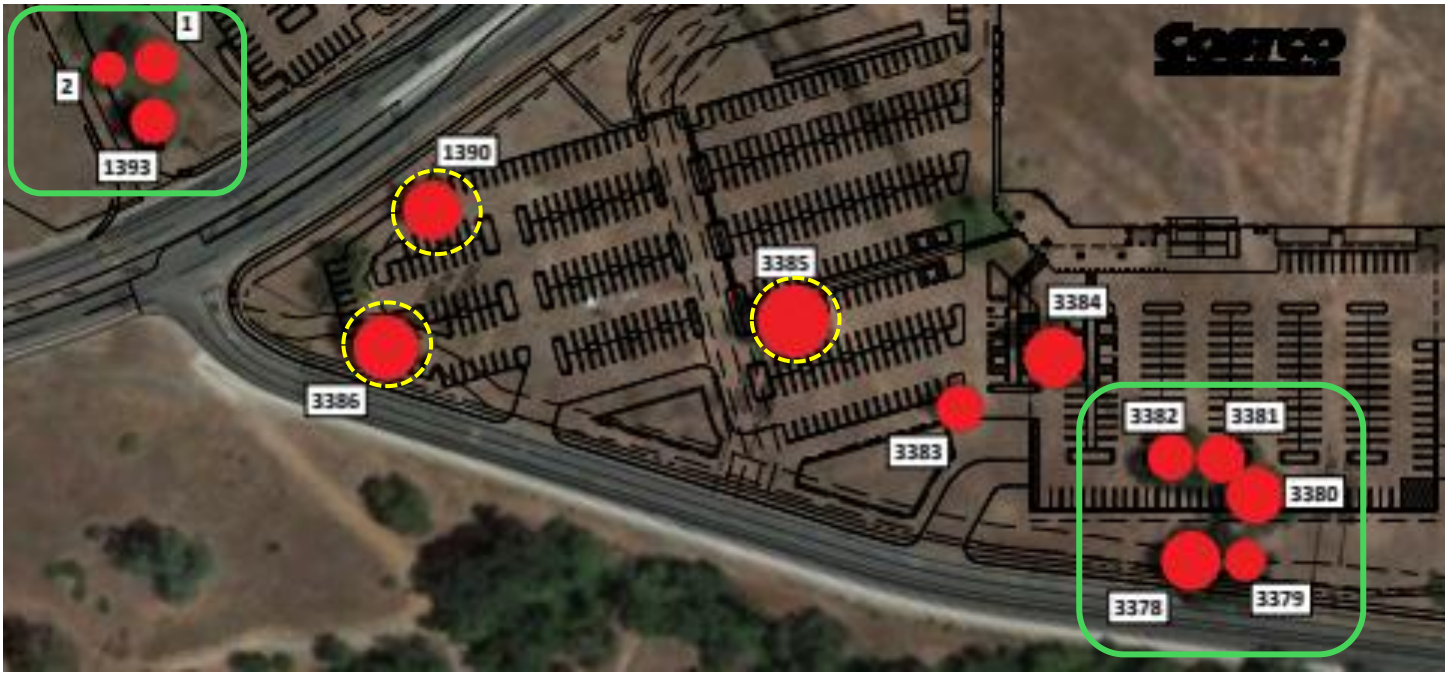
16th. March 2025
El Dorado County Development Services Department-Planning Services,
Attention: Cameron Welch,
2850 Fairlane Court, Placerville, CA 95667
EDHCostco@edcgov.us.

The following are my comments regarding EDH 52 Costco PROJ21-0003 CUP-R21-0024 Z17-0004 P17-0007 S17-0017 PD15-0001 CUP23-0012 V22-0001Project 20278 Development Plan, i.e. COSTCO EDH DEVELOPMENT PLAN

Foreword
Google Earth satellite images from 2002-2023 were used to measure all areas and subject to my aerial photo interpretation. All site photos were taken by me on 12th & 15th. March 2025.

HELIX ENVIRONMENTAL OAK RESOUCES TECHNICAL REPORT

The applicant says: *"Tree permit for **selective removal** of on-site trees within the development envelope and authorization for the payment of in lieu fees to compensate for tree removal" and* provided the following exhibits.



Source: https://edhapac.org/wp-content/uploads/2021/07/Oak-Resources-Technical-Report-Dated-November-2020.pdf
HELIX Environmental Planning, Inc. 1677 Eureka Road, Suite 100 Roseville, CA 95661
916.435.1202 Tel 619.462.0552 fax www.helixepi.com November 10, 2020, Project # AKT-20

	Tree #	Species	DBH (inches)	DLR (feet)	Height (feet)	Health	Structure	Comment
	1	Valley Oak	9, 8	15	40	Fair	Fair	No tag, heavy blackberry, codominant
	2	Interior Live Oak	9, 8, 8	16	27	Fair-Good	Fair	No tag, heavy blackberry, codominant
*	**1390**	Valley Oak	47	21	60	Poor-Fair	Poor	Deadwood, limb failure, acorn woodpecker granary tree
	1393	Valley Oak	21	20	50	Fair-Good	Fair-Good	Existing tag, minor dieback
	3378	Valley Oak	35	30	40	Good	Fair-Good	Deadwood
	3379	Valley Oak	18	24	40	Good	Fair-Good	Asymmetrical canopy, suppressed growing environment
	3380	Valley Oak	33	38	40	Good	Good	
	3381	Valley Oak	27	30	40	Good	Good	
	3382	Valley Oak	27	25	40	Good	Fair	Codominant
	3383	Valley Oak	26	23	40	Fair-Good	Fair	Asymmetrical canopy
	3384	Valley Oak	10	13	15	Fair	Fair	Codominant, small leaves
*	**3385**	Blue Oak	48	40	60	Fair-Good	Fair	Asymmetrical canopy, pruning wound, 1 trunk removed
*	**3386**	Valley Oak	42	38	60	Fair-Good	Fair	Deadwood, dieback

* Heritage tree

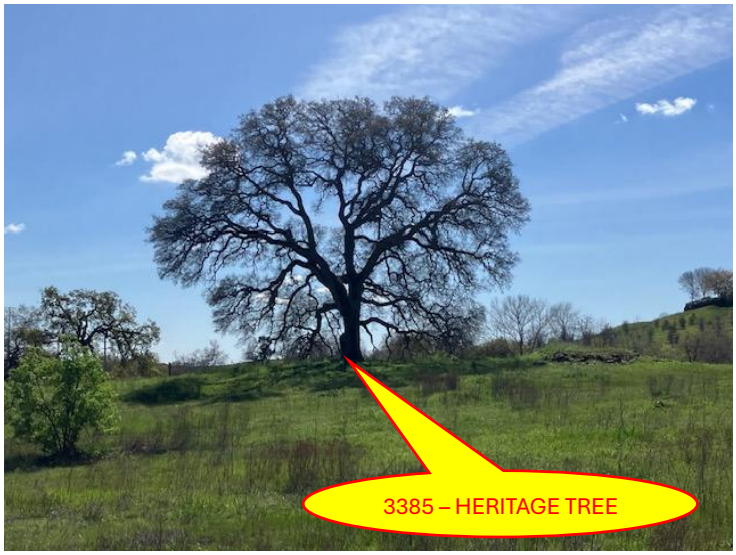
OAK TREE PRESERVATION

Clarksville Crossing

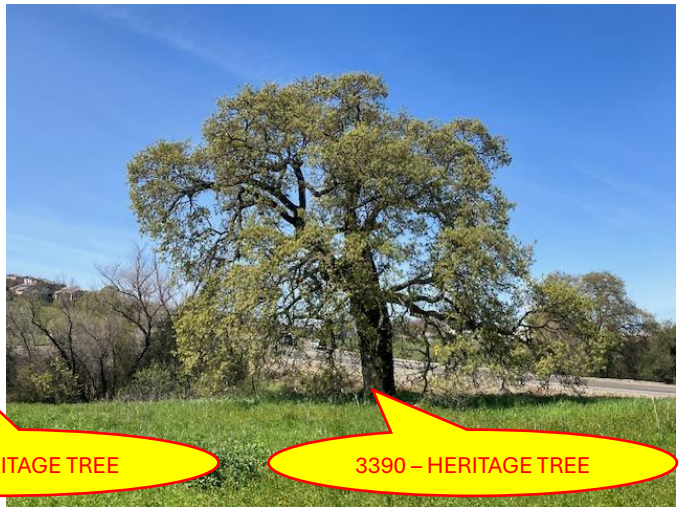
The following photographs provide visual proof that their description of "selective removal" is indeed anything but selective, it is total removal.

There really is no good reason why these trees could not all be saved with some judicious mass grading

Please see cross section diagrams under grading for a possible solution



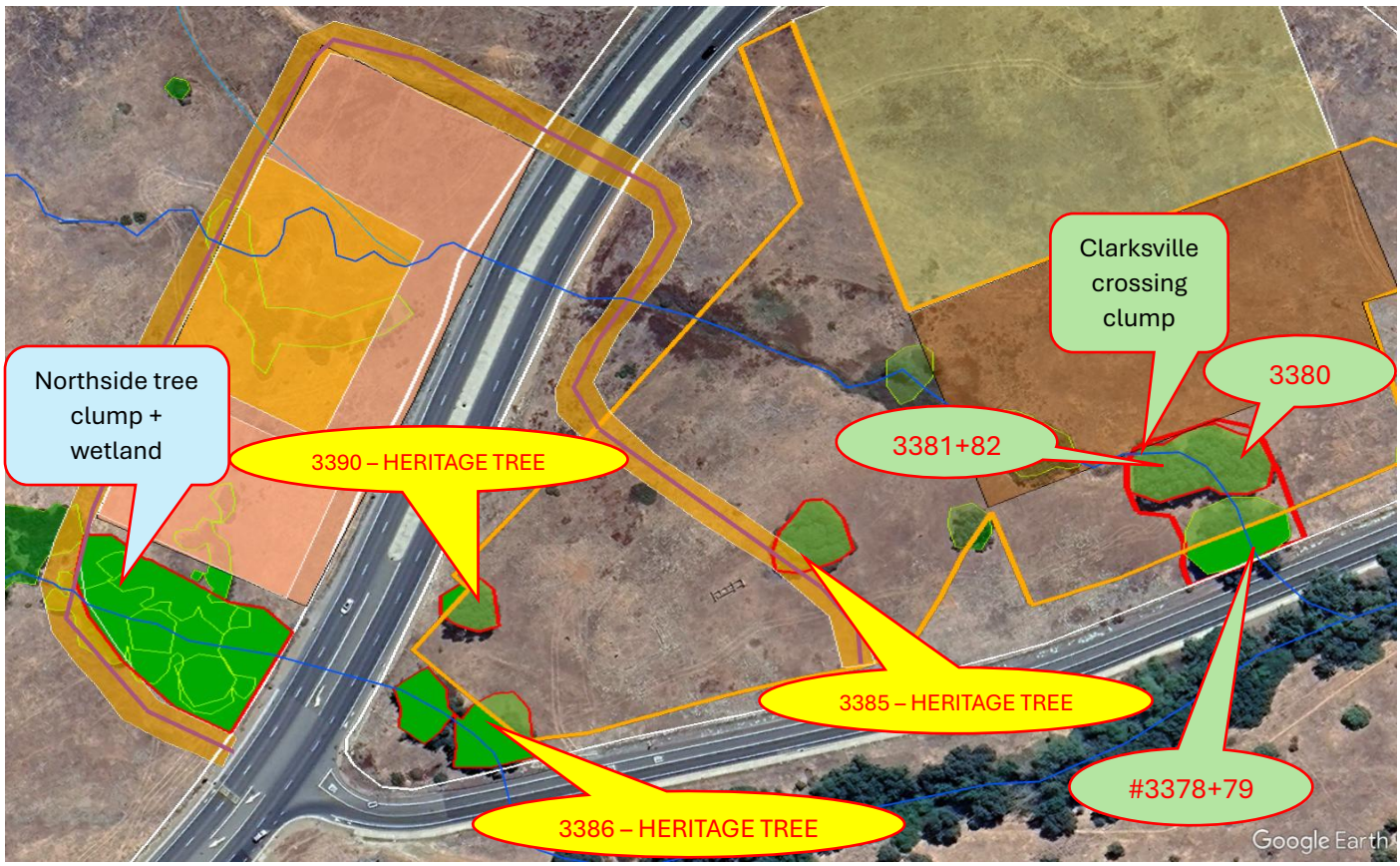
This tree can be saved since it is “at grade” on the parking lot. Please see the section on drainage and grading.



These trees can be saved since they are on the periphery of the parking lot.

This tree is slated to be removed because there is significant grading to be done around it. I am sure a good engineer can save it with some judicious grading. The tree is already in a retention pond, why then remove it?

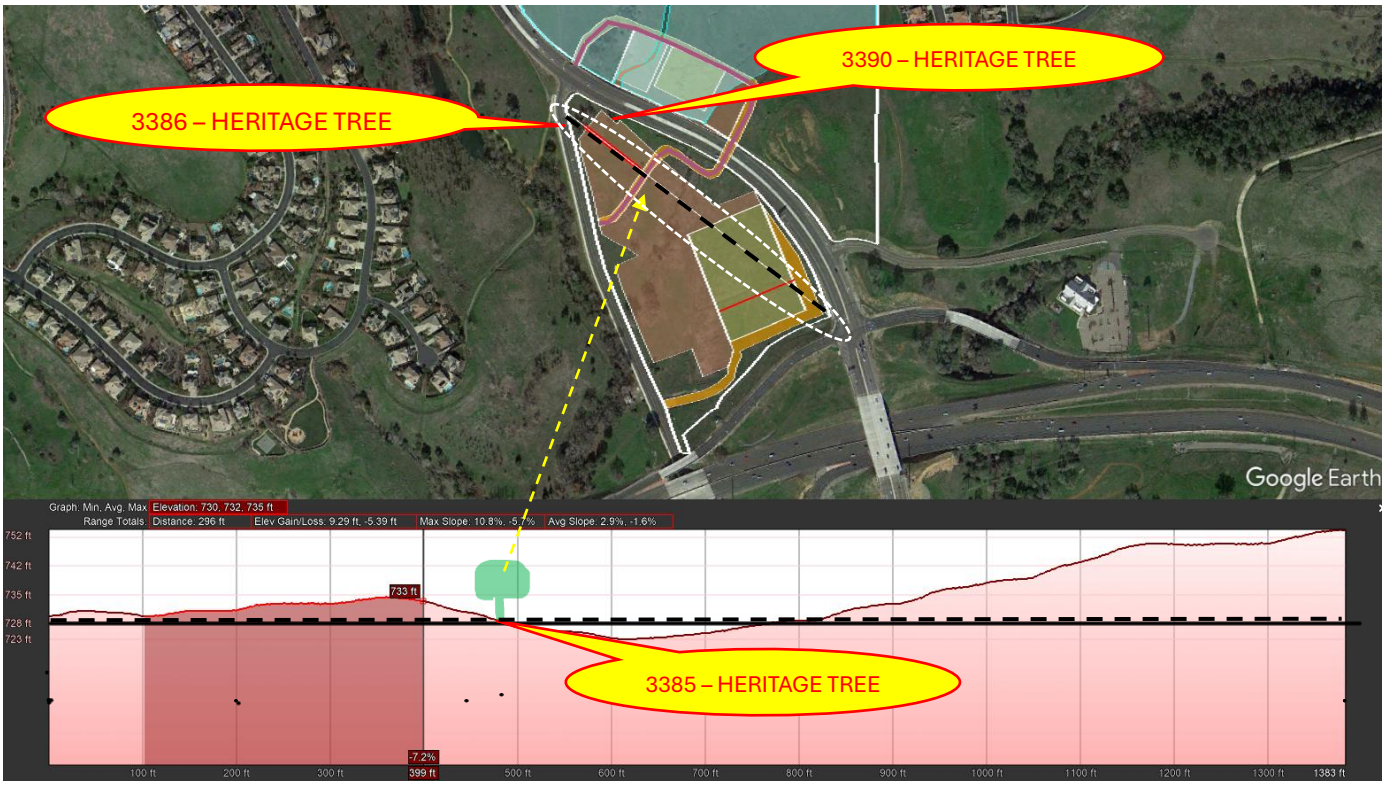
Applicant's tree removal program

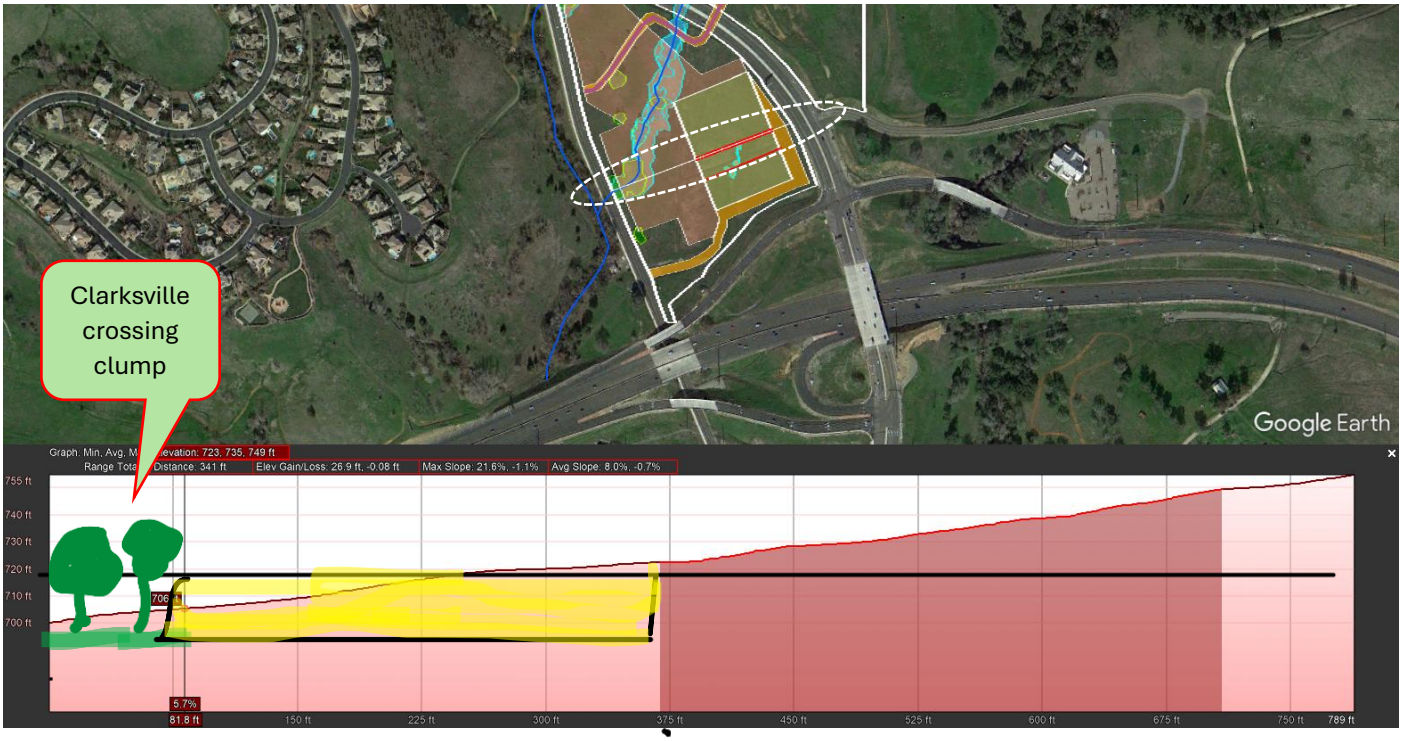


I see - although not clearly given the highly reduced contour and site grading map- that virtually the entire site is to be graded to a 728-foot base with the surface parking declining slightly from there. The analysis shows that the placement of the heritage oaks is such that they can all be avoided – albeit with a dose of skillful grading – along with other oak trees at the periphery of the main parking lot and those adjacent to Clarkesville Crossing.

The concept of mitigating with "In lieu fees" is available to a developer for trees that cannot be avoided and thus removed. "Avoidance" is the key word here. Apparently, the applicant makes no effort to avoid removal of all oak

trees but cites the Hellix Environmental's report as a basis for paying in lieu fees totaling $101,884 … a cheap way out!





<u>Oak Tree Mitigation</u>:

As in Helix Environmental Planning's November 10th letter states: "*Currently, mitigation is expected to be fulfilled through the payment of in-lieu fees. Since more than 50% of the existing oak woodland will be removed, impacts to oak woodland must be mitigated at a ratio of 1.5:1. Table 3 summarizes the mitigation fees based on the ORMP. Table 3 MITIGATION FEES Oak Resource Impact Mitigation Ratio Fee (per trunk inch) Total Fee Oak Woodland 0.35*

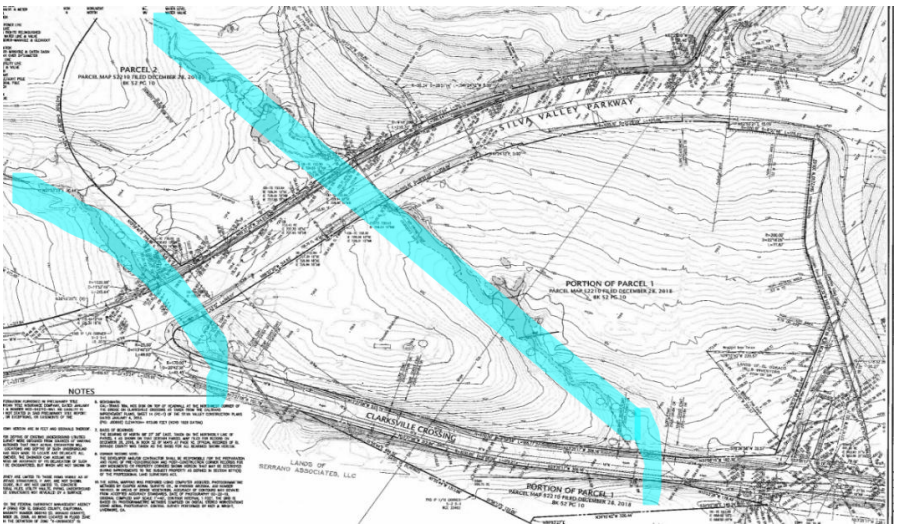
acres 2:1 $8,285 $5,800 Individual Oak Tree 99 cumulative inches 1:1 $153 $15,147 Individual Oak Tree Stockpile 55 cumulative inches 1:1 $153 $8,415 Heritage Tree 48 cumulative inches 3:1 $459 $22,032 Heritage Tree Stockpile 110 cumulative inches 3:1 $459 $50,490= ***TOTAL $101,884."***

In short, the applicant never even tries to mitigate "on site" as I have suggested - all be it in sketch format - thus saving most of the oak trees by incorporating the them into the parking lot and landscaping easements. With a bit of clever engineering and grading – and desire – COSTCO can avoid removing all heritage oak trees and save a handsome clump of slightly smaller oak trees immediately adjacent to the drainage culvert at the Clarksville Crossing Road.

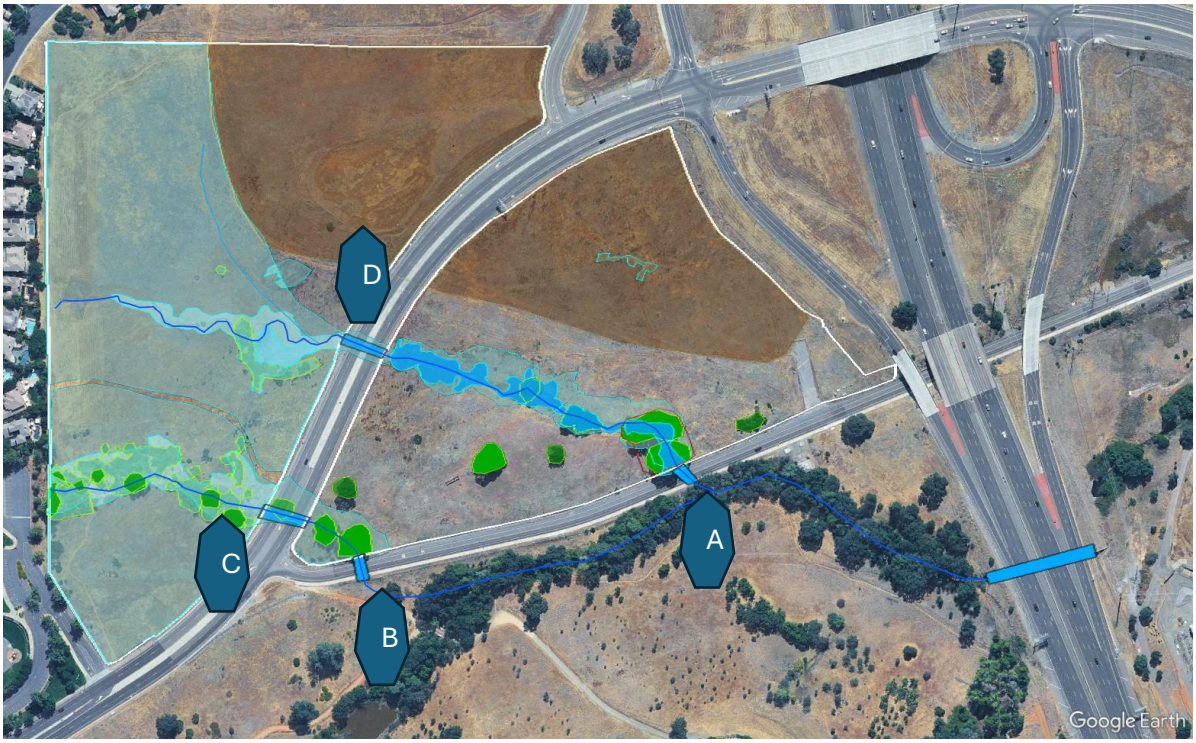
Concluding comment: The applicant should be required to present an on-site oak tree avoidance plan to avoid the removal of oak trees # 1390, 3386/85/84/82/81/80/79/78. The Helix Environmental Report should not be considered a "plan" but a mere in lieu fee calculation, no more.

DRAINAGE

As a foreword to this section, my comments are based on experience on a large project impacting the development runoff to the Auburn Ravine in Lincoln. Below, the two main drainage areas (colored blue)



Drainage areas and culverts.



Project Buildout

My contention is that a drainage plan should focus on both north and south parcels because they are inextricably linked. I respectfully suggest that, because the runoff at buildout from the northern tract, in addition to the southern site's runoff as proposed, both peak flows will probably overwhelm the culvert at point "A" notwithstanding the retention sites incorporated in the actual development plan.

Culvert "D" in very bad shape and about **3 feet in diameter**.

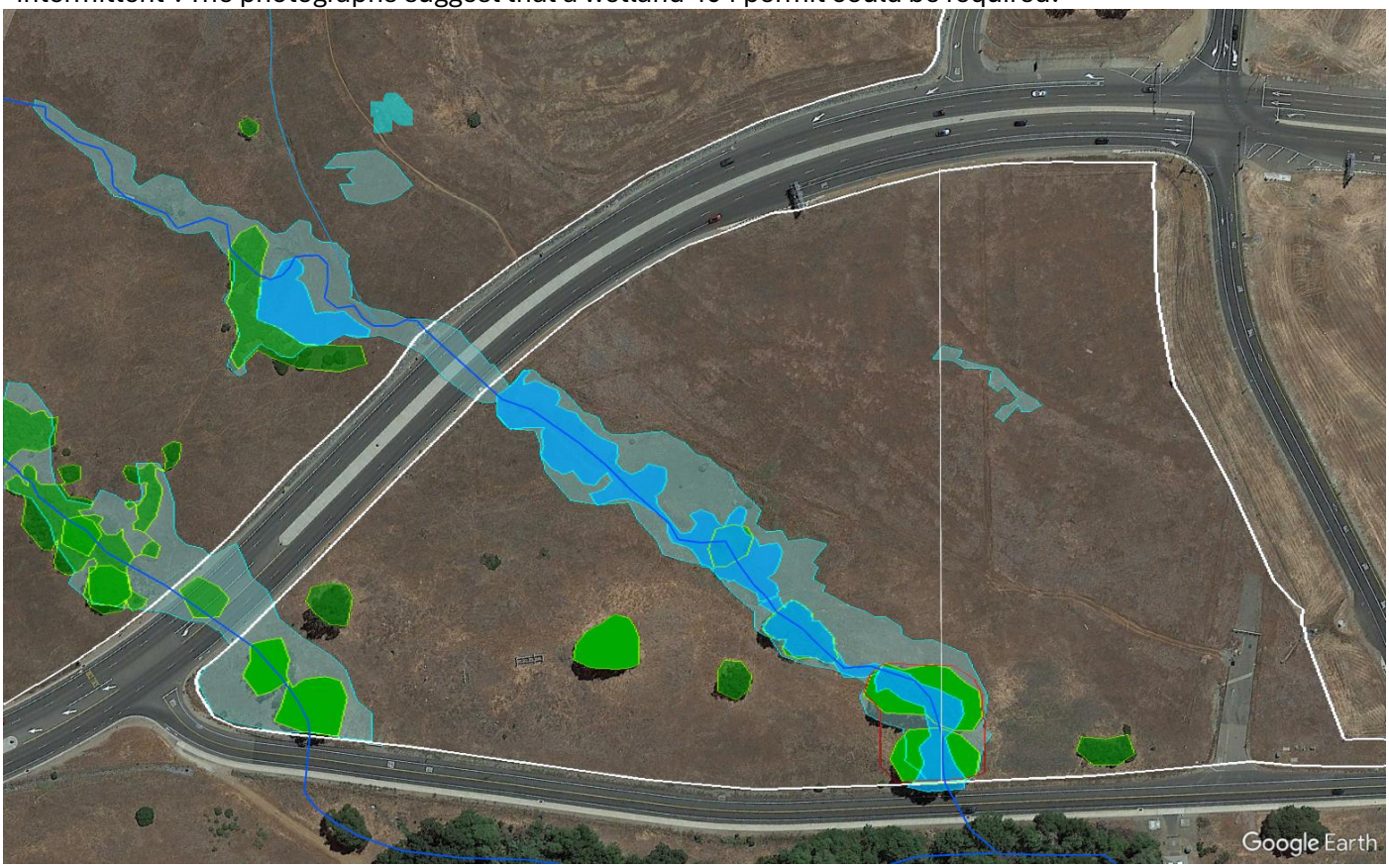
Observation: The engineers placed three "storm water treatment planter(s)" – ponds – to retain the project's storm water runoff on the south tract. The northern tract has a 500.000 square feet drainage area at present that currently

drains to culvert "D" that when one adds the runoff from the developed project (i.e. paved surface) to the south culvert "A" might well fail, particularly if the entire COSTCO tract were developed as shown above (as an example).

DEIR Comment: A comprehensive drainage plan of the North and South tracts should be required to mitigate the drainage impact at buildout because the two drainage areas are inextricably linked. The current drainage plan for the proposed project could be insufficient*. (*Note: This was the conclusion regarding the Aburn Ravine).

WETLAND AREA

If the Corps. of Engineers proverbial "*toothpick theory*" holds – i.e. if it floats - then the water way is classified as "waters of the United States", falls within the Corp's jurisdiction and Section 404 of the clean water act. It was observed that a toothpick could float in several parts of both drainage ways although both could be considered as "intermittent". The photographs suggest that a wetland 404 permit could be required.



The above map was photo interpreted by me from Google Earth aerials shown in the Appendix.

The delineations are judgmental on my behalf, but again, not without experience in dealing with "wetland impacts". The lighter blue indicates the extent of wetland area, the darker blue shows areas of greater intensity of wetland.

I shall refrain from giving square feet measurements for the areas shown because this is not a wetlands delineation, but a mere suggestion that the County determine if a Corps. Engineers 404 permit might be required.

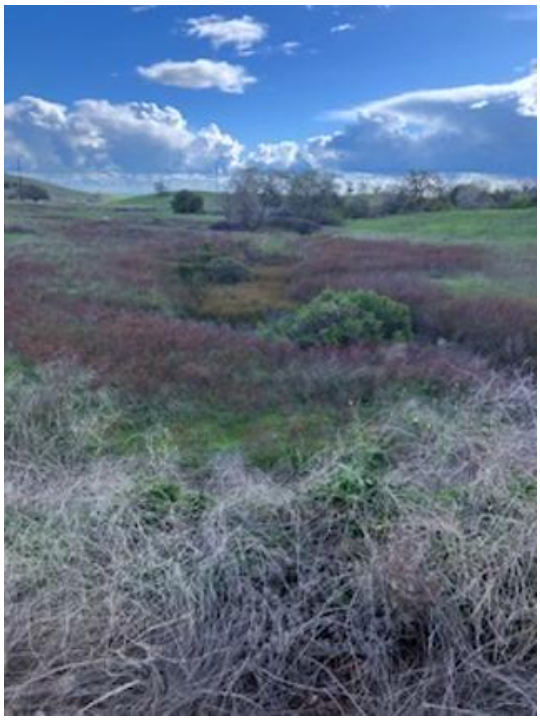
DEIR Comment: The County require a wetland delineation map to be provided by the Applicant.

I present a visual assessment to support my comment.

Current conditions of the intermittent stream at Clarksville Crossing

Waters of the United States according to the Corps of Engineers?

South tract: swale looking north

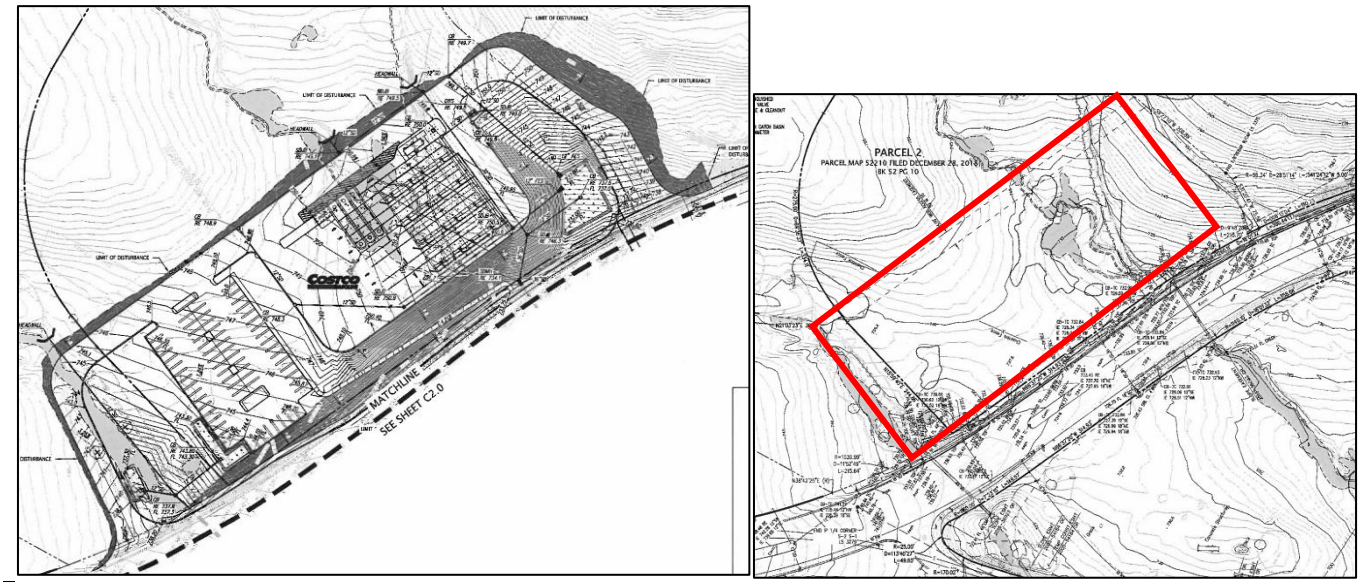


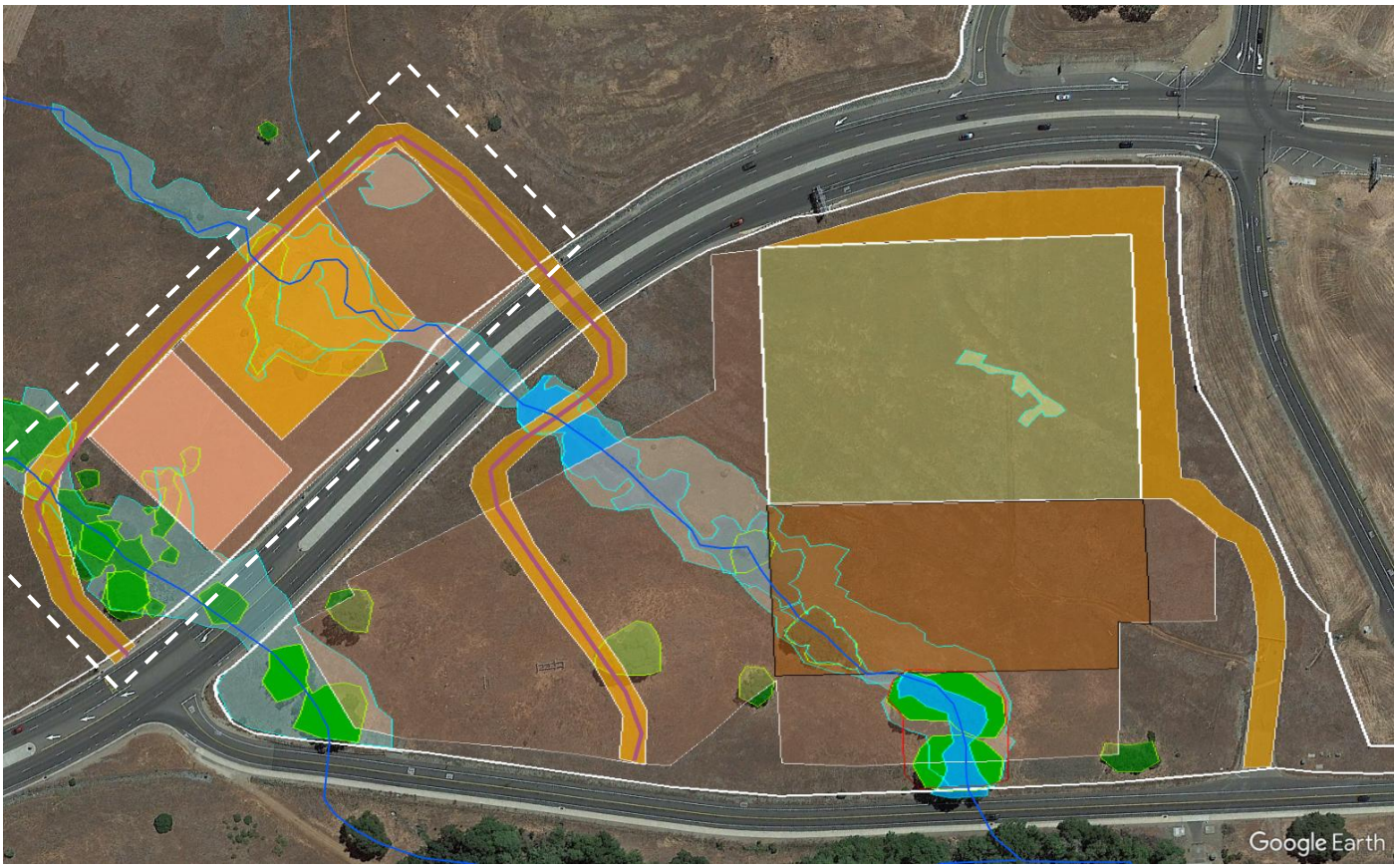

Above; springs in the swale area


Swale grasses

Wetland views of the northern tract (gas station site)

GAS STATION

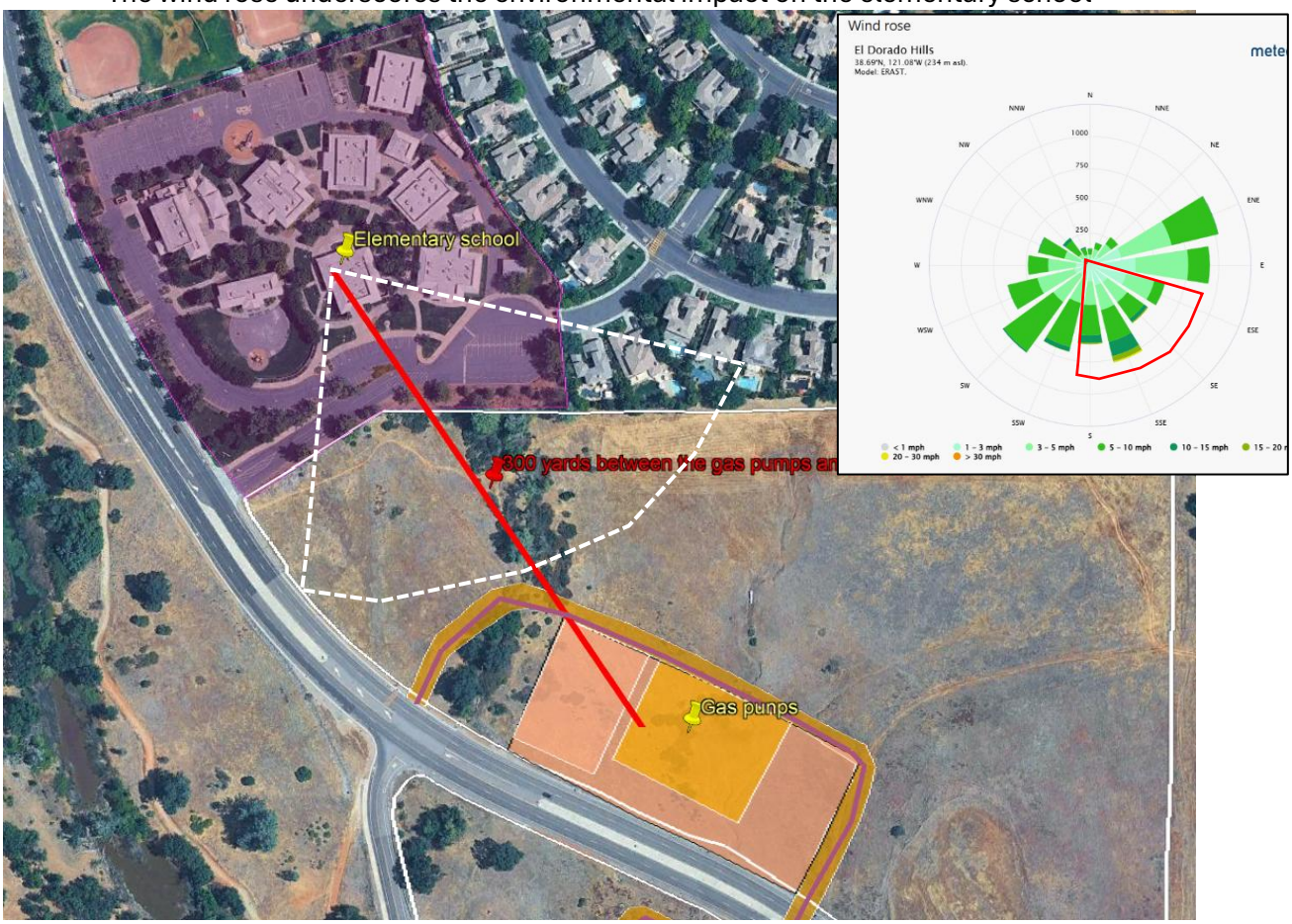




A very big site, with a big environmental impact.

Approximately 4.5 acres shown

The wind rose underscores the environmental impact on the elementary school



Observation: the elementary school is impacted by the COSTCO gas station.

Site Comparison:

The purpose of comparing local COSTCO sites is to gauge the importance of a gas station in their development.

EDH COSTCO / FOLSOM COSTCO / MISSOURI FLAT COSTCO

	EDH	Folsom	Missouri Flat
Gross acreage (Acres)	22.00	17.40	19.70
Warehouse (sq.ft.)	155,429	151,544	134,916
Parking area (surface)	**366,971**	**329,047**	**274,166**
Underground parking (s.f.)	**106,000**		
Gas station (sq.ft.)	**195,992**	**35,596**	**16,507***
Note: (*) Fast Food site			
Ratio: Parking sf / Warehouse sf	3.04	2.17	2.03

All measurements were taken with Google Earth algorithms.
EDH site includes 4.5 acres of the gas station. Southern tract is 17.1 acres

Comparison between EDH, Folsom & Missouri Flat COSTCO sites:

- All sites are virtually the same in size both in gross acreage and warehouse size. (Missouri flat has large areas in open space).
- EDH COSTCO has 41% mor parking area than Folsom. Missouri Flat would appear significantly under parked .... or EDH would be significantly over parked. Which?
- Parking area ratio compared to warehouse surface area at 3.04 is significantly more in EDH than in the other two sites

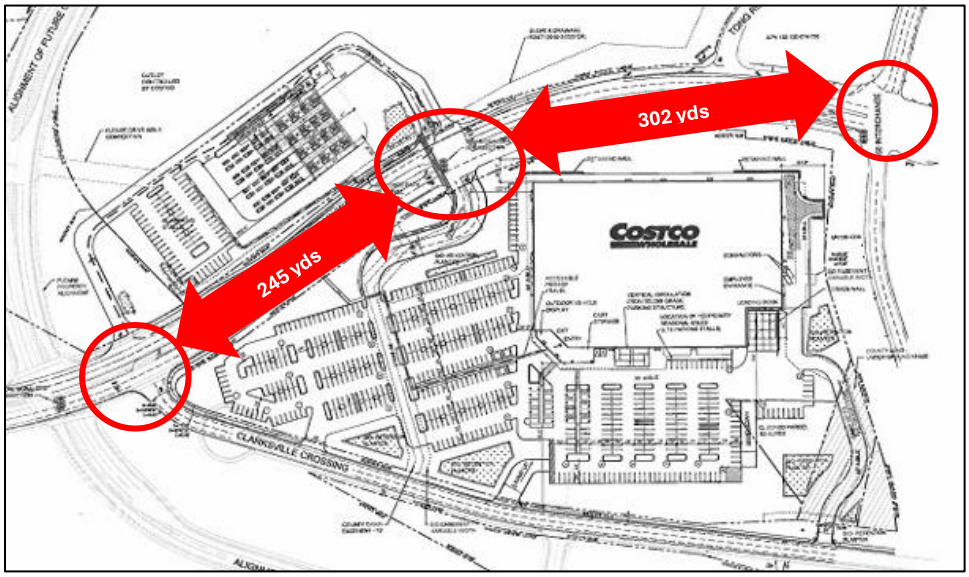
EDH COSTCO

FOLSOM COSTCO

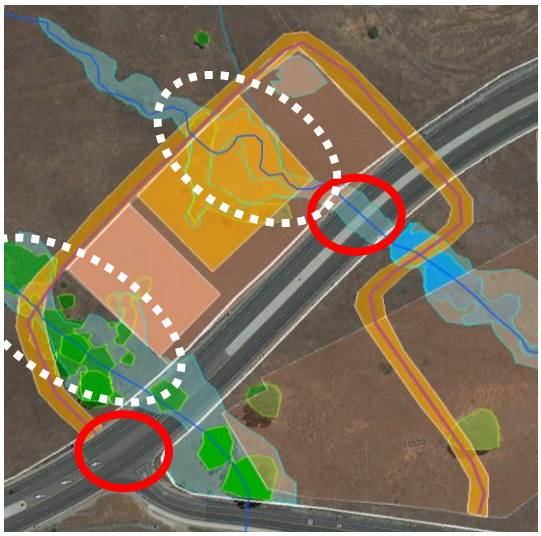
MISSOURI FLAT COSTCO

Observations regarding the EDH-COSTCO gas station.

- Are gas stations indispensable to a fully functioning COSTCO site? Is it part of COSTCO's core business?
- The EDH gas station site occupies 160,396 sq. ft. (4.5 acres) compared to Folsom's at +/- 36,000 sq. ft. That is, EDH gas station would be 5.5 times greater than Folsom COSTCO. Missouri flat has no gas station although the site has significantly more area in which to accommodate one.
- Observation: Obviously in the Missouri Flat area a COSTCO gas station is not critical and in Folsom a small one appears to be adequate.
- According to Web, Costco has 692 stations countrywide and pumps 17 million gallons / day. Therefore, on average, one could expect EDH site to pump nearly 25000 gallons per day. Therefore, on average the EDH gas station shall have a considerable impact of noxious gases on the elementary school less than 300 yards away.
- As an alternative, there are no less than three gas stations less than a mile away (Hy.50 and EDH Blvd); does the EDH community need another?
- From a traffic circulation viewpoint, the main entrance / exit from the COSTCO warehouse on to Silva Valley Parkway will have to be signalized. A signal already exists approximately 302 yards away at the Silva Valley Parkway and Hy. 50 interchange and another 245 yards to Clarksville Crossing another might be necessary. No doubt the required traffic study for this site will determine the level of signalization. A back of the envelope estimate of the average traffic generated by the EDH-Costco gas station could be about 1700 cars per day (25,000 / 15 gal/ car= 1666 cars / day). This suggests that the main crossing will likely be overwhelmed by backups and wait-time. Silva Valley Parkway is already heavily trafficked.



Conflict areas: traffic and wetland



DEIR Comment:

- From an environmental standpoint it appears that EDH-COSTCO gas station shall have considerable impact of noxious fumes wafting over to the elementary school endangering student body health.
- From a circulation viewpoint, cross traffic from the warehouse to the gas station on Silva Valley Parkway could heavily impact the signalization at the main entrance.
- The site itself is on a wetland in two places.
- If EDH Costco is slated to have a higher proportion of parking area in comparison to other COSTCO sites, this suggests that if a gas station is required, a much smaller one – as Folsom's – could be accommodated on the southern parcel site in lieu of surface parking.
- Alternative gas stations: There are three other gas stations less than a mile away.
- This gas station is redundant from a community standpoint.

Conclusion: The proposed gas station on the northern tract poses considerable avoidable impacts. It should not be where it is situated. Or, if COSTCO requires one, a smaller station could be incorporated in the southern tract.