6. PREPARERS, TECHNICAL STUDIES AND REFERENCES

6.1 REPORT PREPARATION

Gallaway Consulting, 111 Mission Ranch Boulevard, Suite 100, Chico, CA 95926

6.2 TECHNICAL STUDIES:

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APPENDIX A: SUMMARY OF MITIGATION MEASURES

Air Quality

MM 4.3.1 To comply with Chapter 13 of the County Code and BCAQMD Rules 200 and 205 (*Air Quality Nuisances* and *Fugitive Dust*), the Public Works Department shall require implementation of all applicable Best Available Mitigation Measures (BAMM) in project plans and specifications. As part of this requirement, the contractor shall submit a Pollution Control Plan to the Department of Public Works for approval. The approved plan shall include all applicable dust mitigation measures, including but not limited to the following:

- Water all active construction areas at least twice daily. The frequency should be based on the type of operation, soil conditions and wind exposure.
- Apply chemical soil stabilizers to inactive construction areas (disturbed areas that are unused for at least four consecutive days, unless wind conditions dictate application in less than four days) to control dust emissions. Dust emissions should be controlled at the site for both active and inactive construction areas throughout the entire construction period (including holidays).
- Limit vehicle speeds to 15 mph on unpaved roads.
- Suspend land clearing, grading, earth moving, or excavation activities when wind speeds exceed 20 mph.
- If applicable, apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operation and hydro-seed the area.
- Cover inactive storage piles.
- Provide paved (or dust palliative treated) apron onto the project site.
- Following daily construction activities sweep or wash paved streets adjacent to the site where visible silt or mud deposits have accumulated due to construction activities.
- Upon completion of construction activities all exposed ground surfaces shall be treated sufficiently to minimize fugitive dust emissions (dust clouds caused by wind, traffic, or other disturbances to exposed ground surfaces).

Timing & Implementation: *Contractor shall prepare Pollution Control Plan. Public Works shall approve Plan prior to the commencement of construction. Plan shall be implemented during and post construction, as applicable.*

Enforcement & Monitoring: *Butte County Department of Public Works and contractor through ongoing site inspections.*

Air Quality

MM 4.3.2 To reduce exhaust emissions from construction equipment, the contractor shall implement all applicable measures, including:

- Restrict unnecessary vehicle idling to 5 minutes
- Use reformulated and emulsified fuels
- Incorporate catalyst and filtration technologies
- Modernize the equipment fleet with cleaner repower and newer engines

In addition, the contractor shall prepare an NOx reduction plan to be submitted to the Public Works Department for approval. Acceptable NOx reduction options may include:

- Late model engines
- Low-emission diesel products
- Alternative fuels
- Engine retrofit technology
- After-treatment products

Timing & Implementation: *Contractor shall prepare Reduction Plan. Public Works shall approve Plan prior to commencement of construction. Control measures and Reduction Plan shall be implemented during and post construction, as applicable.*

Enforcement & Monitoring: *Butte County Department of Public Works and contractor through ongoing site inspections.*

Biological Resources

MM 4.4.1 If grading, construction or vegetation removal are proposed between March 1 and September 15, a protocol-level, preconstruction field survey shall be conducted by a qualified biologist or ornithologist to identify whether special status birds are nesting in or adjacent to, the project site. The survey shall take place in April-May, or 30 days prior to construction activities, to determine the presence and location of nesting raptors/migratory birds in the project area.

Appropriate mitigation or avoidance measures, established through consultation with DFG, shall be implemented if nesting special-status birds are identified during pre-construction surveys.

If nesting special-status birds are not identified during the protocol-level field survey(s), no further action will be required relative to this mitigation measure.

Project activities proposed between September 16 and February 29 do not require pre-construction surveys.

Timing & Implementation: *Prior to construction activities, Public Works shall ensure all necessary field surveys are conducted.*

Enforcement & Monitoring: *Public Works staff and a qualified biologist or ornithologist and DFG, if necessary, shall monitor construction activities to ensure implementation of the above measures.*

Biological Resources

MM 4.4.2 All jurisdictional waters, which may be impacted by the project, shall be avoided during construction activities to the extent practicable through implementation of construction activity setbacks and applicable BMPs. To ensure the adequate mitigation of all unavoidable impacts, the following shall be required:

- The proponent shall enter into consultation with the USACE. If necessary, a §404 permit will be obtained before any filling, dredging or modification of jurisdictional waters can occur. The permit will be conditional and will contain minimization and mitigation measures developed through consultation with the USACE.
- Per §1600 of the state Fish and Game Code, the applicant shall enter into consultation with the DFG. If necessary, a Streambed Alteration Agreement will be obtained before in-stream construction activities commence. If required, the agreement would contain site-specific minimization and mitigation measures identified through consultation with the DFG.

Timing & Implementation: *Consultation and agreements/permitting to occur prior to commencement of construction. Avoidance shall occur during project construction. All necessary mitigation shall be conducted prior to project completion.*

Enforcement & Monitoring: *Public Works, DFG, USACE and RWQCB.*

Cultural Resources

MM 4.5.1 A note with the following statement (or its functional equivalent) shall be included on the final construction plans:

> *The supervising contractor will stop all work within 100-feet of any newly discovered cultural resources (i.e. unusual amounts of shell, animal bone, bottle glass, ceramics, structure/building remains) and report any such findings to the Public Works Department, which shall retain a professional archaeologist who shall determine the significance of the newly discovered resource(s) and, if necessary, develop appropriate mitigation.*

All mitigation measures determined by the Public Works Department to be appropriate for the project shall be implemented pursuant to the terms of the archaeologist's report.

Timing & Implementation: *Prior to final plan approval and during construction*

Enforcement & Monitoring: *Department of Public Works and supervising contractor*

ATTACHMENT A

ARCHAEOLOGICAL SURVEY REPORT

(Any Maps of Recorded Sites are Confidential and Not for Public Distribution)

ATTACHMENT B

BIOLOGICAL RESOURCES ASSESSMENT

ATTACHMENT C

DRAFT DELINEATION OF WATERS OF THE UNITED STATES