

Stillwater Business Park Project
SCH NO. 2001032106
Findings of Significant Effects

Introduction

The California Environmental Quality Act (CEQA) requires that no public agency shall approve or carry out a project for which an environmental impact report has been completed which identifies one or more significant effects thereof unless such public agency makes one or more of the following findings:

1. Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
2. Changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding, and such changes have been adopted by such other agency or can and should be adopted by such other agency.
3. Specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures or project alternatives identified in the final EIR (Cal. Pub. Res. Code Section 21081).

CEQA further requires that where the decision of the public agency allows the occurrence of significant effects which are identified in the Final EIR, but are not at least substantially mitigated, the agency shall state in writing the specific reasons to support its action based on the Final EIR or other information in the record (Section 15093[b] of the CEQA Guidelines).

The following Findings have been submitted to the administrative record for the project by the City of Redding. They are attached to allow readers of this report an opportunity to review the potential reasons for approving the project despite the unmitigated significant effects identified in the Final EIR.

Project Description

The project proposes development of a business park through the acquisition of land, the construction of major infrastructure components, and the provision of public services and utilities to serve the development. The project proposed is the preferred alternative, Alternative 2, Revised Stillwater Site as described in the EIR. The project site contains approximately 700 acres, of which approximately 349 acres is developable. The site is located near the Redding Municipal Airport in Redding, California. The site is situated at the southern end of the Stillwater Plains, a large terrace landscape located between the Stillwater Creek drainage to the west and the Cow Creek drainage to the east. The Stillwater Mitigation Bank is adjacent to the southeastern border of the site.

The purpose of the project is to develop a medium to large business park, which is part of a larger, ongoing program to recruit new industry and businesses. This is in direct response to economic data showing a need to enhance the economic stability and quality of life in the City of Redding (City)

Metropolitan Statistical Area (generally the urbanized, south-central portions of the County, including the city of Redding and its sphere of influence). Studies and real world experience show that the limited availability of attractive, fully developed sites is one of the main constraints to new industrial development in the area.

Prior to development, easements protecting the Open Space Preserve area will be recorded. Creation of the on-site easements will protect the preserve area and will serve to reduce any potential growth-inducing effects of the Project by preventing the extension of roads or infrastructure. This easement will be placed along the northern and eastern borders of the core Project site to prevent connectivity to the north and east from the Project site. This easement will not prevent and is not intended to prevent adjacent landowners from developing their own properties. Once all permits are obtained, the necessary infrastructure for development of the initial components of the Project will be constructed. The "backbone" infrastructure system will extend utilities throughout the project site in a logical and orderly manner. The electric utility alignment proposed in the northern portion of the study area includes the Goodwater Avenue route, alternative segment B. Initial improvements will be solely to construct the backbone roadway system, including the alternative southern access road. The development of lots is not foreseen to occur until after the backbone system is installed.

CONCLUSIONS OF THE EIR

The final EIR evaluates the following environmental issues in relation to the project: Geology and Soils; Vegetation, Wildlife, and Wetlands; Hydrology and Water Quality; Land Use; Cultural Resources; Aesthetics, Traffic and Circulation; Air Quality; Noise; Hazards and Hazardous Materials; Public Utilities and Services; and Population and Housing. No other areas of significant impact have been identified since circulation of the Draft EIR. The Final EIS/EIR identifies feasible mitigation measures that reduce all potential environmental impacts to a less than significant level except for one. As described in the Final EIS/EIR, impacts to air quality resulting from emissions of nitrogen oxides (Nox) during short-term construction activities may remain significant even after implementation of feasible mitigation measures. The final EIR also evaluates cumulative and growth-inducing impacts, as well as alternatives to the proposed project components and the overall project.

FINDINGS

The following findings are made pursuant to Public Resources Code Section 21081 and Title 14 of the California Code of Regulations, Section 15091 and 15093 (State CEQA Guidelines).

A. Public Resources Code Section 21081 (a)-Findings-Feasible Mitigation Measures

Pursuant to Public Resources Code Section 21081 (a), the City, having reviewed and considered the information contained in the final EIR for the project, the public record and the administrative record, finds, pursuant to CEQA and that State CEQA Guidelines, that changes or alterations have been required in, or incorporated into, the project which mitigate, avoid, or substantially lessen the potentially significant direct environmental effects as identified in the Final EIR with respect to the following:

4.1 GEOLOGY AND SOILS

Significant Impact 4.1.4-1

The main impact resulting from grading operations is the potential for erosion during and after the construction.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and is made binding on the City through these findings.

4.1.4-1

Best management practices (BMP) shall be incorporated and shall be of a design that is consistent with the City of Redding's Storm Water Quality Improvement Plan, the California Storm Water Quality Associations BMP Handbooks, the California Department of Transportation storm-water quality handbooks, or other such design practices that are deemed suitable for the individual site use at the time of development.

Findings

Implementation of this measure during construction will reduce the potentially significant impact to geology and soils resources to a level considered less than significant.

4.2 VEGETATION, WILDLIFE, AND WETLANDS

Significant Impact 4.2-1

Implementation of the project, including construction, operations, and maintenance activities, could result in the direct loss of, or indirect impacts to, riparian habitat or other sensitive plant communities identified in local or regional plans, policies, or regulations.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measures below. The mitigation measures have been found to be feasible and are required as a condition of approval and made binding on the City through these findings.

4.2-1A

The City shall appoint a qualified biologist to serve as an environmental inspector. The inspector will be involved throughout all construction phases of the project. His/her role will be to observe, document, and enforce environmental compliance, as well as actively identify, anticipate, and solve potential environmental compliance concerns.

4.2-1B

- To maintain riparian habitat and bank stability adjacent to abutments, the north and south bridges across Stillwater Creek have been designed to avoid and minimize permanent losses of riparian vegetation to the maximum extent practicable. Further, the environmental inspector will meet on site with the construction contractor prior to the start of construction activities. Together they will designate staging areas and construction access routes so as to avoid encroachment into riparian habitat and riparian buffer where practicable and minimize encroachment where complete avoidance is not practicable. "Avoided" riparian habitat will be clearly identified in the construction drawings and contractor work plans. Exclusionary fencing will be installed to mark boundaries of all avoided riparian areas. All pedestrian and vehicular traffic into the avoided areas delineated by the fencing shall be prohibited during construction. The exclusionary fencing shall be inspected and maintained on a regular basis throughout the project construction. Bridge construction will be scheduled for low flow periods (June 1 to October 30) of Stillwater Creek to minimize impacts within the channel.
- The project will avoid and minimize losses to riparian habitat within the project construction limits to the maximum extent practicable, using the avoidance measures described above. In addition, where possible, long-term impacts on woody riparian vegetation should be minimized by trimming trees and shrubs rather than removing entire woody plants or by cutting trees or shrubs at least 1 foot above ground level to leave root systems intact and allow more rapid regeneration following construction. When a direct loss of riparian habitat is unavoidable, the City will plant at a minimum ratio of 3:1 (new plantings per woody riparian plant destroyed) for habitat permanently lost due to project construction and at a ratio of 2:1 to compensate for habitat temporarily lost (e.g., areas where vegetation was cleared for the temporary storage of construction equipment). These replanting ratios will help ensure successful establishment of at least one vigorous plant for each plant removed to accommodate the project. Revegetation to mitigate for permanent direct impacts will occur in areas suited to restoration to help ensure that no net loss of riparian habitat function and value occurs within the project area. Revegetation to mitigate for temporary direct impacts will occur upon completion of the project within the area(s) disturbed by construction activities. In addition, mitigation for permanent impacts will be provided at a minimum ratio of 1:1 on an area basis (area of impact: area of compensation) or as agreed to in consultation with the permitting agency. Replacement of permanently lost riparian habitat will occur adjacent to Stillwater Creek and Churn Creek, within open areas upstream and downstream of the new bridges, and adjacent to ditches and drainage systems that are determined by a qualified biologist to be suitable. Prior to construction, a qualified biologist will meet onsite with the contractor to count and identify riparian tree and shrub species that would be removed to accommodate construction of project components.
- Indirect impacts to riparian habitat shall be mitigated at a ratio of 0.5:1 (new plantings per woody riparian plant within the area indirectly impacted) or as agreed to in consultation with the permitting agency. Mitigation shall include planting of native riparian trees and shrubs and will occur within the areas indirectly impacted or in other areas within the project site that are determined by a qualified biologist to be suitable.

- Prior to construction, the City of Redding will develop a vegetation restoration plan for permanent and construction-related direct and indirect impacts to riparian habitat. The vegetation restoration plan will identify suitable sites for mitigation of impacts, species to be planted, and numbers and sizes of plantings. Further, it will describe planting techniques and required irrigation, prescribe methods to remove existing noxious weeds, and establish reasonable performance standards and contingency measures. The vegetation restoration plan shall be developed in consultation with the Corps, NOAA-Fisheries, USFWS, and CDFG. Following the completion of construction activities, plantings shall be established using the above guidelines and those set forth in the vegetation restoration plan. All non-native species that are removed will be replaced with native species. Replacement trees and shrubs shall be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Where constructed drainage devices and improvements are required, they shall be placed in the least visible locations and naturalized through the use of river rock, earth-tone concrete, and/or native plant materials.
- The City of Redding will monitor the plantings annually for up to 5 years to ensure that trees and shrubs have become established and that performance standards set forth in the vegetation restoration plan have been met. Annual reports documenting the status of the revegetation efforts will be prepared and submitted to the Corps, NOAA-Fisheries, USFWS, and CDFG. If performance standards have not been met, the contingency measures identified in the vegetation restoration plan (e.g., supplemental planting) will be implemented as necessary. Once riparian mitigation has been successfully completed, the City shall submit a memorandum to the Corps, NOAA-Fisheries, USFWS, and CDFG documenting the results.

Findings

Implementation of these measures during construction will reduce the potentially significant impacts to riparian habitat and other sensitive plant communities to a level considered less than significant.

Significant Impact 4.2-3

Implementation of the project, including construction, operations, and maintenance activities, could result in the direct discharge or fill of federally protected jurisdictional wetlands and other Waters of the U.S.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measures below. The mitigation measures have been found to be feasible and are required as a condition of approval and made binding on the City through these findings. Additional permitting conditions required by regulatory agencies will also be implemented as necessary.

4.2-3A

____ Prior to construction, the City shall use exclusionary fencing to mark the boundaries of intermittent creeks and riverine waters (e.g., bed of Stillwater Creek) that are to be avoided.

They shall also mark the boundaries of all other waters of the U.S., including wetlands, which are to be avoided. The exclusionary fencing shall be maintained in place throughout construction. All pedestrian and vehicular entry into the avoided waters delineated by the exclusionary fencing shall be prohibited during construction.

4.2-3B

The following general wetland BMP's will be implemented:

- **Open Trench Construction**
 - Silt fences will be installed on either side of the wetland work path to contain the trench spoil piles and prevent siltation of adjacent wetland area, when applicable.
 - The topsoil layer of wetland soils will be separated from the underlying subsoil during excavation and will be replaced in the original layering after cable installation.
 - The length of open-trench construction adjacent to wetlands will be minimized. Trench plugs will be installed at either end of the wetland installation to minimize potential; runoff into the wetland.
 - Drainage patterns (channels) across the wetland will be reestablished as close to the original locations and contours as possible.
 - Documentation (written and photographic) of pre-and post-construction conditions will be maintained by environmental compliance monitors.
- **Directional Bore**
 - Fluid flow controls will be available to contain any surface outflow of the fluid.
 - Spill contaminant materials will be located on-site.
- **Temporary Access Roads**
 - Temporary access roads will cross drainage bottoms at nearly right angles and level with the streambed gradient whenever possible.
 - No perennial watercourses will be blocked or diverted.
- **Forded Crossings**
 - Forded crossings will be constructed without excavating stream bank or bed, if possible. If grading is necessary, crossing will be accomplished by excavating a ramp through the bank(s) to allow equipment access. If placement of gravel is necessary, clean gravel suitable for salmon spawning shall be used.
 - Topsoil will be salvaged and protected from the area to be graded.
 - Ramps will be graded so that soil is pushed away from the drainage, and the banks will be contoured to blend the ramps as naturally as possible to the adjacent, undisturbed reaches of the streambank.
 - Salvaged topsoil and graded soil will be placed a minimum of 10 feet from stream banks and protected to minimize sediment transport to the aquatic environment.
 - If the stream is flowing, an oil-absorbent boom will be placed across the channel downstream of the crossing.
 - If necessary methods (e.g., clean rock fill, swamp mats) will be employed to facilitate movement of equipment across the bed of the channel.
 - Upon completion of construction in that zone, during site restoration, any mats will be removed, rock fill will either be removed or spread over the site, and topography and vegetation will be reestablished.

- Forded crossings will not be used for flowing streams where multiple daily crossings will occur.
- Culverts
 - Cover and fill material will consist of clean rock or gravel fill or other appropriate medium.
 - Culverts will be placed slightly below normal stream grade to avoid culvert outfall barriers.
 - Where needed, the inlet and outlet will be armored.
 - Temporary diversion structures will be used during culvert installation as necessary.
 - The subcontractor will maintain the culverts or conduits such that drainage is not inhibited and damage is not created on adjacent properties.
 - If the stream is flowing, an oil-absorbent boom will be placed across the channel downstream of the crossing.
 - Upon completion of construction in that zone, during site restoration, all culvert materials will be removed and topography and vegetation reestablished.

In addition, in order to maintain habitat and bank stability adjacent to bridge abutments, bridges will be designed to avoid and minimize to the extent practicable impacts to creek and stream corridors. The following mitigation shall be implemented where construction activities occur within 100 feet of the top of bank of any intermittent creek or riverine/perennial stream habitat:

- All trenching and construction activities across intermittent creek or perennial stream features, including Stillwater Creek, Churn Creek, and Clover Creek, will be limited to low-flow periods (June 1 to October 30 unless otherwise approved) to minimize impacts within the channel.
- Sediment curtains (upstream and downstream of the construction zone, placed so as to allow for fish passage at all times) or other suitable means will be used to prevent sediment disturbed during construction activities (i.e., trenching) from being transported and deposited outside of the construction zone.
- To the extent practicable, areas disturbed during construction that are not occupied by permanent infrastructure shall be returned to pre-construction contours.
- Areas left bare following construction shall be revegetated.

Further, the construction impact area for the alternative southern access road (Alternatives 1 and 2) shall be limited so as to avoid direct impacts to the four vernal pools along its route (i.e., impacts due to construction shall be limited to the width of the road, 84 feet, in those areas adjacent to vernal pools rather than the typical 175-foot-wide construction zone).

4.2-3C

The intent of **Mitigation Measure 4.2-3B** is to ensure there is no net-loss of aquatic function and value resulting from direct discharge of fill into waters of the U.S. during implementation of the proposed project. In order to determine the total amount of direct discharges to be compensated for, boundaries of waters of the U.S. shall be delineated in any areas of the project site not previously delineated. The delineation will be conducted using the method

prescribed in the Corps delineation manual (Environmental Laboratory 1987). The delineation of the project site will be submitted to the Corps for verification where existing verifications do not occur. The verified delineation shall be the basis for determining the extent of direct discharge into waters of the U.S.

Compensatory mitigation for unavoidable impacts shall be achieved through on-site and off-site preservation, creation, restoration, and enhancement of wetland features in the Open Space Area and other suitable locations. The City shall develop and implement an Open Space Management Plan (OMP) that includes a wetland preservation, creation, restoration, and enhancement plan prepared according to the guidance presented in the Army Corps of Engineers San Francisco and Sacramento Districts Special Public Notice "Mitigation and Monitoring Proposal Guidelines" dated December 30, 2004. The OMP shall be reviewed and approved by the appropriate regulatory agencies through the state and federal permitting programs. Implementation of the OMP will ensure no net loss of function and value of preserved waters of the U.S. due to project development. The OMP will identify measures that emphasize on-site, in-kind preservation, creation, restoration, and enhancement of aquatic functions and values to the maximum extent practicable. The OMP shall identify specific sites within the Open Space or elsewhere within the project site where mitigation measures can be implemented in perpetuity. The OMP shall identify the management practices, monitoring parameters, and performance criteria to mitigate for the direct discharges.

The OMP shall identify the creation and restoration practices, monitoring parameters, and performance criteria to mitigate for the direct discharges. Typical mitigation measures, monitoring parameters, and performance criteria for wetlands shall include:

- The target number of hydrophytic plant species to be established in the mitigation area shall be the average number of obligate, facultative wetland, and facultative species that occur in adjacent reference vernal pool/swale habitat. Reference wetland habitat will be identified in consultation with the Corps and CDFG.
- The percent cover of obligate, facultative wetland, and facultative species within the mitigation area shall not be less than 80 percent of the average percent cover occurring in the reference vernal pool/swale habitats.
- No visible erosion of topsoil shall occur within the mitigation area.
- Water depths, periods of inundation, and soil saturation in the mitigation area shall be similar to conditions occurring in the reference wetlands.

If the performance criteria are not satisfied by the end of the fourth spring following construction of the mitigation area, remediation measures identified in the OMP shall be implemented. At a minimum, the monitoring program would consist of the filing of an annual report to the Corps and CDFG for 5 years. The mitigation shall be considered successful if criteria are met for 3 consecutive years. The City or their appointed agent shall maintain the mitigation site in perpetuity.

The City will acquire required compensatory mitigation via on-site and off-site preservation, restoration, and enhancement of lands suited to these purposes.

Except for features occupied or presumed occupied by federally listed vernal pool species, mitigation will be provided at ratios not less than 2:1 (mitigation to impact, acreage basis). For features occupied or presumed occupied by federally listed vernal pools species, mitigation ratios presented for the occupying species will supersede those outlined here.

Findings

Implementation of these measures during construction will reduce the potentially significant impacts from direct project effects on federally protected jurisdictional wetlands and other Waters of the U.S. to a level considered less than significant.

Significant Impacts 4.2-4

Implementation of the project, including construction, operations, and maintenance activities, could result in indirect impacts to federally protected jurisdictional wetlands and other Waters of the U.S. Project indirect effects could result from modification of local hydrology, degradation of water quality through operation and construction activities, adverse modification of habitats caused by human encroachment, and introduction and dispersal of invasive species. Indirect effects are assumed when project activities are within 50 feet of Waters of the U.S.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measures below. The mitigation measures have been found to be feasible and are required as a condition of approval and made binding on the City through these findings. Additional permitting conditions required by regulatory agencies will also be implemented as necessary.

4.2-4A

_____ Prior to construction, the City shall install flagging to delineate the outer edge of the buffer zone for waters of the U.S. (50 feet). The flagging shall be maintained in place throughout construction. Entry into the buffer zone bounded by the flagging shall be strictly prohibited for those features within the Open Space Preserve and avoided to the maximum extent practicable for the remaining features.

4.2-4B

Encroachment into the watershed (Cow Creek) of the adjacent Stillwater Plains Wetland Mitigation Bank for temporary construction activities or placement of permanent infrastructure shall be prohibited. Prior to construction the City shall obtain topographic mapping that is sufficiently detailed so as to enable precise determination of the boundary between the Stillwater Creek watershed (west portion of site) and the Cow Creek watershed (east portion of site). Prior to construction the City shall revise the site layout for Alternatives 1 and 2 to avoid such encroachment into the Cow Creek watershed and resultant indirect effects on vernal pools in the Stillwater Plains Mitigation Bank.

Findings

Implementation of these measures during construction will reduce the potentially significant impacts from indirect effects to federally protected jurisdictional wetlands and other Waters of the U.S. to a level considered less than significant.

Significant Impact 4.2-5

Implementation of the project, including construction, operations, and maintenance activities, could result in direct and indirect impacts to federally or state listed, proposed listed or candidate plant species or their known or potentially occupied designated critical habitat. Species include the slender Orcutt grass, Greene's tuctoria, and Bogg's Lake hedge hyssop. Portions of the study area has designated critical habitat for slender Orcutt grass. Indirect effects could include run-off of materials such as sediment, pollutants, and toxic materials from project construction areas or building parcels after construction.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and are required as a condition of approval and made binding on the City through these findings. The terms and conditions, along with other measures developed through State and federal Endangered Species Act consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Game will be adhered to. All permitting conditions required by other regulatory agencies will also be implemented as necessary.

4.2-5

- Protocol-level floral surveys have been completed over the majority of the Alternatives 1 and 2 study area and portions of the Alternative 3 study area, and the project has been designed to avoid known populations of federal and/or state listed plant species to the extent feasible. Prior to final project design, protocol-level floral surveys shall be conducted in the unsurveyed portions of the study areas containing habitat suitable for slender Orcutt grass, Greene's tuctoria, and Bogg's Lake hedge hyssop (e.g., vernal pools). Surveys shall be conducted during the blooming periods for these species to determine (1) if the species occur and (2) the quality, location, and extent of any populations. If any of these species are found, and occur within 250 feet of proposed construction, the project will be redesigned to avoid the population(s) to the maximum extent practicable. For those populations to be fully avoided, the following measures shall be implemented:
 - During the planning stages of the project, the known populations of slender Orcutt grass, Greene's tuctoria, and Bogg's Lake hedge hyssop in the project area will be included in the engineering drawings and all construction activities will be conducted so as to avoid the populations. Complete avoidance of direct and indirect impacts would be attained by maintaining a 250-foot buffer around the known populations. However, a smaller buffer may be used if detailed topographic information shows that the local hydrology drains away from the wetlands and plants in question.

- Prior to the start of construction activities within the project area, exclusionary fencing shall be erected around the buffer zones of the populations that will be completely avoided. If necessary, a qualified botanist shall be present to assist with locating populations of slender Orcutt grass, Greene's tuctoria, and Bogg's Lake hedge hyssop. The exclusionary fencing shall be periodically inspected throughout each period of construction and be repaired as necessary. All pedestrian and vehicular entry into the completely avoided areas delineated by the fencing shall be prohibited during construction.
- To protect completely avoided populations from impacts associated with project operations and secondary impacts due to human access, those populations and their buffer zones within the core facilities area will be included within an Open Space easement to be maintained in perpetuity. Additional measures to protect these avoided populations from impacts associated with project operations will be included in the OMP for the Stillwater Business Park Project. Such measures will include, but are not limited to, fencing of known populations and/or erecting signs that direct the public to keep out of sensitive features.
- If complete avoidance of a population of these federally or state listed plant species is not feasible, then a species-specific determination will be made by CDFG for state only listed species and by CDFG and USFWS for jointly listed species as to the appropriate mitigation measures to be employed. These measures will likely include habitat preservation at a ratio of at least 2:1 (mitigation area to impacted area). Note that preservation requirements are not additive for each species present (i.e., an area occupied by one listed-plant species requires the same amount of habitat preservation as an equivalent area occupied by two or more listed plant species). Prior to impacting a state listed species, the City will need to obtain an incidental take permit pursuant to Fish and Game Code Section 2081(b). For jointly listed plant species CDFG may issue a consistency determination pursuant to Fish and Game Code Section 2080.1 provided that the terms of the federal biological opinion and/or incidental take statement will minimize and fully mitigate the impacts of the taking. Restoration and protection of habitat shall be the focus of mitigation efforts for impacts to listed plant species; however, mitigation measures may also include salvaging the seeds of the plants with subsequent replanting in nearby suitable habitat. A detailed restoration and monitoring plan will be developed by a qualified botanist and will contain, at a minimum, the following information:
 - location of areas on- or off-site to restore plant populations.
 - a description of the propagation and planting techniques to be employed in the restoration effort.
 - a timetable for implementation of the restoration plan.
 - a monitoring plan and performance criteria.
 - a description of remedial measures to be performed in the event that initial restoration measures are unsuccessful in meeting the performance criteria.
 - a description of site maintenance activities to occur after restoration activities (e.g., weed control, irrigation, and control of herbivory by livestock and wildlife).

Findings

Implementation of this measure during construction will reduce the potentially significant impacts due to direct and indirect effects on federally or state listed, proposed listed or candidate plant species or their known or potentially occupied designated critical habitat to a level considered less than significant.

Significant Impact 4.2-6

Implementation of the project, including construction, operations, and maintenance activities, could result in direct and indirect impacts to federally or state listed, proposed listed or candidate fish species and their designated critical habitat. Anadromous fish species and/or their habitat occur within Stillwater Creek. Indirect effects could include run-off of materials such as sediment, pollutants, and toxic materials from project construction areas or building parcels after construction.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measures below. The mitigation measures have been found to be feasible and are required as a condition of approval and made binding on the City through these findings. The terms and conditions, along with other measures developed through federal Endangered Species Act consultation with the National Marine Fisheries Service will be adhered to. All permitting conditions required by other regulatory agencies will also be implemented as necessary.

4.2-6A

- The work period for in-channel construction will be approved by the Corps in their 404 permit and by CDFG in their Section 1602 stream alteration agreement. To the maximum extent practicable, in-channel construction will be restricted to the dry season when stream flows have subsided and steelhead and salmon are not present. This will avoid any potential for direct impacts to special-status fishes. If work cannot be restricted to the dry season, the potential for direct impacts to migrating or rearing steelhead and salmon will be minimized by the employment of slow, deliberate movement of equipment in the channel and/or having a person walk ahead of the equipment to scare fish away from the work area. In addition, the pressure exerted on piles each time pile driving is initiated will be increased slowly to the desired operating level over a period of several minutes, providing time for any fish sensitive to the percussion wave to move out of the area.
- If work cannot be restricted to the dry season, work in the creek channel will be staged so as to not restrict the stream flow and create an impediment to fish migration. Providing at least one-half of the active channel width for bypass of stream flows at the in-channel work site will provide sufficient fish passage. In addition, the period of time that stream flows are constricted by coffer dams and work activities at the trenching transect across the Stillwater Creek channel will be minimized.
- Erosion control work shall consist of application of erosion control materials within non-riparian upland areas and approach fills, embankment slopes, excavation slopes, and other areas designated by the City. These materials shall consist of fiber, native grass and forb seed (e.g., hydroseeding), commercial fertilizer, and water.

- Activities that increase the erosion potential within the project footprint shall be restricted to the fullest extent possible to the relatively dry summer and early fall period to minimize the potential for rainfall events to mobilize and transport sediment to Stillwater Creek. If these activities must take place during the late fall, winter, or spring then temporary erosion and sediment control structures will be in place and operational at the end of each construction day and maintained until disturbed ground surfaces have been successfully revegetated.
- Areas where wetland and upland vegetation need to be removed shall be identified in advance of ground disturbance and limited to only those areas that have been approved by the City.
- Hydroseeding, or other Type-D erosion control, shall be applied to areas where vegetation has been removed to reduce short-term erosion prior to the start of the rainy season. Soils shall not be left exposed during the rainy season.
- Filter fences and catch basins shall be placed below all construction activities near the bank of Stillwater Creek and Clover Creek, but not in contact with flowing water, to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities.
- Spoils sites shall be located such that they do not drain directly into surface water features, if possible. If a spoils site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Catch basins will be sized appropriately. Spoils sites shall be graded and vegetated to reduce the potential for erosion.
- Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until the disturbed areas have been revegetated.
- Appropriate monitoring measures shall be implemented by the City to document compliance with the measures described above. Monitoring measures shall include turbidity measurements below the work sites, inspection of catch basins and filter fences, and monitoring of revegetation progress. The CVRWQCB will set allowable turbidity standards. In the event that monitoring detects that turbidity standards are exceeded (see Section 4.3, Water Quality), work shall cease until levels are acceptable.

4.2-6B

To avoid "fracing" during directional boring and the subsequent discharge of drilling mud, the contractor(s) will constantly monitor the drill for any significant loss of pressure. In the event of a significant pressure loss, the contractor(s) will immediately cease drilling, inspect the waterway for evidence of fracing, and notify the environmental monitor. In addition, because surface frac-outs may take place before a significant drop in pressure occurs, the contractor will monitor the area being drilled under for the appearance of drilling mud, an indication of a surface frac-out.

In the event of a frac-out, vacuum trucks with appropriate length hoses shall be placed at the edge of the waterway to contain the frac-out. Sandbags and silt fencing shall be staged downstream of construction, within the waterway channel, to contain any bore mud that surfaces. Shovels and buckets will be available on-site to clean up any bore mud that the

vacuum trucks cannot remove. Further, only bentonite formulations with nontoxic additives shall be used.

Findings

Implementation of these measures during construction will reduce the potentially significant impacts due to direct and indirect effects on federally or state listed, proposed listed or candidate fish species and their designated critical habitat to a level considered less than significant.

Significant Impact 4.2-7

Implementation of the project, including construction, operations, and maintenance activities, could result in direct and indirect impacts to federally or state listed, proposed listed or candidate wildlife species and their designated critical habitat. The valley elderberry longhorn beetle, vernal pool fairy shrimp, and vernal pool tadpole shrimp occur within the project area. Indirect effects could include run-off of materials such as sediment, pollutants, and toxic materials from project construction areas or building parcels after construction.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measures below. The mitigation measures have been found to be feasible and are required as a condition of approval and made binding on the City through these findings. The terms and conditions, along with other measures developed through State and federal Endangered Species Act consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Game will be adhered to. All permitting conditions required by other regulatory agencies will also be implemented as necessary.

4.2-7A

Bank Swallow

- Grading and other construction activities should be scheduled to avoid the nesting season (May through July) to the extent possible.
- Although bank swallows are not known to occur on the site, a pre-construction survey for the species is necessary to ensure that its status (presence/absence) on the project site has not changed between the completion of the biological surveys and the onset of project construction. Therefore, the City shall retain a qualified biologist to conduct a pre-construction survey for bank swallows within 500 feet of proposed construction zones situated within or adjacent to suitable bank swallow habitat. The survey may be conducted no more than one week prior to the onset of any construction activity. If no active nests are located, no further mitigation is necessary.

If an active nest(s) is located within 500 feet of construction activities, it shall be mapped, and a qualified biologist, in consultation with CDFG, will determine the extent of a construction-free buffer zone to be established around the nest. Active nests may not be removed until after the young have fledged (based on field verification). A qualified biologist shall monitor the nest to determine when the young have fledged and submit status reports to CDFG throughout the nesting season.

4.2-7B

Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

- Protocol-level surveys for vernal pool branchiopods have been completed over the majority of the Alternatives 1 and 2 study area and portions of the Alternative 3 study area and vernal pool tadpole shrimp are known to occur in both study areas. For those portions of the project area where protocol-level surveys have not been completed, the City shall either (1) prior to construction, retain a qualified biologist to conduct protocol-level surveys for listed vernal pool branchiopods following the USFWS Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for Listed Vernal Pool Branchiopods (1996a) to determine presence/absence; or (2) assume presence.
- Measures to avoid, minimize, or mitigate direct and indirect impacts to vernal pool fairy shrimp and vernal pool tadpole shrimp within 250 feet of the project disturbance shall be incorporated into the project, unless the USFWS permits a reduced setback. Consultation with the USFWS is needed to determine the extent of mitigation that will be required to address impacts. This mitigation will be accomplished in conjunction with the Corps Section 404 permit process. Mitigation measures shall include the following (pending consultation with the USFWS and Corps).
 - For every acre of known or presumed occupied habitat directly and indirectly affected, at least two vernal pool preservation credits will be dedicated within a Service-approved ecosystem preservation bank, or, based on USFWS evaluation of site-specific conservation values, 3 acres of vernal pool habitat may be preserved on the project site or on another non-bank site located outside the project area, as approved by the USFWS.
 - For every acre of known or presumed occupied habitat directly impacted, at least one vernal pool creation credit will be dedicated within a Service-approved habitat mitigation bank, or, based on USFWS evaluation of site-specific conservation values, 2 acres of vernal pool habitat will be created or substantially restored or enhanced and monitored on the project site or on another non-bank site located outside the project area, as approved by the USFWS.
 - Vernal pool habitat and associated upland habitat used as on-site mitigation will be protected from adverse impacts and managed in perpetuity.
- In addition, the City shall implement **Measure 4.2-4** with a 250 foot buffer zone for Waters of the U.S. which contain listed vernal pool branchiopod species to avoid potential indirect impacts to these listed species as a result of impaired water quality or altered hydrology and **Measure 4.2-3** to avoid potential impacts to vernal pool branchiopods due to trenching activities.

4.2-7C

Valley Elderberry Longhorn Beetle (VELB)

VELB are found exclusively on elderberry shrubs. Thus, protection of this species is based on protection of this shrub. The USFWS has adopted a standard mitigation protocol (USFWS 1999) for avoidance of impacts to VELB. Elderberry plants with one or more stems measuring 1.0 inch or greater in diameter at ground level and occurring where they may be directly or indirectly effected by the proposed action require mitigation. The standard mitigation

measures will be implemented and are summarized below. However, formal consultation with the USFWS will be required prior to any disturbance at the site in order to obtain the necessary take permit.

- All elderberry shrubs with one or more stems measuring 1.0 inch or greater in diameter at ground level that occur on or adjacent to the proposed project site will be thoroughly searched for beetle exit holes. In addition, all elderberry stems 1.0 inch or greater in diameter at ground level will be tallied by diameter size class (protocol-level surveys were completed in 2003 over all of the Alternatives 1 and 2 core facilities and Open Space; however, these surveys are valid for only 2 years).
- Complete avoidance (i.e., no adverse effects) may be assumed when a 100-foot (or wider) buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level. Measures to protect buffer areas will be instituted prior to construction and will include fencing, signs, and worker education programs
- Any damage done to buffer areas during construction will be restored. In addition, the areas will continue to be protected from damage after construction is complete. The City shall retain a qualified biologist to prepare a written description of how the buffer areas are to be restored, protected, and maintained after construction is completed. Typical measures include fencing, signs, weeding, and trash removal.
- Elderberry plants that cannot be avoided will be transplanted to a USFWS approved conservation area prior to construction under the supervision of a qualified biologist. Each elderberry stem measuring 1.0 inch or greater in diameter at ground level that is adversely affected (i.e., transplanted or destroyed) will also be replaced, in the conservation area, with elderberry seedlings or cuttings at a ratio ranging from 1:1 to 8:1 (new plantings to affected stems) dependent upon their location and size. The conservation area will be protected in perpetuity as habitat for the valley elderberry longhorn beetle, and the City will provide a written monitoring plan to the USFWS.

Findings

Implementation of these measures during construction will reduce the potentially significant impacts due to direct and indirect impacts to federally or state listed, proposed listed or candidate wildlife species and their designated critical habitat to a level considered less than significant.

Significant Impact 4.2-9

Implementation of the project, including construction, operations, and maintenance activities, could result in direct and indirect impacts to some non-listed special status or protected species. Species include the western spadefoot toad, northwestern pond turtle, and the western burrowing owl.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measures below. The mitigation measures have been found to be feasible and are required as a condition of approval and made binding on the City through these findings.

4.2-9A

Western Spadefoot Toad

- Prior to construction, the City will retain a qualified biologist to present a Worker Environmental Awareness Program. The program shall provide construction workers, contractors, and subcontractors with information on their responsibilities with regard to sensitive biological resources.
- Although western spadefoot toads are not known to occur on the site, suitable habitat is present and toads could move onto the site at any time. Thus, a pre-construction survey for the species is necessary to confirm its status (presence/absence) on the project site immediately prior to the onset of project construction. Therefore, the City shall retain a qualified biologist to conduct a pre-construction survey for the western spadefoot toad including the area within 50 feet of suitable habitat (vernal pools, seasonal wetlands) a maximum of one week prior to construction. If a western spadefoot toad is found, the biologist shall move it to suitable habitat in a safe location outside of the construction zone. In the event that a western spadefoot toad is observed within an active construction zone, the contractor shall temporarily halt construction activities until a biologist has moved the toad to a safe location outside of the construction zone, within similar habitat.

In addition, the City shall implement **Mitigation Measure 4.2-3** for addressing water quality impacts to mitigate for potential indirect impacts to western spadefoot toads due to wastewater treatment and discharge, storm-water management, sedimentation, and accidental spills.

4.2-9B

Northwestern Pond Turtle

- Because turtles may move into and out of the project site at any time, a pre-construction survey for the species is necessary to confirm its status (presence/absence) on the site immediately prior to the onset of project construction. Therefore, The City shall retain a qualified biologist to conduct a minimum of one survey of the project site for pond turtles and their nests. The survey shall occur in areas within 660 feet of the ordinary high water mark of Stillwater and Churn Creek as well as suitable ponds on or adjacent to the site. The survey shall be conducted a maximum of one week prior to construction. If a pond turtle is found within a construction impact zone, the biologist shall move it to a safe location within similar habitat. If a pond turtle nest is found, the biologist shall flag the site and determine if construction activities can avoid impacting the nest. If the nest cannot be avoided, it will be excavated and re-buried at a suitable location outside of the construction impact zone by a qualified biologist.
- In the event that a pond turtle is observed within an active construction zone, the contractor shall temporarily halt in-stream construction activities until the individual has been moved to a safe location outside of the construction zone, within similar habitat.
- In addition, the City shall implement the mitigation measures described in the Hydrology and Water Quality Section to avoid potential impacts to water quality due to trenching activities.

Further, the City shall implement **Mitigation Measure 4.2-3** for addressing water quality impacts to mitigate for potential indirect impacts to northwestern pond turtles due to

wastewater treatment and discharge, storm-water management, sedimentation, and accidental spills.

4.2-9C

Burrowing Owls

Although burrowing owls were not observed within any of the three alternative sites during reconnaissance surveys, suitable habitat is present. Therefore, protocol-level surveys for burrowing owls shall be conducted by a qualified biologist prior to any soil-altering activity occurring within the project area and a surrounding area of potential effect (the area within approximately 250 feet of project boundaries). The surveys shall be conducted per CDFG guidelines. Pursuant to CDFG guidelines, if no owls are found then no further mitigation will be warranted since there is no evidence of their presence within the past 3 years. If burrowing owls are found, consultation with, and authorization by, CDFG shall be required.

4.2-9D

Nesting Special-Status Birds (Yellow-breasted chat, Yellow Warbler, Loggerhead Shrike, and Tricolored Blackbird)

- Grading and other construction activities shall be scheduled to avoid the nesting season (March through September) to the extent possible.
- If vegetation is to be removed by the project and all necessary approvals have been obtained, potential nesting substrate (e.g. bushes, trees, grass, buildings) that will be removed by the project may be removed between October 1 and February 28 (i.e., outside of the nesting season) to help preclude nesting.
- The City shall retain a qualified biologist to conduct a pre-construction survey within a 250-foot buffer around the proposed construction zones. The survey may be conducted no more than one week prior to the onset of any construction activity. If no active nests are located, no further mitigation is necessary.
- If active nests (nests containing eggs or young) are located within 250 feet of construction activities, their location shall be mapped and a qualified biologist, in consultation with CDFG, will determine the extent of a construction-free buffer zone to be established around the nest. Active nests may not be removed until after the young have fledged (based on field verification). A qualified biologist shall monitor the nest to determine when the young have fledged and submit status reports to the CDFG throughout the nesting season.

4.2-9E

Nesting Raptors

- Grading and other construction activities shall be scheduled to avoid the nesting season (February 15 through September 30) to the extent possible.
- If vegetation is to be removed by the project and all necessary approvals have been obtained, potential nesting substrate (e.g. trees, shrubs) that will be removed by the project may be removed between October 1 and February 14 (i.e., outside the nesting season for raptor species) to ensure that active raptor nest trees are not removed as a result of project construction activities.

- The City shall retain a qualified biologist to conduct a minimum of one survey for nesting raptors within a 250-foot buffer around proposed construction activities. The survey may be conducted no more than one week prior to the onset of any construction activity. Active raptor nests located within 250 feet of construction activities shall be mapped.

If an active nest (a nest containing eggs or young) is found a qualified biologist, in consultation with CDFG, will determine the extent of a construction-free buffer zone to be established around the nest. A qualified biologist shall monitor the nest(s) to determine when the young have fledged and submit status reports to the CDFG, as appropriate, throughout the nesting season. An active nest may only be removed after the young have fledged (based on field verification).

4.2-9F

Roosting Bats

- Although no special-status bats were observed during reconnaissance surveys, suitable habitat is present and bats could move into or off of the site at any time. Thus, a pre-construction survey for roosting bats shall be conducted prior to any removal of buildings, particularly those with closed areas such as an attic space; trees ³12 inches in diameter at 4.5 feet above grade; or bridges with expansion joints. The survey will be conducted by a qualified bat biologist (i.e., a biologist holding a CDFG collection permit and a Memorandum of Understanding with CDFG allowing the biologist to handle and collect bats). No activities that would result in disturbance to active roosts of non-listed special-status bats shall proceed prior to the completed surveys. If no active roosts are found, then no further action would be warranted. Because bats are known to abandon young when disturbed, if a maternity roost is located, a qualified bat biologist will determine the extent of a construction-free zone to be implemented around the roost. If either a maternity roost or hibernacula is present, Mitigation Measure 4.2-9D or 4.2-9E shall be implemented. CDFG shall also be notified of any active nurseries within the construction zone.
- If active maternity roosts or hibernacula are found, the project will be redesigned to avoid the loss of the building or tree occupied by the roost if feasible.
- If an active nursery roost is located and the project cannot be redesigned to avoid removal of the occupied tree or structure, demolition of that tree or structure should commence before maternity colonies form (i.e., prior to March 1) or after young are volant (flying) (i.e., after July 31). The disturbance-free buffer zones described in Mitigation 1 should be observed during the maternity roost season (March 1 - July 31)

If a non-breeding bat hibernacula is found in a structure or tree scheduled to be razed, the individuals shall be safely evicted, under the direction of a qualified bat biologist (as determined by a Memorandum of Understanding with CDFG), by opening the roosting area to allow air flow through the cavity. Demolition shall then follow no less than the following day (i.e., there will be no less than one night between initial disturbance for air flow and the demolition). This action should allow bats to leave during dark hours, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight. Trees

with roosts that need to be removed shall first be disturbed at dusk, just prior to removal that same evening, to allow bats to escape during the darker hours.

4.2-9G

Low-sodium lighting will be used where feasible for illumination of parking lots, buildings, etc. Streetlights will be shielded and directed downward to the street, away from the riparian corridor and Open Space, to the extent possible.

Findings

Implementation of these measures during construction, operations, and maintenance activities will reduce the potentially significant impacts due to direct and indirect effects on some non-listed special status or protected species to a level considered less than significant.

4.3 HYDROLOGY AND WATER QUALITY

Significant Impact 4.3.4-1

The water quality of Stillwater Creek would be impacted by sediment resulting from grading operations during construction.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings. Other mitigation measures developed for similar impacts, e.g. mitigation measure 4.1.4-1 will also lessen the effects of this impact.

4.3.4-1

In addition to the erosion control measures identified in Mitigation Measures 4.1-1 and 4.1-2 in Section 4.1 – Geology and Soils, two new sediment ponds will need to be constructed as identified in Figure 4.3-5.

Findings

Implementation of this measure during construction, operations, and maintenance activities will reduce the potentially significant impacts to Stillwater Creek from sediment due to grading operations to a level considered less than significant.

4.5 CULTURAL RESOURCES

Significant Impact 4.5.4-1

Site SIP #1 has been avoided through Project redesign, however, should the Project proponent desire to utilize this area, a mitigation measure is advanced. The likelihood of the site being developed is very low given that the site will be placed under a conservation easement which protects it in perpetuity.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure is feasible and required as a condition of approval and made binding on the City through these findings.

4.5.4-1

Formal archaeological evaluation (i.e., archaeological testing to formally determine eligibility and significance) would need to be undertaken and detailed recommendations for treatment would be required to be advanced if the site were to be found eligible. Treatment could range from avoidance to data recovery excavations, depending on the findings of testing and the nature of Project impacts.

Findings

Implementation of this measure throughout all project phases will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 4.5.4-2

The present evaluation and recommendations are based on the findings of an inventory level survey only. There is always the possibility that potentially significant unidentified cultural materials could be encountered on or below the surface during the course of future development or construction activities.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

4.5.4-2

Previously unidentified cultural resources could be inadvertently encountered during the course of construction activity. In the event of such a contingency, construction work will stop immediately and additional consultation with a professional archaeologist will be necessary to develop site-specific mitigation measures.

Findings

Implementation of this measure during construction will reduce the potentially significant impact to the site to a level considered less than significant.

4.6 AESTHETICS

Significant Impact 4.6.3-1

The proposed project would urbanize a large portion of undeveloped lands that have been historically used for limited oat production and cattle grazing. Development of the site would be an extension

of the existing urban edge of the City. The scenic value of the site, albeit of little benefit to the public, will be lost. The visual character of the site will change thereby resulting in visual impacts to the area.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

4.6.3-1

The site shall be zoned with the Planned Development Overlay (PD). As part of the PD Plan, when siting buildings, care should be taken to minimize obstructing views of the hills and mountains. Landscaping should be utilized in strategic areas to minimize the visual impact of the electrical transmission line poles. Visual corridors should be developed which allow uninterrupted open space views of distant hills and mountains between buildings, unless existing natural landscaping and/or topography currently are obstructing such views.

Findings

Implementation of this measure during construction will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 4.6.3-2

Two electrical substations will be construction to provide electrical power to the Project. Distribution circuits from the substations will be placed underground except for two circuits which will exist as underbuilds on all transmission structures, however, transmission lines would impact the visual quality along Rancho Road. In addition, 100 foot microwave towers may be built at the substations.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

4.6.3-2

As part of the PD Plan, landscaping will be planted as needed to screen the substations. The type and amount will be specifically determined when plans are reviewed by the City, however, to the maximum extent feasible, any views of the facilities from the Stillwater Park shall be minimized.

Findings

Implementation of this measure during construction will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 4.6.3-3

Given the nature of the area, the project may introduce a significant new nighttime light source into the area. There may be some light spill over onto adjacent properties, especially to residential properties adjacent to the northeastern boundary of the site. Lighting is proposed along the backbone road through the site. Light could affect areas along Stillwater Creek, impacting habitat areas.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure is feasible and required as a condition of approval and made binding on the City through these findings.

4.6.3-3

_____ To the extent practicable, low-Pressure sodium lighting shall be used for outdoor uses. No light source shall be directed skyward. Light standards shall be no taller than 25 feet in height. Outdoor lighting will be placed, designed, and directed to avoid light spillover into the riparian habitat areas adjacent to Stillwater Creek. These standards shall be incorporated into the PD Plan.

Findings

Implementation of this measure during construction will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 4.6.3-4

The project could result in daytime glare resulting from the buildings, their architecture, and the types of materials used.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and required as a condition of approval and made binding on the City through these findings.

4.6.3-4

_____ The use of muted or compatible architectural materials and colors will reduce the impact of daytime glare.

Findings

Implementation of this measure during construction will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 4.6.3-5

Proposed roadway improvements will create an impact by introducing new streets and widening existing roadways in the Project vicinity.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and required as a condition of approval and made binding on the City through these findings.

4.6.3-5

Landscaping which includes trees shall be required for new road construction and existing road-widening improvements.

Findings

Implementation of this measure during construction will reduce the potentially significant impact to the site to a level considered less than significant.

4.7 TRAFFIC AND CIRCULATION

Significant Impact 4.7.4-12

The southern extension of Road "A" from the project site to Airport Road is proposed for construction during Phase 1 of the project. In order for it to function properly, the road must be constructed to standards, which are identified as mitigation measures.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

4.7.4-12

The Road "A" southerly extension shall have a two-lane arterial cross-section and be classified as a designated truck route. The newly formed Airport Road/Road "A" intersection should be installed with a traffic signal. The currently existing Fig Tree Lane approach to Airport Road/Aero Street will be realigned to intersect with the southerly extension of Road "A" a minimum of 400 feet from the space bar at the intersection. These improvements are the sole responsibility of the Project.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 4.7.4-13

With development of Phase 1, the Airport Road corridor is projected to be the most impacted. Several intersections will meet peak hour signal warrants and several roadway segments will exceed the acceptable LOS "C"

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

4.7.4-13

Under Existing plus Phase-1 conditions, the existing two-and-three-lane arterial section shall be widened to four-lane arterial standards from the SR44 interchange through the intersection with Knighton Road, as part of the ultimate plans for this segment to be a four-lane expressway. Also, the existing two-lane arterial section shall be widened to four-lane arterial standards from Knighton Road to the intersection with Churn Creek Road/Dersch Road, as part of the ultimate plans for this segment to be a four-lane expressway. In order to accommodate the ultimate plans, these four-lane arterial sections are to be constructed as an expressway-arterial "hybrid" including a center median

The Airport Road intersections with SR44 eastbound and westbound ramps, Hartnell Avenue, and Rancho Road shall be installed with traffic signals under existing plus Phase-1 conditions.

Rate of development of Phase 1 shall determine time of installation. Intersection LOS and traffic warrants will be analyzed on a biennial schedule by a traffic engineer and the necessary improvements completed within one year of the first report that identifies LOS levels are below C and/or traffic signal warrants are met for the p.m. peak hour.

The recommended capacity and control improvements along Airport Road corridor should be integrated and appropriately coordinated with the planned future improvement projects such as the SR44/Airport Road interchange (ultimate) improvements, Hartnell Avenue realignment and extension and Venus Way extension.

The Project Proponent shall pay the proportionate fair-share cost of the above off-site improvements. The Project may have to make the necessary improvements without any participation by other projects due to timing. However, some form of reimbursement agreement should be entered into whereby the Project Proponent is reimbursed as other projects in the area are developed.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 4.7.4-14

Rancho Road is expected to serve as an important commuter travel route for the project. With development of Phase 1, the intersections with Churn Creek Rd, Churn Creek/Victor Avenue, Shasta View Drive, and Old Oregon Trail will meet peak hour signal warrants and the existing roadway section from Airport Rd to Old Oregon trail will exceed acceptable LOS "C" threshold. In addition,

the Victor Avenue and Churn Creek Road approaches to Rancho Road do not meet intersection spacing requirements.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

4.7.4-14

The intersections with Churn Creek Road, Shasta View Drive, Old Oregon Trail, and Churn Creek/Victor shall be installed with traffic signals if these improvements have not been constructed beforehand. In addition, the Victor Avenue and Churn Creek Road approaches to Rancho Road shall be realigned and reconstructed so that the Rancho road/Churn Creek Road/Victor Avenue intersection operates acceptably. The widening of Churn Creek Road and the bridge across Churn Creek from Victor to Bonnyview will also occur.

Rate of development of Phase 1 shall determine time of installation. Intersection LOS and traffic warrants will be analyzed on a biennial schedule by a traffic engineer and the necessary improvements completed within one year of the first report that identifies LOS levels are below C and/or traffic signal warrants are met for the p.m. peak hour.

The Project Proponent shall pay the proportionate fair-share cost of the above off-site improvements. The Project may have to make the necessary improvements without any participation by other projects due to timing. However, some form of reimbursement agreement should be entered into whereby the Project Proponent is reimbursed as other projects in the area are developed.

The Rancho Road segment from Airport Road to Old Oregon Trail shall be widened to a three-lane arterial standard under Existing plus Phase-1 conditions.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 4.7.4-15

The Knighten Road corridor is expected to serve as one of the important truck travel route opportunities for project related truck trips. The unsignalized study intersection of Knighten Road and Interstate 5 northbound ramps will meet the AM peak hour signal warrant

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

4.7.4-15

A traffic signal will be installed at the northbound ramp intersection of Knighton Road and Interstate 5. The recommended signalization of Interstate 5/Knighton Road northbound ramp intersection should be appropriately integrated with long-term improvements planned for this interchange, as well as improvements planned for the I-5/Riverside Avenue interchange. The rate of development of Phase 1 shall determine time of installation. Intersection LOS and traffic warrants will be analyzed on a biennial schedule by a traffic engineer and the necessary improvements completed within one year of the first report that identifies LOS levels are below C and/or traffic signal warrants are met for the p.m. peak hour.

The Project Proponent shall pay the proportionate fair-share cost of these off-site improvements. The Project may have to make the necessary improvements without any participation by other projects due to timing. However, some form of reimbursement agreement should be entered into whereby the Project proponent is reimbursed as other projects in the area are developed.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 4.7.4-16

The Riverside Avenue corridor is expected to serve as an important auto and truck travel route for project related trips. The currently unsignalized study intersections along Riverside Avenue, namely the intersections with Interstate 5 southbound and northbound, and North Street, will meet peak hour signal warrants.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

4.7.4-16

The intersections with Interstate 5 southbound and northbound ramps, and North Street shall be installed with traffic signals under Existing plus Phase-1 conditions. The recommended signalization of Interstate 5/Riverside Avenue interchange ramp intersections should be appropriately integrated with long-term improvements planned for this interchange, as well as improvements planned for the Interstate 5/Knighton Road interchange.

The Project Proponent shall pay the proportionate fair-share cost of these off-site improvements.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

4.8 AIR QUALITY

Significant Impact 4.8.3-2

Stationary industrial source emissions may result in impacts that exceed accepted thresholds upon full build out of the Park. ROG, Nox and PM-10 may all exceed thresholds.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

4.8.3-2

As noted in the Air Quality Element, projects with less than "Threshold A" emissions must apply only feasible Standard Mitigation Measures (SMM). No projects are expected to exceed level "A" thresholds although additional emissions after permit applications containing additional emissions are provided. These emissions should be considered together with the operational emissions that are quantifiable now.

Projects exceeding Level "B" thresholds are required to implement all SMMs and BAMMs and calculate emission reductions available from each mitigation measure using the reference tables (or project-specific analysis) provided in the Air Quality Element of the General Plan.

All parcels shall be required to evaluate and quantify potential mitigation measures and resulting emission reductions resulting for PM-10 since to ensure that Level B thresholds are not exceeded when considered together with emissions for requested use.

Page 36 of the Air Quality Element lists expected ranges and averages for emission reductions for mitigation measures for commercial and industrial projects.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

4.9 NOISE

Significant Impact 4.9.4-1

The project will generate increased traffic on the existing roadway network, with traffic noise potentially increasing 0 to 10 decibels Ldn over baseline conditions. Noise increases from project traffic will result in impacts to residences along Argyle Road, Rancho Road, and at certain locations along Old Oregon Trail and Airport Road.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

4.9.4-1

The following fundamental noise control techniques should be considered when reviewing individual projects to be developed on the parcels within the business park. For off-site road mitigation, City policy requires noise barriers in the form of walls or berms, or combination thereof along arterial streets that abut residential uses. Therefore, when off-site road improvements are constructed in the future to accommodate ultimate buildout of the business park, noise barriers will have to be constructed along Rancho Road, Argyle Road, and in limited locations along Old Oregon Trail and Airport Road where the underlying General Plan designation is residential. Noise tests should be conducted to confirm that existing thresholds are being exceeded by 3 dB.

Use of Setbacks – Noise exposure may be reduced by increasing the distance between the noise sources and receiving use. Setback areas can take the form of open space, frontage roads, recreational areas, storage yards, etc. The available noise attenuation from this technique is limited by the characteristics of the noise source, but is generally about 4 to 6 dB per doubling of distance from the source.

Use of Barriers – Shielding by barriers can be obtained by placing walls, berms or other structures, such as buildings, between the noise source and the receiver. The effectiveness of a barrier depends upon blocking line-of-sight between the source and receiver, and is improved with increasing the distance the sound must travel to pass over the barrier as compared to a straight line from source to receiver. The difference between the distance over a barrier and a straight line between source and receiver is called the "path length difference," and is the basis for calculating barrier noise reduction.

Barrier effectiveness depends upon the relative heights of the source, barrier, and receiver. In general, barriers are most effective when placed close to either the receiver or the source. An intermediate barrier location yields a smaller path-length-difference for a given increase in barrier height than does a location closer to either source or receiver.

For maximum effectiveness, barriers must be continuous and relatively airtight along their length and height. To ensure that sound transmission through the barrier is insignificant, barrier mass should be about 4 lbs. /square foot, although a lesser mass may be acceptable if the barrier material provides sufficient transmission loss. Satisfaction of the above criteria requires substantial and well-fitted barrier materials, placed to intercept line of sight to all significant noise sources. Earth, in the form of berms or the face of a depressed area, is also an effective barrier material.

The attenuation provided by a barrier depends upon the frequency content of the source. Generally, higher frequencies are attenuated (reduced) more readily than lower frequencies. This results because a given barrier height is relatively large compared to the shorter wavelengths of high frequency sounds, while relatively small compared to the longer wavelengths of the frequency sounds. The effective center frequency for traffic noise is usually considered to be 550 Hz. Railroad engines, cars and horns emit noise with differing frequency content, so the effectiveness of a barrier will vary for each of these sources. Frequency analyses are necessary to properly calculate barrier effectiveness for noise from sources other than highway traffic.

Site Design – Buildings can be placed on a project site to shield other structures or areas, to remove them from noise-sensitive areas, and to prevent an increase in noise level caused by reflections. The use of one building to shield another can significantly reduce overall noise levels. Another option in site design is the placement of relatively insensitive land uses, such as commercial or storage areas, between the noise source and noise-sensitive receivers.

Site design should also guard against the creation of reflecting surfaces which may increase onsite noise levels. For example, two buildings placed at an angle facing a noise source may cause noise levels within that angle to increase by up to 3 dB. The open end of "U"-shaped buildings should point away from noise sources for the same reason. Landscaping walls or noise barriers located within a development may inadvertently reflect noise back to a noise-sensitive area unless carefully located. Avoidance of these problems while attaining an aesthetic site design requires close coordination between local agencies, the project engineer and architect, and the noise consultant.

Use of Vegetation – Trees and other vegetation are often thought to provide significant noise attenuation. However, approximately 100 feet of dense foliage (so that no visual path extends through the foliage) is required to achieve a 5 dB attenuation of noise. Thus the use of vegetation as a noise barrier should not be considered a practical method of noise control unless large tracts of dense foliage are part of the existing landscape.

Vegetation can be used to acoustically "soften" intervening ground between a noise source and receiver, increasing ground absorption of sound and thus increasing the attenuation of sound with distance. Planting of trees and shrubs is also of aesthetic and psychological value, and may reduce adverse public reaction to a noise source by removing the source from view, even though noise levels will be largely unaffected.

In summary, the effects of vegetation upon noise transmission are minor and are primarily limited to increased absorption of high frequency sounds and to reducing adverse public reaction to the noise by providing aesthetic benefits.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 4.9.4-2

On-site noise producing activities could affect existing noise sensitive receptors on the east side of the project area.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

4.9.4-2

_____ The CC&R's shall require all uses developed within the Park to generate noise levels which comply with City of Redding and Shasta County Noise Element standards at nearby residential uses.

During project review, the Development Services Director shall make a determination as to whether or not the proposed use would likely generate noise levels which could adversely affect residences to the east. If it is determined from this review that proposed uses could generate excessive noise levels at existing noise-sensitive uses, the applicant shall be required to prepare an acoustical analysis to ensure that all appropriate noise control measures are incorporated into the project design so as to mitigate any noise impacts. Such noise control measures include, but are not limited to, use of noise barriers, site-redesign, silencers, partial or complete enclosures of critical equipment, etc.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 4.9.4-3

Activities associated with construction will result in elevated noise levels, with maximum noise levels ranging from 85 to 90 dB at 50 feet. Construction activities would be temporary in nature and would likely occur during normal daytime working hours.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

4.9.4-3

_____ Construction activities will adhere to the requirements of the City of Redding with respect to hours of operation.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

4.10 HAZARDS AND HAZARDOUS MATERIALS

Significant Impact 4.10.3-2

Uncontrolled spills during implementation of the project could cause impacts to soils and water quality in the project area. Even with implementation of a hazardous substances handling plan, accidental spills could occur.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measures below. The mitigation measures have been found to be feasible and are required as a condition of approval and made binding on the City through these findings.

4.10.3-2A

In addition to operational controls implemented from various plans and procedures, engineering controls should be incorporated into the design of facilities built for companies that will use hazardous substances. It is likely that all areas in which hazardous substances will be used will be surfaced with concrete, asphalt, or other engineered material. In addition to the standard surfacing, engineering controls could include bermed and lined areas where hazardous materials will be offloaded, design of surface drainage so that spills, if they do occur, will move towards areas that do not drain directly to waterways adjacent to the site, and/or installation of collection sumps in offloading areas.

4.10.3-2B

If not part of spill response, environmental monitoring should be conducted after a spill is cleaned up to verify that contaminants do not remain in the environment. Depending on the location of the spill, this monitoring could include sampling of soil, surface water, and/or groundwater. At a minimum, the monitoring results should be reported to the Shasta County Environmental Health Department. Submittal of results to additional agencies also may be required. Post-spill monitoring will allow characterization of the extent of contamination, if present, and allow development of remediation plans before contamination can reach deeper groundwater (100 feet or more in the Project vicinity).

4.10.3-2C

If not part of spill response, an investigation of the conditions and practices that contributed or led to the spill should be conducted by the responsible parties. Ideally, this information would be used to update hazardous substances handling practices to reduce the chance for additional spills. At a minimum the investigation results should be reported to the Shasta County Environmental Health Department. Submittal of results to additional agencies also may be required.

Findings

Implementation of these mitigation measures will reduce the potentially significant impact to the site to a level considered less than significant.

5.7 TRAFFIC AND CIRCULATION CUMULATIVE EFFECTS

Significant Impact 5.7.1-1

As a result of the project, the unsignalized Airport Road intersections with Hartnell Avenue, possibly Venus Way, Rancho Road, Terminal Driveway/Knighten Road extension and Meadow View Drive will be operating at unacceptable LOS "F" under 2025 base conditions. In addition, eastbound and westbound approaches at the Airport Road, Churn Creek Road/Dersch Road signalized intersection will not function properly.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

5.7.1-1

The currently unsignalized Airport Road intersections with Hartnell Avenue, Rancho Road, Terminal Driveway/Knighten Road Extension and Meadow View Drive should be signalized under year 2025 base conditions. The Airport Road/Venus Way Extension (future) intersection should also be signalized under year 2025 base conditions. Widening of the eastbound and westbound approaches at the Airport Road/Churn Creek Road/Dersch Road signalized intersection is recommended under year 2025 base conditions.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 5.7.1-2

The Rancho Road intersections with Churn Creek Road, Shasta View Drive, Old Oregon Trail, and the Churn Creek/Victor Avenue intersection will exceed the acceptable LOS "C" and operate at an LOS "F." In addition, the Victor Avenue and Churn Creek Road approaches to Rancho Road do not meet intersection spacing standards.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

5.7.1-2

The Rancho Road intersections with Churn Creek Road/Victor Avenue, Shasta View Drive shall be installed with traffic signals if these improvements have not been constructed beforehand. In addition, the Victor Avenue and Churn Creek Road approaches to Rancho Road shall be realigned and reconstructed so that the Rancho Road/Churn Creek Road/Victor Avenue intersection operates acceptably.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 5.7.1-3

The unsignalized study intersections along Knighten Road, namely the intersections with Interstate 5 southbound and northbound ramps, will meet Caltrans peak hour volume Warrant 11 (urban areas) during at least one peak hour period.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

5.7.1-3

The Knighten Road intersections with Interstate 5 southbound and northbound ramps shall be installed with traffic signals. It is noted here that the Route 5/Knighten Road Interchange Modifications and Knighten Road Extension PSR (Approved, January 1998) has considered a four-lane overcrossing at the Knighten Road interchange along with other interchange improvements. The PSR improvements are expected to provide sufficient capacity under year 2025 base conditions.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 5.7.1-4

The Riverside Avenue intersections with Interstate 5 southbound and northbound ramps, and North Street, will exceed the acceptable LOS "D" and "C" respectively.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

5.7.1-4

Traffic signals shall be installed at the Riverside Avenue intersections with Interstate 5 southbound and northbound ramps, and North Street. It is noted here that the North Street/Riverside Avenue Improvements PSRE (Approved July 1999) recommended a four to five-lane cross-section on North Street and Riverside Avenue approaches at the North Street/Riverside Avenue/Airport under 2020-2025 conditions. The PSRE improvements are expected to provide sufficient capacity under year 2025 base conditions.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 5.7.2-14

The four-lane arterial section (or the expressway arterial "hybrid" section) for the Airport Road segment between the SR44 interchange and the intersection with Rancho Road will exceed LOS "C."

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

5.7.2-14

A four-lane expressway section shall be constructed for the Airport Road section between SR44 interchange and Rancho Road. The four-lane arterial section (or the expressway-arterial "hybrid" section) for the Airport Road segment south from Rancho Road through the intersection with Churn Creek Road/Dersch Road can be maintained through Year 2025 Base plus Project Build-out conditions.

The Shasta County Interchange Improvement Study Final Report (prepared for Shasta County RTPA, July 1996) has considered two conceptual interchange improvement alternatives for the SR.44/Airport Road/Old Oregon Trail interchange that both included a six-lane overcrossing section on Airport Road. Preliminary analysis has indicated that both of these interchange alternatives would provide sufficient capacity to accommodate Year 2025 Base plus Project Build-out conditions, while Alternative 2 (par-clo configuration with loop ramps) is expected to provide more efficient traffic operations.

All Airport Road study intersections shall operate as signalized intersections under Year 2025 Base plus Project Build-out conditions.

The Project Proponent shall pay the proportionate fair-share cost of the above off-site improvements.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 5.7.2-15

The Rancho Road segment between Churn Creek Road and Airport Road will have an unacceptable LOS "D."

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

5.7.2-15

_____ The Rancho Road segment between Churn Creek Road and Airport Road shall be widened to three-lane arterial standards.

The Project Proponent shall pay the proportionate fair-share cost of the improvement of the road segment between Churn Creek Road and Airport Road.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 5.7.2-16

The Churn Creek Road segment between Interstate 5 and Victor Avenue will have an unacceptable LOS "D."

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

5.7.2-16

_____ The Churn Creek Road segment between Interstate 5 and Victor Avenue shall be widened to four-lane arterial standards.

The Project Proponent shall pay the proportionate fair-share cost of the improvement of the road segment between Interstate 5 and Victor Avenue.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 5.7.2-17

The Knighten Road segment between Interstate 5 and Churn Creek Road will have an unacceptable LOS "D" and the intersections of Knighten Road with Churn Creek Road and with Interstate 5 southbound ramps will meet peak hour signal warrants.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

5.7.2-17

_____ The Knighton Road segment between Interstate 5 and Churn Creek Road shall be widened to three-lane arterial standards, and traffic signals shall be installed at the intersections. Of Knighton Road with Interstate 5 southbound ramps.

The ultimate improvements identified in the Route 5/Knighton Road Interchange Modifications and Knighton Road Extension PSR (Approved, January 1998), that considered a four-lane overcrossing at the Knighton Road interchange along with other interchange improvements, are projected to provide sufficient capacity through Year 2025 Base plus Project Build-out conditions.

The Project Proponent shall pay the proportionate fair-share cost of these off-site improvements.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 5.7.2-18

The Riverside Avenue segment between Interstate 5 and North Street/Airport Road will operate at an unacceptable LOS "D."

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

5.7.2-18

_____ The Riverside Avenue segment between Interstate 5 and North Street/Airport Road shall be widened to three-lane arterial standards.

It should be noted that the North Street/Riverside Avenue Improvements PSRE recommended a four to five-lane cross-section on North Street and Riverside Avenue approaches at the North Street/Riverside Avenue/Airport under 2020-2025 conditions. The PSRE improvements are expected to provide sufficient capacity under Year 2025 Base plus Project conditions.

The Project Proponent shall pay the proportionate fair-share cost of these off-site improvements.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

Significant Impact 5.7.2-19

Hartnell Avenue between Airport Road and Argyle Road will operate at an unacceptable LOS "D."

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to below a level of significance by implementation of the mitigation measure below. The mitigation measure has been found to be feasible and is required as a condition of approval and made binding on the City through these findings.

5.7.2-19

_____ The Hartnell Avenue segment between Airport Road and Argyle Road shall be widened to a three-lane arterial standard.

The Project Proponent shall pay the proportionate fair-share cost of these off-site improvements.

Findings

Implementation of this mitigation measure will reduce the potentially significant impact to the site to a level considered less than significant.

B. Public Resources Code Section 21081 (a)(2)

The decision maker, having independently reviewed and considered the information contained in the final EIR for the project and the public record, finds that there are no changes or alterations to the project that avoid or substantially lessen the significant environmental impacts that are within the responsibility and jurisdiction of another public agency.

C. Public Resources Code Section 21081 (a)(3)—Infeasible Mitigation Measures & Alternatives

The City of Redding, having reviewed and considered the information contained in the final EIR and its appendices for the project and the public record, finds that specific economic, legal, technological, social, or other considerations and benefits make infeasible the mitigation measures or project alternatives identified in the final EIR and its appendices, other than the proposed action Alternative 2, Revised Stillwater Site, as described above under the heading Project Description, and as set forth below.

4.8 AIR QUALITY

Significant Impact 4.8.3-1

URBEMIS calculates construction impacts which include emission site grading, construction worker vehicle trips, stationary equipment, mobile equipment (gas and diesel), architectural coatings, and

asphalt off-gassing. ROG (Reactive Organic Gases) impacts are significant in Phase 3 of construction during architectural coating and asphalt application. The impacts are higher than thresholds allow for both minimum and maximum parcel sizes.

Mitigation Measures

Potential significant impacts resulting from the proposed project would be reduced to the extent feasible, but may not be reduced below a level considered insignificant. This impact may result in project effects that cannot be mitigated. The mitigation measures below, however, have been found to be feasible and are required as a condition of approval and made binding on the City through these findings.

4.8.3-1A

Potential mitigation measures should be reviewed with the Air District. The following measures were applied to reduce construction-related emissions. These measures are consistent with **Goal 3, Policy 29** in the Air Quality Element to reduce particulate matter emissions from construction, grading, and demolition to the maximum extent feasible. **Table 4.8-6** identifies the reduced emissions after application of mitigation measures.

Soil Disturbance:

- Apply soil stabilizers to inactive areas
- Replace ground cover in disturbed area quickly
- Water exposed surfaces 3 times daily
- Cover stockpiles with tarp
- Water unpaved haul roads

Off- and On-Road Measures

- Use aqueous diesel filters
- Diesel particulate traps
- Cooled exhaust gas recirculation

ROG Coating measure:

Use coatings with no more than 0.0037 lbs/square foot of ROG (default is 0.185 but low and zero ROG emission coatings are available)

4.8.3-1B

The City shall explore the feasibility of requiring **Mitigation Measure 4.8.3-1** in a Construction Emission Mitigation Plan in order to reduce emissions below threshold levels to the extent possible. Other measures to include in the plan are:

- Equipment should not idle for more than 10 minutes.
- Equipment should not be altered to increase engine horsepower.
- Requiring particulate traps, oxidation catalysts, and other suitable control devices on all construction equipment used at the construction site.
- Use ultra low sulfur diesel fuel (sulfur content of 15 ppm or less) or other suitable alternative diesel fuel.

- Establishment of work limitations to minimize trips and to provide staging areas for trucks located away from sensitive receptors.

4.8.3-1C

Since construction emissions are higher than Level A thresholds, other potential mitigation measures that shall be included in the construction phase would be to establish work limitations such as minimizing trips and providing staging areas for trucks that are located away from sensitive receptors such as the Valley Christian School or the future Veterans Home.

Another possibility, to the extent feasible, would be to phase construction over a longer time period such as 36 to 48 months to minimize average daily effects. Other measures to explore would include slower phasing of the architectural coatings and asphalt pavement phases as well as lowering the amount of coating thickness of painting materials or building footage.

Findings

Implementation of these mitigation measures may not reduce this impact at the project site to a level considered less than significant. This potentially significant impact will be acceptable to the City for the reasons presented above as well as in the Statement of Overriding Considerations.

Significant Impact 4.8.3-3

The nature of air pollution effects of any given stationary source depends on the nature of the use, the amount of throughput, fuels used, equipment used, controls used and many other factors which cannot be predicted without specifics on proposed uses such as would be provided by permit applicants. It is impossible to determine the potential stationary source impacts until specific permits are applied for.

Mitigation Measures

Potential significant impacts resulting from this activity are unknown at this time. There is insufficient information to make a determination regarding whether the impacts would be significant or insignificant, and whether there are mitigation measures available that would be effective at reducing impacts. The mitigation measure below provides information regarding the potential for air quality impacts, but the lack of information makes this mitigation measure infeasible at this time.

4.8.3-3

Appendix H in the Draft EIR provides discussion of each of the source categories and presents some examples of emissions from specific facilities that could be categorized into these source categories. The City may wish to use this Appendix as a reference tool. However, until an actual application is made and information provided, specific mitigation measures cannot be determined.

Findings

Implementation of this mitigation measure is inadequate for addressing the potential effects of this impact. Based upon technological and other considerations, the lack of sufficient

information regarding the type or extent of the impact, and the unknown feasibility of mitigation, the City is unable to implement this mitigation measure.

THE PROPOSED PROJECT EIR EVALUATED TWO OTHER ALTERNATIVES IN ADDITION TO THE PROPOSED PROJECT ALTERNATIVE. IT ALSO INCLUDED A "NO PROJECT" ALTERNATIVE.

ALTERNATIVE 1 – ORIGINAL STILLWATER SITE

Project Description

This alternative is in the same location as the proposed project alternative. The overall project description is the same as that described above. There are various differences in the on- and off-site infrastructure facilities. One of the primary differences is that this alternative has greater impacts to wetlands and sensitive species and their habitats in the northern portion of the site. This alternative impacts over 2 acres more of wetlands and approximately 6 acres more of sensitive species habitats than the proposed project alternative. It also contains a road connection to the east and more trails, which affect wetlands throughout the site. The electrical transmission line is located in more sensitive areas within the core project location. There is no conservation easement to be placed along the northern and eastern boundaries of the site, which prevents infrastructure connections to the adjacent properties.

Findings

The City of Redding, as the lead agency for the Stillwater Business Park, has determined that Alternative 1 is infeasible because it results in impacts to wildlife, vegetation, and wetland communities that are unacceptable and difficult to mitigate. Potential impacts to the Stillwater Plains Conservation Bank would likely be unacceptable to approving officials. Obtaining the necessary regulatory agency permits and agreements for this alternative would require an unacceptable period of time, with no guarantee of success. This alternative would be very difficult and very costly to implement.

ALTERNATIVE 3 – JURIN RANCH SITE

This site is located on Rancho Road and Airport Road and totals 597 acres. Most of the site would have to be acquired. The City owns a small portion of the site along Clover Creek. There are 3 proposed residential developments nearing the end of their permitting and approval processes that encompass most of the site. The project would have approximately 100 acres of designated open space, which is about a third of the amount within the proposed project. There would be about 2 acres more of wetlands impacts and 3 acres more of impacts to sensitive species and their habitats. The larger amount of wetland acreage impacted would make it more difficult to support this location as the "LEDPA" alternative, or the alternative considered the Least Environmentally Damaging Practicable Alternative as required by regulations of the Environmental Protection Agency. After a tour of the site with resource agencies, it was felt that the site was less desirable for development due to the diversity of its vegetation communities, wetlands functions and values, and important biological elements. The site is much smaller than

the preferred alternative and lacks the large available parcels due to constraints on development resulting from wetland features on the site.

Findings

The City of Redding, as the lead agency for the Stillwater Business Park, has determined that Alternative 3 is infeasible because it results in greater impacts to Waters of the United States than other feasible alternatives; it would not provide as much acreage as other alternatives for meeting the purpose and need of the project; and over the time period of the environmental studies and preparation of the FEIR/EIS, the property was acquired and planned for development, making it economically infeasible for the City to acquire for the project. Additionally, project effects would have resulted in significant impacts even after implementation of all feasible mitigation measures.

NO PROJECT ALTERNATIVE

The No Project alternative would not result in any of the direct environmental impacts that the proposed project would have. The City would save the initial resources expenditures as well as all capital costs associated with developing and constructing the project. However, the City would not benefit from the long-term economic returns that will be realized once the project is operational. The potential financial returns anticipated from the project will far outweigh all costs associated with establishing the site. There would not be a large-scale business park available in Redding to attract large business. Industrial and large-business development would continue on a smaller scale, as it does today, which is undesirable to the City of Redding.

Findings

The City of Redding, as the lead agency for the Stillwater Business Park, has determined that the No Project alternative is infeasible because it does not provide a large scale business park in the City and it would not provide the desired long-term economic returns.

4-4-06

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