

## **Appendix A**

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### *Alternatives Dropped from Further Consideration*



## **Appendix A: Alternatives Dropped from Further Consideration**

Following are summaries of various alternatives dropped from further consideration during preliminary design of the proposed project.

### ***Alternative 1***

This alternative would reconstruct the existing runway. This Alternative would require engineering to prevent flooding at the northern end of the runway caused by storms and seasonal flooding. The reconstruction would also require preventative measures to reduce erosion along the coast to extend the service life of the airport. The existing runway would be extended 1,200 ft to the south-southeast. This alternative also proposes a new crosswind runway, apron, and re-alignment of the access road. The proposed crosswind runway parallels the existing access road to the south. Alternative 1 was the initial preferred alternative. However, it was eliminated from further consideration because the design didn't include large enough RSA areas and didn't address coastal erosion concerns. This would have been a low cost alternative, but would not have addressed the purpose and need of the project.

### ***Alternative 2***

This alternative would shift the centerline of the existing runway southeast, and rotate the primary runway approximately 45 degrees counterclockwise. This alternative would use the existing access road, but would require the construction of a new primary runway, crosswind runway and apron. Alternative 2 was eliminated from further consideration because it would require more fill in open water ponds south of the existing runway, not address coastal erosion, and RSAs would not be the recommended size. The proposed alignment would severely limit access to the Nuok Spit area, which is a traditional hunting and fishing area, contains archeological areas of significance and possible burials.

### ***Alternative 3***

In an attempt to avoid coastal erosion, Alternative 3 extended the existing runway to the south approximately 3,000 ft, and utilized the existing runway area as an RSA. The crosswind runway ran perpendicular to the primary runway east-west. This alternative was eliminated from further consideration because it would require extensive fill in an open water tidal zone. This tidally influenced area of Hooper Bay is considered Waters of the U.S. and support valuable habitat for EFH and other marine species. This alternative would impact more wetlands and may impact wintering habitat of the steller's eider, which is considered "threatened" under the Endangered Species Act. The new runway embankment would be subject to strong tidal storms and wave action, which could create problems with erosion and stability. The project cost of this alternative would also increase substantially because of the amount of fill and embankment armoring that would be required by extending the runway into the shallow coastal waters. The alignment would also block access to Nuok Spit.

#### *Alternative 4*

This alternative attempted to relocate the Hooper Bay Airport to an upland area to avoid wetland impacts and coastal erosion at the existing location. However, it is not possible due to the topographical constraints of the surrounding area. The primary runway alignment runs through a deep pond and the RSA on either end enters a slew containing resident and anadromous fish. This alternative was eliminated from further study because it would require a considerable amount of fill in wetlands and EFH. The northern area is a higher cost alternative, including the construction of a 2 mile long access road. The community supports the northern location, but a better alignment with fewer impacts was identified.