable water demands on the property would have a less than significant impact on City water supplies, because the project would offset the increase in potable water demand by connecting other water users to recycled water supplies, and existing water demands on the property were included in the 2005 UWMP.[63]

The projected potable water demands from those three projects are set forth in Table 8. It is expected that all water demands will be met from City water supplies, as described below.

Table 8. Projected Potable Water Demands for Future Projects in City RUL

Project	Required Supply (AFY)
Gasser Master Plan	198
Ghisletta/Horseman	609
St. Regis Napa Valley Resort	117

Source: WYA Technical Memorandum, at 9-11.

Neither the 2010 UWMP nor the 2050 Study expressly analyzed the potential water demands and supplies for the Project or other redevelopment of the Project site. At the time of publication of the 2010 UWMP, plans for the Project included water supplies based on local groundwater and imported surface water from non-City sources.[64] Thus, the 2010 UWMP did not include any demands from the Project in its purview. This Revised WSA adds the demands of the Project and a potential school to the City water demands identified in the 2010 UWMP, when analyzing the sufficiency of water supplies for the Project in Section 6.

4.6 Future Water Demand Projections

The City has projected future water demands for all existing and anticipated future customers within its service area, as well as deliveries to agricultural irrigation accounts, St. Helena, Yountville and the California Veterans Home. Those water demands are shown in Table 9 and include water demands from the proposed development projects described in Section 4.5 to the extent that the 2010 UWMP analyzed water demands based on increased population that is likely to occur due to these projects and other development within the City's RUL.

[63] *See* City of Napa, *St. Regis Napa Valley Project Draft Environmental Impact Report*, State Clearinghouse No. 2009032009 (August 27, 2009) [http://74.205.120.199/index.php?option=com_content&task=view&id=567&-Itemid=681]; City of Napa, *Notice of Preparation, St. Regis Napa Valley Project*, at 6-7 (March 3, 2009) [http://www.cityofnapa.org/images/CDD/planningdivisiondocs/stregis/stregisnapavalley_nop_upload.pdf].
[64] 2010 UWMP, at 5-18.

Table 9. City of Napa Projected Water Demands (2015-2035)				
Year	Service Area Water Demands	Agricultural Irrigation	St. Helena	Total City Water Demands
2015	13,995	300	600	14,895
2020	13,403	300	600	14,303
2025	13,360	300	600	14,260
2030	13,491	300	600	14,391
2035	13,622	300	600	14,522

Source: 2010 UWMP, at 5-15. All figures expressed in AFY.

The total water demand projections for the City in Table 9 are broken down by customer type in Table 10. The future distribution in water use among customer types is expected to remain similar to conditions in 2010.

Table 10. City of Napa Projected Water Demands by Customer Type (2015-2035)					
Customer Type	Water Demands				
	2015	2020	2025	2030	2035
Single-Family Residential	7,080	6,930	6,980	7,050	7,145
Multi-Family Residential	2,130	2,120	2,130	2,160	2,180
Commercial	2,000	1,925	1,960	1,980	1,990
Institutional	780	760	765	775	785
Landscape Irrigation	675	650	660	660	660
Agricultural Irrigation	300	300	300	300	300
Construction Hydrants	50	38	35	36	32
St. Helena	600	600	600	600	600
Known Unmetered Uses	80	80	80	80	80
Unaccounted For Water	1,200	900	750	750	750
Total	**14,895**	**14,303**	**14,260**	**14,391**	**14,522**

Source: 2010 UWMP, at 5-16. All figures expressed in AFY.

SECTION 5 CITY OF NAPA WATER SUPPLIES

The City meets its water demands from three major sources: (1) Milliken Reservoir; (2) Lake Hennessey; and (3) SWP water delivered through the North Bay Aqueduct.[65] The first three subsections below address each of these supplies in turn. Additional subsections address potential future water supplies being explored by the City and the City's projection of total available water supplies.

5.1 Milliken Reservoir

The City began offering water service in 1923 and constructed Milliken Dam for that purpose on Milliken Creek, a tributary of the Napa River.[66] The resulting Milliken Reservoir served as the City's sole water source until Lake Hennessey was created in 1946, as discussed in Section 5.2. Milliken Reservoir, located approximately five miles northeast of the City, is now a minor, secondary source of supply used only in the high-demand summer period when turbidity levels in the reservoir can be effectively treated at the Milliken Water Treatment Plant.[67]

The Milliken Creek watershed covers an area of roughly 6,000 acres. The City's water rights to Milliken Reservoir are secured through a license with the State Water Resources Control Board ("SWRCB"), which authorizes the City to divert and store up to 2,350 AFY from Milliken Creek for beneficial use. Milliken Reservoir's original storage capacity was 1,980 AF, smaller than its average annual inflow of 3,656 AF. The current storage capacity of Milliken Reservoir is limited even further to 1,390 AF because of five holes cored through the dam to permanently lower the water surface elevation and address seismic stability concerns by the State Division of Safety of Dams.

For purposes of the 2010 UWMP, a single dry year is defined as the historical year with the lowest runoff since 1903, which occurred in this case in 1977. Multiple dry years are defined as the three consecutive historical years with the lowest average runoff since 1903, which occurred in the extended drought period of 1987 through 1992.[68] The 2010 UWMP and 2050 Study both assumed a maximum annual yield for Milliken Reservoir of 700 AF in all but critical single-dry years, when the reservoir is expected to yield 400 AF.[69] In order to augment water supplies during dry years, the City's operational plans include the release from storage of 100 AF during a single dry year and 33 AFY during multiple dry years.[70] Including such releases, the expected yields from Milliken Reservoir in normal, multiple dry and single dry years are summarized in Table 11.

[65] 2010 UWMP, at 3-1.
[66] 2010 UWMP, at 3-3; 2050 Study, Tech. Memo 4, at 12. *See* Gasser FEIR, at 4.12-2.
[67] 2010 UWMP, at 3-3; 2050 Study, Tech. Memo 4, at 12. *See* Gasser FEIR, at 4.12-2.
[68] 2010 UWMP, at 4-1, 4-2.
[69] *Id.* at 3-3 to 3-4, 4-4.
[70] *Id.* at 4-4.

Table 11. Milliken Reservoir Yield			
	Normal Years	Multiple Dry Years	Single Dry Years
Annual Yield	700	700	400
Releases from Storage	0	33	100
Total Yield	700	733	500

Source: 2010 UWMP, at 3-4, 4-4. All figures expressed in AFY.

The City does not take raw water directly from the reservoir. Instead, water is released into Milliken Creek by a manually operated valve system at the base of the dam. Two miles downstream, a diversion dam directs water into a 16-inch diameter above ground raw water line. That line then runs approximately one mile to the Milliken Water Treatment Plant, which was constructed in 1976 and has a treatment capacity of 4.0 million gallons per day ("MGD"). It is a direct filtration plant, and treated water is stored in a 2.0 million gallon clearwell tank located above the treatment plant site. Treated water is delivered to the City's water distribution system via the approximately three-mile-long Milliken Transmission Line.[71]

5.2 Lake Hennessey

Lake Hennessey is the major local water source for the City of Napa and is located approximately 13 miles north of the city. Lake Hennessey was formed in 1946, after subdivision development in the 1940s strained the older Milliken Reservoir—the City's previous single water source for more than twenty years.[72] In order to ease demands on Milliken Reservoir, the City constructed Conn Dam, allowing storage of water from Conn Creek. Lake Hennessey was the resulting reservoir, and served as the City's primary source for the next several decades until supplemented by SWP water in the 1960s.[73]

The City owns water rights to Lake Hennessey through a license with the SWRCB. The license authorizes the City to divert and store up to 30,500 AFY from Conn Creek for beneficial use. Lake Hennessey has an approximate storage capacity of 31,000 AF, much greater than its average annual inflow of 19,692 AF.[74]

The average yield of Lake Hennessey is 17,500 AFY. For water supply planning purposes, the City uses 17,500 AFY as the amount available during normal years, 10,417 AFY as the yield during multiple dry years, and 5,000 AFY as the yield during single dry years.[75] In order to augment water supplies during dry years, the City's operational plans include the release of 6,500 AF during a single dry year and 1,300 AFY during multiple dry years.[76] Including such releases, the expected yields from Lake Hennessey in normal, multiple dry and single dry years are summarized in Table 12.

[71] *Id.* at 3-3, 3-4.
[72] *Id.* at 3-1; 2050 Study, Tech. Memo 4, at 11. *See* Gasser FEIR, at 4.12-2.
[73] 2010 UWMP, at 3-1; 2050 Study, Tech. Memo 4, at 11.
[74] 2010 UWMP, at 3-1; 2050 Study, Tech. Memo 4, at 11. *See* Gasser FEIR, at 4.12-2.
[75] 2010 UWMP, at 3-1, 3-3, 4-4; 2050 Study, Tech. Memo 4, at 11. *See* Gasser FEIR, at 4.12-2.
[76] 2010 UWMP, at 4-4.

Table 12. Lake Hennessey Yield			
	Normal Years	Multiple Dry Years	Single Dry Years
Annual Yield	17,500	10,417	5,000
Releases from Storage	0	1,300	6,500
Total Yield	17,500	11,717	11,500

Source: 2010 UWMP, at 3-3, 4-4. All figures expressed in AFY.

Raw water from Lake Hennessey is treated at the City's Hennessey Water Treatment Plant, which began operation in 1981 and has a nominal treatment capacity of 20 MGD. This facility provides complete conventional water treatment, and treated water from the plant is conveyed into a buried 5.0 million gallon concrete clearwell tank on site. Treated water is then delivered to the City's distribution system through the 36-inch diameter Conn Transmission Main, which is approximately 20 miles long and runs parallel to Conn Creek, Highway 128 and Highway 29 before it eventually meets the Jamieson Transmission Line in northwest Napa.[77]

5.3 State Water Project

5.3.1 *Basic Description of the State Water Project*

In 1966, 20 years after the addition of Lake Hennessey and more than 40 years after the creation of Milliken Reservoir, the City added a third source of supply by contracting with the Napa County Flood Control and Water Conservation District ("NCFCWD") for imported surface water from the SWP.

The SWP is one of the largest water collection and distribution systems in California. It collects water at Lake Oroville on the Feather River in northern California and conveys it to 29 customers, or contractors, located in northern, central and southern California through an extensive network of aqueducts. All SWP water is delivered according to long-term contracts negotiated between the California Department of Water Resources ("DWR"), which owns and operates the SWP, and its contractors. NCFCWD is the designated contractor for Napa County, and NCFCWD has, in turn, subcontracted for delivery of SWP water to several entities, including the City.

The North Bay Aqueduct is a 27-mile long, pressurized, underground pipeline. The SWP diverts water from the Sacramento-San Joaquin Delta ("Delta") at the Barker Slough Pumping Plant east of Fairfield and conveys it approximately 21 miles via the North Bay Aqueduct to Cordelia Forebay to serve contractors in both Napa and Solano Counties. From Cordelia Forebay, SWP water is pumped another six miles to the Napa Terminal Reservoirs, two 5-million gallon raw water storage tanks located at the Barwick Jamieson Canyon Water Treatment Plant. The majority of the capacity of the North Bay Aqueduct to this point is reserved for use by the City.[78] The Barker Slough Pumping Plant has a design flow capacity of 224 cubic feet per second to lift

[77] *Id.* at 3-3.
[78] *Id.* at 3-4.

water from Barker Slough into the North Bay Aqueduct; however to date, the maximum flow of the North Bay Aqueduct is rated at approximately 130 cubic feet per second.[79]

The City's entitlement to SWP water is based on the contract between DWR and NCFCWD, and a subcontract between NCFCWD and the City. The original 1966 SWP subcontract between NCFCWD and the City provided the latter with gradually increasing annual allotments of SWP water, known as "Table A" entitlements, reaching a maximum of 12,500 AF by 1990. The agreement was modified in 1982 to reduce the City's short-term Table A entitlement and increase its final entitlement to 18,800 AFY by 2021. In 2009, the City negotiated an acceleration of this entitlement schedule, so that the City gained its full entitlement of 18,800 AFY beginning in 2010. This results in more water being available to the City between 2010 and 2020.[80] The current SWP contract is due to expire in 2035, but there is no reason to believe the contracts would not be extended for additional terms into the indefinite future.

The City has added to its original Table A entitlement by purchasing the contract rights of other agencies on several occasions:

- In 2000, the City obtained an additional 1,000 AFY of SWP entitlement in a transfer agreement between NCFCWD and the KCWA. Negotiated on behalf of five cities in Napa County, the agreement established terms for the permanent purchase of 4,025 AF of annual SWP Table A entitlement from KCWA. The City purchased the largest share of this total at 1,000 AFY.[81]

- In 2006, the City acquired an additional 1,000 AFY of the KCWA entitlement from the City of St. Helena, as described in Section 4.4. The acquisition agreement provided that St. Helena could request delivery of between 200 and 400 AFY of that SWP supply, so that the amount of additional SWP water retained by the City was between 600 and 800 AFY. In 2009, the agreement was amended so that St. Helena can request delivery of between 400 and 800 AFY, with the City retaining between 200 and 600 AFY. A follow-up amendment in 2011 now requires that the City deliver a minimum of 600 AFY to St. Helena, regardless of SWP conditions. For purposes of this Revised WSA, 1,000 AFY have been added to the City's SWP entitlement, and 600 AFY have been added to the water demands for St. Helena.[82]

- In 2009, the City executed a Water Transfer Agreement with the Town of Yountville by which Yountville assigned to the City its 1,100 AFY entitlement of SWP water, along with 0.4 cubic feet per second of North Bay Aqueduct capacity. In exchange, the City agreed to deliver water as needed to the Town of Yountville for fire flow and emergency water needs, not to exceed 25 AFY.

The combined amount of SWP water available to the City in 2005 and following years, including the amounts purchased from KCWA, St. Helena and Yountville, is shown in Table 13. While

[79] City of Napa, *Jamieson Canyon Water Treatment Plant Improvements Project, Draft Environmental Impact Report*, at 3.7-1 ("Jamieson Canyon EIR") [available from City of Napa].
[80] 2010 UWMP, at 3-4.
[81] *Id.* at 3-5.
[82] *Id.* at 5-18.

the quantity of water entitlements is as high as 21,900 AFY, during wet years the City may be limited to delivery of 19,900 AFY based on the City's interest in the capacity of the North Bay Aqueduct. As seen in Section 5.3.3, that restriction does not ultimately result in a meaningful restriction on City water supplies, because the primary supply constraints are based on low yields of the SWP under dry hydrologic conditions.

Table 13. City of Napa SWP Table A Entitlement Schedule

Year	Table A Entitlement	KCWA Purchase	St. Helena Purchase	Yountville Purchase	Total
2005	12,850	1,000	0	0	13,850
2006	13,100	1,000	1,000	0	15,100
2007	13,350	1,000	1,000	0	15,350
2008	13,600	1,000	1,000	0	15,600
2009	13,850	1,000	1,000	1,100	16,950
2010	18,800	1,000	1,000	1,100	21,900
Following Years	18,800	1,000	1,000	1,100	21,900

Source: 2010 UWMP, at 3-5. All figures expressed in AF.

The amounts in Table 13 represent maximum annual yields of Table A water. Actual deliveries are determined by DWR depending on each year's hydrologic conditions, including rainfall, size of snowpack, runoff, water in storage and pumping capacity in the Delta. A full 100 percent of the entitlement would typically only be available during relatively wet years. The reliability of SWP supplies is analyzed in Section 5.3.3.

In addition to the water to which NCFCWD is entitled under Table A of its contract, the SWP makes certain other water available on a year-by-year basis. As the largest subcontractor with NCFCWD, the City has the ability to acquire some of that additional water as needed. This water consists of carryover water, Article 21 water, Turn-Back Pool water and water arranged by DWR pursuant to dry year supplemental water programs. This Section 5 of the Revised WSA only analyzes Table A supplies; additional water supplies and their role in mitigating water supply risks for the City and the Project are analyzed in Section 6.

5.3.2 *Barwick Jamieson Canyon Water Treatment Plant*

All of the City's SWP water is treated at the Barwick Jamieson Canyon Water Treatment Plant. Constructed in 1968, the plant was upgraded in 1988 to provide a treatment capacity of 12 MGD, and upgraded again in 2011 to a capacity of 20 MGD. The recent improvements at the plant primarily consisted of internal plant modifications, including the repair and replacement of existing facilities and the addition of new facilities. Since completion of the project, day-to-day operations of the Hennessey and Milliken Water Treatment Plants are being reduced and will come on-line as necessary to supply water during high demand periods.[83]

[83] Jamieson Canyon EIR, at ES-2.

Treated water from the Barwick Jamieson Canyon Water Treatment Plant is stored in a 5 million gallon clearwell tank on site, and the Jamieson Transmission Line delivers the potable water to the City. The Jamieson Transmission Line consists of a 42-inch diameter line that runs parallel to Jamieson Canyon Road to Highway 29, which then splits into 36-inch and 24-inch lines near the intersection of Highways 29 and 221 as it joins the rest of the distribution system.[84]

5.3.3 *State Water Project Supply Reliability*

As noted above, Table A entitlements represent the maximum quantity of water available to SWP contractors and subcontractors, rather than the reliable annual yield of the project. The ability of the SWP to deliver water to its contractors in any given year depends on a number of factors, including rainfall, size of snowpack, runoff, water in storage and pumping capacity in the Delta. Actual deliveries vary from year to year and are described as a percentage of the contractual Table A entitlement. Deliveries will typically be reduced across all year types, including normal, single dry and multiple dry years.

In order to estimate the reliability of SWP supplies, the 2010 UWMP employed data from *The State Water Project Delivery Reliability Report 2009*, published by DWR in August 2010. In June of 2012, DWR issued a revised report (the "2011 Report") containing updated reliability assessments, which are used for purposes of this Revised WSA.[85] DWR uses a computer model of the SWP system to determine water deliveries, and continues to evaluate various issues affecting SWP exports from the Delta and how those issues may affect the long-term availability and reliability of SWP deliveries to contractors.[86] For current conditions, the 2011 Report takes into account all recent institutional and environmental limitations, including water quality issues, fishery protections, export curtailments and other requirements under SWRCB Water Rights Decision 1641, the Vernalis Adaptive Management Plan, and Delta export restrictions to protect fish species. These factors were discussed at length in Section 5.4 of the 2011 WSA. Future conditions begin in 2031 and add the projected effects of climate change.[87] This Revised WSA applies future conditions starting in 2030.

The 2011 Report analyzed 82 years of historical records (1922-2003) for rainfall and runoff that have been adjusted to reflect development in the source areas by analyzing land use patterns and projecting future land and water uses.[88] For each year, DWR projected the amount of water that could be delivered to contractors while complying with all legal, regulatory, environmental and operational limitations. The 2011 Report found that, on average, the SWP will be able to deliver 61 percent of Table A entitlements under current conditions and 60 percent under future conditions. In both cases, the SWP will be able to meet or exceed that expectation in 65 percent

[84] *Id.* at 3-5, 3-6
[85] California Department of Water Resources, *The State Water Project Delivery Reliability Report 2011* (June 2012) [http://baydeltaoffice.water.ca.gov/swpreliability/FINAL2011DRR_DWR_Review_File-clean-6-25-12.pdf].
[86] The DWR model is called CalSim-II, and its use as a water supply planning tool has been upheld by the courts. *See Pacific Coast Federation of Fishermen's Associations v. Gutierrez*, 606 F.Supp.2d 1122, 1191 (2008); *California Water Impact Network v. Newhall County Water District*, Case No. B203781, slip opin. at 21-25 (2nd App. Dist. May 13, 2009) (unpublished).
[87] 2011 Report, at 53.
[88] *Id.* at 20.

of all years. SWP deliveries can range from 9 to 81 percent of contractual amounts under current conditions and from 11 to 98 percent under future conditions.[89]

SWP reliability is affected by ongoing challenges in various environmental litigations concerning diversions from the Delta, as discussed in Section 5.4 of the 2011 WSA. Conveyance of water through the Delta can present challenges for SWP supplies due to water quality and environmental issues that can affect pumping operations. Risks to this supply also include potential levee failure. The risks and actions being taken by DWR to avoid or mitigate these risks are described in Section 5.4 of the 2011 WSA. All of those factors were considered by DWR in its assessment of SWP reliability and preparation of the 2011 Report.

Table 14 summarizes the SWP reliability data used in the 2010 UWMP versus the 2011 Report relied on by this Revised WSA. Between DWR's reports in 2009 and 2011, the delivery numbers for current conditions increased slightly during normal, multiple dry and single dry years. For future conditions, the delivery numbers remained the same under both normal and single dry years, but decreased slightly during multiple dry years. Given that in its 2010 UWMP the City determined its water supply risk to be greatest during single dry years between 2010 and 2030, the 2011 Report presents a more favorable analysis for the City.

Table 14. SWP Table A Reliability Assessments (2009 and 2011)

Conditions	Water Year Type	2009 Reliability Report			2011 Reliability Report		
		Projected SWP Delivery	Base Years	Probability of Exceedence	Projected SWP Delivery	Base Years	Probability of Exceedence
Current	Normal Year	60%	1922-2003	65%	61%	1922-2003	65%
	Multiple Dry Year	34%	1929-1934	89%	35%	1929-1934	89%
	Single Dry Year	7%	1977	100%	9%	1977	100%
Future	Normal Year	60%	1922-2003	61%	60%	1922-2003	65%
	Multiple Dry Year	32%	1987-1992	90%	30%	1987-1992	89%
	Single Dry Year	11%	1977	100%	11%	1977	100%

Source: 2010 UWMP, at 4-2; 2011 Report, at 50, 55.

Table 15 estimates SWP Table A deliveries to the City from 2010 through 2035 by applying the delivery percentages in Table 14 to the entitlements in Table 13. Between 2010 and 2025, the City can expect SWP deliveries of 13,360 AFY in normal years, 7,670 AFY during multiple dry years, and 1,970 AF in single dry years. After 2030, deliveries decrease to 13,140 AFY in normal years and 6,570 AFY in multiple dry years, but increase to 2,410 AFY in single dry years. Pursuant to the SWP contracts and subcontracts, water deliveries may be available to the

[89] *Id.* at 44-57.

City from the SWP other than those based on Table A entitlements. Such other water supplies are discussed in Section 6.2, with a focus on single dry years.

Table 15. City of Napa Projected Table A Deliveries (2010-2035)

Year	Table A Entitlement	Normal Year	Multiple Dry Years	Single Dry Year
2010	21,900	13,360	7,670	1,970
2015	21,900	13,360	7,670	1,970
2020	21,900	13,360	7,670	1,970
2025	21,900	13,360	7,670	1,970
2030	21,900	13,140	6,570	2,410
2035	21,900	13,140	6,570	2,410

Source: 2010 UWMP, at 4-3; 2011 Report, at 56-62. All figures rounded to the nearest 10 AF.

None of the deliveries shown in Table 15 would be limited by the City's North Bay Aqueduct conveyance capacity of 19,900 AFY. The City is expected to be able to take delivery of all Table A water available to it, except in the very wettest years, when those supplies are not needed to meet City water demands.

5.4 Other Potential Water Sources

In addition to its existing water sources, the City has studied the potential for several new supplies, as discussed in the 2010 UWMP. This Revised WSA does not rely on the availability of any of these potential future supplies for the Project.

5.4.1 *Dry Year Supplies*

The top recommendation of the 2050 Study was for the Napa County water agencies to take advantage of North Bay Aqueduct conveyance capacity by importing dry year supplies from outside the County. This strategy has been called the "Fill the Pipe" option, which would require negotiation of one or more long-term transfer agreements for reliable dry year supplies from water rights holders in the Sacramento River watershed.[90] The City has had discussions with several entities about the purchase of such dry year supplies, but has not yet entered into any definitive agreements. It is unknown if and when such agreements may be entered into, or how much or when water would be made available to the City based on such agreements. Thus, this Revised WSA does not include such supplies in its analysis, even though they may become available at an indefinite point in the future.

[90] 2010 UWMP, at 3-7.

5.4.2 *Garden Bar Reservoir*

The City has participated in a feasibility study for a water supply reservoir under consideration by South Sutter Water District as the primary sponsor.[91] The proposed Garden Bar Reservoir would be located on the Bear River in Placer and Nevada Counties in the eastern foothills of the Sierra Nevada Mountains. The site is approximately 4.5 miles upstream of the existing Camp Far West Reservoir, and 13.1 miles downstream of the existing Lake Combie.

The potential Garden Bar project has been studied and documented on numerous occasions dating back to the 1970s.[92] The City was invited to participate in a more recent feasibility study proposed by South Sutter Water District to determine the viability of a reservoir project.[93] In August 2009, the Napa City Council authorized funding to determine if additional investment in the proposed project was warranted. The City agreed with American Canyon to a collective 25 percent cost share and participation in the project.

In 2011, the South Sutter Water District, in partnership with five other water providers including the City, completed the Garden Bar Reservoir Preliminary Study. The study estimated that a new reservoir on the Bear River at Garden Bar could improve water supply reliability for agricultural and municipal users by producing as much as 150,000 AFY of additional water supplies. The study evaluated the potential water supply and hydropower benefits of several different reservoir sizes on the Bear River, and anticipated that the results would be used by the study partners to inform decisions on future planning activities, and for discussions with other interested water providers.[94] On July 13, 2012, the board of directors of the South Sutter Water District voted to put a hold on pursuit of the project at this time, citing a lack of local support.[95] For purposes of this Revised WSA, no water supplies from the Garden Bar Reservoir are included within the City's water supply portfolio.

5.4.3 *Groundwater*

The City currently relies exclusively on surface water from local sources and imported water from the SWP. The 2050 Study identified several alternatives for using groundwater in future. First, the City could divert excess water available from the SWP and North Bay Aqueduct during wet periods and store it using aquifer storage and recovery wells in Solano County. Second, the City could use new or existing wells in the vicinity of the City, either for treatment and distribution in the potable water system, or for direct use for non-potable purposes such as irrigation of schools and parks. Use of groundwater for potable purposes might be as a dry year supply only.[96]

---

[91] *Id.*
[92] RMC Water and Environment, *Garden Bar Reservoir Preliminary Study*, at ES-1 (July 2011) [http://www.-gardenbarwater.com/documentsandnotices/GardenBarPreliminaryStudy_7.5.11.pdf].
[93] City of Napa, Council Report from Public Works Director, at 2 (August 18, 2009).
[94] *Garden Bar Reservoir Preliminary Study*, at §§ 8.1 to 8.3.
[95] South Sutter Water District, Board of Directors Meeting Minutes (July 13, 2012).
[96] 2010 UWMP, at 3-7.

5.4.4 *Recycled and Desalinated Water*

The City supplies only potable water to its customers, and recycled water deliveries in the area are handled by NSD.[97] Because the expanded use of recycled water from NSD within the City's water service area reduces the demands on City water supplies, the City considers use of recycled water to be a method of demand management rather than a supplemental supply.[98]

The City has evaluated the possibility of using desalinated water as a supplemental source and has determined not to pursue such a supply at this time.[99]

5.5 Total Supply Projections

Table 16 shows total available water supplies for the City from 2010 through 2035. The table includes quantities available from known sources and assumes maximum annual yield without storage withdrawals for the local reservoirs and full Table A entitlements for SWP water.

Table 16. City of Napa Total Water Supplies (2010-2035)

Water Supply Source	2010	2015	2020	2025	2030	2035
Lake Hennessey	17,500	17,500	17,500	17,500	17,500	17,500
Milliken Reservoir	700	700	700	700	700	700
State Water Project	21,900	21,900	21,900	21,900	21,900	21,900
Total	40,100	40,100	40,100	40,100	40,100	40,100

Source: 2010 UWMP, at 3-8; 2050 Study, Tech. Memo 6, at A-2. All figures in AFY.

In contrast to Table 16, which assumes maximum annual yields for local reservoirs and full entitlements for SWP water, Table 17 shows the reliable yield of City water supplies in different hydrologic year types. It is important to note that water year types do not necessarily coincide between local reservoirs and the SWP; a normal rainfall year in the Milliken Reservoir or Lake Hennessey watersheds may occur the same year as a dry year for the SWP, or vice versa.[100] Nevertheless, like the 2010 UWMP, this Revised WSA evaluates the water supplies available from each source during parallel normal, multiple dry and single dry years in order to test the availability of water during widespread drought conditions. The figures in Table 17 differ from those presented in the 2010 UWMP and other City water planning documents because of subsequent changes in SWP reliability.

[97] *See* Section 7.5 of this Revised WSA regarding the relationship between NSD and the City.
[98] 2010 UWMP, at 3-7.
[99] *Id.* at 3-8.
[100] *Id.* at 4-4.

Table 17. City of Napa Water Supplies Under Various Hydrologic Conditions (2010-2035)					
Years	**Condition**	**Milliken Reservoir**	**Lake Hennessey**	**SWP Table A**	**Total**
2010-2025	Normal	700	17,500	13,360	31,560
	Multiple Dry	733	11,717	7,670	20,120
	Single Dry	500	11,500	1,970	13,970
2030-2035	Normal	700	17,500	13,140	31,340
	Multiple Dry	733	11,717	6,570	19,020
	Single Dry	500	11,500	2,410	14,410

SECTION 6 CITY WATER SUPPLY RISK

Determining the reliability of City water supplies to serve existing and future water demands, as well as the projected demands of the Project, requires a comparison of water supplies and demands across several hydrologic year types for the first 20 years of the Project. This section makes that comparison.

6.1 Assessment of Water Supply Risk

This section assesses the water supply risk of the City, both with and without providing service to the Project, based on the City water supplies that were identified in Section 5, City water demands identified in Chapter 4, and Project water demands analyzed in Section 3.[101] The results are shown in Table 18, which compares total water supplies and demands of the City, and calculates the amount of surplus or deficit in those water supplies for the defined year types (normal, multiple dry and single dry years), both with and without the Project.

Consistent with the City's 2010 UWMP, water demands in normal and multiple dry years are the same, with no reduction in deliveries to any users. In single dry years, the City has determined that it will suspend water deliveries to interruptible agricultural accounts, reducing overall demands by 300 AFY.[102] Pursuant to Section 3.4 of this Revised WSA, potable water demands associated with the Project are 300 AFY starting in 2015, plus 25 AFY for a potential future school.

As shown in Table 18, the City has a surplus of water in all normal years, both with and without the Project. City water supplies are more than twice the amount of demands in those years, including the demands of the Project. Thus, the City's projected water supplies available during normal water years through 2035 will meet the projected water demand associated with the Project, in addition to the City's existing and planned future uses, including agricultural and manufacturing uses.[103]

During multiple dry years, the City anticipates reliable water service in every year, with no shortfalls expected through 2035. City water supplies maintain a surplus of between 28 and 41 percent above demands, including Project water demands. The City's water supplies available during multiple dry water years through 2035 will meet the projected water demand associated with the Project, in addition to the City's existing and planned future uses, including agricultural and manufacturing uses.[104]

[101] Water demands of 25 AFY for a potential school are also included in this analysis as a cumulative impact, even though a school itself is not part of the Project.
[102] *Id.* at 7-1.
[103] *See* CAL. WATER CODE § 10910(c)(3).
[104] *See id.*

Table 18. City of Napa Water Supplies and Demands (2015-2035)								
			No Project Demands			With Project Demands		
Year	Condition	Total Supplies	Demands	Surplus (Deficit)	Supply as Percentage of Demands	Demands	Surplus (Deficit)	Supply as Percentage of Demands
2015	Normal	31,560	14,900	16,660	212%	15,230	16,330	207%
	Multiple Dry	20,120	14,900	5,220	135%	15,230	4,890	132%
	Single Dry	13,970	14,600	-630	96%	14,930	-960	94%
2020	Normal	31,560	14,300	17,260	221%	14,630	16,930	216%
	Multiple Dry	20,120	14,300	5,820	141%	14,630	5,490	138%
	Single Dry	13,970	14,000	-30	100%	14,330	-360	97%
2025	Normal	31,560	14,260	17,300	221%	14,590	16,970	216%
	Multiple Dry	20,120	14,260	5,860	141%	14,590	5,530	138%
	Single Dry	13,970	13,960	10	100%	14,290	-320	98%
2030	Normal	31,340	14,390	16,950	218%	14,720	16,620	213%
	Multiple Dry	19,020	14,390	4,630	132%	14,720	4,300	129%
	Single Dry	14,410	14,090	320	102%	14,420	-10	100%
2035	Normal	31,340	14,520	16,820	216%	14,850	16,490	211%
	Multiple Dry	19,020	14,520	4,500	131%	14,850	4,170	128%
	Single Dry	14,410	14,220	190	101%	14,550	-140	99%

All figures expressed in AFY, unless otherwise noted.

Without the Project, the City would experience a 4 percent deficit were a single dry year to occur under 2015 conditions. That potential deficit is expected to be reduced in 2020 and develop into a slight surplus thereafter due to improved water use efficiency by City customers as anticipated in compliance with the requirements of state law.[105]

With the Project, during single dry years the City is projected to experience water supply deficits during all periods (2015-2035). These deficits are highlighted in the shaded cells in Table 18. With the addition of water demands from the Project, the City's deficit under 2015 conditions would increase from 4 to 6 percent, and during conditions from 2020 through 2035, the City's surpluses of up to 2 percent would turn into deficits of up to 3 percent.

[105] *See* CAL. WATER CODE §§ 10608 *et seq.*

In order to further evaluate the risk of a water shortage occurring for the City, it is important to define that risk beyond the simple categories of normal, multiple dry and single dry years. In order to balance its total water supplies and demands, the City would need to receive from the SWP the quantities of water and Table A allocation percentages shown in Table 19. Those minimum quantities and allocations are then compared to the smallest expected allocation of Table A water in order to show how often Table A water would be insufficient to meet all City water demands. The water demand figures used for Table 19 are those for single dry years, since they represent demands in those years when a shortage would potentially occur. Not shown in Table 19 are the portion of water demands that would be met through use of water from Milliken Reservoir and Lake Hennessey.

The likelihood that the SWP would not be able to achieve the needed allocation, based on the historical record and projected impacts of climate change beginning in 2030, is shown in the rightmost column of Table 19 for the No Project Demands and With Project Demands scenarios. During the past 92 years (1922-2013), there has only been one year (1977) in which hydrologic conditions would cause Table A allocations to fall below the required level.[106]

Table 19. Risk of Water Shortage Without Corrective Action (2010-2035)

Year	No Project Demands				With Project Demands			
	SWP Supply Needed (AFY)	Table A Allocation Needed	Minimum Table A Allocation Expected	Risk of Shortage	SWP Supply (AFY)	Table A Allocation Needed	Minimum Table A Allocation Expected	Risk of Shortage
2015	2,600	12%	9%	1.1%	2,930	13%	9%	1.1%
2020	2,000	9%	9%	1.1%	2,330	11%	9%	1.1%
2025	1,960	9%	9%	0%	2,290	10%	9%	1.1%
2030	2,090	10%	11%	0%	2,420	11%	11%	1.1%
2035	2,220	10%	11%	0%	2,550	12%	11%	1.1%

Table 19 shows that the likelihood of single dry year conditions occurring is only 1.1 percent in any given year. In the No Project Demands scenario, there is a 10 percent (1 in 10) chance that a single dry year would occur in one or more of the 10 years during the 2015 and 2020 periods. In the With Project Demands scenario, there is a 20 percent (1 in 5) chance that a single dry year would occur in one or more of the first 20 years of the Project. In other words, there is a 90 percent (9 out of 10) likelihood without Project demands, and an 80 percent (4 out of 5) likelihood with Project demands, that no single dry year will occur, despite the identification of that possibility in Table 18. While it is important to plan for the possibility of a single dry year as shown in Table 18, risk analysis demonstrates that there is only a 20 percent chance that such a year would ever occur during the 20-year period covered by this Revised WSA.

[106] California Department of Water Resources, *Technical Addendum to The State Water Project Delivery Reliability Report 2011*, at Table 9, Table 12 (July 2012).

Based on the analysis in this section, the City's projected water supplies available during normal and multiple dry water years will meet the projected water demands associated with the Project, in addition to the City's existing and planned future uses, including agricultural and manufacturing uses, for the first 20 years of the Project.[107] During those years, delivering water to the Project would not impact the availability of water to other existing or planned future water customers of the City. There is a risk of the City experiencing a water supply deficit during a single dry year, which has an approximately 20 percent chance of occurring during the first 20 years of the Project. The following sections describe how that risk would be mitigated through use of SWP supplies other than Table A entitlement or water transfers.

6.2 Mitigation of Water Supply Risk

The assessment of water supply risk in Section 6.1 is based on the description of the City's SWP water supplies set forth in Section 5.3. That discussion focused exclusively on the City's Table A entitlement, and did not include any other types of SWP deliveries, which it expressly reserved discussion of until this section. In practice, there are several types of water available to the City through the SWP besides Table A, including carryover water, Article 21 water, Turn-Back Pool water and water transfers arranged by DWR. The City is legally entitled to delivery of carryover, Article 21 and Turn-Back Pool waters when they are available, pursuant to the contracts between DWR and NCFCWD, and NCFCWD and the City.

As an illustration, Table 20 shows the types of water delivered to the City in each year from 2007 through 2011. Those years represent a reasonable diversity of year types, from very dry (2008) to wet (2011). As seen in that table, Table A deliveries are an important, but not exclusive, component of overall SWP deliveries to the City.

The first additional type of SWP deliveries is carryover water. Carryover water is water that is allocated by DWR to a SWP contractor and approved for delivery to that contractor in a given year, but not used by the end of the year. Instead of being delivered to the contractor, it is stored in San Luis Reservoir, subject to space being available, for use in the following year. Carryover water is subject to being lost if the space used for storage of carryover water in San Luis Reservoir is needed for regular delivery of SWP water.[108]

The City is entitled to carry over between 25 and 50 percent of its Table A entitlement, which amounts to between 5,475 and 10,950 AFY. The City typically maintains a carryover water balance at the end of each year and uses that water as its first supply in the following year.[109] During the five-year period from 2007 through 2011, the City used carryover water in every year, as shown in Table 20. In addition, the City was able to purchase carryover water from Calistoga and Yountville in 2008.

[108] 2011 Report, at 21.
[109] 2010 UWMP, at 3-6.

Table 20. SWP Deliveries to the City (2007-2011)					
Description	**2007**	**2008**	**2009**	**2010**	**2011**
Table A Allocation (%)	60%	35%	40%	50%	80%
Table A Water Available	9,210	5,460	6,780	10,950	17,520
Carryover Water Available	751	5,256	4,161	4,699	663
SWP Deliveries					
Table A	3,954	1,436	1,266	5,454	7,104
Carryover Water – Entitlement	751	5,256	4,161	2,437	663
Carryover Water – Purchased	0	880	0	0	0
Article 21	2,390	949	432	1,562	0
Turn-Back Pool	0	17	10	153	0
Water Transfers	0	778	1,854	0	0
Other	0	0	97	0	165
Total SWP Deliveries	7,095	9,316	7,820	9,606	7,932

All figures expressed in AF, unless otherwise noted.

As discussed in Section 6.1, if the City were to rely on Table A entitlements alone, it would face a potential water supply shortage during single dry years. It is only during single dry years that the City would need to rely on carryover water to balance its water supplies and demands, because the City has adequate Table A supplies to meet its demands in all normal and multiple dry years. Thus, the analysis in this section focuses on those single dry years.

In the 2011 Report, DWR modeled the quantity of carryover water that would be available to NCFCWD under existing and future conditions. It did this by applying the existing and future conditions under which carryover water would be available to the historical record from 1922 through 2003. Under existing conditions, DWR found that deliveries to NCFCWD during the single dry year of 1977 would have been 2,000 AF without carryover, plus 3,000 AF of carryover water, for a total of 5,000 AF. That would have generated an overall yield of 18 percent of NCFCWD's Table A entitlement, thereby doubling the 9 percent of Table A entitlement that would have been available without carryover water.[110] Under future conditions beginning in 2030, DWR found that carryover water would not be available on a widespread basis, with 0 AFY of carryover water available in the single dry year of 1977.[111]

If carryover water were made available to NCFCWD in any given year, the City would be entitled to a proportional share of that SWP supply made available to NCFCWD. Thus, under existing conditions the City would have been entitled to 18 percent of its Table A amount, or 3,940 AFY, in the modeled single dry year. For Table 18, it was assumed that no carryover

[110] California Department of Water Resources, *Technical Addendum to The State Water Project Delivery Reliability Report 2011*, at 67-68 (July 2012).
[111] *Id.* at 122-23.

water would be available, and on that basis it was determined that only 1,970 AFY would be available to the City and a water supply deficit would exist in single dry years in the 2015, 2020 and 2025 scenarios. The impact of changing those assumptions to match DWR's analysis regarding the potential availability of carryover water is shown in Table 21. Use of available carryover water would double the amount of SWP deliveries and increase total water supplies by 1,970 AFY during the 2015, 2020 and 2025 periods.

As shown in Table 21, the impact of adding carryover water to the delivery of Table A supplies in single dry years would be substantial. Carryover water would completely eliminate the City's water supply deficit without Project water demands, and with Project water demands would eliminate any deficit during the 2015, 2020 and 2025 periods. Beginning in 2030, the water supply situation would remain unchanged, with a maximum deficit of 1 percent.

Table 21. Impact of Carryover Water on City Water Supplies and Demands in 1977

				No Project Demands			With Project Demands		
	Year	Condition	Total Supplies	Demands	Surplus (Deficit)	Supply as Percentage of Demands	Demands	Surplus (Deficit)	Supply as Percentage of Demands
Table A Only	2015	Single Dry	13,970	14,600	-630	96%	14,930	-960	94%
	2020	Single Dry	13,970	14,000	-30	100%	14,330	-360	97%
	2025	Single Dry	13,970	13,960	10	100%	14,290	-320	98%
	2030	Single Dry	14,410	14,090	320	102%	14,420	-10	100%
	2035	Single Dry	14,410	14,220	190	101%	14,550	-140	99%
Table A + Carryover	2015	Single Dry	15,940	14,600	1,340	109%	14,930	1,010	107%
	2020	Single Dry	15,940	14,000	1,940	114%	14,330	1,610	111%
	2025	Single Dry	15,940	13,960	1,980	114%	14,290	1,650	112%
	2030	Single Dry	14,410	14,090	320	102%	14,420	-10	100%
	2035	Single Dry	14,410	14,220	190	101%	14,550	-140	99%

All figures rounded to nearest 10 AFY.

It is important to note that the analysis performed by DWR is an illustration of how carryover water would be available under existing conditions and the historical record. That analysis does not mean that an equal amount of carryover water would be available in every single dry year, especially in a single dry year that followed a dry year in which carryover water was used. Nonetheless, it does demonstrate that carryover water may be available in a quantity that prevents a water shortage for the City under existing conditions. It further demonstrates that in the only historical year on record in which the SWP could not deliver Table A water to the City sufficient to meet its water demands (1977), under existing conditions the SWP would be able to deliver sufficient carryover water to eliminate any deficit. Thus, while the potential for delivery of carryover water does not eliminate all water supply risk, it shows one plausible manner by which the City can prevent a water shortage from occurring.

In addition to carryover water, there is a possibility that the City could gain access to Article 21 water or Turn-Back Pool water from the SWP. "Article 21" water is an interruptible, surplus SWP supply the City has used in the past and plans to continue using in future. Article 21 of the SWP contract allows for the purchase of surplus water beyond Table A quantities, provided that the contractor can take delivery during the wet season without affecting Table A deliveries to other contractors. Article 21 water is available under the following conditions:

- "Excess water" is flowing through the Delta, i.e., releases by the SWP and Central Valley Project reservoirs and unregulated flows into the Delta exceed diversions and flows needed to maintain Delta water quality and other regulatory requirements. This scenario normally occurs only between December and May.
- The contractor is able to use the water by reducing use of another supply, or storing the water in its own system. The SWP will not make storage in San Luis Reservoir available for Article 21 water.
- Delivering the water would not interfere with Table A allocations or other SWP operations.
- If more than one contractor requests Article 21 water, it is divided among the requesting parties according to their Table A entitlements.[112]

NCFCWD uses an annual delivery schedule that maximizes the City's use of Article 21 water following consumption of carryover water.[113] Past deliveries of Article 21 water to the City are shown in Table 20. Based on the pumping restrictions in effect for the south Delta, it is expected that Article 21 water will generally be more available in future than it has been historically for contractors that take water from the Barker Slough Pumping Plant and North Bay Aqueduct. Both NCFCWD and the City can be expected to utilize increased amounts of Article 21 water when it is available. Nonetheless, because it is difficult to predict the quantity of Article 21 water that is likely to be available in future single dry years, this Revised WSA does not quantify its impact on the balance of City water supplies and demands.

[112] 2011 Report, at 20-21.
[113] 2010 UWMP, at 3-6.

In addition to other SWP deliveries, each year DWR decides whether or not to operate a dry year purchase program based on Article 56 of the SWP contract. A "Turn-Back Pool" may be established with water from agencies not using their full entitlement being distributed to other agencies requesting additional supplies.[114] Since this program relies on the voluntary agreement of some SWP contractors not to use their full delivery entitlement, it is not expected to be available during relatively dry years when the supply could be useful to the City. Thus, Turn-Back Pool water is not considered to be helpful in mitigating the City's water supply risk and is not quantified in this Revised WSA.

6.3 Supplemental Water Sources

Although the analysis above demonstrates that the City is likely to have sufficient water supplies to meet all demands, in all hydrologic year types, the City, County and developer are committed to avoiding any potential negative impact of the Project on existing City water customers. Therefore, this section discusses actions that could be undertaken by the City in the unlikely event that a water shortage were threatened to occur.

In response to a potential water shortage, the City could seek to purchase additional imported water supplies from a source on the Sacramento River other than the SWP. In the past, DWR has operated dry year supplemental water programs, and the City could participate in such a program. In addition, the City could obtain water supplies independently, and then use SWP facilities, including the North Bay Aqueduct, to convey those supplies to the City's customers.

6.3.1 *DWR Dry Year Programs*

In certain dry years DWR helps to facilitate voluntary transactions between water rights holders in the Sacramento and Feather River watersheds in northern California and potential water users throughout the state, including conveyance through SWP facilities. Transfers to the City implemented during 2007-2011 were listed in Table 20.

In 2009, DWR established the Drought Water Bank for this purpose, and NCFCWD executed a purchase agreement under the program for up to 2,950 AF, of which 1,780 AF were for the City.[115] The Drought Water Bank acquired water supplies from various water rights holders in the Sacramento River watershed based on releases of water from long-term storage and the substitution of groundwater for Sacramento River water by some water users. NCFCWD executed a contract with DWR to purchase a portion of the water that was made available, and the City subcontracted with NCFCWD for a portion of the transferred amount.[116] It is expected that DWR may operate similar dry year supply programs in future, and NCFCWD and the City will be able to participate on the same basis as other SWP contractors.

[114] 2011 Report, at 21.

[115] The City also purchased a small amount of supplies from other dry year programs, so that the City's total purchases in 2009 were 1,854 AF, as shown in Table 20.

[116] For more information on the 2009 Drought Water Bank, see the DWR website on the program [http://www.water.ca.gov/drought/bank/].

6.3.2 *Water Transfers*

In addition to programs operated by DWR, the City and NCFCWD have expressed interest in obtaining additional water supplies in dry years on their own. There is a functioning market for water rights in the Sacramento River system, with rights being purchased and sold on feasible economic terms on a regular basis, especially for temporary (less than one year) periods. Vested water rights currently are available for purchase on the Sacramento River, if NRP decided to pursue the acquisition of additional supplies over one or more years. Examples of recent transactions in the Sacramento River system include:

- Temporary transfers of 732 AF from several water rights holders, including Richvale Irrigation District, South Feather Water and Power Agency, South Sutter Water District and Western Canal Water District, to NCFCWD in 2008;[117]

- Temporary transfers from numerous water right holders to DWR in 2009 pursuant to the 2009 Drought Water Bank program, for a total of up to 52,773 acre-feet;[118]

- Temporary transfers from several water right holders, including South Sutter Water District, Garden Highway Mutual Water Company, Tule Basin Farms, City of Sacramento and Sacramento Suburban Water District, to a group of SWP contractors, including NCFCWD, for a total of up to 23,699 acre-feet during 2010;[119]

- Several water right holders have petitioned the State Water Resources Control Board for temporary transfers during the 2013 irrigation season to the San Luis and Delta-Mendota Water Authority;[120]

- Permanent transfer in 2010 from several water right holders to the Woodland-Davis Clean Water Agency as part of the Woodland-Davis Water Supply Project;[121] and

[117] California Department of Water Resources, *Management of the California State Water Project*, Bulletin 132-09, at 162 (December 2012) [http://www.water.ca.gov/swpao/docs/bulletin/09/Bulletin132-09.pdf]. Those entities also transferred water to other SWP contractors, for a total of 30,545 AF, but 732 AF was the amount transferred to NCFCWD.

[118] *See* SWRCB Orders 2009-0038-DWR, 2009-0040-DWR, 2009-0041-DWR, 2009-0042-DWR, 2009-0043-DWR, 2009-0044-DWR, 2009-0045-DWR, 2009-0046-DWR, 2009-0047-DWR, 2009-0048-DWR, 2009-0053-DWR, 2009-0054-DWR and 2009-0055-DWR [all online at http://www.waterboards.ca.gov/waterrights/water_-issues/programs/applications/transfers_tu_orders/].

[119] *See* In the Matter Of License 11118 (Application 14804) Petition for Temporary Change Involving the Transfer of up to 10,000 Acre-Feet of Water from the South Sutter Water District to Eight State Water Contractor Agencies, SWRCB Order 2010-0022-DWR (July 1, 2010); In the Matter Of License 2033 (Application 1699) Petition for Temporary Change Involving the Transfer of up to 5,802 Acre-Feet of Water from the Garden Highway Mutual Water Company to Eight State Water Contractor Agencies, SWRCB Order 2010-0023-DWR (July 2, 2010); In the Matter Of License 2840 (Application 10030) Petition for Temporary Change Involving the Transfer of up to 3,520 Acre-Feet of Water from Tule Basin Farms to Eight State Water Contractor Agencies, SWRCB Order 2010-0024-DWR (July 2, 2010); In the Matter Of Permit 11360 (Application 12622) Petition for Temporary Change Involving the Transfer of up to 4,377 Acre-Feet of Water from the City of Sacramento and Sacramento Suburban Water District to Eight State Water Contractor Agencies, SWRCB Order 2010-0025-DWR (July 2, 2010).

[120] *See* SWRCB Website [http://www.waterboards.ca.gov/waterrights/water_issues/programs/applications/transfers-_tu_notices/].

[121] *See* Woodland-Davis Clean Water Agency Website [http://www.wdcwa.com/documents].

- Permanent transfer from Natomas Central Mutual Water Company to South Folsom Properties, LLC of between 8,000 and 15,000 AFY, pursuant to a 2007 agreement, for purposes of meeting the demands of a development project.

In the past few years, there have been a greater number of transfers of water on the Sacramento River system than are listed above, such that temporary transfers have become largely routine. A transfer of water from vested, historically exercised rights on the Sacramento River system to the City would be subject to conditions that it not cause injury to any legal user of water or have an unreasonable effect on fish, wildlife or instream beneficial uses. Although such water sources would each have their own respective points of diversion, places and use and purposes of use, transfers of such sources would all be substantially similar in that they would all derive from the Sacramento River system, they would all be diverted at the same new point of diversion for SWP facilities, subject to the same legal and physical restrictions, and have the same off-site environmental impacts. Any on-site environmental impacts would need to be identified at the time and would be subject to the requirements of CEQA, if applicable.[122]

The Delta Stewardship Council, a body formed to establish a Delta Plan, has developed requirements that are expected to become regulations between July 1 and October 1, 2013. The proposed rules would govern water transfers, including temporary transfers in dry years.[123] The regulations, once adopted, would not preclude but may make it increasingly difficult and expensive to complete water transfers.

Based on historical practices, it is expected that a transfer could be arranged that would meet all regulatory conditions and gain SWRCB approval, such as the transfers described above. In the event that the City were facing a water shortage, there is a high degree of likelihood that it could secure additional supplies through a temporary water transfer to avoid or mitigate the threatened shortage.

6.4 Water Shortage Contingency Plan

While the analysis in earlier sections demonstrates that the City likely has sufficient water supplies to meet the demands of its existing and future customers, plus all demands of the Project, in all hydrologic year types, the City has adopted a water shortage contingency plan that would reinforce that conclusion.[124] In the event of a drought, the City would likely adopt a resolution to declare a water shortage emergency and implement the City's WSCP, originally completed in January 1992. In the most recent test of the City's ability to address a severe water shortage, the City took actions designed to achieve a 20 percent reduction in consumption for the 1991 water year; the actual reduction in consumption achieved was just over 31 percent.[125] It is not expected that such a dramatic reduction would be achieved in the future, as indoor demand hardening from past installation of high-efficiency fixtures and appliances limits the amount of savings possible, leaving outdoor irrigation as the prime source of drought reduction. For the recent 2007-2009 drought, the City was able to avoid having to invoke the WSCP.

[122] Note that temporary water transfers are typically exempt from CEQA. *See* CAL. WATER CODE § 1729.
[123] *See* 23 Cal. Code Regs. §§ 5003, 5005 [Draft].
[124] 2010 UWMP, Chapter 8.
[125] *Id.* at 8-1.

In response to a water shortage emergency, the City has developed a five-stage plan of actions, as shown in Table 22. The WSCP includes no action as well as voluntary and mandatory conservation stages. For each stage, supply shortage triggering levels are established to ensure that the health and safety of the City's citizens are protected. Either a projected supply shortage or insufficient carryover storage can trigger an action.

Table 22. City of Napa Water Shortage Stages of Action

Stage of Action	Demand Reduction Goal	Type of Conservation Program
Stage 1	10%	No Action
Stage 2	15%	Voluntary
Stage 3	20%	Mandatory
Stage 4	35%	Mandatory
Stage 5	50%	Mandatory

Source: 2010 UWMP, at 8-2.

The specific criteria for triggering various stages are listed in Table 23. As a matter of policy, the City has developed the following priorities for use of available water: (1) health and safety; (2) commercial and industrial; (3) existing landscaping; (4) new demand; and (5) agriculture.[126]

Table 23. City of Napa Supply Action Trigger Levels

Stage of Action	Supply Shortage	Carryover Shortage
Stage 1	Up to 10% reduction	Or insufficient carryover storage and projected supplemental water to provide for 90% of normal supplies for next 2 years
Stage 2	10-20% reduction	Or insufficient carryover storage and projected supplemental water to provide for 75% of normal supplies for next 2 years
Stage 3	20-35% reduction	Or insufficient carryover storage and projected supplemental water to provide for 60% of normal supplies for next 2 years
Stage 4	35-50% reduction	Or insufficient carryover storage and projected supplemental water to provide for 50% of normal supplies for next 2 years
Stage 5	More than 50% reduction	

Source: 2010 UWMP, at 8-3.

During the last major drought to affect Napa from 1987 through 1992, the City adopted Ordinance No. 4277, which prohibited specific acts of water waste. Ordinance No. 4277 was an urgency ordinance addressing the emergency water shortage situation that occurred in 1991. The City eventually replaced the ordinance with Chapters 13.10 and 13.12 of the Napa Municipal

[126] *Id.* at 8-2.

Code. They are currently inoperative but could be reactivated by the Napa City Council in the event of a declared shortage.[127]

Chapter 13.10 applies to a "Moderate Water Shortage" and establishes penalties and civil fines for specific acts of water waste. It includes potential restrictions on the amount of water that may be used by a single-family residence, with penalties applied to customers exceeding the amount. Among other regulations, it contains prohibitions on: operation of decorative fountains where water is not recirculated; use of hoses without shut-off nozzles; hosing down pavement and driveways; draining and filling of swimming pools; withdrawal of water from hydrants except for firefighting; serving water to restaurant patrons except on request; and daytime watering of landscapes. Fines for violations range from $50 to $2,500.

Chapter 13.12 identifies more far-reaching restrictions and limitations on water use during a "Severe Water Shortage" of Stage 3 or greater. It includes: allocations of water for individual customers at varying percentages of historical usage; a requirement for the City's 50 largest users to submit a water conservation plan; and potential establishment of a special block rate structure to address drought-related water purchase and administration expenses. In addition, a wide range of prohibitions intended to minimize water waste are set forth, with a similar range of penalties as in Chapter 13.10.

To reduce short-term demand, an urban water supplier may use any type of consumption limit in its Plan that is appropriate for its area. Examples of consumption limits that may be used include, but are not limited to, percentage reductions in water allotments, per capita allocations, an increasing block rate schedule for high usage of water with incentives for conservation, or restrictions on specific uses.

As adopted by the City, in Stage 1 there is no required reduction by customers. The City will publicize a Water Shortage Awareness Program and request voluntary conservation by customers. Water supply reductions for Stages 2 through 5 are shown in Table 24.[128]

[127] *Id.* at 8-3.
[128] *Id.* at 8-4.

Table 24. City of Napa Annual Consumption Limit by Stage and Customer Group

	Residential	Commercial and Industrial	Landscape	Agriculture	Total	Total Demand Reduction
Normal Demand	10,000	3,000	800	200	14,000	0%
Stage 1: Voluntary	10,000	3,000	800	200	14,000	0%
Stage 2: Voluntary	8,500	2,550	680	0	11,730	16%
Stage 3: Mandatory	8,000	2,400	560	0	10,960	22%
Stage 4: Mandatory	6,500	1,950	440	0	8,890	37%
Stage 5: Mandatory	5,000	1,500	320	0	6,820	51%

Source: 2010 UWMP, at 8-4. Unless otherwise noted, all figures expressed in AFY.

In normal water supply conditions, production figures are recorded daily. Totals are reported daily to the Water Treatment Facility Supervisor. Totals are reported weekly to the Water Division General Manager and incorporated into the water supply report. During a Stage 1, 2 or 3 water shortage, daily production figures are reported to the Supervisor. The Supervisor compares the weekly production to the target weekly production to verify that the demand reduction goal is being met. Weekly reports are forwarded to the Water Division General Manager. Monthly reports are sent to the Napa City Council. If reduction goals are not met, the Water Division General Manager will notify the City Council so that corrective action can be taken. During a Stage 4 or 5 water shortage, the procedure listed above will be followed, with the addition of a daily production report to the Water Division General Manager.[129]

[129] *Id.* at 8-5.

SECTION 7 RECYCLED WATER

This section analyzes the use of recycled water from NSD to meet the common area irrigation demands of the Project. The Project includes approximately 42.7 acres of irrigated landscapes, parks and gardens that will be irrigated with recycled water. As described in Section 3.4 of this Revised WSA, approximately 150 AFY of Project demands can be met using recycled water. This Section 7 concludes that NSD is capable of providing sufficient recycled water resources to meet all Project demands in normal, single dry and multiple dry years for the first 20 years of the Project and beyond.

Consistent with the state policy that recycled water should be utilized whenever it is available, the Project will use recycled water for most of its irrigation water demands. Recycled water cannot be used to meet interior residential and commercial water demands. In addition, the Project will not use recycled water to irrigate a small number of residential back yards covering 2.3 acres, which would not be accessible to recycled water purveyor employees and would require maintenance by individual homeowners. Use of potable water for irrigation of back yards is also consistent with the need to prevent cross-connection between the potable and recycled water distribution systems.

7.1 Overview of Napa Sanitation District

NSD owns and operates the Soscol Water Recycling Facility ("SWRF") south of the City and the Project site. NSD collects wastewater from within the City, Silverado Country Club, the Project site and industrial areas at the Napa airport and delivers it to the SWRF for treatment. The SWRF is designed to treat 15.4 MGD of wastewater and produces up to 8.8 MGD of disinfected tertiary quality recycled water, the highest quality recognized under state regulations.[130] During the wet season from November 1 through April 30, recycled water is discharged to the Napa River due to low irrigation demands in the area and a lack of storage capacity. During the dry season from May 1 through October 31, recycled water is distributed to local water users, including vineyards, industrial parks and golf courses.[131]

Under the National Pollutant Discharge Elimination System ("NPDES") permit currently held by NSD, the district is prohibited from discharging treated wastewater to the Napa River between May 1 and October 31 of each year. During that six month period, the SWRF produces approximately 3,200 AFY of water that must be disposed of through distribution as recycled water.[132] Based on average inflows from the Project of 270,000 gpd,[133] the SWRF would produce an additional 150 AFY during the summer months and 300 AFY on a year-round basis.

As of 2005, NSD supplied approximately 3,244 AFY of recycled water for use year-round, including 1,074 AFY for landscape irrigation (including turf grass), 110 AFY for agricultural irrigation and 2,060 AFY for turf grass grown on sites owned or leased by the district for

[130] Napa Sanitation District, *Strategic Plan for Recycled Water Use in the Year 2020* at ES-1, 2-16 (August 2005) ("NSD Strategic Plan"). *See* California Department of Public Health Regulations, Cal. Code of Regs., Title 22.
[131] NSD Strategic Plan, at ES-1.
[132] *Id.* at 2-24.
[133] This figure is based on 90 percent of potable water demands of the Project, excluding outdoor uses for the community pool and irrigation of back yards, plus 60,000 gpd for inflow and infiltration. *See* HSE Report, at § 4.1.

reclamation purposes.[134] NSD customers used recycled water for landscape irrigation purposes on 12.25 acres for commercial properties.[135] NSD has estimated that it could supply another 346 AFY to expected customers using its existing infrastructure.[136] That would create total recycled water deliveries of 3,590 AFY. In fact, supplying additional recycled water to customers would assist NSD in meeting the requirements of its NPDES permit, because in very wet years when irrigation demand decreases, the SWRF has a very small margin between the effluent produced and existing recycled water demands.[137]

7.2 Strategic Plan

As part of its *Strategic Plan for Recycled Water Use in the Year 2020* ("NSD Strategic Plan"), which was adopted in August 2005, NSD estimated that the SWRF in 2020 could produce up to 9,800 AFY of tertiary-treated recycled water.[138] The district's stated long-term goal is to recycle all water produced at the SWRF, if funding is available for the capital facilities needed to store and distribute the water.[139] The largest funding needs faced by NSD are for construction of the Silverado Extension pipeline ($33.2 million), the Los Carneros pipeline ($23.9 million), a new pump station ($360,000), increased filter capacity at the SWRF ($6.71 million), an aquifer storage and recovery system ($5.0 million) and additional segments and connections on the existing recycled water pipeline ($1.47 million). In light of the magnitude of those expenses and a current lack of funding, NSD adopted a strategy of continuing to meet its NPDES permit requirements, while being open to expansion of its recycled water system if funds become available in future.[140]

NSD considers new recycled water uses to be reasonable when located within 0.25 miles of a recycled water pipeline, as is the case for the Project site.[141] The district considered the Project site as the location of possible industrial use of recycled water as of 2005,[142] and that use could easily be modified to landscape irrigation based on construction of the Project. The quality of water produced by the SWRF is fully adequate for landscape irrigation use at the Project.[143]

Based on the NSD Strategic Plan, it is clear that NSD has significant recycled water resources that could supply the Project's landscape irrigation needs. By 2020, NSD is expected to produce up to 9,800 AFY of recycled water on a year-round basis, compared to current demands of only 3,244 AFY and the ability to distribute only 3,590 AFY without significant capital expenditures. Even existing recycled water uses contain 2,060 AFY of use on NSD's own reclamation sites (approximately 64 percent of all existing demands), for which the district does not receive any compensation and the district would willingly curtail in favor of deliveries to the Project.[144] While NSD may have the opportunity to construct new pipelines to serve additional recycled

[134] NSD Strategic Plan, at 2-24.
[135] *Id.* at 2-4.
[136] *Id.* at 2-24, 2-25.
[137] *Id.* at 2-26.
[138] *Id.* at 2-3.
[139] *Id.* at 2-12.
[140] *Id.* at ES-8.
[141] *Id.* at ES-4, 2-6.
[142] *Id.* at 2-8, 2-10.
[143] *Id.* at 2-9.
[144] *Id.* at 2-32 (indicating NSD plan to take its own lands out of service if sufficient recycled water uses arise from outside customers).

water customers in 2020 or later years, the current NSD Strategic Plan does not provide funding for such significant capital facilities. Thus, according to its current plans, NSD will produce significant quantities of recycled water at the SWRF that could be used to supply the Project. A comparison between supplies and demands for recycled water from NSD is contained in Section 7.6.

In 2011, NSD commissioned a *Wastewater Treatment Plant Master Plan* ("WWTP Master Plan"), which identified a need for expansion of its recycled water production facilities to accommodate increased demand for recycled water.[145] Recycled water production at the SWRF is limited by several processes including filtration capacity and disinfection capacity. NSD estimated that the SWRF needs an increase in recycled water production capacity from approximately 2,000 to 3,700 FY.[146] To meet these goals, NSD has planned a Phase 1 Recycled Water Expansion Project to increase recycled water production up to a capacity of 12.8 MGD. NSD intends to bid the project in April and open bids in May 2013, with an estimated substantial completion date of October 2014 for the project.[147]

NSD has also commenced installation of a pipeline along Kaiser Road to deliver recycled water to the northern portion of Napa Valley Corporate Park. This will allow park tenants to transition from use of City potable water supplies to recycled water for common area landscaping and median strips. The change will save an estimated 20 AF of potable water each year.[148]

7.3 Milliken-Sarco-Tulucay Area Project

In consultation with the County of Napa, NSD has proposed delivering recycled water to the Milliken-Sarco-Tulucay ("MST") area to address groundwater decline, as described in Section 4.8 of the 2011 WSA. In a 2007 study related to the potential for delivering recycled water to the MST area, NSD projected recycled water demands for its current customers to be 1,094 AFY, with projected demands in 2020 of 2,598 AFY.[149] NSD did not include irrigation of its own lands in the estimation of water demands, because that activity is not expected to continue if recycled water demands arise elsewhere in the future.[150]

The potential future recycled water service area for MST would include parcels north of Imola Avenue, south of Sarco Creek and east of the City RUL boundary. The total land area of the service area is approximately 5,360 acres and includes slightly more than 1,000 parcels, most of which are between 0.5 and 5 acres. The service area is comprised mostly of rural residential and vineyard parcels, as well as the golf course at Napa Valley Country Club. The proposed MST recycled water project would consist of 17.5 miles of new pipeline, four booster pump stations along the pipeline routes and a new booster pump at the SWRF. The new pipeline would be installed from the end of the Streblow Drive pipeline through the Napa State Hospital grounds and north to the MST area. A looped recycled water distribution system using existing roadways

[145] Brown & Caldwell, *Wastewater Treatment Plant Master Plan* (April 2011).
[146] NSD, Board Agenda Letter from Timothy Healy, General Manager, to Board of Directors (March 20, 2013).
[147] NSD, Board Presentation (March 20, 2013).
[148] NSD, Newsletter (Fall 2012).
[149] Brown & Caldwell, *Recycled Water Expansion Hydraulic and Preliminary Engineering Analysis: Phase I Report*, at 3-2, 4-1 (2007) ("Recycled Water Phase I Report") [http://www.napasanitationdistrict.com/strategic_-plan/reports_docs.html].
[150] *Id.*

would be constructed, with one segment extending west along First Avenue and the second segment extending east along Third Avenue; both segments would then merge along Hagen Road north of the Napa Valley Country Club.[151]

Potential users of recycled water from NSD in the MST area are primarily commercial vineyards and single-family residences. If vineyards and single-family residences participate at 100 percent, they are projected to account for 2,304 AFY of demand.[152] If, however, only 50 percent of vineyards and 40 percent of residential customers participated, that would result in demand for 1,175 AFY of recycled water in the MST area.[153] Implementation of service to the MST area would require expansion of the SWRF tertiary treatment capacity by 4.5 MGD. This would include expansion of the filtration system by installing parallel filter cells adjacent to the existing filter building at the SWRF.[154] Total capital costs for such reengineering of the system range from $34.7 million for 50/40 participation, to the maximum $47.5 million for 100/100 participation.[155]

In January 2009, NSD released an addendum to its preliminary analysis based on a survey of potential vineyard and golf course customers in the MST area.[156] The addendum introduces an alternative MST project based on the expressed interest in recycled water that NSD identified in its survey. NSD determined that vineyards will commit to 150.5 AFY of recycled water, and Napa Valley Country Club another 200 AFY to irrigate its golf course, for a total of only 350.5 AFY, which is far less than the project as envisioned in 2007.[157] Infrastructure costs for serving these potential customers are estimated to be approximately $13.5 million.[158] As of January 2013, consultants for NSD were designing and conducting environmental review for an amended EIR for the MST project.[159] A community facilities district was formed to finance the MST recycled water pipeline in December 2012. Any owners of property close to the MST pipeline can voluntarily request annexation into the district. Only property owners who request their lands to be included in the project and agree to pay the associated special tax for 20 years will participate in the district and its obligations.[160]

7.4 North Bay Water Recycling Program

In addition to its planning efforts in the NSD Strategic Plan and for the MST project, NSD is participating as a member of the North Bay Water Reuse Authority ("NBWRA") in a regional project to expand the beneficial use of recycled water. The environmental and engineering portion of this project are being carried out as part of the large-scale North Bay Water Recycling Program ("NBWRP"), under the auspices of NBWRA.

---

[151] *Id.* at 3-3.
[152] *Id.* at 4-2.
[153] *Id.*
[154] *Id.*
[155] *Id.* at 6-3.
[156] Brown & Caldwell, *Recycled Water Expansion Hydraulic and Preliminary Engineering Analysis: Phase 1 Report Addendum - MST Alternative* (2009) ("Addendum") [http://www.napasanitationdistrict.com/images/home/-PDFs/HydraulicAnalysisReport.pdf].
[157] *Id.* at 4-2.
[158] *Id.* at 6-3.
[159] NSD, *General Manager's Report for January 2013*, at 4 (March 6, 2013).
[160] *See* County of Napa Website [http://www.countyofnapa.org/mst/].

The member agencies of NBWRA include NSD, Sonoma Valley County Sanitation District, Las Gallinas Valley Sanitary District and Novato Sanitary District. North Marin Water District and the County of Napa are also providing financial and technical support for the project.[161] NBWRA is planning for the NBWRP to serve recycled water to Novato urban users, southern and central areas of Sonoma Valley, the Sears Point area, Napa Salt Marsh, and the MST and Carneros East areas in Napa County.[162] Water from NSD would be delivered to the MST area, but on a potentially expanded basis when compared to the stand-alone MST area project described in Section 7.3.

Sonoma County Water Agency certified an EIR for the NBWRP on December 8, 2009. Each NBWRA member agency then approved the Phase 1 project under its jurisdiction, prepared and adopted written findings of fact for each significant environmental impact identified in the EIR, made a statement of overriding considerations, and adopted a mitigation monitoring and reporting program. The Napa County Board of Supervisors approved the projects in its service area on December 15, 2009, and the NSD Board of Directors approved the projects in its service area on December 17, 2009. The U.S. Bureau of Reclamation issued a final environmental impact statement ("EIS") for the NBWRP on June 7, 2010 and signed a Record of Decision for the EIS on January 28, 2011. A Draft Addendum to the EIR and Supplemental Information Document to the EIS was issued in February 2013 for NSD, Napa County Department of Public Works, U.S. Bureau of Reclamation and the SWRCB.

The NBWRP assumes that recycled water demands within the current NSD service area in 2020 will be 2,598 AFY, the same figure as was used by NSD for studying the MST area project.[163] Each of the alternative projects proposed as part of the NBWRP would create additional demands for recycled water within some or all of the participating agencies, including NSD.

Alternative 1 of the NBWRP would expand recycled water programs currently in operation within each of the member agency service areas. It puts greatest emphasis on the service of local demands by the individual wastewater treatment plants. Across all the agencies, Alternative 1 would provide 6,655 AFY of new recycled water for irrigation use and 5,825 AFY for habitat restoration, and would include installation of 83 miles of new pipeline, construction of facilities onsite at the existing wastewater treatment plants to provide an additional 7.8 MGD of tertiary treatment capacity, and development of approximately 1,020 AF of new storage, primarily at existing or planned storage ponds at the wastewater treatment plants.[164] At the SWRF, NSD would expand the capacity of its recycled water treatment process by 4.5 MGD and deliver approximately 3,192 AFY of recycled water to the MST area.[165]

Alternative 2 of the NBWRP involves development of a subregional recycled water system, taking advantage of increased storage capacity and additional pipelines under Alternative 1 to distribute recycled water more extensively throughout the project area. For NSD, Alternative 2

[161] *See* North Bay Water Reuse Authority Website [http://www.nbwra.org/about/].
[162] *See* Sonoma County Water Agency, *North Bay Water Recycling Program DEIR* at 2-6 (2009) ("North Bay DEIR") [http://www.nbwra.org/docs/].
[163] North Bay DEIR, at 2-32.
[164] *Id.* at ES-13.
[165] *Id.* at 2-12, 2-24, 2-32.

would involve the construction of a longer pipeline into the MST area and delivery of 4,421 AFY of recycled water.[166]

Alternative 3 under the NBWRP would create a regional system that connects all four wastewater treatment plants in the project area. This alternative would maximize water reuse by allowing recycled water from any wastewater treatment plant to be delivered to any area that needs recycled water. Since the majority of the demand for recycled water lies in the area near Sonoma and Napa, the regional interconnection achieved under Alternative 3 would allow the other wastewater treatment plants to help satisfy the demand in those areas. Alternative 3 would provide 12,761 AFY of new recycled water for irrigation use and 3,085 AFY for habitat restoration, and would include: installation of 153 miles of new pipelines, construction of facilities onsite at the existing wastewater treatment plants to provide an additional 20.8 MGD of tertiary treatment capacity, and development of approximately 2,220 AF of storage, primarily at existing or planned storage ponds at the wastewater treatment plants.[167] For NSD, Alternative 3 would include the delivery of up to 4,421 AFY of recycled water to the MST area, using the same infrastructure as under Alternative 2.[168]

Table 25 shows the supply and demands for recycled water within the NSD service area under each alternative for the NBWRP as of 2020. It is apparent that a minimum of 2,657 AFY of recycled water from NSD's SWRF will be surplus to the combined demands of the existing recycled water service area and the proposed new MST area.

Table 25. NSD Recycled Water Supply, Demand and Surplus Under NBWRP (2020)

Project	SWRF Inflow	Existing Recycled Water Demand	Recycled Water Demand for Alternative	Total Recycled Water Demand	Surplus Recycled Water
No Project	9,800	2,598	0	2,598	6,338
Alternative 1	9,800	2,598	3,192	5,590	3,847
Alternative 2	9,800	2,598	4,421	7,019	2,657
Alternative 3	9,800	2,598	4,421	7,019	2,657

Source: North Bay DEIR, at 2-31, 2-32, 2-38, 2-44. All figures expressed in AFY. Note that the quantity of Surplus Recycled Water does not equal the difference between SWRF Inflow and Total Recycled Water Demand. The Surplus Recycled Water figures were derived from the North DEIR, which does not explain this difference, but is likely based on the difference between SWRF inflows and product water, as well as other operational factors.

In October 2012, the NBWRA issued a *Phase 2 Project Definition Scoping Study* that analyzed whether to proceed to the next steps in scoping studies, feasibility-level engineering analysis,

[166] *Id.* at 2-38.
[167] *Id.* at 2-6.
[168] *Id.* at 2-44.

environmental documentation and financial analysis for a proposed Phase 2 of the NBWRP. The purpose of the Phase 2 studies was to explore options for recycled water use and, as feasible, to develop a program expanding recycled water use within the North San Pablo Bay region beyond the projects currently being constructed as Phase 1 of the NBWRP.[169] The study findings include a summary of identified potential Phase 2 projects, preliminary analysis of operations, preliminary construction costs for the Phase 2 projects and the scope of work to complete scoping studies and feasibility studies to allow for Phase 2 program implementation. Seven agencies initially identified 20 potential Phase 2 projects.[170]

Phase 2 total demands for all potential projects are estimated at 5,726 AFY. The scoping study found that significant recycled water supply is available on an annual basis to meet the currently identified potential Phase 2 water demands. However, Phase 1 projects minimized the use of seasonal storage to meet the peak irrigation needs in the summer and early autumn. Consequently, a significant amount of summer season recycled water flows are used by the Phase 1 projects and are not available for Phase 2 projects.[171] Further studies will be conducted to determine potential project alternatives.

7.5 Delivery of Recycled Water Within the City of Napa Water Service Area

NSD and the City have executed an agreement ("NSD-City Agreement") regarding where and how NSD will deliver recycled water within the City potable water service area.[172] Pursuant to the NSD-City Agreement, the Project site is located within the City water service area, and thus is covered by the terms of that agreement.[173] The NSD-City Agreement, Section 2(a), provides that NSD may solicit customers and deliver recycled water within an area that is called the "ReUse Area" and includes the Project site. Thus, the NSD-City Agreement does not block the delivery of recycled water from NSD to the Project.

In exchange for the City allowing NSD to deliver water within the ReUse Area, NSD is required to compensate the City for its loss of revenue from existing customers taking delivery of recycled water in lieu of purchasing potable water supplies from the City.[174] The amount of compensation is determined based on the reduction in potable water sales by the City to its prior customers, multiplied by the City's current water rates less certain avoided costs, and continues until the amount of City water sales has regained its level prior to the conversion to recycled water.[175] No compensation is due unless a recycled water customer, prior to taking delivery of recycled water from NSD, purchased potable water supplies from the City.[176] Since the City currently sells potable water for industrial purposes on the Project site, NSD might owe compensation to the City for recycled water sales to the Project. This is an issue to be determined between NSD and the City, and it does not substantially affect the availability of recycled water from NSD for the Project.

---

[169] *See* NBWRA Website [http://www.nbwra.org/docs/index.html].
[170] NBWRA, *Phase 2 Project Definition Scoping Study Report*, at ES-4 (October 2012).
[171] *Id.*
[172] *See* Agreement Between City of Napa and Napa Sanitation District for Sale of Recycled Water Within City of Napa Water Service Area, City Agreement No. 7247 (August 4, 1998), *found in* 2010 UWMP, Appendix D.
[173] *Id.* at Exhibit A.
[174] NSD-City Agreement, at § 4(a).
[175] *Id.* at §§ 4(a)(2), 4(b).
[176] *Id.* at § 4(d).

7.6 Service to the Napa Pipe Project

In response to an inquiry by NRP, the NSD Board of Directors on June 17, 2009 decided that the agency desires to be the preferred alternative for providing wastewater and recycled water services to the Project.

In order to obtain recycled water for the Project, NRP or the water purveyor will need to negotiate and execute a recycled water supply agreement with NSD. Such an agreement has not yet been negotiated, but, as noted, NSD has expressed a desire to collect and treat wastewater from the Project and supply recycled water to the Project. In addition, the NSD planning documents discussed above indicate a desire to expand sales of recycled water where feasible, including the Project site. There do not appear to be substantial reasons why the Project applicant or the City as potable water purveyor would not be able to successfully negotiate and execute an agreement with NSD. Accordingly, recycled water is considered a highly likely and reliable water supply for the Project.

As summarized in Table 26, all of the NSD planning documents discussed above demonstrate that sufficient recycled water will be available to serve the Project. The NSD Strategic Plan projects that recycled water supplies in 2020 and following years will be at least 9,800 AFY, whereas demands will be a maximum of 2,598 without an MST area project. Because the Project site is located within NSD's current recycled water service area, the demands of the Project are included within that 2,598 figure, as provided for in the NSD Strategic Plan. However, even if that figure did not include the Project's recycled water demands, there is sufficient surplus recycled water available under every alternative in Table 26 to meet the Project demands without impacting the availability of recycled water to other potential users.

For future water demands in the MST area, Table 26 includes figures for each of the alternatives that are currently being considered by NSD. In each of those alternatives, sufficient recycled water is available to satisfy Napa Pipe demands.

While the NSD planning documents do not offer a projection beyond 2020, the year of build-out under the City General Plan,[177] the City's water planning documents provide that population will continue to grow at a projected rate of approximately 0.9 percent per year after 2020.[178] This suggests that wastewater influent rates at the SWRF will also increase post-2020, making more water available for recycled water production. However, because NSD's current plans call for construction of treatment facilities at the SWRF that will produce only up to 9,800 AFY, that figure is used for all future supplies. The figures for 2020 can reasonably be extended to 2035 to provide a 20-year water planning horizon for the Project.

[177] NSD Strategic Plan, at 1-1.
[178] 2010 UWMP, at 2-3.

Table 26. NSD Recycled Water Supplies and Demands

	2005	2020 Alternatives						
		No MST Project	Stand-Alone MST Project			NBWRP		
			50/40 MST Project	100/100 MST Project	Expressed Interest MST Project	Alternative 1	Alternative 2	Alternative 3
Existing Service Area Demands	1,184	2,598	2,598	2,598	2,598	2,598	2,598	2,598
MST Service Area Demands	0	0	1,175	2,304	351	3,192	4,421	4,421
Total Projected Demands	1,184	2,598	3,773	4,902	2,949	5,590	7,019	7,019
Projected Supplies	3,590	9,800	9,800	9,800	9,800	9,800	9,800	9,800
Surplus Recycled Water	2,406	6,338	6,027	4,898	6,851	3,841	2,657	2,657

Sources: NSD Strategic Plan; Recycled Water Phase I Report; Addendum; North Bay DEIR. All figures in AFY.

SECTION 8 AVAILABILITY OF SUFFICIENT SUPPLIES

As described in the preceding sections of this Revised WSA, potable water demands of the Project are projected to be approximately 300 AFY, plus 25 AFY for a potential future school. Non-potable demands will be approximately 150 AFY.

As set forth in Section 6.1, the City's projected water supplies available during normal and multiple dry water years will meet the projected water demands associated with the Project, in addition to the City's existing and planned future uses, including agricultural and manufacturing uses, for the first 20 years of the Project.[179] During those years, delivering water to the Project would not impact the availability of water to other existing or planned future water customers of the City. In fact, the City would experience a substantial surplus of water supplies during those years.

Based on use of only Table A water from the SWP, there is a risk of the City experiencing a water supply deficit during a single dry year, which has an approximately 20 percent chance of occurring during the first 20 years of the Project. However, as described in Section 6.2, the City is likely to have access to SWP supplies other than Table A entitlement that would eliminate or significantly mitigate any water shortage. In particular, carryover water is expected to be available in a single dry year and could potentially eliminate any water supply deficit and create a surplus. In addition, the City would likely be able to acquire dry year supplies through DWR or an independent water transfer. The City has used water from each of these sources in the past to avoid a water shortage, and is likely to do so in the future, either with or without the Project. Based on the likelihood of such supplies being available, it is expected that the City will have sufficient water supplies to serve the Project even in single dry years.

This Revised WSA concludes that the City will have sufficient potable and non-potable water supplies available during normal, single dry and multiple dry water years during a 20-year projection to meet all projected water demands associated with its existing and future customers, including the proposed Project. In addition, the Project will not adversely affect the availability of water for any other use, including agricultural and manufacturing uses.

041356\0001\10324657.2

Brownstein | Hyatt
Farber | Schreck