

RECEIVED

LETTER 74

APR 19 2004

CITY OF VACAVILLE
PLANNING DIVISION

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Fred Buderl
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Vacaville, CA 95688

Comments on the Draft Environmental Impact Report
Lower Lagoon Valley Specific Plan for the proposed Triad subdivision

Cumulative Impacts: Transportation and Circulation

Section 5.1 of the DEIR states that

"For the purpose of the Lower Lagoon Valley Specific Plan EIR analysis, the cumulative impacts analysis assumes buildout of the adopted City of Vacaville General Plan and the currently proposed Southtown and Rice/McMurtry projects."

There are several projects already incorporated into the General Plan (such as North Village) that have not yet been built. As I read it, CEQA Guidelines section 15130(b)(1) requires that *all* of these projects be listed and their contribution to cumulative impacts of traffic, for instance, be quantified. The DEIR should provide a chart indicating exactly what has been included in this section.

74-1

Another issue is the regional scope of cumulative impacts: The Reporter on Thursday, March 11 ran a story headlined "Plan unveiled for vast area of Dixon land" describing the Southwest Specific Plan of that neighboring city. The newspaper called it "the largest residential and commercial tract of land to ever to be developed in the Dixon community". It is clear to me that it is the intent of CEQA to include neighboring developments like this in a statement of cumulative impacts when it comes to regional topics like transportation and circulation (i.e. "traffic"). The cumulative impacts should include development all along the I-80 corridor in Solano County, and not just within Vacaville city limits.

A third issue is the total lack in the DEIR (so far as I can tell) of any mention whatsoever of non-automobile transportation. Section 4.5 makes one unclear reference to a "Short Range Transit Plan" which apparently will be updated sometime in the future "if citizen interest warrants". It is not acceptable to consider only automobile use in the DEIR; that is part of the problem and not part of the solution! Will the Vacaville city bus service be extended to the proposed subdivision? What about the Fairfield bus – will it stop in Lagoon Valley? If so, will it stop at the park or only at the subdivision? Will there be park 'n ride lots, van pool parking and shuttles to Capitol Corridor stations? Will the Solano BART Express make morning and evening stops in the "business village"? Will Vacaville paratransit or the "Ride with Pride" service be available to residents of the proposed subdivision? I don't understand the total lack of attention to these questions!

74-2

Cumulative Impacts: Hydrology, Drainage & Water Quality

Section 5.1-21 refers to a required Master Drainage Plan that has not yet been completed. Water drainage and flood control are major impacts of this proposed project. Indeed, the DEIR states that "Cumulative development, including the Proposed Project, could increase runoff that could exceed the capacity of existing drainage facilities resulting in localized flooding." This is, it continues, "considered a *significant cumulative impact*." That is something of an understatement as flooding in the Lagoon Valley would simply drain into Lagunitas and then Alamo Creek, causing flooding throughout south Vacaville. It is therefore incomprehensible to me that the DEIR would be published prior to the completion of the required Master Drainage Plan.

74-3

Section 5.1-22 refers to entities called SWPPP, NPDES and RWQCB. I have no idea what these things are. It is my understanding that under CEQA, a Draft Environmental Impact Report should be intelligible to interested lay persons. I am an interested lay person and I cannot understand this section.

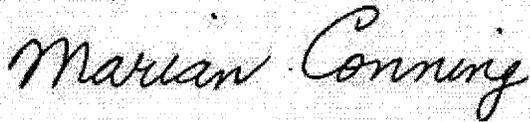
74-4

Cumulative Impacts: Hazards and Human Health

Section 5.1-27 outlines the danger to people and structures in a wildfire such as the one that burned part of the park last fall. This suggests (but does not address) the question of emergency evacuation in the event of wildfire, earthquake, flood or other disaster. The proposed subdivision development would basically be a large area with one road leading out. There are alternative "fire roads" by which emergency vehicles could get in, but emergency egress would be slow, congested and dangerous. Although the DEIR states that no mitigation is required, I would think it would at least address the issue of emergency evacuation, especially as a school is planned.

74-5

Sincerely,



Marian Conning

COMMENT LETTER 74: Marian Conning

Response to Comment 74-1:

See Response to Comment 37-1 regarding a listing of “Approved Projects” included in the traffic analysis. See also Responses to Comments 17-27 and 17-40 regarding the traffic model’s accommodation for cumulative regional traffic.

Response to Comment 74-2:

See Response to Comment 37-3.

Response to Comment 74-3:

See Response to Comment 37-4.

Response to Comment 74-4:

See Response to Comment 37-5.

Response to Comment 74-5:

See Response to Comment 37-6.

-----Original Message-----

From: denise [mailto:denisep@amenclinic.com]
Sent: Monday, April 19, 2004 7:12 PM
To: lvdevelopment@cityofvacaville.com
Subject: Lagoon Valley

Fred:

I wrote a long letter to you last night about Lagoon Valley and when trying to access your email address, it crashed my computer. Consequently, I did not get this rewritten until tonight. I hope you will keep it with the comment letters on the DEIR.

I am quite concerned about the inadequacy of the Lagoon Valley DEIR. My major concern is that the issue of damage due to earthquake was not adequately covered. In 1892 a very strong quake rocked the Vacaville area and has been identified as the 1892 Vacaville earthquake (USGS records). The DEIR remarks only that damage in Sacramento County was slight, completely ignoring the damage to Solano County. Both Vacaville and Winters sustained major damage. The night watchman identified noise preceding the earthquake (which knocked him from his feet) as "coming from the hills west of town". The damage in then downtown Vacaville was great, as it was out in Pleasant Valley. Not only were structures badly damaged and even destroyed, but a host of geologic anomalies occurred. Streambeds were fissured, steam shot out of creek banks; I believe the soils in Lagoon Valley are quite similar to those in Pleasant Valley. Damage today would be much more extensive due to increased numbers of homes and the fact that not all these homes are as earthquake proof as we would like to believe.

The fault responsible for the 1892 earthquake has not been determined due to lack of data capturing devices present in 1892, and a general but pervasive desire not to identify the source of the problem. Published data (Vacaville Reporter, April 1892) reports damage very descriptively, and construction of a Modified Mercalli map shows that damage from the first quake was centered in the Vacaville area, decreasing towards Fairfield, where almost no damage was noted. It seems reasonable to believe that this quake must have centered either on the Lagoon Valley Fault or on the Vaca-Kirby Hills Fault, which runs along the base of the hills on Alamo Dr. The Kirby Hills Fault is long enough to have sustained an earthquake of the magnitude assigned by the USGS to this event (6.5). The second quake, with more severe damage centered in Winters ("even the bars were closed"), may have occurred on a fault closer to that area, between Woodland and Davis.

75-1

It is putting one's head into the sand to believe that this quake will not recur. When it does, damage in this area will be significantly greater. Vacaville emergency services will have enough to deal with--certainly injuries and structure damage, with associated problems which may require PG &E to shut off gas and electric, possible flood or damage to water mains which could require shutting off water--without worrying about extending those services into a very developed Lagoon Valley. The aid from fire and police substations would help, but based on other Triad executive home developments where these "amenities" never materialized, I do not feel it is wise to count on them. Fairfield, which sustained only light damage before, would sustain more, just from the increase in housing.

The best mitigating factors, if building progresses, are the ones that are least attractive to homebuyers. There should be no chimneys and no fireplaces. No stucco, masonry or brick should be allowed, even as facades. All buildings would be wood or steel frames, and ideally limited to one story, but certainly not more than two stories.

Also of concern to me is the rather cavalier way that the DEIR addresses the some seventeen slides that encroach upon the residential area. It is a natural state for the hills in this area and

75-2

"slip, slide and slump". Even if these particular slides were well mitigated, and presented no hazard, these hills will continue to "do what comes naturally." Again, Triad has a plan to watch for these, and address the problems, and again I have trouble believing they'll be doing that in 20 years. The only real solution would be to level the hills completely--so not an option!!

75-2
Cont.

I am concerned that the effects of development on a water table that is in some places as shallow as four feet is not taken as seriously as it should be, based on historical evidence of problems encountered within this very community (Creekside). When 40% of a parcel is initially covered by surfaces with a runoff coefficient of 100% or a permeability coefficient of 0%, (depending on your point of view, hydrologically), a rise in water table is quite likely. How much higher than four feet is acceptable? And in coming years, will the residents be stopped from adding such wonderful items as patios, decks, hot tubs etc., all which will further decrease the amount of land that can absorb rainfall??

75-3

I am equally concerned about the schools. It does not seem reasonable that a school will be built in Lagoon Valley while we continue to close schools and lay off good teachers, regardless of who foots the bill. Will Triad pay for the teachers salaries? I cannot help be emotionally involved in this matter; I have two children in the Vacaville school district. My sixth grade son ended his fifth grade year spelling architectonics, but was still spelling words like "earth" and "happy" several months into his sixth grade year. What happened? His teacher was laid off due to the lack of funding for educators, he was transferred to another school, and it took MONTHS for them to get books so that the teacher could assess their placement. Since he had been in a multi-year setting, this was a disaster. One way or another, sooner or later, our tax dollars will be supporting a public school out there, and this is just not sensible, let alone right.

75-4

Thanks for taking the time to read this and I look forward to talking to you some more.

COMMENT LETTER 75: Denise Peavy**Response to Comment 75-1:**

The City appreciates the historical information regarding past seismic events in the Vacaville area. As discussed in Section 4.12, Geology and Soils, on pages 4.12-2 through 4.12-6, the Proposed Project is located in a seismically active area with historical records of past seismic events, but is not listed in a State of California Alquist-Priolo Earthquake Hazard Zone. Regardless, as described under Impact 4.12-1, the California Building Code standards for Seismic Zone 4 would be required for development in Lagoon Valley for seismically safe structures. Further, as required in Mitigation Measures 4.12-1(a) and (b), the Proposed Project would be required to follow recommendations from geotechnical reports on design for foundations and other structures to prevent structural damage from future seismic events. See also Response to Comment 59-2.

Response to Comment 75-2:

The City respectfully disagrees that the Draft EIR is inadequate under CEQA or that it fails to provide the decision-makers, public, and agencies sufficient information regarding geologic and soils information for the mapped landslides along the boundary of the project site. As discussed under Impact 4.12-3, and as required in Mitigation Measures 4.12-3(a) through (c), although the Proposed Project would be located adjacent to landslides, mitigation consisting of specific geotechnically engineered landslide hazard reduction structures or methods to protect the project site is recommended. Further, prior to occupancy, the Proposed Project would be required to develop a landslide hazard monitoring and implementation plan to monitor and maintain the effectiveness of the engineered landslide reduction structures over the life of the project. These measures would reduce these impacts to a less-than-significant level.

Response to Comment 75-3:

As discussed in Section 4.11.2, Environmental Setting – Topography and Soils (page 4.11-1), and again in the same section under Groundwater Resources (page 4.11-9), the area of the Proposed Project consists of mostly clay soils that have very low permeability. This means that the existing soils conditions do not allow significant infiltration of storm runoff into the groundwater system under existing conditions.

Although the proposed project would detain water through various detention basins and swales these areas are significantly smaller than the increase in impervious area that would result from development of the proposed project. Further, by the time these proposed detention areas receive any significant storm water the ground would be saturated further decreasing the infiltration rates of a soil type that has a very low permeability. Also, compared to Lagoon Valley Lake the amount of water that is being detained is relatively small and the water would only be impounded for short periods of time. Possible groundwater infiltration from Lagoon Valley Lake most likely results from a large volume of water perched above the existing ground elevations being continuously impounded. This situation is significantly different from the proposed detention areas.

Response to Comment 75-4:

The proposed plan requires the construction of a school in the Specific Plan area (See Specific Plan Chapter 3, Land Use and Chapter 8, Community Services and Facilities. As specified in

the Plan, the school could be either public or private, depending primarily on the ability of the Vacaville Unified School District to adjust the boundary of the district to incorporate the entire development area within the District's boundary. The detailed policies describing how a school would be provided are contained in Specific Plan, Chapter 8, Section 8.4. The City has required a plan that provides greater funding for the potential public school than the minimums allowed by State law and believes that the Specific Plan policies and implementation steps would ensure a school in the project area.

Karl E. Molin, M.D., Inc.
Peaslee F. Dumont, M.D.
313 Kendal Street
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(707) 488-8471

April 19, 2004

Mr. Fred Buder
Project Manager
City of Vacaville
Community Development Department
650 Merchant Street
Vacaville, CA 95688

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APR 19 2004
CITY OF VACAVILLE
PLANNING DIVISION

RE: Comments on Lagoon Valley Draft Environmental Impact Report

Dear Mr. Buder:

I am writing this as I pass through the beautiful Almaden Valley, where the City of San Jose wants to build executive housing, and others want to preserve the pristine valley in natural form. Similarly, in Lagoon Valley, we have an area of regional concern – every person who drives by on I-80, as well as every resident of Vacaville, is a stakeholder in the decisions made. For that reason, I wish to address the cumulative impact analysis of the DEIR.

76-1

In 5.1-1, I applaud the recognition of the loss of prime and unique farmland. I agree that there is no mitigation available in the sense of this loss being irrevocable. However, I would like you to comment on the potential for mitigation in terms of purchase of prime and unique farmland in areas as a mitigating mode.

76-2

In paragraph 5.1-2, the evaluation of impact on parks and recreation facilities as "less than significant" does not, in my mind, truly address the regional impact of the loss of this beautiful valley as a potential area developed in terms of park and open space facility and land uses such as agricultural uses which would be consistent with its past and its remarkable potential in its location as a natural area along the Interstate corridor.

76-3

In 5.1-3, it is acknowledged that the visual impact of converting this valley from open space to developed area would be major. I would again emphasize that this involves not only the residents of Vacaville but everyone who drives through on Interstate 80. Likewise, 5.1-4 notes the impact on the night sky as considerable.

76-4

RE: Comments on Lagoon Valley Draft Environmental Impact Report

5.1-5 through 8 will be commented on by many people, I am sure, in regard to the traffic impact. I would wish to emphasize, from a regional point of view, that the same amount of growth accommodated within the City of Vacaville and with communities planned in terms of availability of public transport, and alternative transport, could far less impact on the congestion on Interstate 80.

76-5

In section 5.1-9 and 10, on air quality, I would also point out that the amount of growth described could be accommodated with far less impact if it were done on smart growth principles, with jobs and housing within walking and bicycle distance, and access to public transportation, rather than the standard suburban housing design, however upscale. These principles would apply whether the development was in lower Lagoon Valley or accommodated in other parts of Vacaville.

76-6

In section 5.1-24, on human health, I consider it a very important issue that the soil would be stirred up by the construction project that has been the site of Hines Nursery for many years. I would like to request that the Environmental Impact Report include a study of the chemical and biological impacts of the soil from the nursery, as it would be disturbed in construction, and the potential impact on human health, and on the bioregion.

76-7

In addition, I understand there is an issue of anthrax spores from animals that were slaughtered with anthrax and buried around the turn of the century. I would again like to request a study of the impact of this item.

76-8

In summary, I would request these various specific points to be addressed in the context of the more general principle that the development in this valley, which would alter its open characteristics, would be an impact of extraordinary regional significance.

76-9

Sincerely,

Peaslee F. DuMont, M.D.

PFD:dn

COMMENT LETTER 76: Peaslee F. Dumont

Response to Comment 76-1:

It is noted that the commentor is concerned about the valley and the future decisions to be made regarding the project. This comment does not address the adequacy of the Draft EIR, but it will be forwarded to the decision-makers for their consideration.

Response to Comment 76-2:

See Response to Comment 3-1 that addresses potential impacts of the conversion of farmland.

Response to Comment 76-3:

The analysis of the project's cumulative impact on parks and recreation facilities focuses on the increased demand associated with this project as well as other development contemplated within the City (see Section 5.1 of the Draft EIR). Based on these criteria, the Draft EIR concludes that the project would result in a less-than-significant cumulative impact (see page 5.1-2). The loss of open space and the biological resources associated with that open space is analyzed in Sections 4.2, Land Use, 4.4, Parks and Recreation, and 4.15, Biological Resources. The change in visual character associated with the conversion of the site from a primarily undeveloped area to a developed area is addressed in Section 4.4, Visual Resources.

Response to Comment 76-4:

See Response to Comment 27-2.

Response to Comment 76-5:

This comment expresses an opinion on a preferable growth strategy that the writer suggests. This comment does not address the content or adequacy of the Draft EIR, and will be forwarded to the decision-makers for their consideration. It is noted that the Proposed Project includes a number of features designed to allow for alternative modes of transportation within the community.

Response to Comment 76-6:

This comment addresses the merits of the project and not the content or adequacy of the Draft EIR, and it will be forwarded to the decision-makers for their consideration.

Response to Comment 76-7:

See Response to Comment 66-22 regarding mitigation measures for potential soil or groundwater contamination at the Hines Nursery site.

Response to Comment 76-8:

See Response to Comment 28-1 regarding anthrax in soil. See also Response to Comment 5-5.

Response to Comment 76-9:

See Responses to Comments 76-1 through 76-8.

19 APR 2004

City of Vacaville Community Development Department
 Attention: Mr. Fred Buderl
 650 Merchant Street
 Vacaville, California 95688

RECEIVED
 APR 19 2004
 CITY OF VACAVILLE
 PLANNING DIVISION

Re: Public Comment on the Draft Environmental Impact Report ("DEIR") for the Proposed Lower Lagoon Valley Specific Plan SCH Number: 2003032063.

Dear Mr. Buderl,

I am writing to inform you of problems with Triad, Inc.'s planned development in Lagoon Valley as described in the Draft Environmental Impact Report ("DEIR"). This document does not adequately discuss ALL the environmental impact inherent to this development as well as it should as required by law.

1. **Traffic** - This development of several hundred units would add hundreds of cars on to the Valley's roadways. Depending on the make-up of the families, it is not unreasonable to expect three cars per family in time, in addition to the many cars of employees and customers of the proposed businesses and service entities. Thus, in time this number could balloon to over a thousand. How I-80 is expected to absorb this amount of traffic is beyond imagination. Triad and your more rosy-glassed optimists on the council and planning commission may expect widening of I-80, however there are problems with this idea. First, even if someone somehow manages to widen the stretch of I-80 in the center of the valley, Laguna Pass on the north end and the entrepot area on the south side are only so big. There is no real way to widen I-80 at these points, thus they will be even worse choke points than they already are. Second, where does Triad or Vacaville expect to get the funding for any sort of widening for I-80? With the efforts of George Miller, representative for much of the area, Solano has recently been ear-marked for a substantial amount of money under the recent Transportation appropriation. However, almost ALL of this money will be going to the I-680 reliever project and the Highway 37 modernization project. NONE of it is going to I-80 in Lagoon Valley. Without Federal participation, CALTRANS will not contribute to a Lagoon Valley widening, even if they had the money. The federal budget is ballooning now and revenues are dropping, so future budgets will require austerity soon in the immediate future and transportation projects will be among the first to be ignored. Thus, there is great doubt in any reasonable person's mind that funding for any I-80 transportation project will be forthcoming.

77-1

The other traffic relief option for the Valley is just as problematic as the I-80 question. I am of course referring to the use of Pleasants Valley Road as a reliever

route. While obvious that was the goal of the recent plan to widen this stretch of road, the residents along this route have spoken out and have stopped this plan for now. It would be hard to imagine that these citizens will be too happy with dozens, perhaps hundreds of cars traveling through their idyllic two-laned road.

77-1
Cont.

2. The second concern with this DEIR stems from the first problem and this is **air pollution**. Triad does not discuss this problem in the depth required. All these cars are going to be producing sizable amounts of combustive waste into this small valley surrounded by high hills. These are perfect conditions for a smog inversion. It is not within the scope of this letter to explain that process, but let it be enough to say that smog will be trapped in the valley during a good portion of the year, namely summer and fall. This will have a detrimental effect on residents, wildlife and plant life in the Valley. It will also have an economic impact on all of Vacaville as well. As a Vacavillian, you no doubt have evil sentiments for SMOG II. Well, this smog inversion will be the evidence needed for even more stringent requirements for all of Vacaville regarding air pollution mandates. The fact is all of California is being required to watch air quality more and more, often with economic threats of fines or lost funding. Vacaville, being part of the Yolo-Solano Air Quality Management District, one of the more stringent in this state, does not need a smoggy Lagoon Valley to skew smog values for the rest of the city. This will only attract unwelcome attention from these regulators and may end up with more stringent and expensive requirements on citizens and industry.

77-2

3. The third concern not sufficiently addressed is the **impact on the environment**. Lagoon Valley is a natural gem, with many unique and rare flora and fauna. One case in point is the red-legged frog. This California native is endangered and Solano County is one of the last places that they are found. I've seen dozens of them in Lagoon Valley over the years and as recently as 2003. Lagoon Valley, namely the precise spot this development has been proposed for, offers the perfect conditions for these creatures to live. A development would ruin that. The status of this area as a sanctuary for this particular species has gone back and forth during Department of Fish and Wildlife deliberations, but the fact remains, these are **PROTECTED** animals under the Endangered Species Act. How costly and lengthy a legal battle is the City of Vacaville prepared to engage in if a group like the Sierra Club picks up on this? And the red-legged frog is not the only threatened or endangered species in the area, there are a number of insect and flora species, too numerous to enumerate, that are endemic to this area. And yet Triad just glosses over this facet.

77-3

Another environmental concern is the lagoon. I don't know if you've ever noticed, but during the summer months the lagoon itself is a wonderfully smelly algae-ridden lake. A boon to nature lovers, but I doubt an "executive" type is going to like paying so much to play and live next to such a smelly thing. What does Triad plan to do to abate this "problem". Will they or the city treat the lake?

77-4

They don't say. And what about run-off from the proposed golf course and houses? Currently there is the nursery and its fertilizer and pesticide-laced run-off is carefully regulated and monitored. Such monitoring and regulation will be impossible with numerous houses there. This run-off would kill the lake as it now exists. Yet another strike against this development not discussed with any intellectual honesty in this DEIR.

77-4
Cont.

And one last environmental concern is the sewage. It will cost a lot of money to run the infrastructure to pump (yes pump because it would probably be up an incline somewhere) the sewage from this development all the way out to the Elmira sewage plant. Triad does not discuss the total cost and import of this problem in the DEIR. There is no way to have septic systems for that many houses and still preserve the quality of the lagoon.

77-5

4. The fourth concern that this DEIR does not address in any acceptable manner is this development's impact on the human historical record of Lagoon Valley. Humans have been living in the Valley for thousands of years. Native Americans lived there much of the pre-Modern era. This DEIR mentions nothing of the impact of this development on possible graves or extant artifacts or any process for identifying such items, as required by CEQA and associated state and federal laws.

77-6

It also does not discuss its impact on the Peña Adobe, the homestead of one of, if not the, most important families in the history of Vacaville. This DEIR does not mention the dangers this project offers the adobe, e.g. errant cars crashes, increased acoustic vibration caused by traffic, corrosive effects of increase smog, etc.

77-7

It also does not discuss how road changes will effect the current road layout, one of which is the remarkably preserved route of the Pony Express when the riders had to ride through Vacaville on a couple of occasions. It would be a criminal shame to lose this, and yet, as far as this DEIR is concerned, this is in the air.

77-8

It also does not address the effect this development will have on the Lagoon Valley legacy of Charles Edwin Markham, Vacaville's most famous poet, Lincoln Memorial (yes, that Lincoln Memorial) dedication speaker and Lagoon Valley resident.

77-9

5. The fifth and final concern this DEIR does not address well is that of the economic realities of the project. This DEIR simply states that the previous planned projects were cancelled "because of a change in market conditions." This is too dismissive. First, these were Bank of America and Kaiser Permanente. Large corporations with respected fiduciary responsibilities actually interested in creating self-sustaining developments and which would be managed by them for

77-10

years after they were built. They pored over the numbers and realized it just would cost too much to ever address the many problems with developing in the valley. Triad, in contrast, is a development company. That is all they do. Once this thing is completed, they will take their money and go back to Seattle, leaving Vacaville to worry about paying and providing services that will cost more than they generate from temporary construction employment or from the increased tax base.

77-10

Also, during the previous development proposal, we were stricken with recession. We have been stricken with recession again, but we have structural problems this time around that make the market conditions for this proposal seem equally untenable, if not more. This development proposes increasing Vacaville's responsibilities regarding education and safety, among others. However, help from the state, in these surreal times of financial desperation, will not be forthcoming. Help from the federal government will not be forthcoming. Has Vacaville not had to CLOSE several schools? Where will children go to school? There is absolutely no way a school could be funded for the increased number of children this development will bring in. Indeed, they will just be a burden on an already over-taxed school district. The DEIR does not address this problem. Where will the funding for the extra police and fire department resources needed by this development come from? Again, not from the state and not from the federal government and not for a long time. Some say, indeed this DEIR gently suggests, this development will pay for itself. But, when has a development in post Prop 13 Solano County EVER paid for it's total needs? Especially ones like the one proposed for Lagoon Valley by Triad. Two examples in Solano County alone are Rancho Solano and Triad's own Hiddenbrooke development in Vallejo. Rancho Solano has suffered through bankruptcy and lack of convenient services and insufficient educational and safety resources. Hiddenbrooke has also been a burden to Vallejo, barely breaking even, if not requiring more than they usually take in, for safety and maintenance services and burdening outlying schools. I say never and it will just mean a costly bond drive in a decade's time, which IF that passes means we'll have to pay double for these hidden costs. Where is this in the DEIR? Triad does not mention it in the detail proscribed by an honest interpretation of the law.

77-11

I had one last issue with this DEIR and it was the numerous use of "Stockton" instead of "Vacaville". I interpreted that fact as an indication that this was a cut and paste job. I think this is symptomatic of a glib attitude on the part of Triad regarding the well-being of this great city. Finally, in closing I thank you for your time. I will be forwarding copies of this letter to the Friends of Lagoon Valley and a couple of other groups in the area. I hope you take these issues to heart and give them the due weight that they deserve when you report on this DEIR. Thank you.

77-12

Sincerely,

Lawrence Ewing

Lawrence Ewing

741 Almond Ave.
Vacaville, CA 95688

COMMENT LETTER 77: Lawrence Ewing**Response to Comment 77-1:**

See Response to Comment 6-8, noting Caltrans concurrence with the project's establishment of a traffic impact fee for the funding of project's "fair share" contribution to impacts to I-80. For a discussion of impacts to County roads, see Responses to Comments 11-1, 11-2, and 12-3.

Response to Comment 77-2:

This comment is unclear in that it does not indicate how the air quality analysis is incomplete. The Draft EIR's analysis of potential air quality impacts (Section 4.6) evaluates air pollution and odor impacts potentially caused by the Proposed Project.

The commentor is accurate in stating that Vacaville is in an area that experiences poor air quality. However, as discussed on page 4.6-6 and in Impact 4.6-4, the air districts in the Sacramento Region, of which the YSAQMD is one, have developed a Clean Air Plan to improve air quality in the Region. Impact 4.6-4 shows that the Proposed Project will not impair implementation of the Clean Air Plan. Accordingly, the Proposed Project does not have a significant air quality impact under CEQA. See CEQA Guidelines, Appendix G, § III.

Response to Comment 77-3:

As stated in the Draft EIR, there is no record of California red-legged frog (CRLF) in Lagoon Valley. Surveys conducted for the area determined that habitat for this species is marginal and largely populated by the non-native bullfrog and non-native predatory fish which are known to prey on and/or compete with CRLF. Those surveys therefore concluded that CRLF was unlikely to occur in Lagoon Valley. As stated in the Draft EIR, the USFWS concurred with this determination (see quote and references below).

"Marginally suitable habitat for this species is present in the freshwater emergent wetlands along the streams and channels that traverse the Lagoon Valley project site, and the Specific Plan area is within the historic range for this species. However, no CRLF have ever been recorded in this area. Focused surveys have been conducted for the Lagoon Valley Lake watershed in February of 2001 and no CRLF were found.² Based upon these surveys, it was determined that CRLF do not occur in the Specific Plan area.³ The USFWS reviewed the report, and expressed no concerns or comments in response to these findings."⁴

Response to Comment 77-4:

Specific improvements to Lagoon Valley Lake are not included as part of the Proposed Project. See Responses to Comments 20-1, 43-2, 66-1 and 66-2.

The Proposed Project includes construction and operation of detention basins and related drainage facilities to mitigate for the increased runoff generated by proposed land uses. As described on page 4.11-19, Lagoon Valley Lake water quality has deteriorated recently. Runoff from the Proposed Project could increase urban contaminant loads in the lake. As further

² *Biological Resources, Lagoon Valley Property, Solano County* by LSA Associates, September 23, 2003.

³ *Biological Resources, Lagoon Valley Property, Solano County* by LSA Associates, September 23, 2003.

⁴ *Biological Resources, Lagoon Valley Property, Solano County* by LSA Associates, September 23, 2003.

described on page 4.11-19, the project applicant proposes on-site treatment to minimize potential water quality impacts. Because the City's Storm Water Management Plan (SWMP) has not been approved, and the specific Best Management Practices (BMPs) that would be used to reduce pollutant loading and their locations have not been identified, mitigation measures were recommended (4.11-3(a) through (f)). As described on page 4.11-21, these mitigation measures would ensure that appropriate BMPs are incorporated into project design and their effectiveness is monitored.

Response to Comment 77-5:

See Draft EIR Chapter 3, pages 3-25 through 3-27 for a description of proposed sewer system improvements to serve this area. Draft EIR Section 4.8 analyzes the environmental effects of the system. The comment focuses on fiscal effects, rather than environmental effects, however, the commentor is directed to Mitigation Measures 4.8-3 (a) through (c) which specify developer obligations for funding design, construction and, in the case of the pump station option, special maintenance/operations costs.

Response to Comment 77-6:

Potential impacts to any unknown subsurface historic, archeological and paleontological resources are all addressed in Section 4.14, Cultural Resources. The project's potential impact to any buried human remains is addressed in Impact 4.14-5 on page 4.4-29. Mitigation measures are included to reduce any such impacts to a less-than-significant level.

Response to Comment 77-7:

See Response to Comment 62-9.

Response to Comment 77-8:

During the Pony Express's short one and a half years in service, Sacramento was its official western terminus⁵. Mail was then transported to San Francisco via boats along the Sacramento River. Only on rare occasions did the Pony Express utilize a land route from Sacramento to San Francisco, and only a small portion of that route passed through Lagoon Valley, likely following a previously established trail historically known as the "Old Peña Pass," which ran along the valley floor east of the seasonal lagoon. By 1857 this pass was part of the primary road from Sacramento to Benicia; however, it was abandoned when the road was moved west likely to bypass the valley floor that was subject to seasonal flooding. In 1878 this road, then known as Vacaville-Suisun Road, roughly followed the present-day alignment of Cherry Glen and Nelson roads through Lagoon Valley. In 1909 Vacaville-Suisun Road was incorporated into a new highway (LRN7, which later became part of US40). The project area does not appear to contain any segments of these historic-period roads (Sacramento to Benicia, Vacaville-Suisun, LRN7 or US40).

The Pony Express route from Missouri to Sacramento was named a National Historic Trail in 1992 and in 1997 the Secretary of the Interior added the Sacramento to San Francisco portion. These trails commemorate historic routes that are of significance to the entire nation and according to the National Trails System Act, national historic trails "... follow as closely as

⁵ As the telegraph was completed to California, the western terminus was later moved northeast from Sacramento to Folsom and then to Placerville.

possible and practicable the original trails or routes of travel ...” The National Park Service GIS unit maps the segment of the Pony Express through Lagoon Valley paralleling the east side of Interstate 80, which is presently covered by a frontage road (Rivera Road). Along this section of the commemorative trail in the project area there are no identifiable features, such as the original trail or stations, associated with the Pony Express. Only one resource associated with the Pony Express in the state, the Pony Express Terminal in Sacramento, is listed on the California Register of Historical Resources (CRHR) and the National Register of Historic Places (NRHP). The segment of trail that runs through Lagoon Valley is not listed on either the CRHR or NRHP.

Response to Comment 77-9:

On page 4.14-13 in Section 4.14, Cultural Resources, there is a discussion of Edwin Markham and his connection to the project site. As discussed on page 4.14-13, In terms of historical significance, if the Markham residence (or other Markham-era buildings) remains on the project site *and* retain its integrity, under Criterion B of the National Register of Historic Places (NRHP), the property would not meet eligibility nor would it be eligible under Criterion 2 (California Register of Historical Resources), which is based on Criterion B of the NRHP. Accordingly, the Draft EIR correctly concluded that the Proposed Project would not have significant historic resources impacts.

Response to Comment 77-10:

This is not a comment on environmental impacts, but instead on the potential fiscal impacts of the project. The writer is directed to the Specific Plan, Chapter 9, Implementation which describes the proposed methods to ensure project financing of the extension of municipal services to the Specific Plan area. Additionally, as information for the commentor, the City has prepared a separate fiscal analysis of the project's potential effect on City finances. This report concludes that the project, as proposed and conditioned through the Specific Plan, would result in a net fiscal surplus to City finances. This report may be viewed at the City's Community Development Department or on-line at www.cityofvacaville.org.

Response to Comment 77-11:

The Draft EIR, Section 4.9 addresses effects on schools. The development would be required to provide funding for education that exceeds the maximum obtained through the standard development impact fee process.

The project will be responsible for fully funding new police and fire services extended to the Specific Plan area. See Response to Comment 77-10.

Response to Comment 77-12:

One reference to the City of Stockton inadvertently appeared in the Draft EIR on page 1-4. The reference was inadvertently left in some standard language describing the organization of the Draft EIR. This does not affect the adequacy of the EIR analysis; nevertheless, the second to the last paragraph on page 1-4 is revised to read as follows:

Chapter 8 – Report Preparation. Lists report authors by section, City of ~~Stockton~~ Vacaville staff and others who provided technical assistance in the preparation and review of the EIR.

APR 20 2004

CITY OF VACAVILLE

April 19, 2004

Dear Mayor Augustine,

I am extremely concerned with the continuing plans to fully develop Lagoon Valley. While I appreciate the fact that this development will provide the city with needed funds, once this property is developed, the open space is lost forever.

The density of the development does not permit executive housing such as the often cited Blackhawk. It will be another Hiddenbrooke with large houses crammed into as small a space as possible wrapped around another non-descript golf course. The golf course will have neither the visual beauty nor the championship design that the Chardonnay golf course has that is located at the Napa end of Jamison Canyon.

This council is capable of wise decisions. You have persisted and appear to be holding out for a classy, well planned development at the Nut Tree. The current plans for the Nut Tree property are very exciting. The redevelopment of the downtown area also appears to be well planned.

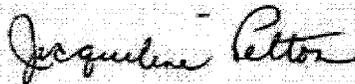
What do you think of when the Napa Valley, Carmel or Santa Barbara come to mind? What kind of a vision do you see for Vacaville? The eastern entrance and exit on "I 80" is an ugly array of strip malls, car dealerships and random buildings. Perhaps the new development on the Nut Tree property will help. You have the future for the western entrance and exit to Vacaville in your hands. Are we going to see style and grace or does your vision only go as far as cookie cutter houses and freeway lined commercial development. What will be this city council's legacy to the future?

Other viable options have been presented to you that will ensure that property owners will be fairly compensated and that some kind of planning other than high density housing can take place. Richard Rico presented some interesting options in this Sunday's "At Ease" column. The end of his column says it all, "Something inside tells me that when the bricks and mortar cast their first shadows across the valley, the angels will weep."

Please, please consider you actions carefully as so much rests on them.

Thank you.

Sincerely,
Jacqueline Pelton
4096 Hilltop
Vacaville 95688



78-1

COMMENT LETTER 78: Jacqueline Pelton

Response to Comment 78-1:

This is a comment on the merits of the project rather than specific comments on the adequacy of the EIR. The Specific Plan provides the most detailed characterization of the project features and the writer is referred to the Specific Plan and the proposed Design Guidelines for more details on these qualities if interested. However, the comment on the merits of the project and the importance of the location will be forwarded to the decision-makers for their consideration.

April 19,2004

Attn: Fred Buder
 City of Vacaville Community Development Department
 650 Merchant Street,
 Vacaville, CA 95688

Fax: 707-449-5423
 LVDevelopment@ci.vacaville.ca.us

RE: Comments on Draft Environmental Impact Report (DEIR) for the
 Proposed
 Lower Lagoon Valley Specific Plan; SCH No. 2003032063

Dear Mr. Buder:

- 1) The most important element in the EIR is the intention of the city to replace the existing Developer Agreement(s) with a new Development Agreement with a new 20-year expiration.
Explain why this is in the DEIR?

The city adopted TWO Developer Agreements for the Lower Lagoon Valley. The first was between the city and Hines Nurseries Inc., dated Sept. 16, 1991. It runs for 20 years and dealt at the time with housing. (This has changed, however, in the Triad plan.)

The second was between the city and Lagoon Valley Investment Co., Lagoon Valley Associates, Ava Farming and "other properties" relative to the development of Lower Lagoon Valley. It was dated Oct. 4, 1993 and also runs for 20 years. It deals with the office and commercial uses that were proposed (and again which have changed in the Triad proposal).

So, under the current agreements, the last legal strings with a stranglehold on Lagoon Valley would expire in 2013. **There is no need to reset the clock.**

Correct?

The EIR Introduction notes that the city's 1990 Policy Plan for Lower Lagoon Valley will be replaced with the Specific Plan contemplated in the Draft EIR. The development is to occur "within roughly the same development envelope" or on 879 acres compared to 853 acres in the old plan. The introduction states (page 1-2), "In addition, the city and Triad would enter into a development agreement, in accordance with California Government Code Section 65864 et seq.

(Development Agreement), to implement the development-related components of the Specific Plan."

There is no reason for the city to contemplate a new Development Agreement for the benefit of the CITY. It would only be for the benefit of the DEVELOPER. The new development can be processed with a new Specific Plan under the old Developer Agreements, which aren't that different in scope.

On page 20 of Ordinance No. 1451 (the Commercial/Offices uses): “Applications for development approvals shall be subject to such changes in the General Plan, the Policy Plan, the zoning codes and other rules, regulations, ordinances and officials policies hereinafter adopted (and in effect at the time of the application) *that do not conflict with the elements or deprive developer of the benefits thereof.*”

On page 12 of Ordinance No. 1443 (the Hines Agreement): “Neither city nor any agency of the city shall enact an ordinance, resolution or other measure that relates to the rate, timing or sequencing of the development or construction on the property *that is in conflict with this agreement or that reduces development rights provided by this agreement.*”

There is no reduction in development rights with the proposed Specific Plan. It actually INCREASES development rights by adding another 26 acres of development.

Clearly, these landowners have had 13 years so far to take advantage of the special rights granted to them by the city in 1991 and 1993. Current residents, who have only acquiesced because of the legal impediment represented by the Development Agreements, do NOT desire this development. These agreements should expire, as agreed by the city and the property owners, without further extensions. New agreements are not needed for the proposed project to go forward and should be removed from DEIR.

Please explain?

- 2) The Draft EIR contemplates \$4 million to \$5 million from a “community benefit contribution” to go toward park related “and other purposes.” The “community benefit contribution” is \$5,800 per residential unit (x 1,325) and \$1 per square foot for non-residential space (x 1,050,000). That adds to a total “community benefit contribution” of \$8,735,000.

How does the city explain the difference between the fees to be paid and the “\$4 million to \$5 million” for park-related and other purposes?

The Draft EIR notes that, among the uses for this fee, is paying for a new fire station to serve the project. Construction and outfitting of a new fire station should be paid either by the developer outright or by the city. Its expenses should not be siphoned from this fee, which is for the community’s benefit. The community at large would benefit from improvements to Lagoon Valley Regional Park, NOT on a fire station to serve an exclusive community. Please explain? The EIR should be amended to require that 100% of the “community benefit contribution” on the residential units and non-residential space be used for improvements to Lagoon Valley Regional Park. Correct?

- 3) The Draft EIR lists traffic mitigations for the project in several areas to include widening of Interstate 80 by increasing the shoulder, adding auxiliary and general-purpose lanes. The city has absolutely no authority over money spent on

79-1
Cont.

79-2

79-3

highways by the California Department of Transportation. Funding for state projects is included in the State Transportation Improvement Project, which is approved by the state Transportation Commission; federal funding is obtained through the congressional authorization bills.

The city cannot rely on mitigation measures it neither controls by approval or funding.

With this mitigation measure removed please revise the DEIR. What mitigation measure are proposed to help with the obvious transportaion problems?

Traffic Impact Study requires up dating every two years, data for this DEIR dates from 1990, 1995,1997 with two day traffic count in 2003. The information gathered is to old and not sufficient to complete this study. Will the Traffic Impact Study (TIS) be updated?

Boundaries of the Study to include all on / off ramps in Vacaville with noted delays on the connecting city streets. DEIR should note all new developments and their combined affect on traffic. This would even include Dixon. Will these other developments be included?

Trips to schools will incompass both Fairfield and any of the Schools in Vacaville. As the existing LOS conditions of Alamo/Merchant degrade more users will seek alternate avenues to access the freeway. Study should then include all routes to and from all Vacaville and affected Fairfield schools ie, Alamo/ Foothill; Foothill / Pleasant Valley Road; Pleasant Valley Road / Lyons Road; due to students/ parents using these accesses. The traffic study boundaries need to include Davis, Dixon, Woodland, Fairfield, Vallejo, Suisun as workers and service to the new development.

I-80 is considered a recreational/holiday route. Where the study on the transtortaion during a Holiday? More needs to be said than expect longer delays? Please include factual information.

Traffic mitigation measures must be included in the Traffic Impact Analysis (TIS). The TIS should provide the nexus [Nollan v. Californis Costal Commission, 1987,483 U.S.825 (108 S.Ct.314)] between a project and the traffic impacts to State highways facilities. The TIS should also establish the rough proportionality [Dolan v. City of Tigard, 1994,512 U.S. 374 (114 S.Ct, 2309)] between the mitigation measures and the traffic impacts. Consultation between the lead agency, Caltrans and those preparing the TIS should be done to reach consensus on the mitigation measures and who will be responsible. Has this been done? Who is responsible? Where are the cost estimates for mitigation measures and financing plan?

- 4) The Draft EIR is rife with ill-defined or simply not-defined measures to mitigate anticipated project impacts. Among them: In section 4.10-3, there is a discussion of needed water-distribution systems for the project. The EIR states that the project proponent must deposit with the city "adequate funds for the pre-design, design and construction of the needed facilities, no less than three years before needed." This includes three upper zones requiring booster pump stations and water storage basins, which can be built on existing open space.

79-3
Cont.

79-4

There is no existing design for the water facilities, no estimate of cost nor discussion about what happens if adequate money isn't paid and the project proponent can't cover the cost.

There is also no designation of who or which entity will determine what amount is "adequate."

79-4
Cont.

- 5) In Section 4.13-6, there is discussion of the requirements of the state Department of Toxic Substance Control relative to the location of the proposed school site. However, that is the only location discussed for sampling for toxic substances. Because of the agriculture uses of the property and the activities of Hines Nurseries, there is likely to be soil contamination and possible groundwater contamination on other areas of the proposed development. The Draft EIR contains no mention of the city or the developer obtaining environmental insurance to cover the costs of project stoppage and/or mitigation in the event toxic substances are discovered during construction.

79-5

- 6) Section 4.15-1 discusses the significant loss of 7.65 acres of native wetlands. The Draft EIR contemplates wetland buffers elsewhere in the project area of 25 to 50 feet. This is inadequate; buffers should be a minimum of 100 feet, as they are to separate riparian habitat. And speaking of riparian habitat, the Draft EIR states that "smaller riparian buffers can be allowed on a case-by-case basis." Really? Who makes that determination? The project manager? The city engineer? The Department of Fish and Game? The EIR doesn't say-and should.

79-6

- 7) The environmental mitigation section on wildlife and vegetation in Section 4.15-2 through 4.15-10 is ripe with significant harm to wildlife nesting areas and habitat. It would require an inhuman amount of monitoring, or a fleet of training biologists, to monitor every area and potential breach of approved mitigations. Assuming that a developer-paid biologist (singular) will be an adequate steward of public resources is ridiculous. There are other areas where a biologist isn't contemplated, for example, with Sewer Option 2, which calls for crossing Alamo Creek. Such a project would have a severe impact on the natural watershed and its wildlife.

79-7

- 8) Section 3-29 states that the storm-water drainage system within the private streets of the exclusive residential "villages" would be maintained by the Homeowners Assoc. This is unacceptable. Such critical public health systems as the proper drainage and treatment of urban runoff should be maintained and overseen by the city. Please explain?

79-8

- 9) The Draft EIR states that the K-6 (or K-8) school on site can be either public or private. That is a big difference that will impact traffic in the mornings and afternoons and which is not addressed in the EIR. The impact of adding 3,750 new residents includes 500 K-6 students, 154 7th and 8th, and 267 high school students. The letter from the Vacaville school district clearly puts the city on notice that the "school fee" to be paid by the project is inadequate to cover the

79-9

impact. Jepson Middle School and Vacaville High School already are above design capacity and have lost space to portables. If the elementary school contemplated on site is developed as a private school, there will be further impact on the next closest elementary school that isn't addressed in the Draft EIR. Please give cost to citizens of Vacaville with no school being built? Only a private school? See question of how this may affect traffic.

79-9
Cont.

10) The Draft EIR contemplates a public safety district for funding police services and a maintenance district to help pay for the upkeep of Lagoon Valley Regional Park. Yet these are advanced as mere concepts without a discussion of the finance impact if these "districts" aren't created or the money isn't used for the purposes outlined. The DEIR should explain in detail, correct?

79-10

11) According to Fred Buder, there is a portion in the southeast end of the proposed project area that is within the city's sphere of influence but is not within the municipal boundaries. This area is contemplated as open space/agricultural and is included on project maps. However, the Draft EIR contains no mention of annexation or ensuring that this property is permanently dedicated to the city for open space as part of the project. Please explain.

79-11

12) There is no mention of whether the golf course will be public or private. Arguably, the public benefits decline significantly when a golf course becomes membership only.

79-12

Sincerely,

James and Patricia Rathke
178 Salinas Drive
Vacaville, CA 95688-2444

e-mail JPSTRATHKE@msn.com

COMMENT LETTER 79: James and Patricia Rathke**Response to Comment 79-1:**

The existing development agreements are between the City and the parties identified in the comment, for the purposes of implementing a different project than that proposed by Triad Communities. The City believes that a new development agreement with the new developer and for this new/revised project is an important component for ensuring that the type of project described in the Specific Plan is implemented as expected by both City and developer.

Response to Comment 79-2:

The Community Benefit Contribution is proposed for more than just park improvements. This funding will be used for the construction and equipping of the fire station, for park and open space improvement work, and may also be used for acquisition of additional park or open space lands. A portion of this funding is proposed for use in purchasing land or conservation easements to address Swainson's Hawk foraging habitat as well. The fire station will also serve as part of the entire City system and will not be used exclusively for just Lower Lagoon Valley residents. See the Fire Department's Standards of Response Cover Study, dated September 2003, for a detailed analysis of the planning for fire station needs. The project will fund the construction, equipping, and operating costs for the new fire station.

Response to Comment 79-3:

The City does not agree that the mitigation measures identifying the addition of auxiliary lanes to I-80 should be removed from the EIR. The EIR recognizes that the State of California is responsible for the construction of improvements to I-80 and thus recognizes that implementation of this mitigation cannot be guaranteed (please see Draft EIR, Section 4.5 Traffic, Section 4.5-3). However, the City believes that the mitigation measure and the Specific Plan requirement that the project fund its fair share of this mitigation is appropriate under CEQA. The State of California Department of Transportation concurred with this approach in their comment letter on the Draft EIR.

Response to Comment 79-4:

Draft EIR Section 4.10, Water Supply, Impact 4.10-3 describes the water supply system improvements required to serve this project. For additional information and detail, Draft EIR Technical Appendix H includes an investigation of water supply issues and needs. Mitigation Measure 4.10-3 establishes the mitigation requirements to ensure that the development funds the predesign, design and construction of the water system required for the project. The mitigation language provides the City with the authority to determine the adequacy of funding amounts.

Response to Comment 79-5:

See Response to Comment 66-22 in relation to potential soil or groundwater contamination at the Hines Nursery site. The last sentence of the comment addresses the economic costs of following mitigation measures in the Draft EIR. An EIR need not provide economic (cost) information in the analysis. Rather, CEQA requires that an EIR's analysis focus on the potential physical environmental effects of the proposed action or project.

Response to Comment 79-6:

See Response to Comment 18-10 which addresses buffer zones along riparian habitat.

Response to Comment 79-7:

Biological monitoring protocols for construction sites are well established, effective and agency approved mitigation for many types of projects. Specific details of monitoring protocols are described in the Mitigation Monitoring Program (MMP) for a given project. Development of the MMP is not required prior to certification of an EIR, but rather is done in time for consideration and approval by the decision-maker when it considers the Proposed Project. This is done because the adoption or rejection of mitigation measures is ultimately the province of the decision maker. The EIR only recommends, and analyzes the effectiveness and feasibility of the mitigation measures.

Although the specific details of the MMP are not yet developed, biological monitors will be required during the construction phase of the project. The crossing of Alamo Creek that is a part of the Proposed Project will be accomplished by bore and jack under the streambed and will not require excavation of the stream bed itself. However, biological monitor(s) are required to be present for this activity to ensure mitigation measures are properly implemented.

Response to Comment 79-8:

The Specific Plan, Chapter 9, Section 9.5 - Maintenance, requires the formation of a Lighting and Landscape Maintenance District that would be responsible for maintenance costs for drainage systems. Since there are both private and public areas with storm drain systems, the City may permit the Community Association (called Homeowners Association on page 3-29 of the Draft EIR) to conduct maintenance activities for the storm drainage system. However, the Specific Plan will require the formation of the Lighting and Landscape Maintenance District that will permit the City to assess area owners for City maintenance of this cost if not adequately maintained otherwise.

Response to Comment 79-9:

The traffic analysis took into consideration the site as either a private or public school and evaluated the associated traffic impacts. See Responses to Comments 14-1 through 14-10 for a response to comments from the Vacaville Unified School District, including traffic assumptions used for school uses.

Response to Comment 79-10:

Fiscal impacts are not considered environmental impacts under CEQA. However, these components are proposed in response to the stated expectations of the Vacaville City Council for the project to fund police costs and park maintenance costs. The City has conducted a separate fiscal analysis to determine the project's fiscal impact to City finances. This report is available from the City's Community Development Department and at the department's website at www.cityofvacaville.org.

Response to Comment 79-11:

There is no current plan to annex the property within Specific Plan Land Use Area 6B. These properties are shown on the City's Comprehensive Annexation Plan as long-term annexation areas. All are currently in Williamson Act agricultural preserve contracts. Section 4.2, Impact 4.2-1 analyzes the compatibility of this area with the adjacent City lands and concludes a less-than-significant impact. The Specific Plan notes that the City may consider extending trails through these properties if through working with these private land owners, an acceptable arrangement can be provided for such. See also Response to Comment 10-3.

Response to Comment 79-12:

The golf course would be a private golf course. This characteristic is fully described in the Specific Plan, Chapter 5, Section 5.3 (Private Open Space and Recreation). The benefits mentioned in this comment address issues of public access to the golf course rather than environmental impact issues. The development agreement would specify any guarantee of public, non-member access that the City believes is appropriate for the golf course.

Lagoon Valley DEIR comments #3 4/19/04, T. Swiecki

1

April 19, 2004

To: Fred Buder, Community Development, City of Vacaville

From: Ted Swiecki, Ph.D.
Plant pathologist / Plant ecologistSubject: Comments on Lagoon Valley Draft Environmental Impact Report (DEIR) –
Third installment

This is the third and final installment of comments on portions the Lagoon Valley DEIR. Other comments were previously submitted via email on March 15, 2004 and April 18, 2004.

My comments on this DEIR are limited due to limited time and patience I possess to write these comments, not for lack of material to comment upon. This DEIR has numerous technical flaws and omissions, only a few of which have been highlighted in my comments. As with all of my previous comments, the comments provided herein are based on observed facts, expert opinion, and reasonable inferences drawn from those sources of information.

80-1

Section numbers and page numbers given below refer to those in the DEIR unless stated otherwise.

p. 4.15-3 to 6. The characterization of the plant communities are insufficient, incomplete, and inaccurate in parts. For example, patches of native perennial grassland, some of which are sizeable, exist on the City owned hillsides (the Araquipa Hills) above Lagoon Valley Park and are likely to exist on lands within the project area. *Nassella pulchra* is the most common native grass in these patches, but other native grasses and forbs are also present. The lists of plant species present in the communities are woefully inadequate and appear to be based mainly on standard descriptions rather than actual observations. Hence, the characterization of the plant communities in the project area are inadequate and the impacts of the project on these communities has not been adequately assessed.

80-2

Similarly, the list of vertebrates that use habitats in Lagoon Valley is not based on either properly timed surveys or existing records (e.g., Jim Knight of Vacaville has extensive observations on birds and other vertebrates found in Lagoon Valley). Why did the DEIR authors fail to use this available and highly detailed information in composing this DEIR? The stock list of species included fails to list species that found in Lagoon Valley such as loggerhead shrike, Swainson's Hawk, burrowing owl, black shouldered kite, and great horned owl, to name a few. The lack of information on these and other species that occur and frequently nest within the project area is a serious omission and points out the poor quality of the biological assessment in the DEIR.

80-3

Characterization of the vegetation in area 7A as coyote brush scrub is not entirely accurate. Although coyote brush occurs in the area, this disturbed area includes some degraded riparian woodland and is in fact a recruiting oak woodland. Numerous sapling-sized blue oaks and valley oaks are intermingled with the coyote brush scrub. This is a transitional plant community that will succeed to oak woodland over time if not destroyed by the project activities.

80-4
Cont.

p. 4.15-6, 7. As noted above, the wetland delineation understates actual wetland resources. In addition, because large amounts of disturbance is planned on the existing Lagoon Valley Park for the routing of utility liner and other infrastructure, the DEIR must include accurate delineations of wetlands located in the park that will be altered or disturbed as a result of the project. These impacts are not part of the park master planning project and should be detailed in this EIR.

The description of seasonal wetlands is highly inaccurate and not based on fact or data. Seasonal wetlands in the valley are primarily natural vernal pools (as was Lagoon Lake) that have been nearly obliterated by agricultural operations. This is the reverse of what the DEIR states without basis. A review of the soil map for the valley will show that soils typically associated with vernal pools are present in the valley and the draft Solano Habitat Conservation Plan shows the same. Many of the pools are inundated for weeks at time during relatively wet rainy seasons, not the "few days if at all" stated in the DEIR. These statements in the DEIR show a complete lack of understanding of the history, hydrology, and edaphic properties of the valley and are evidence of the poor quality of the data used in this DEIR. Project impacts to seasonal wetlands are much greater than indicated in the DEIR and reanalysis by competent scientists is needed. Such analyses must include information on the historical extent of wetlands, since recent landowners have attempted to destroy these seasonal wetlands.

80-5

p. 4.15-9. All of the biological surveys performed by the DEIR consultants were performed at a time when many special-status species would have been unobservable (mid summer). This is especially the case with vernal pool species that may be present in the seasonal wetlands. Properly-timed surveys need to be conducted by competent biologists to accurately assess the presence of special status species in the project area and design appropriate mitigation. Current assessments are clearly inadequate as they fail to accurately identify the biological resources that will be impacted by the project.

80-6

Avoidance of wetlands should be the preferred mitigation method. DEIR authors seldom if ever recommend changes in project design to prevent impacts, although many project impacts could reasonably be avoided by project redesign.

80-7

Table 4.15-1. This table inaccurately indicates that no vernal pools exist within the site and dismisses the possibility of some special status species on the basis of this erroneous and undocumented assumption. Although Lagoon Valley vernal pools are clearly degraded, remnant native species, including special status species may be present. The system of alkaline and other vernal pools in Lagoon Valley represents a unique population that is geographically isolated from other vernal pools in the region. Hence,

80-8

the destruction of the most of these pools by the project represents a highly significant impact.

80-8
Cont.

p. 4.15-11. Were bullfrogs actually observed in the project area or was their presence inferred, as apparently much of the occurrence data has been?

80-9

p. 4.15-12. Burrowing owl has been observed in the valley historically and resident individuals were observed this winter in Lagoon Valley Park.

80-10

p. 4.15-13. Loggerhead shrike nests in the valley commonly. I have observed fledgling shrikes in both of the last two years and adults this spring. Young shrikes are often killed by vehicles on Lagoon Valley Rd.

80-11

Table 4.15-2. At least several species on this list have been observed in the project area.

80-12

p. 4.15-32, 33. The acreage of wetlands impacted is underreported as previously noted. Furthermore, plans need to show how wetlands will be protected not only during construction but after construction from impacts associated with urban wildlife, human use, and improper management by the City. The City has not demonstrated any competence with respect to management of natural areas, and it is likely that the resource value of any protected acreage would be degraded over time if managed by the city. An external entity must be charged with monitoring and enforcing the maintenance of any retained or constructed habitat areas. Otherwise, such acreage must be considered as lost habitat that has not been mitigated.

80-13

Any mitigation for wetland loss should occur within Lagoon Valley and should be appropriately buffered from urban impact and managed by a competent entity. Currently, the city does not qualify as competent for managing habitat areas due to a lack or requisite expertise or funding.

p. 4.15-44. Losses of oak woodland habitat would be significant. The city has not shown that it can successfully establish locally native oaks as mitigation for removed trees. This has only been accomplished locally by the Vacaville Tree Foundation. It is also completely counterproductive to consider removing trees in slide repair areas since trees are the major factor that contributes to the stabilization of the slopes. The DEIR should require that no trees be removed from slopes, especially unstable slopes.

80-14

Note that much of the infrastructure that will pass through the existing city parklands will disturb or destroy many mature native oaks. These impacts have not been analyzed in this DEIR. In particular, the proposed sewer alignment that crosses the hill in Lagoon Valley Park would destroy a rare hybrid oak (*Quercus x morehus*) near the Hume Grove, one of only about 4 that are known to exist in Vacaville and the only one which can be easily viewed. Destruction of this tree would be an unnecessary and unmitigatable loss and is further evidence of the poor environmental planning associated with this project.

As noted earlier, it is unlikely that the constructed hill will support good plant growth due to excessive soil compaction. Planting on the hill cannot be considered as mitigation for impacts elsewhere. Loss of existing land that can support native plant growth by the construction of the hill remains an unmitigated negative impact. This impact is best mitigated by avoidance, i.e., by not constructing this unnecessary oversized lump.

80-14
Cont.

Section 6. Alternatives. Why does the DEIR not consider an alternative similar to the one posed in my letter in response to the NOP? The alternative quoted below is a more environmentally sound proposal than the project and all alternatives other than the no project alternative. The analysis of the other alternatives are of course severely flawed because the actual resource values of the valley have been inaccurately and incompletely assessed in the DEIR. As a final note (p.6-37), the lack of a golf course in the project can hardly be seen as any serious matter, given the proximity of another course directly over the hill in Fairfield. The major loss to the community and the region would be the loss of a natural area and undeveloped regional park that serves as a significant community separator.

80-15

The proposed alternative that should have been considered in the DEIR is noted below. It achieves some of the project objectives (mainly high-end housing) and coupled with off-site development of commercial projects, would meet several objectives. IT avoids most negative impacts and importantly avoids growth inducing impacts that this project poses. What is the justification for omitting a plan similar to this?

This alternative proposes the following:

1. Allowing existing commercial operations within Lagoon Valley to continue, with the possibility of expansion of existing facilities onto lands that are not of high natural resource value. Existing businesses, including Hines Nursery and the Ranchotel would continue in operation and could expand their facilities if necessary to maintain commercial viability.
2. Limited development of estate residential housing in the southeastern portion of the project area, where limited rural residential properties already exist. Landowners in this area would be allowed to subdivide their parcels to develop a small number of high end custom home sites on large parcels, perhaps on the order of 20 acres. Both new and existing homes would not be served by municipal sewer service but would remain on individual septic systems. Water supply could be either municipal or private. The total number of new parcels would remain small to avoid adverse impacts to groundwater quality, traffic, visual resources, and biological resources. The subdivision would allow existing landowners in that portion of the valley a reasonable economic return, and would provide a unique type of high-end housing that is not currently available within Vacaville. The large lots would potentially allow for specialized landscape uses not typically available within the city, such as the development of a small private vineyard or space for keeping horses.

3. Acquisition of wetlands, vernal pools, riparian areas, and other valuable natural resource areas as mitigation banks. Lands could either be owned and managed by the city or [preferably] another organization. Lagoon Valley is a unique area separated from other vernal pool areas by the Araquipa Hills. Maintaining and restoring degraded wetlands and vernal pools within this area is being discussed as part of the Solano HCP. Funding of land acquisition would be provided by developers mitigating for impacts of development in other portions of the city and county. The natural areas provided by the mitigation bank would positively affect the recreational value of the existing parklands.

4. Acquisition of lands for public parklands, recreation, and related uses. Remaining lands, mostly located south of the park would be acquired by the city, with funding provided by a local bond issue and possibly other sources. Uses of the acquire areas could include sports fields, festival/fairground/special events areas, community gardens/orchards, leasing for specialty agriculture (e.g., organic produce). These lands would help fill the city's needs for active recreation areas and would help make Lagoon Valley regional recreational draw as well a citywide park. Due to its beautiful setting and publicly-owned hills, Lagoon Valley is much better suited to the role of community-wide park than is Centennial Park. Furthermore, by relocating more intensive recreational activities away from the Lagoon Lake onto nearby lands, adverse impacts to habitats within the park will be diminished.

5. Accommodate additional residential and commercial uses specified in the proposed plan in other portions of the city that are not geographically separated from the city as is Lagoon Valley. Infill and redevelopment of existing, underutilized sites, such as declining and defunct shopping centers, can provide sites for the land uses proposed here in areas that already have infrastructure in place.

80-15
Cont.

COMMENT LETTER 80: Ted Swiecki

Response to Comment 80-1:

See Responses to Comments 80-2 through 80-15.

Response to Comment 80-2:

While plant communities in the hills above Lagoon Valley may consist of a high percentage of native species as the comment suggests, surveys of the Specific Plan Development Area have revealed that on the valley floor, these species occur only as scattered individuals or very small stands that are otherwise surrounded by non-native weedy annual grasses and forbs. These scattered individuals do not form a community, and are not contiguous with healthier populations in the surrounding hills. The plant communities in the hills above Lagoon Valley will not be affected by the Proposed Project.

Response to Comment 80-3:

See Responses to Comments 15-3, 16-4, 18-2 and 19-2 that address the timing and adequacy of biological surveys conducted for this project.

Response to Comment 80-4:

The coyote brush scrub at the project site is an extension of similar habitat that extends westward along the west side of the hills west of the site. While the coyote brush scrub habitat on the project site is degraded and may eventually shift to another habitat type over time, the EIR does not predict the natural succession of project site habitats that may occur in the future. The EIR looks at existing conditions and what effects the Proposed Project may have on them and how those effects can be mitigated or avoided.

Response to Comment 80-5:

See Response to Comment 15-3 that addresses the wetland delineation and wetland resources at the site. The EIR analyzes project impacts on existing conditions and is generally not required to examine historic conditions. This is particularly true here where the environmental baseline consists of a more intense project that was previously approved but not constructed.

Response to Comment 80-6:

See Responses to Comments 15-3, 16-4, 18-2 and 19-2 that address the timing and adequacy of biological surveys conducted for the Proposed Project.

Response to Comment 80-7:

Avoidance of wetlands is clearly provided as the preferred option for mitigation under Impact 4.15-1 in Section 4.15 of the Draft EIR. The Specific Plan itself is designed to avoid impacts to wetlands and special status species where feasible. If avoidance is not feasible, then additional mitigation measures to compensate for lost wetlands at a 2:1 ratio as required by the U.S. Army Corps of Engineers are provided as well.

Response to Comment 80-8:

Surveys of the site did not reveal the presence of vernal pools. See Response to Comment 15-3. Verification of the current delineation by the U.S. Army Corps of Engineers and additional wetland delineations of areas outside the Development Area may reveal more wetlands. If so, and if the Proposed Project would impact those wetlands, those impacts would be mitigated at a 2:1 ratio as required by the Corps.

Response to Comment 80-9:

Bullfrogs have been observed in Lagoon Valley during surveys conducted for the Proposed Project.

Response to Comment 80-10:

Potential effects to burrowing owl are fully addressed in the Draft EIR on pages 4.15-37 through 4.15-39. The Draft EIR also recommends mitigation for these impacts, should they occur.

Response to Comment 80-11:

Potential effects to loggerhead shrike are fully addressed in the Draft EIR on pages 4.15-45 through 4.15-46. The Draft EIR also recommends mitigation for these impacts, should they occur.

Response to Comment 80-12:

The commentor states that several species in Table 4.15-2 have been observed at the project site, but does not provide a list of which species he is referring to or the specific locations where such species have been observed. Observation of a particular species in an area does not necessarily mean that species is resident there or even that the species has habitat there. Species included in Table 4.15-2 were omitted from further consideration based on the lack of suitable habitat, or the fact that the range of some of the species does not include the project area.

Response to Comment 80-13:

Mitigation measures protecting wetland resources and potential inhabitants of seasonal wetlands are clearly provided in the Draft EIR on pages 4.15-32 through 4.15-35.

The comment regarding the City's competence to manage habitat areas is noted.

Response to Comment 80-14:

The project would be amenable to taking advantage of the Vacaville Tree Foundation's successful record in locally establishing native oaks as mitigation for removed trees, by working directly with this organization to develop and implement mitigation measures from the City of Vacaville Municipal Code and the replacement and survival monitoring of any native oaks lost to the project at a ratio of 5:1.

The text of the specific plan will be modified to clarify that native oak trees that contribute to the stability of slopes in the project area will not be removed and that only those trees in slide areas that constitute a public hazard will be considered for removal.

The City will work closely with the Vacaville Tree Foundation in establishing a final sewer alignment, such that the rare hybrid oak is avoided to the maximum extent feasible. If the loss of this, or similar trees, is found to be unnecessary and avoidable, the final sewer alignment will be modified accordingly.

Response to Comment 80-15:

The City believes that the range of alternatives analyzed provides a thorough discussion of potential alternatives to the project or its location. See Response to Comment 15-8. With regard to the specific proposed alternative, the City believes that it is similar to the Alternative 1, No Project/No Development alternative analyzed in the Draft EIR. Under the commentor's proposal, the City assumes that the Hines Nursery would remain, as is assumed in Alternative 1. Under the alternative proposed by this comment, about 600 acres would then be available for residences on 20 acres each. This would result in approximately 30 residences being constructed. Alternative 1 assumes the existing land uses would remain, including scattered residences, which might permit some minor subdivision for a few more residences. The impacts of these would be relatively minor and not substantially different from those impacts identified in Alternative 1. This Alternative would however, require rezoning of the area from the current designations that allow up to 5 million square feet of office, medical and large scale retail uses and 730 homes with a golf course. The City believes that the Draft EIR alternatives analysis does provide an analysis similar to that suggested with this comment.

April 19, 2004

Mr. Fred Buder
Project Manager
City of Vacaville

Community Development Department
650 Merchant Street
Vacaville, CA 95688

Post-it* Fax Note	7671	Date	4/19/04
To	Fred Buder	From	Roberto Valdez
Co./Dept.	CDD	Co.	
Phone #	(707) 449-5307	Phone #	(707) 448-4905
Fax #	(707) 449-5423	Fax #	

RECEIVED

APR 19 2004

CITY OF VACAVILLE
PLANNING DIVISION

Dear Mr. Buder:

Responding to the Draft EIR, I am concerned the history of former Edwin Markham, a famous Californian naturalist, writer, and past resident, in Lower Lagoon Valley, has not been included substantially in the Technical Appendix L, Historic Resource Evaluation Report. Why was he left out of the research, when there is a lot of available informational material on him and his boyhood experiences in Lagoon Valley between 1856-1870's?

81-1

Also, there seems to be an incorrect error in identifying his former farm house property at 4114 Lagoon Valley Road (APN:167-040-020) in page 22 of this Appendix L. Also, why was there no effort made to access this historical property in the cited research information?

81-2

Yours truly,

Roberto Valdez - Vacaville Resident

COMMENT LETTER 81: Roberto Valdez

Response to Comment 81-1:

A discussion of Edwin Markham is included in the Draft EIR on page 4.14-13 in Section 4.14, Cultural Resources. This information was inadvertently omitted from the Historic Resource Evaluation Report included in Appendix L. Nonetheless, as noted, the Draft EIR does analyze the potential impacts of the project on artifacts related to Mr. Markham.

Response to Comment 81-2:

There is no mention of Markham on page 22 of Appendix L, nor does the HRER identify 4114 Lagoon Valley Road as the location of the former Markham farm house. The former Markham property was purchased by the descendants of the Dyke family, who still retain the property in three distinct legal parcels (APN 167-040-020, 167-040-010 and 167-040-030). These parcels, known as 4114, 4118 and 4110 Lagoon Valley respectively, are located outside the project area. However, JRP included them within the architectural APE to account for any potential visual or noise impacts and changes to cultural settings of nearby facilities. Nevertheless, the parcel owners denied access to their properties. Therefore, JRP cannot confirm that there are any historic-period resources, including any potentially associated with Edwin Markham, extant on these parcels.

PLANNING COMMISSION MINUTES
 Planning Commission – Regular Meeting
 City of Vacaville
 7:00 p.m. – Council Chambers

March 16, 2004

CALL TO ORDER:

The regular meeting of the Vacaville Planning Commission was called to order by Chairman Dimmick at 7:00 p.m.

A. ROLL CALL:

Present: Chairman Dimmick, Vice-Chair Hite, Commissioner Broadwater, Commissioner Crim, Commissioner Duff, Commissioner Purves, and Commissioner Sharp.
 Also Present: Deputy City Manager/Community Development Director Rowland, Assistant Community Development Director Gustin, City Planner Emerson, City Planner Sexton, Project Manager Buderer, Associate Planner Parrington, Assistant City Attorney Stewart, Associate Civil Engineer Hilton, Senior Civil Engineer Galway, Housing & Redevelopment Project Coordinator Smith, Deputy Director of Public Works Aggarwal.

G. PUBLIC HEARING:

2. LOWER LAGOON VALLEY SPECIFIC PLAN DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) – Triad Communities, applicant
 Staff Contacts: Scott Sexton and Fred Buderer
 File 03-003

Planning Project Manager Buderer reviewed the project and introduced the staff report into the record, noting that the proposed project is the Lower Lagoon Valley Specific Plan and includes General Plan Amendments, Rezoning, Specific Plan and development agreement for the approximately 2,354-acre subject area. This Specific Plan would accommodate development of a 736-acre residential/recreational community with 1,325 total dwelling units, a K-6 or K-8 school, a 213-acre golf course with clubhouse, a community center, and neighborhood park spaces. The Plan includes a 90-acre business village with approximately one million sq. ft. of commercial/office space, 50,000 sq. ft. of retail, a fire station, and supporting infrastructure. The Specific Plan area also includes the 388-acre Lagoon Valley Regional Park and 1,066 acres of open space/hillside agriculture area. Lagoon Valley Road would be widened to serve as a main entrance into Lower Lagoon Valley. Other infrastructure improvements include water storage reservoirs and booster pumps, on-site and off-site wastewater systems, and storm water detention and drainage facilities, including extensions as needed to serve the Plan area. Existing Lagoon Valley Regional Park will remain. A proposed Lagoon Valley Regional Park Master Plan Update is currently being initiated as a separate project by the City. Future additional project-level environmental/planning review would be required for any revised Park Master Plan. The proposed project is located in the Lower Lagoon Valley area, in the southwestern portion of the City and its adjacent planning areas. The Plan area is bordered on the west and north by I-80 and on the north, east and south by hillside areas. The intent of this hearing is to provide an opportunity to receive public comment on the Draft Environmental Impact Report. The Commission will not be taking an action on the item at this time.

Mr. Buderer noted that the comment period for the DEIR had been extended to April 19, 2004 at 5:00 p.m. He also reviewed the ways that the public could obtain copies of the documents.

City Planner Sexton provided a brief history of past actions in the area. He also reviewed the project components and the differences between the previous approval and the new proposal.

Ken Kay, Ken Kay & Associates, speaking for Triad Development, provided an overview of the concept plan and its evolution. He stated that their intent is to provide an open, healthy, walkable community which would provide diversity of mixed uses such as businesses, schools, recreation and housing. The intent is to reduce the need for automobiles and increase the habitat and vegetation. He reviewed the various meetings that they have held in which they listened to the community and

incorporated their comments. He added that they also intend to preserve the heritage of the area. Mr. Kay reviewed the architectural companies who have contributed to the project, adding that they are sensitive to the magnitude of this project. The new plan has reduced the impervious surfaces in the area and view corridors will be maintained. He reviewed the components of the project which will include a town center concept with neighborhood serving retail, water features, business village and fire station. There will be a non-vehicular trail system and golf course with clubhouse that will have a regional draw as well as a community center.

Chuck Tang, Architect, reviewed the central theme as being quality and design. He added that they will provide diversity through the product that will be provided. He reviewed the type of architectural features that will be provided for the different housing types within the development. He noted that the community school was intended to be a civic icon in the area.

Cathy MacAfee, EIP Associates, reviewed the purpose of the DEIR, and it's content. She also reviewed how the evaluation was conducted and how the specific plan relates to the DEIR.

Mr. Sexton reviewed the next steps in the process and upcoming hearing dates.

Chairman Dimmick called a ten minute recess and resumed the meeting at 8:20 p.m.

PUBLIC HEARING OPENED:

Del Berg, owner of Ranchotel, presented a document prepared by Fish and Wildlife that addresses the wetland areas within the valley. He requested that this information be included in the DEIR.

82-1

Nancy Almond, representing the Mary Almond Trust stated that she was opposed to the zone change that is indicated for her property. She felt that the proposed change would leave her property undevelopable.

82-2

Brent Schoraudt, Greenbelt Alliance, provided a copy of his comments in writing to the Commission. He stated that the DEIR does not address habitat value and loss of habitat. He felt that the timing of development in Lagoon Valley is inappropriate until a habitat conservation plan (HCP) has been created. He felt that development impacts are significant and unavoidable and that the development should be moved closer to the town center, adding that this new development should not move forward while there is infill land available near the center of the community to study as an alternative.

82-3

82-4

Edison Wang, Vacaville resident, felt that Lagoon Valley is a wildlife sanctuary and a project with commercial, housing and schools will increase vehicle and air toxic contaminants. He commented that it is important to protect the valuable wildlife in the area. He felt that the DEIR fails to comply with future laws that address diesel emissions and he urged the commission to preserve the environment.

82-5

82-6

Bill Parks addressed the issue of the proposed zone change to the Almond Trust property. He felt that the rezoning would render the property undevelopable and useless.

82-7

Marian Conning, Friends of Lagoon Valley, commented that it is important to address the cumulative impacts, adding that there are several projects in the General Plan that have not been built yet and they need to include the impacts of those projects. She requested that the DEIR list or identify all projects assumed in the DEIR. She felt that they need to consider the regional scope of the cumulative impacts, which could include development in Dixon and all along the I-80 corridor. She commented that there is a lack of any mention of non-automobile transportation and questioned if the bus system will be extended as well as Fairfield bus service, park and ride lots. She was concerned that there would only be one way to enter or exit the development and that emergency evacuation needs to be addressed. Ms. Conning commented on the hydrology, drainage and water quality analysis (pg. 5.1-21) and that the master drainage plan needs to be completed. She felt that flooding in Lagoon Valley would create flooding into south Vacaville. She requested that the acronyms in the document be clarified so that they are easier to understand. She also stated that the DEIR must evaluate wildfire danger and emergency evacuation needs.

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Cynthia Krustowiz, agreed with the previous speaker that the development is a trap for people who live there in the event of an emergency. She felt that the area has unstable land and a lot of slippage occurs in the area as well as silt being washed down into the lake. She noted that she hikes in the area and there is a great deal of wildlife that will be driven out if development occurs. She stated that she admires the plan, but it should be built elsewhere.

82-12

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82-14

Christine Eschner, stated that the jobs housing ratio is inadequate and questioned what jobs will be created, and where people who live here will work.

82-15

Chairman Dimmick clarified that this development projects that 3,000 jobs will be created which is superior to many other developments that have been built in the community.

Bud King, Vacaville resident, commented that he was concerned about building homes in the valley and that smoke from fireplaces would become stagnant in the area. He noted that there is also the potential for wildfires and was concerned that there would only be one fire station in the area. He requested that the DEIR address air quality. Mr. King also noted concern about wildlife elimination.	82-16
Sharon Lewis, commented that she works in the bay area, and drives early in the morning. She was concerned that the traffic will increase as a result of this development. She commented that this proposal should not be pushed forward because people will become less passive as the process moves forward.	82-17
	82-18
	82-19
Roberto Valdez, Friends of Lagoon Valley, and Habitat Conservation Plan member, noted that there are 300 members in Friends of Lagoon Valley. He felt that the DEIR will have a tremendous impact on the future of Vacaville and future generations. He requested that a 90 day extension be granted to allow proper response to documents. He noted that the Council has been put on notice to extend the review period and they should not risk legal action. He felt that the City has neglected maintenance and management of the valley for many years. Mr. Valdez requested that the Commission consider the alternative of no development/no project in the valley. He asked that they provide specific details of the status of grant fees that have been generated to deal with water issues and riparian habitat. He requested that he receive a list of the community organizations that were contacted to consider the DEIR. He felt that Triad is building an exclusive development that is not available to the whole community. He questioned if anyone would be able to join the golf club and if areas of the community would be gated. He also noted concern that some of the maps were old and some photos are seasonal and don't show the vernal pools well.	82-20
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Chairman Dimmick noted that they are focusing on the DEIR at this meeting and would not have specific information about the golf club or gated areas.	
Doug Hambright, commented that he has lived in Vacaville for many years. He noted that any EIR will have areas that not everyone concurs with, but the people who prepared the DEIR did the best that they could at the time. He felt that whenever an advancement occurs, people will be opposed to it. He stated that he was in support of the DEIR because it will help Vacaville grow properly.	82-28
Kevin English, Vacaville resident, felt that growth in Vacaville has been good. He commented that in the past, EIR's were a planning tool to determine the impacts of development, but have now become a political tool for those who oppose a project. He felt that Triad will provide many amenities including the creation of 3,000 new jobs. He felt that the plan incorporates smart growth concepts and will improve the condition of the lake.	82-29
	82-30
Brett Johnson, Vacaville resident, and Community Services Commissioner, noted that the Community Services Commission has been working on the lake management plan for quite some time and that this specific plan addresses the goals of that plan. He noted that the proposal will increase the open space and add value to the community and generate a revenue source.	82-31
Tim Wamble, owner of the Gonzales Ridge Cattle Company, noted that he is in the area on a daily basis while dealing with his cattle. He felt that this DEIR is the most ponderous DEIR in the history of Vacaville and incorporates the comments from the public and many organizations received through many meetings. He felt that many of the comments that have been made have been a way to stall development, adding that this is the best proposal he has seen for the area.	82-32
Cliff Poole commented that there is no need to wait for an HCP because it is not countywide and the HCP is just a means for mitigation of impacts. He agreed that transportation is a legitimate concern. He noted that there will be no loss to the City Park and open space as a result of this development, and it will help clean up the lake. He commented that all the issues that have been mentioned have been mitigated, adding that people say that they love the valley, but no one has offered to buy the property.	82-33
	82-34
	82-35
Ellie Bush, business owner and Vacaville resident, commented that people are passionate about the area and that large developments always cause great concern. She was concerned about a proposal for such a large development and the impact on schools. She commented that there is no proposal for upper grades and noted that students will need to attend other schools that are currently overcrowded and bussing or commuting would be required. She felt that the biological assessments are inadequate in many areas such as vernal pools. The studies should have been conducted throughout the year, rather than only during a short time period. Ms. Bush commented that the Swainson Hawk nesting areas need to be addressed, and the conclusions reached about traffic are inadequate and the traffic discussions are confusing. She thanked staff for extending the review period to allow more time to review the document.	82-36
	82-37
	82-38

Denise Peavy commented that there is always a lot of discussion when development is proposed in Lagoon Valley. She was concerned about development within the 100 year flood plain and that the plan indicates that data will be changed, or homes will be raised to address flooding. She felt that it is not wise to build in a flood plain and noted additional concern about the water table in the area. She felt that building culverts as mitigation is not adequate because they can become clogged. There is inadequate data regarding faults and landslides in the area and it has not been determined that there is an inactive fault line. She commented that the DEIR fails to mention that the 1892 earthquake happened on an unknown fault. The maps also incorrectly label the Kirby Hills fault. She added that they should not assume that the fault is inactive. She reviewed the fault lines in the area, adding that information has been incorrectly addressed. Ms. Peavy felt that children should not be bussed into Vacaville. Mud flows and landslides are not addressed or mitigated and degradation of air quality also needs to be addressed. Liquefaction from a combination of water table, soil and alluvium would be hazardous.

82-39

James Knight, Vacaville resident, commented that he had worked on the previous EIR for Lagoon Valley, specifically addressing mammals, birds, amphibians and reptiles. He commented that the proposed DEIR is inadequate regarding a number of species and species of special concern in particular, no mention of Loggerhead Shrike. He requested that there be a memorial for Edward Markham for his influence in the area. He also reviewed other historical sites and roads in the area that need to be addressed and memorialized. He noted that there is no mention of the Pioneer Road, Pena Pass Road or Paradise Valley Road. He was concerned about the location of the sewer pumping plant being at the entrance of the park and create odor problems. A 40-60 acre detention basin is not adequate for flood water detention and Lagoon Lake will return to a swamp. He was concerned about the use of the herbicide Atrazine on the golf course and the flow into the lake and Alamo Creek. He felt that this is a boiler plate document that does not have adequate information.

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Ted Swiecki, Vacaville resident, commented that this is a deficient document, and there is no consideration of the resource value in the area. He felt that there needs to be an additional buffer area provided around the lake. He noted concern about the Hines nursery property and the chemicals and nitrates such as methyl parathion that have built up in the area adding that saturation into the soil needs to be addressed. He also mentioned Methyl Parathium, herbicides, pesticides, and bitothera, a plant disease. The wetlands delineation is inadequate because it was done in the summer as well as Vernal pool wetlands information shown is inadequate and will be greater than what is shown. He noted that bird species such as Loggerhead Shrike, Swainson Hawk and Burrowing Owl need to be addressed. He was not in favor of the land exchange because it would trade city owned land with areas that have low or no resources. He felt that the large berm area will be an eyesore and because it will be highly compacted, won't be able to support plant life.

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Tony Simas, 750 Compass Court, commented that he moved to Vacaville to upgrade his quality of life. He stated that he was in favor of the project because it may give him an opportunity upgrade in the future. He commented that the condition of the lake needs to be improved and they should take advantage of a developer who is willing to provide a lot of amenities and improve the area. He noted that he volunteers with the local baseball league and they are required to pay a fee to use the ball fields. He felt that people who use Lagoon Valley Park often don't pay entrance fees to utilize the area.

82-51

Donna Harr stated that she has lived in Lagoon Valley for the past 27 years. She felt that all the energy is being funneled in a negative manner. She noted that over time, there has been a lot of degrading to the area. She felt that the DEIR provides a lot and has been done in a professional manner and addresses every conceivable concern that has been raised. She felt that legitimate comments can be mitigated. She noted that she has reviewed numerous plans in the past and this is the best plan that has been prepared. She commented that there are people who visit the area, but they don't live there or pay taxes and don't have a buy-in in the land. She challenged those who spoke negatively to get together and make one statement so that concerns can be addressed and mitigated. She noted that the DEIR analysis has been very thorough because she lives there and has to open the gates for the consultants who have been all over the property. She reviewed the letters of comment from the start of the DEIR and found that all the ideas and comments were incorporated into the DEIR and Specific Plan. She noted that this DEIR is much larger than the last one.

82-52

COMMISSION COMMENTS:

Commissioner Purves commented that you could nit pick the DEIR forever, but the lake is dirty and the trails need to be cleaned up. He noted that there will be no open space or park land that will be

82-53

taken away as part of this development and will provide improvements in the area and enhance the community. He noted that he was in support of the project and complemented those who prepared the document.

Vice-Chair Hite noted that the view from the park and across the lake need to be preserved. She requested that they have more information regarding emissions and how they will be moved out of the valley and questioned if they should restrict wood burning fireplaces. The public portion of the park is important to many people in the community and the nature in the area needs to be respected. She felt that the developer will be held to a high number of mitigation measures.

Commissioner Broadwater noted his appreciation for those who spoke in favor of the DEIR. He felt that there has been tremendous work that went into the report, adding that it is important for people to also provide solutions as opposed to just negative comments.

Chairman Dimmick complemented staff and the consultants for their work on the DEIR. He also complemented the audience for the input that they provided. He felt that good points had been made for both sides.



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Cont.

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COMMENT LETTER 82: Planning Commission Minutes

Response to Comment 82-1:

See Response to Comment 34-1.

Response to Comment 82-2:

This comment addresses the merits of the project and not the content or adequacy of the Draft EIR, and it will be forwarded to the decision-makers for their consideration. No further response is required.

Response to Comment 82-3:

See Responses to Letters 15 and 17.

Response to Comment 82-4:

See Responses to Letters 15 and 17.

Response to Comment 82-5:

Impacts of the Proposed Project associated with air emissions from increased vehicle trips and air toxics are evaluated in Section 4.6, Air Quality, of the Draft EIR.

Response to Comment 82-6:

Applicable laws and regulations are also described in this 4.6 of the Draft EIR, including a discussion of the Diesel Risk Reduction Plan (see page 4.6-8). Any development must comply with the applicable federal, state and local laws, independent of the CEQA analysis. When new laws are adopted, these must be complied with, to the extent they apply to the Proposed Project at its then-current phase.

Response to Comment 82-7:

This comment addresses the merits of the project and not the content or adequacy of the Draft EIR, and it will be forwarded to the decision-makers for their consideration. No further response is required.

Response to Comment 82-8:

See Responses to Comments 24-1 and 74-1.

Response to Comment 82-9:

See Responses to Comments 24-1 and 74-1.

Response to Comment 82-10:

See Response to Comment 74-5.

Response to Comment 82-11:

See Response to Comment 74-3.

Response to Comment 82-12:

See Responses to Comments 74-4 and 74-5.

Response to Comment 82-13:

See Responses to Comments 74-4, 74-5, and 75-2.

Response to Comment 82-14:

Biological resource impacts of the Proposed Project are evaluated and presented in Section 4.15, Biological Resources, and where the EIR concludes that such impacts may be significant, mitigation is recommended.

Response to Comment 82-15:

See Response to Comment 17-36.

Response to Comment 82-16:

See Response to Comment 9-7 for a discussion of fireplace emissions. The City of Vacaville Fire Department conducted the "Standards of Response Cover Study" in 2003 which determined that the project would require the construction of one fire station to add to the City's fire protection coverage.

Response to Comment 82-17:

The issue of air quality is addressed in the Draft EIR under Section 4.6, Air Quality, which examines potential impacts on both short-term and long-term air quality in the project area. Wildlife in the project area is addressed in Section 4.15, Biological Resources.

Response to Comment 82-18:

Please refer to Responses to Comments in Letter 6.

Response to Comment 82-19:

The comment expresses an opinion about the review process and does not refer to environmental issues related to the proposed project.

Response to Comment 82-20

The comment provides information about the Friends of Lagoon Valley organization and expresses an opinion about the project; however, it does not include any environmental issues related to the proposed project.

Response to Comment 82-21:

See Response to Comment 42-1.

Response to Comment 82-22:

See Response to Comment 43-1.

Response to Comment 82-23:

See Response to Comment 43-3.

Response to Comment 82-24:

See Response to Comment 41-1.

Response to Comment 82-25:

The comment addresses the merits of the project and not the content or adequacy of the Draft EIR, and it will be forwarded to the decision-makers for their consideration.

Response to Comment 82-26:

The comment addresses the merits of the project and not the content or adequacy of the Draft EIR, and it will be forwarded to the decision-makers for their consideration.

Response to Comment 82-27:

See Responses to Comments 15-3, 16-4, 18-2 and 19-2.

Response to Comment 82-28:

This comment is supportive of the proposed project.

Response to Comment 82-29:

The comments reflected support for the proposed plan.

Response to Comment 82-30:

The comment reflected on the merits of the project and believed it included smart growth concepts and would improve the lake.

Response to Comment 82-31:

Comment reflected support for the project and that it would help the park and City finances.

Response to Comment 82-32:

The commentor believes the EIR is thorough and incorporates community comments.

Response to Comment 82-33:

Commentor did not believe the project should wait for the HCP.

Response to Comment 82-34:

Traffic is addressed in Section 4.5 of the Draft EIR.

Response to Comment 82-35:

Comment addresses merits of project, supporting improvement to the lake.

Response to Comment 82-36:

Effects on schools are addressed in Section 4.9, Public Services of the Draft EIR. See Responses to Comments 14-1 through 14-10 for the City's responses to the Vacaville Unified School District's comments.

Response to Comment 82-37:

See Responses to Comment 66-24.

Response to Comment 82-38:

Impacts to Swainson's Hawk nesting habitat are addressed in Draft EIR, Section 4.15, Section 4.15-3. No specific issue related to the traffic discussions was mentioned in the comment, however, responses to detailed comments regarding traffic impacts can be found in responses to Letters 6, 10, 11, and 12.

The staff acknowledges that the commentor appreciates additional review time.

Response to Comment 82-39:

See Responses to Comments 17-17, 17-18, 30-1 and 37-4.

Response to Comment 82-40:

See Responses to Comments 75-1 through 75-3.

Response to Comment 82-41:

See Responses to Comments 65-12 through 65-15.

Response to Comment 82-42:

See Draft EIR, Section 4.14, page 4.14-13 for a discussion of the history of Mr. Markham's life in Lagoon Valley. The suggestion for a marker or some other commemoration of this fact will be noted for consideration by the City and developer. See Specific Plan policies 5.7.1 (P1-4) for proposed policies regarding preservation or recognition of cultural resources within the development area.

Response to Comment 82-43:

See Section 4.14, pages 4.14-14 and 4.14-15 for a discussion of early settlement patterns in the valley. See also Response to Comment 77-8.

Response to Comment 82-44:

See Responses to Comments 63-6, 65-3, 66-22, 66-23 and 66-24.

Response to Comment 82-45:

The City believes the document is thorough and that it adequately addresses the potential environmental effects of the Proposed Project.

Response to Comment 82-46:

See Responses to Comments 65-3 and 66-22 through 66-24. Impact 4.13-3 in Section 4.13 of the Draft EIR also addresses the issue of potential soil or groundwater contamination and potential impacts.

Response to Comment 82-47:

See Response to Comment 80-8.

Response to Comment 82-48:

Draft EIR Section 4.15 addresses potential impacts to these bird species.

Response to Comment 82-49:

The commentor states an opinion regarding the value of land to be exchanged between City and developer.

Response to Comment 82-50:

For an analysis of visual impacts, please see Section 4.4 of the Draft EIR. Additional visual simulations are incorporated into this Final EIR (see the Appendix C).

Response to Comment 82-51:

The commentor's comment in favor of the Proposed Project is noted and will be forwarded to the decision-makers for their consideration.

Response to Comment 82-52:

The comment on the adequacy of the Draft EIR is noted and will be forwarded to the decision-makers for their consideration.

Response to Comment 82-53:

The comment is noted.

Response to Comment 82-54:

The comment is noted. See Mitigation Measure 4.6-2 and Response to Comment 9-7. The Draft EIR on page 4.6-52 recognizes that the project site experiences atmospheric temperature inversions that limit the vertical dispersion of pollutants. This type of inversion is not uncommon in the SVAB. Thresholds established by the SAQMD take such conditions into consideration. Therefore, the air emission modeling conducted for the Proposed Project was compared to thresholds that incorporated inversion characteristics in the SVAB, including the Specific Plan area.

Response to Comment 82-55:

The comment is noted. See Appendix C of this FEIR for additional visual simulations examining the view of the development area from the park and surrounding areas.

Response to Comment 82-56:

The comment is noted.

Response to Comment 82-57:

The comment is noted.

STATE OF CALIFORNIA - THE RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF WATER RESOURCES

1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791



APR 26 2004

COMMUNITY DEVELOPMENT DEPT

APR 27 2004

CITY OF VACAVILLE

Mr. Fred Buder, Project Manager
City of Vacaville
Community Development Department
650 Merchant Street
Vacaville, California 95688

Lagoon Valley County Park Dam, No. 1442
Solano County

Dear Mr. Buder:

This is in response to the Notices of Availability dated February 20, 2004 and March 18, 2004 regarding the Lower Lagoon Valley Specific Plan and Draft Environmental Impact Report. These documents show that there is no impact to the dam or its appurtenant structures, or their operation.

83-1

The spillway deficiency for Lagoon Valley County Park Dam, identified in 1992, still has not been addressed. Provisions to correct this deficiency should be included in any documents adopted by the City of Vacaville regarding the dam, or the stream channel downstream of it. Also, any work to be performed on the dam or its appurtenant structures is subject to the review and approval of this Department.

83-2

If you have any questions, please contact Area Engineer Jon Wright at (916) 227-4627 or Regional Engineer Frederick Sage at (916) 227-4604.

Sincerely,

David A. Gutierrez, Acting Chief
Division of Safety of Dams

COMMENT LETTER 83: Department of Water Resources

Response to Comment 83-1:

The commentor is correct that the project would not change or modify the existing dam or its appurtenant structures or their operation.

Response to Comment 83-2:

See Response to Comment 83-1. The Proposed Project would not change or modify the existing dam. The potential for flooding resulting from dam failure is addressed in Impact 4.11-5 on page 4.11-2. Mitigation Measure 4.11-5 requires preparation of a dam failure inundation study and measures to protect people and property in the event of dam failure-related flooding.

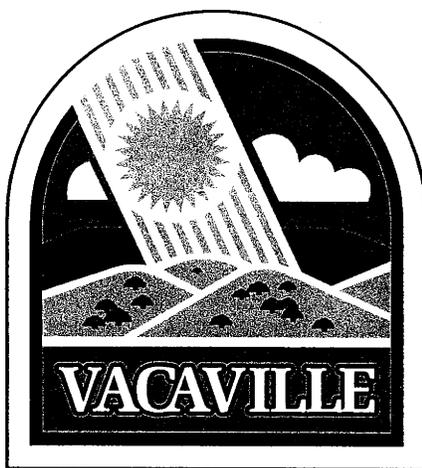
APPENDICES

Appendix A

***SB610 Water Supply Assessment Report for
Lagoon Valley, Southtown and Rice McMurtry***

CITY OF VACAVILLE

SB 610 WATER SUPPLY ASSESSMENT REPORT FOR LOWER LAGOON VALLEY, SOUTHTOWN, AND RICE McMURTRY



Final

NOLTE

BEYOND ENGINEERING

JANUARY 2004

CITY OF VACAVILLE

SB 610 WATER SUPPLY ASSESSMENT REPORT FOR LOWER LAGOON VALLEY, SOUTHTOWN, AND RICE McMURTRY



Final

January 2004



Submitted to:
City of Vacaville
Utilities Division
P.O. Box 220
Elmira, CA 95625

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CITY OF VACAVILLE

SB 610 WATER SUPPLY ASSESSMENT REPORT FOR LOWER LAGOON VALLEY, SOUTHTOWN, AND RICE McMURTRY

Cities and counties with large development projects are required by SB 610 (Part 2.10, Division 6 of the California Water Code enacted in 2001) to prepare a Water Supply Assessment Report (WSAR). The purpose of this legislation is to ensure that adequate water is, or will be, available to accommodate a proposed large development. While an Urban Water Management Plan (UWMP) evaluates water demand at a programmatic level for the entire service area of an urban water supplier, a WSAR evaluates the specific water needs of a proposed project in relation to existing, present, and future water demand and supply within a service area. This WSAR will evaluate the projected water needs for existing and future developments in addition to supply for the proposed Lower Lagoon Valley (LLV), Southtown/Moody (Southtown), and Rice McMurry projects. The locations of these proposed developments are shown in Figure 1. The WSAR includes a review of entitlements, water rights, and delivery contracts and incorporates information presented previously in the City of Vacaville UWMP. The WSAR is intended to be included in the CEQA documents for the referenced development projects.

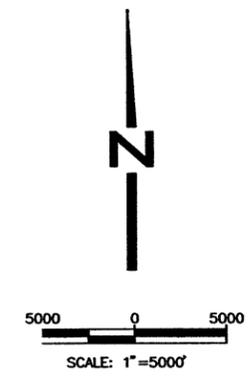
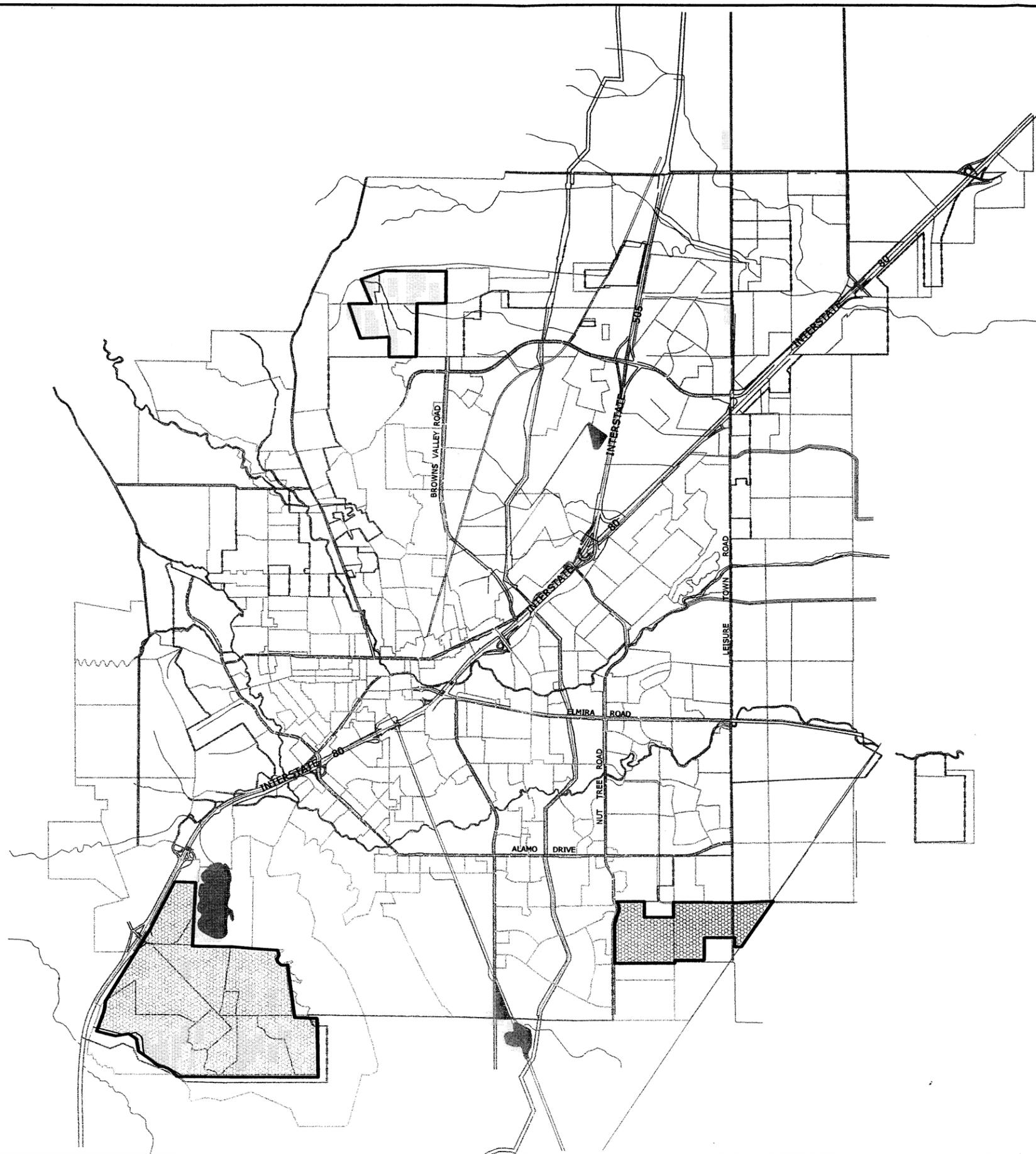
INTRODUCTION

The City of Vacaville (City), founded in 1850, is nestled at the base of the Vaca Mountains. The City is located centrally between Sacramento and San Francisco on Interstate 80 (I-80). The City limits encompass over 21 square miles with a population of approximately 89,000 (including 9,000 inmates residing at the state correctional facility). Vacaville is the third largest city in Solano County, following behind Vallejo and Fairfield. Additional information concerning the City population, climate/precipitation, and mechanism for financing water system infrastructure are provided below.

Current/Projected City Population

The population of Vacaville more than doubled from 1970 to 1980 and increased an additional 63 percent from 1980 to 1990. The City grew at an average annual rate of 2.23 percent during the 1990s, well above the regional and state-wide rates for residential growth. It is anticipated that the population will continue to grow an additional 55 percent by the year 2025.

Population projections for Solano County, according to the Community Profile and Trends Report [1] prepared by the City Community Development Department, are summarized in Table 1.



- LEGEND**
-  LOWER LAGOON VALLEY PROJECT
 -  RICE McMURTRY PROJECT
 -  SOUTHTOWN PROJECT

FIGURE 1
 CITY OF VACAVILLE
 SB610 WATER SUPPLY ASSESSMENT REPORT

**PROPOSED DEVELOPMENTS
 LOWER LAGOON VALLEY, SOUTHTOWN
 AND RICE McMURTRY**

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TABLE 1
CITY OF VACAVILLE POPULATION PROJECTIONS 2000 – 2025 [1]

Year	2000	2005	2010	2015	2020	2025
Population ^a	88,600	97,900	108,300	120,000	133,000	147,000

^a Includes 9,000 inmates at the state correctional facility (California State Prison – Solano).

Climate/Precipitation

The climate in Vacaville is characterized by mild winters and hot summers. The average annual precipitation is 25 inches, 85% of which occurs from December through March. Temperatures during the winter usually drop into the forties at night and occasionally fall below the freezing point. Snow is rare. In the summer, temperatures occasionally rise above 100 degrees. The days are typically hottest between 4 and 5 p.m., and temperatures cool off noticeably in the evenings.

The climate has significant influence on water demands in the City. Winters are characterized by relatively low water demands, while the summers have substantially higher demands. Lawn watering in the summer is a major contributor to the higher summer demands.

Development Impact Fee (DIF) for Water System Infrastructure

The goal of the Development Impact Fee (DIF) for water is to provide adequate financing for water facilities required to implement the City's General Plan. The fees are used to finance the planning, design, construction, and inspection of water supply and distribution system projects.

The fee programs are based on a market rate of growth constrained by the limits of the General Plan. Fee programs are adjusted annually to reflect inflation and other changes in the cost estimates, and are subject to a major revision every five years or every time a major change that would impact the fees occurs.

Water system impact fees are assessed on water meter size and average citywide consumption for each meter size. The charges are based on equivalent dwelling unit (EDU) factors, and assessed relative to single-family home which is 1 EDU. A summary of the impact fees are presented in Table 2. It is anticipated that water system infrastructure improvements required to support the proposed LLV, Southtown, and Rice McMurtry projects will be funded through the proposed development project and existing DIF funds.

An additional annexation water supply and delivery cost is assessed to projects as a condition for annexation. Because a project's boundaries require annexation into the City limits, water supplies and infrastructure costs for these projects were not part of the City's General Plan and are not fully covered in the development impact fees. Therefore, an additional fee is assessed per EDU to cover acquisition and delivery costs of water purchased to meet the increased annexation demands.

**TABLE 2
CITY OF VACAVILLE
WATER CONNECTION FEE [2]**

Landuse Type	EDU ^a	Meter Size, inch	Fee
Single-Family	1.0	¾	6,010
	1.0	1	6,010
	2.5	1	15,025
	6.0	1-½	30,048
	8.0	2	48,076
Multiple-Family	2.0	¾	12,020
	2.6	1	15,625
	7.0	1-½	42,068
	13.4	2	80,530
	23.2	3	139,424
	37.4	4	224,762
Commercial / Industrial	2.0	¾	12,020
	2.5	1	15,626
	7.0	1-½	42,069
	13.4	2	80,530
	23.2	3	139,424
	37.4	4	224,762

^a Equivalent Dwelling Unit

EXISTING AND PLANNED WATER SOURCES

This section contains a description of the existing and planned groundwater, surface water, and water conveyance facilities. The water utility system is a self-supporting City enterprise. The water utility is responsible for operation, maintenance, and repair of the City's water treatment and distribution system, as well as water quality and recycled water distribution. Vacaville's water utility system was purchased from Pacific Gas and Electric (PG&E) Company in 1959 by issuing voter-approved water revenue bonds. Since purchasing the system, the City has systematically improved and upgraded this infrastructure.

Description of Existing Facilities

The Vacaville water system consists of surface water treatment facilities, wells, pumping facilities, distribution and transmission pipelines, and storage reservoirs. The system receives water from several sources, including Solano Project water from the Lake Berryessa reservoir, State Water Project water and Settlement Water from the North Bay Aqueduct (NBA), and

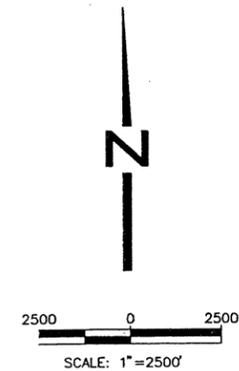
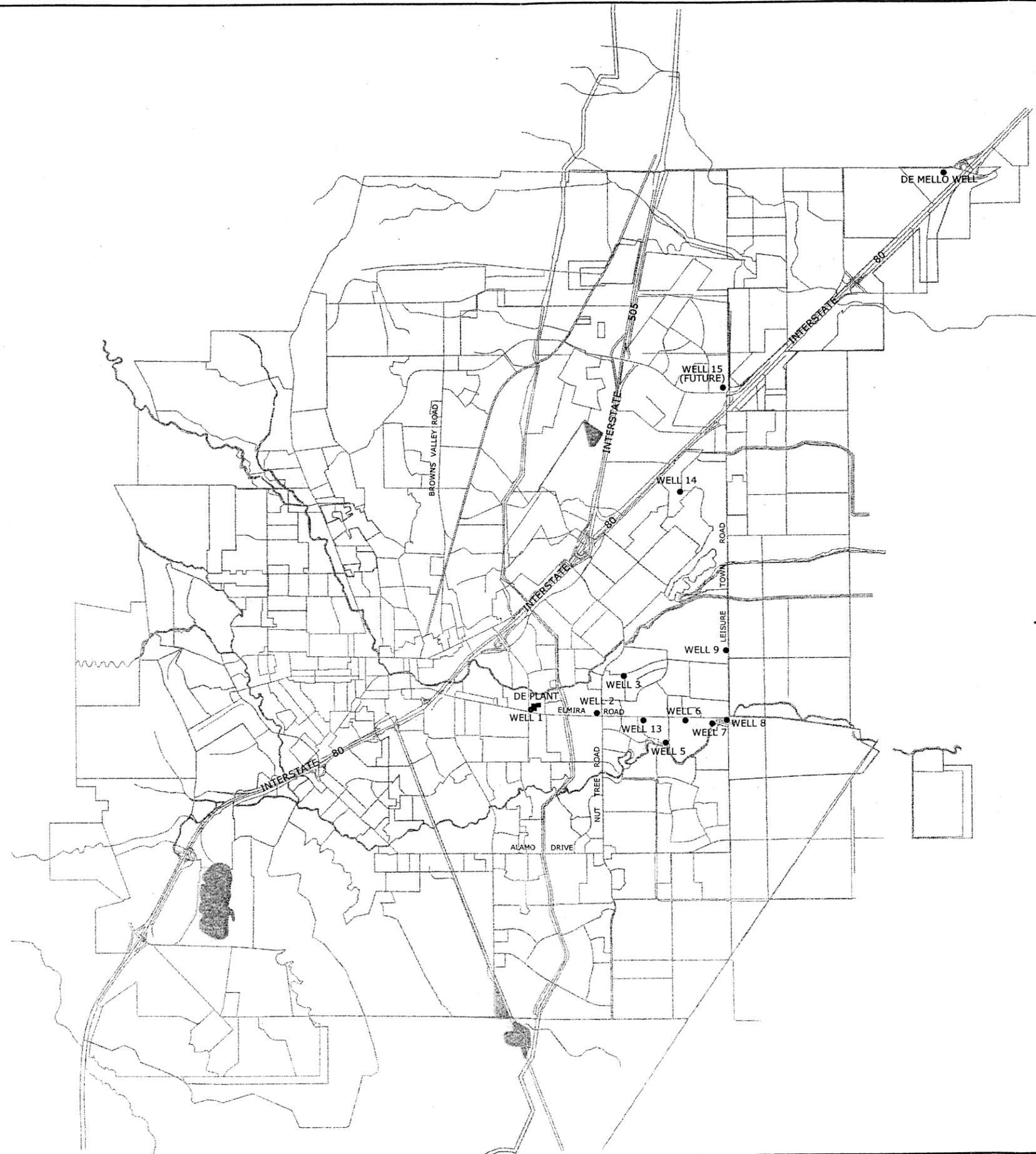
groundwater from local city wells. Within Vacaville's water entitlements, the percentage of water used from each supply source varies due to conjunctive use. If any one source has limited water availability or poor water quality, use from other sources can increase. Likewise, if unscheduled water becomes available it can be utilized to the City's advantage.

Surface water from Lake Berryessa is provided by contract between the U.S. Bureau of Reclamation (BuRec) and the Solano County Water Agency (SCWA) and delivered by the Solano Irrigation District (SID). This water is treated at either the NBR plant or at the City's 10 million gallons per day (mgd) diatomaceous earth filter treatment plant (DE Plant), in which the treated water empties into a ground-level chlorine contact basin. Wells 1, 6, and 13 also supply water directly to this contact basin. From the contact basin, a booster pump station lifts the water into the distribution system. The remaining wells (2, 3, 5, 7, 8, 9, and 14) supply water directly to the distribution system. A new production well (15) has been drilled and will be equipped and brought into production in 2004. In addition, a low-capacity well, the De Mello Well, was brought into production in March 2003 to provide fresh water at a distribution system "dead-end" located on the outskirts of town. The locations of the City wells and DE plant are shown in Figure 2.

The NBR plant provides a capacity of 13.0 mgd for Vacaville and supplies water directly to the City's distribution system. The NBR plant draws water from the Sacramento River Delta via the NBA, as well as Solano project water from the Putah South Canal. The location of the NBA and Putah South Canal can be seen in Figure 3.

Groundwater

As noted earlier, one source of supply for the City is groundwater. Currently, groundwater is provided through 11 wells, ten of which withdraw water from the deep aquifer in the basal zone of the Tehama Formation. Most City wells are located in the Elmira well field. However, new wells are being sited further north, near Interstate 80 (I-80). Currently, approximately 6,600 acre-feet per year (ac-ft/yr) is withdrawn. Vacaville continues to explore well field expansion as a means of maintaining adequate water supply. A regional program is being implemented to monitor groundwater data as a means of insuring against overdraft or contamination. This program is described in Appendix A along with an investigation of groundwater pumping impacts [3]. A discussion of the groundwater basin and historic groundwater pumping follows.



LEGEND
 ● VACAVILLE CITY WELL

FIGURE 2
CITY OF VACAVILLE SB610 WATER SUPPLY ASSESSMENT REPORT
CITY OF VACAVILLE MUNICIPAL WELLS AND DE PLANT
NOLTE BEYOND ENGINEERING

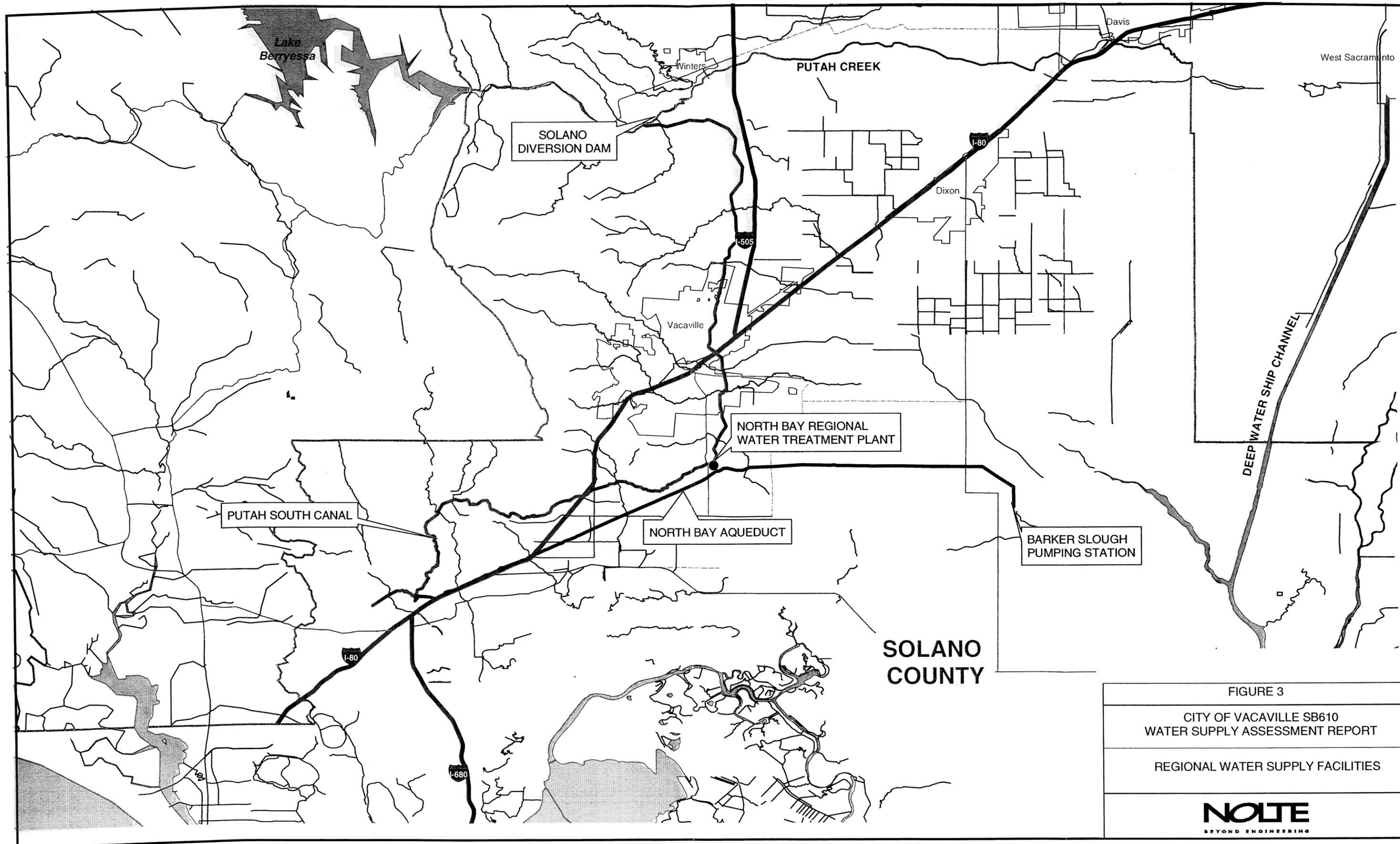


FIGURE 3
 CITY OF VACAVILLE SB610
 WATER SUPPLY ASSESSMENT REPORT
 REGIONAL WATER SUPPLY FACILITIES

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Boundaries, Soils, Storage Capacity

The City pumps groundwater primarily from the basal zone of the Tehama Formation in the Solano Sub-basin, located east of the English Hills Fault. Only Well 1 extracts water from a different formation, Markley Formation, located west of the English Hills fault. Tehama formation consists of moderately to highly consolidated fluvial, alluvial, and lacustrine deposits. Lithology present within the Tehama Formation includes inter-layered sand, silt, clay, and gravel, a stiff blue lacustrine clay located near the upper portions of the formation, and other continuous clay layers that divide the formation into upper, middle, and basal zones. The basal zone of the formation also includes gravel and cobble deposits, layers of detrital tuff, and calcium carbonate cemented conglomerate [4].

The primary source of groundwater supply for municipal use is the basal zone of the Tehama formation, which is a highly confined aquifer. The overlying Quaternary alluvial deposits and upper and middle zones of the Tehama formation are not suitable for high production municipal water supply. However, they are used for some domestic and agricultural purposes in unincorporated areas of Vacaville. East of the Vacaville area, these aquifers are utilized by SID to supplement surface water supplies and for shallow groundwater pumpage for drainage purposes.

The Solano Subbasin includes the southernmost portion of the Sacramento Valley Basin and extends into the northern portion of the Sacramento-San Joaquin Delta. Subbasin boundaries are as follows: (1) Putah Creek on the north; (2) Sacramento River on the east (from Sacramento to Walnut Grove); (3) North Mokelumne River on the southeast (from Walnut Grove to San Joaquin River); (4) San Joaquin River on the south (from the North Mokelumne River to Sacramento River); and, (5) boundary between the San Francisco bay and Sacramento River hydrologic study areas as described in California Department of Water Resource (DWR) bulletin 118 on the west.

Historic Groundwater Pumping

The City is the primary groundwater user within the Vacaville area. Unmeasured agricultural and domestic groundwater extractions in unincorporated areas of the Vacaville area, Rural North Vacaville Water District (RNVWD) production wells, and SID are the other groundwater usages. Since 1968, the City's annual groundwater pumping has varied from 2,862 ac-ft in year 1968 to 8,156 ac-ft in year 1983. Annual groundwater production is summarized in Table 3 from year 1968 to year 2002. The majority of groundwater production in the past was obtained from wells located at the Elmira Road well field. The newer northeast sector well field located near I-80 also contributes to the groundwater production. In the future, groundwater pumpage will be more widely distributed in the study area rather than concentrated in the Elmira Road well field.

**TABLE 3
CITY OF VACAVILLE
HISTORICAL GROUNDWATER PUMPING**

Year	ac-ft/yr	Year	ac-ft/yr
1968	2,862	1986	5,829
1969	3,046	1987	6,267
1970	2,871	1988	5,420
1971	3,198	1989	6,073
1972	3,255	1990	5,626
1973	3,125	1991	5,447
1974	3,316	1992	5,531
1975	3,970	1993	4,395
1976	4,965	1994	3,892
1977	5,076	1995	3,885
1978	5,707	1996	3,230
1979	6,236	1997	3,386
1980	7,043	1998	3,905
1981	7,740	1999	4,096
1982	7,684	2000	5,141
1983	8,156	2001	6,211
1984	6,063	2002	6,638
1985	5,853		

Surface Water

The City has three separate sources for surface water. Each source has a different level of reliability. This section describes the City's surface water sources. Appendix B contains information regarding specific contracts between the City and various water supply agencies.

Solano Project (Vacaville Supply, SID Agreement)

The Solano Project was constructed by the BuRec in 1958. The water rights permits for the Solano Project are held by the BuRec in trust for the Solano water users. The water rights permits further state that when the permits are converted to a license, the license will be issued in the name of Solano water users. Unlike most federal water projects, the water rights to the Solano Project "belong" to the Solano water users. The main feature of the Solano Project is Monticello Dam, which provides for storage of 1.6 million ac-ft of water in Lake Berryessa (Lake). Water from the Lake is diverted through the Putah Diversion Dam to the 32-mile Putah South Canal, which transports water to the eight SCWA-member unit contractors for Solano Project water.

SCWA has entered into agreements with cities, districts, and state agencies to provide water from the Solano Project. The Solano Project contracting agencies are: Fairfield, Suisun City,

Vacaville, Vallejo, SID, Maine Prairie Water District, University of California at Davis, and California State Prison - Solano. The annual entitlement to each agency is described in Table 4.

**TABLE 4
SUMMARY OF SOLANO PROJECT
WATER CONTRACTS (AC-FT/YR)[5]**

Agency	Annual Entitlement
Fairfield	9,200
Suisun City	1,600
Vacaville	5,750
Vallejo	14,600
SID	141,000
Maine Prairie Water District	15,000
UC Davis	4,000
California State Prison – Solano	1,200
Project Operating Loss (average estimated)	<u>15,000</u>
Total	207,350^a

^a Value approximates a firm yield during the driest hydrologic period on record (1916-1934).

The contracts with the public entities that use Solano Project water provide for the sale and distribution of water made available by the BuRec each year. The BuRec is contractually committed to delivering the full contract amount of water supply from the Solano Project unless the water supply does not physically exist (e.g. an empty reservoir). All Solano Project contractors, whether they are municipal or agricultural, are impacted by water supply reductions on an equal basis.

In addition to its entitlement from SCWA, Vacaville entered into a 1995 Master Water Agreement with SID, pursuant to which Vacaville receives an increasing supply from SID through the year 2016 and a consistent supply thereafter until the year 2045. An annual water schedule for SID water available to Vacaville is contained in Table 5.

**TABLE 5
ANNUAL WATER SCHEDULE FOR
THE SID WATER AGREEMENT (AC-FT/YR) [6]**

Year	Annual Entitlement	Year	Annual Entitlement
2001	2,500	2009	3,000
2002	2,500	2010	8,000
2003	2,500	2011	8,000
2004	2,500	2012	9,000
2005	3,000	2013	9,000
2006	3,000	2014	10,000
2007	3,000	2015	10,000
2008	3,000	2016 through 2045	10,050

State Water Project (North Bay Aqueduct)

Vacaville receives water allocations from the State Water Project through the SCWA (termed Table A water) and water from a Year 2000 purchase agreement from Kern County Water Agency (KCWA). Surface water received pursuant to these agreements is delivered through the NBA, a State Water Project facility. The City supply from the State Water Project is 6,100 ac-ft/yr, while KCWA Agreement water totals 2,878 ac-ft/yr. The Solano County branch of the NBA was completed in 1988. The Aqueduct is 28 miles long starting from Barker Slough in the Delta and ending in Napa County. The location of the NBA can be seen in Figure 3. The California Department of Water Resource (DWR) is the owner and operator of the NBA.

The water supply for the NBA is less reliable than the Solano Project. Supply from the NBA comes from the State Water Project which provides water to a total of 29 contractors. A list of these contractors and their respective allocations is shown in Table 6. Because the NBA is part of the entire State Water Project, any shortages occurring in the State Water Project impact the NBA.

There are currently seven agencies with NBA water allocations. These include Benicia, Dixon, Fairfield, Rio Vista, Suisun City, Vacaville, and Vallejo. The annual increase in SCWA's contract is described in Table 7. Member units using the NBA and their allocations are described in Table 8. Shortages during dry years are proportional to their share of the overall contract with DWR.

TABLE 6
STATE WATER PROJECT 2003
WATER ALLOCATIONS (AC-FT/YR) [7]

Agency	Maximum Allocations
Upper Feather River Area	
City of Yuba City	9,600
County of Butte	3,500
Plumas County Flood Control and Water Conservation District	<u>1,690</u>
Subtotal	14,790
North Bay Area	
Napa County Flood Control and Water Conservation District	21,475
Solano County Water Agency	<u>46,756</u>
Subtotal	68,231
South Bay Area	
Alameda County Flood Control and Water Conservation District	78,000
Alameda County Water District	42,000
Santa Clara Valley Water District	<u>100,000</u>
Subtotal	220,000
San Joaquin Valley Area	
County of Kings	4,000
Dudley Ridge Water District	57,343
Empire West Side Irrigation District	3,000
Kern County Water Agency	1,000,949
Oak Flat Water District	5,700
Tulare Lake Basin Water Storage District	<u>111,127</u>
Subtotal	1,182,119
Central Coastal Area	
San Luis Obispo County Flood Control and Water Conservation District	25,000
Santa Barbara County Flood Control and Water Conservation District	<u>45,486</u>
Subtotal	70,486
Southern California Area	
Antelope Valley-East Kern Water Agency	141,400
Castaic Lake Water Agency	95,200
Coachella Valley Water District	23,100
Crestline-Lake Arrowhead Water Agency	5,800
Desert Water Agency	38,100
Littlerock Creek Irrigation District	2,300
Metropolitan Water District of Southern California	2,011,500

TABLE 6 (continued)
STATE WATER PROJECT 2003
WATER ALLOCATIONS (AC-FT/YR) [7]

Agency	Maximum Allocations
Mojave Water Agency	75,800
Palmdale Water District	21,300
San Bernardino Valley Municipal Water District	102,600
San Gabriel Valley Municipal Water District	28,800
San Geronio Pass Water Agency	5,000
Ventura County Flood Control District	<u>20,000</u>
Subtotal	2,570,900
Total	4,126,926

TABLE 7
SUMMARY OF STATE WATER PROJECT ALLOCATIONS
TO THE SOLANO COUNTY WATER AGENCY
THROUGH THE NORTH BAY AQUEDUCT (AC-FT/YR) [5]

Year	Annual Allocations	Year	Annual Allocations
2001	45,836	2009	47,456
2002	46,296	2010	47,506
2003	46,756	2011	47,556
2004	47,206	2012	47,606
2005	47,256	2013	47,656
2006	47,306	2014	47,706
2007	47,356	2015 ^a	47,756
2008	47,406		

^aEach year thereafter will have an annual allocation of 47,756 ac-ft/yr.

**TABLE 8
STATE WATER PROJECT
ALLOCATION TO SOLANO COUNTY CITIES SERVED
BY THE NORTH BAY AQUEDUCT (AC-FT/YR) [5]**

City	Annual Allocations
Benicia	17,200
Dixon	0 ^a
Fairfield	14,678
Rio Vista	0 ^a
Suisun City	1,300
Vacaville	8,978 ^b
Vallejo	<u>5,600</u>
Total	47,756

^a Dixon and Rio Vista currently do not use their individual allocation of 1,500 ac-ft/yr. If Dixon and/or Rio Vista decide to use the NBA water supply, supplies to Benicia, Fairfield and Vallejo are reduced commensurately.

^b Vacaville allocations from State Water Project (including KCWA Agreement).

Settlement Water (DWR Agreement)

Settlement Water consists of surface water from the Sacramento River and Sacramento-San Joaquin Delta Estuary. Settlement Water is diverted under water rights held by DWR, but is not considered State Water Project water. The water is made available by DWR in settlement of area-of-origin water right applications by the cities of Fairfield, Benicia, and Vacaville. The amount of water provided in the Settlement Agreement was based on critical dry year deliveries. The Agreement provides an allocation to each of the three cities as shown in Table 9.

**TABLE 9
SUMMARY OF SETTLEMENT WATER FOR THE CITIES OF
FAIRFIELD, BENICIA, AND VACAVILLE (AC-FT/YR) [5]**

Agency	Annual Allocations
Fairfield	11,800
Benicia	10,500
Vacaville	<u>9,320</u>
Total	31,620

Recycled Water

In 2003, the City began developing a Recycled Water Master Plan. Preliminary planning estimates indicate that tertiary treated recycled water will be available for delivery and the necessary infrastructure will be in place by 2015. Potential irrigation customers have been identified and a stakeholder's workshop was held in July 2003 to review preliminary planning with affected community members. Delivery estimates for 2015 currently total 1,175 ac-ft/yr. However, this drought-proof resource will require user contracts and possible retrofit costs on the user's behalf. Therefore, for planning purposes, only 75 percent of the total delivery estimate, or 880 ac-ft/yr, is assumed to be available beginning in 2015 [8].

Summary of Water Supply Sources

For the City, in year 2025, the total water supply available from groundwater, surface water, and recycled water will be 42,978 ac-ft/yr. A summary of the respective supply sources previously discussed is presented in Table 10.

TABLE 10
CITY OF VACAVILLE
TOTAL WATER SUPPLY IN YEAR 2025

Sources of Supply	Allocations (ac-ft/yr)
Solano Project	
Vacaville Entitlement	5,750 ^a
SID Agreement	10,050 ^b
State Water Project	
Vacaville Table A	6,100
KCWA Agreement	2,878
Settlement Water ^c	9,320
Groundwater Pumping ^d	8,000
Recycled Water	880
Total	42,978

^a See Table 4

^b See Table 5

^c See Table 9

^d See Appendix A

PROJECTED WATER DEMANDS

Presented in this section are land use summaries and projected water demands for the proposed developments of LLV, Southtown, and Rice McMurtry. The water demand factors that serve as the basis for the demand projections are also described below.

Water Demand Factors

The City currently uses two sets of water demand factors (existing and growth) for planning and analysis of water supply and distribution systems. A summary of the current water demand factors is presented in Table 11. Most of these factors were approved as part of the *Water and Sewer Planning Factors Reconciliation Memorandum* [9]. Future growth factors for RLMD, RLD, RE, and CH were determined based on actual meter readings. The difference between the two sets of demand factors (existing versus growth) includes a contingency to reflect uncertainties in projecting future land use. It also includes increases in the water demand for new development versus existing within a given land use category.

**TABLE 11
SUMMARY OF CURRENT WATER DEMAND FACTORS
USED FOR MASTER PLANNING PURPOSES
CITY OF VACAVILLE**

Land Use	Designation	Unit	Factor, gpd/unit	
			Existing	Future Growth
Residential Low Medium Density ^a	RLMD	DU	340	420
Residential Low Density ^a	RLD	DU	380	520
Residential Estates ^a	RE	DU	680	600
Rural Residential	RR	DU	850	1,000
Residential Medium Density	RMD	DU	300	350
Residential High Density	RHD	DU	260	300
Residential Urban High Density	RUHD	DU	210	250
Manufactured Homes	MH	DU	260	300
Retirement Residential	RetRes	DU	300	350
Office	O	AC	1,500	2,050
Business Park	BP	AC	1,400	2,050
Industrial	IND	AC	1,600	2,450
Retail Sales	RS	AC	1,400	2,050
Downtown	D	AC	4,000	4,000
Commercial Highway ^a	CH	AC	2,100	5,200
Commercial Services	CS	AC	1,400	2,050
Public Low ^b	PL	AC	-	-
Public Medium ^c	PM	AC	1,400	2,050
Public High ^d	PH	AC	1,400	2,050
Parks	PK	AC	1,300	2,100
Regional Parks	PR	AC	1,600	2,670
Elementary School (students)	ESC	ST	25	30
High School (students)	HSC	ST	35	40
School (area)	SCH	AC	900	1,500
Open Space	OS	AC	-	-
Hospital/Church	HOS	AC	1,900	2,750
Agricultural	AG	AC	-	-

^a Future growth demand factor determined from actual metering information obtained from the City of Vacaville, August 2003

^b Example – well site

^c Example – senior center, fire station

^d Example – City administration center

Projected Water Demands for Lower Lagoon Valley

A land use summary and resulting water demands for the proposed LLV project are presented in Table 12. In addition to existing development, LLV is assumed to develop residential low density, community service, office, public medium, parks, regional parks, and an elementary school at build-out.

TABLE 12
LOWER LAGOON VALLEY
LAND USE AND DEMAND SUMMARY AT YEAR 2025

Area	Land Use	Designation	Existing/New	Quantity	Unit	Notes	Demand Factors		Demand			Annual ac-ft/yr
							Potable gpd/unit	Non-Potable gpd/unit	Potable gpd	Non-Potable gpd	Total gpd	
Area 1 - Commercial												
1A	Commercial Recreation	CS	Existing/New	5.4	acres	Use growth factors	1,600	450	8,640	2,430	11,070	
1B	Commercial Highway	CH	Existing/New	6.8	acres	Use growth factors	4,750	450	32,300	3,060	35,360	
1C	Commercial Highway	CH	Existing/New	<u>9.2</u>	acres	Use growth factors	4,750	450	<u>43,700</u>	<u>4,140</u>	<u>47,840</u>	
	Total - Area 1			21.4	acres				84,640	9,630	94,270	106
Area 2 - Business Park/Town Center/Fire Station												
2A	Business Park	BP	New	85.2	acres		1,600	450	136,320	38,340	174,660	
2B	Fire Station	PM	New	1	acres	Assumed public medium	1,600	450	1,600	450	2,050	
2C	Town Center	CS	New	<u>3.8</u>	acres	50,000 ft ² at FAR = 0.3	1,600	450	<u>6,080</u>	<u>1,710</u>	<u>7,790</u>	
	Total - Area 2			90	acres				144,000	40,500	184,500	207
Area 3 - Residential												
3A	Village I - Residential	RLD	New	123	acres	517 dwelling units	520	0	268,840	0	264,840	
3AA	Village I - School/Park	ESC	New	11	acres	600 students	30	1,500	18,000	16,500	34,500	
3AAA	Village I - Village Center	RS	New	2	acres	10,000 ft ² at FAR = 0.3	1,600	450	3,200	900	4,100	
3B	Village II - Residential	RLD	New	137	acres	380 dwelling units	520	0	197,600	0	197,600	
3BB	Village II - Park "spine"	PK	New	5	acres	Assumed 2% of total area	0	2,100	0	10,500	10,500	
3C	Village III - Residential	RLD	New	217	acres	410 dwelling units	520	0	213,200	0	213,200	
3CC	Village III - Parks	PK	New	5	acres	Assumed 2% of total area	0	2,100	0	10,500	10,500	
3D	Community Homes	RLD	New	22.7	acres	18 dwelling units	520	0	9,360	0	9,360	
	Arterial Landscape	CS	New	<u>26</u>	acres	Assumed 5% of Area 3	0	450	<u>0</u>	<u>11,700</u>	<u>11,700</u>	
	Total - Area 3			522.7	acres	(neglect arterial landscape)			710,200	50,100	760,300	852
Area 4 - Golf Course/Club House												
4A	Golf Course	PK	New	211.7	acres	Irrigation only	0	2,100	0	444,570	444,570	
4B	Club House/Restaurant/Offices	CS	New	0.8	acres	10,000 ft ² at FAR = 0.3	1,600	450	1,280	360	1,640	
4C	Maintenance Facility	CS	New	<u>0.5</u>	acres	7,000 ft ² at FAR = 0.3	1,600	450	<u>800</u>	<u>225</u>	<u>1,025</u>	
	Total - Area 4			213	acres				2,080	445,155	447,235	501
Area 5 - Lower Lagoon Valley Regional Park												
5A	Park	PK	Existing	40	acres	Irrigation only	0	1,300	0	52,000	52,000	
5AA	Lake	OS	Existing	105	acres	No water demand	0	0	0	0	0	
5AAA	Open Space	OS	Existing	<u>243</u>	acres	No water demand	0	0	<u>0</u>	<u>0</u>	<u>0</u>	
	Total - Area 5			388	acres				0	52,000	52,000	58
Area 6 - Open Space/Agricultural Hillside												
6A	OS East	OS	Existing	385	acres	No water demand	0	0	0	0	0	
6B	Agricultural Hillside Southeast	AG	Existing	356	acres	No water demand	0	0	0	0	0	
6C	OS Southwest	OS	Existing	<u>325</u>	acres	No water demand	0	0	<u>0</u>	<u>0</u>	<u>0</u>	
	Total - Area 6			1,066	acres				0	0	0	0
Area 7 - Buffer												
7A	Nelson Road Berm	OS	New	47	acres	No water demand	0	0	0	0	0	
7B	Rivera Road Berm	PK	New	<u>6</u>	acres	Assumed landscape park	0	2,100	<u>0</u>	<u>12,600</u>	<u>12,600</u>	
	Total - Area 7			53	acres				0	12,600	12,600	14
Total - Lower Lagoon Valley Project				2,354	acres				940,920	609,985	1,550,905	1,738

Projected Water Demands for Southtown

A land use summary and resulting water demands for the proposed Southtown project are presented in Table 13. In addition to existing development, Southtown is assumed to develop residential low/medium density, residential low density, residential medium density, residential high density, public medium, parks, and commercial service at build-out.

TABLE 13
SOUTHTOWN
LAND USE AND DEMAND SUMMARY AT YEAR 2025

Land Use	Designation	Quantity	Unit	Demand Factors			Estimated Water Demand		
				Potable gpd/unit	Irrigation gpd/unit	Potable gpd	Irrigation gpd	Total gpd	Annual ac-ft/yr
Southtown Development									
Residential Low Density	RLD	180	DU	520	0	93,600	0	93,600	
Residential Low/Medium Density	RLMD	650	DU	420	0	273,000	0	273,000	
Residential Medium Density	RMD	275	DU	350	0	96,250	0	96,250	
Residential High Density	RHD	252	DU	300	0	75,600	0	75,600	
Public Medium ^a	PM	1.0	AC	1,600	450	1,600	450	2,050	
Park ^b	PK	33.1	AC	0	2,100	0	69,510	69,510	
Commercial Service ^c	CS	16.0	AC	1,600	450	25,600	7,200	32,800	
Subtotal - Southtown						565,650	77,160	642,810	720
Moody Development									
Residential Medium/High Density	RMD	135	DU	350	0	47,250	0	47,250	
Residential High Density	RHD	105	DU	300	0	31,500	0	31,500	
Park ^b	PK	0.4	AC	0	2,100	0	840	840	
Commercial Service	CS	6.8	AC	1,600	450	10,880	3,060	13,940	
Subtotal - Moody						89,630	3,900	95,530	105
Arterial Landscape ^d	CS	13.0	AC	0	450	0	5,850	5,850	6
Total Demand - Southtown Project						655,280	86,910	742,190	831

^a Irrigation demand for Public Medium land use is assumed to be supplied by SID.

^b Irrigation demand for Park land use is assumed to be supplied by SID.

^c Irrigation demand for Commercial Service land use is assumed to be supplied by SID.

^d Arterial landscape total acreage is estimated at 5% of total project gross area (260 acres) and estimated as CS land use with the total demand to be supplied by SID.

Projected Water Demands for Rice McMurtry

A land use summary and resulting water demands for the proposed Rice McMurtry project are presented in Table 14. In addition to existing development, Rice McMurtry is assumed to develop residential estates.

TABLE 14
RICE MCMURTRY LAND USE AND DEMAND SUMMARY AT YEAR 2025

Land Use	Designation	Quantity	Unit	Demand Factors		Estimated Water Demand			
				Potable gpd/unit	Irrigation gpd/unit	Potable gpd	Irrigation gpd	Total gpd	Annual ac-ft/yr
Reynolds Ranch									
Residential Estates	RE	221	DU	600	0	132,600	0	132,600	
Open Space	OS	37.0	AC	0	0	0	0	0	149
Subtotal - Reynolds Ranch						132,600	0	132,600	
Rogers Ranch									
Residential Estates	RE	30	DU	600	0	18,000	0	18,000	
Public Low	PL	8.0	AC	0	0	0	0	0	
Open Space	OS	33.5	AC	0	0	0	0	0	20
Subtotal - Rogers Ranch						18,000	0	18,000	
Knoll Creek Subdivision									
Residential Estates	RE	37	DU	600	0	22,200	0	22,200	
Open Space	OS	10.4	AC	0	0	0	0	0	25
Subtotal - Knoll Creek Subdivision						22,200	0	22,200	
City of Vacaville									
Open Space	OS	41.4	AC	0	0	0	0	0	0
Subtotal - City of Vacaville						0	0	0	
Total Demand - Rice McMurtry Project						172,800	0	172,800	194