

MITIGATION MONITORING CHECKLIST-- RIO VISTA ARMY RESERVE CENTER REDEVELOPMENT PLAN

The environmental mitigation measures listed in column two below have been incorporated into the conditions of approval for the Rio Vista Army Reserve Center Redevelopment Plan in order to mitigate identified environmental impacts. A completed and signed chart will indicate that each mitigation requirement has been complied with, and that City and state monitoring requirements have been fulfilled with respect to Public Resources Code section 21081.6.

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE (Performance Criteria)	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
<i>CULTURAL AND HISTORIC RESOURCES</i>						
<p>Impact 6-1: Disturbance of Archaeological Resources. Redevelopment activities or development facilitated by the Project could potentially disrupt, alter or eliminate as-yet undiscovered archaeological sites, potentially including Native American remains. This possibility represents a potentially significant impact.</p>	<p>Mitigation 6-1: If prehistoric or historic-period archaeological resources are encountered during grading or excavation, work shall avoid altering the materials and their context until a qualified professional has evaluated, recorded and determined appropriate treatment of the resource, in consultation with the City. Project personnel shall not collect cultural resources. Cultural resources shall be recorded on DPR 523 historic resource recordation forms. If it is determined that the proposed development could damage a unique archaeological resource, mitigation shall be implemented in accordance with Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines, with a preference for preservation in place. This measure would reduce the potential impact on archaeological resources to a less-than-significant level.</p>	Applicant/City	City/Agency	Grading Permit/ Building Permit		
<p>Impact 6-2: Loss of Historic Resources. A 1997 historic resource evaluation report prepared for the U.S. Army Corps of Engineers by JRP Historical Consulting Services concluded that, although none of the remaining structures originally constructed by the Corps of Engineers to support dredging activities for its Sacramento River Flood Control Project (1914-1944) appeared to be individually</p>	<p>Mitigation 6-2: Before undertaking any activity involving the suggested historic district or its contributing structures, including the removal of hazardous building materials, the City or project sponsor shall evaluate the proposed historic district and its contributing buildings, structures, landscape features and setting to identify the character-defining spaces, features, materials, spatial</p>	Applicant/City	City/Agency	Building Permit		

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<p>eligible for listing in the National Register of Historic Places (National Register), 12 of the buildings collectively appeared to be eligible for listing as a historic district, suggested by the JRP report as the "U.S. Engineer Storehouse Historic District." Subsequent to issuance of the JRP report, the Army determined that none of the buildings individually or collectively met the eligibility requirements for listing on the National Register, and the State Historic Preservation Officer (SHPO) concurred with the Army determination. Despite these determinations, however, the suggested historic district nonetheless still appears to be eligible for listing in the California Register of Historic Resources (California Register) and therefore is a historical resource for purposes of CEQA. The Project could therefore damage, alter, obscure or eliminate character-defining elements of the suggested U.S. Engineer Storehouse Historic District so as to cause a loss of integrity and loss of continued eligibility to the California Register. This possibility represents a potentially significant impact.</p>	<p>relationships and setting that make it significant and <u>either</u>:</p> <p>(a) Adhere to the Secretary of the Interior's Standards for the Rehabilitation of Historic Properties in all work within and adjacent to the suggested historic district so that the integrity of the historic district and its continued eligibility to the California Register of Historic Resources is preserved.</p> <p>Implementation of mitigation alternative 6-2(a) would reduce the potential impact on historical resources to a less-than-significant level.</p> <p style="text-align: center;"><u>or</u></p> <p>(b) If implementation of mitigation alternative 6-2(a) above is not feasible and a character-defining element of the historic district would be damaged, altered, obscured or eliminated so as to cause a loss of integrity and loss of continued eligibility to the California Register of Historic Resources, the project sponsor shall nevertheless implement all feasible mitigation as required by CEQA, consisting of the following measures in the following order, to the extent feasible:</p> <p>(1) Document the suggested historic district and its contributing elements before any changes that would cause a loss of integrity and loss of continued eligibility to the California Register of Historic Resources. The documentation shall adhere</p>					

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	<p>to the Secretary of the Interior's Standards for Architectural and Engineering Documentation. The documentation shall be made available for inclusion in the Historic American Building Survey (HABS) or the Historic American Engineering Record (HAER) Collections in the Library of Congress, the California Historical Resources Information System, the Bancroft Library, the Rio Vista Library and the Rio Vista Museum.</p> <p>(2) Retain and reuse the proposed historic district's contributing buildings, structures and setting to the maximum feasible extent.</p> <p>(3) Continue to apply the Standards for Rehabilitation to the maximum feasible extent in all alterations, additions and new construction within and adjacent to the proposed historic district.</p> <p>(4) Relocate contributing buildings or structures to another location compatible with their original use, character and setting, preferably within the proposed Project Area, or a nearby riverfront location within or near Rio Vista.</p>					

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	<p>(5) Through careful methods of planned deconstruction to avoid damage and loss, salvage character-defining features and materials for educational and interpretive use on-site or at the Rio Vista Museum, or for reuse in new construction on the site in a way that commemorates their original use and significance.</p> <p>(6) Interpret the historical significance of the proposed historic district through a permanent exhibit or program within the proposed Project Area, potentially within the proposed park facilities, community center, lodge or research station.</p> <p>Even with implementation of one or more of measures (1) through (6) above, there would still be a loss of continued eligibility of the suggested historic district to the California Register and therefore the potential impacts on historic resources under mitigation alternative 6-2(b) would be significant and unavoidable.</p>					
<p>Impact 6-3: Disturbance of Paleontological Resources. Redevelopment activities or development facilitated by the Project could potentially disrupt, alter or eliminate as-yet undiscovered paleontological resources. This would be a potentially significant impact.</p>	<p>Mitigation 6-3: If paleontological resources are encountered, work shall avoid altering the resource and its stratigraphic context until a qualified paleontologist has evaluated, recorded and determined appropriate treatment of the resource, in consultation with the City. Project personnel shall not collect cultural resources. Appropriate treatment may include collection and</p>	Applicant/City	City/Agency	Grading Permit/ Building Permit		

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	processing of “standard” samples by a qualified paleontologist to recover micro vertebrate fossils; preparation of significant fossils to a reasonable point of identification; and depositing significant fossils in a museum repository for permanent curation and storage, together with an itemized inventory of the specimens. This measure would reduce the potential impact on paleontological resources to a less-than-significant level .					
Impact 6-4: Cumulative Loss of Cultural Resources. The loss of significant historical resources caused by the Project would be a cumulatively considerable contribution to a loss of cultural resources throughout Rio Vista and the surrounding region, and thus a significant impact .	Mitigation 6-4: Adhering to the Secretary of the Interior’s Standards for the Rehabilitation of Historic Properties in all work within and adjacent to the suggested historic district would reduce the Project contribution to this cumulative impact. The feasibility of this mitigation measure cannot be determined until the specific character-defining elements of the proposed historic district are determined. The cost, delay and limitations on development associated with this mitigation measure may make it ultimately infeasible. Therefore, the Project contribution would remain cumulatively considerable and thus significant and unavoidable .	Applicant/City	City/Agency	Grading Permit/ Building Permit		
AESTHETICS						
Impact 7-1: Visual Character and Quality. Development facilitated by the proposed Redevelopment Plan would improve the visual quality of the proposed Project Area by eliminating the existing blighting conditions and dilapidated character. The visual character of the site would be changed to a more developed condition, with a more suburban character and more	Mitigation 7-1. Future project-facilitated development shall protect, incorporate and enhance the unique visual character and “sense of place” of the proposed Project Area created by the combination of the adjacent Sacramento River and Montezuma Hills, the historic waterfront complex of buildings and structures, and the mature trees. This shall be	Applicant/City	City/Agency	Development Review		

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<p>contemporary architectural styles. However, if not sensitively and creatively designed, development facilitated by the Project could result in a loss of the unique visual character and “sense of place” of the proposed Project Area created by the combination of the adjacent Sacramento River and nearby Montezuma Hills and the historic waterfront complex of structures and mature trees, and thereby substantially degrade visual character and quality, adversely affect community character and conflict with General Plan policies. These possible effects represent a <i>potentially significant impact.</i></p>	<p>accomplished, in part though not exclusively, by encouraging future individual development activity to incorporate either measure (a) or (b) below, as well as measures (c), (d) and (e):</p> <p>(a) Implement alternative Mitigation Measure 6-2(a) to rehabilitate and reuse the contributing buildings, structures and setting of the proposed U.S. Engineer Storehouse Historic District in a manner that fully adheres to the Secretary of the Interior’s Standards for the Rehabilitation of Historic Properties, so as to preserve its continued eligibility to the California Register of Historic Resources;</p> <p style="text-align: center;"><i>or</i></p> <p>(b) If alternative Mitigation Measure 6-2(a) is determined by the City to be infeasible, notwithstanding a significant and unavoidable impact related to historical resources, Project-facilitated development shall nonetheless still:</p> <p>(1) Retain and reuse the proposed historic district’s contributing buildings, structures and setting to the maximum feasible extent; and/or</p> <p>(2) Relocate contributing buildings or structures to another location compatible with their original use, character and setting, within the proposed Project Area; and/or</p> <p>(3) Through careful methods of planned deconstruction to avoid</p>					

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	<p>damage and loss, salvage character-defining features and materials for educational and interpretive use on-site or at the Rio Vista Museum, or for reuse in new construction on the site in a way that commemorates their original use and significance.</p> <p style="text-align: center;"><i>and</i></p> <p>(c) Project-facilitated development shall maximize views of and connections to the river. The river shall inform the appearance and design of future development within the proposed Project Area.</p> <p>(d) Implement Mitigation Measure 7-2 regarding maintenance of physical and visual public access to the Sacramento River.</p> <p>(e) Preserve the existing healthy mature trees on the site, particularly the trees behind the historic waterfront complex, along the line between the upper and lower terraces on the site.</p> <p>Implementation of measures (a) or (b), as well as (c), (d) and (e), would reduce the potential impact of the Project related to visual character and quality to a less than significant level.</p>					
<p>Impact 7-2: Public Access to the River. The "Rio Vista Principles," set forth in the City's General Plan, state that new development should reinforce the characteristics that make Rio Vista unique, the Sacramento River should be showcased and enhanced, and the river should be made an accessible resource</p>	<p>Mitigation 7-2. Development in the proposed Project Area shall provide maximum feasible physical and visual public access to the Sacramento River, and adhere to the planning principles, public access objectives, and design guidelines contained in the San Francisco Bay Conservation and</p>	Applicant/City	City/Agency	Development Review		

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<p>for the enjoyment of Rio Vista residents and the general public. Numerous General Plan goals and policies reinforce these basic General Plan principles.</p> <p>The proposed Project Area presents a unique and irreplaceable opportunity to connect the city to its waterfront, to create a memorable place, to interpret and celebrate Rio Vista's river and Delta heritage, and to enhance community character, identity and regional visibility. No specific development program or site layout is suggested as part of the proposed Redevelopment Plan. However, if not sensitively and creatively designed, development facilitated by the Project could block physical and visual public access to the Sacramento River, and thereby substantially degrade visual quality and community character, adversely affect scenic vistas, and conflict with General Plan policies. This possibility represents a potentially significant impact.</p>	<p>Development Commission Public Access Design Guidelines for the San Francisco Bay (San Francisco Bay Conservation and Development Commission, <u>Shoreline Spaces, Public Access Design Guidelines for the San Francisco Bay</u>, April 2005). With this mitigation measure, the potential impact of the Project related to visual access to the river would be less than significant.</p>					
<p>Impact 7-3: Light, Glare and Sky Glow. Development facilitated by the proposed Redevelopment Plan would result in additional lighting and increased light emanating from the proposed Project Area. New sources of light would be installed as part of new buildings and site improvements to illuminate entries, parking areas, sidewalks and open spaces, for safety and security, and to highlight architectural features. High intensity lighting may be used for nighttime use of sports fields and outdoor courts. If not properly designed and controlled, such lighting could: (1) cause substantial spill light, glare and sky glow that may create</p>	<p>Mitigation 7-3. Future lighting within the proposed Project Area shall conform to the Model Lighting Ordinance of the International Dark Sky Association and the Illuminating Engineering Society of North America. Implementation of this measure would reduce the light, glare and sky glow impacts of the Project to a less than significant level.</p>	Applicant/City	City/Agency	Building Permit/ Certificate of Occupancy		

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<p>a nuisance for adjacent residential properties; may adversely affect nighttime views and night sky access for visitors and campers at Sandy Beach Regional Park, travelers on the State Route 160 State Scenic Highway and the Highway 12 entryway to the community, residents of neighborhoods to the north, users of the Duck Island RV Park on the east side of the river; (2) result in degradation of the City-desired small-town community character; and (3) conflict with General Plan Policy 5.19.D. Spill light, glare and sky glow could also adversely affect nocturnal ecosystems in and around the proposed Project Area and the adjacent river. This possible effect represents a <i>potentially significant impact.</i></p>						
<p>Impact 7-4: Otrusive Sports Field Lighting. Proposed redevelopment activities within the Project Area include the potential development of four baseball fields, three soccer fields, four tennis courts and outdoor basketball courts, consistent with the City's General Plan and the Parks Master Plan. There are several types of sports lighting fixtures available that would produce the required light levels for these facilities. However, less refined lighting optics or improper installation could cause spill light, glare or sky glow. As a result, nighttime sports field lighting could create a nuisance for adjacent residential properties, and adversely affect nighttime views, night sky access, and community character. These possible effects represent a <i>potentially significant impact.</i></p>	<p>Mitigation 7-4: As required by Mitigation 7-3, lighting design within the proposed Project Area shall conform to the Model Lighting Ordinance of the International Dark Sky Association and the Illuminating Engineering Society of North America. The design of lighting systems for sports fields and courts shall achieve adequate control of spill light, glare and sky glow. Luminaire mounting height and optical system shall adequately limit the amount of light visible from the nearest residential property lines, the regional park, the river and other sensitive areas off-site, and avoid illumination above the level of the lights. The final design details for any illuminated sports fields shall include a community playfield lighting plan which specifies playfield lighting fixture locations and designs that only illuminate the field or court area with a sharp cut-off at the field perimeter.</p>	Applicant/City	City/Agency	Building Permit/ Certificate of Occupancy		

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	<p>Light fixtures shall be selected that have total light control (i.e., fixtures that have internal optics that redirect wasted spill light downwards and are fitted with a non-reflective visor). Post-construction adjustments of the lighting system shall be performed to ensure that installed conditions meet design criteria.</p> <p>With implementation of these measures, the potential nuisance impact from sports field lighting would be less than significant.</p>					
<i>TRANSPORTATION AND CIRCULATION</i>						
<p>Impact 8-1: SR 12--SR 84 to SR 160. The addition of Project traffic to existing conditions would increase the daily traffic volume on the two-lane section of SR 12 between SR 84 and SR 160 from approximately 21,000 vehicles per day (VPD) to approximately 22,302 VPD. Both this existing and estimated existing-plus-Project traffic volume total exceed the capacity of 20,000 VPD for two-lane roadways with high access control. The Project-related traffic volume increase would exacerbate existing LOS F conditions. This effect would represent a significant impact.</p>	<p>Mitigation 8-1. Mitigation of this impact would require widening of the section of SR 12 between SR 84 and SR 160 from one to two lanes in each direction by either widening the existing bridge over the Sacramento River or by constructing a new bridge over the river. This improvement, if feasible, would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio: 0.56) operations. With this mitigation, the Project impact would be less than significant. The Project fair share of this improvement cost would be approximately 6 percent. However, this improvement is not full-funding-assured. Additionally, SR 12 is a Caltrans facility and so this improvement would exceed the City's authority to implement. Thus, this impact would therefore remain significant and unavoidable.</p>	Applicant	City/Agency	Certificate of Occupancy		
<p>Impact 8-2: Main Street--SR 12 to 5th Street. The addition of Project traffic to existing conditions would increase the</p>	<p>Mitigation 8-2. Mitigation of this impact would require widening of the section of Main Street between SR 12</p>	Applicant	City/Agency	Certificate of Occupancy		

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daily traffic volume on the section of Main Street between SR 12 and 5 th Street from approximately 6,000 VPD to approximately 6,867 VPD. This volume increase would change the LOS from LOS C to LOS E. This would be a significant impact .	and 5 th Street to a two-lane arterial by adding a center two-way left-turn lane. This improvement, if feasible, would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio: 0.45) operation. This mitigation measure would thereby reduce this impact to a less than significant level. The Project fair share of this mitigation cost would be approximately 13 percent. However, this improvement would require the acquisition of right-of-way from fronting properties and is therefore considered to be infeasible. Thus, this impact would remain significant and unavoidable .					
Impact 8-3: SR 12/Front Street Intersection. The addition of Project traffic to existing conditions would increase peak hour traffic through the SR 12/Front Street intersection. This traffic volume increase will cause the LOS to change from LOS D to LOS F. This would be a significant impact .	Mitigation 8-3. <i>Mitigation Measure 8-1</i> would provide LOS B and C operations in the AM and PM peak hours, respectively. The Project fair share of this improvement would be approximately 6 percent. This mitigation measure, if feasible, would reduce this impact to a less than significant level; however, this improvement is not funding-assured. Additionally, SR 12 is a Caltrans facility and so this mitigation measure would exceed the City's authority to implement. Thus, this impact would remain significant and unavoidable .	Applicant	City/Agency	Certificate of Occupancy		
Impact 8-4: Existing Plus Project Impact on Transit System Operations. As indicated under Impacts 8-1 through 8-2 above, the addition of Project traffic to existing conditions would significantly increase existing congestion on SR 12. The Project-related increase in existing SR 4 congestion and delay would add to	Mitigation 8-4. With implementation of <i>Mitigation 8-1</i> , the Project contribution to this cumulative impact would be reduced to a less than significant level. However, <i>Mitigation 8-1</i> is not funding-assured. Additionally, SR 12 is a Caltrans facility and so this mitigation measure would exceed the City's authority to	Applicant	City/Agency	Certificate of Occupancy		

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associated interference with transit operations. This would represent a significant impact .	implement. Thus, this impact would remain significant and unavoidable .					
Impact 8-5: SR 12--SR 84 to SR 160. The addition of Project traffic to cumulative conditions in 2025 would increase the daily traffic volume on the two-lane section of SR 12 between SR 84 and SR 160 from approximately 54,800 vehicles per day (VPD) to approximately 56,102 VPD. Both this existing and existing-plus-Project traffic volume total exceed the capacity of 18,000 VPD for two-lane roadways with moderate access control. The Project-related traffic volume increase would exacerbate existing LOS F conditions. This effect would represent a significant impact .	Mitigation 8-5. Mitigation Measure 8-1 would provide LOS F (volume-to-capacity ratio: 1.40) operations. The Project's fair share of this improvement would be approximately 2 percent. With implementation of this mitigation measure, the Project contribution to this cumulative impact would not be significant. However, even with this improvement, SR 12 between SR 84 and SR 160 would continue to operate at LOS F. This improvement is also not funding-assured. Additionally, SR 12 is a Caltrans facility and so this improvement would exceed the City's authority to implement. Thus, this impact would remain significant and unavoidable .	Applicant	City/Agency	Certificate of Occupancy		
Impact 8-6: Main Street--SR 12 to 5th Street. The addition of Project traffic to cumulative conditions in 2025 would increase the daily traffic volume on the section of Main Street between SR 12 and 5 th Street from approximately 9,400 vehicles per day (VPD) to approximately 10,267 VPD. Both this cumulative and cumulative-plus-Project traffic volume total would exceed the capacity of 8,000 VPD for a two-lane residential collector with driveways. The Project-related traffic volume increase would exacerbate projected LOS F conditions. This would be a considerable contribution and thus a significant impact .	Mitigation 8-6. Mitigation Measure 8-2 would provide LOS B (volume-to-capacity ratio: 0.68) operations. The project's fair share of this improvement would be approximately 8 percent. With implementation of this mitigation measure, the Project contribution to this cumulative impact would be less than considerable. However, this improvement would require the acquisition of right-of-way from fronting properties and is therefore considered to be infeasible. Thus, this impact would remain significant and unavoidable .	Applicant	City/Agency	Certificate of Occupancy		
Impact 8-7: Main Street--5th Street to 2nd Street. The addition of Project traffic to cumulative conditions in 2025	Mitigation 8-7. Mitigation of this impact would require widening of the section of Main Street between 5 th	Applicant	City/Agency	Certificate of Occupancy		

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would increase the daily traffic volume on the section of Main Street between 5 th Street and 2 nd Street from approximately 6,400 vehicles per day (VPD) to approximately 7,222 VPD. Both this cumulative and cumulative-plus-Project traffic volume total would exceed the capacity of 8,000 VPD for two-lane residential collector with driveways. The Project-related traffic volume increase would change the LOS from LOS D to LOS E. This would be a significant impact .	Street and 2 nd Street to a two-lane arterial by adding a center two-way left-turn lane. This improvement, if feasible, would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio: 0.48) operation. This mitigation measure would thereby reduce this impact to a less than significant level. The Project fair share of this improvement cost would be approximately 11 percent. However, this improvement would require the acquisition of right-of-way from fronting properties and is therefore considered infeasible. Thus, this impact would remain significant and unavoidable .					
Impact 8-8: SR 12/Main Street-Hillside Terrace. The addition of Project traffic to cumulative conditions in 2025 would increase peak hour traffic through the SR 12/Main Street-Hillside Terrace intersection. The Project-related traffic volume increase would cause delay to increase by five or more seconds in both the AM and PM peak hours, which would exceed the City of Rio Vista's five-second criteria for unsignalized intersections already operating unacceptably (LOS E or F) under "no project" conditions. This would be a considerable Project contribution to cumulative impact conditions and thus a significant impact .	Mitigation 8-8. Mitigation of this cumulative-plus-Project impact would require installation of a left turn lane on both the Main Street and Hillside Terrace approaches to the SR 12/Main Street-Hillside Terrace intersection. The Project fair share of this improvement cost would be approximately 2 percent. With this improvement, this intersection would continue to operate unacceptably with LOS E and F operations in the AM and PM peak hours, respectively; however, the Project-related change in the average intersection control delay would be reduced to less than five seconds. Thus, with this measure, the Project contribution to this cumulative impact would be less than considerable and therefore less than significant .	Applicant	City/Agency	Certificate of Occupancy		
Impact 8-9: SR 12/North 5th Street. The addition of Project traffic to cumulative conditions in 2025 would increase peak hour traffic through the	Mitigation 8-9. Mitigation of this cumulative-plus-Project impact would require installation of a raised median on SR 12 to restrict left-out access	Applicant	City/Agency	Certificate of Occupancy		

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SR 12/North 5 th Street intersection. The Project-related traffic volume increase would cause the delay to increase by five or more seconds in the AM and PM peak hours, which would exceed the City of Rio Vista's five-second criteria for unsignalized intersections already operating unacceptably (LOS E or F) under "no project" conditions. This would be a considerable Project contribution to cumulative impact conditions and thus a significant impact .	from North 5 th Street on the northbound and southbound approaches to the SR 12/North 5 th Street intersection. The Project fair share of this improvement cost would be approximately 1 percent. With this improvement, this intersection would continue to operate unacceptably with LOS F operations in the AM and PM peak hours; however, the Project-related change in the average intersection control delay would be reduced to less than five seconds. Thus, with this measure, the Project contribution to this cumulative impact would be less than considerable and therefore less than significant .					
Impact 8-10: SR 12/Front Street. The addition of Project traffic to cumulative conditions in 2025 would increase peak hour traffic through the SR 12/Front Street intersection. The Project-related traffic volume increase would cause delay to increase by five or more seconds in the AM and PM peak hours, which would exceed the City of Rio Vista's five-second criteria for unsignalized intersections already operating unacceptably (LOS E or F) under "no project" conditions. This would be a considerable Project contribution to cumulative impact conditions and thus a significant impact .	Mitigation 8-10. Mitigation of this cumulative-plus-Project impact would require installation of a second eastbound and westbound through lane on SR 12 to the SR 12/Front Street intersection. The Project fair share of this improvement cost would be approximately 3 percent. This improvement, which is consistent with Mitigation Measure 8-1, would provide LOS E and F operations in the AM and PM peak hours, respectively. However, the Project-related change in the average intersection control delay would be reduced to less than five seconds. Thus, with this measure, the Project contribution to this cumulative impact would be less than considerable and therefore less than significant .	Applicant	City/Agency	Certificate of Occupancy		
Impact 8-11: SR 12/River Road. The addition of Project traffic to cumulative conditions in 2025 would increase peak hour traffic through the SR 12/River Road intersection. The Project-related	Mitigation 8-11. Mitigation of this cumulative-plus-Project impact would require installation of a second through lane on eastbound and westbound SR 12 to the SR 12/River	Applicant	City/Agency	Certificate of Occupancy		

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traffic volume increase would cause delay to increase by five or more seconds in the AM and PM peak hours, which would exceed the City of Rio Vista's five-second criteria for unsignalized intersections already operating unacceptably (LOS E or F) under "no project" conditions. This would be a considerable Project contribution to cumulative impact conditions and thus a significant impact .	Road intersection. The project fair share of this improvement cost would be approximately 2 percent. This improvement, which is consistent with Mitigation Measure 8-1, would provide LOS E and F operations in the AM and PM peak hours, respectively. However, the Project-related change in the average intersection control delay would be reduced to less than five seconds. Thus, with this measure, the Project contribution to this cumulative impact would be less than considerable and therefore less than significant .					
Impact 8-12: Cumulative-Plus-Project Impact on Transit System Operations. As indicated under Impacts 8-5, 8-6 and 8-8 through 8-11 above, the addition of Project traffic to cumulative conditions in 2025 would significantly increase congestion on SR 12. The Project-related increase in cumulative SR 4 congestion and delay would add to associated interference with transit operations. This would represent a considerable Project contribution to cumulative conditions and thus a significant impact .	Mitigation 8-12. With <i>Mitigation Measures 8-1, 8-8, 8-9, 8-10 and 8-11</i> , the Project contribution to this cumulative impact would be less than considerable. However, the identified improvement is not funding-assured. Additionally, SR 12 is a Caltrans facility and so the improvement exceeds the City's authority to implement. Thus, this impact would remain significant and unavoidable .	Applicant	City/Agency	Certificate of Occupancy		
BIOLOGICAL RESOURCES						
Impact 10-1: Impacts on Wetlands and Other Waters. The proposed Project Area contains freshwater marsh, riparian and aquatic habitat areas within and adjacent to the Sacramento River which are wetlands and other waters subject to Corps jurisdiction under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, and are regulated by the CDFG. Redevelopment actions or development facilitated by the proposed	Mitigation 10-1: Before undertaking any redevelopment actions or development projects that could have a substantial adverse effect on wetlands or other waters, including construction activity within the upland areas of the proposed Project Area that could involve the discharge of sediments, the applicant shall coordinate with the U.S. Army Corps of Engineers and the California Department of Fish and Game as	Applicant/City	City/Agency	Development Review		

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Redevelopment Plan would involve the direct removal or filling of wetlands, or other activities that could substantially alter the hydrology, soil, vegetation or wildlife of wetlands, or affect the conditions of navigable waters, representing a potentially significant impact .	early as possible in the design of the project to obtain a verified jurisdictional determination and either revise the development design to avoid all effects on jurisdictional wetlands and other waters or obtain and comply with a Section 404 permit and a Lake and Streambed Alteration Agreement. During the site-specific consultation and permitting process for jurisdictional wetlands and waters, the California Department of Fish and Game (CDFG) would discuss with the individual applicant the feasibility of providing long-term protection and maintenance of sensitive habitat types within the proposed Project Area. Long-term sustainability of the beneficial functions of aquatic and terrestrial habitats could be provided through protection in perpetuity in the form of a conservation easement and include enhancement and restoration of these resources. Implementation of this jurisdictional coordination and regulatory compliance measure would reduce the potential impact of the Project on wetlands and other waters to a less-than-significant level .					
Impact 10-2: Impacts on Special-Status Species. Four special-status plant and wildlife species are confirmed as occurring within the proposed Project Area, and an additional 17 special-status plant, wildlife and fish species have the potential to occur within the proposed Project Area or the adjoining river. In addition, the adjoining Sacramento River is critical habitat for two fish species. Redevelopment actions or development facilitated by the proposed Redevelopment Plan could adversely affect these special-status	Mitigation 10-2: Until the Solano Multi-Species Habitat Conservation Plan (HCP) is adopted, for future individual discretionary development projects proposed within the Project Area, the applicant or, for City-initiated projects, the City, shall consult with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG) regarding proposed activities to determine if they could result in a “take” of a federal or State protected species. Special-status species to be	Applicant/City	City/Agency	Development Review		

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<p>species or their habitats within the proposed Project Area or in the adjoining Sacramento River. Species may be affected during construction, when their habitats may be substantially altered or removed, or species may be affected by activities associated with the operation of future projects, including activities occurring within the adjoining Sacramento River. These possible effects represent a potentially significant impact.</p>	<p>addressed should include all rare, threatened and endangered species which meet the definition in CEQA Guidelines Section 15380.</p> <p>Additional focused surveys may be required to determine whether protected species are present. Protocol-level surveys for special-status plant species shall be conducted in suitable habitat prior to approval of future individual project-level development plans. Future botanical surveys should be conducted throughout the blooming period for plant species potentially occurring within the development area. Please refer to the recently revised CDFG protocols for surveying and evaluating impacts to rare plants available at http://dfg.ca.gov/habcon/planUplants.html.</p> <p>Avoidance and minimization measures, and a mitigation and monitoring plan, shall be developed as warranted in consultation with, and meeting the mitigation criteria of, the USFWS and the CDFG. If impacts to special-status species cannot be avoided, then off-site conservation shall be included as part of a mitigation and monitoring plan. The CDFG should be consulted to review and approve the mitigation and monitoring plan.</p> <p>To avoid noise disturbance to tricolored blackbirds during the nesting season (if their presence is confirmed), construction activities in the nesting season should be avoided</p>					

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	<p>or a minimum 100-foot buffer should be established. Appropriate mitigation for impacts to species such as the pond turtle and tricolored blackbird (if their presence is confirmed) includes preservation of occupied habitat that also provides nesting sites.</p> <p>To avoid adverse impacts to Swainson's hawk (if its presence is confirmed), construction-related activities should be avoided within a minimum of 0.25 miles of a nesting Swainson's hawk between March 1 and September 15 without consultation with CDFG. CDFG-recommended hawk survey methodology and other monitoring protocols and guidelines shall be followed. If Swainson's hawk foraging habitat is impacted, mitigation land shall be protected in perpetuity and provide for long-term management of Swainson's hawk habitat. CDFG recommends mitigation for loss of Swainson's hawk foraging habitat based on the following ratios:</p> <ul style="list-style-type: none"> ▪ For projects within one mile of an active nest tree shall provide one acre of land for each acre of development authorized (1:1 ratio). ▪ For projects within 5 miles of an active nest tree but greater than one mile from the nest tree shall provide 0.75 acres of land for each acre of urban development authorized (0.75:1 ratio). ▪ For projects within 10 miles of an active nest tree but greater than 5 					

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	<p>miles from an active nest tree shall provide 0.5 acres of land for each acre of urban development authorized (0.5:1 ratio).</p> <p>Implementation of these measures would reduce Project impacts related to special-status species to a less-than-significant level.</p>					
<p>Impact 10-3: Aquatic Invasive Species Impacts. Future Project-facilitated development and related operations occurring in the Sacramento River adjoining the proposed Project Area, particularly boat use and mooring, may increase the spread of non-native aquatic organisms or aquatic invasive species (AIS) and thus adversely affect Delta ecosystems. AIS may be introduced and spread not only by transoceanic ships and ballast water, but by other pathways potentially resulting from the proposed Redevelopment Plan, such as biological research, hatchery operations, environmental restoration projects, and hulls, anchors and anchor chains of smaller vessels. Such effects may impede and conflict with the CALFED Bay-Delta Ecosystem Restoration Program's goal to reduce the negative impacts of invasive species and prevent additional introductions that compete with and destroy native species. The project contribution to AIS impacts would be cumulatively considerable and thus a significant impact.</p>	<p>Mitigation 10-3: Redevelopment actions and development facilitated by the proposed Redevelopment Plan shall demonstrate to City satisfaction employment of best management practices to reduce the spread of aquatic invasive species (AIS) as a result of construction activities and operations. Best management practices shall be determined in coordination with the California Department of Fish and Game, the State Lands Commission, and other agencies with AIS expertise and regulatory authority. Best management practices may address, but shall not be limited to decontamination of construction vehicles, equipment and gear; education and outreach to boating, fishing and other recreation; boat inspection and enforcement; and design, inspection and abatement related to docks and other structures. The effectiveness of these measures in reducing the spread of AIS cannot be accurately determined at this time. The Project contribution to this cumulative impact may therefore remain considerable and thus significant and unavoidable.</p>	Applicant/City	City/Agency	Development Review/Building Permit		

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<p>Impact 10-4: Impacts on Nesting Birds or Bat Nurseries. Project-related construction activities could reduce nesting opportunities for resident and migratory bird species that are protected by the Migratory Bird Treaty Act and bats. This would be a potentially significant impact.</p>	<p>Mitigation 10-4: Vegetation in the construction zones shall be trimmed or removed between September 1 and January 31 to minimize potential impacts on nesting birds. If vegetation or buildings that potentially provide nesting sites must be removed between February 1 and August 31, a qualified wildlife biologist shall conduct pre-construction surveys for nesting birds and bats. If an active nest is found, the bird shall be identified to species and the approximate distance from the closest work site to the nest estimated. No additional measures need be implemented if active nests are more than the following distances from the nearest work site: (a) 300 feet for raptors; or (b) 75 feet for other non-special-status bird species. If active nests are closer than those distances to the nearest work site and there is the potential for destruction of a nest or substantial disturbance to nesting birds due to construction activities, a plan to monitor nesting birds or bats during construction shall be prepared by a qualified biologist and submitted to the USFWS and CDFG for review and approval. Disturbance of active nests shall be avoided to the extent possible until it is determined that nesting is complete and the young have fledged. With this mitigation measure, the impact of the Project on nesting birds or bat nurseries would be less than significant.</p>	Applicant/City	City/Agency	Grading Permit/ Building Permit		
<i>DRAINAGE AND WATER QUALITY</i>						
<p>Impact 11-1: Construction Impacts on Water Quality. Construction activities within the proposed Project Area may substantially degrade the</p>	<p>Mitigation 11-1. Construction activities shall comply with all applicable State, regional, and City water quality provisions. As required</p>	Applicant/City	City/Agency	Grading Permit		

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<p>quality of Sacramento River receiving waters. Construction activities, in particular activities involving soil disturbance, excavation, cutting/filling, and grading, could result in increased erosion on-site and sediments, pollutants and excess nutrients being carried to the adjacent Sacramento River, which would increase turbidity and sedimentation, and disrupt aquatic habitats. These possible effects represent a potentially significant impact.</p>	<p>under Regional Water Quality Control Board (RWQCB) regulations, at the time of development of each public improvement or project-facilitated private development involving the grading of more than 5,000 square feet, the applicant shall: (a) file with the RWQCB a Notice of Intent to comply with the Statewide General Permit for Construction Activities; (b) prepare and implement a project-specific Storm Water Pollution Prevention Plan (including an erosion and sediment control plan) for City review and approval prior to issuance of a grading permit; and (c) implement a monitoring and reporting program to verify the effectiveness of control measures. The NPDES General Permit-required SWPPP shall address both erosion and non-point source pollution impacts (e.g., improper handling or accidental spill of toxic materials) from project construction.</p> <p>The SWPPP, at a minimum, shall follow City ordinances and conform to the California Storm Water Best Management Practices Handbook, and shall include, but not be limited to, the following measures:</p> <ul style="list-style-type: none"> ▪ Immediately re-vegetate or otherwise protect disturbed areas from both wind and water erosion upon the completion of grading. ▪ Schedule major work involving earth moving and excavation during the dry season (April 15 to October 15). 					

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	<ul style="list-style-type: none"> ▪ Incorporate measures as necessary to protect proposed Project Area drainages from sedimentation. ▪ Use water bars, temporary swales and culverts, mulch and jute netting, hydroseeding, silt fences, sediment traps and sedimentation basins, as needed to prevent surface water from eroding graded areas, to retain sediment, and to collect drainage from disturbed areas and allow sediments and pollutants to settle out before discharge to the river. ▪ Water soils susceptible to wind erosion frequently during construction. <p>With implementation of this mitigation measure, Project construction impacts on water quality would be less than significant.</p>					
<p>Impact 11-2: Operational Impacts on Water Quality. Ongoing occupancy and operation of Project-facilitated development could substantially degrade water quality in the Sacramento River, which would be a potentially significant impact.</p>	<p>Mitigation 11-2. The following measures shall be implemented to address Project-related potential operational impacts on water quality:</p> <p>(a) Minimize impervious cover, maximize on-site infiltration, and manage stormwater runoff to remove pollutants before discharge to the Sacramento River sufficient to meet the water quality standards of the RWQCB, using design, structural and non-structural best management practices (BMPs). BMPs may include:</p> <ul style="list-style-type: none"> ▪ <i>Design and non-structural BMPs.</i> Smaller building footprint, vegetated roofs, pervious 	Applicant/City	City/Agency	Development Review/Building Permit/Grading Permit		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE (Performance Criteria)	MONITORING			VERIFICATION	
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	<p>pavement or grid pavers, vegetated swales, rain gardens, disconnection/isolation of impervious areas.</p> <ul style="list-style-type: none"> ▪ <i>Structural BMPs.</i> Rainwater cisterns, catch basin treatment devices, retention ponds, stormwater harvesting for reuse in irrigation or buildings. <p>(b) Development shall comply with the City's Storm Water Pollution Prevention Program as set forth in the City's NPDES storm water permit. As required by the City's Stormwater Quality Control Criteria Plan (as outlined in the City's Phase 1 Stormwater NPDES permit issued by the Central Valley RWQCB), prior to the occupancy of any structure, the project proponent shall establish a maintenance entity acceptable to the City to provide funding for the operation, maintenance, and replacement costs of stormwater BMPs.</p> <p>Implementation of these mitigation measures would reduce the long-term operational impacts on water quality of Project-facilitated development to a <i>less than significant level.</i></p>					
<p>Impact 11-3: Future Flooding Impacts Related to Sea Level Rise. The proposed Project Area may be subject to flooding due to sea level rise associated with climate change. With increased on-site flooding potential in the future, Project-facilitated development could place people and structures at an increased risk of injury or loss from flooding. This possibility</p>	<p>Mitigation 11-3. Redevelopment projects and redevelopment-facilitated development subject to flooding as a result of predicted sea level rise shall comply with Chapter 15.16, Flood Hazard Protection, of the Rio Vista Municipal Code, even if such projects do not lie within an Area of Special Flood Hazard as identified by FEMA and thus would not otherwise be</p>	Applicant/City	City/Agency	Building Permit		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE (Performance Criteria)	MONITORING			VERIFICATION	
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represents a potentially significant impact .	subject to the requirements of Chapter 15.16. With implementation of this mitigation measure, the impact of the Project related to increased flooding as a result of sea level rise would be less than significant .					
<i>NOISE</i>						
<p>Impact 12-1: Construction Noise. Redevelopment activities within the proposed Project Area, including the demolition of buildings and the construction of new roads, infrastructure, park and recreation facilities, and other improvements, as well as the construction of new development stimulated by the proposed Redevelopment Plan, would generate short-term temporary construction noise and/or groundborne vibration. Construction noise and groundborne vibration effects would result from demolition of existing structures, grading and excavation, construction of foundations (possibly including pile driving), erection of new structures, and finishing. These construction activities could expose the few existing residences across Beach Drive near the northwest and southwest corners of the Project Area, and residential apartments at the U.S. Coast Guard Station adjacent to the Project Area to the south, to substantial temporary increases in ambient noise levels in excess of City noise standards, or to substantial temporary groundborne vibration. These possible effects represent a potentially significant impact.</p>	<p>Mitigation 12-1: To reduce noise and vibration impacts from Project-related construction activities, the following measures shall be implemented as a condition of future Project Area grading, demolition and building permit approvals:</p> <p>(a) <i>Construction Scheduling.</i> Limit noise-generating construction activity within 500 feet of existing residential uses to between the hours of 7:00 AM to 7:00 PM, except on Sundays, and except in the case of emergencies (<u>City of Rio Vista Municipal Code</u> section 17.52.030).</p> <p>(b) <i>Construction Equipment Mufflers and Maintenance.</i> Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.</p> <p>(c) <i>Idling.</i> Prohibit unnecessary idling of internal combustion engines.</p> <p>(d) <i>Equipment Location.</i> Locate all stationary noise-generating construction equipment, such as air compressors, as far as practical from existing nearby residences and other noise sensitive land uses. Such equipment shall also be acoustically shielded.</p>	Applicant/City	City/Agency	Grading Permit/ Building Permit		

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	<p>(e) <i>Quiet Equipment Selection.</i> Select quiet construction equipment, particularly air compressors, whenever possible. Fit motorized equipment with proper mufflers in good working order.</p> <p>(f) <i>Noise Disturbance Coordinator.</i> A noise disturbance coordinator responsible for responding to any local complaints about construction noise shall be designated. The disturbance coordinator shall determine the cause of any noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.</p> <p>With implementation of these measures, the impact of the Project related to construction noise would be <i>less than significant.</i></p>					
<p>Impact 12-2: Traffic Noise. The General Plan Circulation and Mobility Element acknowledges that, because there are no arterials connecting the downtown or Highway 12 from the south, future increases in through-traffic may affect residential neighborhoods along 2nd Street, which is a primarily residential collector street. Vehicle trips generated by Project Area development facilitated by the proposed Redevelopment Plan would use Beach Drive and then 2nd Street to reach central Rio Vista, then continue either west on Main Street or north on Front</p>	<p>Mitigation 12-2: Future individual discretionary development projects within the proposed Project Area shall be individually evaluated for associated traffic noise impacts on Beach Drive and 2nd Street. Actual future development within the proposed Project Area may result in fewer vehicle trips and smaller increases in traffic noise levels than what has been assumed in this EIR. Project-specific evaluation for individual future Project Area development applications may demonstrate that impacts would</p>	Applicant/City	City/Agency	Development Review		

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<p>Street to Highway 12. Residences on Beach Drive and 2nd Street, as well as Riverview Middle School, the Rio Vista Branch Library and other potentially sensitive receptors along these routes, may be exposed to substantial increases in traffic noise--i.e., increases of 5 dBA or greater--as a result of Project-related increases in vehicular traffic. This would represent a significant impact.</p>	<p>actually be less-than-significant and mitigation would not be necessary.</p> <p>If the project-specific evaluation indicates that estimated noise levels on Beach Drive and 2nd Street would exceed City standards or exceed ambient noise levels by 5 dBA or more as a result of the project, then mitigation measures shall be implemented to the extent feasible to reduce noise to within the City standards and within 5dBA of ambient levels without the project. Mitigation measures may include the use of open grade asphalt paving. The use of open grade asphalt paving could provide a 2 to 3 dBA decrease in traffic noise levels. If necessary, further mitigation may include sound walls in places or extending an offer to retrofit affected noise-sensitive properties with dual-pane noise-rated windows, mechanical ventilation systems, and/or noise insulation and other noise-attenuating building materials. Depending on the amount of noise level reduction required and the number of noise-sensitive properties affected, retrofitting measures, if necessary, may not be feasible for or desired by every affected property. Without knowing the actual amount of reduction that would be necessary, the number of affected properties and the degree of voluntary participation, the feasibility of retrofitting affected properties cannot be determined. Therefore, the traffic noise impact of the Project would remain significant and unavoidable.</p>					

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<p>Impact 12-3: Recreational Facility Noise. The few existing single-family residences on Beach Drive near the northwest and southwest corners of the proposed Project Area may be exposed to a substantial increase in average ambient noise, possibly to levels exceeding City standards, as a result of noise from future sports fields, outdoor courts, playgrounds and other active recreation facilities in the Project Area. The noise levels experienced by adjacent residents would depend on the precise location of these facilities within the proposed Project Area; their distance from the nearest residential properties; the orientation, design and noise shielding features of the facilities; and the noise shielding and attenuation provided by intervening terrain and structures. Given the size of the proposed Project Area, the location and distance to adjacent residential properties, and design flexibility afforded by the vacant unencumbered site, it is reasonable to assume that the proposed recreational facilities could be developed while still maintaining noise levels at adjacent residential properties within City standards. Nevertheless, until the location and design of the recreational facilities are finalized, the potential for exposure to a permanent substantial increase in noise levels and possibly to noise levels exceeding City noise standards would represent a potentially significant impact.</p>	<p>Mitigation 12-3: Future sports fields, outdoor courts and playgrounds within the proposed Project Area shall be located away from adjacent residential properties, and shall be designed, shielded and operated so that noise levels at adjacent residential properties do not exceed City noise standards. With implementation of this mitigation measure, the impacts of the Project related to recreational facility noise would be less than significant.</p>	Applicant/City	City/Agency	Development Review		
<i>AIR QUALITY</i>						
<p>Impact 13-1: Short-Term Construction Emissions. Project-facilitated construction activities could generate temporary emissions of ROG,</p>	<p>Mitigation 13-1. To reduce short-term construction emissions impacts from Project-related construction activities, the following measures shall</p>	Applicant/City	City/Agency	Grading Permit/ Building Permit		

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NOX and PM ₁₀ that exceed YSAQMD thresholds of significance. In addition, construction dust could cause localized health and nuisance impacts on adjacent residential and other sensitive receptors. These possible construction period effects represent a potentially significant impact .	<p>be implemented as a condition of future Project Area grading, demolition and building permit approvals:</p> <ol style="list-style-type: none"> 1. Water all active construction sites at least twice daily. Frequency should be based on the type of operation, and extent of soil and wind exposure (50 percent effective). 2. Haul trucks shall maintain at least two feet of freeboard (90 percent effective). 3. Cover all trucks hauling dirt, sand or loose materials (90 percent effective). 4. Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed exposed cut and fill areas. 5. Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days). 6. Plant vegetative ground cover in disturbed areas as soon as possible. 7. Cover inactive storage piles. 8. Sweep streets if visible soil material is carried out from the construction site. 9. Treat accesses to a distance of 100 feet from the paved road with a 6-inch layer of gravel or a 6 to 12 inch layer of wood chips or mulch. 					

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	<p>10. Maintain heavy-duty earthmoving, stationary and mobile equipment in optimum operating condition.</p> <p>11. Minimize idling time to five (5) minutes when construction equipment is not in use, unless more time is required per engine manufacturer's specifications or for safety reasons.</p> <p>12. Use low sulfur fuel for stationary construction equipment.</p> <p>13. Use existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.</p> <p>14. Use low emission on-site stationary equipment.</p> <p>15. In the event that any open burning is required, obtain approval and issuance of a burning permit from YSAQMD and perform burning in compliance with YSAQMD Rule 2.8, Open Burning, General.</p> <p>16. Control visible emissions exceeding 40 percent opacity to no more than 3 minutes in any one hour, which includes all (on-road and off-road) diesel powered equipment, in accordance with YSAQMD Rule 2.3.</p> <p>17. Comply with YSAQMD Rule 2.14, Architectural Coatings, for architectural coatings and solvents used at the proposed project.</p> <p>18. Cutback and emulsified asphalt application shall be conducted in</p>					

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	<p>accordance with YSAQMD Rule 2.28, Cutback and Emulsified Asphalt Paving Materials.</p> <p>With implementation of this measure, the short-term construction emissions impact of the Project would be less than significant.</p>					
<p>Impact 13-2: CO Concentration Impacts. As explained in Chapter 8, Transportation and Circulation, Project traffic would cause or exacerbate already existing unacceptable traffic congestion at the following four intersections on Highway 12, which could cause violations of the State ambient air quality standard for CO:</p> <ul style="list-style-type: none"> ▪ Highway 12/Front Street, ▪ Highway 12/Main Street, ▪ Highway 12/North 5th Street, and ▪ Highway 12/River Road. <p>This possible effect represents a potentially significant impact.</p>	<p>Mitigation 13-2: Mitigation measures 8-3, 8-8, 8-9, 8-10 and 8-11 described in Chapter 8, Transportation and Circulation, would reduce to less than considerable the incremental contribution of Project traffic to these four intersections. However, Mitigation 8-3 is not funding assured and exceeds the City's authority to implement and thus may be infeasible. Additionally, even with implementation of Mitigations 8-8, 8-9, 8-10 and 8-11, these intersections would continue to operate at an unacceptable LOS, and so the incremental contribution of Project traffic could still cause a violation of the a State ambient air quality standard for CO. Therefore, this impact would remain significant and unavoidable.</p>	Applicant/City	City/Agency	Certificate of Occupancy		
<p>Impact 13-3: Diesel Particulate Matter Exposure Impacts. The assumed research station use could involve the storage and use of up to approximately 50 boats, potentially including one 200-foot vessel, and several 40-to-120-foot vessels. Diesel engine boats can be substantial emitters of diesel particulate matter. The nearest existing adjacent homes would be at sufficient distance (at least 600 feet away) from boats in the river to avoid an elevated health risk from boat-emitted diesel particulate matter. Based on</p>	<p>Mitigation 13-3. Active recreation uses, such as sports fields, outdoor courts and playgrounds, shall be located at least 300 feet away from sources of diesel particulate matter or other TACs. For proposed facilities closer than 300 feet, a health risk assessment based on detailed air dispersion modeling shall be performed to verify that the health risk from exposure to diesel particulate matter would not exceed YSAQMD significance thresholds. With implementation of this measure, the</p>	Applicant/City	City/Agency	Development Review		

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conceptual site plans prepared for the 1998 Base Reuse Plan and the 2001 Supplement to the Base Reuse Plan, the proposed on-site sports fields and courts would likely be located in the western portion of the proposed Project Area (more than 300 feet from the river), and thus would also be at a sufficient distance to avoid an elevated health risk. However, until the location of anticipated active recreational uses within the Project Area is finalized, it is assumed that users of active recreation facilities could be exposed to diesel particulate matter at levels that may cause an elevated health risk. This possible effect represents a potentially significant impact .	impact of the Project related to exposure to diesel particulate matter would be less than significant .					
<i>CLIMATE CHANGE</i>						
Impact 14-1: Construction GHG Emissions. Construction activities would generate greenhouse gas (GHG) emissions that could contribute to global climate change. This possible effect represents a potentially significant impact .	Mitigation 14-1. The mitigation measures listed below for construction GHG emissions are in addition to the measures for short-term construction emissions of criteria air pollutants ROG and NO _x , contained in Mitigation 13-1 in Chapter 13, Air Quality, which would also serve to reduce GHG emissions. Construction activities within the Project Area shall implement the following measures: (a) At least 15 percent of construction vehicles and equipment shall be alternative-fueled (e.g., biodiesel, electric); (b) At least 10 percent of building materials used in all new construction, additions and alterations shall be locally sourced building materials; and	Applicant/City	City/Agency	Grading Permit/ Building Permit		

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	<p>(c) At least 50 percent of construction and demolition waste shall be recycled.</p> <p>With these measures, Project impacts related to construction GHG emissions would be considered less than significant.</p>					
<p>Impact 14-2: Long-Term GHG Emissions from Operations. The assumed 244,500 square feet of non-residential development facilitated by the proposed Redevelopment Plan would generate an estimated total of approximately 5,178 MT per year of CO₂ emissions. Based on an estimated service population of 240, the Project would result in CO₂ emissions of approximately 21.6 MT per year per service population, which would exceed the significance threshold applied in this EIR of 6.6 MT per year per service population (based on the proposed significant guidelines of the Bay Area Air Quality Management District). Estimated GHG emissions from ongoing occupancy and operation of development in the Project Area would therefore represent a considerable contribution to the significant cumulative impact of global climate change, representing a potentially significant impact.</p>	<p>Mitigation 14-2. The following measures shall be implemented for future discretionary development applications within the proposed Project Area, unless project-specific evaluation for a future individual project under consideration demonstrates that mitigation is not required because GHG emissions would be less than the air quality management district thresholds of significance:</p> <p>(a) The on-site segment of the Class 1 bike path and multi-use trail identified in the City's General Plan and the Parks Master Plan, and off-site segments of the multi-use trail connecting north to Riverview Middle School, Rio Vista High School and the nearest public sidewalk on 2nd Street, and south to Sandy Beach Regional Park, should be developed and available to serve future community recreation uses developed within the proposed Project Area.</p> <p>(b) Employers with over 20 employees should implement a transportation demand management (TDM) program, which includes some combination of the following measures to City satisfaction:</p>	Applicant/City	City/Agency	Development Review/Building Permit/Certificate of Occupancy		

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	<ul style="list-style-type: none"> ▪ preferential carpool parking, ▪ carpool matching program, ▪ dedicated employee transportation coordinator, ▪ information provided on transportation alternatives, ▪ secure bike parking, ▪ showers and changing facilities, ▪ alternative work schedules, and ▪ telecommuting options. <p>(c) At least 15 percent of fleet vehicles and boats associated with the planned delta research center should be alternative-fueled (e.g., biodiesel, electric).</p> <p>(d) Shore power connections should be provided for boats to minimize engine idling and GHG emissions-generating auxiliary power sources.</p> <p>(e) Boat idling time should be limited to five (5) minutes when not in use, unless more time is required per engine manufacturer's specifications or for safety reasons.</p> <p>(f) All buildings should exceed California Code of Regulations Title 24 Energy Efficiency Standards. Related Title 24 calculations should be prepared and signed by a California Association of Building Energy Consultants (CABEC) certified energy plans examiner (CEPE).</p> <p>(g) On-site renewable energy systems that produce either electricity and/or thermal energy for on-site use should be considered, in addition to</p>					

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE (Performance Criteria)	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	<p>passive solar energy efficiency strategies.</p> <p>(h) New construction, additions and alterations should adhere to California Green Building Code standards.</p> <p>(i) Buildings with a floor area greater than 10,000 square feet should achieve Leadership in Energy and Environmental Design (LEED) New Construction Certification or equivalent.</p> <p>(j) Roofing materials and paving should have a high solar reflective index (preferably a Solar Reflectance Index greater than 29 percent or a solar reflectance greater than 0.3).</p> <p>(k) Existing healthy mature trees in the Project Area should be preserved and maintained.</p> <p>(l) Paved areas within 50 feet of buildings should be shaded by trees, shrubs, or shading elements.</p> <p>(m) Sports field lighting should employ high efficiency lighting design and equipment.</p> <p>The effectiveness of such measures in reducing the GHG emissions of future development within the proposed Project Area to below the threshold of significance cannot be determined. Therefore, the incremental contribution of the Project to the cumulative impact of global climate change would remain considerable and thus significant and unavoidable.</p>					

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<i>HAZARDS AND HAZARDOUS MATERIALS</i>						
<p>Impact 15-1: Emergency Response Impacts. Beach Drive and 2nd Street provide the only direct access between the proposed Project Area and central Rio Vista. The Rio Vista Fire Department (RVFD) fire station is located at 350 Main Street in downtown Rio Vista. The response time goal for RVFD is four minutes. The Rio Vista Police Department (RVPD) operates out of 50 Poppy House Road in the downtown. RVPD has a response time goal of three minutes or less for 911 emergency calls and 10 minutes or less for non-emergency calls. Second Street is subject to occasional flooding where it crosses Marina Creek just north of Beach Drive. If flood waters are deep enough and not passable, emergency vehicles would need to travel an indirect route via Highway 12, Amerada Road, Emigh Road, and Montezuma Road, which would substantially increase emergency response times to and from the proposed Project Area. Development facilitated by the proposed Redevelopment Plan would therefore place additional people and property at risk due to longer response times associated with occasional flooding of 2nd Street at the Marina Creek crossing. The contribution of the Project to this existing emergency response condition would be cumulatively considerable and thus a potentially significant impact.</p>	<p>Mitigation 15-1. The Project shall fund its fair share contribution of improvements to 2nd Street at the Marina Creek crossing to provide uninterrupted access by emergency vehicles during flooding conditions and thus maintain adequate emergency response times to the proposed Project Area. This mitigation measure would reduce this impact to a less than significant level; however, no such improvements are currently planned, and the timing of improvements is uncertain. Thus, this impact would remain significant and unavoidable.</p>	Applicant/City	City/Agency	Certificate of Occupancy		