

*NAPA PIPE FINAL EIR -- SUPPLEMENTAL  
ENVIRONMENTAL ANALYSIS*

*SEPTEMBER 19, 2012*

**Introduction**

Following the circulation of the Draft Environmental Impact Report (2009 DEIR) in October 2009, the Supplement to the 2009 DEIR in March 2011, and the Final EIR for the Napa Pipe Project ("Project") in February 2012, County staff developed a new alternative to the Project which was referred to as the "Modified (63 Acre) Project."

County Staff prepared a Supplemental Environmental Analysis (SEA) or Addendum to the Final EIR (FEIR) to allow for the consideration and potential adoption of the Modified (63 Acre) Project. Following the publication of the SEA, in May 2012 the Planning Commission recommended that the Board of Supervisors approve the Modified (63 Acre) Project with a number of adjustments.

In June 2012, the project applicant prepared a revised application that combined components of the adjusted 63 Acre project recommended by the Planning Commission with new components, most notably a Costco retail location. In order to address the potential impacts associated with the applicant's modified project, referred to as the "Developer's Revised Proposal," County staff and consultants undertook an analysis of traffic, land use, and other relevant topics. This SEA presents the results of that analysis and was prepared pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.).

The potential environmental impacts anticipated as a result of the Developer's Revised Proposal are presented in Section II of this SEA, which also discusses the mitigation measures that would apply. Section II also compares the Developer's Revised Proposal to the proposed project and alternatives analyzed in the 2009 Draft EIR and the 2011 Supplement to the Draft EIR. This SEA concludes that the Developer's Revised Proposal will have incrementally different impacts in comparison to the proposed project, but will

not result in new significant and unavoidable impacts. Rather, the Developer's Revised Proposal represents a hybrid of alternatives already analyzed in the EIR. For these reasons, and based on the specific analysis and evidence presented here, revisions and recirculation of the project EIR would not be required if County decision-makers wish to consider and adopt the Developer's Revised Proposal.<sup>1</sup>

## **I. Description of the Developer's Revised Proposal**

With the Developer's Revised Proposal, County decision-makers would be asked to adopt a General Plan amendment and zoning ordinance affecting portions of the 154-acre Napa Pipe site at 1025 Kaiser Road in unincorporated Napa County. Consistent with the Planning Commission's May 2, 2012 recommendation, the General Plan amendment would re-designate 135 acres of the site from "Study Area" to "Napa Pipe Mixed Use" and describe the uses and intensities allowed in the new land use designation. Also, consistent with the Planning Commission's May 2, 2012 recommendation, the zoning ordinance would permit phased construction of a new mixed-use neighborhood on the 63-acre portion of the site that lies between the Napa River and the railroad tracks. At build-out, the new neighborhood would have publically-accessible open space and a combination of residential, neighborhood-serving retail, a hotel, and office space uses, with a maximum of 700 dwelling units (945 with a State-required density bonus). In addition, the Developer's Revised Proposal would include rezoning of approximately 17.5 acres east of the railroad tracks to permit construction of a Costco store, associated surface parking and a gas station. Figure 1 shows a site plan for the Developer's Revised Proposal.

With the modified proposal, most of the 91-acre parcel east of the railroad tracks and adjacent to the Napa Valley Corporate Park would retain its existing Industrial zoning. Some of this area would be used for project-related open space and roadways, including a newly proposed community farm. In addition, about two acres would be used for on-site water storage and treatment facilities, and 10 acres would be reserved as a future school site. Development on the 91-acre parcel could ultimately include up to 75,000 square feet of warehousing/distribution/ R&D uses and 90,000 square feet of office uses.<sup>2</sup> The entire site would retain its existing Airport Compatibility (:AC) overlay zoning, and all development would be required to be compatible with the County's Airport Land Use Compatibility Plan.

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<sup>1</sup> CEQA Guidelines Section 15088.5 discusses the circumstances under which revision and recirculation are necessary.

<sup>2</sup> While maximum build-out under the zoning would permit more square footage, 165,000 sf is considered a reasonable development scenario and would be memorialized in the proposed General Plan amendment, essentially "capping" the site's development.

**REVISED DEVELOPMENT PLAN**

**WESTERN PARCEL**

- 700 dwelling units of mixed type, or up to 945 dwelling units with state density bonuses, in Western Parcel (APN 046-412-005)
- Parks and recreation areas in Western Parcel (APN 046-412-005)
- 150-unit Senior CRC in Western Parcel (APN 046-412-005)
- 150-suite hotel with associated uses in Western Parcel (APN 046-412-005).
- 40,000 square feet of neighborhood retail and restaurants in Western Parcel (APN 046-412-005).
- 10,000 square feet of office in Western Parcel (APN 046-412-005)

**EASTERN PARCEL**

- 90,000 square feet of office in Eastern Parcel (APN 046-400-030)
- Parks, Recreation Areas, and CSA Farm in Eastern Parcel (APN 046-400-030)
- 75,000 square feet of Light Industrial / R&D / Warehousing in Eastern Parcel (APN 046-400-030)
- 154,000 square feet of Costco in Eastern Parcel (APN 046-400-030)

**KEY TO LAND USES**

- Open Space, Parks and Recreation Areas
- Area for Seniors Housing (CCRC)
- Mix of Rowhouses, Carriage Houses, and Single-Family Housing (Courtyard Homes)
- Possible Location of Ground-Floor Retail
- Area for Community Buildings
- Area for Hotel and Accessory Uses
- Areas for Office, R&D, Warehouse, and/or Light Industrial Uses
- Area for Membership Warehouse Club Retail

The map illustrates the proposed development plan for the Napa Riverfront. It shows two main parcels: the Western Parcel and the Eastern Parcel. The Western Parcel is primarily designated for residential use, including 700 mixed-type dwelling units, a 150-unit senior center, and a 150-suite hotel. The Eastern Parcel is primarily designated for commercial and industrial use, including 90,000 square feet of office space, 75,000 square feet of light industrial/R&D/warehousing, and 154,000 square feet of Costco. The map also shows various other features such as parks, recreation areas, a CSA farm, a new wetland buffer, a new trail, and several existing structures like the boat house and pavilion. A scale bar indicates distances from 0 to 1000 feet.

- ◆ Remediation of the entire 154-acre site in compliance with a clean-up plan approved by the Regional Water Quality Control Board (RWQCB);
- ◆ Grading of the entire 154-acre site and filling to raise the elevation of the 63-acre waterfront site, approximately 16 acres of the site for the Costco, and the major access roads on the 91-acre parcel consistent with the proposed project evaluated under the 2009 DEIR and Supplement to the 2009 DEIR;
- ◆ 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 approximately 0.8 miles long;<sup>3</sup>
- ◆ Development of a new mixed-use neighborhood adjacent to the Napa River with:

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- up to 700 dwelling units (or 945 units with a State-required density bonus for exceeding County affordability requirements). The dwelling units would be provided in a variety of building types, and would average about 1,200 square feet;
- a 150-unit Continuing Care Retirement (CCR) 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;
- community facilities encompassing up to 15,600 square feet, potentially including a transit center, interpretive nature center, boat house, public safety building, café/visitor pavilion, and drydock theater;
- up to 40,000 square feet of neighborhood-serving retail and restaurant uses;
- a 150-suite hotel with associated uses, such as meeting space and spa; and
- up to 10,000 square feet of office space;
- ◆ Development of a 154,000 square foot retail membership club (Costco) and associated gas station east of the railroad tracks;
- ◆ Reservation of 10 acres as a potential future school site east of the railroad tracks;
- ◆ Construction of a roundabout or signal at the intersection of Anselmo Court and Napa Valley Corporate Drive (or a traffic signal if preferred by the City and affected property owners) to serve as the southern entrance to the site.

As noted earlier, it's assumed that other areas of the site would ultimately accommodate up to 165,000 square feet of business park uses (office and warehouse/R&D) and possibly a school.

The proposed zoning ordinance would require approval of design guidelines before any development could proceed, and the project would be phased by conforming to the County's growth management system, which limits the number of residential building permits that can be issued each year.

The entire site would continue to be served by the Napa County Fire Department and the Napa County Sheriff, and an investor-owned utility or a mutual water company

would provide water to the site by purchasing water from the City of Napa, potable surface water from the City of Napa or an alternate source, to be used with groundwater as part of a conjunctive use program.<sup>4</sup> Wastewater treatment and recycled water supplies (for irrigation) would be provided by the Napa Sanitation District (NSD).

The Developer's Revised Proposal represents a hybrid of alternatives analyzed in the 2009 DEIR. In particular:

- ◆ With respect to the use of land on the 63 acres between the railroad tracks and the Napa River, the project resembles the Mid-Range Density Alternative (discussed in Chapter 5 of the 2009 DEIR).
- ◆ With respect to the use of land on the 91 acres east of the railroad tracks, because this portion of the project site would not be rezoned, aside from the 17.5 acres rezoned to allow for the Costco retail location, the project resembles the "No Project 1B" alternative, which also assumes the retention of existing land-use designations and zoning, except that business park type development would be capped at 75,000 square feet of warehouse/R&D and 90,000 square feet of office.
- ◆ With respect to potable water supply, the Developer's Revised Proposal resembles the "City Water Alternative," in that the project would rely on the City of Napa water, or an alternative surface water source as a source along with the site's groundwater, in a conjunctive use arrangement.

To assist the public and decision-makers in comparing attributes of the Developer's Revised Proposal to the proposed project evaluated in the 2009 DEIR, a stand-alone matrix has been prepared that should be reviewed in conjunction with this SEA. The first column in the matrix summarizes the developer's proposed project as it was analyzed in the Final EIR, which is identical to the Mid-Range Density Alternative included in the 2009 DEIR with 2,050 dwelling units and a mix of other uses on a 134-acre site. The middle column summarizes the Developer's Revised Proposal, and the third column summarizes the 20-acre alternative referred to in the Final EIR as the Off-Site/RHNA Transfer Alternative (Option A).<sup>5</sup>

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<sup>4</sup> The developer has requested to purchase water from the City Water Department and has not yet received a response. If City water is not obtainable, the developer retains an option to purchase surface water as described in the Supplement to the 2009 DEIR. Consistent with the Planning Commission's May 2, 2012 recommendation, the Developer's Revised Proposal would only use groundwater in a "conjunctive use" arrangement along with surface water.

<sup>5</sup> The Mid-Range Density Alternative is identified as the "environmentally superior" alternative in the EIR. The 20-acre alternative is also referred to as the Housing Element Alternative. RHNA stands for Regional Housing Needs Allocation.

## II. Environmental Analysis

The analysis which follows analyzes the Developer's Revised Proposal by examining the environmental topics considered in the EIR as well as secondary impacts associated with modifications to the proposed project. In each instance, the analysis compares the impacts and mitigation measures required for the Developer's Revised Proposal to the impacts and mitigation measures required for the developer's proposal, using the same CEQA significance thresholds as the 2011 Supplement to the Draft EIR.<sup>6</sup>

### A. *Land Use and Public Policy*

The proposed project would result in a significant but mitigable impact associated with land use conflicts between the project site and surrounding land uses, and less-than-significant impacts associated with the physical division of established communities, on-site land use conflicts, consistency with General Plan and ALUCP policies, and effects on the county's industrial land supply.

No existing residential communities are located in the immediate vicinity of the project site and therefore no established communities would be divided or encroached upon by the Developer's Revised Proposal. Therefore, it would be similar to the proposed project in that it would not physically divide an established residential community.

Nonetheless, because the Developer's Revised Proposal includes a Costco store, the County's consultants considered whether this change would result in vacancies in other shopping districts or other forms of "urban decay" as required by CEQA.<sup>7</sup> The analysis, which is attached as Attachment 1, concludes that no significant impacts would occur.

The Developer's Revised Proposal would place dwelling units in proximity to existing and potential future industrial uses and a railroad corridor. Like with the proposed project, the Developer's Revised Proposal would reduce the number of railroad crossings and formalize the remaining crossings to include safety gates and signals; it would also fence the remainder of the right-of-way to prevent unauthorized crossings. These changes would address safety concerns.

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<sup>6</sup> As indicated in the FEIR, the text and analysis of the EIR has not been modified to reflect the developer's decision to reduce the size of the project to include 2,050 dwelling units instead of 2,580 dwelling units, so the EIR somewhat overstates impacts of the project as currently proposed.

<sup>7</sup>This type of analysis has been accepted as a CEQA requirement for "big box" type development since the Fifth District Court of Appeals ruling in *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184.

Similar to residents of the proposed project, residents of the Developer's Revised Proposal could experience noise resulting in land use conflicts with existing and future industrial uses north of the site.<sup>8</sup> (With the Developer's Revised Proposal, residents would also be about as close to new light industrial/R&D/warehousing and office space uses on the 91-acre portion of the site as the residents of the proposed project would be to uses in the City's business park. However, just as uses in the existing business park are screened by their rear yards and a berm with landscaping, the Developer's Revised Proposal would separate residents from businesses by constructing public open space along the east side of the railroad right-of-way.) Potential land use conflicts between residents and businesses would be addressed by implementation of mitigation measure NOISE-1 requiring sound-rated building construction and other measures to achieve acceptable indoor noise levels and mitigation measure AQ-4 to reduce potential exposures to air quality nuisances, including pollution and dust associated with adjacent industrial uses. There is no reason to expect that significant and mitigable impacts attributable to the project will be any more or less severe with the Developer's Revised Proposal, although fewer residents would be involved due to the reduced unit count.

In terms of compatibility with applicable land use plans, policies, or regulations, both the proposed project and the revised development program would comply with the ALUCP, and neither would remove the :AC overlay zoning that applies to the site. Residences would only be constructed in "Zone E" under that plan, and the hotel and other uses in "Zone D" would have to comply with population density requirements in the Land Use Compatibility Plan. (See Attachment 2 regarding airport compatibility.)

Unlike the proposed project, the Developer's Revised Proposal would conform with the County's Growth Management System. As a result, the Developer's Revised Proposal would not require a General Plan amendment to exempt Napa Pipe from the annual permit limit. The Developer's Revised Proposal would also preserve the portion of the site east of the railroad tracks for light industrial (including warehousing and R&D) uses, office space, and a Costco warehouse retail location. Thus, the entire site would accommodate up to 369,000 square feet of office, and light industrial uses (10,000 sf of office on the western parcel, and 90,000 sf of office and 75,000 sf of light industrial uses on the eastern parcel), and like the proposed project, would not adversely affect the County's overall ability to meet the demand for industrial land through the General Plan horizon of 2030.

Additionally, the Developer's Revised Proposal includes the reservation of a future school site within the project site. When compared to the Harrison property evaluated

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<sup>8</sup> Uses north of the site include a haul road used by the Syar quarry, which has proposed an expansion in its activities, as well as a rebar manufacturer which has proposed to expand its operations on its existing site.

in the Supplement to the 2009 DEIR, the location of the future school site under the Developer's Revised Proposal is an improvement given the potential land uses conflicts involving the operations of industrial uses adjacent to the Harrison Street site. As with the Harrison site, however, development of a school on the Napa Pipe site would require careful planning and design work, consistent with the State's siting criteria and would conflict with the site's Industrial zoning. Napa Valley Unified School District is not subject to the County's zoning, and could ensure land use compatibility via standard design features, such as the use of landscape buffers.

In conclusion, the Developer's Revised Proposal would not result in any new significant land use impacts in comparison to the proposed project as analyzed in the FEIR, and would not increase the severity of significant land use impacts that were previously identified. No changes or additions to the mitigation measures identified to address potential land use conflicts would be required.

#### *B. Population, Employment and Housing*

As analyzed in the FEIR, the proposed project would result in 2,730<sup>9</sup> housing units (including seniors-only housing), 5,901 residents, 430,000 square feet of non-residential space (consisting of 140,000 square feet of R&D/warehousing/light industrial, 50,000 square feet of office space, 40,000 square feet of retail and restaurants and 200,000 square feet of hotel uses) and 721 jobs. Due to the proposed mix of housing types/sizes, the average household size for the project would be 2.2 persons per housing unit and an average 1.5 people per seniors-only housing unit.

With the same housing types and persons per unit, the Developer's Revised Proposal would result in a population increase of up to 2,304 people for the 945 housing units and 150 senior housing units. Using employee generation rates of one job per hotel room, two jobs per 1,000 square feet of retail space, two jobs per 1,000 square feet of retail, five jobs per 1,000 square feet of restaurant space, three jobs per 1,000 square feet of office, and one job per 14 residents in the seniors-only housing facility, the Developer's Revised Proposal would generate approximately 966 jobs on site. See Table 1, below.

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<sup>9</sup> See footnote 6 above. The FEIR analyzes a project with 2,580 units rather than 2,050 units and thus somewhat overstates impacts of the project currently proposed by the applicant.



**Table 1: Summary of Jobs Generated by the Developer's Revised Proposal**

Use	Area/Size	Jobs Generated
Membership Warehouse Club (sf)	154,000	225*
Retail Space (sf)	25,000	50
Restaurant Space (sf)	15,000	75
Senior Housing Facility (# residents)	225	16
Hotel (# rooms)	150	150
Office Space (sf)	100,000	300
R&D/Light Industrial (sf)	75,000	150
<b>Total</b>		<b>966</b>
Note: sf = square feet		
* Costco estimated that a range of 175 to 225 persons would be employed within the proposed Costco July 2012. Copies of this material are available in the project file at the planning department, 1195 Third Street, Suite 201, in Napa.		

Source: The Planning Center/DCE, September 2012

The proposed project evaluated in the 2009 DEIR and Supplement to the 2009 DEIR would have an unavoidable significant impact on population, employment, and housing since it exceeds the population increase projected by ABAG and would have a significant but mitigable impact because it would exceed the growth permitted by the County's Growth Management System (i.e. the annual permit limit). Impacts associated with exceeding the County's Growth Management System would be addressed via mitigation requiring adoption of a project phasing plan.

Unlike the proposed project, the Developer's Revised Proposal would not exceed the County's Growth Management System, and would not require mitigation for associated impacts. The Growth Management System has a current annual permit limit of 115, and allows unused allocations to accrue either indefinitely (for affordable units) or for three years (for market rate units) and the Developer's Revised Proposal could be phased to build-out within these limitations. Thus Mitigation Measure PEH-1 would no longer be required.

Like the proposed project (and the Napa County General Plan), the Developer's Revised Proposal would exceed ABAG projections for population and housing growth. This would be considered a significant and unmitigable impact, although it simply highlights the nature of regional projections, which are based on ABAG's understanding of regional economic trends and site capacity under each jurisdiction's currently adopted

General Plan. This significant and unmitigatable impact would be less severe than it would under the proposed project.

The Developer's Revised Proposal is anticipated to result in approximately 966 jobs as compared to ABAG projections of around 4,000 jobs between 2010 and 2030. Therefore, ABAG projections for employment growth would not be exceeded. Also, the Developer's Revised Proposal would result in a similar jobs-to-housing ratio as the existing job/housing ratio for the unincorporated county. The Developer's Revised Proposal would result in 966 new jobs and 945 new housing units, resulting in roughly the same job/housing balance as the existing 2.3 jobs per household for the unincorporated area (23,180 existing jobs + 966 new jobs / 10,090 existing households + 945 new households) and would maintain the existing 1.4 jobs per household for the county as a whole (70,690 existing jobs + 966 new jobs / 49,270 existing households + 945 new households). Also like the proposed project, the Developer's Revised Proposal would not displace any existing housing units or people, since there are no existing houses on the project site.

In conclusion, similar to the proposed project, the Developer's Revised Proposal would result in growth that exceeds the growth projected by ABAG, although that exceedence would be reduced. This impact would remain significant and unavoidable. However, by complying with the County's Growth Management System, the Developer's Revised Proposal would eliminate the need for the mitigation measure recommended to address potential adverse impacts of the proposed project (see Mitigation Measure PEH-1). Therefore, the Developer's Revised Proposal would not result in any new significant impact or increase the severity of an impact related to population, employment and housing when comparison to the proposed project as analyzed in the FEIR.

### *C. Traffic and Transportation*

The following discussion of transportation impacts of the Developer's Revised Proposal is based on Fehr & Peers analysis, which is attached to this SEA.<sup>10</sup>

Under the Developer's Revised Proposal, the square footage for warehousing, distribution, office, R&D and/or light industry uses, and residential uses would be decreased within the project site compared to the proposed project. On the eastern portion of the site, a Costco warehouse retail location would be constructed, and a future

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<sup>10</sup> The Fehr and Peers memo assumes 100k of office on the west side of the railroad tracks and 75k of industrial on the east. As noted above, the Developer's Revised Proposal is for 10k of office on west side of the railroad tracks and assumes that portions of the eastern parcel that retain Industrial zoning would accommodate 90k of office and 75k of warehouse/R&D. This discrepancy has no effect on the analysis in the Fehr and Peers memo, since the total activity analyzed on the site is the same.

school site has been reserved for NVUSD, should they decide to construct a school within the project site.

The Developer's Revised Proposal was assessed to determine whether associated traffic would alter the project-specific and cumulative impacts identified for the project at area intersections. The analysis (Attachment 2), compared the level of service (LOS) with the Developer's Revised Proposal to the existing LOS at area intersections, to the LOS with the project analyzed in the Final EIR, and to the LOS assuming cumulative growth in the region with and without planned (but unfunded) transportation network improvements.

The traffic analysis for the Developer's Revised Proposal indicates that the trip generation would be less than that of the proposed project when pass-by trips are removed. As a result, certain intersections would experience increases in trips and certain intersections would experience decreases in trips when comparing the number of ingress and egress volumes between the Developer's Revised Proposal and the proposed project analyzed in the Final EIR.

There are a number of locations where the traffic analysis indicates that the Developer's Revised Proposal would increase the intensity of impacts associated with the proposed project, and these circumstances have been closely examined to determine whether recirculation of the EIR would be triggered.<sup>11</sup> A summary of the potential new and more severe impacts of the Developer's Revised Proposal compared to the proposed project is shown in Table 2, below.

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<sup>11</sup> Section 15088.5(a)(2) requires recirculation if there is "a substantial increase in the severity of an environmental impact... unless mitigation measures are adopted."

**Table 2: New Impacts and more Severe Impacts of the Developer's Revised Proposal Compared to Proposed Project**

<b>Intersection</b>	<b>Existing Conditions plus Developer's Revised Proposal</b>	<b>Cumulative Conditions with Fully-Funded Network</b>	<b>Cumulative Conditions with Planned Network</b>
16. Kaiser Road / Enterprise Way	No Impact	More Severe*	No Change
22. Napa Valley Corporate Drive / Anselmo Court	New Impact	More Severe*	More Severe*
25. Soscol Ferry Road / Devlin Road	More Severe*	More Severe*	Less Severe
* Implementing the same mitigation measure as identified in the 2009 DEIR would reduce these more severe impacts to less-than-significant levels.			

Source: Fehr & Peers, September 7, 2012

Table 2 shows that the Developer's Revised Proposal, under the Existing plus Project Conditions analysis, would result in one new, previously unidentified impact when compared to the proposed project. This impact would occur at the Napa Valley Corporate Drive/Anselmo Court intersection. However, with the incorporation of the roundabout or traffic signal at the intersection as proposed in the Developer's Revised Proposal, this impact would be considered less than significant.

Of the 13 intersections that were previously identified as significant impacts under the proposed project, 5 intersections would no longer be impacted under the Developer's Revised Proposal (First Street/Soscol Avenue, Third Street/Silverado Trail/East Avenue/Coombsville Road, SR29(northbound) ramps/Imola Avenue, Imola Avenue/Jefferson Street, and SR 221/Kaiser). The Developer's Revised Proposal would continue to result in significant impacts at the other eight intersections where impacts were identified under the proposed project. Feasible mitigation measures under the proposed project have been identified for all of these intersections except for First Street/Soscol Avenue and would require the applicant to make "fair share" contributions to planned improvements. Impacts have been characterized as significant and unavoidable simply because it is unclear whether the agencies with jurisdiction over the intersections will be able to obtain the balance of funding required to remedy the cumulative impacts.<sup>12</sup>

<sup>12</sup> As drafted, many of the transportation mitigation measures in the FEIR refer to phasing associated with the original project proposal, and not the Modified (135 Acre) Project. As a result, these

Of the remaining eight intersections that were previously identified as significant impacts under the proposed project, the Developer's Revised Proposal would only contribute more trips than the proposed project at the intersection of Soscol Ferry Road/Devlin Road. The intersection would operate unacceptably in AM and PM peak hours at LOS F under both the proposed project analyzed in the Final EIR and the Developer's Modified Proposal. Due to the trip increase over the proposed project, the impact at this intersection would be substantially more severe under the Existing Plus Project Conditions. However, implementation of Mitigation Measure TRA-9 would reduce this impact to a less-than-significant level.

In the cumulative impact scenarios (with and without planned and unfunded network improvements), the Developer's Revised Proposal would contribute to four fewer significant impacts than the proposed project, avoiding considerable contributions at Third Street/Silverado Trail/East Avenue/Coombsville Road, Imola Avenue/Jefferson Street, Imola Avenue/Coombs Street, and American Canyon Road/Newell Road intersections when the network is analyzed with funded improvements only. When all planned network changes are assumed, the Developer's Revised Proposal would avoid considerable contributions at Third Street/Silverado Trail/East Avenue/Coombsville Road, Imola Avenue/Jefferson Street, Imola Avenue/Coombs Street, and at SR 29/Napa.

The Developer's Revised Proposal would result in more severe cumulative impacts to the fully-funded network at Kaiser Road/Enterprise Way, Napa Valley Corporate Drive/Anselmo Court, and Soscol Ferry Road/Devlin Road. Through the implementation of Mitigation Measures TRA-9 and TRA-19, as well as incorporation of the roundabout or signal included as part of the Developer's Modified Proposal, the increase in severity would be reduced to levels that are consistent with the impacts identified under the proposed project analyzed in the Final EIR.

In addition, the Developer's Revised Proposal would result in a substantially more severe cumulative impact to the planned network at the Napa Valley Corporate/Anselmo intersection. However, as discussed above, through incorporation of the roundabout or signal included as part of the Developer's Revised Proposal, the increase in severity would be reduced to a level that is consistent with the impact identified under the proposed project. The developer has committed to fully fund the roundabout or (if the City and affected property owners prefer) a signal at this location, which will form the southern entrance to the project site.

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measures will need to be revised in the CEQA findings to include alternative phasing mechanisms. The required Mitigation Monitoring and Reporting Program would ensure implementation of "fair share" measures via creation of a traffic fee mitigation program.

The timing or phasing of mitigation measures would have to be adjusted to omit references to the phasing proposed as part of the original project. Also, because the relative contribution of the Developer's Revised Proposal to cumulative traffic differs slightly from the proposed project analyzed in the Final EIR, the fair-share percentage contribution towards the identified improvements would change as well. Fehr & Peers has identified the fair-share percentages that would apply under the Developer's Revised Proposal and this information is available in the attached analysis. Mitigation measures proposed as part of the proposed project to address traffic congestion as well as transportation demand management (TRA-1b), construction management (TRA-14), pavement conditions (TRA-15), bicycles (TRA-16), transit (TRA-17), and parking (TRA-18) would all remain unchanged.

#### *D. Biological Resources*

Under the Developer's Revised Proposal, the western portion of the site would be built-out to a similar extent as under the proposed project and the eastern portion would build-out under existing industrial zoning with a proposed change to an area approximately 17.5 acres in size. The 17.5 -acre area would be rezoned to allow for construction and operation of a Costco warehouse retail location. Approximately 1.5 of those acres include wetlands that would be subject to Mitigation Measure BIO-5. One roundabout (or a traffic signal) would be constructed on Napa Valley Corporate Drive and Anselmo Court. In order for the roundabout to be constructed, additional right-of-way would be required to expand the intersection. Due to the heavily disturbed nature of properties located on Napa Valley Corporate Drive, little potential exists for significant biological impacts to occur as a result of construction. Therefore, the potential impacts on biological resources identified in the FEIR would still be possible under the Developer's Revised Proposal. Additionally, Mitigation Measures BIO-1 through BIO-5 are recommended to address potential adverse impacts of the project on sensitive resources and would still apply under the Developer's Revised Proposal.

The Costco warehouse would include construction and operation of a gas station within the project site. In addition to the regulatory requirements pertaining to safety and soil contamination, Mitigation Measures HAZ-1, HYDRO-2, HYDRO-3 and HYDRO-4, would also apply to the Developer's Revised Proposal and would reduce impacts associated with the construction and operation of the Costco gas station within the project site.

Therefore, the Developer's Revised Proposal would not result in any new biological resources impacts or increase the severity of any impacts previously identified with the proposed project.

## *E. Noise*

The Developer's Revised Proposal would result in a mix of uses within the western portion of the project site, similar to the proposed project. On the eastern portion of the site, the Developer's Revised Proposal would allow for a mix of office space, light industrial (including R&D and warehousing), as well as, a Costco warehouse retail location, and a future school site. The majority of the eastern portion of the site would be developed under current zoning, except for the proposed Costco site. The Developer's Revised Proposals assumes construction of up to 175,000 sf of warehousing, distribution, R&D, office and/or other light industrial uses throughout the site, and an additional 154,000 sf of Costco.

Similar to the proposed project, the Developer's Revised Proposal would result in less-than-significant impacts from a permanent increase in ambient noise levels, a temporary or periodic increases in ambient noise levels, and exposure of people to excessive aircraft noise levels. Also similar to the proposed project, the Developer's Revised Proposal would result in significant impacts resulting from the exposure of people to, or generation of, excessive groundborne vibration or noise, and the exposure of people or sensitive receptors to noise levels in excess of established standards. However, because the Developer's Revised Proposal involves fewer residential units than the proposed project, such impacts would be reduced compared to the proposed project. Moreover, these impacts could be mitigated with the same Mitigation Measures NOISE-1 and NOISE-2 as the proposed project to less-than-significant levels. Therefore, the Developer's Revised Proposal would not result in any new significant impacts or increase the severity of potential noise impacts identified with the proposed project.

The Developer's Revised Proposal includes the reservation of a future school site within the project site. As explained in the Supplement to the Draft EIR, which examined a nearby school site adjacent to industrial uses across Kaiser Road (Section 4.3), the development of the school site could address noise levels during site design and minimize exposure with a combination of buffers and/or noise barriers. The school buildings could be used to shield outdoor areas from noise intrusion, and interior noise levels could be maintained through acoustical treatments such as sound-rated exterior wall assemblies, windows and doors.

## *F. Air Quality*

Similar to the proposed project, the Developer's Revised Proposal would introduce housing units to the unincorporated area of the county, increasing population, VMT, and vehicle emissions over what was projected in the 2005 Clean Air Plan, resulting in an inconsistency with the Plan. This is considered a significant and unavoidable impact.

However, the Developer's Revised Proposal would initially involve less grading activity since only the Costco site and access roads on the eastern portion of the site would be raised in elevation about the flood plain. While some grading activity would occur on the entire site as part of and following remediation, only the western parcel and portions of the eastern parcel would initially be raised in elevation, resulting in fewer air pollutant emissions during the two-year period of site preparation. Nonetheless, the quantification of construction emissions presented in Table 4.6-1 of the Supplement to the 2009 DEIR has not been re-done based on the Developer's Revised Proposal, and it is assumed that under some scenarios (depending on whether fill is imported from near/far by truck or barge), construction emissions would remain above the BAAQMD's significance threshold. Mitigation Measure AQ-2 would continue to apply and because its effectiveness is uncertain, the impact would remain significant and unavoidable.

Similar to the proposed project, development of the Developer's Revised Proposal would produce air pollutant emissions from operation of the proposed land uses, introduce new sensitive receptors to the site, and result in potential odor complaints. Such impacts would be less than with the proposed project due to the lower number of housing units planned for the site, and the school site location would be farther away from the industrial truck traffic analyzed in the Supplement to the Draft EIR (Section 4.3).

Mitigation Measures AQ-3 and AQ-4 recommended to address potential adverse impacts of the proposed project would also apply to the Developer's Revised Proposal. (Onsite wastewater treatment is no longer proposed, so Mitigation Measure AQ-5 in the 2009 DEIR and Supplement to the 2009 DEIR would no longer apply.) Therefore, the Developer's Revised Proposal would not result in any new significant impacts related to air quality or increase the severity of air quality impacts identified with the proposed project.

#### *G. Greenhouse Gas Emissions*

Similar to the proposed project, in the western portion of the site, the Developer's Revised Proposal would provide housing closer to job centers in Napa County, thus potentially reducing in-commute distances. Traffic analysis for the proposal indicates that the trip generation would be less but similar to the proposed project analyzed in the Final EIR. However, more of the site would accommodate industrial uses, as well as a Costco, both of which include trucking and other activities that may generate more greenhouse gas (GHG) emissions.

To compare operational emissions of the Developer's Revised Proposal to the proposed project, the County's EIR consultants used the BGM model promulgated by the Bay



Area Air Quality Management District to prepare a rough estimate of greenhouse gas emissions from the Developer's Revised Proposal. The BGM provides a gross analysis based on land uses, and should be used for comparative purposes only. The model incorporates emission reduction measures adopted by the State since 2005 and therefore understates "business as usual" emissions, and also does not consider some project features designed to achieve LEED-ND rating and reduce project emissions (thereby overstating project emissions).

With these caveats, the Developer's Revised Proposal was predicted to result in 25,973 Metric Tons (MT) of carbon dioxide equivalents (CO<sub>2</sub>e) annually, and somewhat less (21,046 MT CO<sub>2</sub>e) when some of the project's emission reduction measures are factored in. This compares to 32,833 MT CO<sub>2</sub>e and 26,520 MT CO<sub>2</sub>e with the project analyzed in the Supplement to the 2009 DEIR.<sup>13</sup>

The County issued a Final Climate Action Plan (CAP) in March 2012 which contains a forecast of future emissions based on the current General Plan. The CAP contains a commitment to monitor GHG emissions and update the plan over time as necessary and would serve as the County's CEQA significance threshold if adopted. Since both the proposed project and the Developer's Revised Proposal would require an amendment to the County's General Plan, the approval of either one would need to be addressed in the next regular update to the CAP. Also, any discretionary approval associated with the Napa Pipe project that occurs following adoption of the CAP will have to comply with the CAP's requirements, including a more refined analysis of GHG emissions.<sup>14</sup>

Mitigation Measure GHG-1, which was recommended to address potential adverse impacts of the proposed project, would also apply to the Developer's Revised Proposal,

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<sup>13</sup> The Planning Center | DCE, September 11, 2012 Memorandum to Napa County. Also see Table 4.6-2 in the Supplement to the 2009 DEIR. Note: the GHG analysis assumes 165k industrial and 10k office, although the Developer's Revised Proposal includes 100k of office (10k on the western parcel and 90k [assumed] on the eastern parcel) and 75k of warehouse/R&D. This discrepancy results in negligible differences when calculating GHG emissions at the level of detail provided.

<sup>14</sup> The Final CAP was issued in March, 2012 would require discretionary projects to reduce their GHG emissions by 38% when compared to "business as usual" in 2020. Projects can achieve some of their required reductions by accounting for State-imposed measures like improved fuel efficiency standards and adoption of the CalGreen Building Code, but will also need to take aggressive measures to reduce energy use, encourage alternatives to the private automobile, and generate energy on-site. Once adopted, the CAP will essentially become the County's CEQA significance threshold for discretionary projects (i.e. projects that comply with the CAP will be considered to have less-than-significant impacts). The CAP also allows for development of a voluntary fee mitigation program, whereby project applicants who cannot reduce their emissions by 38% on site can help to fund emission reduction programs with co-benefits in Napa County (e.g. habitat restoration, energy conservation, waste-to-energy).

and would reduce its impacts. Similar to the proposed project, the effectiveness of this measure is not certain and thus the impact would remain significant and unavoidable.

#### *H. Hazards and Hazardous Materials*

The proposed project would result in significant but mitigable impacts from hazards and hazardous materials due to the past release of hazardous materials on the project site. Under the Developer's Revised Proposal, the project site would be built-out to a similar extent as under the proposed project, although only the west side of the site would include residences. The east side of the site would include warehousing, R&D, and office uses, as well as a Costco location and a community farm. Ten acres would be made available for a future school on site, east of the railroad tracks, rather than across Kaiser Road, as analyzed in the Supplement to the Draft EIR.

The site would be remediated subject to the RWQCB's clean-up orders, and consistent with a Remedial Design and Implementation Plan (RDIP) conditionally approved by the RWQCB.<sup>15</sup> Mitigation Measures HAZ-1 through HAZ-3 recommended to address potential adverse impacts of the proposed project would also apply to the Developer's Revised Proposal, and would reduce impacts to less than significant levels.

The northeastern quadrant of the Napa Pipe site (where the school site is proposed) has been designated as requiring "no further action" to achieve the cleanup levels in use for this project.

#### *I. Geology, Soils and Seismicity*

The proposed project would result in significant impacts associated with ground shaking, liquefaction, lateral spreading, settlement and expansion of soils as a consequence of earthquakes near the site. However, these impacts would be mitigated to less-than-significant levels through design modifications. The project would also result in less-than-significant impacts due to soil erosion and ground rupture.

Under the Developer's Revised Proposal, the project site would also be fully developed but would, on average, have fewer residential uses on site when compared to the

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<sup>15</sup> The applicant has indicated that the site will be cleaned-up as planned, although some adjustments to the RDIP may be proposed due to the possibility that Costco construction could begin while site remediation is being completed. For example, the locations of stockpiles, staging areas, and truck routes on site may need to be adjusted. Also, some adjustments to the remediation design could occur to facilitate the newly proposed community farm on five acres; however, there would be no substantial change in the level of remediation/clean-up proposed on site (for example there would be no reduction in cleanup standards due to the absence of residences on the eastern parcel).

proposed project. Due to the lower residential population, risks to public safety would be reduced.

Mitigation Measures GEO-1 through GEO-5 recommended to address potential adverse impacts of the proposed project would also apply to the Developer's Revised Proposal, and would reduce impacts to less-than-significant levels. Therefore, the Developer's Revised Proposal would not result in any new significant impacts or increase the severity of potential geologic hazards when compared to the proposed project.

#### *J. Hydrology and Water Quality*

The Developer's Revised Proposal would impose essentially the same impedance to flood flows from the Napa River throughout the site when compared to the project, and would have similar conditions and impacts in terms of drainage patterns and storm water runoff throughout the site.

Because eastern portions of the site would not be raised above flood elevations, less than significant impacts of the project on future flooding downstream<sup>16</sup> would be reduced. However, drainage patterns and the potential for flooding on the eastern portion of the site would be different than analyzed in the FEIR. Specifically, storm water flows could accumulate such that eastern portions of the site would be inundated in extreme flood events, particularly as climate change contributes to rising water levels.

Raising the level of access roads serving the western portion of the site and implementing Mitigation Measure HYDRO-7a (construction and operation of flood gates at the railroad right of way) would ensure that access to the site would be preserved in 100-year flood events. Compliance with Mitigation Measure HYDRO-7b would ensure that signs are installed in the railroad park area to inform park patrons of potential inundation during flood events. Implementation of HYDRO-6 would ensure compliance with FEMA flood hazard requirements and implementation of HYDRO-3 would ensure that storm water drainage systems are improved to appropriately convey and retain storm water in compliance with the County's road and street standards. These existing mitigation measures, already recommended to reduce impacts of the project, would ensure that impacts of the Developer's Revised Proposal related to flooding and storm water runoff are reduced to a less-than-significant level.

As with the proposed project, cleanup of past contamination of the site may result in contaminants potentially discharging to the surface water unless appropriate safeguards

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<sup>16</sup> See the May 2009 Flood Hazard Assessment by Phillip Williams & Associates included in Appendix I to the 2011 SDEIR.

are in place. Erosion can occur during and after construction phases of the project. Compliance with Mitigation Measures HAZ-1 and HYDRO-4 would ensure that potential impacts are mitigated to less-than-significant levels by implementing the approved clean-up plan and complying with storm water pollution prevention programs overseen by the County and the RWQCB.

As explained in the FEIR, the City of Napa Water Department has historically provided some potable water to the site, and industrial uses on the site have principally relied on groundwater. The proposed project originally proposed relying exclusively on groundwater (up to 620 acre feet per year), and later proposed relying on surface water from a tributary of the Sacramento River, which would be imported to the site through the North Bay Aqueduct (NBA). Due to capacity constraints in the NBA, the surface water option also included between 0 and 164 acre feet per year of ground water in a “conjunctive use” arrangement, consistent with County General Plan Policy CON-51.

With the Developer’s Revised Proposal, estimated water demand would be 340 acre feet per year and the applicant has requested surface water from the City of Napa (Attachments 4 & 5). Groundwater would be used (or made available to the City) in dry years when the City’s water supply is reduced. . In the event that water from the City of Napa is not obtainable for some reason (even though the City’s water supply analysis shows that City water is available) , the Developer’s Revised Proposal would identify and use an alternative surface water supply, such as the water transfer analyzed in the Supplement to the Draft EIR.

The groundwater analysis completed for the project demonstrates that sufficient groundwater supplies are available to serve the site, taking into account existing and possible future users of the aquifer, and that no connection/impacts to the nearby Milliken-Sarco-Tulocay (MST) groundwater-deficient areas would occur (see the revised Water Supply Assessment contained in Appendix I to the FEIR).

Mitigation Measure HYDRO-5 would ensure that any existing wells that are unused are decommissioned to avoid providing a pathway for contamination, and Mitigation Measure HYDRO-2 would ensure that groundwater use is monitored as the site is developed and conservation measures are implemented as needed. With these measures, there would be no new significant impacts with the Developer’s Revised Proposal and none of the potentially significant impacts identified with the proposed project analyzed in the Final EIR would be made more severe.

As discussed in the attached memorandum from Brownstein Hyatt Farber Schreck (July 7, 2012), the City has sufficient water to serve the site without impacting existing customers, even taking into consideration possible future uses identified in the City’s Urban Water Management Plan. In the event that the City of Napa agrees with this

conclusion and provides water to the site at its regular “out of City” rates, groundwater would be used to supplement the City’s water in “single dry years” when the City’s plan projects a deficit. Groundwater could also be made available to the City in these years for use by other customers. Mitigation Measures HYDRO-5 and HYDRO-2 (see above) would still apply.

The West Yost study completed in 2008 indicated that several upgrades to the City of Napa’s water system could be required, including: a new treated water storage facility with a capacity of approximately 2.5 million gallons with an associated pumping station; increased incremental pumping capacity of 1 million gallons per day (MGD) at the proposed Westside Pump Station; and increased incremental pumping capacity of 1 MGD at the Jamieson Water Treatment Plant. The 2008 West Yost study was based on the project as proposed at the time (3,200 residential units) and assumed higher water use factors than were ultimately determined to apply to the proposed project. Thus, the study assumed a level of potable water demand at the site that is no longer expected to occur. As a result of the reduced potable water demand, the improvements identified in the 2008 study would be reduced in scale or no longer needed. An engineering analysis based on the revised water demand would be required to determine precisely which system improvements identified in 2008, if any, would still be needed.

Similar improvements were identified and analyzed in the EIR. The proposed project, as identified in the 2009 DEIR, consisted of 2,580 dwelling units with groundwater as the source of supply. The project also included facilities to treat, store, and distribute this groundwater, including 1.81 million gallons of storage capacity, a 500 gallons per minute treatment facility, and pump stations. The site plan reserved an area in the southeast corner of the site for these facilities, and the 2009 DEIR concluded that the construction and use of these facilities would not result in significant environmental impacts (2009 DEIR Section 4.13(A)). These improvements, scaled to reflect the smaller size of the project, would still be needed even if water is purchased from the City of Napa to ensure that groundwater is available as a back-up source.

In the event that an agreement between the City of Napa and the water purveyor for the Developer’s Revised Proposal is executed, the City may decide that it would be preferable to construct water treatment and storage facilities and pump stations off-site, rather than on-site. As indicated in the analysis of the City Water Alternative in Chapter 5 of the Supplement to the 2009 DEIR, the needed off-site improvements were not addressed in the project EIR. In the event the City were to determine that storage, treatment, and pump facilities should be constructed off-site, such improvements could be constructed within the footprint of City facilities (e.g. Jamieson Canyon Water Treatment Plant) such that significant environmental impacts would not occur.

To ensure that needed facilities are constructed if deemed necessary, the following mitigation measure is proposed for the Developer's Revised Proposal:

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 to determine whether the storage, treatment, and pumping facilities identified in 2008 are still needed;
- reserve an area in the southeast corner of the site of sufficient size to accommodate storage, treatment, and pumping facilities necessary to serve the project, and construct the on-site treatment and storage facilities and an associated pumping station deemed necessary;
- if it is determined that treatment, storage, and pumping facilities are still necessary and should be constructed off-site, fund incremental increases in storage facilities and pumping capacity at the Westside Pump Station and the Jamieson Canyon Water Treatment Plant; and
- demonstrate that treated groundwater supplies shall be available to the site in dry years when City water is unavailable.

The applicant has agreed to implement this measure if the City agrees to serve the site, which is the County's preference from a policy-perspective. Mitigation measures related to cultural resources (see below) would apply to any off-site excavation that is needed, and storm water pollution prevention measures would be required by the City, County, or the RWQCB, depending on the location of the work and the ground area to be disturbed. For all of these reasons, the Developer's Revised Proposal would not result in any new significant impact or increase the severity of potential hydrology and water quality impacts identified in the FEIR.

#### *K. Cultural Resources*

Under the Developer's Revised Proposal, the western portion of the project site would be developed with a new mixed-use neighborhood and the eastern portion of the project site would be developed under existing zoning and zoning that would allow for construction of a membership warehouse club retail store. As such, the same amount of land area would be disturbed during construction and project build-out as under the proposed project, and some of the remaining features of the Basalt Shipyard would be demolished. Thus, as under the proposed project, the Developer's Revised Proposal would result in a significant and unavoidable impact on historic resources, despite implementation of Mitigation Measures CULT-1 (recordation and interpretation).

With ground-disturbing activity similar to the project's, the Developer's Revised Proposal would also have potentially significant impacts associated with previously unidentified buried archaeological deposits, buried Pleistocene fossil deposits, and

human remains. These potential impacts would be mitigated to less-than-significant levels with implementation of Mitigation Measures CULT-2 through CULT-4. Therefore, the Developer's Revised Proposal would not result in any new significant impacts or increase the severity of potential impacts to cultural resources when compared to the project analyzed in the FEIR.

#### *L. Public Services and Recreation*

As analyzed in the 2009 DEIR and the Supplement to the 2009 DEIR, the proposed project would include 2,580 dwelling units, housing approximately 5,901 new residents. As a result of the attendant increase in County residents and students, demands on public services including law enforcement, fire protection, emergency medical response, and libraries have been identified as significant impacts. The population increase would also increase the demand for school facilities in the area and the applicant has agreed to go beyond the legal requirement (i.e. payment of school fees) to offer the reservation of a potential future school site.

The Developer's Revised Proposal would involve uses that are mostly consistent with the existing industrial zoning on the eastern portion of the site, and up to 945 residential dwelling units, retail space, a hotel, a continuing care retirement complex, and office space on the western portion of the site. In addition to industrial/office uses on the eastern portion of the site, a Costco warehouse retail location, community farm, open space, parks, and wetlands would also be located east of the railroad tracks. Because the Developer's Revised Proposal would result in far fewer residents when compared to the proposed project, the Developer's Revised Proposal would therefore result in lower population-based public service demand than the proposed project. Mitigation measures recommended to address potential adverse impacts of the proposed project on fire, public safety, and library services (Mitigation Measures PS-1, -2 and -4) would also apply to the Developer's Revised Proposal, and would reduce impacts to less-than-significant levels.

With the reduced school-aged population likely under the Developer's Revised Proposal, the number of school-aged children would be less than half in comparison with that of the proposed project, and NVUSD would be affected to a lesser extent. Specifically, using the student generation and school capacity figures presented in the 2009 DEIR and the Supplement to the 2009 DEIR, the students generated by the Developer's Revised Proposal would exceed the capacity of NVUSD's elementary facilities, but would not exceed the capacity of either middle school or high school

facilities.<sup>17</sup> However, under the Developer's Revised Proposal, the applicant would still propose to make a future school site available within the project site and a related agreement with the school district would be required as a condition of approval, even though Mitigation Measure PS-3 would no longer apply. Additionally, consistent with California Government Code Section 65995, collection of school fees at the time of construction would mitigate the impacts of new development.<sup>18</sup>

For all of these reasons, the Developer's Revised Proposal would not result in any new significant impact or increase the severity of previously identified impacts on public services and recreation impacts when compared to the proposed project analyzed in the FEIR.

#### *M. Utilities*

As discussed in the hydrology section, above, the Developer's Revised Proposal would use potable water provided by an investor-owned utility or a mutual water company which would purchase potable surface water from the City of Napa or an alternate source to be used with groundwater as part of a conjunctive use program. If City water is utilized, impacts would be as described in the hydrology section, above, and the new mitigation measure UTIL-3 would apply.

As with the project, the NSD would provide wastewater service and recycled water to the Developer's Revised Proposal and on-site treatment of wastewater is no longer an option. As described in the FEIR, Mitigation Measures UTIL-1 and -2 would address potential impacts to NSD's system, which are expected to be less than with the proposed project due to the reduction in residential uses. (Water demand is generally a good measure of wastewater treatment demand, and as described above, total demand for potable water would decrease from 620 AFY to 340 AFY with the Developer's Revised Proposal.)

Using the solid waste generation rates presented in 2009 DEIR Section 4.13, Utilities, it can be expected that the additional employees generated by the Developer's Revised Proposal could generate approximately 2,512 pounds of solid waste per day. However, because the Modified (135 Acre ) Project would include fewer housing units, the

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<sup>17</sup> See 2009 DEIR Table 4.12-8 (for student generation) and Table 4.12-6 (for school capacity). With 945 maximum total units, the Modified (135 Acre) Project would be equivalent to 37% of the proposed project analyzed in the 2009 DEIR, or all of Phase I plus a fraction of Phase II as presented in Table 4.12-8.

<sup>18</sup> Using the fee of \$3.73 per square foot of residential development effective in January 2012 (945 housing units x 1,200 square feet per unit on average), plus \$0.47 per square foot of commercial development (40,000 sf retail/restaurant +100,000 sf of office + 75,000 sf of light industrial space + 154,000 sf of membership retail), the project would generate a total of about \$4.4 Million in school fees.



Developer's Revised Proposal would result in 2,304 pounds of solid waste per day; a reduction of 3,597 pounds per day compared to the proposed project. In total, the Developer's Revised Proposal would generate approximately 2.4 tons of solid waste per day, 1.4 tons less than the proposed project.

Demand for energy systems would be similar under the Developer's Revised Proposal as under the proposed project and energy use would also be moderated by the implementation of mitigation measures related to traffic, air quality, and GHG emissions. With these measures, the Developer's Revised Proposal would not waste or inefficiently or unnecessarily consume energy, and resulting energy use is considered a less than significant impact. Additionally, Costco's standard operations include the use of energy-efficient practices.

For all of the reasons provided above, the Developer's Revised Proposal would not result in any new significant impacts or increase the severity of previously identified significant impacts related to utilities when compared to the project, with the exception of the water supply infrastructure impact that would be addressed by new Mitigation Measure UTIL-3. The applicant has agreed to implement this measure.

#### *N. Aesthetics*

The Developer's Revised Proposal would involve redevelopment of the project site from its underutilized industrial/shipyard use to a mixed-use neighborhood, with new buildings up to four stories tall on the western portion of the site, and light industrial, membership warehouse club retail, open space, office, and community agricultural uses on the eastern portion of the site. The Developer's Revised Proposal proposes a zoning change to also allow for membership warehouse club retail on the eastern portion of the site, and eliminates the portion of the proposed project which had called for building heights up to eight stories. Due to compliance with existing regulations, an absence of officially-designated scenic routes and vistas in the project vicinity and the orderly, compatible urban aesthetic of the proposed development, the Developer's Revised Proposal would not result in significant aesthetic impacts, and would benefit the visual quality of the site and surroundings. Therefore, the Developer's Revised Proposal would not result in any new significant impacts or increase the severity of impacts related to aesthetics identified in the FEIR.

### **III. CEQA-Required Assessment Conclusions & Summary**

Like the proposed project, the Developer's Revised Proposal would result in new housing, population, and employment due to development on the western (63-acre) Napa Pipe parcel and a portion of the 91-acre Napa Pipe parcel to the east. This growth would be a direct impact of the Developer's Revised Proposal. The Developer's Revised

Proposal would also include cleanup and grading on portions of the site that are not proposed to be rezoned, and these activities would result in the indirect impacts associated with the likely future development. The indirect effects of this likely future development are described in conjunction with the direct effects of the Developer's Revised Proposal throughout this supplemental analysis and compared to effects of the project analyzed in the Final EIR.

The Developer's Revised Proposal would not induce additional growth because it would not extend infrastructure to unserved areas or encourage growth to occur elsewhere off-site. Like the original project, the Developer's Revised Proposal would represent an efficient development pattern, putting growth on a "brownfield" site that is already urbanized, and thus could actually reduce – rather than increase – development pressure on more traditional "greenfield" sites in the North Bay. Like the project, the Developer's Revised Proposal could also meet the County's need for sites to accommodate its Regional Housing Needs Allocation (RHNA), potentially making it feasible for the County to eliminate other sites identified in its Housing Element.

Table 3 summarizes the findings and conclusions of the supplemental analysis conducted on the Developer's Revised Proposal for the Napa Pipe site, including unavoidable significant impacts. As indicated below, when compared to the impacts presented in the 2009 DEIR and Supplement to the 2009 DEIR, the implementation of the Developer's Revised Proposal described in Section I of this supplemental environmental analysis will not result in new significant impacts, or exacerbate already identified potentially significant impacts that cannot not be reduce to a less than significant level through project features or mitigation. Two new potentially significant impacts were identified in this supplemental analysis. The first is related to the level of service of an intersection which the project applicant has agreed to address through the incorporation of a new project feature (a roundabout or traffic signal). The other is related to potable water infrastructure, and it would be addressed by new Mitigation Measure UTIL-3, which the applicant has also agreed to implement. Mitigation Measure UTIL-3 itself does not constitute new information, since it reiterates information from the West Yost study in 2008 that was cited and summarized in the 2009 DEIR.

**Table 3: Comparison of Potential Impacts – Developer’s Revised Proposal & Project Analyzed in the FEIR**

Topic Area	Summary of Impacts of Developer’s Revised Proposal	Comparison to Analysis of Impacts in 2009 DEIR and Supplement to 2009 DEIR
Land Use and Planning	Less than Significant	No new impacts
Population and Housing	Significant and Unavoidable	No new impacts
Transportation/Traffic	Significant and Unavoidable	No new impacts <sup>1</sup>
Biological Resources	Less than Significant	No new impacts
Noise	Less than Significant	No new impacts
Air Quality	Significant and Unavoidable	No new impacts
Greenhouse Gas Emissions	Significant and Unavoidable	No new impacts
Hazards/Hazardous Materials	Less than Significant	No new impacts
Geology and Soils	Less than Significant	No new impacts
Hydrology/Water Quality	Less than Significant	No new impacts <sup>2</sup>
Cultural Resources	Significant and Unavoidable	No new impacts
Public Services and Recreation	Less than Significant	No new impacts
Utilities and Services Systems	Less than Significant	No new impacts <sup>2</sup>
Aesthetics	Less than Significant	No new impacts
<sup>1</sup> A new potentially significant impact related to the intersection of Napa Valley Corporate Drive and Anselmo Court would be reduced to a less than significant level with the construction of a roundabout or traffic signal as part of the project. <sup>2</sup> A new potentially significant impact related to potable water infrastructure would be reduced to less than significant level with implementation of new Mitigation Measure UTIL-3. The applicant has agreed to implement this measure.		

Source: The Planning Center | DC&E, September 2012.

The Developer’s Revised Proposal would place residential uses on a former industrial site, and therefore – like the proposed project – includes a change in land use that would commit future generations. The Developer’s Revised Proposal would also include clean-up of the site, and like the project, could involve some risk for environmental accidents. However clean-up activities and other activities involving the use of hazardous materials on site would be subject to regulatory oversight, avoiding substantial risks or the potential for irreversible damage. Nonrenewable resources, such as energy (for construction and operation) and soil/aggregate (for grading and filling the site) would be used for the Developer’s Revised Proposal; however there would be no impact to

agricultural resources, since the site is entirely urbanized already. In addition, mitigation measures have been included in the project to reduce potential conflicts between residential uses on the project site and non-residential uses, including nearby Syar quarry. For this reason, the Developer's Revised Proposal, like the proposed project, is not expected to affect the extraction or use of mineral resources.

#### **IV. Finding: No Required Recirculation**

Title 14, California Code of Regulations section 15088.5 ("CEQA Guidelines") provides that an EIR should be re-circulated when significant new information is added to the EIR after public notice and comment. It further provides that new information is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon an substantial adverse environmental effect of the project, or a feasible way to avoid or mitigate such an effect that the project proponent has declined to implement.

In the absence of the type of "significant new information" contemplated under CEQA Guidelines section 15088.5, County staff believes that the environmental analyses and conclusions from the circulated 2009 DEIR and Supplement to the 2009 DEIR are sufficient and properly encompass what additional or different incremental changes may occur in response to the Developer's Revised Proposal. Furthermore, any significant impacts that are new or more severe under the Developer's Revised Proposal when compared to the impacts presented in the 2009 DEIR and Supplement to the 2009 DEIR would be reduced to a less than significant level with incorporation of mitigation or project features. As indicated in the analysis presented in Section III, potential impacts in each environmental category will be the same as or less than those analyzed in the 2009 DEIR and Supplement to the 2009 DEIR. As a result, no recirculation is required, or necessary.

Attachment 1: Urban Decay Analysis, The Planning Center | DC&E, September 2012.

Attachment 2: Mead & Hunt Analysis, July 16, 2012

Attachment 3: Fehr & Peers Traffic Analysis, September 7, 2012

Attachment 4: GHG Analysis, The Planning Center | DC&E, September 7, 2012

Attachment 5: Water Supply Memo, Wes Strickland, July 16, 2012

Attachment 6: Water Supply Request, Napa Redevelopment Partners, n.d.

## MEMORANDUM

DATE September 19, 2012  
TO Hillary Gitelman  
Napa County  
FROM Steve Noack and Steve Gunnells  
RE **Napa Pipe - Analysis of Potential to Cause Urban Decay**

This memo summarizes the methodology and presents the findings of the market analysis we have conducted to determine whether or not the inclusion of a Costco store within the Napa Pipe project site has the potential to cause urban decay. After a brief summary, the memo provides sixteen Analysis Notes, and concludes with a Findings and Conclusions section.

This analysis has been included as part of the Supplemental Environmental Analysis (SEA) to the Final EIR (FEIR) and has been prepared to allow for the consideration of the project applicant's revised project proposal. This type of analysis has become fairly routine since the Fifth District Court of Appeals ruling in *Bakersfield Citizens for Local Control v City of Bakersfield* in 2004. The report may include references to information and exhibits that are part of the EIR, and for brevity's sake, the memo may not reproduce those exhibits here.

### SUMMARY

The Napa Pipe project proposes to include an approximately 150,000 square foot Costco warehouse store. The average Costco rings up over \$140 million in sales annually.<sup>1</sup> When that much money is diverted from existing retail businesses to a new business, there is the possibility that the remaining consumer spending could be insufficient to support the amount of retail building space. In some cases, the reduced level of spending results in business closures, vacancies, and urban decay, including vandalism, graffiti, the potential for poor maintenance, and a magnet for illicit activities.

This analysis defines the likely trade area for the proposed project. This is the area from which the proposed project will draw a majority of its customers. The analysis then determines the proposed project's potential to cause structural vacancies and urban decay in this trade area. The analysis also

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<sup>1</sup> Estimated using data from Costco Wholesale Corporation's *Annual Report 2011*, for the year ended August 28, 2011.

assesses the potential of the proposed project to cause vacancies and urban decay in adjacent trade areas as the proposed project would attract customers who previously traveled outside of the trade area to purchase goods.

The analysis finds that the defined trade area currently leaks retail spending. It estimates that 13.8 percent of the total consumer spending of trade area households and tourists is spent outside of the trade area. Furthermore, the analysis finds that even with the proposed project and other planned retail developments, the trade area could continue to leak up to \$75 million annually to other retail businesses in the region. Thus, the analysis concludes that the proposed project should not cause structural vacancies in the defined trade area and in adjacent trade areas, and it should not lead to urban decay.

These findings and conclusions do not mean that individual businesses will not be challenged by the competition from a new Costco warehouse store. But it does mean that should some individual businesses be negatively impacted, there would still be sufficient consumer spending to support new more competitive businesses.

## ANALYSIS NOTES

1. **Introduction.** In 2004 the California Court of Appeals ruled that an environmental impact report should determine whether two proposed retail developments could cause long-term vacancies in other competitive retail centers, leading to urban decay. Followers of Jane Jacobs might herald this court ruling as a new tool for neighborhood preservation. Advocates of Joseph Schumpeter might decry this as judicial interference with the natural transformation of an economy, in which creative destruction fuels long-term economic growth. Regardless of philosophical bent, developers proposing retail should now consider market demand and the potential impacts of exceeding that demand. This analysis assesses whether or not a new +/- 150,000-square foot Costco, developed as part of the Napa Pipe project, could exceed market demand and lead to urban decay.
2. **Urban Decay Generally.** Proximity to households drives retail location decisions. Consumers make the majority of their expenditures at retail centers near where they live. A new retail development in the same trade area (trade area refers to the geographic area from which a business or shopping center/district draws the majority of its customers) as an existing retail center or district can dilute the level of sales. When there are more businesses chasing the same amount of consumer spending, retailers face an often insurmountable challenge of attracting new customers from further away. Because the supply of consumer spending is highly dependent on the number of households in proximity to retail centers and districts (and becomes relatively fixed once an area reaches buildout) retail developments that exceed

the market potential can directly or indirectly lead to structural vacancies. And structural vacancies over time beget urban decay.

In contrast, a variety of factors drives the value of an office or industrial location. Some office users rely on the local market, similar to retailers. Proximity to employees determines the location decision of other office and industrial businesses. Proximity to business customers drives still other offices users and industries. For even more office and industrial businesses, however, location is secondary to other factors, including costs, the right amount or configuration of space, and other lease terms. Exceeding the existing market demand for office and industrial space typically would have minimal if any long-term consequences because the market for new office users and industries extends to a large area and because changes in rental rates and lease terms can attract new tenants. We do not analyze the urban decay potential in the office and industrial market because office and industrial development has little potential to create long-term structural vacancies leading to urban decay.

3. **Project Location.** Napa Pipe is a 154-acre site in unincorporated Napa County located adjacent to the City of Napa and east of the Napa River. The site consists of two parcels, separated by a rail road right of way. The parcel on the west is 63 acres and identified as APN 046-412-005. The parcel on the east is 91 acres and identified as APN 046-400-030. Readers should consult the DEIR, figures 3-1 through 3-5 that show the project location. The proposed Costco would be developed on the eastern parcel.
- 4 **Project Description.** There have been a number of alternatives considered for the Napa Pipe site since the first application was received by the County in 2007. Table 1 compares the relevant levels of development as analyzed in the Final EIR and as currently requested by the developer and recommended by county staff.

TABLE 1 **Comparison of Proposed Development**

	Final EIR Project	Developer's Modified Proposal
Project Size (Acres)	135	80.5 (63 acre parcel plus 17.5 acre Costco site)
Residential dwelling units	2,050	700 to 945
Assisted living dwelling units	150	150
Hotel rooms	150	150

Neighborhood serving retail (bldg. sq. ft.)	40,000	40,000
Office (bldg. sq. ft.)	50,000	10,000
Costco store	0	Approx 150,000
Industrial/Research & Development/Warehousing	140,000	0

Note: Developer's modified proposal assumes that up to 90,000 square feet of office space and up to 75,000 square feet of warehouse/R&D development could occur on the portion of the site which would retain its industrial zoning.

Source: Napa Pipe Staff Recommendation, September 19, 2012, Napa County Staff

5. **Retail Market Basics.** An easy way to understand retail markets is to categorize retail into two groups based on the type of good or service that motivates the shopping trips. There are two broad categories of retail, convenience goods and services and comparison goods. A third, hybrid type of retail is experiential shopping. Generally, the type of retail determines the size of the trade area (see Note 5). Table 2 provides common trade area data by shopping center type.

TABLE 2 **Shopping Center Types**

Shopping Center Type	Building Size Range	Trade Area	
		Size (radius in miles)	Population Range
Convenience	< 30,000	0.5	< 5,000
Neighborhood	30,000 – 100,000	1.5	3,000 – 4,000
Community	100,000 – 450,000	3 – 5	40,000 – 150,000
Regional	300,000 – 900,000	8	150,000 or more
Super-regional	500,000	12	300,000 or more

Source: Beyard, Michael D. et al., Shopping Center Development Handbook, 3rd ed., Washington D.C.: Urban Land Institute, 1999

- 5A. Convenience Goods and Services. Convenience goods and services are those that most people need on a regular basis. For these regular purchases, most consumers have built up knowledge of where to go to get what they want, whether their discriminator is price and convenience or quality. Groceries, medicines, and hair care are typical convenience goods and services. Because convenience goods and services usually have low cost margins and high sales



volumes, convenience retailers are located throughout an area, close to concentrations of households. These businesses typically locate in convenience centers and neighborhood shopping centers.

- 5B. Comparison Goods. Consumers tend to compare goods across brands and across retailers for items they purchase infrequently or rarely. This habit of comparing induces retailers to locate near each other. It also promotes larger-scale retailers who can stock many different brands of similar products. Clothing, electronics, and furniture are quintessential comparison goods. Because comparison goods have higher cost margins and lower sales volumes and because consumers purchase these goods infrequently, comparison goods retailers tend to locate close to major transportation corridors that give access to a greater number of consumers. These businesses typically locate in community, regional, and super-regional shopping centers.
- 5C. Experiential Shopping. In this type of shopping, the experience of the trip is of equal if not greater importance than the material need for a good or service. The experiential value may accrue from socialization with friends, from entertainment, or from the quality of the place. Downtowns, new town centers, lifestyle centers, and even shopping malls all attempt to enhance the shopping experience and provide a mix of businesses and amenities to create an enjoyable shopping experience. Because most consumers infrequently invest their time in experiential shopping, most are willing to travel farther and forego quick and easy access for the value of the experience. Experiential shopping is a destination trip, and draws from a community, regional, or even super-regional size trade area, even if it does not offer the commensurate amount of retail square footage.
6. **Costco Retail Market Type.** Costco does not function like the typical retailers described in Note 5. First, it is a membership retailer. Customers must purchase an annual membership, currently priced at \$55 and \$110 per year. Thus, not every household in the trade area would shop at the proposed project. Secondly, Costco sells products that would be classified as convenience goods (foods, prescriptions, etc.), but it lacks the easy-in easy-out access that in large part defines most convenience goods and services businesses. Finally, Costco is a regional destination retailer. Although the size of the warehouse stores would suggest a three- to five-mile radius trade area, customers will easily travel much farther to reach the closest store.

7. **Costco-Specific Information.** The market analysis requires certain key data specific to Costco warehouse stores. Table 3 provides the average characteristics of Costco warehouse stores, based on data from the company's annual report for the year ended August 28, 2011.

**TABLE 3 Average Costco Warehouse Store Characteristics**

(1) Number of Primary Cardholders	35,300,000
(2) Number of Warehouses	592
(3) Net Sales	\$87,048,000,000
(4) Average Sales per Store	\$147,041,000
(5) Average Sales per Primary Membership	\$2,466
(6) Average Number of Primary Memberships per Store	60,000
(7) Total Store Building Square Footage	84,400,000
(8) Average Store Building Square Footage	142,568
(9) Average Annual Sales per Square Foot	\$1,031

Source: The Planning Center | DC&E using data from Costco Wholesale Corporation's *Annual Report 2011*, for the year ended August 28, 2011.

Notes to Table 3:

1. Number of primary card holders (row 1), number of warehouses (row 2), and net sales (row 3) are data from the annual report. Each primary cardholder represents an individual household or individual business. Each household or business can have one or more additional cardholders, but the data in row 1 does not include additional card holders.
2. Average sales per store (row 4) is derived by dividing the net sales (row 3) by the number of warehouses (row 2).
3. Average sales per primary membership (row 5) is derived by dividing the net sales (row 3) by the number of primary cardholders (row 1).
4. Average number of primary memberships per store (row 6) is derived by dividing the number of primary cardholders (row 1) by the number of warehouse stores (row 2).
5. Total store building square footage (row 7) is datum from the annual report.
6. Average store building square footage (row 8) is derived by dividing the total store building square footage (row 7) by the number of warehouse stores (row 2).
7. The average sales per square foot (row 9) is derived by dividing the net sales (row 3) by the total building square footage (row 8).

8. **Trade Area Basics.** In general terms, the trade area is the geographic area from which a retail center will draw most of its customers. Several factors affect the size and boundaries of a trade area, including the type of shopping center, location of competitive retail facilities, physical barriers, and visibility and access to major roads and highways. The radial definition

of a shopping center's trade area based on its scale (Table 2) provides the starting point for defining a trade area. As the Urban Land Institute cautions, however, "A trade area does not lend itself to concentric circles around a potential site." Some trade areas are truncated short of the radial definition to reflect competitive facilities. At the edge of metropolitan areas, trade areas often extend markedly beyond the radial definition, reflecting the lack of competition, especially among comparison goods retailers.

9. **Project Trade Area.** To define the trade area for the proposed project, the analysis assumes that a Costco would have a basic regional trade area within an 8 to 12 mile radius. However, there are six existing Costco stores in the region, and customers will most likely patronize the closest one. The existing store locations are:

- 5101 Business Center Drive, Fairfield, CA
- 198 Plaza Drive, Vallejo, CA
- 300 Vintage Way, Novato, CA
- 5901 Redwood Drive, Rohnert Park, CA
- 1900 Santa Rosa Avenue, Santa Rosa, CA
- 1051 Hume Way, Vacaville, CA

There are Costco Stores to the east, south, and west of the proposed project, and therefore the trade area is truncated roughly half the distance between the proposed project and the competing facilities. More specifically, the trade area boundaries are described below and shown in Figure 1.

- 9A. To the East. The proposed project's defined trade area is truncated approximately at Kirkland Ranch Road and Lincoln Highway.
- 9B. To the South. The trade area is truncated approximately at Green Island Road and Lincoln Highway.
- 9C. To the West. The boundary between the proposed project's trade area and that of the Novato Costco store is defined approximately where Sears Point Road crosses Second Napa Slough. The trade area boundary relative to Petaluma is approximately at the intersection of Donnell Road and Stage Gulch Road. For residents of Sonoma, the proposed project would be the closest Costco store, but at some point north of Sonoma, it will be closer for residents to travel to the Santa Rosa store. The analysis defines this trade area boundary approximately halfway between Madrone Road and Agua Caliente Road along Sonoma Highway.

Figure 1 Approximate Trade Area for the Proposed Costco



- 9D. To the North. North of Napa, up valley, there are no competitive Costco stores. The analysis, therefore, extends the defined trade area approximately 15 miles north of the proposed project, to the intersection of Oakville Grade Road and St. Helena Highway. Residents living more than 15 miles from the proposed project might patronize the proposed project and patronize other businesses in the City of Napa. However, the analysis does not include their spending because, at that distance, consumers often substitute what they purchase and where in response to the lack of a full array of retail shopping in close proximity to their homes.

10. **Potential Urban Decay Impacts, External to the Trade Area.** When a major new retail facility is developed, it attracts customers who previously traveled outside of the trade area to purchase goods. The primary potential urban decay impact considered in an EIR is whether or not there is sufficient spending remaining in the areas external to the trade area to support the existing retail building space (Section 16 analyzes impacts internal to the trade area).

In the present case, Costco estimates that there are 30,070 Costco members in the Napa area that would shop at the proposed project. Costco estimates that this shift could divert \$54 million away from the six existing stores, or about 5.3 percent of the six stores' annual sales. This diversion is not likely sufficient to result in the closure of any of the six existing stores, and Costco has not indicated that it intends to close any of the existing stores.

The average sale per customer visit to a Costco warehouse store is in excess of \$200. Indeed, the average customer is buying in bulk and often loading their car up. Although such customers may patronize other businesses in proximity to the existing stores, the typical Costco shopping trip does not include a large amount of purchasing from other retailers. Therefore, it is unlikely that the proposed project will divert a significant amount of spending from stores other than Costco outside of the defined trade area.

The proposed Costco store could divert \$54 million in retail sales, and the associated sales tax, from the jurisdictions in which the six existing stores are located, resulting in a fiscal impact to those jurisdictions. The loss of tax revenue to these jurisdictions would not cause long-term vacancies leading to urban decay.

11. **Estimated Spending at the Proposed Project.** Table 4 estimates the annual spending at the proposed project. The analysis finds that the proposed project could generate nearly \$148 million in annual sales. However, \$54 million of that total is money that existing members currently spend at the six existing stores. The difference is the potential impact to the trade area, about \$94 million per year.

Table 4 **ESTIMATED SPENDING AT THE PROPOSED NAPA PIPE COSTCO**

(1) Existing Members	33,070
(2) New Members	26,930
(3) Sales to Existing Members at Other Stores	\$54,000,000

(4) Expected Sales to Existing Members at New Store	\$81,549,000
(5) New Sales to Existing Members at New Store	\$27,549,000
(6) Sales to New Members	\$66,408,000
(7) Total New Sales at New Store	\$93,957,000
(8) Total Sales at New Store, Member Basis	\$147,957,000
(9) Total Sales at New Store, Building Size Basis (Approx. 150,000 sq. ft.)	\$154,650,000

Source: The Planning Center | DC&E, 2012, based on information provided by included in, "Napa Comments", a document prepared by Costco regarding urban decay.

Notes to Table 4:

1. The number of existing members (row 1) is the number of Costco members that Costco estimates will shift from shopping at the six existing stores to shopping at the proposed project. As indicated in row 6 in Table 3, there are 60,000 primary members per Costco store, on average. The number of new members (row 2) is the difference between the 60,000 average members per store and the number of existing members (row 1) likely to shift to the proposed project.
2. The sales to existing members at other stores (row 3) is Costco's estimate of the amount that Napa area Costco members currently spend at the six existing stores. As indicated in row 5 in Table 3, the average primary memberships results in \$2,466 in annual purchases at Costco. The expected sales to existing members at the new store (row 4) is derived by multiplying the average sales per primary membership, \$2,466, by the number of existing members (row 1). The new sales to existing members at the new store (row 5) is derived by subtracting sales to existing members at other stores (row 3) from the expected sales to existing members at the new store (row 4).
3. The sales to new members (row 6) is derived by multiplying the number of new members (row 2) by the average sales per primary membership, \$2,466 (from row 5 in Table 3).
4. The total new sales at the new store (row 7) is derived by adding the new sales to existing members at the new store (row 5) and the sales to new members (row 6). This amount is important because it represents the amount of current spending flowing to business in the defined trade area that will likely be diverted to the proposed project.
5. The total sales at the new store, member basis (row 8) is the total annual sales at the proposed project derived by adding the expected sales to existing members at the new store (row 4) and the sales to new members (row 6). The total sales at the new store, building size basis (row 9) is derived by multiplying the size of the proposed project (150,000 sq. ft.) by the average sales per square foot, \$1,031 (from row 9 in Table 3).

12. **Current and Future Trade Area Spending.** Table 5 estimates the amount of consumer spending by trade area households for each store type representing goods sold by Costco. The data exclude: vehicle sales because Costco stores do not sell vehicles; building material and garden equipment stores because the majority of sales in those stores do not represent items sold by Costco; and food service and drinking places, because Costco's sales of prepared food would be negligible relative to the trade area's estimated \$289 million in sales.

TABLE 5 **Annual Trade Area Consumer Spending by Store Type (in 2012 dollars)**

Retail Store Type	Consumer Expenditures (2012)	Consumer Expenditures (2017)
Automotive Parts and Accsrs, Tire Stores	26,000,000	26,300,000
Furniture and Home Furnishings Stores	43,500,000	44,100,000
Electronics and Appliance Stores	46,800,000	47,500,000
Food and Beverage Stores	273,400,000	277,000,000
Health and Personal Care Stores	116,000,000	117,600,000
Gasoline Stations	189,800,000	192,300,000
Clothing and Clothing Accessories Stores	96,400,000	97,700,000
Sporting Goods, Hobby, Book, Music Stores	41,400,000	42,000,000
General Merchandise Stores	270,300,000	273,800,000
Miscellaneous Store Retailers	47,500,000	48,100,000
Total	1,151,100,000	1,166,400,000

Source: The Planning Center, 2012, using data from The Nielsen Company.

Notes to Table 5:

1. The consumer expenditures for 2017 are derived for each store type by dividing the consumer expenditures for 2012 by the number of households in the trade area, as estimated by The Nielsen Company (thus yielding the average consumer spending per household), and then multiplying the result by the number of households in 2017, as projected by The Nielsen Company.
- 13. Total Spending with Tourism.** A 2005 Napa Valley Convention and Visitors Bureau analysis found that tourism contributed \$1.3 billion to the county's economy and supported 17,500 full- and part-time jobs. Table 6 estimates the amount that tourism contributes to trade area consumer spending in the store types listed in Table 5.



**TABLE 6 Estimated and Projected Tourism and Total Spending**

Tourism Spending, 2005

(1) - Wine Purchases	\$184,000,000
(2) - Retail Sales	\$63,000,000
(3) Total	\$247,000,000
(4) 2012 Estimated Tourism Spending @ 75 percent of 2005	\$185,250,000
(5) 2017 Projected Tourism Spending	\$188,000,000
(6) Total Consumer Spending 2012	\$1,336,350,000
(7) Total Consumer Spending 2017	\$1,354,400,000

Source: The Planning Center | DC&E, 2012, using data from the Napa Valley Convention and Visitors Bureau's *Napa County Visitor Profile Study & Napa County Economic Impact Study*, released March 2006.

## Notes to Table 6:

1. Tourists' spending on wine purchases (row 1) and retail sales (row 2) are taken from the Napa Valley Convention and Visitors Bureau's study. Wine purchases, even directly from a winery, are normally included in the sales for food and beverage stores. Retail sales in the Napa Valley Convention and Visitors Bureau's study reflected survey responses categorized as shopping/retail/antiques/other. It did not include other spending, such as gas, groceries, wine, and entertainment. This analysis implicitly assumes that this spending did not include vehicle purchase and purchases from building material and garden equipment stores.
2. The estimated tourism spending in 2012 (row 4) is derived by multiplying the total relevant tourists' spending in 2005 (row 3) by 0.75. This reduction reflects: a decrease in tourism resulting from the recession and the fact that the study represented all of Napa County, whereas the trade area does not include the entire county, although it does include areas outside of the county.
3. The estimated tourism spending in 2017 (row 5) is derived by multiplying the estimated tourism spending in 2012 (row 4) by the trade area's five-year household growth rate (1.32%) as projected by The Nielsen Company. There is not a direct correlation between household growth rate and tourism growth rate, but it is reasonable to assume some small increase in tourism.
4. The total consumer spending in 2012 (row 6) is derived by adding the trade area consumer spending in 2012 (from Table 5) to the estimated tourism spending in 2012 (row 4). Likewise, the total consumer spending in 2017 (row 7) is derived by adding the trade area consumer spending in 2017 (Table 5) to the estimated tourism spending in 2017 (row 5).

14. **Trade Area Retail Sales.** Table 7 estimates the amount of retail sales at existing stores in the trade area. The types of stores listed in Table 7 reflect the same stores for which the amount of consumer spending was estimated in Table 5. The data are estimates from The Nielsen Company.



TABLE 7 **Annual Trade Area Retail Sales by Store Type (in 2012 dollars)**

<b>Retail Store Type</b>	<b>Estimated Sales (2012)</b>
Automotive Parts and Accsrs, Tire Stores	31,300,000
Furniture and Home Furnishings Stores	26,800,000
Electronics and Appliance Stores	24,800,000
Food and Beverage Stores	489,800,000
Health and Personal Care Stores	95,900,000
Gasoline Stations	153,600,000
Clothing and Clothing Accessories Stores	113,200,000
Sporting Goods, Hobby, Book, Music Stores	31,400,000
General Merchandise Stores	120,800,000
Miscellaneous Store Retailers	63,900,000
<b>TOTAL</b>	<b>1,151,500,000</b>

Source: The Planning Center, 2012, using data from The Nielsen Company

15. **Future Retail Development.** The analysis of potential urban decay impacts must also account for future retail development that is reasonably foreseeable. For this analysis, development projects that are reasonable foreseeable are those that have been approved but not yet built and those projects that are actively in the entitlement process. Table 8 identifies the future retail development projects and the amount of retail building space.

The six future projects could add just over 100,000 square feet of retail building space. The analysis estimates that across the types of stores in the San Jose-San Francisco-Oakland, CA CSA, the average annual sales per square foot is \$321.09. Thus, the future planned retail development could capture \$33.4 million in trade area consumer spending.

**TABLE 8 Planned Retail Development in Proposed Project's Trade Area**

<b>Jurisdiction</b>	<b>Project</b>	<b>Retail Square Footage</b>
City of Sonoma	19270 Sonoma Hwy	8,159
City of Sonoma	405 5th St W	7,340
City of Napa	Solano Commons - Retail component of a mixed-use building	2,525
City of Napa	River House (Ritz Carlton) - Retail Portion	15,000
City of Napa	Napa Crossing at Oliveri Corner	30,950
County of Napa	Napa Pipe – Neighborhood Retail Center	40,000
<b>Total</b>		<b>103,974</b>

Source: The Planning Center | DC&E, 2012, based on conversations with city/county staff, information on municipal websites, and other secondary data sources.

- 16. Potential Urban Decay Impacts, Internal to the Trade Area.** Table 9 combines the data and analyses provided in Notes 11 to 15 to quantify unmet market demand. The analysis finds that if the project were developed today, trade area consumer spending and tourism spending will exceed the level of retail sales by nearly \$91 million. By 2017, accounting for planned retail developments, the unmet demand will still be over \$75 million.

**TABLE 9 Unmet Market Demand in Proposed Project's Trade Area, 2012 and 2017**

	<b>2012</b>	<b>2017</b>
(1) Total Consumer Spending	1,336,350,000	1,354,400,000
(2) Current Trade Area Retail Sales	1,151,500,000	1,151,500,000
(3) Retail Sales at Planned Retail Developments		33,400,000
(4) Retail Sales at Proposed Project	93,957,000	93,957,000
(5) Total Retail Sales	1,245,457,000	1,278,857,000
(6) Unmet Market Demand	90,893,000	75,543,000

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Source: The Planning Center | DC&E, 2012.

Notes to Table 9 :

1. Total consumer spending (row 1) represents the total spending by households in the defined trade area and spending by tourists. The data were previously derived in rows 6 and 7 in Table 6.
2. Current trade area retail sales (row 2) represents the estimated level of sales at the existing retail businesses in the defined trade area. The datum was previously derived in Table 7.
3. Retail sales at planned retail developments (row 3) represents the amount of retail sales projected to be captured by new business in planned retail developments in the defined trade area. The datum was previously derived in Table 8 and Note 14.
4. Retail sales at the proposed project (row 4) represents the amount of existing trade area spending that the proposed project will likely capture. The figure does not include the approximately \$54 million that trade area households currently spend at the six existing Costco warehouse stores outside of the defined trade area because this is spending that already leaks out of the trade area, that is, it is spending that is not currently captured by retail businesses in the trade area. The datum was previously derived in row 7 in Table 4.
5. Total retail sales (row 5) is derived by adding the current trade area retail sales (row 2) and the retail sales at the proposed project (row 4) in 2012, and for 2017 it also adds the retail sales at planned retail developments (row 3).
6. Unmet market demand (row 6) is the derived by subtracting the total retail sales (row 5) from the total consumer spending (row 1). When this number is negative, it indicated that there will not be sufficient consumer spending to support all the retail businesses, thus likely leading to vacancies. When this number is positive, it indicates that the trade area is leaking spending, that is, the retail businesses are not capturing all of the consumer spending.
7. Table 4 derived potential spending at the proposed Costco based on the number of members at the average Costco store. The total retail sales at the proposed project, Row 4 in Table 9, is based on average membership. Table 4 also quantified the difference in spending between an average membership basis and the average sales per square foot basis. On a square footage basis, the retail sales at the proposed project could be \$6,693,000 higher (Row 5 minus Row 4 in Table 4). However, even this higher level of retail sales is still less than the unmet market demand quantified in Row 6 in Table 9.

The data in Table 9 suggest that currently the defined trade area leaks \$184 million in retail sales per year. Nevertheless, there are vacant stores in the trade area. In particular, a key question is the degree to which the proposed project could affect the long-term viability of the Shops at Napa Center specifically and the Downtown Napa Specific Plan area generally.

The vision for Downtown Napa is, in part, a place,

*“where the community comes together to enjoy a vibrant collection of inviting public spaces, attractive streets, distinctive shops and eateries, exciting entertainment venues, creative public art, historic buildings, sustainable new buildings and an array of housing options.” (Specific Plan Vision Statement)*

The Specific Plan’s economic analysis notes that, “Downtown Napa is not positioned to compete for large national anchor tenants and is instead more suited for a mix of some smaller national and regional retailers with specialty retail and eating and drinking establishments.” Furthermore, the Specific Plan acknowledges that, “Entertainment, culinary and other leisure- and/or tourist-oriented establishments appear to be the most successful retail niche in the Downtown.”

In short, the vitality of Downtown Napa hinges on its ability to attract consumers and tourists for destination or experiential retail shopping and entertainment. This is in stark contrast to the consumer that the proposed project targets, someone purchasing in bulk and commodities, driven mostly by cost and quality. Thus the proposed project should not be a direct competitor for the customers and consumer spending that Downtown Napa seeks.

The Specific Plan's economic analysis indicates that the key to attracting new businesses and redevelopment to Downtown Napa is raising the average sales per square foot from about \$215 to \$300, a level which will attract new development. The economic analysis notes that Downtown Napa currently underperforms other shopping centers in the City. This indicates that the challenges facing Downtown Napa are unique to its design, access, parking, location, mix of tenants, and other such factors rather than a regional lack of spending power.

Kohl's is the largest anchor in the Shops and Napa Center. The strength of the anchor is important to the overall health of the center. Kohl's Form 10-K for the fiscal year ended January 28, 2012 indicates that its "primary competitors are traditional department stores, upscale mass merchandisers and specialty stores." Thus, warehouse stores, such as Costco, are not seen as major competitors, the presence or lack of which make or break a good market for Kohl's. That said, one can reasonably assume that a Costco could capture some sales on commodity-type items, socks for example, that would otherwise flow to a Kohl's. However, for most items that a Kohl's would carry, a Costco would only offer a very small stock, such as two brands of men's shirts in four colors. The proposed project should not cause a major disruption to Kohl's line of business.

Similarly, Costco would not represent direct competition with Napa Premium Outlets. Outlet centers attract consumers from a very large regional trade area. They are a retail destination for consumers hoping to find great savings on out-of-season and discounted merchandise. This is not the consumer targeted by a Costco. For the outlet center, Costco would be no more competition than a Target or Walmart.

## **FINDINGS AND CONCLUSION**

The analysis finds that consumer spending by trade area households and spending by tourists currently exceeds the level of retail sales at existing trade area businesses. Even accounting for the proposed project and other planned retail developments, retail spending will exceed retail sales. This finding suggests that the trade area would still leak retail spending. The analysis thus concludes that the proposed project should not exceed market demand and therefore should not cause structural vacancies that could lead to urban decay in the defined trade area.

The proposed project could siphon off \$54 million dollars that trade area households currently spend at the six existing Costco warehouse stores outside of the trade area. Because Costco is a membership-only retailer, however, the impact of this shift in sales will predominantly, if not entirely, be felt at these existing Costco stores. The analysis thus concludes that the proposed project should not cause structural vacancies leading to urban decay in the adjacent trade areas.

**Table A-1: Location of Selected National and Regional Retail Chains**

Retail Category	Retailer	Nearest Locations	Trade Area
General Merchandise - Discount	Kmart	2525 North Texas Street, Fairfield, CA	East
General Merchandise - Discount	Kmart	261 North McDowell Boulevard, Petaluma, CA	West
General Merchandise - Discount	Kmart	1500 Fitzgerald Drive, Pinole, CA	South
General Merchandise - Discount	Kohl's	1116 1st Street, Napa, CA	Napa
General Merchandise - Discount	Kohl's	1190 Admiral Callaghan Lane, Vallejo, CA	South
General Merchandise - Discount	Kohl's	570 Orange Dr, Vacaville, CA	East
General Merchandise - Discount	Kohl's	1363 North McDowell Boulevard, Petaluma, CA	West
General Merchandise - Discount	Target	205 Soscol Ave, Napa, CA	Napa
General Merchandise - Discount	Target	4000 Bel Aire Plaza, Napa, CA	Napa
General Merchandise - Discount	Target	2059 Cadenasso Drive, Fairfield, CA	East
General Merchandise - Discount	Target	904 Admiral Callaghan Ln, Vallejo, CA	South
General Merchandise - Discount	Target	200 Vintage Way, Novato, CA	West
General Merchandise - Discount	Target	475 Rohnert Park Expressway West, Rohnert Park, CA	West
General Merchandise - Discount	Wal*Mart	681 Lincoln Ave, Napa, CA	Napa
General Merchandise - Discount	Wal*Mart	2701 North Texas Street, Fairfield, CA	East
General Merchandise - Discount	Wal*Mart	1400 Hilltop Mall Road, Richmond, CA	South
General Merchandise - Discount	Wal*Mart	1021 Arnold Drive, Martinez, CA	South
General Merchandise - Discount	Wal*Mart	4625 Redwood Drive, Rohnert Park, CA	West
General Merchandise - Warehouse	Costco	5101 Business Center Drive, Fairfield, CA	East
General Merchandise - Warehouse	Costco	198 Plaza Drive, Vallejo, CA	South
General Merchandise - Warehouse	Costco	300 Vintage Way, Novato, CA	West
General Merchandise - Warehouse	Costco	5901 Redwood Drive, Rohnert Park, CA	West
General Merchandise - Warehouse	Costco	1900 Santa Rosa Avenue, Santa Rosa, CA	West
General Merchandise - Warehouse	Costco	1051 Hume Way, Vacaville, CA	East
General Merchandise - Warehouse	Sam's Club	1500 Helen Power Drive, Vacaville, CA	West
General Merchandise - Warehouse	Sam's Club	1225 Concord Avenue, Concord, CA	South
Home Improvements	Home Depot	225 Soscol Avenue, Napa, CA	Napa
Home Improvements	Home Depot	1175 Admiral Callaghan Lane, Vallejo, CA	South
Home Improvements	Home Depot	121 Cadenasso Dr, Fairfield, CA	East
Home Improvements	Home Depot	4825 Redwood Dr, Rohnert Park, CA	West
Home Improvements	Lowe's	401 Columbus Parkway, Vallejo, CA	South
Home Improvements	Lowe's	1751 East Monte Vista Avenue, Vacaville, CA	East
Home Improvements	Lowe's	3400 North Texas Street, Fairfield, CA	East
Home Improvements	Lowe's	7921 Redwood Drive, Cotati, CA	West

**Table A-1 Continued**

Home Improvements	Orchard Supply Hardware	3980 Bel Aire Plaza, Napa, CA	Napa
Home Improvements	Orchard Supply Hardware	220 Peabody Road, Vacaville, CA	East
Home Improvements	Orchard Supply Hardware	2230 Cleveland Avenue, Santa Rosa, CA	West
Home Improvements	Orchard Supply Hardware	1151 Andersen Drive, San Rafael, CA	West
Apparel	Ann Taylor	681 Factory Stores Drive, Napa, CA (Outlet Store)	Napa
Apparel	Ann Taylor	2200 Petaluma Blvd N # 120, Petaluma, CA	West
Apparel	Ann Taylor	228 Nut Tree Road, Vacaville, CA	East
Apparel	Ann Taylor	208 Vintage Way # K5, Novato, CA	West
Apparel	Ann Taylor	329 Sun Valley Mall, Concord, CA	South
Apparel	Burlington Coat Factory	2021 Harbison Drive, Vacaville, CA	East
Apparel	Burlington Coat Factory	311 Rohnert Park Expressway West, Rohnert Park, CA	West
Apparel	Burlington Coat Factory	1350 Fitzgerald Drive, Pinole, CA	South
Apparel	Burlington Coat Factory	1675 Willow Pass Road # B, Concord, CA	South
Apparel	Coldwater Creek	720 Farmers Lane, Santa Rosa, CA	West
Apparel	Coldwater Creek	111 Nut Tree Road, Vacaville, CA	East
Apparel	Coldwater Creek	1280 Broadway Plaza #A75, Walnut Creek, CA	South
Apparel	Dress Barn	331 Nut Tree Rd # F, Vacaville, CA	East
Apparel	Dress Barn	445 El Cerrito Plz, El Cerrito, CA	South
Apparel	Gap	629 Factory Stores Drive, Napa, CA	Napa
Apparel	Gap	121-A Nut Tree Road, Vacaville, CA	East
Apparel	Gap	2200 Petaluma Boulevard North, Petaluma, CA	West
Apparel	Gap	1041 Santa Rosa Plaza, Santa Rosa, CA	West
Apparel	Lane Bryant	1396 Travis Boulevard, Fairfield, CA	East
Apparel	Lane Bryant	2200 Petaluma Blvd N # 935, Petaluma, CA	West
Apparel	Lane Bryant	252 Nut Tree Road, Vacaville, CA	East
Apparel	Lane Bryant	Sun Valley Mall, Concord, CA	South
Apparel	Lane Bryant	1038 Santa Rosa Plaza, Santa Rosa, CA	West
Apparel	Marshalls	141 Plaza Drive, Vallejo, CA	South
Apparel	Marshalls	424 Executive Ct N # A, Fairfield, CA	East
Apparel	Marshalls	161 Nut Tree Parkway, Vacaville, CA	East
Apparel	Marshalls	204 Vintage Way, Novato, CA	West
Apparel	Marshalls	1966 Santa Rosa Avenue, Santa Rosa, CA	West
Apparel	Men's Wearhouse	1350 Travis Boulevard, Fairfield, CA	East
Apparel	Men's Wearhouse	236 Vintage Way, Novato, CA	West
Apparel	Men's Wearhouse	1001 Steele Lane, Santa Rosa, CA	West

**Table A-1 Continued**

Apparel	Old Navy	105 Plaza DR, Vallejo, CA	South
Apparel	Old Navy	1350 Travis Boulevard, Fairfield, CA	East
Apparel	Old Navy	228 Vintage Way, Novato, CA	West
Apparel	Old Navy	1641 East Monte Vista Avenue, Vacaville, CA	East
Apparel	Old Navy	2070 Santa Rosa Avenue, Santa Rosa, CA	South
Apparel	Old Navy	334 Coddington Center, Santa Rosa, CA	South
Apparel	Ross	3331 Jefferson Street, Napa, CA	Napa
Apparel	Ross	1300 Gateway Boulevard, Fairfield, CA	East
Apparel	Ross	2071 Harbison Drive, Vacaville, CA	East
Apparel	Ross	800 Farmers Lane, Santa Rosa, CA	West
Apparel	Talbots	859 Factory Stores Drive, Napa, CA	Napa
Apparel	Talbots	1331 1st Street, Napa, CA	Napa
Apparel	Talbots	2410 Sonoma Avenue, Santa Rosa, CA	West
Apparel	Talbots	1201 South Main Street, Walnut Creek, CA	South
Apparel	TJ Maxx	5063 Business Center Dr, Fairfield, CA	East
Apparel	TJ Maxx	2675 Pleasant Hill Road, Pleasant Hill, CA	South
Apparel	TJ Maxx	2226 Cleveland Avenue, Santa Rosa, CA	West
Arts & Crafts	JoAnn Fabrics	2051 Harbison Drive, Vacaville, CA	East
Arts & Crafts	JoAnn Fabrics	425 Rohnert Park Expressway West, Rohnert Park, CA	West
Arts & Crafts	Michaels	105 Plaza Drive, Vallejo, CA	South
Arts & Crafts	Michaels	1310 Gateway Boulevard, Fairfield, CA	East
Arts & Crafts	Michaels	1051 Helen Power Drive, Vacaville, CA	East
Arts & Crafts	Michaels	1359 North McDowell Boulevard, Petaluma, CA	West
Arts & Crafts	Michaels	2775 Santa Rosa Avenue, Santa Rosa, CA	West
Books	Barnes & Noble	1600 Gateway Boulevard, Fairfield, CA	East
Books	Barnes & Noble	700 4th Street, Santa Rosa, CA	West
Books	Barnes & Noble	552 Contra Costa Boulevard, Pleasant Hill, CA	South
Department Stores	JC Penny's	1330 Travis Blvd, Fairfield, CA, Solano Mall	East
Department Stores	JC Penny's	1000 Hilltop Mall, Richmond, CA, Hilltop Mall	South
Department Stores	JC Penny's	800 Coddington Ctr, Santa Rosa, CA, Coddington Mall	West
Department Stores	Macys	1544 Travis Boulevard, Fairfield, CA, Solano Mall	East
Department Stores	Macys	2500 Hilltop Mall Road, Richmond, CA, Hilltop Mall	South
Department Stores	Macys	800 Santa Rosa Plaza, Santa Rosa, CA	West
Department Stores	Sak's	2200 Petaluma Blvd N # 1300, Petaluma, CA	West
Department Stores	Sears	1420 Travis Boulevard, Fairfield, CA	East



**Table A-1 Continued**

Department Stores	Sears	2300 Hilltop Mall Road, Richmond, CA, Hilltop Mall	South
Department Stores	Sears	100 Santa Rosa Plz, Santa Rosa, CA	West
Electronics	Best Buy	1182 Admiral Callaghan Ln, Vallejo, CA	South
Electronics	Best Buy	1547 Gateway Boulevard, Fairfield, CA	East
Electronics	Best Buy	1950 Santa Rosa Avenue, Santa Rosa, CA	West
Electronics	Fry's Electronics	1695 Willow Pass Rd, Concord, CA	South
Fitness	24-Hour Fitness	4300 Sonoma Boulevard, Vallejo, CA	South
Fitness	24-Hour Fitness	1519 Gateway Boulevard, Fairfield, CA	East
Fitness	24-Hour Fitness	6 Petaluma Blvd. North, Petaluma, CA	West
Fitness	Curves for Women	917 Golf Course Drive, Rohnert Park, CA	West
Fitness	Gold's Gym	201 Main Street, Vacaville, CA	East
Imports	Cost Plus / World Market	3934 Bel Aire Plaza, Napa, CA	Napa
Imports	Pier 1	121 Plaza Dr #501, Vallejo, CA	South
Imports	Pier 1	2070 Harbison Drive, Vacaville, CA	East
Imports	Pier 1	1351 North McDowell Boulevard, Petaluma, CA	West
Imports	Pier 1	2716 Santa Rosa Avenue, Santa Rosa, CA	West
Linens & Bath & Kitchen	Anna's Linens	1216 Fitzgerald Drive, Pinole, CA	South
Linens & Bath & Kitchen	Anna's Linens	2019 Sebastopol Road, Santa Rosa, CA	West
Linens & Bath & Kitchen	Bath & Body Works	1350 Travis Boulevard, Fairfield, CA	East
Linens & Bath & Kitchen	Bath & Body Works	111 Nut Tree Road, Vacaville, CA	East
Linens & Bath & Kitchen	Bath & Body Works	420 Coddington Center, Santa Rosa, CA, Coddington Mall	West
Linens & Bath & Kitchen	Bed, Bath, and Beyond	105 Plaza Drive #107, Vallejo, CA	South
Linens & Bath & Kitchen	Bed, Bath, and Beyond	128 Browns Valley Parkway, Vacaville, CA	East
Linens & Bath & Kitchen	Bed, Bath, and Beyond	2785 Santa Rosa Avenue, Santa Rosa, CA	West
Office Supply	Office Depot	211 Soscol Avenue, Napa, CA	Napa
Office Supply	Office Depot	1960 Santa Rosa Avenue, Santa Rosa, CA	West
Office Supply	Office Depot	321 Rohnert Park Expressway, Rohnert Park, CA	West
Office Supply	OfficeMax	1320 Gateway Boulevard, Fairfield, CA	East
Office Supply	OfficeMax	117 Plaza Drive, Vallejo, CA	South
Office Supply	Staples	3325 Jefferson Street, Napa, CA	Napa
Office Supply	Staples	1250 Oliver Road, Fairfield, CA	East
Office Supply	Staples	207 South McDowell Boulevard, Petaluma	West
Pets	Petco	3284 Jefferson Street, Napa, CA	Napa
Pets	Petco	161 Plaza Drive, Vallejo, CA	South
Pets	Petco	1370 Holiday Lane, Fairfield, CA	East

**Table A-1 Continued**

Pets	Petco	2765 Santa Rosa Avenue, Santa Rosa, CA	West
Pets	Petco	65 North McDowell Boulevard, Petaluma, CA	West
Pets	Petsmart	1621 East Monte Vista Avenue, Vacaville, CA	East
Pets	Petsmart	1380 Fitzgerald Dr, Pinole, CA	South
Pets	Petsmart	575 Rohnert Park Expressway, Rohnert Park, CA	West
Shoes	DSW	136 Vintage Way, Novato, CA	West
Shoes	Payless	1303 Trancas Street, Napa, CA	Napa
Shoes	Payless	6040 Main Street, American Canyon, CA	South
Shoes	Payless	600 Redwood Street, Vallejo, CA	South
Shoes	Payless	908 Admiral Callaghan Lane, Vallejo, CA	South
Shoes	Payless	1350 Travis Boulevard, Fairfield, CA	East
Shoes	Payless	131 North McDowell Boulevard, Petaluma, CA	West
Shoes	Payless	Raley's Town Centre, Rohnert Park, CA	West
Shoes	Payless	1031 Santa Rosa Plaza, Santa Rosa, CA	West
Sporting Goods	Big 5	1305 Trancas St, Napa, CA	Napa
Sporting Goods	Big 5	3485 Sonoma Boulevard, Vallejo, CA	South
Sporting Goods	Big 5	1902 North Texas Street, Fairfield, CA	East
Sporting Goods	Big 5	105 North McDowell Boulevard, Petaluma, CA	West
Sporting Goods	Big 5	470 Rohnert Park Expressway West, Rohnert Park, CA	West
Sporting Goods	Big 5	360 Coddington Center, Santa Rosa, CA	West
Sporting Goods	REI	1975 Diamond Boulevard, Concord, CA	South
Sporting Goods	REI	2715 Santa Rosa Avenue, Santa Rosa, CA	West
Sporting Goods	Sports Authority	212 Vintage Way, Novato, CA	West
Sporting Goods	Sports Authority	1451 Gateway Boulevard, Fairfield, CA	East
Sporting Goods	Sports Authority	1071 Helen Power Drive, Vacaville, CA	East
Sporting Goods	Sports Authority	1970 Santa Rosa Avenue, Santa Rosa, CA	West
Sporting Goods	Sports Chalet	1621 East Monte Vista Avenue, Vacaville, CA	East
Toys	Toys 'R Us	2705 Santa Rosa Avenue, Santa Rosa, CA	West
Toys	Toys 'R Us	1330 Fitzgerald Drive, Pinole, CA	South
Toys	Children's Place	1350 Travis Boulevard, Fairfield, CA	East
Toys	Children's Place	1044 Santa Rosa Plaza, Santa Rosa, CA	West

Source: The Planning Center | DC&E, 2012.

**Table A-2: Estimated Consumer Spending and Retail Sales, Proposed Project Trade Area, 2012**

Retail Stores	2012 Demand (Consumer Expenditures)	2012 Supply (Retail Sales)	Opportunity Gap/Surplus
<b>Total Retail Sales Incl Eating and Drinking Places</b>	<b>2,050,108,996</b>	<b>2,179,160,420</b>	<b>(129,051,424)</b>
Motor Vehicle and Parts Dealers-441	357,489,208	222,613,597	134,875,611
Automotive Dealers-4411	317,545,372	178,819,910	138,725,462
Other Motor Vehicle Dealers-4412	13,989,771	12,528,925	1,460,846
Automotive Parts/Accsrs, Tire Stores-4413	25,954,065	31,264,762	(5,310,697)
Furniture and Home Furnishings Stores-442	43,517,877	26,843,832	16,674,045
Furniture Stores-4421	23,820,064	10,740,662	13,079,402
Home Furnishing Stores-4422	19,697,814	16,103,170	3,594,644
Electronics and Appliance Stores-443	46,836,898	24,839,059	21,997,839
Appliances, TVs, Electronics Stores-44311	34,806,129	21,293,361	13,512,768
Household Appliances Stores-443111	8,055,156	2,910,927	5,144,229
Radio, Television, Electronics Stores-443112	26,750,974	18,382,434	8,368,540
Computer and Software Stores-44312	9,918,224	3,545,698	6,372,526
Camera and Photographic Equipment Stores-44313	2,112,545	0	2,112,545
Building Material, Garden Equip Stores -444	187,278,720	325,656,976	(138,378,256)
Building Material and Supply Dealers-4441	170,767,523	304,344,510	(133,576,987)
Home Centers-44411	69,150,403	30,681,941	38,468,462
Paint and Wallpaper Stores-44412	4,138,433	18,299,329	(14,160,896)
Hardware Stores-44413	17,023,726	100,309,478	(83,285,752)
Other Building Materials Dealers-44419	80,454,961	155,053,763	(74,598,802)
Building Materials, Lumberyards-444191	31,358,600	60,626,030	(29,267,430)
Lawn, Garden Equipment, Supplies Stores-4442	16,511,197	21,312,465	(4,801,268)
Outdoor Power Equipment Stores-44421	1,776,076	1,144,878	631,198
Nursery and Garden Centers-44422	14,735,121	20,167,588	(5,432,467)
Food and Beverage Stores-445	273,362,549	489,819,608	(216,457,059)
Grocery Stores-4451	248,950,458	429,425,579	(180,475,121)
Supermarkets, Grocery (Ex Conv) Stores-44511	237,293,489	403,042,118	(165,748,629)
Convenience Stores-44512	11,656,969	26,383,461	(14,726,492)
Specialty Food Stores-4452	7,944,753	5,173,604	2,771,149
Beer, Wine and Liquor Stores-4453	16,467,338	55,220,424	(38,753,086)
Health and Personal Care Stores-446	116,042,081	95,888,248	20,153,833
Pharmancies and Drug Stores-44611	99,778,697	85,604,578	14,174,119
Cosmetics, Beauty Supplies, Perfume Stores-44612	4,151,787	2,157,555	1,994,232
Optical Goods Stores-44613	4,633,220	2,287,918	2,345,302
Other Health and Personal Care Stores-44619	7,478,377	5,838,197	1,640,180

**Table A-2 Continued**

Gasoline Stations-447	189,792,353	153,585,602	36,206,751
Gasoline Stations With Conv Stores-44711	141,147,423	115,385,903	25,761,520
Other Gasoline Stations-44719	48,644,930	38,199,699	10,445,231
Clothing and Clothing Accessories Stores-448	96,404,737	113,205,947	(16,801,210)
Clothing Stores-4481	67,631,858	84,437,332	(16,805,474)
Men's Clothing Stores-44811	4,476,730	6,644,979	(2,168,249)
Women's Clothing Stores-44812	16,809,069	26,781,789	(9,972,720)
Childrens, Infants Clothing Stores-44813	3,846,038	3,618,602	227,436
Family Clothing Stores-44814	36,360,007	39,551,712	(3,191,705)
Clothing Accessories Stores-44815	1,653,334	1,217,837	435,497
Other Clothing Stores-44819	4,486,681	6,622,413	(2,135,732)
Shoe Stores-4482	12,625,917	16,634,449	(4,008,532)
Jewelry, Luggage, Leather Goods Stores-4483	16,146,961	12,134,167	4,012,794
Jewelry Stores-44831	15,053,442	9,998,221	5,055,221
Luggage and Leather Goods Stores-44832	1,093,519	2,135,946	(1,042,427)
Sporting Goods, Hobby, Book, Music Stores-451	41,440,725	31,446,756	9,993,969
Sportng Goods, Hobby, Musical Inst Stores-4511	28,328,517	20,473,573	7,854,944
Sporting Goods Stores-45111	13,954,219	9,847,419	4,106,800
Hobby, Toys and Games Stores-45112	8,876,811	4,647,342	4,229,469
Sew/Needlework/Piece Goods Stores-45113	2,470,298	4,940,995	(2,470,697)
Musical Instrument and Supplies Stores-45114	3,027,190	1,037,817	1,989,373
Book, Periodical and Music Stores-4512	13,112,207	10,973,183	2,139,024
Book Stores and News Dealers-45121	8,770,970	5,306,136	3,464,834
Book Stores-451211	8,342,261	5,306,136	3,036,125
News Dealers and Newsstands-451212	428,710	0	428,710
Prerecorded Tapes, CDs, Record Stores-45122	4,341,237	5,667,047	(1,325,810)
General Merchandise Stores-452	270,253,731	120,784,122	149,469,609
Department Stores Excl Leased Depts-4521	131,013,956	76,929,792	54,084,164
Other General Merchandise Stores-4529	139,239,775	43,854,331	95,385,444
Miscellaneous Store Retailers-453	51,514,695	67,745,114	(16,230,419)
Florists-4531	4,043,917	3,830,720	213,197
Office Supplies, Stationery, Gift Stores-4532	21,658,397	28,770,635	(7,112,238)
Office Supplies and Stationery Stores-45321	12,346,151	15,477,564	(3,131,413)
Gift, Novelty and Souvenir Stores-45322	9,312,245	13,293,071	(3,980,826)
Used Merchandise Stores-4533	4,628,528	7,955,744	(3,327,216)
Other Miscellaneous Store Retailers-4539	21,183,853	27,188,015	(6,004,162)
Non-Store Retailers-454	155,762,270	206,077,089	(50,314,819)

**Table A-2 Continued**

Foodservice and Drinking Places-722	220,413,153	300,654,470	(80,241,317)
Full-Service Restaurants-7221	99,601,685	172,672,052	(73,070,367)
Limited-Service Eating Places-7222	92,982,602	111,634,789	(18,652,187)
Special Foodservices-7223	18,257,468	11,789,473	6,467,995
Drinking Places -Alcoholic Beverages-7224	9,571,399	4,558,156	5,013,243

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**Table A-3: Estimated Demographic Characteristics, Proposed Project Trade Area, 2012**

Description	Number	Percent
Population		
2017 Projection	129,879	
2012 Estimate	128,351	
2000 Census	122,809	
1990 Census	108,874	
Growth 2012-2017	1.19%	
Growth 2000-2012	4.51%	
Growth 1990-2000	12.80%	
2012 Est. Pop by Single Race Class	128,351	
White Alone	97,720	76.13
Black or African American Alone	1,147	0.89
Amer. Indian and Alaska Native Alone	1,010	0.79
Asian Alone	3,341	2.60
Native Hawaiian and Other Pac. Isl. Alone	249	0.19
Some Other Race Alone	20,378	15.88
Two or More Races	4,505	3.51
2012 Est. Pop Hisp or Latino by Origin	128,351	
Not Hispanic or Latino	84,169	65.58
Hispanic or Latino:	44,182	34.42
Mexican	40,640	91.98
Puerto Rican	295	0.67
Cuban	59	0.13
All Other Hispanic or Latino	3,187	7.21
2012 Est. Hisp or Latino by Single Race Class	44,182	
White Alone	20,854	47.20
Black or African American Alone	197	0.45
American Indian and Alaska Native Alone	538	1.22
Asian Alone	138	0.31
Native Hawaiian and Other Pacific Islander Alone	36	0.08
Some Other Race Alone	20,205	45.73
Two or More Races	2,214	5.01

**Table A-3 Continued**

2012 Est. Pop. Asian Alone Race by Cat	3,341	
Chinese, except Taiwanese	752	22.51
Filipino	901	26.97
Japanese	755	22.60
Asian Indian	270	8.08
Korean	243	7.27
Vietnamese	132	3.95
Cambodian	1	0.03
Hmong	40	1.20
Laotian	16	0.48
Thai	17	0.51
All Other Asian Races Including 2+ Category	214	6.41
2012 Est. Population by Ancestry	128,351	
Pop, Arab	231	0.18
Pop, Czech	253	0.20
Pop, Danish	795	0.62
Pop, Dutch	1,007	0.78
Pop, English	8,501	6.62
Pop, French (except Basque)	3,028	2.36
Pop, French Canadian	133	0.10
Pop, German	11,671	9.09
Pop, Greek	624	0.49
Pop, Hungarian	139	0.11
Pop, Irish	9,814	7.65
Pop, Italian	7,557	5.89
Pop, Lithuanian	117	0.09
Pop, United States or American	2,927	2.28
Pop, Norwegian	1,944	1.51
Pop, Polish	851	0.66
Pop, Portuguese	1,908	1.49
Pop, Russian	1,363	1.06
Pop, Scottish	2,196	1.71
Pop, Scotch-Irish	1,562	1.22
Pop, Slovak	67	0.05
Pop, Sub-Saharan African	113	0.09
Pop, Swedish	1,666	1.30
Pop, Swiss	452	0.35
Pop, Ukrainian	153	0.12
Pop, Welsh	458	0.36

**Table A-3 Continued**

Pop, West Indian (exc Hisp groups)	6	0.00
Pop, Other ancestries	58,843	45.85
Pop, Ancestry Unclassified	9,974	7.77
2012 Est. Pop Age 5+ by Language Spoken At Home	120,136	
Speak Only English at Home	83,123	69.19
Speak Asian/Pac. Isl. Lang. at Home	2,303	1.92
Speak IndoEuropean Language at Home	3,238	2.70
Speak Spanish at Home	31,218	25.99
Speak Other Language at Home	255	0.21
2012 Est. Population by Sex	128,351	
Male	64,516	50.27
Female	63,835	49.73
2012 Est. Population by Age	128,351	
Age 0 - 4	8,215	6.40
Age 5 - 9	7,996	6.23
Age 10 - 14	8,098	6.31
Age 15 - 17	5,211	4.06
Age 18 - 20	4,608	3.59
Age 21 - 24	5,794	4.51
Age 25 - 34	15,130	11.79
Age 35 - 44	17,074	13.30
Age 45 - 54	18,819	14.66
Age 55 - 64	17,284	13.47
Age 65 - 74	9,964	7.76
Age 75 - 84	6,737	5.25
Age 85 and over	3,422	2.67
Age 16 and over	102,347	79.74
Age 18 and over	98,831	77.00
Age 21 and over	94,223	73.41
Age 65 and over	20,122	15.68
2012 Est. Median Age	40.34	
2012 Est. Average Age	40.00	



**Table A-3 Continued**

2012 Est. Male Population by Age	64,516	
Age 0 - 4	4,240	6.57
Age 5 - 9	4,127	6.40
Age 10 - 14	4,139	6.42
Age 15 - 17	2,665	4.13
Age 18 - 20	2,462	3.82
Age 21 - 24	3,118	4.83
Age 25 - 34	8,411	13.04
Age 35 - 44	8,988	13.93
Age 45 - 54	9,340	14.48
Age 55 - 64	8,314	12.89
Age 65 - 74	4,751	7.36
Age 75 - 84	2,885	4.47
Age 85 and over	1,075	1.67
2012 Est. Median Age, Male	38.44	
2012 Est. Average Age, Male	38.60	
2012 Est. Female Population by Age	63,835	
Age 0 - 4	3,974	6.23
Age 5 - 9	3,869	6.06
Age 10 - 14	3,959	6.20
Age 15 - 17	2,546	3.99
Age 18 - 20	2,146	3.36
Age 21 - 24	2,676	4.19
Age 25 - 34	6,719	10.53
Age 35 - 44	8,086	12.67
Age 45 - 54	9,479	14.85
Age 55 - 64	8,970	14.05
Age 65 - 74	5,212	8.16
Age 75 - 84	3,852	6.03
Age 85 and over	2,347	3.68
2012 Est. Median Age, Female	42.46	
2012 Est. Average Age, Female	41.50	

**Table A-3 Continued**

2012 Est. Pop Age 15+ by Marital Status	104,042	
Total, Never Married	30,194	29.02
Males, Never Married	17,850	17.16
Females, Never Married	12,344	11.86
Married, Spouse present	47,586	45.74
Married, Spouse absent	5,989	5.76
Widowed	7,614	7.32
Males Widowed	1,329	1.28
Females Widowed	6,285	6.04
Divorced	12,659	12.17
Males Divorced	4,762	4.58
Females Divorced	7,897	7.59
2012 Est. Pop. Age 25+ by Edu. Attainment	88,430	
Less than 9th grade	9,108	10.30
Some High School, no diploma	6,024	6.81
High School Graduate (or GED)	18,014	20.37
Some College, no degree	19,745	22.33
Associate Degree	7,895	8.93
Bachelor's Degree	17,332	19.60
Master's Degree	6,760	7.64
Professional School Degree	2,237	2.53
Doctorate Degree	1,314	1.49
2012 Est Pop Age 25+ by Edu. Attain, Hisp. or Lat	23,526	
Less than 9th grade	7,711	32.78
Some High School, no diploma	3,663	15.57
High School Graduate (or GED)	5,569	23.67
Some College, no degree	3,379	14.36
Associate Degree	954	4.06
Bachelor's Degree	1,165	4.95
Graduate or Professional Degree	1,085	4.61
Households		
2017 Projection	49,043	
2012 Estimate	48,405	
2000 Census	46,439	
1990 Census	42,146	

**Table A-3 Continued**

Growth 2012-2017	1.32%	
Growth 2000-2012	4.23%	
Growth 1990-2000	10.19%	
2012 Est. Households by Household Type	48,405	
Family Households	31,464	65.00
Nonfamily Households	16,941	35.00
2012 Est. Group Quarters Population	3,862	
2012 HHs by Ethnicity, Hispanic/Latino	10,521	21.74
2012 Est. HHs by HH Income	48,405	
Income Less than \$15,000	3,851	7.96
Income \$15,000 - \$24,999	3,746	7.74
Income \$25,000 - \$34,999	4,874	10.07
Income \$35,000 - \$49,999	7,161	14.79
Income \$50,000 - \$74,999	9,533	19.69
Income \$75,000 - \$99,999	6,618	13.67
Income \$100,000 - \$124,999	4,741	9.79
Income \$125,000 - \$149,999	2,645	5.46
Income \$150,000 - \$199,999	2,375	4.91
Income \$200,000 - \$499,999	2,330	4.81
Income \$500,000 and more	531	1.10
2012 Est. Average Household Income	\$82,925	
2012 Est. Median Household Income	\$61,988	
2012 Est. Per Capita Income	\$31,762	
2012 Median HH Inc by Single Race Class. or Ethn		
White Alone	62,837	
Black or African American Alone	71,649	
American Indian and Alaska Native Alone	70,852	
Asian Alone	74,872	
Native Hawaiian and Other Pacific Islander Alone	67,242	
Some Other Race Alone	53,473	
Two or More Races	56,357	
Hispanic or Latino	54,029	
Not Hispanic or Latino	64,741	

**Table A-3 Continued**

2012 Est. Family HH Type, Presence Own Children	31,464	
Married-Couple Family, own children	9,686	30.78
Married-Couple Family, no own children	14,274	45.37
Male Householder, own children	1,385	4.40
Male Householder, no own children	1,643	5.22
Female Householder, own children	1,874	5.96
Female Householder, no own children	2,602	8.27
2012 Est. Households by Household Size	48,405	
1-person household	13,691	28.28
2-person household	16,114	33.29
3-person household	7,356	15.20
4-person household	5,682	11.74
5-person household	2,855	5.90
6-person household	1,449	2.99
7 or more person household	1,259	2.60
2012 Est. Average Household Size	2.57	
2012 Est. Households by Presence of People	48,405	
Households with 1 or more People under Age 18:	13,987	28.90
Married-Couple Family	9,720	69.49
Other Family, Male Householder	1,749	12.50
Other Family, Female Householder	2,380	17.02
Nonfamily, Male Householder	108	0.77
Nonfamily, Female Householder	29	0.21
Households no People under Age 18:	34,419	71.11
Married-Couple Family	13,534	39.32
Other Family, Male Householder	1,194	3.47
Other Family, Female Householder	2,014	5.85
Nonfamily, Male Householder	6,752	19.62
Nonfamily, Female Householder	10,924	31.74
2012 Est. Households by Number of Vehicles	48,405	
No Vehicles	2,965	6.13
1 Vehicle	15,490	32.00
2 Vehicles	19,089	39.44
3 Vehicles	6,793	14.03
4 Vehicles	2,588	5.35
5 or more Vehicles	1,481	3.06
2012 Est. Average Number of Vehicles	1.93	

**Table A-3 Continued**

Family Households		
2017 Projection	31,843	
2012 Estimate	31,464	
2000 Census	30,331	
1990 Census	28,254	
Growth 2012-2017	1.20%	
Growth 2000-2012	3.74%	
Growth 1990-2000	7.35%	
2012 Est. Families by Poverty Status	31,464	
2012 Families at or Above Poverty	29,800	94.71
2012 Families at or Above Poverty with Children	12,787	40.64
2012 Families Below Poverty	1,665	5.29
2012 Families Below Poverty with Children	1,359	4.32
2012 Est. Pop Age 16+ by Employment Status	102,347	
In Armed Forces	138	0.13
Civilian - Employed	61,131	59.73
Civilian - Unemployed	5,744	5.61
Not in Labor Force	35,334	34.52
2012 Est. Civ Employed Pop 16+ Class of Worker	60,538	
For-Profit Private Workers	40,488	66.88
Non-Profit Private Workers	4,280	7.07
Local Government Workers	4,393	7.26
State Government Workers	2,426	4.01
Federal Government Workers	386	0.64
Self-Emp Workers	8,308	13.72
Unpaid Family Workers	257	0.42

**Table A-3 Continued**

2012 Est. Civ Employed Pop 16+ by Occupation	60,538	
Architect/Engineer	566	0.93
Arts/Entertain/Sports	1,493	2.47
Building Grounds Maint	3,176	5.25
Business/Financial Ops	2,153	3.56
Community/Soc Svcs	1,024	1.69
Computer/Mathematical	587	0.97
Construction/Extraction	3,616	5.97
Edu/Training/Library	2,383	3.94
Farm/Fish/Forestry	2,362	3.90
Food Prep/Serving	4,378	7.23
Health Practitioner/Tec	3,583	5.92
Healthcare Support	793	1.31
Maintenance Repair	1,558	2.57
Legal	713	1.18
Life/Phys/Soc Science	832	1.37
Management	7,534	12.45
Office/Admin Support	7,346	12.13
Production	3,414	5.64
Protective Svcs	734	1.21
Sales/Related	6,060	10.01
Personal Care/Svc	2,378	3.93
Transportation/Moving	3,855	6.37
2012 Est. Pop 16+ by Occupation Classification	60,538	
Blue Collar	12,444	20.56
White Collar	34,273	56.61
Service and Farm	13,821	22.83
2012 Est. Workers Age 16+, Transp. To Work	59,268	
Drove Alone	43,664	73.67
Car Pooled	7,326	12.36
Public Transportation	1,416	2.39
Walked	2,236	3.77
Bicycle	927	1.56
Other Means	496	0.84
Worked at Home	3,204	5.41

**Table A-3 Continued**

2012 Est. Workers Age 16+ by Travel Time to Work *		
Less than 15 Minutes	21,539	
15 - 29 Minutes	16,822	
30 - 44 Minutes	10,089	
45 - 59 Minutes	3,023	
60 or more Minutes	5,043	
2012 Est. Avg Travel Time to Work in Minutes	26.20	
2012 Est. Tenure of Occupied Housing Units	48,405	
Owner Occupied	30,221	62.43
Renter Occupied	18,184	37.57
2012 Owner Occ. HUs: Avg. Length of Residence	18	
2012 Renter Occ. HUs: Avg. Length of Residence	7	
2012 Est. All Owner-Occupied Housing Values	30,221	
Value Less than \$20,000	402	1.33
Value \$20,000 - \$39,999	514	1.70
Value \$40,000 - \$59,999	453	1.50
Value \$60,000 - \$79,999	292	0.97
Value \$80,000 - \$99,999	247	0.82
Value \$100,000 - \$149,999	461	1.53
Value \$150,000 - \$199,999	808	2.67
Value \$200,000 - \$299,999	5,068	16.77
Value \$300,000 - \$399,999	6,893	22.81
Value \$400,000 - \$499,999	4,849	16.05
Value \$500,000 - \$749,999	5,945	19.67
Value \$750,000 - \$999,999	2,187	7.24
Value \$1,000,000 or more	2,102	6.96
2012 Est. Median All Owner-Occupied Housing Value	\$399,594	
2012 Est. Housing Units by Units in Structure	53,655	
1 Unit Attached	3,831	7.14
1 Unit Detached	35,351	65.89
2 Units	1,556	2.90
3 or 4 Units	2,346	4.37
5 to 19 Units	4,193	7.81
20 to 49 Units	892	1.66
50 or More Units	2,172	4.05
Mobile Home or Trailer	3,254	6.06
Boat, RV, Van, etc.	60	0.11

**Table A-3 Continued**

2012 Est. Housing Units by Year Structure Built	53,655	
Housing Unit Built 2005 or later	1,606	2.99
Housing Unit Built 2000 to 2004	3,694	6.88
Housing Unit Built 1990 to 1999	5,872	10.94
Housing Unit Built 1980 to 1989	8,674	16.17
Housing Unit Built 1970 to 1979	10,609	19.77
Housing Unit Built 1960 to 1969	8,525	15.89
Housing Unit Built 1950 to 1959	6,596	12.29
Housing Unit Built 1940 to 1949	3,435	6.40
Housing Unit Built 1939 or Earlier	4,644	8.66
2012 Est. Median Year Structure Built **	1973	

\*This row intentionally left blank. No total category data is available.

\*\*1939 will appear when at least half of the Housing Units in this reports area were built in 1939 or earlier.

Source: © 2012 The Nielsen Company. All rights reserved.





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July 16, 2012

Ms. Katie Migliavacca  
Napa Redevelopment Partners  
1025 Kaiser Road  
Napa CA, 94558

Subject: Napa Pipe Costco Analysis

Dear Ms. Migliavacca:

Napa Redevelopment Partners requested Mead & Hunt Inc. to analyze the proposed Costco site within the Napa Pipe Redevelopment Project with respect to the adopted policies contained in the Napa County Airport Land Use Compatibility Plan (ALUCP). The proposed Costco site is located approximately 9,000 feet north of the Napa County Airport, and 0.5 miles west of the extended centerline of the Airport's primary instrument runway - Runway 18R-36L. The project will be a typical Costco-style development with a 154,000-square foot warehouse/commercial building and a gas station situated on approximately 15 acres.

The Napa County ALUCP (adopted 1991, revised 1999) contains policies and criteria which the Napa County Airport Land Use Commission uses to evaluate development proposals in the vicinity of Napa County Airport. The ALUCP categorizes the policies and criteria into the following four categories:

- Safety on the Ground
- Noise
- Hazards to Flight
- Overflights

### **Safety on the Ground**

The objective of the safety policies and land use restrictions is to reduce the risks of damage to property or injury to persons in the event of an aircraft accident. The ALUCP divides the area surrounding the airport into five zones. Each zone (A-E) represents varying degrees of risk of an aircraft accident. Land use restrictions are provided for each zone.

The proposed Costco site is located entirely within Zone D. Zone D encompasses the common traffic pattern for Napa County Airport. The area is routinely overflown by aircraft operating to and from the Airport. The ALUCP compatibility criteria for Zone D are as follows:

**Prohibited Uses**

- All residential uses
- Uses hazardous to flight<sup>1</sup>

**Maximum Nonresidential Densities – People per net acre**

- In structures: 100
- Total in and out of structures: 150
- Single-acre limits are not applicable within Zone D

Applying the above ALUCP density limits to the 15 acre project site provided by Costco, a maximum of 1,500 people within the structure, and a maximum of 2,250 people combined inside and outside of the structure would be permissible (100 people per net acre x 15 acres and 150 people per net acre x 15 acres).

According to Costco representatives, the interior structure of the Costco building will experience approximately 1,450 people including employees during the peak days of the year. The gas station will experience approximately 96 additional people (64 vehicles with 1.5 persons per vehicle) outside of the main Costco building, during the peak days of the year. The site total for people inside and outside of buildings will be approximately 1,546. The average number of people expected on a typical busy day including employees is approximately 50% of the peak or 725 people inside the building, and 773 inside and outside.

Based on the above analysis, in our professional opinion, the Costco project is consistent with the adopted ALUCP as it satisfies the nonresidential density limits provided by the ALUCP.

Although not specifically addressed in the Napa County ALUCP, The *California Airport Land Use Planning Handbook* (2011) recommends that any bulk storage of fuel should be stored below ground. It is our understanding that the Costco gas station will have underground fuel storage.

**Noise**

The proposed Costco site is located well outside of the 55 CNEL noise contour. According to the ALUCP, all Commercial and Industrial land uses are designated as “clearly acceptable” within the 50-55 CNEL contours.

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<sup>1</sup> Includes objects that penetrate FAR Part 77 surfaces, uses that would attract large numbers of birds (e.g., landfills), and uses that would create smoke, glare, distracting lights, or electronic interference.

Ms. Katie Migliavacca

July 16, 2012

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## **Hazards to Flight**

The intent of this compatibility factor is to protect aircraft from physical, visual or electronic hazards while operating to, from, or around the airport. Part 77 of Federal Aviation Regulations (FAR), as implemented by state law, limits the height of structures near airports in order to protect airport airspace from hazards to flight. The project site lies under the horizontal and conical airspace surfaces defined by these regulations. The horizontal surface is situated 150 feet above airport elevation and the conical surface rises up and away from the edge of the horizontal surface at a slope of 1 foot upward per 20 feet horizontally. From the standpoint of FAR Part 77, the proposed project's maximum structure height of 34 feet would not be an airspace obstruction. The proposed development is not under the approach surfaces for Runway 18L or 18R.

## **Overflight**

The adopted ALUCP only contains overflight policies for residential land uses. A commercial warehouse is not a land use which would typically be sensitive to aircraft overflight activity.

## **Conclusion**

In our professional opinion, based on the above analysis, the proposed Costco development is consistent with the compatibility criteria contained within the adopted Napa County ALUCP.

If you have any questions or require additional information, please contact me.

Sincerely,

MEAD & HUNT, Inc.

A handwritten signature in blue ink, appearing to read "Corbett Smith".

Corbett Smith  
Aviation Planner

## MEMORANDUM

Date: September 7, 2012

To: Hillary Gitelman, County of Napa

From: Chris Mitchell, Steve Crosley & Wilson Tam

**Subject: Napa Pipe Impact Comparison – Costco Alternative / Proposed Project**

SF06-0290.05

Fehr and Peers conducted a traffic impact analysis for the New County with Costco Alternative (Costco Alternative) and compared the resulting impacts with that of the Proposed Project as described in the 2009 DEIR. The Costco Alternative is based on site plan Option D, and would include a Costco located at approximately the midpoint in the eastern parcel. The land use program for the Costco Alternative and the Proposed Project are compared below.

### Costco Alternative and Proposed Project Land Use Mix

Costco Alternative		Proposed Project
Western Parcel	Eastern Parcel	
100 ksf office 945 DU 150 CCRC 25 ksf retail 7.5 ksf restaurant (high turnover) 7.5 ksf restaurant (quality) 150 suite hotel	154 ksf Costco 75 ksf light industrial/R&D <sup>1</sup> 282 student elementary school <sup>2</sup>	50 ksf office 2,580 DU 150 DU CRCC 25 ksf retail 7.5 ksf restaurant (high turnover) 7.5 ksf restaurant (quality) 150 suite hotel 140 ksf light industrial/R&D 484 student local serving elementary school

Notes:

1. Based on the sensitivity analysis conducted by Fehr & Peers in the memo dated August 2<sup>nd</sup>, 2012.
2. An estimate of 183 students would be supported by the proposed 945 housing units in the western parcel. The remaining 99 students would be supported by adjacent communities external to the site.

Source: Fehr & Peers, 2012

The purpose of this memorandum is to:

1. Compare the impacts generated by the Costco Alternative and the Proposed Project;
2. Identify those intersections that would have an incremental increase in traffic under the Costco Alternative compared to the Proposed Project;
3. Compare the fair share contributions of the Costco Alternative to the Proposed Project;

4. Propose mitigation measures more severe impacts and the new impact at the intersection of Napa Valley Corporate Drive/Anselmo Court that would be affected by the Costco-generated trips; and
5. Describe cumulative mitigation measures for impacts generated by the Costco Alternative that would be less severe than the Proposed Project.

Trip generation of the Costco Alternative is lower than the Proposed Project when pass-by trips are removed, yet this comparison alone does not preclude a finding of new impacts for the following key reasons. Firstly, Costco pass-by trips are still added to the network at intersections inside the SR 221/29 corridor nearest to the project site (referred to as "internal" intersections), resulting in an increase in trips at those locations when compared to the Proposed Project. Secondly, the inbound/outbound splits (due to the retail nature of the Costco) and trip distribution/assignment (due to the location of the Costco) of the Costco Alternative are different from the assumptions under the Proposed Project. The result is that certain intersections will see increases in trips and certain intersections decreases when comparing approach and departure volumes between the two project alternatives. In this analysis, trip distribution and assignment for the Costco were based on a 50/50 split between north and south access points in the eastern parcel.

#### **1. & 2. LEVEL OF SERVICE AND IMPACT COMPARISON**

The revised Table 12A, 23A, and 24A in the attachment to this memo compare the AM and PM peak hour intersection LOS at each of the 34 study intersections for the Costco Alternative with the Proposed Project under the following scenarios:

- Existing plus Costco Alternative Conditions
- Cumulative plus Costco Alternative Conditions – with fully-funded cumulative roadway improvements
- Cumulative plus Costco Alternative Conditions – with planned cumulative roadway improvements

The table shown below lists those intersections newly or more severely impacted compared to the Proposed Project. These impacted locations are all internal intersections. The land use program was designed to result in no new or more severe impacts at external intersections. A detailed discussion of each scenario follows.

**New impacts and Substantially More Severe Impacts under Costco Alternative**

Intersection	Existing Conditions	Cumulative Conditions with Fully-Funded Network	Cumulative Conditions with Planned Network
16. Kaiser Road/Enterprise Way	No Impact	More Severe <sup>1</sup>	No Change
22. Napa Valley Corporate Drive/Anselmo Court	New Impact	More Severe <sup>1</sup>	More Severe <sup>1</sup>
25. Soscol Ferry Road/Devlin Road	More Severe <sup>1</sup>	More Severe <sup>1</sup>	Less Severe

Notes:

1. Implementing the same mitigation measure as identified in the 2009 DEIR would reduce these more severe impacts to a less-than-significant level.

Source: Fehr & Peers, 2012

**Existing plus Costco Alternative Conditions**

Under Existing plus Project Conditions, the Costco Alternative would result in one new, previously unidentified significant impact when compared to the Proposed Project:

22. Napa Valley Corporate Drive/Anselmo Court

Five of the 13 intersections that were previously identified as significant impacts under the Proposed Project would no longer be impacted under the Costco Alternative. The Costco Alternative would continue to cause significant impacts at the other eight intersections where impacts were identified under the Proposed Project.

Of these eight impacted intersections, the Costco Alternative would contribute more trips than the Proposed Project at one intersection:

25. Soscol Ferry Road/Devlin Road (+90 trips)

The intersection of Soscol Ferry Road/Devlin Road would operate unacceptably in AM and PM peak hours at LOS F under both the Proposed Project and Costco Alternative. Due to the trip increase over the Proposed Project, the impact at Soscol Ferry Road/Devlin Road would be substantially more severe under Existing plus Project Conditions.

**Cumulative plus Costco Alternative Conditions – With Fully-Funded Cumulative Roadway Improvements**

The Costco Alternative would not result in any new, previously unidentified significant impacts compared to the Proposed Project.

Four of the 22 impacted intersections under the Proposed Project would no longer be impacted under the Costco Alternative. The Costco Alternative would continue to cause significant impacts at the other 18 intersections.

Of these 18 impacted intersections, the Costco Alternative would contribute more trips than the Proposed Project at three intersections:

- 16. Kaiser Road/Enterprise Way (+80 trips)
- 22. Napa Valley Corporate Drive/Anselmo Court (+240 trips)
- 25. Soscol Ferry Road/Devlin Road (+90 trips)

Under both the Proposed Project and Costco Alternative the intersection of Kaiser Road/Enterprise Way would operate unacceptably (LOS F) in the AM and PM peak hours. Similarly, the intersection of Napa Valley Corporate Drive/Anselmo Court would operate unacceptably (LOS F) in the PM peak hour, while Soscol Ferry Road/Devlin Road would operate unacceptably in AM and PM peak hours (LOS F). Due to the trip increases over the Proposed Project at these three locations, the impacts would be substantially more severe under Cumulative Conditions with a fully-funded roadway network.

***Cumulative plus Costco Alternative Conditions – with Planned Cumulative Roadway Improvements***

The Costco Alternative would not result in any new, previously unidentified significant impacts compared to the Proposed Project.

Four of the 18 intersections that were previously identified as significant impacts under the Proposed Project would no longer be impacted under the Costco Alternative. The Costco Alternative would continue to cause significant impacts at the other 14 intersections.

Of these 14 intersections, the Costco Alternative would contribute more trips than the Proposed Project at the following intersections:

- 16. Kaiser Road/Enterprise Way (+10 trips)
- 22. Napa Valley Corporate Drive/Anselmo Court (+320 trips)
- 25. Soscol Ferry Road/Devlin Road (+10 trips)

Due to the trip increases over the Proposed Project at Napa Valley Corporate Drive/Anselmo Court, the impact at this intersection would be substantially more severe under Cumulative Conditions with a planned roadway network.

At Kaiser Road/Enterprise Way, the Costco Alternative would contribute slightly more trips (+10 trips) to the intersection than the Proposed Project; therefore, the Costco Alternative's impact to the intersection would be the same as that under the Proposed Project.

At Soscol Ferry Road/Devlin Road, the Costco Alternative would contribute slightly more trips (+10 trips) to the intersection than the Proposed Project; however, the average intersection delay is reduced from 64 to 57 seconds. This reduction in average delay is due to the Costco

Alternative contributing more trips to the non-critical movements and fewer trips to the critical movements than the Proposed Project. Therefore, this is a less severe impact.

### 3. FAIR SHARE CONTRIBUTION

The following table compares the fair share contribution of the Costco Alternative to the Proposed Project for each location impacted by the Costco Alternative.

#### Fair Share Contribution (Cumulative Conditions)

Intersection	Cumulative Conditions with Fully-Funded Network		Cumulative Conditions with Planned Network	
	Costco Alternative	Proposed Project	Costco Alternative	Proposed Project
2. First Street/ Soscol Avenue <sup>1</sup>	16.0%	17.6%	15.8%	18.1%
4. Third Street/ Soscol Avenue <sup>1</sup>	25.1%	28.2%	25.9%	28.0%
6. Silverado Trail (SR 121)/Soscol Avenue	35.1%	38.5%	16.0%	19.5%
12. Imola Ave (SR 121)/Soscol Avenue	25.7%	28.5%	27.9%	32.8%
13. SR 221 (Napa-Vallejo Highway)/Streblow Drive	35.0%	39.0%	33.7%	39.6%
16. Kaiser Road/Enterprise Way	<b>66.4%</b>	64.4%	<b>67.8%</b>	67.5%
17. SR 221 (Napa-Vallejo Highway)/Kaiser Road	34.0%	37.1%	34.8%	39.3%
20. Napa Valley Corporate Way/SR 221 (Napa-Vallejo Highway)	11.1%	16.6%	15.6%	18.7%
22. Napa Valley Corporate Drive/Anselmo Court	<b>N/A<sup>4</sup></b>	62.1%	<b>N/A<sup>4</sup></b>	52.4%
23. SR 12-SR 121/SR 29	5.5%	7.5%	5.6%	7.6%
25. Soscol Ferry Road/Devlin Road	<b>37.6%</b>	32.6%	14.9% <sup>5</sup>	14.3% <sup>5</sup>
26. SR 12-SR 29/SR 221 (Napa-Vallejo Highway)	10.7%	17.3%	No Impact	
27. Airport Boulevard/SR 29-SR 12	7.0%	12.2%	No Impact	
28. SR 29/South Kelly Road	10.2%	18.9%	7.8%	14.8%
29. SR 29/Napa Junction Road	9.8%	16.9%	No Impact	19.2%
30. SR 29/Donaldson Way	14.6%	24.1%	No Impact	
31. SR 29/American Canyon Road	6.5%	11.6%	10.4%	18.1%
34. SR 29/SR 37 Westbound Off-Ramp	4.7%	9.1%	4.4%	8.5%

Notes:

1. Impact occurs in PM peak period only; highest fair share contribution is AM peak period.
2. For intersections that are impacted under both AM and PM peak hour, the higher fair share between AM and PM volumes is presented in the table.
3. New and substantially more severe impacts are highlighted in bold.
4. Project specific impact. Development responsible for 100% of cost of mitigation.
5. Contribution to Cumulative plus Proposed Project and Cumulative plus Costco Alternative volumes are shown.

Source: Fehr & Peers, 2012



#### 4. MITIGATION MEASURES FOR NEW AND MORE SEVERE IMPACTS

##### KAISER ROAD/ENTERPRISE WAY

###### ***Cumulative/Planned Funded Network Conditions***

The mitigation measures proposed for Kaiser Road/Enterprise Way in the 2009 DEIR include re-striping the southbound approach to provide dedicated left- and right-turn lanes. If this improvement was implemented, the critical southbound approach would continue to operate at LOS F in the PM peak hour with more than 5.0 vehicle-hours of delay<sup>1</sup>; thus, the Costco Alternative's impact to this intersection would be *significant and unavoidable*, consistent with the Proposed Project.

The mitigation measures proposed in the 2009 DEIR also include a peak hour left-turn restriction on the southbound approach, forcing motorists to turn right from Enterprise Way onto westbound Kaiser Road and travel 180-degrees around the proposed roundabout at Kaiser Road/Napa Valley Corporate Drive in lieu of the left-turn egress from Enterprise Way. If this improvement was implemented, the Costco Alternative's impact at Kaiser Road/Enterprise Way would be reduced to a *less-than-significant* level, the same as the Proposed Project.

It is important to note that while the Costco Alternative would contribute more trips to Kaiser Road/Enterprise Way than the Proposed Project, it would contribute fewer trips to the adjacent Kaiser Road/SR 221 (Napa-Vallejo Highway). Many of the trips along Kaiser Road are the same pass-by or diverted vehicles that would switch to access via Kaiser Road due to relocation of the Costco. The amount of vehicles traveling on SR221 between Kaiser Road and the north would not change regardless of the location of the Costco.

##### SOSCOL FERRY ROAD/DEVLIN ROAD

###### ***Existing plus Project Conditions***

The mitigation measure proposed for Soscol Ferry Road/Devlin Road in the 2009 DEIR (Mitigation Measure TRA-9) is a traffic signal and a median treatment on Soscol Ferry Road that essentially controls all movements except for the westbound through movement on Soscol Ferry Road. If these improvements were implemented, the Costco Alternative's impact at Soscol Ferry Road/Devlin Road would be reduced to a less-than significant level, the same as the Proposed Project.

###### ***Cumulative/Planned Funded Network Conditions***

The mitigation measure proposed for Soscol Ferry Road/Devlin Road in the 2009 DEIR is the signal and a median treatment (from Existing + Project mitigation) and a fair share contribution to the planned SR 221 to SR 29 flyover and other roadway modifications that constitute the planned cumulative roadway improvements. If these planned roadway improvements were implemented, the Costco Alternative's impact at Soscol Ferry Road/Devlin Road would be reduced to a less-than significant level, the same as the Proposed Project.

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<sup>1</sup> Per significance criteria for unsignalized intersections with a multi-lane approach.

## NAPA VALLEY CORPORATE DRIVE/ANSELMO COURT

### **Existing plus Project Conditions**

The Costco Alternative would result in a new, previously unidentified significant impact at Napa Valley Corporate Drive/Napa Valley Corporate Way under Existing plus Costco Alternative Conditions.

Mitigation Measure: Vehicle traffic resulting from the Costco Alternative would cause this intersection to satisfy the MUTCD Peak Hour Signal Warrant in the PM peak hour, so the intersection could be signalized to provide acceptable operations (LOS D or better).

While signalization would be a feasible mitigation measure, an alternative mitigation for a roundabout is proposed. Assuming planned cumulative roadway improvements, the intersection would improve operations to an acceptable level if a single-lane roundabout was implemented. Assuming fully-funded cumulative roadway improvements, the intersection would require an additional bypass lane on both the southbound and eastbound approaches at the roundabout to accommodate the high number of southbound-right and eastbound-right vehicles, most of which are Costco-related trips, away from the roundabout activity. If a single-lane roundabout was implemented, the 95<sup>th</sup> percentile queues would be well within the separation between adjacent intersections.

### **Cumulative plus Costco Alternative with Roundabout Treatment**

#### **Intersection Level of Service, PM Peak Hour**

Intersection	Traffic Control <sup>1</sup>	Existing Traffic Control				Roundabout Treatment			
		Fully-Funded Roadway Network		Planned Roadway Network		Fully-Funded Roadway Network		Planned Roadway Network	
		Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS
22. Napa Valley Corporate Dr/Anselmo Ct	SSS	<b>&gt;50 (EB)</b>	<b>F</b>	<b>&gt;50 (EB)</b>	<b>F</b>	15	C <sup>1</sup>	9	A <sup>1</sup>

Note: **Bold** = unacceptable LOS, not a significant impact ; **Shaded** = Significant Impact; Signal = Signalized intersection; AWS = All-Way Stop-Controlled intersection; SSS = Side-Street Stop-Controlled intersection

1. Based on the most conservative volumes under the fully-funded roadway network, a single-lane roundabout with a bypass lane on both the southbound and eastbound approaches is proposed.
2. Roundabout capacity analyses are conducted using the SIDRA, HCM 2010, and NCHRP 572 methodologies.

Source: Fehr & Peers, 2012.

**Cumulative plus Costco Alternative with Roundabout Treatment**  
**95<sup>th</sup> Percentile Queue (in feet), PM Peak Hour**

Intersection	Approach	Storage Length	Fully-Funded Roadway Network	Planned Roadway Network
22. Napa Valley Corporate Dr/Anselmo Ct	NB	440	100	60
	SB	550	250	70
	EB	700	120	120

Notes:

1. 95<sup>th</sup> percentile queues are not presented for non-impacted scenarios.

Source: Fehr & Peers, 2012.

It is recommended to install a single-lane roundabout with a bypass lane installed on the southbound and eastbound approaches of the intersection.

Impact Determination

With these improvements, the impact at Napa Valley Corporate Drive/Anselmo Court would be reduced to a level below significance for all scenarios (existing/cumulative funded/cumulative planned).

Roundabout Design

**Figure 1** shows the conceptual roundabout design (to scale) including the area of right-of-way required for the implementation at Napa Valley Corporate Drive/Anselmo Court based on the most conservative volume scenario.

**Cumulative/Planned Funded Network Conditions**

The mitigation measure proposed for Napa Valley Corporate Drive/Anselmo Court in the 2009 DEIR is to signalize the intersection, as the intersection would satisfy the MUTCD Peak Hour Signal Warrant in the PM peak hour. Implementing the same mitigation measure at the intersection would result in acceptable operations, and reduce the Costco Alternative's impact to a *less-than-significant* level, the same as the Proposed Project.

**5. MITIGATION MEASURES FOR LESS SEVERE IMPACTS**

**EXISTING**

Under Existing Plus Project conditions, the mitigation measures proposed for the Proposed Project in the 2009 DEIR would also apply to the less severe impacts generated by the New County with Costco Alternative at the following seven intersections:

12. Imola Ave (SR 121)/Soscol Avenue
13. SR 221 (Napa-Vallejo Highway)/Streblow Drive
26. SR 12-SR 29/SR 221 (Napa-Vallejo Highway)
27. Airport Boulevard/SR 29-SR 12
29. SR 29/Napa Junction Road
30. SR 29/Donaldson Way

31. SR 29/American Canyon Road

**CUMULATIVE**

For four of the seven Existing Plus Project impacts generated by the New County with Costco Alternative, project-specific mitigation identified in the DEIR for the Proposed Project would apply to the cumulative scenario:

- 12. Imola Ave (SR 121)/Soscol Avenue
- 26. SR 12-SR 29/SR 221 (Napa-Vallejo Highway)
- 27. Airport Boulevard/SR 29-SR 12
- 31. SR 29/American Canyon Road

For three of the seven Existing Plus Project impacts generated by the New County with Costco Alternative, additional mitigation would be required, which is identical to Proposed Project mitigation identified in the 2009 DEIR. Under cumulative conditions, the project applicant would pay fair share towards these improvements as outlined in the **Fair Share Contributions Table**.

**13. SR 221 (Napa-Vallejo Highway)/Streblow Drive**

Construct an additional northbound left-turn lane on SR 221 (Napa-Vallejo Highway) and a receiving lane on Streblow Drive. In addition, construct a second northbound left-turn lane.

**29. SR 29/Napa Junction Road**

Construct additional through lanes on SR 29 in the northbound and southbound directions and construct the following improvements:

- Northbound: a second left-turn lane
- Eastbound: an exclusive right turn lane and restripe the shared lane as a through lane
- Westbound: an exclusive right turn lane and restripe the shared lane as a through lane

**30. SR 29/Donaldson Way**

Construct additional through lanes on SR 29 in the northbound and southbound directions and construct the following improvements:

- Northbound: a second left-turn lane
- Eastbound: an exclusive left-turn lane
- Westbound: two exclusive left-turn lanes

The following less severe cumulative impacts generated by the New County with Costco Alternative could be mitigated to a less than significant level, which also apply to the Proposed Project in the 2009 DEIR. Under cumulative conditions, the project applicant would pay fair share towards these improvements as outlined in the **Fair Share Contributions Table**.

**6. Silverado Trail (SR 121)/Soscol Avenue**

Construct third through lanes in both the northbound and southbound approaches and construct exclusive westbound left-turn lane while maintaining the shared left-right-turn lane.

**17. SR 221 (Napa-Vallejo Highway)/Kaiser Road**

Extend the turn-pocket to 500 feet from its current length of approximately 280 or create a dual left-turn the length of the current turn-lane to adequately store the expected queues prior to the occupancy of the project. In addition, construct the following improvements:

- Northbound: a third through lane and a second left-turn lane
- Southbound: a third through lane and free right-turn lane
- Eastbound: a second and third left-turn lane and a free right-turn lane

**20. Napa Valley Corporate Way/SR 221 (Napa-Vallejo Highway)**

Construct third through lanes in both the northbound and southbound approaches and construct a second left-turn lane on the northbound approach.

**23. SR 12-SR 121/SR 29**

Construct third through lanes in both the northbound and southbound approaches and construct the following improvements:

- Northbound: a second left-turn lane
- Eastbound: a second right-turn lane

**28. SR 29/South Kelly Road**

Construct third through lanes in both the northbound and southbound approaches and construct a second northbound left-turn lane.

**Significant and Unavoidable Impacts**

There are several locations that have no feasible means of achieving acceptable operations under cumulative conditions. These intersections may be able to be improved to operate acceptably by constructing large-scale intersection treatments, such as grade separation, continuous-flow intersections, or approach realignment. However, such options are not likely desirable in the affected communities. As such, the following two four cumulative impacts would be significant and unavoidable, which is consistent with the analysis presented in the 2009 DEIR.

2. First Street/ Soscol Avenue
4. Third Street/ Soscol Avenue
12. Imola Ave (SR 121)/Soscol Avenue
34. SR 29/SR 37 Westbound Off-Ramp

As proposed as a mitigation measure for the Proposed Project in the 2009 DEIR for the First Street/Soscol Avenue intersection, to lessen the severity of these significant peak hour impacts, the project applicant shall establish a transportation demand management (TDM) program which

shall be funded and ongoing by the property owners association with the goal of reducing the forecasted auto trip generation from the project by 15%.

## **CONCLUSION**

The Costco Alternative would result in new, previously unidentified significant impact at the intersection of Napa Valley Corporate Drive/Anselmo Court when compared to the Proposed Project under the Existing plus Project Conditions. This impact could be mitigated by signalizing the intersection or implementing a roundabout treatment.

The Costco Alternative would also result in substantially more severe impacts at the intersection of Kaiser Road/Enterprise Way, Napa Valley Corporate Drive/Anselmo Court, and Soscol Ferry Road/Devlin Road under Cumulative Conditions. If the same mitigation measures proposed in the 2009 DEIR were implemented at these new or more severe impacts, these impacts would be reduced to a less-than-significant level.

Further, all mitigations proposed in the 2009 DEIR for impacts generated by the Proposed Project and would be less severe under the Costco Alternative would also be applicable to the Costco Alternative.





**TABLE ES-3**  
**SUMMARY OF SIGNIFICANT IMPACTS PRIOR TO MITIGATION**

Intersection	Scenario																	
	Existing Conditions						Cumulative Conditions with Fully-Funded Network						Cumulative Conditions with Planned Network					
	No Project <sup>1</sup>	Proposed Project	Alt. 1B	Alt. 4	NCA	Costco Alternative <sup>3</sup>	Alt. 1A <sup>1</sup>	Proposed Project	Alt. 1B	Alt. 4	NCA	Costco Alternative <sup>3</sup>	Alt. 1A <sup>1</sup>	Proposed Project	Alt. 1B	Alt. 4	NCA	Costco Alternative <sup>3</sup>
1. Lincoln Ave/Soscol Ave							✓		X				✓		X			
2. First St/ Soscol Ave	✓	X	X				✓	X	X	X	X	X	✓	X	X	X	X	X
3. First St/Silverado Trail							✓		X				✓		X			
4. Third St/ Soscol Ave			X				✓	X	X	X	X	X	✓	X	X	X	X	X
5. Third St/Silverado Tr. (SR 121)/East Ave/Coombsville Rd	✓	X	X		X		✓	X	X		X		✓	X	X		X	
6. Silverado Trail (SR 121)/Soscol Ave			X				✓	X	X	X	X	X	✓	X	X	X	X	X
7. SR 29 Southbound Ramps/Imola Ave	✓		X															
8. SR 29 Northbound Ramps/Imola Ave	✓	X	X		X													
9. Imola Ave (SR 121)/Jefferson St	✓	X	X		X		✓	X	X		X		✓	X	X		X	
10. Imola Ave (SR 121)/Coombs St							✓	X	X		X		✓	X	X		X	
11. Imola Ave (SR 121)/Gasser Dr							✓		X						X			
12. Imola Ave (SR 121)/Soscol Ave	✓	X	X	X	X	X	✓	X	X	X	X	X	✓	X	X	X	X	X
13. SR 221 (Napa-Vallejo Highway)/Streblow Dr		X	X	X	X	X	✓	X	X	X	X	X	✓	X	X	X	X	X
14. Kaiser Rd/Syar Industrial Way																		
15. Kaiser Rd/Napa Valley Corporate Dr																		
16. Kaiser Rd/Enterprise Way			X					X	X	X	X	X	✓	X	X	X	X	X <sup>4</sup>
17. SR 221 (Napa-Vallejo Highway)/Kaiser Rd		X	X					X	X	X	X	X	✓	X	X	X	X	X
18. Napa Valley Corp. Dr/Latour Ct																		
19. Napa Valley Corp. Dr/Napa Valley Corp. Way																		
20. Napa Valley Corp. Way/SR 221 (Napa-Vallejo Hwy.)							✓	X	X	X	X	X	✓	X	X	X	X	X
21. Napa Valley Corporate Dr/Bordeaux Way																		
22. Napa Valley Corporate Dr/Anselmo Ct			X			X		X	X	X	X	X		X	X	X	X	X
23. SR 12-SR 121/SR 29							✓	X	X	X	X	X	✓	X	X	X	X	X
24. Napa Valley Corporate Dr/Soscol Ferry Rd																		
25. Soscol Ferry Rd/Devlin Rd	✓	X	X	X	X	X	✓	X	X	X	X	X		X	X	X	X	X <sup>5</sup>
26. SR 12-SR 29/SR 221 (Napa-Vallejo Highway)	✓	X	X	X	X	X	✓	X	X	X	X	X						
27. Airport Blvd/SR 29-SR 12	✓	X	X	X	X	X	✓	X	X	X	X	X						
28. SR 29/South Kelly Road			X				✓	X	X	X	X	X	✓	X	X	X	X	X
29. SR 29/Napa Junction Road	✓	X	X	X	X	X	✓	X	X	X	X	X		X	X			
30. SR 29/Donaldson Way	✓	X	X	X	X	X	✓	X	X	X	X	X			X			
31. SR 29/American Canyon Rd	✓	X	X	X	X	X	✓	X	X	X	X	X	✓	X	X	X	X	X
32. American Canyon Road/Silver Oak Trail/Broadway St																		
33. American Canyon Road/Newell Road							✓	X	X									
34. SR 29/SR 37 Westbound Off-Ramp							✓	X	X	X	X	X	✓	X	X	X	X	X
Total Significant Impacts:	12 <sup>1</sup>	13	19	8	11	9	22 <sup>1</sup>	22	24	18	21	18	18	18	22	14	17	14

Note: X = Significant Impact Prior to Mitigation ✓ = Unacceptable operating conditions Red Highlights indicate new impacts or substantially more severe impacts than the comparison scenario (i.e. Proposed Project).

1. Intersections with unacceptable operating conditions are reported. No project trips would exist under this scenario; therefore, the significance criteria are not applicable.
2. The Imola Avenue/Gasser Drive intersection is currently a minor intersection and is not functioning as it will under cumulative conditions. The nature of the operations at the intersection becomes critical under cumulative conditions and is studied under those scenarios.
3. The Costco Alternative assumes the Costco to be located one-half way from the south end of the site in the eastern parcel.
4. The impact at Kaiser Road/Enterprise Way would be the same as that under the Proposed Project, since the Costco Alternative would contribute around 10 more trips than the Proposed Project.
5. The Costco Alternative would result in a less severe impact at Socol Ferry Road/Devlin Road than the Proposed Project despite contributes more trips to the impacted intersection, since the overall intersection delay would be reduced from 64 to 57 seconds per vehicle.

Source: Fehr &amp; Peers, 2012



**TABLE 12A (ADAPTED FROM 2009 TIA)**  
**EXISTING PEAK HOUR INTERSECTION LEVEL OF SERVICE ANALYSIS**

Intersection	Traffic Control <sup>1</sup>	Existing Conditions				Proposed Project with standard ITE Trip Generation				Costco Alternative <sup>4</sup>			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS
1. Lincoln Ave/Soscol Ave	Signal	34	C	53	D	34	C	50	D	33	C	50	D
2. First St/ Soscol Ave	Signal	23	C	56	E	29	C	56	E	26	C	54	D
3. First St/Silverado Trail	Signal	23	C	19	B	14	B	16	B	15	B	20	B
4. Third St/ Soscol Ave	Signal	30	C	49	D	40	D	43	D	36	D	44	D
5. Third St/Silverado Tr. (SR 121)/East Ave/Coombsville Rd	Signal	>80	F	>80	F	>80	F	>80	F	>80	F <sup>5</sup>	>80	F <sup>5</sup>
6. Silverado Trail (SR 121)/Soscol Ave	Signal	29	C	32	C	41	D	42	D	38	D	43	D
7. SR 29 Southbound Ramps/Imola Ave	AWS	>50 (EB)	F	>50 (EB)	F	>50 (EB)	F	>50 (EB)	F	>50 (EB)	F <sup>5</sup>	>50 (EB)	F <sup>5</sup>
8. SR 29 Northbound Ramps/Imola Ave	SSS	>50 (NB)	F	>50 (NB)	F	>50 (NB)	F	>50 (NB)	F	>50 (NB)	F <sup>5</sup>	>50 (NB)	F <sup>5</sup>
9. Imola Ave (SR 121)/Jefferson St	Signal	74	E	75	E	73	E	77	E	74	E <sup>5</sup>	78	E <sup>5</sup>
10. Imola Ave (SR 121)/Coombs St	Signal	43	D	44	D	45	D	45	D	46	D	47	D
12. Imola Ave (SR 121)/Soscol Ave	Signal	>80	F	>80	F	>80	F	>80	F	>80	F	>80	F
13. SR 221 (Napa-Vallejo Highway)/Streblow Dr	Signal	42	D	24	C	75	E	48	D	74	E	44	D
14. Kaiser Rd/Syar Industrial Way <sup>3</sup>	SSS	10 (SB)	B	18 (SB)	C	9	A	11	B	9	A	13	B
15. Kaiser Rd/Napa Valley Corporate Dr <sup>3</sup>	SSS	10 (NB)	B	9 (NB)	A	11	B	11	B	10	A	11	B
16. Kaiser Rd/Enterprise Way	SSS	14 (SB)	B	15 (SB)	B	19 (SB)	C	29 (SB)	D	19 (SB)	C	26 (SB)	D
17. SR 221 (Napa-Vallejo Highway)/Kaiser Rd	Signal	15	B	11	B	61	E	35	D	46	D	45	D
18. Napa Valley Corp. Dr/Latour Ct <sup>2</sup>	SSS	N/A	N/A	N/A	N/A	12 (EB)	B	11 (EB)	B	12 (EB)	B	11 (EB)	B
19. Napa Valley Corp. Dr/Napa Valley Corp. Way <sup>2</sup>	AWS	N/A	N/A	N/A	N/A	10	B	11	B	9	A	12	B
20. Napa Valley Corp. Way/SR 221 (Napa-Vallejo Hwy.)	Signal	37	D	22	C	25	C	27	C	25	C	30	C
21. Napa Valley Corporate Dr/Bordeaux Way <sup>2</sup>	SSS	N/A	N/A	N/A	N/A	14 (EB)	B	14 (WB)	B	14 (WB)	B	16 (WB)	C
22. Napa Valley Corporate Dr/Anselmo Ct <sup>2</sup>	SSS	N/A	N/A	N/A	N/A	15 (EB)	C	37 (EB)	E	14 (EB)	B	>50 (EB)	F
23. SR 12-SR 121/SR 29	Signal	53	D	52	D	43	D	36	D	41	D	35	C
24. Napa Valley Corporate Dr/Soscol Ferry Rd	SSS	9 (NB)	A	12 (NB)	B	12 (NB)	B	14 (NB)	B	10 (NB)	B	14 (NB)	B
25. Soscol Ferry Rd/Devlin Rd	SSS	9 (NB)	A	36 (NB)	E	>50 (NB)	F	>50 (NB)	F	>50 (NB)	F	>50 (NB)	F
26. SR 12-SR 29/SR 221 (Napa-Vallejo Highway)	Signal	>80	F	>80	F	>80	F	>80	F	>80	F	>80	F
27. Airport Blvd/SR 29-SR 12	Signal	>80	F	66	E	>80	F	>80	F	>80	F	>80	F
28. SR 29/ South Kelly Road	Signal	48	D	19	B	46	D	21	C	45	D	21	C
29. SR 29/ Napa Junction Road	Signal	> 80	F	54	D	> 80	F	53	D	>80	F	50	D
30. SR 29/ Donaldson Way	Signal	>80	F	24	C	> 80	F	16	B	>80	F	22	C
31. SR 29/American Canyon Rd	Signal	>80	F	54	D	>80	F	64	E	>80	F	61	E
32. American Canyon Rd/ Broadway St	Signal	7	A	8	A	7	A	8	A	7	A	7	A
33. American Canyon Rd/ Newell Rd	Signal	24	C	20	B	25	C	15	B	25	C	16	B
34. SR 29/SR 37 Westbound Off-Ramp	Signal	30	C	26	C	38	D	47	D	35	D	28	C
Total Intersections with Unacceptable Operations:		12				14				13			
Total Project-Significant Impacts:		-				13				9			
Note: <b>Bold</b> = unacceptable LOS, not a significant impact,; <b>Shaded</b> = Significant Impact; Signal = Signalized intersection; AWS = All-Way Stop-Controlled intersection; SSS = Side-Street Stop-Controlled intersection (XX) = indicates worst case approach where WB = westbound, EB = eastbound, NB = northbound, and SB = southbound													
1. Signalized and AWS intersection LOS based on average control delay per vehicle, according to the HCM. Side-street stop-controlled intersection level of service based on worst approach control delay, according to the HCM-Special Report 209 (Transportation Research Board, 2000).													
2. Intersection is not analyzed under Existing Conditions.													
3. The Proposed Project proposes to install a roundabout as intersection treatment.													
4. The Costco Alternative assumes the Costco to be located <u>one-half way from the south end</u> of the site in the eastern parcel.													
5. Intersection would continue to operate at unacceptable LOS under Costco Alternative, but would not be considered a significant impact of the alternative because the alternative would contribute less than or equal to 50 trips to the intersection, per significance criteria for signalized intersections.													
Source: Fehr & Peers, 2012.													

**TABLE 23A (FROM 2009 TIA)**  
**CUMULATIVE (YEAR 2030) PEAK HOUR INTERSECTION LEVEL OF SERVICE WITH “FULLY FUNDED” ROADWAY NETWORK**

Intersection	Traffic Control <sup>1</sup>	Alternative 1A Baseline (Existing Uses)				Proposed Project with standard ITE Trip Generation				Costco Alternative <sup>3</sup>			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS
1. Lincoln Ave/Soscol Ave	Signal	33	C	>80	F	34	C	> 80	F	33	C	> 80	F <sup>4</sup>
2. First St/ Soscol Ave	Signal	38	D	>80	F	42	D	> 80	F	39	D	> 80	F
3. First St/Silverado Trail	Signal	24	C	62	E	24	C	64	E	24	C	63	E <sup>4</sup>
4. Third St/ Soscol Ave	Signal	42	D	>80	F	43	D	> 80	F	42	D	> 80	F
5. Third St/Silverado Tr. (SR 121)/East Ave/Coombsville Rd	Signal	>80	F	>80	F	> 80	F	> 80	F	> 80	F <sup>4</sup>	> 80	F <sup>4</sup>
6. Silverado Trail (SR 121)/Soscol Ave	Signal	51	D	57	E	63	E	> 80	F	66	E	> 80	F
7. SR 29 Southbound Ramps/Imola Ave	Signal	14	B	15	B	15	B	15	B	15	B	15	B
8. SR 29 Northbound Ramps/Imola Ave	Signal	26	C	48	D	26	C	48	D	28	C	50	D
9. Imola Ave (SR 121)/Jefferson St	Signal	>80	F	>80	F	> 80	F	> 80	F	> 80	F <sup>4</sup>	> 80	F <sup>4</sup>
10. Imola Ave (SR 121)/Coombs St	Signal	>80	F	>80	F	> 80	F	> 80	F	> 80	F <sup>4</sup>	> 80	F <sup>4</sup>
11. Imola Ave (SR 121)/Gasser Dr	Signal	44	D	>80	F	46	D	> 80	F	45	D	> 80	F <sup>4</sup>
12. Imola Ave (SR 121)/Soscol Ave	Signal	>80	F	>80	F	> 80	F	> 80	F	> 80	F	> 80	F
13. SR 221 (Napa-Vallejo Highway)/Streblow Dr	Signal	>80	F	43	D	> 80	F	72	E	> 80	F	71	E
14. Kaiser Rd/Syar Industrial Way <sup>2</sup>	SSS	9	A	10	B	11	B	13	B	11	B	25	C
15. Kaiser Rd/Napa Valley Corporate Dr <sup>2</sup>	SSS	10	B	10	B	13	B	12	B	11	B	13	B
16. Kaiser Rd/Enterprise Way	SSS	27 (SB)	C	30 (SB)	D	>50 (SB)	F	>50 (SB)	F	>50 (SB)	F	>50 (SB)	F
17. SR 221 (Napa-Vallejo Highway)/Kaiser Rd	Signal	53	D	50	D	> 80	F	> 80	F	> 80	F	> 80	F
18. Napa Valley Corp. Dr/Latour Ct	SSS	12 (EB)	B	12 (EB)	B	13 (EB)	B	13 (EB)	B	12 (EB)	B	13 (EB)	B
19. Napa Valley Corp. Dr/Napa Valley Corp. Way	AWS	10	B	12	B	11 (WB)	B	13 (WB)	B	11	B	15	B
20. Napa Valley Corp. Way/SR 221 (Napa-Vallejo Hwy.)	Signal	>80	F	>80	F	> 80	F	> 80	F	> 80	F	> 80	F
21. Napa Valley Corporate Dr/Bordeaux Way	SSS	13 (WB)	B	16 (WB)	C	16 (WB)	C	18 (WB)	C	16 (WB)	C	22 (WB)	C
22. Napa Valley Corporate Dr/Anselmo Ct	SSS	11 (EB)	B	19 (EB)	B	21 (EB)	C	>50 (EB)	F	20 (EB)	C	>50 (EB)	F
23. SR 12-SR 121/SR 29	Signal	>80	F	>80	F	> 80	F	> 80	F	> 80	F	> 80	F
24. Napa Valley Corporate Dr/Soscol Ferry Rd	SSS	11 (NB)	B	15 (NB)	C	15 (NB)	C	19 (NB)	C	12 (NB)	B	19 (NB)	C
25. Soscol Ferry Rd/Devlin Rd	SSS	19 (NB)	C	>50 (NB)	F	>50 (NB)	F	>50 (NB)	F	>50 (NB)	F	>50 (NB)	F
26. SR 12-SR 29/SR 221 (Napa-Vallejo Highway)	Signal	>80	F	>80	F	> 80	F	> 80	F	> 80	F	> 80	F
27. Airport Blvd/SR 29-SR 12	Signal	>80	F	>80	F	> 80	F	> 80	F	> 80	F	> 80	F
28. SR 29/ South Kelly Road	Signal	>80	F	>80	F	> 80	F	> 80	F	> 80	F	> 80	F
29. SR 29/ Napa Junction Road	Signal	>80	F	>80	F	> 80	F	> 80	F	> 80	F	> 80	F
30. SR 29/ Donaldson Way	Signal	>80	F	>80	F	> 80	F	> 80	F	> 80	F	> 80	F
31. SR 29/American Canyon Rd	Signal	>80	F	>80	F	> 80	F	> 80	F	> 80	F	> 80	F
32. American Canyon Rd/ Broadway St	Signal	38	D	18	B	37	D	29	C	37	D	28	C
33. American Canyon Rd/ Newell Rd	Signal	58	E	>80	F	62	E	> 80	F	63	E <sup>4</sup>	> 80	F <sup>4</sup>
34. SR 29/SR 37 Westbound Off-Ramp	Signal	>80	F	>80	F	> 80	F	> 80	F	> 80	F	> 80	F
Total Intersections with Unacceptable Operations:		22				25				25			
Total Significant Impacts with Project Contributions:		-				22				18			

Note: **Bold** = unacceptable LOS, not a significant impact,; **Shaded** = Significant Impact; Signal = Signalized intersection; AWS = All-Way Stop-Controlled intersection; SSS = Side-Street Stop-Controlled intersection  
(XX) = indicates worst case approach where WB = westbound, EB = eastbound, NB = northbound, and SB = southbound

1. Signalized and AWS intersection LOS based on average control delay per vehicle, according to the HCM. Side-street stop-controlled intersection level of service based on worst approach control delay, according to the HCM-Special Report 209 (Transportation Research Board, 2000).
2. The Proposed Project proposes to install a roundabout as intersection treatment.
3. The Costco Alternative assumes the Costco to be located one-half way from the south end of the site in the eastern parcel.
4. Intersection would continue to operate at unacceptable LOS under Costco Alternative, but would not be considered a significant impact of the alternative because the alternative would contribute less than or equal to 50 trips to the intersection, per significance criteria for signalized intersections.

Source: Fehr & Peers, 2012.

**TABLE 24A (FROM 2009 TIA)**  
**CUMULATIVE (YEAR 2030) PEAK HOUR INTERSECTION LEVEL OF SERVICE WITH “PLANNED” ROADWAY NETWORK**

Intersection	Traffic Control <sup>1</sup>	Alternative 1A Baseline (Existing Uses)				Proposed Project with standard ITE Trip Generation				Costco Alternative <sup>3</sup>			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS
1. Lincoln Ave/Soscol Ave	Signal	40	D	> 80	F	34	C	> 80	F	33	C	> 80	F <sup>4</sup>
2. First St/ Soscol Ave	Signal	35	C	72	E	40	D	> 80	F	39	D	> 80	F
3. First St/Silverado Trail	Signal	24	C	62	E	24	C	64	E	24	C	63	E <sup>4</sup>
4. Third St/ Soscol Ave	Signal	48	D	> 80	F	44	D	> 80	F	42	D	> 80	F
5. Third St/Silverado Tr. (SR 121)/East Ave/Coombsville Rd	Signal	> 80	F	> 80	F	> 80	F	> 80	F	> 80	F <sup>4</sup>	> 80	F <sup>4</sup>
6. Silverado Trail (SR 121)/Soscol Ave	Signal	66	E	> 80	F	> 80	F	> 80	F	> 80	F	> 80	F
7. SR 29 Southbound Ramps/Imola Ave	Signal	15	B	17	B	16	B	17	B	15	B	17	B
8. SR 29 Northbound Ramps/Imola Ave	Signal	24	C	23	C	24	C	23	C	25	C	22	C
9. Imola Ave (SR 121)/Jefferson St	Signal	> 80	F	> 80	F	> 80	F	> 80	F	> 80	F <sup>4</sup>	> 80	F <sup>4</sup>
10. Imola Ave (SR 121)/Coombs St	Signal	69	E	> 80	F	71	E	> 80	F	71	E <sup>4</sup>	> 80	F <sup>4</sup>
11. Imola Ave (SR 121)/Gasser Dr	Signal	45	D	> 80	F	46	D	> 80	F	46	D	> 80	F <sup>4</sup>
12. Imola Ave (SR 121)/Soscol Ave	Signal	> 80	F	> 80	F	> 80	F	> 80	F	> 80	F	> 80	F
13. SR 221 (Napa-Vallejo Highway)/Streblov Dr	Signal	> 80	F	> 80	F	> 80	F	> 80	F	> 80	F	> 80	F
14. Kaiser Rd/Syar Industrial Way <sup>2</sup>	SSS	9	A	10	B	11	B	14	B	11	B	36	D
15. Kaiser Rd/Napa Valley Corporate Dr <sup>2</sup>	SSS	10	B	10	B	14	B	13	B	12	B	14	B
16. Kaiser Rd/Enterprise Way	SSS	27 (SB)	D	41 (SB)	E	>50 (SB)	F	>50 (SB)	F	>50 (SB)	F	>50 (SB)	F
17. SR 221 (Napa-Vallejo Highway)/Kaiser Rd	Signal	46	D	58	E	> 80	F	> 80	F	> 80	F	> 80	F
18. Napa Valley Corp. Dr/Latour Ct	SSS	12 (EB)	B	13 (EB)	B	13 (EB)	B	13 (EB)	B	13 (EB)	B	13 (EB)	B
19. Napa Valley Corp. Dr/Napa Valley Corp. Way	AWS	10	B	13	B	12	B	14	B	13	B	33	D
20. Napa Valley Corp. Way/SR 221 (Napa-Vallejo Hwy.)	Signal	> 80	F	> 80	F	> 80	F	> 80	F	> 80	F	> 80	F
21. Napa Valley Corporate Dr/Bordeaux Way	SSS	13 (WB)	B	18 (WB)	C	16 (WB)	C	20 (WB)	C	16 (WB)	C	34 (WB)	D
22. Napa Valley Corporate Dr/Anselmo Ct	SSS	11 (EB)	B	18 (EB)	C	17 (EB)	C	>50 (EB)	F	19 (EB)	C	>50 (EB)	F
23. SR 12-SR 121/SR 29	Signal	> 80	F	> 80	F	> 80	F	> 80	F	> 80	F	> 80	F
24. Napa Valley Corporate Dr/Soscol Ferry Rd	SSS	10 (NB)	B	13 (NB)	B	11 (NB)	B	14 (NB)	B	10 (NB)	B	14 (NB)	B
25. Soscol Ferry Rd/Devlin Rd	SSS	14 (NB)	B	28 (NB)	D	17 (NB)	C	>50 (NB)	F	16 (NB)	C	>50 (NB)	F
26. SR 12-SR 29/SR 221 (Napa-Vallejo Highway)	Signal	1	A	1	A	1	A	1	A	1	A	1	A
27. Airport Blvd/SR 29-SR 12	Signal	31 / 15	C / B	25 / 14	C / B	38 / 21	D / C	24 / 14	C / B	37 / 19	D / B	24 / 13	C / B
28. SR 29/ South Kelly Road	Signal	57	E	71	E	48	D	71	E	43	D	67	E
29. SR 29/ Napa Junction Road	Signal	49	D	50	D	53	D	57	E	52	D	54	D
30. SR 29/ Donaldson Way	Signal	28	D	51	D	30	C	54	D	29	C	53	D
31. SR 29/American Canyon Rd	Signal	> 80	F	> 80	F	> 80	F	> 80	F	> 80	F	> 80	F
32. American Canyon Rd/ Broadway St	Signal	22	C	26	C	20	C	14	B	20	C	14	B
33. American Canyon Rd/ Newell Rd	Signal	39	D	28	C	46	D	29	C	45	D	29	C
34. SR 29/SR 37 Westbound Off-Ramp	Signal	> 80	F	> 80	F	> 80	F	> 80	F	> 80	F	> 80	F
Total Intersections with Unacceptable Operations:		18				21				20			
Total Significant Impacts with Project Contributions:		-				18				14			

Note: **Bold** = unacceptable LOS, not a significant impact; **Shaded** = Significant Impact; Signal = Signalized intersection; AWS = All-Way Stop-Controlled intersection; SSS = Side-Street Stop-Controlled intersection (XX) = indicates worst case approach where WB = westbound, EB = eastbound, NB = northbound, and SB = southbound

1. Signalized and AWS intersection LOS based on average control delay per vehicle, according to the HCM. Side-street stop-controlled intersection level of service based on worst approach control delay, according to the HCM-Special Report 209 (Transportation Research Board, 2000).
2. The Proposed Project proposes to install a roundabout as intersection treatment.
3. The Costco Alternative assumes the Costco to be located one-half way from the south end of the site in the eastern parcel.
4. Intersection would not be considered a significant impact of the Costco Alternative because the alternative would contribute less than or equal to 50 trips to the intersection, per significance criteria for signalized intersections.

Source: Fehr & Peers, 2012.

New County Alternative Fair Share Contributions - Compare to Proposed Project									
Intersection Name	Scenario	Volumes				Potential Impact? (>50 Trips)			
		Funded		Planned		Funded		Planned	
		AM	PM	AM	PM	AM	PM	AM	PM
1. Lincoln Ave/Soscol Ave	Baseline	2,333	3,865	2,333	3,865				
	Cumulative No Project	2,800	5,380	2,800	5,380				
	Proposed Project Trips	64	40	64	40	X		X	
	Cumulative plus Proposed Project	2,870	5,420	2,870	5,420				
	Contribution to Cumulative Plus Project Volumes	2.2%	0.7%	2.2%	0.7%				
	2009 Proposed Project Fair Share Contribution	11.9%	2.6%	11.9%	2.6%				
	Costco Alternative Project Trips	59	50	59	50	X		X	
	Cumulative plus Costco Alternative	2,860	5,440	2,860	5,440				
2. First St/ Soscol Ave	Contribution to Cumulative Plus Costco Alternative Volumes	2.1%	0.9%	2.1%	0.9%				
	Costco Alternative Fair Share Contribution	11.2%	3.2%	11.2%	3.2%				
	Baseline	2,771	4,179	2,771	4,179				
	Cumulative No Project	3,630	5,230	3,600	5,200				
	Proposed Project Trips	301	225	262	225	X	X	X	X
	Cumulative plus Proposed Project	3,940	5,460	3,870	5,420				
	Contribution to Cumulative Plus Project Volumes	7.6%	4.1%	6.8%	4.2%				
	2009 Proposed Project Fair Share Contribution	25.7%	17.6%	23.8%	18.1%				
3. First St/Silverado Trail	Costco Alternative Project Trips	242	203	203	195	X	X	X	X
	Cumulative plus Costco Alternative	3,870	5,450	3,810	5,410				
	Contribution to Cumulative Plus Costco Alternative Volumes	6.3%	3.7%	5.3%	3.6%				
	Costco Alternative Fair Share Contribution	22.0%	16.0%	19.5%	15.8%				
	Baseline	1,603	1,914	1,603	1,914				
	Cumulative No Project	2,610	3,080	2,610	3,080				
	Proposed Project Trips	56	41	56	41	X		X	
	Cumulative plus Proposed Project	2,660	3,120	2,660	3,120				
4. Third St/ Soscol Ave	Contribution to Cumulative Plus Project Volumes	2.1%	1.3%	2.1%	1.3%				
	2009 Proposed Project Fair Share Contribution	5.3%	3.4%	5.3%	3.4%				
	Costco Alternative Project Trips	47	39	47	39				
	Cumulative plus Costco Alternative	2,660	3,120	2,660	3,120				
	Contribution to Cumulative Plus Costco Alternative Volumes	1.8%	1.3%	1.8%	1.3%				
	Costco Alternative Fair Share Contribution	4.4%	3.2%	4.4%	3.2%				
	Baseline	3,446	4,722	3,446	4,722				
	Cumulative No Project	4,420	5,760	4,420	5,770				
5. Third St/Silverado Tr. (SR 121)/East Ave/Coombsville Rd	Proposed Project Trips	539	411	539	411	X	X	X	X
	Cumulative plus Proposed Project	4,970	6,180	4,970	6,190				
	Contribution to Cumulative Plus Project Volumes	10.8%	6.7%	10.8%	6.6%				
	2009 Proposed Project Fair Share Contribution	35.4%	28.2%	35.4%	28.0%				
	Costco Alternative Project Trips	424	351	425	367	X	X	X	X
	Cumulative plus Costco Alternative	4,840	6,120	4,840	6,140				
	Contribution to Cumulative Plus Costco Alternative Volumes	8.8%	5.7%	8.8%	6.0%				
	Costco Alternative Fair Share Contribution	30.4%	25.1%	30.5%	25.9%				
6. Silverado Trail (SR 121)/Soscol Ave	Baseline	2,180	2,336	2,180	2,336				
	Cumulative No Project	3,140	3,720	3,140	3,720				
	Proposed Project Trips	56	41	56	41	X		X	
	Cumulative plus Proposed Project	3,200	3,760	3,200	3,760				
	Contribution to Cumulative Plus Project Volumes	1.8%	1.1%	1.8%	1.1%				
	2009 Proposed Project Fair Share Contribution	5.5%	2.9%	5.5%	2.9%				
	Costco Alternative Project Trips	47	39	47	39				
	Cumulative plus Costco Alternative	3,190	3,760	3,190	3,760				
7. SR 29 Southbound Ramps/Imola Ave	Contribution to Cumulative Plus Costco Alternative Volumes	1.5%	1.0%	1.5%	1.0%				
	Costco Alternative Fair Share Contribution	4.7%	2.7%	4.7%	2.7%				
	Baseline	3,434	4,595	3,434	4,595				
	Cumulative No Project	4,450	5,320	5,900	6,780				
	Proposed Project Trips	595	452	595	452	X	X	X	X
	Cumulative plus Proposed Project	5,040	5,770	6,490	7,230				
	Contribution to Cumulative Plus Project Volumes	11.8%	7.8%	9.2%	6.3%				
	2009 Proposed Project Fair Share Contribution	37.0%	38.5%	19.5%	17.2%				
8. SR 29 Northbound Ramps/Imola Ave	Costco Alternative Project Trips	471	391	471	391	X	X	X	X
	Cumulative plus Costco Alternative	4,920	5,710	6,370	7,170				
	Contribution to Cumulative Plus Costco Alternative Volumes	9.6%	6.8%	7.4%	5.5%				
	Costco Alternative Fair Share Contribution	31.7%	35.1%	16.0%	15.2%				
	Baseline	1,863	2,388	1,863	2,388				
	Cumulative No Project	3,060	3,490	2,910	3,470				
	Proposed Project Trips	21	14	21	13				
	Cumulative plus Proposed Project	3,080	3,500	2,930	3,480				
9. Imola Ave (SR 121)/Jefferson St	Contribution to Cumulative Plus Project Volumes	0.7%	0.4%	0.7%	0.4%				
	2009 Proposed Project Fair Share Contribution	1.7%	1.3%	2.0%	1.2%				
	Costco Alternative Project Trips	24	11	24	11				
	Cumulative plus Costco Alternative	3,080	3,500	2,930	3,480				
	Contribution to Cumulative Plus Costco Alternative Volumes	0.8%	0.3%	0.8%	0.3%				
	Costco Alternative Fair Share Contribution	2.0%	1.0%	2.2%	1.0%				
	Baseline	2,884	3,504	2,884	3,504				
	Cumulative No Project	4,220	4,780	4,060	4,410				
10. SR 29 Northbound Ramps/Imola Ave	Proposed Project Trips	51	35	50	34	X			
	Cumulative plus Proposed Project	4,270	4,810	4,110	4,440				
	Contribution to Cumulative Plus Project Volumes	1.2%	0.7%	1.2%	0.8%				
	2009 Proposed Project Fair Share Contribution	3.7%	2.7%	4.1%	3.6%				
	Costco Alternative Project Trips	45	38	44	38				
	Cumulative plus Costco Alternative	4,260	4,820	4,100	4,450				
	Contribution to Cumulative Plus Costco Alternative Volumes	1.1%	0.8%	1.1%	0.9%				
	Costco Alternative Fair Share Contribution	3.3%	2.9%	3.6%	4.0%				
11. Imola Ave (SR 121)/Jefferson St	Baseline	3,523	4,266	3,523	4,266				
	Cumulative No Project	4,760	5,420	4,670	5,120				
	Proposed Project Trips	52	34	50	34	X			
	Cumulative plus Proposed Project	4,810	5,450	4,720	5,150				
	Contribution to Cumulative Plus Project Volumes	1.1%	0.6%	1.1%	0.7%				
	2009 Proposed Project Fair Share Contribution	4.0%	2.9%	4.2%	3.8%				
	Costco Alternative Project Trips	45	37	44	38				
	Cumulative plus Costco Alternative	4,810	5,460	4,710	5,160				
12. Imola Ave (SR 121)/Jefferson St	Contribution to Cumulative Plus Costco Alternative Volumes	0.9%	0.7%	0.9%	0.7%				
	Costco Alternative Fair Share Contribution	3.5%	3.1%	3.7%	4.3%				
	Baseline	3,523	4,266	3,523	4,266				
	Cumulative No Project	4,760	5,420	4,670	5,120				
	Proposed Project Trips	52	34	50	34	X			
	Cumulative plus Proposed Project	4,810	5,450	4,720	5,150				
	Contribution to Cumulative Plus Project Volumes	1.1%	0.6%	1.1%	0.7%				
	2009 Proposed Project Fair Share Contribution	4.0%	2.9%	4.2%	3.8%				

Intersection Name	Scenario	Volumes				Potential Impact? (>50 Trips)	
		Funded		Planned		Funded	Planned
10. Imola Ave (SR 121)/Coombs St	Baseline	3,318	4,043	3,318	4,043		
	Cumulative No Project	4,920	5,430	4,690	5,360		
	Proposed Project Trips	52	34	50	34	X	
	Cumulative plus Proposed Project	4,970	5,460	4,740	5,390		
	Contribution to Cumulative Plus Project Volumes	1.0%	0.6%	1.1%	0.6%		
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>3.1%</b>	<b>2.4%</b>	<b>3.5%</b>	<b>2.5%</b>		
	Costco Alternative Project Trips	45	37	44	38		
11. Imola Ave (SR 121)/Gasser Dr	Cumulative plus Costco Alternative	4,970	5,470	4,730	5,400		
	Contribution to Cumulative Plus Costco Alternative Volumes	0.9%	0.7%	0.9%	0.7%		
	<b>Costco Alternative Fair Share Contribution</b>	<b>2.7%</b>	<b>2.6%</b>	<b>3.1%</b>	<b>2.8%</b>		
	Baseline	2,733	3,483	2,733	3,483		
	Cumulative No Project	4,360	4,910	4,140	5,350		
	Proposed Project Trips	52	34	50	34	X	
	Cumulative plus Proposed Project	4,410	4,940	4,190	5,380		
12. Imola Ave (SR 121)/Soscol Ave	Contribution to Cumulative Plus Project Volumes	1.2%	0.7%	1.2%	0.6%		
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>3.1%</b>	<b>2.3%</b>	<b>3.4%</b>	<b>1.8%</b>		
	Costco Alternative Project Trips	45	37	44	38		
	Cumulative plus Costco Alternative	4,410	4,950	4,180	5,390		
	Contribution to Cumulative Plus Costco Alternative Volumes	1.0%	0.7%	1.1%	0.7%		
	<b>Costco Alternative Fair Share Contribution</b>	<b>2.7%</b>	<b>2.5%</b>	<b>3.0%</b>	<b>2.0%</b>		
	Baseline	6,481	7,477	6,481	7,477		
13. SR 221 (Napa-Vallejo Highway)/Streblow Dr	Cumulative No Project	8,080	8,700	7,800	9,100		
	Proposed Project Trips	648	485	646	485	X	X
	Cumulative plus Proposed Project	8,730	9,180	8,450	9,580		
	Contribution to Cumulative Plus Project Volumes	7.4%	5.3%	7.6%	5.1%		
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>28.8%</b>	<b>28.5%</b>	<b>32.8%</b>	<b>23.1%</b>		
	Costco Alternative Project Trips	514	425	514	426	X	X
	Cumulative plus Costco Alternative	8,600	9,130	8,320	9,530		
14. Kaiser Rd/Syar Industrial Way	Contribution to Cumulative Plus Costco Alternative Volumes	6.0%	4.7%	6.2%	4.5%		
	<b>Costco Alternative Fair Share Contribution</b>	<b>24.3%</b>	<b>25.7%</b>	<b>27.9%</b>	<b>20.8%</b>		
	Baseline	4,459	4,934	4,459	4,934		
	Cumulative No Project	5,860	5,910	5,680	6,470		
	Proposed Project Trips	806	623	805	622	X	X
	Cumulative plus Proposed Project	6,670	6,530	6,490	7,090		
	Contribution to Cumulative Plus Project Volumes	12.1%	9.5%	12.4%	8.8%		
15. Kaiser Rd/Napa Valley Corporate Dr	<b>2009 Proposed Project Fair Share Contribution</b>	<b>36.5%</b>	<b>39.0%</b>	<b>39.6%</b>	<b>28.8%</b>		
	Costco Alternative Project Trips	625	520	623	520	X	X
	Cumulative plus Costco Alternative	6,490	6,420	6,310	6,980		
	Contribution to Cumulative Plus Costco Alternative Volumes	9.6%	8.1%	9.9%	7.4%		
	<b>Costco Alternative Fair Share Contribution</b>	<b>30.8%</b>	<b>35.0%</b>	<b>33.7%</b>	<b>25.4%</b>		
	Baseline	157	627	157	627		
	Cumulative No Project	920	1,330	920	1,320		
16. Kaiser Rd/Enterprise Way	Proposed Project Trips	1,021	1,034	1,235	1,202	X	X
	Cumulative plus Proposed Project	1,940	2,250	2,150	2,520		
	Contribution to Cumulative Plus Project Volumes	52.6%	46.0%	57.4%	47.7%		
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>57.3%</b>	<b>63.7%</b>	<b>62.0%</b>	<b>63.5%</b>		
	Costco Alternative Project Trips	746	1,111	847	1,206	X	X
	Cumulative plus Costco Alternative	1,670	2,440	1,770	2,520		
	Contribution to Cumulative Plus Costco Alternative Volumes	44.7%	45.5%	47.9%	47.9%		
17. SR 221 (Napa-Vallejo Highway)/Kaiser Rd	<b>Costco Alternative Fair Share Contribution</b>	<b>49.3%</b>	<b>61.3%</b>	<b>52.5%</b>	<b>63.7%</b>		
	Baseline	428	608	428	608		
	Cumulative No Project	1,190	1,290	1,200	1,300		
	Proposed Project Trips	1,021	1,033	1,251	1,209	X	X
	Cumulative plus Proposed Project	2,210	2,330	2,450	2,500		
	Contribution to Cumulative Plus Project Volumes	46.2%	44.3%	51.1%	48.4%		
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>57.3%</b>	<b>60.0%</b>	<b>61.9%</b>	<b>63.9%</b>		
18. Napa Valley Corp. Dr/Latour Ct	Costco Alternative Project Trips	745	1,110	862	1,218	X	X
	Cumulative plus Costco Alternative	1,940	2,400	2,070	2,520		
	Contribution to Cumulative Plus Costco Alternative Volumes	38.4%	46.3%	41.6%	48.3%		
	<b>Costco Alternative Fair Share Contribution</b>	<b>49.3%</b>	<b>61.9%</b>	<b>52.5%</b>	<b>63.7%</b>		
	Baseline	781	791	781	791		
	Cumulative No Project	1,360	1,330	1,370	1,340		
	Proposed Project Trips	980	985	1,193	1,154	X	X
19. SR 221 (Napa-Vallejo Highway)/Enterprise Way	Cumulative plus Proposed Project	2,340	2,320	2,570	2,500		
	Contribution to Cumulative Plus Project Volumes	41.9%	42.5%	46.4%	46.2%		
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>62.9%</b>	<b>64.4%</b>	<b>66.7%</b>	<b>67.5%</b>		
	Costco Alternative Project Trips	712	1,068	813	1,165	X	X
	Cumulative plus Costco Alternative	2,080	2,400	2,180	2,510		
	Contribution to Cumulative Plus Costco Alternative Volumes	34.2%	44.5%	37.3%	46.4%		
	<b>Costco Alternative Fair Share Contribution</b>	<b>54.8%</b>	<b>66.4%</b>	<b>58.1%</b>	<b>67.8%</b>		
20. SR 221 (Napa-Vallejo Highway)/Kaiser Rd	Baseline	4,386	4,556	4,386	4,556		
	Cumulative No Project	6,150	6,320	6,250	6,410		
	Proposed Project Trips	1,105	1,043	1,304	1,204	X	X
	Cumulative plus Proposed Project	7,250	7,370	7,560	7,620		
	Contribution to Cumulative Plus Project Volumes	15.2%	14.2%	17.2%	15.8%		
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>38.6%</b>	<b>37.1%</b>	<b>41.1%</b>	<b>39.3%</b>		
	Costco Alternative Project Trips	800	909	888	998	X	X
21. Napa Valley Corp. Dr/Latour Ct	Cumulative plus Costco Alternative	6,960	7,230	7,140	7,420		
	Contribution to Cumulative Plus Costco Alternative Volumes	11.5%	12.6%	12.4%	13.5%		
	<b>Costco Alternative Fair Share Contribution</b>	<b>31.1%</b>	<b>34.0%</b>	<b>32.2%</b>	<b>34.8%</b>		
	Baseline	367	529	367	529		
	Cumulative No Project	480	670	500	690		
	Proposed Project Trips	41	48	73	48		X
	Cumulative plus Proposed Project	520	720	570	740		
22. Napa Valley Corp. Dr/Latour Ct	Contribution to Cumulative Plus Project Volumes	7.9%	6.7%	12.8%	6.5%		
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>26.8%</b>	<b>25.1%</b>	<b>36.0%</b>	<b>22.7%</b>		
	Costco Alternative Project Trips	33	42	62	48		X
	Cumulative plus Costco Alternative	510	710	560	740		
	Contribution to Cumulative Plus Costco Alternative Volumes	6.5%	5.9%	11.1%	6.5%		
	<b>Costco Alternative Fair Share Contribution</b>	<b>23.1%</b>	<b>23.2%</b>	<b>32.1%</b>	<b>22.7%</b>		
	Baseline	367	529	367	529		

Intersection Name	Scenario	Volumes				Potential Impact? (>50 Trips)			
		Funded		Planned		Funded		Planned	
19. Napa Valley Corp. Dr/Napa Valley Corp. Way	Baseline	491	812	491	812				
	Cumulative No Project	740	1,050	910	1,250				
	Proposed Project Trips	178	106	222	116	X	X	X	X
	Cumulative plus Proposed Project	910	1,160	1,130	1,360				
	Contribution to Cumulative Plus Project Volumes	19.6%	9.1%	19.6%	8.5%				
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>42.5%</b>	<b>30.5%</b>	<b>34.7%</b>	<b>21.2%</b>				
	Costco Alternative Project Trips	175	225	244	417	X	X	X	X
20. Napa Valley Corp. Way/SR 221 (Napa-Vallejo Hwy.)	Cumulative plus Costco Alternative	920	1,270	1,160	1,670				
	Contribution to Cumulative Plus Costco Alternative Volumes	19.0%	17.7%	21.0%	25.0%				
	<b>Costco Alternative Fair Share Contribution</b>	<b>40.8%</b>	<b>49.1%</b>	<b>36.5%</b>	<b>48.6%</b>				
	Baseline	4,383	4,380	4,383	4,380				
	Cumulative No Project	6,580	6,450	6,680	6,930				
	Proposed Project Trips	437	415	649	586	X	X	X	X
	Cumulative plus Proposed Project	7,020	6,870	7,330	7,520				
21. Napa Valley Corporate Dr/Bordeaux Way	Contribution to Cumulative Plus Project Volumes	6.2%	6.0%	8.9%	7.8%				
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>16.6%</b>	<b>16.7%</b>	<b>22.0%</b>	<b>18.7%</b>				
	Costco Alternative Project Trips	276	210	397	470	X	X	X	X
	Cumulative plus Costco Alternative	6,860	6,670	7,080	7,400				
	Contribution to Cumulative Plus Costco Alternative Volumes	4.0%	3.1%	5.6%	6.4%				
	<b>Costco Alternative Fair Share Contribution</b>	<b>11.1%</b>	<b>9.2%</b>	<b>14.7%</b>	<b>15.6%</b>				
	Baseline	312	700	312	700				
22. Napa Valley Corporate Dr/Anselmo Ct	Cumulative No Project	500	880	500	900				
	Proposed Project Trips	190	82	197	82	X	X	X	X
	Cumulative plus Proposed Project	680	960	710	980				
	Contribution to Cumulative Plus Project Volumes	27.9%	8.5%	27.7%	8.4%				
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>51.6%</b>	<b>31.5%</b>	<b>49.5%</b>	<b>29.3%</b>				
	Costco Alternative Project Trips	192	223	220	389	X	X	X	X
	Cumulative plus Costco Alternative	700	1,100	730	1,290				
23. SR 12-SR 121/SR 29	Contribution to Cumulative Plus Costco Alternative Volumes	27.4%	20.3%	30.1%	30.2%				
	<b>Costco Alternative Fair Share Contribution</b>	<b>49.5%</b>	<b>55.8%</b>	<b>52.6%</b>	<b>65.9%</b>				
	Baseline	293	669	293	669				
	Cumulative No Project	530	930	650	900				
	Proposed Project Trips	567	417	353	252	X	X	X	X
	Cumulative plus Proposed Project	1,090	1,340	1,000	1,150				
	Contribution to Cumulative Plus Project Volumes	52.0%	31.1%	35.3%	21.9%				
24. Napa Valley Corporate Dr/Soscol Ferry Rd	<b>2009 Proposed Project Fair Share Contribution</b>	<b>71.1%</b>	<b>62.1%</b>	<b>49.9%</b>	<b>52.4%</b>				
	Costco Alternative Project Trips	441	659	339	567	X	X	X	X
	Cumulative plus Costco Alternative	980	1,590	990	1,460				
	Contribution to Cumulative Plus Costco Alternative Volumes	45.0%	41.4%	34.2%	38.8%				
	<b>Costco Alternative Fair Share Contribution</b>	<b>64.2%</b>	<b>71.6%</b>	<b>48.6%</b>	<b>71.7%</b>				
	Baseline	5,430	5,557	5,430	5,557				
	Cumulative No Project	6,920	7,980	6,900	7,550				
25. Soscol Ferry Rd/Devlin Rd	Proposed Project Trips	121	104	121	103	X	X	X	X
	Cumulative plus Proposed Project	7,040	8,080	7,020	7,650				
	Contribution to Cumulative Plus Project Volumes	1.7%	1.3%	1.7%	1.3%				
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>7.5%</b>	<b>4.1%</b>	<b>7.6%</b>	<b>4.9%</b>				
	Costco Alternative Project Trips	86	78	87	78	X	X	X	X
	Cumulative plus Costco Alternative	7,000	8,060	6,990	7,630				
	Contribution to Cumulative Plus Costco Alternative Volumes	1.2%	1.0%	1.2%	1.0%				
26. SR 12-SR 29/SR 221 (Napa-Vallejo Highway)	<b>Costco Alternative Fair Share Contribution</b>	<b>5.5%</b>	<b>3.1%</b>	<b>5.6%</b>	<b>3.8%</b>				
	Baseline	289	667	289	667				
	Cumulative No Project	430	810	360	830				
	Proposed Project Trips	377	336	156	170	X	X	X	X
	Cumulative plus Proposed Project	830	1,310	550	1,170				
	Contribution to Cumulative Plus Project Volumes	45.4%	25.6%	28.4%	14.5%				
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>69.7%</b>	<b>52.3%</b>	<b>59.8%</b>	<b>33.8%</b>				
27. Airport Blvd/SR 29-SR 12	Costco Alternative Project Trips	249	436	36	128	X	X		X
	Cumulative plus Costco Alternative	680	1,250	400	960				
	Contribution to Cumulative Plus Costco Alternative Volumes	36.6%	34.9%	9.0%	13.3%				
	<b>Costco Alternative Fair Share Contribution</b>	<b>63.7%</b>	<b>74.8%</b>	<b>32.4%</b>	<b>43.7%</b>				
	Baseline	737	1,186	737	1,186				
	Cumulative No Project	1,280	1,920	520	1,020				
	Proposed Project Trips	394	357	157	171	X	X	X	X
28. SR 12-SR 29/SR 221 (Napa-Vallejo Highway)	Cumulative plus Proposed Project	1,670	2,280	670	1,200				
	Contribution to Cumulative Plus Project Volumes	23.6%	15.7%	23.4%	14.3%				
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>42.2%</b>	<b>32.6%</b>						
	Costco Alternative Project Trips	257	445	119	179	X	X	X	X
	Cumulative plus Costco Alternative	1,550	2,370	630	1,200				
	Contribution to Cumulative Plus Costco Alternative Volumes	16.6%	18.8%	18.9%	14.9%				
	<b>Costco Alternative Fair Share Contribution</b>	<b>31.6%</b>	<b>37.6%</b>						
29. SR 12-SR 29/SR 221 (Napa-Vallejo Highway)	Baseline	8,226	8,111	8,226	8,111				
	Cumulative No Project	10,920	12,060	5,150	6,230				
	Proposed Project Trips	562	544	164	138	X	X	X	X
	Cumulative plus Proposed Project	11,470	12,610	5,310	6,370				
	Contribution to Cumulative Plus Project Volumes	4.9%	4.3%	3.1%	2.2%				
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>17.3%</b>	<b>12.1%</b>	<b>-5.6%</b>	<b>-7.9%</b>				
	Costco Alternative Project Trips	323	335	117	127	X	X	X	X
30. SR 12-SR 29/SR 221 (Napa-Vallejo Highway)	Cumulative plus Costco Alternative	11,250	12,400	5,260	6,340				
	Contribution to Cumulative Plus Costco Alternative Volumes	2.9%	2.7%	2.2%	2.0%				
	<b>Costco Alternative Fair Share Contribution</b>	<b>10.7%</b>	<b>7.8%</b>	<b>-3.9%</b>	<b>-7.2%</b>				
	Baseline	7,214	7,032						
	Cumulative No Project	10,870	11,500						
	Proposed Project Trips	509	517			X	X		
	Cumulative plus Proposed Project	11,390	12,030						
31. Airport Blvd/SR 29-SR 12	Contribution to Cumulative Plus Project Volumes	4.5%	4.3%						
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>12.2%</b>	<b>10.3%</b>						
	Costco Alternative Project Trips	276	251			X	X		
	Cumulative plus Costco Alternative	11,150	11,760						
	Contribution to Cumulative Plus Costco Alternative Volumes	2.5%	2.1%						
	<b>Costco Alternative Fair Share Contribution</b>	<b>7.0%</b>	<b>5.3%</b>						
	Baseline	7,214	7,032						



Intersection Name	Scenario	Volumes				Potential Impact? (>50 Trips)			
		Funded		Planned		Funded		Planned	
28. SR 29/South Kelley Road	Baseline	4,705	4,733	4,705	4,733				
	Cumulative No Project	7,500	6,320	6,730	6,870				
	Proposed Project Trips	362	372	362	372	X	X	X	X
	Cumulative plus Proposed Project	7,860	6,700	7,090	7,250				
	Contribution to Cumulative Plus Project Volumes	4.6%	5.6%	5.1%	5.1%				
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>11.5%</b>	<b>18.9%</b>	<b>15.2%</b>	<b>14.8%</b>				
	Costco Alternative Project Trips	193	180	193	180	X	X	X	X
	Cumulative plus Costco Alternative	7,690	6,500	6,920	7,050				
29. SR 29/Napa Junction Road	Baseline	4,973	4,507	4,973	4,507				
	Cumulative No Project	6,750	6,610	5,710	6,060				
	Proposed Project Trips	362	372	362	372	X	X	X	X
	Cumulative plus Proposed Project	7,110	6,990	6,070	6,440				
	Contribution to Cumulative Plus Project Volumes	5.1%	5.3%	6.0%	5.8%				
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>16.9%</b>	<b>15.0%</b>	<b>33.0%</b>	<b>19.2%</b>				
	Costco Alternative Project Trips	193	180	193	180	X	X	X	X
	Cumulative plus Costco Alternative	6,940	6,790	5,900	6,240				
30. SR 29/Donaldson Way	Baseline	5,188	4,264	5,188	4,264				
	Cumulative No Project	6,330	7,090	5,570	6,610				
	Proposed Project Trips	362	372	362	372	X	X	X	X
	Cumulative plus Proposed Project	6,690	7,460	5,930	6,980				
	Contribution to Cumulative Plus Project Volumes	5.4%	5.0%	6.1%	5.3%				
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>24.1%</b>	<b>11.6%</b>	<b>48.8%</b>	<b>13.7%</b>				
	Costco Alternative Project Trips	194	181	194	181	X	X	X	X
	Cumulative plus Costco Alternative	6,520	7,280	5,760	6,800				
31. SR 29/American Canyon Rd	Baseline	5,377	4,860	5,377	4,860				
	Cumulative No Project	7,500	9,020	6,640	8,130				
	Proposed Project Trips	279	290	279	290	X	X	X	X
	Cumulative plus Proposed Project	7,780	9,310	6,920	8,420				
	Contribution to Cumulative Plus Project Volumes	3.6%	3.1%	4.0%	3.4%				
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>11.6%</b>	<b>6.5%</b>	<b>18.1%</b>	<b>8.1%</b>				
	Costco Alternative Project Trips	147	137	147	137	X	X	X	X
	Cumulative plus Costco Alternative	7,650	9,150	6,790	8,260				
32. American Canyon Rd/Silver Oak Trail/Broadway St	Baseline	2,141	2,217	2,141	2,217				
	Cumulative No Project	3,150	4,100	1,990	2,260				
	Proposed Project Trips	60	55	60	55	X	X	X	X
	Cumulative plus Proposed Project	3,210	4,150	2,050	2,310				
	Contribution to Cumulative Plus Project Volumes	1.9%	1.3%	2.9%	2.4%				
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>5.6%</b>	<b>2.8%</b>	<b>-65.9%</b>	<b>59.1%</b>				
	Costco Alternative Project Trips	38	35	38	35				
	Cumulative plus Costco Alternative	3,190	4,130	2,030	2,290				
33. American Canyon Rd/Newell Dr	Baseline	2,412	2,436	2,412	2,436				
	Cumulative No Project	4,820	4,310	4,560	4,360				
	Proposed Project Trips	60	55	60	55	X	X	X	X
	Cumulative plus Proposed Project	4,880	4,360	4,620	4,410				
	Contribution to Cumulative Plus Project Volumes	1.2%	1.3%	1.3%	1.2%				
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>2.4%</b>	<b>2.9%</b>	<b>2.7%</b>	<b>2.8%</b>				
	Costco Alternative Project Trips	38	35	38	35				
	Cumulative plus Costco Alternative	4,860	4,340	4,600	4,390				
34. SR 29/SR 37 Westbound Off-Ramp	Baseline	4,507	5,073	4,507	5,073				
	Cumulative No Project	6,690	7,450	6,850	7,620				
	Proposed Project Trips	219	234	219	234	X	X	X	X
	Cumulative plus Proposed Project	6,910	7,690	7,070	7,860				
	Contribution to Cumulative Plus Project Volumes	3.2%	3.0%	3.1%	3.0%				
	<b>2009 Proposed Project Fair Share Contribution</b>	<b>9.1%</b>	<b>8.9%</b>	<b>8.5%</b>	<b>8.4%</b>				
	Costco Alternative Project Trips	109	102	109	102	X	X	X	X
	Cumulative plus Costco Alternative	6,810	7,560	6,970	7,730				
271. Airport Blvd/SR 29-SR 12	Baseline			4,910	4,500				
	Cumulative No Project								
	Proposed Project Trips			149	110			X	X
	Cumulative plus Proposed Project			5,060	4,610				
	Contribution to Cumulative Plus Project Volumes			2.9%	2.4%				
	<b>2009 Proposed Project Fair Share Contribution</b>			<b>2.9%</b>	<b>2.4%</b>				
	Costco Alternative Project Trips			81	63			X	X
	Cumulative plus Costco Alternative			4,990	4,560				
272. Airport Blvd/SR 29-SR 12	Baseline			4,880	5,420				
	Cumulative No Project								
	Proposed Project Trips			162	186			X	X
	Cumulative plus Proposed Project			5,040	5,610				
	Contribution to Cumulative Plus Project Volumes			3.2%	3.3%				
	<b>2009 Proposed Project Fair Share Contribution</b>			<b>3.2%</b>	<b>3.3%</b>				
	Costco Alternative Project Trips			61	53			X	X
	Cumulative plus Costco Alternative			4,940	5,480				

## MEMORANDUM

DATE September 11, 2012  
 TO Hilary Gitelman  
 FROM Kyle Simpson  
 RE GHG Emissions for the Developer's Modified Proposal

The following table shows CO<sub>2</sub>e emissions for the modified project alternative in year 2020, based on Urbemis and the BGM Model, and the following development assumptions:

- 945 dwelling units of the same type/size as the project
- 25,000 sf neighborhood serving retail
- 150 unit senior/assisted living
- 150 room hotel
- 10,000 sf office use
- 15,000 sf community facilities
- 15,000 sf of restaurant
- 165,000 sf light industrial/R&D uses
- 154,000 sf Membership Warehouse Club Retail

TABLE 1 GHG Emissions for Alternative

Emission Source	Unmitigated (CO <sub>2</sub> e Metric Tons/Year)	Mitigated Emissions (CO <sub>2</sub> e Metric Tons/Year)
Transportation	19,746.4	16,880.6
Area Source	44.6	44.6
Electricity	2,185.4	1,566.1
Natural Gas	1,703.4	1,362.7
Water & Wastewater	98.9	94.6
Solid Waste	2,194.6	1,097.3
<b>Total</b>	<b>25,973.2</b>	<b>21,046.0</b>

Assumes: Energy efficiency at least 20% beyond Title 24  
 Traffic mitigation measures and effectiveness of project site design  
 Solid waste diversion of 50%  
 Source: The Planning Center | DC&E, 2012



## Memorandum

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**DATE:** July 16, 2012  
**TO:** Keith Rogal  
**FROM:** Wes Strickland  
**RE:** City of Napa Water Supplies for Revised Napa Pipe Project

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### 1. EXECUTIVE SUMMARY

This memorandum analyzes water supplies and demands for the Napa Pipe Project as set forth in the revised development application dated June 8, 2012 (“Revised Project”), consisting of the County-recommended 63-acre development plus a Costco to be located on the southeastern portion of the site, all using water supplies from the City of Napa (“City”).

This memorandum analyzes City water supplies and demands based on detailed analysis contained in the *Water Supply Assessment for the Napa Pipe Project, Napa County, California*, dated September 12, 2011 (“WSA”). Pursuant to that analysis, the City would have sufficient water supplies to meet all demands of the Revised Project in normal and multiple dry years, and in single dry years after 2025. In single dry years between 2015 and 2025, the City would face a water supply deficit based on the conservative planning assumptions used in its *Urban Water Management Plan 2010 Update* (“UWMP”), but in reality would likely have sufficient supplies based on the availability of additional dry year supplies from the State Water Project and implementation of its Water Shortage Contingency Plan. The analysis in this memorandum leads to the conclusion that the City could reasonably provide water to the Revised Project.

The Revised Project would obtain water from the City by purchasing water on a wholesale basis. The water would be sold by the City to a retail water purveyor, which would be either an investor-owned utility or mutual water company. Because the City would be selling water to the Revised Project on a wholesale basis, no approval would be required for this water supply arrangement from the Napa County Local Agency Formation Commission (“LAFCO”).

### 2. REVISED PROJECT WATER DEMANDS

The Revised Project would redevelop the Napa Pipe brownfield site for mixed use consisting of 700 to 945 attached residential dwelling units in multi-story buildings, 150 senior housing units, 40,000 square feet of retail space, 100,000 square feet of office space, various community

facilities, a 150-room hotel, and a Costco retail center proposed at 154,000 square feet with a gas station. The Revised Project would encompass 63 acres located between the Napa River and the existing railroad tracks on the site, and 21 acres located on the southeastern portion of the site. The remaining 70 acres east of the railroad tracks and in Zone D—the northeast quadrant of the site—would retain its existing “industrial” zoning designation. For purposes of estimating the demand for potable water, it is assumed that those 70 acres would accommodate 400,000 square feet of light industrial or research and development space; the actual amount of industrial development that would occur in this area would likely be less than 400,000 square feet, but the estimated water demand conservatively assumes this level of industrial development. The Revised Project would have potable water demands equal to approximately 340 acre-feet per year (“AFY”), as shown in Table 1.

<b>Table 1. Projected Potable Water Demands for the Revised Napa Pipe Project</b>				
<b>Land Use</b>	<b>Quantity</b>	<b>Water Use Factor</b>	<b>Water Use (gpd)</b>	<b>Water Use (AFY)</b>
<b>Residential</b>				
Multi-Story Residential	945 units	165 gpu	155,900	175
Senior Housing Units	150 units	113 gpu	16,900	19
<b>Commercial</b>				
Retail	40,000 ft <sup>2</sup>	0.1 gpd/ft <sup>2</sup>	4,000	4
Costco	154,000 ft <sup>2</sup>	0.1 gpd/ft <sup>2</sup>	15,400	17
Offices	100,000 ft <sup>2</sup>	0.1 gpd/ft <sup>2</sup>	10,000	11
R&D/Light Industrial	400,000 ft <sup>2</sup>	0.1 gpd/ft <sup>2</sup>	40,000	45
Hotel	150 rooms	150 gpd/room	22,500	25
Community Facilities	15,600 ft <sup>2</sup>	0.1 gpd/ft <sup>2</sup>	1,600	2
Community Pool	1 unit	1,200 gpu	1,200	1
<b>Irrigated Areas</b>				
Rear Yards	2.3 acres	3,125 gpd/acre	7,200	8
Community Gardens	0.5 acres	3,125 gpd/acre	1,600	2
Total Potable Water Demands			276,300	310
Total Potable Water Demands with 10% Unaccounted-For Water			303,900	340

The estimated water demands of the Revised Project include water for indoor residential, commercial and community facility uses, a relatively small amount for irrigation of rear yards, and 10 percent for unaccounted-for water. Those demands will need to be met with potable water and cannot be satisfied by the use of recycled water. Estimates for Costco facilities are taken from prior water demand estimates contained in environmental impact reports for Costco retail facilities of similar size.<sup>1</sup>

<sup>1</sup> See City of Redwood City, *Draft Environmental Impact Report for Costco Commercial Complex*, State Clearinghouse No. 2005092047 (2006) (150,000 ft<sup>2</sup> facility plus fuel station, water use factor of 0.1 gpd/ft<sup>2</sup>)

Because the Revised Project does not contain detailed information about landscaping, this memorandum does not include an estimate of non-potable water demands. Given that the supply of recycled water from Napa Sanitation District is projected to be significantly higher than the demands of the Napa Pipe Project or any of its alternatives, it is expected that sufficient recycled water supplies would be available to meet all non-potable water demands of the Revised Project.

### **3. CITY OF NAPA WATER SUPPLIES**

As discussed in Sections 7.4 and 7.5 of the WSA, the City is projected to have a surplus of water in both normal and multiple dry years in all periods, either with or without the Revised Project. Thus, the City would have sufficient water supplies for the Revised Project in those year types. In single dry years, which are based on 1977 as the single driest year in the past century, the UWMP projected that the City will face deficit conditions through 2025 for the city's existing service area. Beginning in 2030, it is expected that City water supplies will be sufficient to meet all demands in single dry years. If the demands of the Revised Project were added to the City's overall water demands, that would increase the amount of deficit between 2015 and 2025 by an estimated 340 AFY, and reduce the magnitude but maintain surplus water conditions in 2030 and following years. The greatest deficit would be projected for 2015, when the addition of demands from the Revised Project would increase the supply deficit of total City demands from 860 to 1,200 AFY. In 2020, the Alternative would increase the deficit from 270 to 610 AFY, and in 2025, the Alternative would increase the deficit from 225 to 565 AFY.

As noted by the City in its UWMP, many of the water supply assumptions made by the City were very conservative for planning purposes, including very low 7 to 11 percent allocations from the 2009 State Water Project Delivery Reliability Report, and the exclusion of State Water Project carryover and Article 21 water possibilities. More favorable assumptions in any of those categories could eliminate projected shortfalls. If no imported dry year supplies were obtained, additional demand reduction could be generated through implementation of Stage 1 or 2 voluntary actions in the City Water Shortage Contingency Plan. When that plan was activated in 1991, the City achieved a 31 percent reduction in consumption, which would more than adequately cover the maximum 9 percent deficit of City supplies in 2015, including the Revised Project. Based on this analysis, it is expected that the City would have sufficient water supplies to serve the Revised Project.

While it would not be necessary, City water could be made available as part of a conjunctive use program, in which groundwater at the project site would be used in lieu of City water when water shortfalls might otherwise be experienced. The WSA describes in detail the conjunctive use of groundwater in the context of a proposed importation of surface water through the North Bay Aqueduct; the same approach would be feasible for the Revised Project receiving water from the City. As set forth in the WSA, groundwater supplies at the site are sufficient to supply water in an amount of at least 620 AFY. That amount would cover the full water deficit projected for the City from 2020 through 2025, including the demands of both the City and the Revised Project. In 2015, 620 AFY would cover the entire demands of the Revised Project and an additional 280

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[[http://www.redwoodcity.org/phed/planning/eir/costco\\_draft.html](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<sup>2</sup> facility plus fuel station, water use factor of 0.068 gpd/ft<sup>2</sup>) [<http://www.ci.san-luis-obispo.ca.us/-communitydevelopment/download/costfeir.pdf>].

AFY of the City's own water deficit. Thus, use of local groundwater supplies could easily meet all demands of the Revised Project during those years when the City might otherwise experience a shortfall, and could also be used to reduce the City's own water supply deficit.

The conjunctive use of City water supplies and groundwater underlying the Napa Pipe site has been implemented historically. For example, in the single dry year of 1977, the City requested that Kaiser Steel pump groundwater to meet its potable water demands rather than taking delivery of water from the City. At the time, the City was delivering approximately 150 AFY of potable water to the site, while Kaiser Steel used groundwater for industrial uses. In order to help the City meet its water demands during 1977, Kaiser Steel temporarily stopped taking potable water supplies from the City and instead extracted additional groundwater to meet its own needs. This type of arrangement in single dry years would be beneficial to both the Revised Project and the City.

#### **4. CITY OF NAPA AUTHORITY TO PROVIDE WATER SERVICE**

As described in the WSA, Section 7.1, the Napa Pipe site is located within the City's retail water service area even though it is not located within City limits or the residential urban limit ("RUL") line.<sup>2</sup> The City has provided water to the Napa Pipe site since 1956 through a 10-inch connection located at the intersection of Route 221 and Kaiser Road. While the Napa Pipe property is currently served by the City on a retail basis, after development of the Revised Project, the City's single point of delivery to the Napa Pipe property would become a wholesale water connection to the retail water purveyor for the Revised Project, which would be either an investor-owned utility or mutual water company.

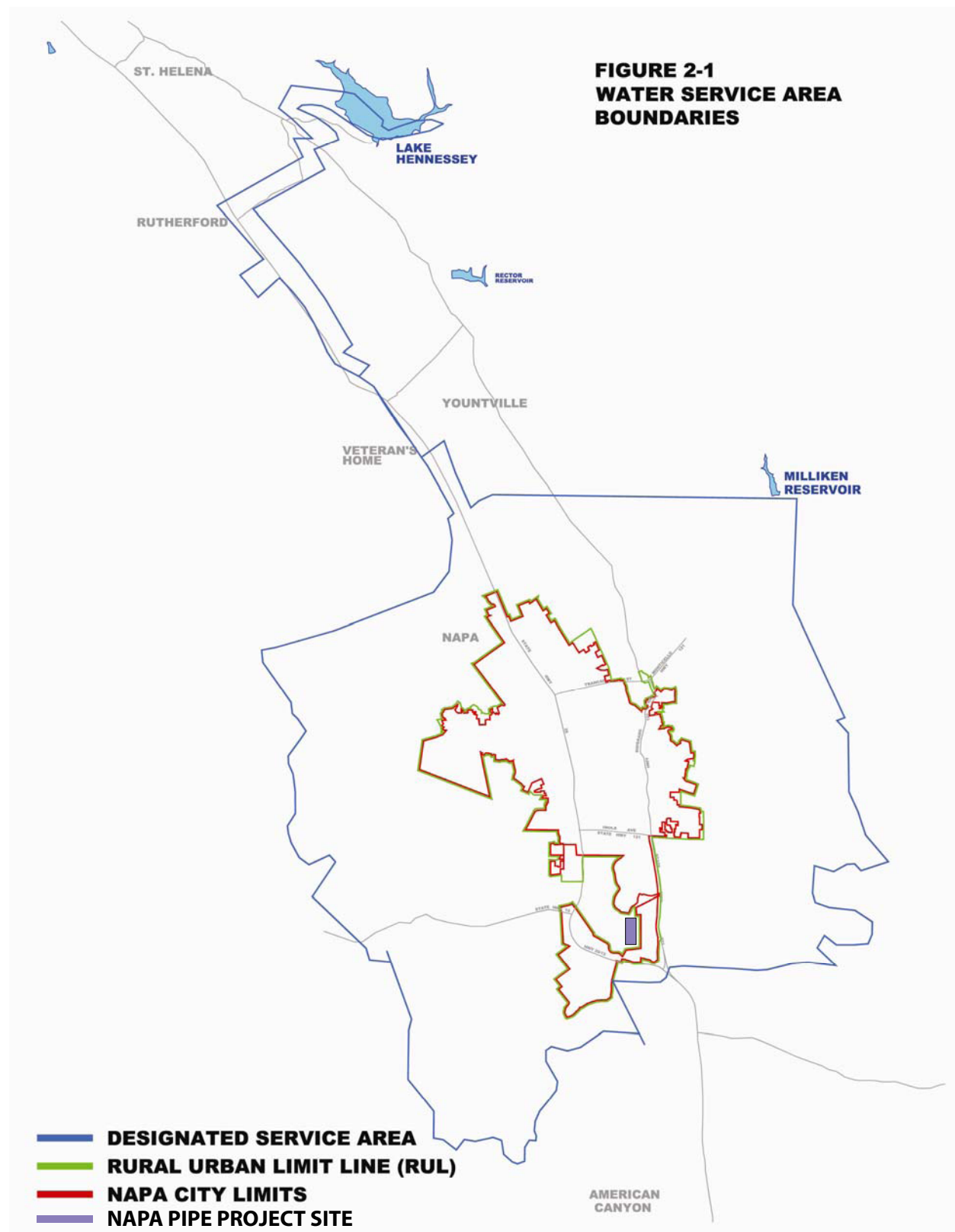
The City currently sells water on a wholesale basis to several other retail water purveyors located in Napa County outside of the city limits and RUL, including the Cities of American Canyon, Calistoga and St. Helena, and the Town of Yountville, as well as to the California Veterans Home in Yountville.<sup>3</sup> The City could wholesale water to the retail purveyor for the Revised Project based on a negotiated contract, with terms and conditions that are acceptable to both the City and the Revised Project applicant. The City could deliver water on a wholesale basis to the Revised Project even though the project site would be located outside the City limits and the RUL. The City Charter and City Code do not contain any restrictions on wholesale water contracts, nor would a wholesale contract require approval by LAFCO, since there is an important legal distinction between the provision of retail water service pursuant to Government Code § 56133 and wholesale water sales.<sup>4</sup> For example, the City did not follow a special approval process before the City Council or LAFCO before entering into wholesale contracts with the Cities of American Canyon, Calistoga or St. Helena, the Town of Yountville, or the California Veterans Home. The City could agree to wholesale water to the water purveyor for the Revised Project following simple majority approval by the City Council of a negotiated contract with the Revised Project applicant.

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<sup>2</sup> See UWMP, at 2-2. A modified version of Figure 2-1, showing the Napa Pipe site, is attached.

<sup>3</sup> See UWMP, at 5-17.

<sup>4</sup> See, e.g., *Modesto Irrigation Dist. v. Pacific Gas and Electric Co.*, 309 F.Supp.2d 1156, 1158, fn.3 (N.D.Cal. 2004); *South San Joaquin Irrigation Dist. v. Superior Court*, 162 Cal.App.4th 146, 157-58 (2008); *San Joaquin Local Agency Formation Comm. v. Superior Court*, No. C056463, 2008 DJDAR 5708 (2008).



## Napa Redevelopment Partners

Ms. Joy Eldredge, General Manager  
City of Napa Water Division  
1314 Clay Street  
Napa, CA

Dear Ms. Eldredge:

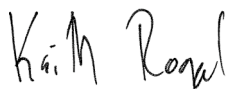
Napa Redevelopment Partners, LLC hereby requests that the City of Napa consider and approve the sale of water to the Napa Pipe Project, as described in the revised development application dated June 8, 2012 ("Revised Project").

The Revised Project has been projected to have water demands of approximately 340 acre-feet per year. As described in the Water Supply Assessment for the Napa Pipe Project, Napa County, California, dated September 12, 2011 ("WSA"), and the attached memorandum, our analysis has found that the City can reasonably provide water to the Revised Project on a wholesale basis without adversely impacting existing or future City retail water customers. We request that the City perform an analysis of its existing and projected future water supplies to confirm our analysis.

If the City determines that it has sufficient water supplies to sell water on a wholesale basis to the Revised Project, we request that the City issue findings to that effect and enter into good faith negotiations with us for a wholesale water delivery contract. We would expect the Revised Project to adequately compensate the City for its surplus water supplies and protect City water customers from any financial impact.

Please let us know if you have any questions about the Revised Project or our request. We look forward to working with the City to determine the terms and conditions upon which the City may provide wholesale water to the Revised Project.

Sincerely,



Keith Rogal  
Napa Redevelopment Partners, LLC

cc: (by email) Mayor Jill Techel  
Mr. Mike Parness  
Ms. Cassandra Walker  
Mr. Jack LaRochelle

1025 Kaiser Rd.  
Napa, CA 94558

main 707 252-7000  
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