

Environmental Checklist
Initial Environmental Study for Negative Declaration # 05-08

Project Title:

Willowbank Park Residential Subdivision No.4955

Lead Agency Name and Address:

City of Davis
 Community Development Department
 23 Russell Blvd.
 Davis, California 95616

Contact Person and Phone Number:

Xzandrea Fowler, Planner, (530)757-5610

Project Location:

Vacant property located on Mace Boulevard, between San Marino Drive and Redbud Drive (APN 069-490-035), approximately 4.48 acres located on the west side of Mace Boulevard, south of San Marino Drive and north of Redbud Drive, in the City of Davis

Project Sponsor's Name and Address:

Brix and Mortar Partners, LLC.
 C/o J. Davis Taormino
 505 Second Street
 Davis, CA 95616

Description of Project

The applicant proposes to develop a 27 unit single family residential subdivision on the vacant 4.48 acre property located on the west side of Mace Boulevard. The project is Residential Medium Density that includes 27 units, of which 5 will be designated for low-moderate incomes. The remaining 22 units will be market rate. The homes range in size from 1,200 to 2,600 square feet.

The applicant requests approval of planning entitlement applications:

1. General Plan Amendment to change the General Plan land use map designation of the subject site parcel from "Public/ Semi-Public" to "Residential Medium-Density".
2. Rezoning and Preliminary Planned Development changing the zoning designation of the subject site parcel from Planned Development #4-92
3. Specific Plan Amendment to change the South Davis Specific Plan land use map designation for the subject site parcel from "Public/Semi-public" to "Residential-Cluster Homes".
4. Development Agreement between city and developer to set forth use of the parcels, special development provisions, and/or supplement fees.
5. Affordable Housing plan to govern the affordable housing component of the development.
6. Tentative Subdivision map to subdivide the 4.48 gross acre parcel into 29 lots for single-family residential development, including provision of greenbelt parcels, internal public street; private cul-de-sacs and common open space.
7. Final Planned Development to establish development standards for the lots, including building setbacks, building heights, lot coverage, floor area ratio, parking, and usable open space.

8. Design review for site plan and architectural review of proposed building elevations.
9. The environmental impacts of the proposed project (Mitigated Negative Declaration).

Project Setting

The project site, formerly referred to as the Church of Latter Day Saints site, consist of a single 4.48 gross acre parcel. The parcel is zoned Planned Development 4-92 (Public/Semi-public) and is located on Mace Boulevard. The property has never been developed. The existing trees are primarily along the south edge of Putah Creek and the west side of Mace Boulevard. Five trees along Mace Boulevard are proposed to be removed to accommodate the project.



Surrounding Land Use

The project area is located on the west side of Mace Boulevard, just south of Putah Creek and San Marino Drive.

The subject site is surrounded primarily by residential uses. Single family dwellings are located to the north, west and south of the site. A cross Mace Boulevard is the El Macero Country Club and residential subdivision. The surrounding land uses and zoning designations are as shown below.

Project Site and its Surrounding GP land Uses/Zoning Designations

	Existing Use	Zoning	General plan
Project Site	Vacant	PD 4-92	Public/Semi-public
North	Single-family residences	R-1-6	Residential Low Density
South and West	Single-family residences	PD 4-92	Residential Low Density
East	Yolo County	Residential	Recreation and Residential Low density

Policy, Plan, and Zoning Consistency

The subject site parcel is designated "Public/Semi-public" on the General Plan Land Use Map. The zoning is Planned Development 4-92, which does not permit residential development. As a proposed "Residential Medium-Density" development, the project would require a General Plan Amendment. The entitlement request includes rezoning the subject site to a residential "planned Development" in order to allow for deviations from R-1 district development standards.

As conditioned and mitigated, if approved, the proposal would be consistent with both the General Plan and Zoning Ordinance.

Previous Relevant Environmental Analysis:

In July 1994 the City Council also reviewed and considered Negative Declaration #4-92, and determined that the document adequately addressed the environmental assessment of Planned Development #4-92.

Other Agencies Whose Approval is Required (e.g., permits, financing approval, or participation agreement): California Department of Fish and Game

Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or as indicated by the checklist on the following pages.

- | | | |
|---|--|--|
| <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Transportation/Circulation | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Population and Housing | <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Utilities and Service Systems |
| <input type="checkbox"/> Geophysical | <input type="checkbox"/> Energy and Mineral Resources | <input type="checkbox"/> Aesthetics |
| <input checked="" type="checkbox"/> Water | <input type="checkbox"/> Hazards | <input type="checkbox"/> Cultural Resources |

Air Quality

Noise

Recreation

Mandatory Findings of Significance

Conclusions:

The proposed project will not have a significant effect on the environment for the following reasons:

1. It will have only temporary or short-term construction impacts, such as dust and equipment emissions, noise and truck traffic.
2. It will not generate a significant amount of additional vehicles, noise or emission levels.
3. It will not affect rare or endangered species of animal or plant, or habitat of such species.
4. It will not eliminate important examples of major periods of California history or pre-history.
5. It will not result in a significant effect on air, water quality or ambient noise levels for adjoining areas.
6. It will not be subjected to unacceptable risk of flooding or major geological hazards.
7. It will not have a substantial aesthetic affect.
8. It will not breach any published national, state or local standards relating to solid waste.
9. It will not involve the possibility of contaminating public water supply or adversely affecting groundwater.
10. It will not result in or add to a violation of the waster discharge requirements applicable to local sewer systems as prescribed by California Regional Water Quality Control Board.
11. It will not occur to the disadvantage of long-term environmental goals.
12. It will not result in adverse cumulative impacts.
13. It will not result in adverse growth-inducing impacts.
14. It will not result in substantial adverse effects on human beings either directly or indirectly.
15. It will not conflict with the City's General or Specific Plans.

Determination:

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described herein have been added to the project. A NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. □

Xzandrea Fowler
Signature

August 31, 2009
Date

Xzandrea Fowler
Printed Name

City of Davis – Community Development Department
Agency

Evaluation of Environmental Impacts:

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. LAND USE AND PLANNING. Would the proposal:				
a) Conflict with general plan designation or zoning?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be incompatible with existing land use in the vicinity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Affect agricultural resources or operations (e.g. impacts to soils or farmlands, or impacts from incompatible land uses)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Impacts

a-c) Less Than Significant Impact. The site is currently designated Public/Semi-public on the General Plan land use map. The Zoning Ordinance designation is currently consistent with the permitted uses on the site. However, the proposal includes amendment of both the General Plan and Zoning Ordinance land use designations to facilitate the proposed Residential Medium-Density development. The project would be consistent with the General Plan and Zoning with approval of the land use changes. Upon approval, the proposed residential use will be consistent with the overall intent of the general plan, environmental plans, and policies for land use, housing, economic development and circulation.

Surrounding properties are single, one and two family, and multiple family residential developments. The residential use will be compatible as proposed with surrounding residential land use. Any impacts are considered less than significant.

d-e) No impact. The project does not affect any agricultural resources or operations. The site is adjacent to residences within the urbanized city limits. No impacts can be identified as a result of the proposed project to agricultural resources or operations, and there will be no disruption or division of physical arrangement of the surrounding community.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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II. POPULATION AND HOUSING. Would the proposal:

- a) Cumulatively exceed official regional or local population projections? Potentially Significant Impact, Potentially Significant Unless Mitigation Incorporated, Less Than Significant Impact, No Impact
- b) Induce substantial growth in an area either directly or indirectly (e.g. through projects in an undeveloped area or extension of major infrastructure)? Potentially Significant Impact, Potentially Significant Unless Mitigation Incorporated, Less Than Significant Impact, No Impact
- c) Displace existing housing, especially affordable housing? Potentially Significant Impact, Potentially Significant Unless Mitigation Incorporated, Less Than Significant Impact, No Impact

Discussion of Impacts

a & c) No Impact. The proposed residential project is consistent with the City's Infill policies and accounted for within the City's General Plan Housing Element Steering Committee recommendations. It would not exceed anticipated city population growth projections' policies. It would help to provide housing to meet the City's Regional Housing Allocation Fair-share. Given that the site is vacant, no existing housing will be displaced. No impacts can be identified with the proposed project.

b) Less Than Significant Impact. While the implementation of the proposed project will provide for increase in the City's population, it would not be construed as growth inducing given its consistency with the City's growth goals and policies, including encouraging infill residential developments and growing within. Any impact is considered less than significant.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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III. GEOLOGIC PROBLEMS. Would the proposal result in or expose people to potential impacts involving:

a) Fault rupture?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Seismic ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Seiche, Tsunami, or volcanic hazard?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Landslides or mudflows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Erosion, changes in topography or unstable soil conditions from excavation, grading, or fill?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Subsidence of the land?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expansive soils?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Unique geologic or physical features?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Impacts

a-c & f-h) Less Than Significant Impact. The proposed project would not increase the exposure to identified geologic hazards. No known earth quake fault lines are located within the City. There area number of fault zones located within 100 miles of the city, but the City of Davis is not located within an Alquist-Priolo Special Study Zone. The San Andreas fault system is to the west and Eastern Sierra fault system, and has not created any surface rupture in the City of Davis. As identified in the General Plan EIR (pg.51), The City is identified as being in Seismic Risk Zone III. This means the maximum intensity of an earthquake that would be experienced in the area would be a VII or VIII on the modified Mercalli intensity scale. An earthquake of such magnitude could result in slight to moderate damage in specially designed or standard structures.

City standard conditions of approval will require the project to provide and comply with a site-specific soils report prior to construction and be appropriately designed to meet all earthquake standards as required by Building Codes. Any impacts are considered to be less than significant.

d,e & i) No Impact. The project site is flat. There are no features or known hazards that would present a tsunami, seiche, volcano, landslide, or mudflow risk. The project is considered to have no impact.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Issues (and Supporting Information Sources):				
IV. WATER. Would the proposal result in:				
a) Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of people or property to water related hazards such as flooding?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Discharge into surface waters or other alteration of surface water quality (e.g. temperature, dissolved oxygen or turbidity)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Changes in the amount of surface water in any water body?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Changes in currents, or the course or direction of water movements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or through substantial loss of groundwater recharge capability?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Altered direction or rate of flow of groundwater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Impacts to groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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Issues (and Supporting Information Sources):

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|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| i) Substantial reduction in the amount of groundwater otherwise available for public water supplies? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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Discussion of Impacts

a & h) Less Than Significant Impact. The proposed residential development would produce surface runoff. The project will be required to comply with City requirements for Stormwater drainage and discharge as matter of standard practice via conditions of approval. The site improvements will include bio swales for Stormwater temporary retention and groundwater recharge to minimize runoff issues. The project will connect to City water system that draws from groundwater supplies. The project will be required to comply with standard water conservation measures for appliances and irrigation. Given standard conditions of approval impositions, it is anticipated that any potential impact will substantially be reduced. Overall, the project is considered to have a less than significant impact.

b-f) No Impact. The proposed project does not result in any new or additional impacts related to hydrology or water quality. There are no water bodies on or near the project site that would be affected. The site is not within the 100 year flood zone. No impacts can be identified with the proposed project.

g-i). Less Than Significant Impact. The site is an existing infill site located within the city limits. The General Plan Housing Element Steering Committee identified and recommended this site for Residential Medium Density development. Therefore, the development of the site was included in the one percent growth cap assumed in the General Plan Housing Element update. Under the General Plan EIR it was anticipated that the development of the sites identified for residential use would result in less than significant impacts on ware supply. In early November of 2008, the City Water Division began looking at firm water supply capacity versus system demand regarding the ability to supply water for new housing developments (Exhibit6). The term "firm", in the report indicates the water delivery capacity of the city's system assuming two of the wells are off-line. Water supply planning documents, analysis of raw data, and research of current accepted practices for determining future demand from other water agencies in the surrounding area was completed. These efforts resulted in adoption of new methodology for forecasting firm water supply capacity to meet projected demands. The results of this year's analysis show that firm water supply capacity is 25,000gpm, and our calculated demand is 26,620gpm.

The city's goal is to provide adequate system capacity to meet flow requirements to respond to a major fire occurring at the same time as the maximum consumption demand, with sufficient residual system pressure in accordance with State guidelines and industry standards, Currently if the largest capacity well is offline, system pressure is anticipated to be below the minimum acceptable value. The completion of a number of currently identified water system upgrades would remedy the deficit and reduce potential impacts to a less than significant level.

In the context of project plus future residential projects, the impact on water supply and water flow would be less than significant.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
V. AIR QUALITY. Would the proposal:				
a) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Expose sensitive receptors to pollutants?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Alter air movement, moisture, or temperature, or cause any change in climate?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create objectionable odors?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

a-d) Less Than Significant Impact. The proposal is to develop residential units on a single vacant parcel. The subject site and the City of Davis are located within the Yolo-Solano County Air Quality Management District (YSAQMD), which is part of the Sacramento Valley Air Basin and designated by the U.S. Environmental Protection Agency (EPA) as the Sacramento Federal Ozone Non-Attainment Area. The non-attainment area consists of all of Sacramento and Yolo Counties, and parts of El Dorado, Solano, Placer and Sutter counties. Air quality within YSAQMD violates state and federal standards for ozone and state standards for particulate matter (PM10); YSAQMD is responsible for limiting the amount of emissions that can be generated throughout the district by various stationary and mobile sources.

Motor vehicles are the major source of ozone through emission of reactive organic gases (ROG) and nitrogen oxides (NOX), which are precursor components of ozone. PM-10 sources primarily are derived from construction, demolition, farming activities and road dust. The YSAQMD has established numeric thresholds of significance in its CEQA Air Quality Handbook (2007) to evaluate the air quality impacts of construction-related and operational-related activities based on the amount of ROG, NOX, and PM-10 emissions that would be produced. The thresholds are 10 tons per year of ROG, 10 tons per year of NOX, and 80 pounds per day

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of PM-10. The YSAQMD Handbook also identifies examples of projects that would be expected to exceed these thresholds of significance based on size characteristics. The proposed project falls under the established thresholds. However, projects that do not exceed operational thresholds may still exceed thresholds during construction period. The proposed project is well under the screening threshold for operational emissions.

It is anticipated that the residential project, if approved and implemented, will generate pollution during construction and create some pollutants upon occupancy. Residential units are considered sensitive receptors. Exposure to pollutants from certain building materials and particulate emissions from diesel engines, for instance, could pose a cancer risk as they are considered Toxic air Contaminants (TACs). The YSAQMD Handbook establishes thresholds of significance for exposure to TACs from stationary sources. Exposure from stationary sources in excess of the following thresholds would be considered a significant air quality impact:

- Probability of contracting cancer for the Maximally Exposed Individual (MEI) equals to 10 in one million (1×10^{-5}) or more; and
- Ground-level concentrations of non-carcinogenic toxic air contaminants would result in a Hazard Index equal to 1 for the MEI or greater.

The Handbook notes that these thresholds are used for stationary sources, but do not address TACs from mobile sources. The Air Quality District has no permitting authority or other regulatory authority over mobile sources and there is currently no specific mobile source TAC threshold.

No Air Quality Analysis was prepared for the project as staff determined that impacts relative to the built environment would be less than significant. There is no evidence that a residential development of the nature and location proposed would violate any air quality standards or significantly contribute to an existing air quality violation. It is not anticipated that the proposed residential use within an established neighborhood would generate pollutants and expose people to pollutants to a threshold identified which would be considered significant. Any short term impacts during construction would be subject to standard city ordinances which would reduce impacts to a less than significant level.

Climate Change

Regulation of air quality is achieved through both federal and state ambient air quality standards and emissions for residential sources of air pollutants. The U.S. Environmental Protection Agency (EPA) has established air quality standards for common pollutants. Currently EPA regulations for greenhouse gas emissions do not exist. The state has recently adopted legislation to attempt to control GHG by curbing sprawl and establishing targets for GHG emissions, and the California Air Resources Board has recommended rules and regulations to cap and reduce GHG emissions. Regional and local jurisdictions have been advocating and implementing steps for reducing GHG emissions. A summary of air quality in the regulatory context is provided in Exhibit 1.

It is anticipated that the proposed residential project will contribute to greenhouse gases that can impact the climate and contribute to global warming. The State greenhouse carbon allowance is 16.5MT per residential unit. The assumption for greenhouse gas emissions from the proposed project would be 445.5MT per year (27 units). Without mitigations, this would be above the preliminary draft threshold established by the California Air Resources Board staff.

On April 21, 2009, the City Council adopted two resolutions to address climate change through 2050 (Exhibits 2 and 3). The resolutions establish greenhouse gas emission reduction targets for the city of Davis, and greenhouse gas reduction thresholds and standards for new residential projects that are consistent with or exceed state targets. The initial target reduction year is 190, which would be in effect until 2010. The adopted methodology provides a mix of credits and mitigation measures to reduce GHG for the residential project. Projects that meet or exceed 1990 levels would reduce GHG impacts to below the draft threshold established by the California Air Resources Board. The Willowbank Park carbon reduction proposal will be consistent with the adopted City of Davis GHG targets for residential projects (Exhibit 4). The project will generate 149MT of carbon. With credits for a medium density project and proximity to transit line, the project would be required to reduce GHG by 60.3MT to meet city targets. The project applicant proposes to exceed current Title 24 standards by 35 percent and installation of up to a total of 23.5kW photovoltaics or the equivalent carbon reduction in metric tons within the project (equal to 1.6 kW on 15 homes). This innovative approach will provide benefits to the environment and reduce energy costs for the residents within the subdivision. The total reduction under the project proposal would be 61MT.

Standard City conditions of approvals, which include water conservation; energy efficiency; greenbelt dedication; parking lot shading; tree preservation, planting and protection; and the recently adopted Green Building Ordinance would further help to reduce potential impacts. It is anticipated that conditions of approval to be imposed on the project will reduce any impacts to less than significant.

The project is consistent with applicable General plan policies for land use, circulation, and air quality that seek to coordinate land use and transportation planning and encourage alternatives to automobile transportation and a reduction in vehicle usage. The project is located within three-quarter mile of existing bus routes.

Although the project would have an incremental contribution within the context of the City and region, the individual impact is considered less than significant given the size of the project. The compact medium density development on an infill site identified by the General Plan Housing Element Update Steering Committee for residential use is consistent with state legislation to attempt to control GHG emissions by curbing urban sprawl and reducing vehicle miles traveled.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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VI. TRANSPORTATION/CIRCULATION. Would the proposal result in:

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|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Increased vehicle trips or traffic congestion? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Hazards to safety from design features (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
farm equipment)?				
c) Inadequate emergency access or access to nearby uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Insufficient parking capacity on-site or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Hazards or barriers for pedestrians or bicyclists?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflicts with adopted policies supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Rail, waterborne or air traffic impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Impacts

a-e) Less Than Significant Impact. The proposed project design does not any unusual traffic or safety hazards. Installation of new public roads will provide adequate on-site circulation. The proposed project will meet parking requirements for residential family uses as shown on the site plan and will be made part of the conditions of approval. Frontage and off-site improvements related to the project will be designed consistent with City standards. Emergency accesses will be provided which are found to be adequate by both Fire and Police Departments of the City.

f-g) No Impact. There are no impacts that can be identified with the proposed project relative to conflicts with adopted policies supporting alternative transportation; rail, waterborne or air traffic.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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VII. BIOLOGICAL RESOURCES. Would the proposal result in impacts to:

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|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| a) Endangered, threatened or rare species or their habitats (including but not limited to | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
plants, fish, insects, animals, and birds)?				
b) Locally designated species (e.g. heritage trees)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Locally designated natural communities (e.g. oak forest, coastal habitat, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Wetland habitat (e.g. marsh, riparian and vernal pool)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Wildlife dispersal or migration corridors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Impacts

a-b) Potentially Significant Unless Mitigation Incorporated. A biological resource clearance survey was conducted by the City's Wildlife Resource Specialist. The reconnaissance level ground survey was conducted to identify the presence of sensitive wildlife and plant species. The survey confirmed that the site supports non-native annual grass and broadleaf species. Intermediate aged riparian trees and shrubs occur along the northern boundary of the project site and are associated with the remnant North Fork of Putah Creek. Riparian vegetation identified included valley oak, Fremont cottonwood, California buckeye, black walnut, European privet, and California wild rose.

Several small mammal burrows suitable for nesting burrowing owl were observed on the project site; however none of the burrows were occupied by owls during the survey. No sensitive plants were identified. No common or sensitive wildlife species were observed using the site. No protected water features were noted.

Red fox

The occurrence of at least two active red fox (*Vulpes sp.*) dens located on the southern bank of the remnant North Fork of Putah Creek channel, running immediately north of the proposed Willowbank Park development has been confirmed. The red fox is currently not protected in the State of California and is considered a harvest species, therefore the no mitigation measures are recommended. See Attachment 1 for additional information and recommended impact minimization measures.

Mitigation Measure 1. Loss of Burrowing Owl Nesting Habitat

Burrowing owls, a state Species of Special Concern, have not been documented nesting within the vicinity of the project site. Burrowing owls require burrows similar in dimension to that of the California ground squirrel. Squirrels currently do not use the site and burrows are lacking. Therefore, the site does not offer suitable nesting habitat for burrowing owls.

1a) A biological survey shall be conducted two weeks prior to commencement of construction activities on the site. The study shall be consistent with city ordinances and shall address whether there are endangered and/or protected species on the site. The applicant shall implement all mitigation measures that are identified as required as a result of the survey.

Mitigation Measure 2. Loss of Swainson's Hawk Nesting Habitat

Swainson's hawk nesting has historically occurred near the site along the north Putah Creek channel and the El Macero Golf Course, and these areas may support nesting in the future. Swainson's hawks are known to nest within one-quarter mile of the proposed project. Implementation of the proposed project could result in the loss of nesting habitat or lead to the failure of active nests, which would be considered potentially significant. The following mitigation measure would be necessary to reduce the adverse effects to Swainson's hawk nesting habitat to a less than significant level.

2a) If avoidance of project activity (grading or new construction) during the breeding season is not feasible, a qualified biologist shall conduct a pre-construction survey to determine the nesting status of Swainson's hawk on site and within one-quarter mile of the project site. This shall be a condition of any grading permit. The survey shall be conducted no less than 14 days and no more than 20 days before the beginning of construction (including equipment and materials staging) between the months of April and early September. If no active nests are found during the survey, no further mitigation for nesting Swainson's hawk shall be required.

2b) If during the focused survey mitigation for nesting Swainson's hawk nests are identified on-site or within one-quarter mile of the proposed, no construction shall be allowed until a qualified biologist determines that the young have fledged (able to forage independently from adults), or that the nest has failed and becomes inactive. Any trees containing nests that must be removed as a result of the proposed project shall only be removed during the non-breeding season (September to March). Additional mitigation measures may be necessary in this instance as dictated by the California Department of Fish and Game.

c-e) **No Impact.** The project does not adversely affect any local designated species, natural communities, wetland habitats, or migration corridors. The project is considered to have no impact.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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VIII. ENERGY AND MINERAL RESOURCES. Would the proposal:

a) Conflict with adopted energy conservation plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Use non-renewable resources in a wasteful and inefficient manner?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in the loss of availability of a known mineral resource that would be of future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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value to the region and the residents of the State?

Discussion of Impacts

a & c) No Impact. The project does not conflict with any energy conservation plan. There are no known mineral resources on site or surrounding areas. The proposed project is considered to have no impact on these resources.

b) Less Than Significant Impact. The proposed residential project will not require substantial amounts of energy during construction and upon occupancy, should the project be approved and implemented. The project would result in the consumption of additional non-renewable resources, however, it is not expected that the residential use would result in wasteful and inefficient uses of the resources. Standard City conditions of approval will be applied to the proposed project that will require it to meet and /or exceed state and local energy conservation requirements. For instance, the proposed project will be conditioned to be subject to the City's Green Building Ordinance, which requires projects to incorporate a variety of green building measures that would help reduce energy use. Any impact is considered to be less than significant.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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IX. HAZARDS. Would the proposal involve:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Possible interference with an emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) The creation of any health hazard or potential health hazards? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Exposure of people to existing sources of potential health hazards? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Increased fire hazard in areas with flammable brush, grass, or trees?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Impacts

a-e) No Impact. The project is a single-family residential project. It will not involve the use of substantive hazardous materials beyond what is acceptable in a residential designated land use area. It is not anticipated that the proposed project would expose people to or create any new health hazards. The site has a history of agricultural use, but no evidence of hazards has been identified. No sites within the vicinity of the subject site are considered threatening to the environmental integrity of the project. The project is considered to have no impact to hazards and hazardous materials.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
X. NOISE. Would the proposal result in:				
a) Increases in existing noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of people to severe noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

a-b) Less Than Significant Impact. The proposal is a residential development adjacent to existing residential neighborhoods. The proposed use is compatible with existing surrounding uses. Construction-related noise would result in a short-term increase in noise levels beyond those identified for a residential district in the General Plan Noise Element. There are no existing sources of noise that exceed City standards that have been identified within the site, or surrounding areas.

The city regulates noise impact via the Noise Ordinance (Municipal Code Chapter 24), which also specifies construction hours and operations. For instance, it limits noise from construction equipment to 86 dBA at the edge of the property plane. The proposed project will be subject to the requirements of the Noise Ordinance, which will be imposed as part of the standard conditions of approval. This will result in the reduction of the construction noise to less than significant.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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XI. PUBLIC SERVICES. Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas

a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Maintenance of public facilities, including roads?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Other governmental services?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

a-e) Less Than Significant Impact. The project is located in an infill development consistent with the General Plan infill definition. Services are already available and provided infill projects. The proposed residential project will require basic public services, but it is not anticipated that there will be a need to provide any new or altered services. All city departments and applicable outside agencies have reviewed the project and no significant issues have been raised. Fire, police, schools, and other public facilities are available and adequate to serve the project. The project will be required to pay related impact fees. The project is considered to have a less than significant impact on public services.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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XII. UTILITIES AND SERVICE SYSTEM. Would the proposal result in a need for new systems or supplies, or substantial alterations to the following utilities:

a) Power or natural gas?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Communications systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Local or regional water treatment or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
distribution facilities?				
d) Sewer or septic tanks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Storm water drainage?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Solid waste disposal?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Local or regional water supplies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

a-f) Less Than Significant Impact. The proposed residential project is an infill development anticipated in the current 2001 General Plan. The General Plan acknowledges the 1996 Infill Potential Study, as a technical analysis supporting the General Plan Update. The General Plan has land use map principles, which support the development of infill sites with the residential projects. Some applicable principles include:

- Focus growth inward to accommodate population increases. Infill development is supported as an appropriate means of meeting some of the city's housing needs.
- Create and maintain housing patterns that promote energy conserving transportation methods.

Utilities and services are exist or are available through local City Services, Davis waste Removal, Pacific Gas and Electric, and other providers. The project will use some of the existing service capacity. There has been no information from any of the services providing agencies indicating inadequate supplies to serve the proposed project. It is not anticipated, therefore, that the proposed project would result in the need for any new systems or supplies. Any impact is considered to be less than significant.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. AESTHETICS. Would the proposal:				
a) Affect a scenic vista or scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a demonstrable negative aesthetic effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Create light or glare?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

a) **No Impact.** The project site is not located along a designated scenic vista or scenic highway.

b & c) **Less Than Significant Impact.** The proposal for a residential development on the subject site will not have a demonstrated negative aesthetic effect on the environment. The site is adjacent to existing residential uses. The loss of the open space may be considered an adverse effect by some existing residents of the adjacent residential developments. Staff does not believe it to be significant because urban development has been intended on the site since at least 1992.

The proposed residential development, if approved, would add new lighting to an area that is surrounded by residential homes and roadways, where lighting, such as street lighting exists. Any new lighting would be subject to the City's Outdoor Lighting Control Ordinance which ensures that light is fully shielded. Glare from the project site would be minimized and any impact would be reduced to less than significant.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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XIV. CULTURAL RESOURCES. Would the proposal:

a) Disturb paleontological resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Disturb archaeological resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Affect historical resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have the potential to cause a physical change which would affect unique ethnic cultural values?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Restrict existing religious or sacred uses within the potential impact area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Impacts

a & b) Less Than Significant Impact. The project site has been vacant and undeveloped for several decades. There are no records of any historical or archaeological sites on the project site or within the area that would warrant additional analysis. The site and area are not considered a sensitive cultural site. Given no known history of cultural or archaeological findings within the area in the past, any impact is considered to be less than significant. However, the City standard ordinance will apply in the event that archaeological, pale ontological or historical resources are discovered during excavation.

c-e) No Impact. No structures, religious resources are located on the project site. The area is not considered a sensitive cultural sit. There are no impacts that can be identified with the proposed project.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. RECREATION. Would the proposal:				
a) Increase the demand for neighborhood or regional parks or other recreational facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Affect existing recreational opportunities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

a & b) Less Than Significant Impact. The proposed residential project will add residents to the area and create additional use of parks and other recreational facilities. The project includes bicycle path improvements to the west and along Mace Boulevard and a pedestrian path along the north property plane. The proposed recreational improvements will enhance access to the city green belt system in south Davis. Existing parks and facilities are adequate to serve the project.

The project does not include parkland dedication. The City standard conditions of approval will be imposed on the project to impact fees for parks. It is not anticipated that the project will adversely affect any existing recreational facilities and opportunities within the city. Any impacts are considered less than significant given that fair share of impacts would be paid for by the project and adequate facilities exist to serve the increased population due to the proposed project.

Issues (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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XVI. MANDATORY FINDINGS OF SIGNIFICANCE.

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion of Impacts

a) Less Than Significant Impact. The proposed project is an infill proposal on a site that was designated for development in 1992. The site is adjacent to residential development and the El Macero Country Club and Golf course. The site is currently vacant. It is covered by weed and grasses with potential habitat or foraging value. Historically Swainson's hawk nest have been established within one-quarter of mile of the site. There is no knowledge of possible burrowing owls on the site, or other special species. Appropriate mitigation measures have been included to address the potential impacts to Swainson's hawk and burrowing owls foraging habitat and nesting. Given the proposed mitigation measures and City standard conditions of approval, the project would not substantially degrade the quality of the environment and is considered to have a less than significant impact.

b) Less Than Significant Impact. The project involves the development of vacant site that will be consistent with the proposed Zoning and noise and air quality impacts associated with the development of the site, no long-term environmental impacts can be identified. Any impacts are considered to be less than significant.

c) Less Than Significant Impact. There are no known cumulative adverse impacts associated with the proposed residential infill project. Short-term air quality and noise impacts have been identified and mitigation measures to reduce the impacts to less than significant levels are proposed for adoption. Given that the proposed project would generate additional vehicle trips, it is anticipated that it would contribute pollutants to the area that is already deemed as non-attainment zone. However, it is not anticipated that the proposed project would generate a considerable contribution to cumulatively impact the region. It should be noted that District Air Quality Plan assumes some increase in growth and a cumulative impact from all development projects. Proposed mitigation measures are anticipated to reduce the incremental emissions contribution as much as possible. The City of Davis General Plan policies encourage infill development. The Program EIR for the General Plan Update determined that mitigation measures could be instrumental in the reduction of potential air quality impacts, but that the impacts would still remain significant and unavoidable. The District Air Quality Plan considers an impact to be cumulatively significant if the projected emissions are greater than emissions for the site if developed under the existing land use designation. This will not be the situation with regards to the subject site's development with 27 single-family homes.

The proposed project will produce greenhouse gases that contribute to global warming impacts. The proposed project would include a number of elements consistent with recently adopted city policies to reduce overall carbon emissions. The location is within three-quarter miles of existing transit and proposes improved bicycle path and greenbelt pedestrian paths to provide connectivity to Willowcreek Park and Putah Creek Park. City streets with bike lanes exist on Mace Boulevard immediately adjacent to the east side of the property. The placement of the several buildings takes advantage of southern exposures and roofs will allow for the installation of photovoltaic systems. The project applicant proposes pre-wiring all units for PV and the installation of up to 23.5kW within the project. The project will comply with city requirements for energy conservation and efficiency. Any impacts would be less than significant, individually and cumulatively.

d) Less Than Significant Impact. The proposed residential development project, as conditioned and mitigated, will be consistent with surrounding residential uses. It is a site that was selected for urban development, and is surrounded by fully developed homes and recreational uses. All potential impacts have been analyzed and addressed above and determined to be less than significant. The project will have no significant adverse impacts on human beings as mitigated and conditioned.

Summary of Mitigation Measures

Mitigation Measure 1. Loss of Burrowing Owl Nesting Habitat

Burrowing owls, a state Species of Special Concern, have not been documented nesting within the vicinity of the project site. Burrowing owls require burrows similar in dimension to that of the California ground squirrel. Squirrels currently do not use the site and burrows are lacking. Therefore, the site does not offer suitable nesting habitat for burrowing owls.

1a) A biological survey shall be conducted two weeks prior to commencement of construction activities on the site. The study shall be consistent with city ordinances and shall address whether there are endangered and/or protected species on the site. The applicant shall implement all mitigation measures that are identified as required as a result of the survey.

Mitigation Measure 2. Loss of Swainson's Hawk Nesting Habitat

Swainson's hawk nesting has historically occurred near the site along the north Putah Creek channel and the El Macero Golf Course, and these areas may support nesting in the future. Swainson's hawks are known to nest within one-quarter mile of the proposed project. Implementation of the proposed project could result in the loss of nesting habitat or lead to the failure of active nests, which would be considered potentially significant. The following mitigation measure would be necessary to reduce the adverse effects to Swainson's hawk nesting habitat to a less than significant level.

2a) If avoidance of project activity (grading or new construction) during the breeding season is not feasible, a qualified biologist shall conduct a pre-construction survey to determine the nesting status of Swainson's hawk on site and within one-quarter mile of the project site. This shall be a condition of any grading permit. The survey shall be conducted no less than 14 days and no more than 20 days before the beginning of construction (including equipment and materials staging) between the months of April and early September. If no active nests are found during the survey, no further mitigation for nesting Swainson's hawk shall be required.

2b) If during the focused survey mitigation for nesting Swainson's hawk nests are identified on-site or within one-quarter mile of the proposed, no construction shall be allowed until a qualified biologist determines that the young have fledged (able to forage independently from adults), or that the nest has failed and becomes inactive. Any trees containing nests that must be removed as a result of the proposed project shall only be removed during the non-breeding season (September to March). Additional mitigation measures may be necessary in this instance as dictated by the California Department of Fish and Game.

Attachments:

1. Memorandum: Potential Impacts and Recommendations Concerning Red Fox and the Willowbank Park Development

References and Sources:

1. City of Davis, May 2001. General Plan & General Plan Environmental Impact Report.
2. City of Davis. March 2006. Zoning Ordinance.
3. Sacramento Metropolitan Air Quality Management District. June 2008. Draft Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways.
4. Yolo-Solano Air Quality Management District. July 11, 2007. Handbook for Assessing and Mitigating Air Quality Impacts.

5. California Air Resources Board. April 2005. Air Quality and Land Use Handbook: A Community Health Perspective.
6. Monarch Tree Service. Tree Assessment Report for Willowbank Park, Davis, California. March 2009.

Exhibits:

1. Vicinity map.
2. Willowbank Park Subdivision Carbon Reduction Proposal.
3. Resolution #08-166, Adopting Greenhouse Gas Reduction Targets for the City of Davis
4. Resolution #08-043, Adopting Greenhouse Gas Reduction Thresholds and Standards for New Residential Projects
5. City of Davis Memorandum, Water Supply Demand/ Capacity Forecasting Report, April 1, 2009



Memorandum

June 24, 2009

TO: Planning Commission

CC: Xzandrea Fowler, Planner, CDD

FROM: John T. McNerney, Wildlife Resource Specialist, PW

SUBJECT: Potential Impacts and Recommendations Concerning Red Fox and the Willowbank Park Development

Introduction and Background

Staff has confirmed the occurrence of at least two active red fox (*Vulpes sp.*) dens located on the southern bank of the remnant North Fork of Putah Creek channel, running immediately north of the proposed Willowbank Park development. Unverified reports of red fox activity along this channel suggest they have occurred in the area for at least the last 25 years.

Red fox in the Central Valley were previously presumed to be naturalized subspecies of the eastern red fox (*Vulpes vulpes*), and thus, afforded no regulatory protection or research funding. However, recent genetic research has confirmed that red fox north of the Bay-Delta/ American River watershed are more genetically similar to the native Sierra Nevada red fox (*V.v. necator*) than eastern species. This new data suggests that red fox occurring in the Sacramento Valley, including Yolo County, are a native subspecies.

With the new understanding that the Sacramento Valley red fox are a recently identified native subspecies, many new conservation questions arise. For example, very little is known about the specific population size, status and stressors, habitat needs/ use, diet, or territorial range. A more immediate and relative concern is the lack of knowledge regarding how the foxes respond to development/ habitat loss.

In light of this new information and resulting species conservation concerns, the city should consider implementing protective measure when approving the Willowbank Park or adjacent development projects.

Red Fox Legal Status

The red fox is currently not protected in the State of California and is considered a harvest species. However, the Sierra Nevada red fox subspecies is protected as state threatened.

Current Knowledge of and Potential Impacts on Red Fox in South Davis

Dr. Benjamin Sacks and his students of the UC Davis Canid Diversity and Conservation Lab have been studying red fox at the South Davis den during the last 2 years. Their work with DNA from these foxes, as well as others from the region, is responsible for the recent determination of native subspecies. In addition to the genetic study, the research team has been conducting a basic telemetry study on the foxes. Tracking the movement of the foxes has helped to improve the understanding of local range and foraging habitat use. The foxes feed in open habitats with abundant prey items. Moderate slopes with dense vegetative cover and/ or rocky outcrops provide suitable den habitat. Preferred foraging habitats are those that lack potential predators such as coyote (*Canis latrans*). The Willowbank Park site is considered a preferred foraging habitat used by these fox (see attachment).

Loss of Suitable Foraging Habitat

It is unknown if the loss of the 4.48 acre Willowbank Park portion of the fox foraging habitat will render the area unsuitable for the fox. However, any loss of habitat will lead to a reduction in resource availability, thus reducing overall fitness of the individuals. Loss of habitat on the Willowbank Park site, in combination with the development of the large parcel to the south of Redbud (at Montgomery and Mace) will result in the loss of approximately 40% of the available habitat suitable for foraging.

Construction Disturbance on Reproduction

One of the two den sites used by the South Davis red fox is located within 10 meters of the northwestern property corner. Depending on the time of development, construction related disturbance may cause the den and/ or pups to be abandoned by the adults.

Other Construction Related Impacts

Construction related activity may attract predators or cause entrapment of fox. Food wastes from construction personal may attract coyotes to the area. Foxes may fall into and become trapped in trenches and/ or pits that are 3 feet or greater in depth.

Recommended Impact Minimization Measures

Because very little is known about the state wide population status of this fox, there is currently no regulatory protection. Additionally, the South Davis red fox families are the only known red fox to occur within the Davis planning area, making it a locally rare species. For these reasons it is appropriate to approach development within the South Davis red fox territory with caution and minimize associated impacts. Ideally, red fox foraging habitat should be preserved in its current entirety (i.e. no development). This option is likely not feasible. Furthermore, there is currently not enough data regarding the habitat use/ needs to support a measure involving on-site habitat buffers.

An alternative to habitat preservation may be an impact offset approach via research funding. Data gathered through such an impact offset may not help the foxes locally, but would benefit the statewide population.

The UC Davis Canid Diversity and Conservation Lab is currently looking to continue radio telemetry studies on the local fox. An intensified effort would be possible with the mitigation funding. This would provide more detailed data regarding the habitat use/ needs of the species and help to answer question regarding the effects of urban development on their use of an area.

The following recommended impact minimization measures are considered reasonable actions to help reduce both direct and indirect impacts to the South Davis red fox families:

Minimization Measure 1 –

The project will result in the loss of 4.48 acres of preferred foraging habitat of this subspecies. Feasibility constraints, lack of regulatory protection, and lack of scientific knowledge of the subspecies habitat needs do not support the use of on-site habitat preservation. Therefore, it is recommended that the project proponent offset the impacts via funding scientific research on the South Davis red foxes. An appropriate amount of funding has not yet been identified and would be based on at least 1 year of telemetry study. It is anticipated that the funding amount would be a minimum of \$10,000 to \$15,000 for one year of study. As a reference, the habitat is of similar composition to that of Swainson's hawk (*Buteo swainsoni*) foraging habitat. The current cost to acquire Swainson's hawk mitigation land is \$4,000 to 8,600 per acre.

Minimization Measure 2 –

The project may result in direct disturbance to reproduction. Major construction related disturbance (staging, grading, utility installation) shall not occur during the rearing season (period of gestation and lactation) for the species (May 1 through October 31, annually). Construction fencing shall be installed along the top of channel bank to prevent construction personnel or equipment from encroaching on the den site.

Minimization Measure 3 –

All trenches and pits greater than 3 feet in depth shall be covered with metal plates or plywood sheets at the end of each work day. Trenches and pits shall be inspected each morning for trapped animals. If animals are discovered trapped within the trench or pit, the city wildlife biologist shall be contacted, and work halted until the animal is able to escape.

Optional Minimization Measures

Reproductive Disturbance and Loss of Foraging Habitat for Endemic Red Fox.

The Sacramento Valley (SV) red fox has recently been identified as a native population for which distinct subspecies status has been proposed. An active SV red fox den is known to occur immediately adjacent and to the north of the proposed project. Preliminary data indicate that the SV red fox may be sufficiently rare to warrant protective measures in the future. At present, little is known about how SV red foxes are affected by development of open space parcels in their territories. Due to the current lack of regulatory protection and little understanding regarding potential construction related impacts, appropriate impact avoidance measures cannot be identified. However, it can be assumed that the proposed project will have some amount of impact on foraging and reproductive success of the local SV red fox population. Therefore, the following mitigation measures shall be included to offset unknown impacts to the local SV red fox population.

a) The project proponent shall fund (via impact development fees) a study to assess the response of red foxes in the vicinity of the development site to serve as a source of information useful in planning for future developments. This study shall, at a minimum, include telemetry marking of foxes to monitor daily movements of one individual relative to habitat parcels before, during, and after development to assess changes in rest-site, foraging, and denning locations.

b) The project may result in direct disturbance to reproduction. Major construction related disturbance (staging, grading, utility installation) shall not occur during the rearing season (period of gestation and lactation) for the species (Feb 1 through May 31, annually). If construction must start during the reproductive season, a preconstruction survey shall be required to determine occurrence and reproductive status of the fox. If no breeding fox are identified, work may commence. However, if breeding fox are identified, construction activity shall be delayed until the offspring are weaned (capable of foraging on their own) or as directed by a qualified canine biologist. Construction fencing shall be installed along the top of channel bank, prior to earth moving activity, to prevent construction personnel or equipment from encroaching on the den site.

c) Construction related activity may cause indirect mortality to SV red fox. Food wastes shall be stored in covered refuse containers and/ or removed from the work site at the end of the work day to prevent attracting predators of the SV red fox. All pits greater than 3 feet in depth shall be covered with metal plates or plywood sheets at the end of each work day. Trenches greater than 3 feet in depth but at least 8 feet in length may be left uncovered provided a wooden plank is installed to form an escape ramp. The ramp shall provide a rise: run ratio no greater than 1:2. Trenches and pits shall be inspected each morning for trapped animals. If animals are discovered trapped within the trench or pit, the city wildlife biologist shall be contacted, and work halted until the animal is able to escape.