

## **Rancho Vista Subdivision Project** **Mitigation Measures**

### **Aesthetics**

**I-1 – Landscape Plan.** The applicant shall submit a landscaping and irrigation plan to the City prior to approval of the Final Map. The landscaping plan shall maximize planting areas adjacent to driveways, streets, and storm drainage areas, as well as landscaping of the individual residences to complement the architecture and uphold the visual quality of the site. It also shall include landscape buffers that reduce views of Project houses from existing residences adjacent to the site.

**I-2 – Lighting Plan.** The applicant shall submit a lighting plan for the Project conforming to the City’s dark sky regulations and standards, with provisions for shields on all lighting fixtures. All light fixtures shall be directed away from the residences adjacent to the Project site.

### **Air Quality**

**III-1 – Long Term Emissions Reduction.** The installation of wood-burning fireplaces within the subdivision shall be prohibited and shall be noted as such on construction documents. Natural gas fireplaces are acceptable.

### **Biological Resources**

**IV-1 – Amphibians.** Directed pre-construction surveys shall be conducted for both the CTS and CRLF no more than 48 hours prior to construction activities. Observations of CRLF and CTS within dispersal distance suggest that these species have a potential to occur on the subject Property. USFWS protocol level surveys for the CRLF shall be performed to document presence/absence of this species if work is to be performed in the irrigation ditch and intermittent creek channel. If it is determined that the site that supports CRLF/CTS the applicant shall consult with USFWS and/or CDFW prior to any construction activities and obtain appropriate permits if “take” of the species is likely to occur. If CRLF/CTS are identified as occurring, appropriate mitigation measures to reduce impacts to a less-than-significant level would be coordinated with the USFWS and/or CDFW. These measures would include, but may not be limited to:

- Work in drainages and wetlands shall be restricted to the dry season (June 15 – October 15)
- All construction personnel shall attend a mandatory Worker Environmental Awareness Training Program delivered by a USFWS-approved biologist prior to working on the project site. The program shall focus on the conservation measures

- that are relevant to employee's personal responsibility and shall include an explanation as how to best avoid take of the California tiger salamander and California red-legged frog. The program shall include an explanation of Federal laws protecting these listed species as well as the importance of compliance with this BO.
- Construction footprint boundaries shall be clearly marked before construction.
  - Construction access, staging, storage, parking shall be limited to what is described in information provided by the applicant.
  - Preconstruction survey for the California tiger salamander and California red-legged frogs shall be conducted by a Service-approved biologist. These surveys shall consist of walking surveys of the project limits and accessible adjacent areas within at least 50 feet of the project limits. The Service-approved biologist will investigate all potential areas that could be used by the species for feeding, breeding, sheltering, movement, and other essential behaviors. This includes thorough investigation of mammal burrows, appropriately sized soil cracks, and debris. Native vertebrates found in the cover sites will be documented.
  - Those located within areas that shall be subject to ground disturbance shall be relocated to an adequate cover site within the Area. The entrances and other refuge features within areas that will be subject to ground disturbance shall be collapsed or removed following investigation and clearance.
  - If a California red-legged frog or California tiger salamander is found: The construction supervisor shall halt work immediately within a buffer area of 50 feet of any discovered California red-legged frog or California tiger salamander. The construction supervisor will also contact the Service-approved project biologist and the Service in the event that a California red-legged frog or California tiger salamander is found within the construction zone. The construction supervisor will suspend all construction activities in the immediate construction zone (50-foot radius) until the animal leaves the site voluntarily or is removed by the biologist to a release site using Service-approved transportation techniques.
  - Frogs or salamanders that need to be relocated outside the construction area shall be released at an appropriate cover site or aquatic habitat within the Area by the Service-approved biologist.
  - To prevent inadvertent entrapment of a California tiger salamander or California red-legged frog during construction, all excavated, steep-walled holes or trenches more than 1 foot deep shall be covered at the close of each working day with plywood or similar material, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped listed animal is discovered, the onsite biologist shall immediately place escape ramps or other appropriate structures to allow the animal to escape, or the Service will be contacted by telephone for guidance. The Service shall be notified of the incident by telephone and email within one (1) working day.

Vegetation clearing shall be performed under direct supervision of a biological monitor.

**IV-2 – Nesting Passerines.** If project construction-related activities take place during the nesting season (February through August), preconstruction surveys shall be conducted for nesting passerine birds within the project site and the surrounding area of influence of the project site. Surveys should be conducted by a competent biologist prior to the commencement of the tree removal or site grading activities. Nesting bird surveys shall be conducted no more than 30 days prior to any vegetation removal. If any bird listed under the Migratory Bird Treaty Act is found to be nesting within the project site or within the area of influence, an adequate protective buffer zone shall be established by a qualified biologist to protect the nesting site. This buffer shall be a minimum of 75 feet from the project activities for passerine birds, and a minimum of 200 feet for raptors (birds of prey). The distance shall be determined by a competent biologist based on the site conditions (topography, if the nest is in a line of sight of the construction and the sensitivity of the birds nesting). The nest site(s) shall be monitored by a competent biologist periodically to see if the birds are stressed by the construction activities and if the protective buffer needs to be increased. Once the young have fledged and are flying well enough to avoid project construction zones (typically by August), construction can proceed without further regard to the nest site.

**IV-3 – Burrowing Owls.** No more than 30 days prior to any ground disturbing activities, a qualified biologist shall conduct a preconstruction/take avoidance survey for burrowing owls using methods described in Appendix D of the CDFW Staff Report on Burrowing Owl Mitigation (Staff Report) (CDFW 2012). If no owls are detected during the initial take avoidance survey, a final survey shall be conducted within 24-hours prior to ground disturbance to confirm that owls are still absent. If present and no nesting has begun, nest exclusion doors or avoidance buffers may be used as negotiated with CDFW. No disturbance should occur within 50 meters (approximately 160 feet) of occupied burrows during the non-breeding season of September 1 through January 31 or within 75 meters (approximately 250 feet) during the breeding season of February 1 through August 31. Avoidance also requires that a minimum of 6.5 acres of foraging habitat be preserved contiguous with occupied burrow sites for each pair of breeding burrowing owls (with or without dependent young) or single unpaired resident bird. It is recommended that an initial burrowing owl survey be performed during December and early January. If owls are discovered, passive relocation of the owls can take place. If owls are discovered after February 1, the owls must be left on site and a 250-foot buffer established until September 1.

**IV-4 – Steelhead.** Prior to any construction activities that could have the potential to impact the onsite intermittent creek channel, a qualified fish biologist, designated by the Reclamation in consultation with NMFS (National Marine Fishery Service) and CDFW, shall conduct a survey within the onsite intermittent creek channel and irrigation canal to determine whether these waterways are suitable to host steelhead. If these waterways are determined to serve as a

suitable winter run, identify if this stretch of creek contains potentially suitable substrates to support spawning. If it is determined that the site that supports steelhead, the applicant shall consult with the National Marine Fisheries Service (NMFS) prior to any construction activities and obtain appropriate permits if “take” of the species is likely to occur. If Steelhead are identified as occurring, appropriate mitigation measures to reduce impacts to a less-than-significant level would be coordinated with the NMFS. A qualified fisheries biologist shall be present for any work occurring within the creek bed. The biologist shall implement NMFS approved procedures to ensure that no special-status fish species are harmed by project-related activities. At a minimum, these procedures shall include the relocation of fish from the disturbance area and the temporary placement of barriers to prevent fish from entering the disturbance zone. Other measures may be implemented upon their approval by NMFS. Mitigation Measure IV-5, below, also would help to protect potential steelhead habitat.

**IV-5 – Erosion Control.** Mitigation measures for erosion control for sensitive aquatic habitats shall include best management practices (BMP’s) such as hay bales, silt fencing, placement of straw mulch and hydro seeding of exposed soils after construction as identified in the Storm Water Pollution Prevention Plan (SWPPP) and post-construction Stormwater Management Plan (SWMP).

**IV-6 – Riparian and Wetland Habitats.** If the project results in the loss of riparian or wetland habitat the applicant shall prepare and submit to the resource agencies having regulatory authority, a detailed “Wetland/Riparian Plan.” The plan would also be subject to the approval of the ACOE, RWQCB, and if required, CDFW, with review by USFWS. Implementation of the plan shall be incorporated into approval of the grading plan and all further project approvals, and the applicant shall provide appropriate security to ensure completion of the plan. The plan shall require the replacement of impacted habitats under the jurisdiction of the ACOE, CDFG, and/or RWQCB at a 2:1 ratio. In order to implement the creation/enhancement of habitat onsite, the plan shall detail measures for the onsite replacement of the X-acre of seasonal wetlands/riparian habitat to be directly impacted by the proposed project at a ratio of 2:1. The plan shall specify, at a minimum, the requirements specified below.

1. The specific location of creation/enhancement sites in the open space area;
2. The quantity and species of plants to be planted;
3. Planting procedures, including the use of soil preparation and irrigation (when needed);
4. Methods for the removal of non-native plants;
5. A schedule and action plan to maintain and monitor the creation/enhancement areas;
6. Contingency measures in the event that creation/enhancement/restoration efforts are not successful. These may include corrective grading, the removal of non-native plants, the planting of native plants, and/or the creation of additional wetland habitat;

7. At a minimum, biological monitoring of the created habitats shall be conducted bi-annually for five years from completion of the created wetlands and riparian habitat. An annual monitoring report shall be submitted to the City;
8. The project proponent(s) shall be responsible for the cost of all habitat creation activities, monitoring, and implementation of contingency measures. Following the five-year monitoring period, the preservation and ongoing maintenance of the habitats would be the responsibility of the project proponent. The required preservation and maintenance of the created habitats would be recorded as a deed restriction against the property.

Success Criteria:

1. At a minimum, the created wetlands shall have similar hydrology and length of saturated soils to the naturally occurring wetlands in the open space, and native plant diversity at least equal to that occurring in the naturally occurring wetlands in the open space. If the success criteria are not met, then the contingency measures described above would be implemented. The contingency measures shall be implemented as soon as monitoring detects that the success criteria will not likely be achieved and not necessarily at the end of the five-year monitoring period. The plan shall also require collecting baseline data of the habitats to be temporarily disturbed and restoring this area to its pre-disturbance condition. Specifically, prior to the disturbance, the plan shall detail methods for describing the plant species in the disturbance area, including the species present, the relative abundance of these species, vegetative cover, and the relative abundance of native and non-native species. This information shall define the pre-disturbance condition to which the disturbance area needs to be returned. Following disturbance activities within the channel, the plan shall detail methods for re-vegetating the disturbed area and preventing the spread of invasive plant species. This may include the planting of appropriate plant species and monitoring at monthly intervals for a six-month duration. If it is determined by the monitoring biologist that the channel has returned to a condition equivalent to its pre-disturbance condition, then no additional measures shall be required. If the monitoring biologist determines that the area has not returned to a condition equivalent to or exceeding its pre-disturbance condition (based on the percent native/non-native plant species present, vegetative cover, and other factors), then the plan shall include corrective measures that would be implemented. These measures may include the removal of non-native species and the planting of native species. When it is determined by the monitoring biologist that the channel has returned to a condition equivalent to or exceeding its pre-disturbance condition, then no additional measures shall be necessary.

The disturbance area has returned to a condition equivalent to or exceeding its pre-disturbance condition, based on the relative abundance of native species, percent ground cover, and plant

species composition. If the success criteria are not met, then the contingency measures described above would be implemented. Alternatively, the project proponent(s) may purchase wetland mitigation credits (at a 2:1 ratio) at an ACOE-approved mitigation bank.

**IV-7 – Corps Regulated Wetlands/Waters.** A wetland delineation shall be prepared to document the extent of jurisdictional features if any construction activity could result in impacts to wetlands/waters that may be potentially considered jurisdictional. If the wetlands/waters are deemed jurisdictional and construction activities are proposed that could impact these features, permits shall be obtained prior to construction. Setbacks from the wetlands/water features may be required to protect habitat and water quality.

### **Cultural Resources**

**V-1 – Unidentified Cultural Resources.** If prehistoric or historic archaeological resources or human remains are unexpectedly discovered during construction, work shall be halted within 50 meters (160 feet) of the find until it can be evaluated by a qualified professional archaeologist. If the find is determined to be significant, appropriate mitigation measures shall be formulated and implemented.

### **Geology and Soils**

#### **VI-1 – Seismic Hazards.**

- i. VI-1a) A detailed seismic and fault evaluation of the site as described in the Berlogar Stevens April 7 and May 21 reports shall be conducted. That evaluation shall include peer-reviewed trenching of the site extending across the mapped Earthquake Fault Study Zone approximately perpendicular to the mapped trace of the San Andreas Fault, a distance of approximately 700 feet, at a depth of 10-12 feet below the ground surface. The scope of the investigation shall be developed in consultation with the third-party geologic reviewer retained by the City of San Juan Bautista. In the event that evidence of an active fault trace is found within the Project site, all residences shall be set back a minimum of 50 feet from that trace. Residences also shall be designed, at a minimum, to withstand the maximum acceleration in the design earthquake (10% chance of exceedance in 50 years) without collapsing (Life Safety standard). Other design recommendations of the seismic study shall be incorporated into structural, foundation, and essential infrastructure designs.
- ii. VI-1b) A detailed liquefaction/lateral spreading/differential settlement analysis shall be conducted for the site. That study shall include subsurface exploration consisting of conventional drilling to allow soil sample collection to a maximum depth of 50 feet, as recommended in the Berlogar Stevens (April 7, 2014) report. Field studies also shall determine the depths and limits of undocumented fill on the site, as well as better

characterize the site's groundwater, including seepage issues. Laboratory testing shall be conducted as recommended by the Project geotechnical engineer. The Final Map shall include all recommendations of the Project geotechnical engineer's report, including those for site preparation and foundation design.

- iii. VI-1c) If dynamic compaction of soils is proposed to reduce settlement/liquefaction/lateral spreading hazards, a vibration assessment shall be conducted and compaction shall be designed and implemented to assure that nearby houses are not damaged. Pre- and post- compaction surveys of nearby houses may be required as part of this assessment.
- iv. VI-1d) Utility lines crossing a fault trace or determined to be subject to differential settlement or other ground failure shall be designed to withstand rupture in the event of a design earthquake.
- v. VI-1e) All initial purchasers of project homes shall be provided seismic safety information pamphlets, such as the State of California's Homeowner's Guide to Seismic Safety ([http://www.seismic.ca.gov/pub/CSSC\\_2005-01\\_HOG.pdf](http://www.seismic.ca.gov/pub/CSSC_2005-01_HOG.pdf)).

**VI-2 – Expansive Soils.** The presence of expansive soils shall be addressed in foundation, infrastructure, and roadway design to the satisfaction of the project engineer and City staff. The use of posttensioned concrete slabs on grade may be applicable to house designs.

### **Hydrology and Water Quality**

#### **IX-1 – Stormwater Pollution.**

- i. IX-1 a) The applicant shall submit a site development plan including on-site drainage provisions, curbs, trash enclosure, on-site driveways, asphalt pavement, on-site pavement markings, handicap parking stalls, directional signs, information signs and ingress and egress signs.
- ii. IX-1 b) The project shall install siltation devices on all inlets and storm water catch basin.

### **Noise**

**XII-1 – Construction Vibration.** If dynamic compaction is proposed as a method of ground improvement to mitigate liquefaction or lateral spreading potential, the applicant shall conduct a vibration study to assure that nearby houses are not damaged. If the study identifies potential hazards to nearby structures from vibration, then an alternative method of ground improvement or foundation construction shall be used, or the site plan shall be adjusted to avoid impacting the susceptible structures.

## **XII-2 – Construction Noise.**

- i. XII-2 a) The applicant shall restrict the hours of construction to from 7:30 A.M. to 6:00 P.M. Monday thru Saturday. The applicant shall restrict all loud noises, vibratory equipment, truck backup devices and gas powered compaction tools to hours between 9:00 A.M. to 4:00 P.M. Monday thru Saturday.
- ii. XII-2 b) All construction equipment, vehicles, and tools shall have noise suppression devices on them.
- iii. XII-2 c) The applicant shall designate a noise contact person and provide that person's contact information to adjacent homeowners prior to start of construction.
- iv. XII-2 d) All residences shall be equipped with dual pane windows and exterior wall insulation, siding, and interior drywall constructed meeting sound transmission factor of 45 or below.

## **Utilities and Service Systems**

**XVII-1 – Provide Alternative Water Supply or Treatment.** Prior to issuances of any building permits for project houses, the City shall have in place a funded and constructed solution to the high nitrates problem that reduces nitrates to levels below State or federal criteria of concern. This solution may include, but is not limited to, drilling a new well in a higher-quality aquifer, deepening or tapping into an existing well that supplies high-quality water, or constructing a treatment facility of sufficient volume to supply all projected City users.