HATCHER PASS RECREATIONAL AREA ACCESS, TRAILS AND TRANSIT FACILITIES

Summary of Existing Conditions and Potential Environmental Impacts

Water Resources

According to the 1988 Preliminary Water Resources Assessment of the Proposed Hatcher Pass Recreational Area Access, Trails and Transit Facilities near Government Peak, the proposed Hatcher Pass Recreational Area Access, Trails and Transit Facilities lies within the Little Susitna River drainage basin. Two major tributaries, Fishhook and Government Creeks, and seven secondary tributaries flow through the project area. In addition, numerous intermittent streams dissect glacial till on the lower slopes below 2,700 feet. The U.S. Geological Survey (USGS) has 40 years of streamflow records for the Little Susitna River at the Fishhook-Willow Road bridge crossing. Alaska division of Geological and Geophysical Survey (DGGS), Water resources Section (WRS) hydrologists have also established gaging stations on measurements on the seven secondary tributaries.

The 1988 study discloses that there are two main potential impacts to surface water quantity as a result of ski area development which include impacts from withdrawals for public water supplies and snowmaking; and impacts related to increased surface water yield from snowmaking and vegetation removal for ski runs. If water is derived from the Little Susitna River during winter low flows, downstream users and fisheries could be impacted. The study recommends, in the event that the ski area water withdrawals exceed Division of Land and Water Management (DLWM) and Alaska Department of Fish and Game (ADF&G) flow reservations, other forms of water supply should be considered such as groundwater, water storage ponds at strategic sites around the ski area, or hauling water in from Borough or City sources.

Potential impacts to the area streams and drainages due to increased runoff from artificial snow and vegetation clearing include slope and channel erosion, local landslides or slumps, erosion of roads or ski area structures, and increased sedimentation. According to the 1988 study the Little Susitna River and nine tributaries in the project area have high dissolved oxygen content, slightly basic pH, and low concentrations of dissolved solids. At the time of the study no baseline data existed for the primary contaminants listed in the Alaska Drinking Water Standards. Suspended sediment concentrations in the Little Susitna River during summer months are generally low except during high stream flow events.

Residential development exists along Edgerton Parks Road, located immediately south of the project area, and relies on local groundwater resources for domestic, light commercial, and irrigation water supplies. The proposed project is located in a recharge area for local aquifers. The 1988 study recommends that special consideration for minimizing groundwater contamination is warranted. Major potential sources of contamination are infiltration of sewage; runoff from developed areas; and contamination from storage, use, or accidental release of fuel products, fertilizers, pesticides, road salts, or animal wastes.

Navigability and Floodplain Management

A review of the Unites States Army Corps of Engineers Alaska District website (www.poa.usace.army.mil/reg/NavWat.htm) lists the Little Susitna River as navigable for 84 miles from the mouth to the Schrock Road Bridge. Therefore, all navigable portions of the Little Susitna River are located outside of the proposed project area. The Corps of Engineers definition of navigable waters include "…those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce."

Flood Insurance Rate Maps from the Federal Emergency Management Agency were checked to see if the project lay within a floodplain. Though the Matanuska-Susitna Borough participates in the National Flood Insurance Program, no flood hazard mapping was available for the project area. The USACE flood hazard website was visited (www.poa.usace.army.mil) and revealed that no flood hazard information was available for the project area.

Flooding has been known to take place on the Little Susitna River. The Fishhook-Willow Road has sustained damage in the past. Peak flows usually range from 1,500 cubic feet per second (cfs) to 3,000 cfs and are contained within the channel (Carrick et. al., 1988).

Anadromous Fish Streams and Essential Fish Habitat

A review of the Alaska Department of Fish and Game (ADFG) *Atlas to the Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes* (www.gis.sf.adfg.state.ak.us) identified two anadromous fish streams adjacent to the eastern boarder of the study area: Little Susitna River (ADFG Stream #247-41-10100) which supports the spawning and rearing of king salmon, the spawning of coho salmon,

and the presence of chum salmon populations; and Fishhook Creek (ADFG Stream #274-41-10100-2379) which supports the rearing of king salmon. In addition, three unnamed anadromous fish streams adjacent to the southern border of the study area were identified: ADFG Stream 247-41-10100-2351 supports the spawning and rearing of Coho salmon, ADFG Stream 247-41-10100-2343 supports the rearing of Coho salmon, and ADFG Stream 247-41-10100-2355-3012 supports the rearing of Coho salmon.

No work is currently proposed below the ordinary high watermark for Little Susitna River (ADFG Stream #247-41-10100), which supports populations of king, chum, and Coho salmon or Fishhook Creek (ADFG Stream #274-41-10100-2379), which supports king salmon. Any new or reconstructed stream crossings would need to comply with ADNR guidance for the passage of fish and would require a title 41 permit, an Essential Fish Habitat Assessment, and consultation with the National Marine Fisheries Service in accordance with the provisions of the Magnuson-Stevens Act.

Wetlands

A review of the USFWS National Wetland Inventory website (www.wetlandsfws.er.usgs.gov/wtlnds/launch.html) indicated that fresh water forested/shrub wetlands are present in the study area. DOWL HKM will perform a wetland delineation in May 2008. If the project affects wetlands, it will require a Section 404 Clean Water Act Permit from the USACE and a Section 401 Water Quality Certification from the Alaska Department of Environmental Conservation (ADEC).

Subsurface Investigation

DOWL HKM completed two preliminary geotechnical investigations during the winter months of 2002 and 2003 on an area located west of Hatcher Pass Road and north of East Edgerton Parks Road at the base of Government Peak. The purpose of the investigation was to determine general subsurface soil and groundwater conditions across the area and to develop opinions regarding appropriate ways the study area can be developed.

The soils encountered during the investigation were generally comprised of one or more of the following: peat, organic silt, alluvial and colluvial deposits, glacial till, bedrock, and landslide debris. The depth and thickness of the various deposits were not consistent nor were these deposits present in every test boring or test pit (DOWL, 2003).

The eastern side of the study area is the most rugged and uneven and has spectacular views at higher elevations. The presence of benches and steep slopes with poorly drained areas will make earthwork a significant effort. The western side of the study area is a gradual climb with good drainage and spectacular views. If access is required across Government Creek, a temporary bridge may be necessary, as this is a waterway that flows year round. Drainage is less of a concern on the west side than the east side. However, the lower portions of the study area may have local areas of poor drainage that were not observed during the investigation. The study concluded that the area can be developed to support activities at the proposed ski area (DOWL, 2003).

Air Quality

According to Alaska Administrative Code (AAC), 18 AAC 50.15, Hatcher Pass is considered a Class II area. Hatcher Pass is designated unclassifiable for air quality attainment meaning there is insufficient information to classify the area as attainment or non-attainment for the various air pollutants.

Alaska Coastal Zone Management

According to ADNR's Coastal Zone and Coastal District Boundaries Map (www.alaskacoast.state.ak.us/GIS/boundary.htm), the location of the proposed project lies within the coastal zone boundaries of the State of Alaska and the Matanuska-Susitna Borough Coastal District. A Coastal Project Questionnaire/Certification Statement and Project Evaluation will be submitted to the Alaska Department of Natural Resources, Division of Coastal & Ocean Management once the project design work has progressed to the point where DOWL is ready to submit applications for appropriate state and/or federal permits.

Contaminated Sites, Spills and Underground Storage Tanks

A search of Alaska Department of Environmental Conservation's (ADEC) contaminated sites database (http://www.dec.state.ak.us) revealed one site listed at mile 6.5 Fishhook Road. Further research and coordination with ADEC will be conducted to help determine the likelihood of this site, or any other known contaminated sites to be encountered during construction of this project.

Historical, Archaeological and Cultural Resources

According to the 1993 Phase I Environmental Audit for the Hatcher Pass Four-Season Resort and Downhill Ski Area, historic land use in the surrounding area of the lease site

has been for mining. The mountains and valleys to the north and east of the lease site are collectively known as the Willow Creek Mining District and were mined from the turn of the century to the early 1940's. Some active mining claims are located along the Little Susitna River and Fishhook Creek. Since the 1940's use of the area has increasingly focused around recreation. The historic mining operations are one of the attractions of the Hatcher Pass area; however, the primary recreation attractions are hiking, skiing, snow machining, scenic driving, hunting, fishing, and wildflower and wildlife viewing.

The Alaska Heritage Resource Survey records were reviewed to determine if any cultural resources were present in the project area. The project area falls within the Willow Creek Mining District (ANC-0123) for which there has been no determination of eligibility. The site's significance has to do with turn of the century gold mining activities which were instrumental in the development of the Upper Cook Inlet area.

Consultation in accordance with Section 106 of the National Historic Preservation Act will be conducted with the State Historic Preservation Office and local tribal entities to determine whether this project is likely to affect any historic properties. A cultural and archaeological survey will be conducted in the summer of 2008.

State Refuges, Critical Habitat Areas, and Sanctuaries

A review of the Alaska Department of Fish and Game (ADF&G) website listing critical habitats in the State of Alaska (www.sf.adfg.state.ak.us/SARR/SpecialAreas/SpecialAreas.cfm) found that there are no refuges, critical habitat areas or sanctuaries within the project area. A portion of the project area lies within the Hatcher Pass Special Use Area (AS 41.23.100-130), established in 1986 to provide for public recreation, to protect wildlife resources and habitat, and to protect water quality and scenic resources, while providing for public use and enjoyment of the area.

Local Land Use Plans, Local Parks

The following local land use plans will be considered in the development of this project:

- Matanuska-Susitna Borough Long-Range Transportation Plan (1997)
- Matanuska-Susitna Borough Community Health Plan (1997)
- Matanuska-Susitna Borough Recreational Trails Plan (2007)
- Matanuska-Susitna Borough Parks, Recreation, and Open Space Plan (2001)

- Matanuska-Susitna Borough Comprehensive Plan (2005)
- Hatcher Pass Special Use District (SPUD) Plan and Policies (under Assembly review)

State Land Use Plans, State Parks

The following state land use plan will be considered as part of this analysis:

- Willow Sub-Basin Plan (1982)
- Hatcher Pass Management Plan, as amended ADNR (1989)
- 2006 Amendments to the Hatcher Pass Management Plan (pending final adoption)
- Hatcher Pass Study Area, ADNR (1970)

Land Ownership and Use

The project area includes lands owned by the State and by the MSB. The MSB owns the southern development area, as well as the area that would be used to site the base support facilities for the alpine area. Much of the land in the Government Peak subunit that would be used as primary and secondary alpine ski areas are owned by the State, but managed by the MSB under an MSB-State management agreement that was renewed in 2002. This management agreement allows for a consistent management approach to the entire area proposed for development as a ski/recreation area, despite the land being owned by the two different entities. When adopted by the MSB Assembly, the Hatcher Pass SPUD Policies and Procedures will apply to both State and MSB lands in the SPUD boundaries.

Federal Recreation Areas

There are no Federal Recreation Areas located within, or adjacent to the project area.

Bureau of Land Management (BLM)

According to the BLM website (www.blm.gov/nstc/jurisdictions/) no BLM Public Lands are located adjacent to or within the proposed project area.

Threatened and Endangered Species

Review of the USFWS Alaska Region website (http://alaska.fws.gov/fisheries/endangered/pdf/SPPLIS0206.pdf) revealed that there

are no listed or proposed species in the project area, and there is no designated or proposed critical habitat near the proposed project.

Bald Eagles

An aerial survey of the project corridor was conducted in the spring of 2007. No active or inactive bald eagle nests were identified in the project area.

National Wildlife Refuges

A review of the USF&WS website (http://alaska.fws.gov/nwr/map.htm) was consulted to determine if National Wildlife Refuges exist in the project area; none are present.

National Parks, Preserves, Monuments, and Wild and Scenic Rivers

The project area is not located within any national parks, preserves, or monuments; therefore, there will be no impacts to these resources. Furthermore, there are no wild and scenic rivers within the project area.