

APPENDIX E
CULTURAL RESOURCES

1.0 Section 106 Consultation



U.S. Department
of Transportation
**Federal Aviation
Administration**

Western-Pacific Region
Airports Division

San Francisco Airports District Office
831 Mitten Road, Room 210
Burlingame, CA 94010

October 7, 2010

Milford W. Donaldson
State Historic Preservation Officer
California State Department of Parks and Recreation
1725 23rd Street, Suite 100
Sacramento, CA 95816

Subject: Proposed Runway Safety Area Improvement Project at Del Norte County Airport,
Jack McNamara Field, Crescent City, California

Dear Mr. Donaldson:

The purpose of this letter is to apprise you of the Proposed Del Norte County Regional Airport, Jack McNamara Field (CEC) Runway Safety Area Improvement Project (RSA) (the project) that are under consideration for Airport Layout Plan approval and potential future funding by the Federal Aviation Administration (FAA). The FAA has determined that this proposed project is a federal undertaking as defined in 36 Code of Federal Regulations (CFR) § 800.16(y). Although the preferred FAA practice is to initiate consultation with the California Office of Historic Preservation (OHP) early in the planning process, pursuant to 36 CFR §800.3(c)(3), the FAA and Border Coast Regional Airport Authority (BCRAA) initiated early consultation with the local Native American communities due to concern over known resources in the region. The Tribal Historic Preservation Officers of both the Elk Valley and Smith River Rancherias, as well as other members of the local Native American community, have been involved in the study planning and resource evaluation for this proposed project.

As discussed with Tristan Tozer of your staff on September 7, 2010, the FAA is requesting an expedited review pursuant to 36 CFR §800.3(g). As FAA is requesting an expedited review, attached to this correspondence is the archaeological technical report completed for the proposed project.

Project Description

The BCRAA is proposing to improve the existing RSAs at CEC in response to the requirements of the 2006 Department of Transportation Appropriations Act (Public Law (PL) 109-115). PL 109-115 requires that commercial airports certificated under Title 14, CFR, Part 139 shall improve their RSAs to comply with FAA airport design standards by December 31, 2015. The purpose of an RSA is to provide a measure of safety and reduce the risk of damage to an aircraft and injury to passengers in the event that it undershoots, overruns, or veers off a runway. RSAs also provide accessibility for fire fighting and rescue equipment during such incidents.

The RSAs for Runways 11/29 and 17/35 at CEC do not meet the current FAA airport design standards. The dimensions of an RSA are determined by the classification of the runway, and must be graded to provide a smooth transition from the paved runway surface to the RSA. The RSA must also be capable of supporting the weight of the aircraft or emergency response vehicle.

The proposed project would remove non-standard objects or conditions from the RSAs and would include cutting, filling, or grading variations in terrain within the RSAs:

- Runway 11 - The RSA would be extended from the current length of 300 feet to 1,000 feet beyond the runway end. Adjustment to the existing Instrument Landing System would be completed to account for the change in surface grade.
- Runway 29 - The RSA would be extended from 500 feet beyond the runway end to the standard 1,000 feet beyond the runway end.
- Runway 11/29 – Portions of the existing 500-foot wide lateral RSA (175 foot wide areas on each side of the 150 foot wide runway) will be filled and graded to remove variations in the terrain.
- Runway 17 - The RSA would be extended 200 feet beyond the runway end to 300 feet beyond the runway end.
- Runway 35 - The RSA would be extended from 250 feet to 300 feet beyond the runway end.

Area of Potential Effects

For the current undertaking, FAA is defining an Area of Potential Effects (APE) for both archaeology and historic architecture that is consistent with the area of proposed disturbance (i.e., direct impact). The APE was limited to direct impact areas for the purpose of this undertaking because the proposed project *does not* involve the construction of new airport structures or changes to aviation operations which could result in changes to noise levels. A depiction of the APE is provided as Figure 2 in the enclosed Archaeological Inventory Report (technical report). The FAA seeks concurrence from the State Historic Preservation Officer on the delineation of the proposed APE as defined in 36 CFR §800.16(d). Maps depicting the APE including cut and fill profiles of the proposed grading within each RSA are found in the technical report as Figure 2 and Figure 3, Sheets 1-4.

Native American Consultation

As described in Section 4.2 of the technical report, pursuant to FAA Order 1210.20, FAA consulted with the federally recognized Elk Valley and Smith River Rancherías on the proposed project. Consultation efforts included both formal and informal meetings, a series of memoranda, and conference calls with tribal leaders, other tribal representatives, and each Ranchería's Tribal Historic Preservation Officer (THPO).

Technical Report

The technical report completed for the project addresses archaeological resources as no structures or buildings requiring assessment occur within the confines of the APE. As presented in Section 4.1 of the technical report the project area was subject to a cultural resources literature review, pursuant to the revised implementing regulations of the National Historical Preservation Act (NHPA) found at 36 CFR §800.4(a)(2).

The inventory efforts resulted in the identification and recordation of one previously unknown prehistoric archaeological deposit. Subsurface survey techniques and archival research confirmed that the cultural deposit represents an extension of previously identified midden soils transported to the vicinity and used as fill material, possibly during the original construction of the airport. As described in Section 6.0 of the technical report, this material lacks sufficient integrity to be considered eligible for inclusion to the National Register of Historic Places. A deeper deposit of cultural material was also encountered during the subsurface survey exercise. There is some evidence that this material may also be fill, but this premise cannot be fully substantiated at this time. Based on the project configuration, however, this deeper material is situated below the maximum depth of disturbance (i.e., below vertical limits of APE) and thus will not be affected by the proposed project.

Pursuant to the revised implementing regulations of the NHPA found at 36 CFR 800.11(e), this letter and the technical report provide:

- 1) A description of the undertaking,
- 2) An APE determination and relevant maps,
- 3) A description of the steps FAA has taken to identify historic properties,
- 4) A description of historic properties affected by the undertaking,
- 5) A description of the undertaking's effects on historic properties,
- 6) An explanation of the finding of no effect, and
- 7) Input provided by the Tribes.

The FAA is seeking your concurrence that the proposed Del Norte County Airport, Jack McNamara Field, Runway Safety Area Improvement Project will have no effect on historic resources. We would appreciate your response by November 8, 2010.

Your attention to this matter is appreciated. I am available at (650) 876-2778 extension 613, if you have any questions regarding this matter.

Sincerely,

ORIGINAL SIGNED BY
CAMILLE GARIBALDI
Camille Garibaldi
Environmental Protection Specialist

Enclosure

cc (w/o encl):

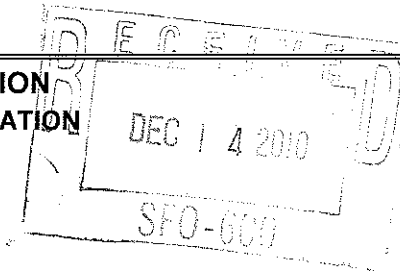
James Bernard, Border Coast Regional Airport Authority

✓ Christian Jones, URS Corporation

Mark Hale, URS Corporation

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov



600
601
602
610
611
612
613
614
615
616
620
621
622
623
624
625
626
627
628
629
630

December 10, 2010

Reply In Reference To: FAA 101011A16

Camille Garibaldi
Federal Aviation Administration
San Francisco Airports District Office
831 Mitten Road, Suite 210
Burlingame, CA 94010-1300

RE: Proposed Runway Safety Improvement Project at Del Norte County Airport, Jack McNamara Field, Crescent City, CA

Dear Ms. Garibaldi:

Thank you for consulting with me. You do so in order to comply with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470f), as amended, and its implementing regulation at 36 CFR Part 800. You are seeking my concurrence with both a revised Area of Potential Effects (APE) and that the above-referenced undertaking will not affect historic properties.

The FAA and the Border Coast Regional Airport Authority is proposing to improve the existing runway safety areas (RSA) in response to the 2006 Department of Transportation Appropriations Act. The upgrade of these safety areas involves the following components:

- Runway 11: The RSA will be extended from 300 feet to 1,000 feet beyond the runway's end.
- Runway 29: The RSA will be extended from 500 feet to 1,000 feet beyond the runway's end.
- Runway 11/29: Portions of the 500 foot wide lateral RSA (175 foot wide areas on each side of the 150 foot wide runway) will be filled and graded to remove variations in the terrain.
- Runway 17: The RSA will be extended 200 feet beyond the runway's end to 300 feet.
- Runway 35: The RSA will be extended from 250 feet to 300 feet beyond the runway's end.

The various RSA's will be graded and or filled, depending on the particular dimensions required to compose a uniform surface. You define the APE as the direct impact areas for the purpose of this undertaking because the proposed project does not involve the construction of new airport structures or changes to aviation operations; which could result in changes to noise levels. In addition to your letter, you have provided evidence of Native American consultation, and the following study in support of this undertaking:

- *Archaeological Inventory Report, Runway Safety Area Project, Del Norte County Airport, Jack McNamara Field, Crescent City, Del Norte County, California* (Mark R. Hale, Leroy Laurie, URS Corporation: October 2010)

This document outlines identification efforts undertaken within the APE. Qualified archaeologists working in conjunction with representatives of Elk Valley and Smith River Rancherias conducted pedestrian surveys of the project area, walking transects spaced at 15 to 20 meters across the entire project area. Subsurface surveys were also performed. The survey program was comprised of placing auger borings at 10-meter intervals across the portions of the RSAs to be graded. Auger borings were placed at 25-meter intervals across the width of Runway RSAs 11, 11/29, 17, 29, and 35. The subsurface surveys conducted within the Runway 11, 11/29, 17, and 29 RSAs did not yield cultural materials.

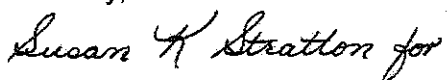
The inventory efforts resulted in the identification and recordation of one previously unknown prehistoric archaeological deposit in RSA 35. Subsurface survey techniques and archival research confirm the cultural deposit represents an extension of previously identified midden soils transported to the vicinity and used as fill material. This material, used to fill a marsh area at some unknown point in the past, is an extension of the redeposited midden identified in archeological studies conducted in 1991 and 2003. In the opinion of the consulting archaeologists, as the material is no longer within its original location, the midden remnants lack sufficient integrity to be considered eligible for inclusion on the National Register of Historic Places. Project archeologists also noted that cultural artifacts might be encountered at a depth of 110 centimeters (approximately 3 ½ feet) or more in RSA 35. Based on the project configuration, this material is situated well below the maximum depth of disturbance, expected to be up to a foot in some areas of RSA 35.

Having reviewed your submittal, I have the following comments:

- 1) I concur that the Area of Potential Effects (APE) has been properly determined and documented pursuant to 36 CFR Parts 800.4 (a)(1) and 800.16 (d);
- 2) I further concur that your Finding of Effect is appropriate pursuant to 36 CFR Part 800.4(d)(1) and that the documentation supporting this finding has been provided pursuant to 36 CFR Part 800.11(d);
- 3) Although the cultural material observed within the vertical extent of the Runway 35 RSA lacks sufficient integrity to warrant further evaluation, I would suggest you retain the services of a Native American monitor when working within and adjacent to the redeposited midden.
- 4) While the project description indicates that the grading of RSA 35 will not reach a depth sufficient to affect cultural material, every effort should be made to avoid reaching this depth.
- 5) Please be reminded that in the case of an inadvertent discovery or a change in project description, you may have additional responsibilities under 36 CFR Part 800.

Thank you for considering historic resources during project planning. If you have any questions or comments, please contact Tristan Tozer of my staff at (916) 445-7027 or by email at ttozer@parks.ca.gov.

Sincerely,



Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

The Archaeological Inventory Report prepared as part of the Section 106 consultation is included herein by reference as Appendix F; however, the document is confidential and has been submitted for review under separate cover.

2.0 Paleontological Resources



Technical Memorandum

Date: March 9, 2007

To: Michelle Jerman

From: Robert Horwath, PG #5925

Subject: *Potential Paleontological Resources for the Crescent City Airport Project*

Introduction

A literature review was completed to assess whether potential significant paleontological resources could be impacted during construction activities for the proposed Passenger Terminal Replacement Project at McNamara Field in Crescent City, California. The proposed project lies west of U.S. Highway 101 (U.S. 101) and adjacent to the Pacific Ocean in Crescent City, California. The City of Crescent City is located in Del Norte County, California, about 15 miles south of the California/Oregon border. The proposed project will include abandonment and/or modification of some existing facilities in order to construct the proposed Passenger Terminal. The construction will include ground disturbance up to 8 feet below ground surface (bgs). This review was one of many tasks that the County of Del Norte is preparing as part of a joint Environmental Assessment/Environmental Impact Report (EA/EIR)

Criteria for Assessing a Potential Paleontological Resource

To assess if a sensitive paleontological resource could potentially be impacted, this literature review followed the California Environmental Quality Act definition for a paleontological resource. The review also used guidelines developed by the Association of Environmental Professionals and the Society of Vertebrate Paleontology.

California Environmental Quality Act

The protection for significant paleontological resources are specified by the California Environmental Quality Act (CEQA), Appendix G, the "Environmental Checklist Form," Section V, Cultural Resources, Subsection C as "Directly or indirectly destroy a unique paleontological resource or site or a unique geologic feature."

Association of Environmental Professionals Guidelines

A recent article in the Association of Environmental Professionals (AEP) publication, the Environmental Monitor, "CEQA and Fossil Preservations in California" by Scott and Springer (Fall, 2003) presents the following details on what are considered as unique and significant paleontological resources:

- The fossils provide data on the evolutionary relationships and development trends among organisms, both living and extinct;
- The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
- The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;
- The fossils demonstrate unusual or spectacular circumstances in the history of life; and/or

- The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other locations.

Society of Vertebrate Paleontology Guidelines

The Society of Vertebrate Paleontology (SVP) also has developed a set of guidelines to assess what is considered a significant paleontological resource. The following was obtained from their web site.

“Sedimentary Rock units may be described as having (a) high (or known) potential for containing significant nonrenewable paleontological resources, (b) low potential for containing nonrenewable paleontological resources, or (c) undetermined potential.

SVP notes it is extremely important to distinguish between archaeological and paleontological resource sites when defining the sensitivity of rock units. The boundaries of archaeological sites define the areal extent of the resource. Paleontological sites, however, indicate that the containing sedimentary rock unit or formation is fossiliferous. The limits of the entire rock formation, both areal and stratigraphic, therefore define the paleontologic potential in each case. Paleontologists can thus develop maps that suggest sensitive areas and units that are likely to contain paleontological resources. These maps form the bases for preliminary planning decisions. Lead Agency evaluation of a project relative to paleontologic sensitivity maps should trigger a "request for opinion" from a state paleontologic clearing house or an accredited institution with an established paleontological repository.

The determination of a site's (or rock unit's) degree of paleontological potential is first founded on a review of pertinent geological and paleontological literature and on locality records of specimens deposited in institutions. This preliminary review may suggest particular areas of known high potential. If an area of high potential cannot be delimited from the literature search and specimen records, a surface survey will determine the fossiliferous potential and extent of the sedimentary units within a specific project. The field survey may extend outside the defined project to areas where rock units are better exposed. If an area is determined to have a high potential for containing paleontologic resources, a program to mitigate impacts should be developed. In areas of high sensitivity, a pre-excavation survey prior to excavation is recommended to locate surface concentrations of fossils that might need special salvage methods. The sensitivity of rock units in which fossils occur may be divided into three operational categories.

- **HIGH POTENTIAL** Rock units from which vertebrate or significant invertebrate fossils or significant suites of plant fossils have been recovered are considered to have a have potential for containing significant non renewable fossiliferous resources. These units include, but are not limited to, sedimentary formations and some volcanic formations, which contain significant nonrenewable paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils. Sensitivity comprises both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, or botanical and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, ecologic, or stratigraphic data. Areas which contain potentially datable organic remains older than Recent, including deposits associated with nests or middens, and areas which may contain new vertebrate deposits, traces, or trackways are also classified as significant.
- **UNDETERMINED POTENTIAL.** Specific areas underlain by sedimentary rock units for which little information is available are considered to have undetermined fossiliferous potentials. Field surveys by a qualified vertebrate paleontologist to specifically determine the

potentials of the rock units are required before programs of impact mitigation for such areas may be developed.

- **LOW POTENTIAL.** Reports in the paleontological literature or field surveys by a qualified vertebrate paleontologist may allow determination that some areas or units have low potentials for yielding significant fossils. Such units will be poorly represented by specimens in institutional collections. These deposits generally will not require protection or salvage operations.

Geographic Setting

The proposed Passenger Terminal Replacement Project McNamara Field is located on the ocean bluffs northwest of Crescent City. The elevation of the site is approximately 50 feet above mean sea level.

Geologic Settings and Age

The area of the proposed construction is entirely underlain by the Quaternary (Pleistocene) Battery Formation (Qb) as mapped on the Geologic Map of the Weed Quadrangle (CDMG, 1987). Detailed mapping of area by Black (1957) also noted the surface geology as the Pleistocene Battery Formation. Black cited previous studies by Maxson (1933) that noted “A fossiliferous lens contains a small fauna whose general aspect is that of upper San Pedro stage.” The San Pedro Stage is generally considered to be lower Pleistocene (Black, 1957). The Battery Formation is underlain by the Tertiary (Pliocene) St. George Formation which is locally, highly fossiliferous (Black, 1957). At the proposed construction area, the specific depth of the contact between the Battery Formation with the underlying St. George Formation is unknown.

Depositional Environment

Battery Formation was first described by Maxson (1933) as “A thin marine terrace capping of unconsolidated sands exposed over the southern portion of the Crescent City platform.” Black (1957) expanded the extent of the Battery Formation to the related continental deposits consisting of contemporaneous stream gravels and elongate sand ridges. Black (1957) noted that these ridges may not be of aqueous origin, but they are composed of reworked marine sediments and therefore are closely related to the Battery Formation.

Fossil Occurrences

Black (1957) reported the occurrence of invertebrate fossils within the deposits of the Battery Formation of Del Norte County. The following species were listed for outcrops along Pebble Beach located approximately one mile southeast of the airport project:

Macoma inquinata Deshayes
Saxidomus giganteus Deshayes
Spisula sp.
Balanus sp.

Macoma inquinata, *Saxidomus giganteus*, and *Spisula* sp. are all bivalve mollusks while *Balanus* sp. is a type of barnacle.

The University of California Museum of Paleontology (UCMP) on-line catalog was searched for fossils specimens in the Pleistocene Battery Formation of Del Norte County. The UCMP database did not contain any listings for the Battery Formation. The database did contain 63 listings for specimens for

Del Norte County. Of these 67 specimens, 39 were Quaternary but only one was noted as Pleistocene. All of the 63 specimens in Del Norte County were listed as invertebrates except for two were noted as plant fossils and two were noted as microfossils. Two of the eight listed fossil locations in the UCMP database that were specifically named “Crescent City” and “Pebble Beach” further suggest the potential of encountering fossils in the vicinity of the proposed project. The St. George Formation has one listing in the UCMP database for an invertebrate fossil.

Conclusion and Recommendation

Based on the marine depositional environment and the occurrence of invertebrate marine fossils reported in the Battery Formation and for the possibility that the proposed excavation may extend into the St. George Formation, there is a high potential that significant paleontological resources could be encountered during the construction of the proposed Passenger Terminal. It is recommended that either field and/or museum evaluations be conducted to further assess the potential of encountering significant paleontological resources prior to the commencement of the proposed work.

Furthermore, if fossils are encountered during ground-disturbing activities for the proposed construction, it is possible that they would be recognized as a significant paleontological resource. In the event that any paleontological resources are discovered during the ground-disturbing activities, a qualified paleontologist should be called to the site to evaluate the significance of the finding to ensure that proper preservation protocols are completed.

References

Black, William, 1957, Geology and Groundwater Features of the Smith River Plain, Del Norte County, California, Geological Survey Water-Supply Paper 1254, 76 pgs, Plate 5, scale 1:62,500.

California Museum of Paleontology (UCMP) on-line catalog, <http://www.ucmp.berkeley.edu>.

California Division of Mines and Geology (CDMG), 1987, Geologic Map of the Weed Quadrangle, California Regional Geologic Map Series, Map No. 4A (Geology), scale: 1:250,000.

Maxson, J.H., 1933, Economic Geology of portions of Del Norte and Siskiyou Counties, Northernmost California: Calif. Jour. Mines and Geology, v. 29, nos. 1 and 2, p. 123-160.

Scott, E, and Springer, K, Fall 2003, CEQA and Fossil Preservation in California, The Environmental Monitor, AEP Spring 2004 CEQA Workshop Series.

Society of Vertebrate Paleontology, 2006, Policy and Position Statements, Conformance Impact Mitigation Guidelines, Website. <http://www.vertpaleo.org>.