Appendix B

Clean Water Act Section 404 Authorization Public Notice





US Army Corps of Engineers Alaska District

Public Notice of Application for Permit

Regulatory Branch (1145b) Post Office Box 6898 Elmendorf AFB, Alaska 99506-6898

| PUBLIC NOTICE DATE: | September 19, 2003 |
|---------------------|--------------------|
| EXPIRATION DATE: | October 20, 2003 |
| REFERENCE NUMBER: | Q-1996-0211 |
| WATERWAY NUMBER: | Goodpaster River 1 |

Interested parties are hereby notified that an application has been received for a Department of the Army permit for certain work in waters of the United States as described below and shown on the attached plan.

<u>APPLICANT</u>: The applicant is Teck-Pogo Incorporated, 3520 International Street Fairbanks, Alaska 99701-7382.

LOCATION: The project will be conducted on the following lands located within the Fairbanks Meridian.

| Mine Site | | | | | | | |
|-----------|---------------------|--|--|--|--|--|--|
| Township | Range | Section | | | | | |
| T6S | R14E | 3 | | | | | |
| T5S | R14E | 14, 22, 23, 25, 26, 27, 34, 36 | | | | | |
| | | | | | | | |
| Shaw Ck A | Shaw Ck Access Road | | | | | | |
| Township | Range | Section | | | | | |
| T7S | R8E | 11, 12, 14, 15, 22, 27, 35, 36 | | | | | |
| | | 1, 7, 11, 12, 14, 15, 16, 17, 18, 20, 21, | | | | | |
| T7S | R9E | 22, 23, 24, 29, 31, 32 | | | | | |
| | | 1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 15, 16, 17, | | | | | |
| T7S | R10E | 18, 19, 20 | | | | | |
| T6S | R10E | 36 | | | | | |
| T6S | R11E | 12, 13, 14, 15, 22, 27, 28, 29, 31, 32 | | | | | |
| T6S | R12E | 2, 3, 4, 5, 7, 8, 11, 12 | | | | | |
| T6S | R13E | 1, 2, 7, 8, 11, 14, 15, 16, 17 | | | | | |
| T6S | R14E | 4, 5 | | | | | |
| T5S | R12E | 33, 34 | | | | | |
| T5S | R13E | 36 | | | | | |
| T5S | R14E | 27, 31, 32, 33, 34 | | | | | |

| Transmission Line (not otherwise included in road) | | | | | | | |
|--|------------------------|--|--|--|--|--|--|
| Township | Range | Section | | | | | |
| T7S | R9E | 13 | | | | | |
| T7S | R10E | 8 | | | | | |
| T6S | R11E | 11 | | | | | |
| T6S | R13E | 10 | | | | | |
| T6S | R14E | 6 | | | | | |
| | | | | | | | |
| Goodpaste | Goodpaster Winter Road | | | | | | |
| Township | Range | Section | | | | | |
| T8S | R10E | 21, 22, 23, 25, 26 | | | | | |
| T8S | R11E | 13, 14, 21, 22, 23, 28, 29, 30 | | | | | |
| T8S | R12E | 8, 9, 10, 11, 13, 14, 17, 18 | | | | | |
| T8S | R13E | 2, 3, 11, 14, 15, 16, 17, 18, 19, 20, 22 | | | | | |
| T7S | R13E | 1, 2, 10, 11, 12, 15, 22, 27, 34 | | | | | |
| T7S | R14E | 4, 5, 6, 7 | | | | | |
| T6S | R14E | 2, 3, 10, 11, 15, 22, 27, 33, 34 | | | | | |
| T5S | R14E | 27, 34 | | | | | |

The mill site will be located at latitude 64° 16' 58" north, longitude 146° 07' 42" west. The mine would operate in a currently roadless area 38 miles northeast of Delta Junction, Alaska, near the Goodpaster River.

The existing 2-mile State road from the Richardson Highway to Rosa Creek (latitude 64° 16' 58" north, longitude 146° 07' 42" west) will be used to provide access to the beginning of the road.

<u>WORK</u>: The applicant proposes to construct a mine site, an access road, camp, winter road, transmission line, gravel pits, material sites, airstrip, and a tailings disposal facility for the development of the Pogo Mine. The total disturbed area for the project is projected to be approximately 1,170 acres. Table 1 attached.

The total wetland acres disturbed is approximately 306 acres of which 114 acres will be restored and an additional 21 acres of wetlands created in the off-river treatment works, Phase I material sites, and the recycle tailings pond (RTP); and 31 acres created in the Phase II and III material sites. A total of 1,906,028 cubic yards of fill will be placed in jurisdictional wetlands. Table 2 attached.

INDIVIDUAL COMPONENTS ARE SUMMARIZED BELOW:

Mine Site

The total wetland acres disturbed is projected to be 139 acres (37% of total), of which 44 acres (32% of wetlands) will be restored. 21 acres of wetlands will be created in the Phase I material sites and 31 acres created in Phase II and III ponds.

1525 Portal - Goodpaster Valley Area

The 1525 Portal - Goodpaster Valley Area includes the proposed facilities located near the existing camp in the Goodpaster valley and the facilities near the existing 1525 portal on the flank of Pogo Ridge, as well as the Phase III material sites south of the 1525 Portal on the west side of the Goodpaster Valley.

Proposed facilities include an expanded construction camp and office area, as well

as a laydown area to store equipment and supplies to be hauled to the site over the Goodpaster Winter Road. An expanded gravel pit will be required to provide borrow for pad and road construction. The existing portal bench will be expanded to provide area for the new water treatment plant. The access road to the 1525 portal will be reconstructed to allow access to the portal bench by highway trucks. The development rock stockpile will be enlarged for both mineralized and nonmineralized rock. A topsoil stockpile will store growth media. The nonmineralized development rock that is presently stockpiled at the site will be used as fill material in the laydown area and for road construction. This will free up the existing engineered polypropylene lined pad and allow placement of some additional mineralized development rock on the existing lined pad as temporary storage. If there is more mineralized rock than can fit on the existing lined pad, the excess mineralized rock will be temporarily stored immediately to the north of the existing lined pad and will be moved to the stockpile in upper Liese Creek within 2 years. New nonmineralized development rock will be placed near the north end of the rock storage area over the existing vegetative mat. The Phase III material sites, located in the Goodpaster River to the south of the existing camp facilities, consists of two borrow source areas within a 38 acre area (including access roads and growth media piles). The suitability of these sites has been confirmed by geotechnical drilling. The gravel borrow material initially required for the project will come from excavation of the material site near the 1525 portal and from excavation of the ponds required for the off-river treatment works. However, the site near the 1525 portal is limited in its long-term capacity by surrounding facilities and once the off-river treatment works is constructed and in use, no additional disturbance will be acceptable in that area. The Phase III material sites have been sited to provide additional gravel as needed throughout the project life for aggregate or road surfacing material.

1525 Portal-Goodpaster Valley Area Restoration

Reclamation and wetland restoration details for the 1525 Portal-Goodpaster Valley Area gravel borrow site are shown in Sheets 9 and 10. The borrow site will be converted to an overwintering pond connected to the Goodpaster River with emergent wetlands along the perimeter. Fill will be removed from flat to gently sloping wetlands and at the development rock stockpiles. The total wetland acres disturbed is projected to be 50 acres (51% of total), of which 20 acres (40% of wetlands) will be restored. An additional 10 acres of emergent wetland and overwintering habitat will be created in the 1525 Portal area and 27 acres in the Goodpaster Valley Phase III material sites.

Liese Creek Area

The Liese Creek Area includes major facilities associated with the mill buildings, permanent camp, shop and maintenance area, drystack tailings facility with RTP pond, mine portals, ventilation raise, material sites, growth media stockpiles, solid waste disposal, local access roads and diversion ditches (Sheets 5 - 7). Most of the access road from the 1525 Portal Area around the nose of Pogo ridge will be built with overlay construction. In order to reduce the long-term risk of destabilization of the talus slope on the nose of Pogo ridge that cut/fill construction could impose, a short portion of this route will be filled in a slough of the Goodpaster (Sheet 11). A bridge will be installed to cross lower Liese Creek. The portion of the access road from lower Liese Creek to the mill that is predominantly over wetlands will be built with overlay construction. The balance of the roads in the Liese Creek Area will be cut and fill. Road widths will depend upon intended use. Construction access roads will typically be 12' wide to provide temporary access to support site development (Sheet 12). Roads for general use will vary between 32' and 36'. Haul roads for development rock and drystack tailings will typically be 46'. (Sheets 13 and 14). Brush berms at the toe of road fills will help control erosion. The major benches at the mill site and the permanent campsite will be cut and fill (Sheets 15 and 16). Detached

ditches built along the top of the back slope of the roads will allow runoff to be directed to lower Liese Creek without coming into contact with the tailings haul roads. Erosion control structures and rock armor will be incorporated into the diversion ditches where necessary and prior to the flow re-entering Liese Creek (Sheet 17). Aufeis intercept benches will be constructed above the main diversion ditches around the perimeter of the drystack. The purpose of these benches is to cause local aufeis formation and thereby reduce aufeis formation in the main ditches. This will enhance the functionality of the main ditches during spring runoff and will help ensure that the water is diverted around the RTP as has been assumed in the model (Sheet 18). The Tailings Facility will be constructed in upper Liese Creek (Sheet 7) and will include the recycle tailings dam and pond (RTP), the drystack tailings facility, diversion ditches, seepage collection, and intake for the water treatment plant (Sheets 19 - 23). In order to construct the tailings facility, diversion ditches will first be constructed to divert the surface flow around the facility. Rock excavated from material sites will be used to construct the RTP dam, which will include a spillway designed to accommodate the probable maximum flood (PMF). Approximately 1 foot of organics and soil will be cleared and grubbed from the drystack footprint area and stockpiled for future use as growth media. A toe berm will be constructed out of guarried rock or nonmineralized development rock. A starter berm will be constructed in the drystack area out of rock excavated from material sites and colluvium excavated from the RTP impoundment area. Flow-through drains will be constructed to collect and channel any seepage and groundwater to the RTP. A 1.5-foot thick layer of nonmineralized rock will be placed as an erosion control/drainage blanket over the entire drystack footprint. After construction is complete and once the mill begins operations, the pressure filtered tailings will be placed in the tailings facility with conventional earthmoving equipment. Three rock quarry material sites will be located in the Liese Creek valley. Material site A (Sheet 24) is located at the base of the valley while material sites B and C (Sheets 25 and 26) are located above the RTP in the head of the valley. Rock from these sites will be used during construction, operations, and closure. During closure, the highwall cut faces will be stabilized and left in place. Pulling the outer crest of the fill over the pad to the highwall, grading to control surface water runoff towards Liese Creek, and blending with the local topography as much as possible will reclaim fill embankments. The recontoured surfaces will be ripped where compacted and respread with growth media. The surface solid waste facility constructed in material site B will be reclaimed by placing a soil cover over the waste and respreading with growth media. There are 4 major drainage structures in the Liese Creek Area. These include one bridge crossing at the mouth of Liese Creek and a culvert crossing at each of the following fills: 1) 1690 Portal; 2) Vent Raise Access Road; and 3) 1875 Portal. These oversize culverts were selected based on aufeis storage capacity criteria and are larger than required for seasonal flows. Other minor culverts will be installed in the Liese Creek area to maintain drainage as necessary.

Liese Creek Area Restoration

Due to the marginal hydrology in the area of many of the Liese Creek facilities, feasible restoration of wetlands in the Liese Creek area is limited to creation of emergent wetlands in the depressional areas in the RTP and Material Site A and the removal of culverts and associated fills at the Liese Creek crossings below the 1875 and 1690 portals and the vent raise road. (Sheets 27 and 28). The drystack tailings facility will be restored to uplands. In order to ensure the long-term stability and protection of the drystack, the final surface of the drystack will be sloped at 2% toward the perimeter in order to readily shed water. Perimeter ditches will channel water from the surface of the drystack and the surrounding hillslopes downstream around the drystack. In addition, a 1-foot armor layer of -4-free draining coarse rock will be placed as the first layer of the closure cover on the drystack. The armor layer is to protect the drystack from future erosion. Although this rock will be covered with a soil layer to provide for revegetation with grasses, the overall goal at closure is to minimize water accumulation on the drystack surface. The total wetland acres disturbed is projected to be 70 acres (35% of total), of which 10 acres (14% of wetlands) will be restored. An additional 0.4 acres of wetlands will be created.

Airstrip Area

The Airstrip Area is located in the Goodpaster River valley north of the existing camp and north of the mouth of Liese Creek (Sheet 8). Proposed facilities in this area include access roads, a 3,000 foot airstrip and parking apron, fuel storage facilities, two Phase II gravel pits, a concrete batch plant and aggregate stockpile area, laydown areas, log yards, and growth media stockpiles. The area also includes the off-river treatment works, which is the agency preferred alternative for release of treated water into the Goodpaster River (Sheet 29). The access road to the airstrip has been relocated slightly to the south from earlier layouts in order to minimize the culvert crossings in potential flood channels. The laydown areas have been modified to center around upland areas where possible and to leave flood channels open where feasible. The Phase II gravel pits will be used to supply gravel after the off-river treatment works is operational.

Airstrip Area Restoration

The wetland restoration plan for the airstrip area is to remove fill, culverts, and geotextile from wetland fills. The off-river treatment works will be reclaimed by creating emergent wetlands and over-wintering habitat by connecting the ponds to the river channel (Sheet 30). Fill that is removed from wetlands during restoration will be placed on either upland or mosaic fills. The mosaic fills will be recontoured for drainage and terrain. The edges will be tapered and the pad surface will be ripped or scarified, spread with growth media (Sheets 32-35). The total wetland acres disturbed is projected to be 19 acres (25% of total), of which 15 acres (79% of wetlands) will be restored. An additional 14 acres of wetlands will be created.

Shaw Creek Hillside Road

The 49-mile all season Shaw Creek Hillside Road will provide access to the project. The existing 2-mile State road from the Richardson Highway to Rosa Creek will be used to provide access to the beginning of the road. The Shaw Creek Hillside Road footprint is segregated by major areas: Access Road, Material Sites, Construction Camps & Airstrips, Log Yards, Staging Area and the Shaw Creek Winter Road. The total wetland acres disturbed is projected to be 135 acres (19% of total), of which 46 acres (34% of wetlands) will be restored.

Access Road

For the purposes of compiling the footprint for the Access Road, the road has been broken up into 7 segments according to the manner in which it will be restored. For example, the first segment of the road, Station 00 to 65, is primarily overlay construction that will be removed at closure. The second segment, Station 65 to 378, is primarily cut and fills construction with marginal hydrology where wetlands cannot feasibly be restored. The road alignment station numbers that correspond to the 7 segments are shown along the road on Sheets 36 to 41. The Shaw Creek Hillside Road will be constructed using cut-and-fill techniques where appropriate. Typical sections are shown on Sheets 42 to 44. Side-cut borrow will be used where feasible to generate the necessary random fill material. The disturbance width will vary by the steepness of the local terrain, varying from 48 ft in flat terrain to 300 ft in steeper areas. Fill volume and footprint values are based on the preliminary design footprint, as well as an additional allowance of 15 feet for compacting and shaping the slash into sediment catchment berms along the downhill toe. The volumes and footprints include an allowance for slash volume, as well as provision for the truck safety ramps and truck passing lanes on the road section between upper Shaw Creek and the Goodpaster valley. Bridges are proposed at the Goodpaster River and Shaw, Gilles, Caribou, Keystone and Rosa Creeks (Sheets 45 - 51). Rock armoring will be placed as necessary to protect the road embankment, but placement of armoring in the active channel will be minimized. Cross drainage culverts will be installed on minor drainages and on long grades as needed. In order to help minimize erosion, small spruce tree sections, including fully needed boughs and limbs salvaged from clearing operations, may be placed in road ditches or at the toe of slopes. The natural vegetation will be left intact in as close proximity to the construction disturbance as possible in order to trap sediments before they reach a watercourse. In order to avoid a 300-foot high backslope excavation that would otherwise be required to remove a steep rock escarpment in the Wolverine Creek valley, a 150-foot long reach of the Wolverine Creek channel will be filled and the channel reconstructed in an adjacent flood channel. (Sheets 52 - 54).

Access Road Restoration

Reclamation of the road will have four objectives: first, to remove bridges and culverts and construct ditches and water bars so as to disperse the surface runoff in a manner that will promote long-term stability and revegetation; second, to remove fills from flat wetland areas; third, to scarify and fertilize the road surface so as to promote revegetation; and fourth, to construct appropriate physical barriers so as to minimize future use by vehicular traffic that could cause damage to wetlands. The Alternative Management Option described in Appendix D.3 of the Pogo Draft Environmental Impact Statement (DEIS), the footprint tables and reclamation techniques to be applied to the road assume that the road will be reclaimed only from Gilles Creek to the Goodpaster River. Reclamation of disturbed areas will include removing drainage structures and restoring or stabilizing natural drainage paths. Bridge structures and abutments will be removed. Foundation piling will be cut off below surrounding grade and buried, except at the Goodpaster River, where all piling will be pulled. The road prism will not be removed, except in flat wetland areas. In mosaic wetlands, the roadbed will be recontoured or graded for drainage. Water bars and/or ditches will be constructed to control accumulation of runoff and erosion. The road surface will be scarified/ripped, fertilized, and prepared as necessary to establish suitable ground cover. The road will not be fertilized within 200 feet of water bodies. By the end of mine life, most of the disturbed areas beyond the road surface and ditches will have been naturally revegetated and will be left undisturbed at closure. To minimize future use by vehicular traffic, bridges and bridge abutments will be removed and barrier berms of oversize shot rock will be constructed near each stream crossing to restrict vehicle access.

The total wetland acres disturbed is projected to be 86 acres (20% of total), of which 10 acres (12% of wetlands) will be restored. Restoration is not assumed for the 20 acres of wetlands (included in the 86 listed above) disturbed by the portion of the road from Rosa Creek to Gilles Creek.

Material Sites for Road Construction

Construction of the road may require developing up to 22 different material sources. Material Site 1 is an existing State of Alaska borrow site. A detailed plan of each new material site that impacts wetlands is presented in Sheets 55 to 61. Typical sections are presented in Sheets 62 and 63. The 22 possible sites are at locations found to have potential to supply suitable construction aggregate in locations that minimize the required haul distance. Except for sites that will only supply sand for bulk fill; the majority of the sites are to supply shot-rock for embankment construction, riprap, and road topping material.

Material Site Restoration

Material sites developed for construction and not needed for ongoing road

maintenance will be reclaimed as outlined on the individual site plans shown in Sheets 55 to 61 and the typical sections shown in Sheets 62 and 63. The total wetland disturbance is 10 acres (5% of total), of which 0 acres (0% of wetlands) will be restored.

Temporary Construction Camps and Airstrips

Two temporary camps are proposed in conjunction with road construction. Periods of operation will depend on road construction startup, but no camp will be operated for longer than 12 months. The camps will accommodate 20 to 35 persons each. Each camp would include development of a 2,000-foot temporary airstrip built on the road alignment. The Goodpaster camp (Sheet 64) is adjacent to Material Site 23 near the west abutment of the bridge over the river. This camp is necessary to support the road construction that will proceed back toward Shaw Creek between the time the winter road is open and the bridge over the Goodpaster River and the new roads and airstrip on east side of river are complete.

Temporary Construction Camp and Airstrip Restoration

Restoration of the temporary camp at the Goodpaster will entail removal of the fill from the flat wetlands. The total wetland acres disturbed is projected to be 4.2 acres, of which 4.2 acres (100% of wetlands) will be restored.

Log Yards

Log yards will be required to provide temporary storage for timber required by the State of Alaska to be salvaged from the road and powerline clearing. Logs will be skidded or hauled to the log yards, where they will remain until road construction advances sufficiently that the logs can be removed. Cut and fill road construction will be required to provide access into the log yards (Sheet 65).

Log Yard Restoration

Fill will be removed from the wetland portion of the log yards. The wetland acres disturbed is projected to be 4.7 acres (26% of total), of which 0.5 acres (10% of wetlands) will be restored.

Staging Area

A staging area will be located near the intersection of the access road from the Richardson Highway to the Trans Alaska Pipeline (Sheet 66). Fill from Material site 1 will be used to construct the staging area, which will initially serve as a staging area for road construction and will eventually include a maintenance shop and an employee bus terminal. Employees will leave their personal vehicles in the parking area and will be transported to the mine site by bus. The entire area will be fenced and gated for security. Although the applicant had proposed a staging area in uplands near the pipeline, the revised location is proposed as a response to public comment in order to mitigate impacts from traffic on the existing Shaw Creek road.

Staging Area Restoration

Fill will be removed from the wetland portion of the staging area. The total wetland acres disturbance is projected to be 6.2 acres (75% of total), of which 6.2 acres (100% of wetlands) will be restored.

Shaw Creek Winter Road

The Shaw Creek Winter Road will be used to mobilize construction equipment, materials, temporary camp facilities, and fuel to establish construction headings near Gilles Creek. A new headache rack would be installed near the Trans Alaska Pipeline to protect the pipeline from oversize loads (Sheet 67). The first 9 miles would then follow the recently used existing winter road. From mile 9 to mile 15, the trail will require mechanical clearing and limited regrading. An alternative winter access route has been identified that may provide a means to access the Shaw Creek Hillside route toward Gilles Creek with less disturbance and more synergy with project development (Sheet 40). This route would follow the existing network of winter roads, used as recently as 2001 for winter logging access to upland areas east of Caribou Creek, to within a 1/4 mile of the transmission line alignment. Clearing and Winter Road development along the transmission line, which would also facilitate transmission line construction, would then provide access to the Shaw Creek Hillside Road. Clearing and pioneer trail development could then readily proceed along the road alignment toward Gilles Creek for establishment of the construction camp. Use of this alternative route will depend upon snow, frost, and aufeis conditions, but if used would result in less wetland disturbance because only a ¼ mile of trail would be cleared outside the road and transmission line clearing limits as opposed to the 6 miles.

Shaw Creek Winter Road Restoration

With only limited surface disturbance and with no imported fill, the wetlands will be restored by natural revegetation. The fill near the new headache bar will not be removed in order to support future use of the winter road by others. The total wetland acres impacted is projected to be 24 acres (77% of total), of which 24 acres (100% of wetlands) will be restored.

Transmission Line

A 138 kV transmission line would be constructed generally parallel to the Shaw Creek Hillside Route and would tap Golden Valley Electric Association, Inc.'s existing transmission system at a new substation to be constructed near the TAPS right of way near Shaw Creek. The transmission line will be of wooden H-pole construction (Sheet 68). The transmission line alignment has been carefully selected to maximize its proximity to the road. Clearing widths for the transmission line will vary depending upon the terrain and type of vegetation up to a maximum of 125 feet. Where possible, the clearing limits for the powerline and the road merge, reducing the overall clearing required. All vegetation smaller than 9" will be cleared by hydro-axing or mastication (vegetation grinding), or shearing in winter. Vegetation along streams will only be cleared to the extent necessary to allow for construction and maintenance. The vegetation may not be cleared if it is determined to be sufficiently below the conductors, as may be the case with spans over depressions, gullies, or swales. The total wetland acres disturbed is projected to be 7.7 acres (17% of total), of which 2.8 acres (36% of wetlands) will be restored.

Transmission Line Structures and Construction Footprint

Construction of the transmission line will require minor access and spur trail construction in some areas, and will result in minor disturbance at each of the pole installations. Where the power line will not be constructed adjacent to the road, some clearing and spur trail development will be necessary between the access road and the power line corridor for equipment access for pole installation and stringing line. At the access spurs, fill will be placed as needed to create ramps extending 20 to 40 feet beyond the toe of the road embankment. Trail development along the powerline would be required in limited areas. Access disturbance will be minimized to the extent feasible and would be sited to minimize disturbance of wetlands. Clearing in wetlands in the power line corridor would be limited to areas where vegetation would be over 10 feet tall. At each pole structure, some ground leveling might be required for pole installation; and pole and anchor installation would require augering or excavation and backfill. Some of the wetlands would require special pile foundations for the poles. Spur trails to access the pole structures will be 20 ft wide and vary in length depending on the power line's distance from the road. Each pole structure is expected to require between 3,000 and 5,000 square feet of disturbance depending on terrain. Up to 300 square feet of the disturbance will receive borehole castings. Approximately 90-95% of this surface disturbance would occur within the cleared Right of Way (ROW).

Transmission Line Structures and Construction Footprint Restoration

Sidehill cuts necessary to provide access along the ROW for construction will be reclaimed upon completion of construction by installation of water bars, reshaping to control erosions, and spreading of growth media. Transmission line reclamation will include removing all wire and support structures by cutting the poles off at ground level and salvaging all structure components. Screw anchors will be trimmed 0.5 feet below ground level. Any significant disturbance resulting from efforts to decommission the transmission line will be graded and seeded. The wetland acres disturbed is projected to be 7.7 acres (18% of total), of which 2.8 acres (38% of wetlands) will be restored.

Goodpaster Winter Road

The existing Goodpaster Winter Road will be used to mobilize approximately 700-800 loads of equipment and supplies to the Pogo site (Sheet 69). This same winter road was used during the winter of 1997/98 to mobilize 126 loads of equipment and supplies to Pogo in support of the advanced exploration effort. Use of the winter road is necessary in order to allow construction to begin as soon as possible on the mill facilities at the site, which is the critical path to overall project construction. Mechanized land clearing, regrading, and completion of several fills, as well as the spreading of traction sand on Quartz Lake Hill and Progressive Creek Hill will be jurisdictional. Thirty-two acres of wetlands would be jurisdictionally impacted.

Goodpaster Winter Road Modifications

The goal of modifications will be to widen the trail sufficiently so as to allow simultaneous use by recreationalists and industrial traffic. It is expected that the truck traffic will travel in convoys. The added trail width will provide an additional margin of safety for snowmachines to safely pass the convoys. Earthwork modifications will occur in the Quartz Lake Hill, Progressive Creek Hill, and Seven Mile Creek areas. Systematic clearing along the trail is proposed between Quartz Lake and the Goodpaster River.

Quartz Lake Hill

The trail in this location winds through heavily forested terrain on moderate slopes. A minor amount of clearing and earthwork will result in substantial improvements in sight distance along the trail and in useable trail width (Sheets 70 and 71).

Progressive Creek Hill

The trail at this location goes through a small cut at the crest of the hill and has up to 15% grade on either side of the crest. The trail on the eastern slope traverses the top of a narrow fill that is not safe for the volume of traffic proposed. A cut will be made near the top of the hill to generate sufficient borrow to widen and regrade the fill (Sheets 72 and 73).

Seven Mile Creek

The trail at this location traverses along a sideslope that is not safe for the volume of traffic proposed. Earthwork will be completed to regrade this portion of the trail (Sheets 74 and 75).

Quartz Lake to Goodpaster River Widening

Most of the recreational traffic on the trail occurs between Quartz Lake and the first river crossing at the Goodpaster River. This reach will be widened approximately 10 feet by mastication. This treatment is preferable to a hydro-axe in order to prepare the trail surface sufficiently to provide a reasonable surface for snow machines, even in a low snow year. Root disturbance and woody debris fills fall under the Corps jurisdiction, therefore the area and fill volumes have been included.

Goodpaster Winter Road Restoration

The balance of the trail will return to wetlands as has been demonstrated by previous use of the trail. The wetland acres disturbed is projected to be 24 acres (75% of total), of which 22 acres (92% of wetlands) will be restored.

<u>PURPOSE</u>: The project purpose is to develop the required infrastructure to construct, develop, operate, and ultimately reclaim the Pogo Gold Mine. The mine would process between 2,500 and 3,500 tons per day of ore for approximately 11 years to supply an on-site mill, which would produce approximately 500,000 ounces of gold per year.

ADDITIONAL INFORMATION: The regional manager for Teck-Pogo Inc is Mr. Karl Hanneman, for additional information he can be reached at (907) 455-8325. Table 1 and 2 are attached to this Public Notice to explain surface disturbance. The Corps has included proposed conditions for the 404 permit as discussed in the Draft EIS for the Pogo Project.

The applicant evaluated each individual wetland polygon proposed to be disturbed to develop an appropriate reclamation technique.

In general, the applicant proposes the following: All flat to gently sloping wetland areas will be restored by removal of fill. Depression areas will be restored to emergent wetlands where the hydrology permits. Culverts and fill will be removed from channels and active floodplains. Where sufficient hydrology permits, gravel pits constructed in the Goodpaster floodplain uplands or black spruce permafrost wetlands will be converted to high value overwintering ponds and emergent wetlands. In general, the term restoration is applied to areas where fill will be removed and the hydrology is sufficient to restore the area to wetlands. In areas of marginal hydrology where restoration is not feasible, the term reclamation has been used to encompass the regrading, stabilization, and revegetation activities that will be completed.

Not all portions of this project are under the jurisdiction of the Corps of Engineers. The Corps does not regulate the hydro-axing or grinding of wetland vegetation. The Corps would regulate wood waste if left in piles in wetlands.

The Corps regulates the placement of dredge and or fill material into waters of the United States. The Corps typically regulates the placement of fill for activities such as roads, pads, berms, dikes or when the root mass is overturned by vegetation grinding or mechanized land clearing. The Corps considers mechanized land clearing of wetlands a discharge of fill material into waters of the United States. Land clearing operations involving vegetation removal with mechanized equipment such as front-end loaders, backhoes, or bulldozers with sheer blades, rakes, or discs in wetlands; or windrowing of vegetation, land leveling, or other soil disturbances in wetlands are placement of fill material under Corps jurisdiction. The placement of fill material back into an area from which the wetlands were cleared is also regulated as part of the placement of fill material into waters of the United States. At the tailings disposal facility the wetlands will be mechanically removed. An erosion blanket will be placed back into the wetlands. The erosion blanket will convert the wetlands to uplands. The tailings will be placed onto the blanket, which the Corps considers"upland". The Corps does not regulate fill placement into "uplands". There is no Corps Department of Army (DA) permit required for the placement of the dry stack tailings. The dry stack-tailing disposal requires a solid waste permit from the Alaska Department of Environmental Conservation (ADEC). A DEIS was prepared for this proposed operation and released for public review. The Environmental Protection Agency (EPA) and Alaska Department of Natural Resources (ADNR) as part of the public process held formal public hearings. The applicant's original proposal was

analyzed in the DEIS. The Corps Public Notice represents the preferred alternative for development of the Pogo Gold Mine. The Public Notice is being released concurrently with the Final Environmental Impact Statement (FEIS) for the project. The complete DA application has not been included in the Public Notice. The Public Notice is meant to be a summary document. Complete copies of the DA permit application can be viewed at the Corps of Engineers, Fairbanks Field Office, 3437 Airport Road Suite 206, Fairbanks, Alaska; or the Corps of Engineers, Regulatory Branch 2204 Third Street, Elmendorf AFB, Alaska; or at Teck-Pogo Incorporated, 3520 International Street, Fairbanks, Alaska.

<u>MITIGATION</u>: As a result of the EIS review and public process, the applicant has incorporated into the project the following mitigation efforts to reduce impacts to the aquatic environment:

In the 1525 Portal-Goodpaster Valley Area, the construction camp pad and growth media footprints were consolidated.

In the Liese Creek Area, a stockpile was added in upper Liese Creek to accommodate storage of the growth media that will be salvaged from the drystack footprint. An erosion control/drainage blanket will be constructed in the drystack tailings area prior to tailings placement.

In the Airstrip Area, the laydown, apron, and growth media footprints were adjusted to minimize the fill placed in wetlands and sloughs and to provide for flood channels. Provisions were added for log yards for timber that will be salvaged during construction.

Along the Shaw Creek Hillside Road, material site boundaries were adjusted to avoid or minimize wetlands. Log yards were added, and an alternative Winter Road in Shaw Creek was identified that may reduce impacts while still providing access to the middle construction heading.

Material Site 2 was dropped from consideration based on geotechnical drilling results.

The staging area was relocated to a site near the Richardson Highway.

Along the Transmission Line, the alignment was adjusted to more closely follow the road between upper Shaw Creek and Goodpaster and thereby avoid disturbance in Sutton Creek.

Along the Goodpaster Winter Road, modifications were proposed to improve safety for both industrial and recreational vehicles.

The minimization of project footprint in wetlands played a major role in the following:

The decision to locate the mill out of the Goodpaster Valley.

The placement of all major facilities on the east side of Goodpaster in order to reduce risks to the river.

The decision to locate the mill in Liese Creek (a small ephemeral stream with no surface connection to the Goodpaster River) rather than on Pogo ridge.

The selection of upper Liese Creek, after thorough review of many alternatives, for placement of the drystack tailings facility.

The selection of the all-season Shaw Creek Hillside Road for access in order to reduce long-term risks to the Goodpaster River posed by alternative access modes.

The siting of the Shaw Creek Hillside Road to avoid wetland areas, cross drainages at right angles, utilize bridges on larger drainages and minimize wetland footprints.

The selection of material site locations to avoid wetlands.

The routing of the transmission lines in close proximity to the road to reduce wetland footprints and reduce the number of drainages affected by the project.

The use of brush berms along the toe of fills to control erosion.

The siting of the airstrip, batch plant, and laydown areas to avoid wetlands and provide for flood channels in the Goodpaster Valley.

The restoration of flat wetlands by removal of fill at project closure. The reclamation of valley material sites to create new wetland areas in ponds with emergent vegetation and over wintering.

After following the avoidance and minimization sequencing described above, including the creation of wetlands, the applicant is left with 140 acres of wetlands that are permanently lost. To offset this loss the applicant has proposed an in lieu fee payment. The payment would go to a Corps approved conservation fund. The applicant has proposed to the Corps an in lieu payment of \$70,000.

WATER QUALITY CERTIFICATION: A permit for the described work will not be issued until a certification or waiver of certification as required under Section 401 of the Clean Water Act (Public Law 95-217), has been received from the Alaska Department of Environmental Conservation.

<u>PUBLIC HEARING</u>: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, reasons for holding a public hearing.

<u>CULTURAL RESOURCES</u>: The latest published version of the Alaska Heritage Resources Survey (AHRS) has been consulted for the presence or absence of historic properties, including those listed in or eligible for inclusion in the National Register of Historic Places. As well a cultural resources survey was completed for the project area. As a result of the survey and negotiations with the SHPO a Programmatic Agreement (PA) was developed for this project. The programmatic agreement was signed by EPA on June 10, 2003, by ADNR on June 18, 2003, by the Alaska SHPO on June 27, 2003, by ADNR on June 18, 2003, by the DA on July 8, 2003, and executed by the signature of the Advisory Council on Historic Preservation on August 12, 2003. The PA describes how to handle present and potentially undiscovered cultural resources. The PA is found in the FEIS as Appendix C.1.

ENDANGERED SPECIES: No threatened or endangered species are known to use the project area. Preliminarily, the described activity will not affect threatened or endangered species, or their critical habitat designated as endangered or threatened, under the Endangered Species Act of 1973 (87 Stat. 844). This application is being coordinated with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. Any comments they may have concerning endangered or threatened wildlife or plants or their critical habitat will be considered in our final assessment of the described work.

ESSENTIAL FISH HABITAT: The proposed work is being evaluated for possible effects to Essential Fish Habitat (EFH) pursuant to the Magnuson Stevens Fishery Conservation and Management Act of 1996, 16 U.S.C. <u>et seq</u> and associated federal regulations found at 50 CFR 600 Subpart K. The Alaska District includes areas of EFH as Fishery Management Plans. We have reviewed the January 20, 1999, North Pacific Fishery Management Council's Environmental Assessment to locate EFH area as identified by the National Marine Fisheries Service. We have determined that the described activity within the proposed area will not adversely affect EFH, including anadromous fish and federally managed fishery resources.

SPECIAL AREA DESIGNATION: The mine is located on State of Alaska managed land.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the proposed activity and

its intended use on the public interest. Evaluation of the probable impacts, which the proposed activity may have on the public interest, requires a careful weighing of all the factors that become relevant in each particular case. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome of the general balancing process. That decision should reflect the national concern for both protection and utilization of important resources. All factors, which may be relevant to the proposal, must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people. For activities involving Section 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's Section 404(b)(l) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria (see Sections 320.2 and 320.3), a permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Your comments will be used in the preparation of Record of Decision for the Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Comments on the described work, with the reference number, should reach this office no later than the expiration date of this Public Notice to become part of the record and be considered in the decision. Please contact Mr. Victor Ross at (907) 753-2716, toll free from within Alaska at (800) 478-2712, or by email at victor.o.ross@poa02.usace.army.mil if further information is desired concerning this notice.

AUTHORITY: This permit will be issued or denied under the following authorities:

(X) Discharge dredged or fill material into waters of the United States -Section 404 Clean Water Act (33 U.S.C. 1344). Therefore, our public interest review will consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

A plan and Notice of Application for State Water Quality Certification are attached to this Public Notice.

District Engineer U.S. Army, Corps of Engineers

PROPOSED 404 PERMIT CONDITIONS POGO GOLD MINE

The approved Department of Army 404 permit boundary shall be clearly marked at all locations except along the linear portions of the Shaw Creek Hillside Road and Transmission Line. A brush berm or equivalent shall be placed on the wetland permit boundaries down gradient of flow to keep sediment from leaving the project site. The berm footprint shall not exceed the approved permit boundary.

Natural drainage patterns shall be maintained in the Department of Army 404 permit area by the installation of culverts in sufficient number and size under access roads to prevent flooding or excessive drainage of adjacent wetlands. The flood channels identified in the approved permit boundary in and around laydown yards and pads shall be clearly marked and shall remain undisturbed except as shown in the approved permit boundary.

No fill or construction materials shall be stockpiled on adjacent wetlands or waters outside the approved footprint.

In areas where growth media is to be salvaged, defined in the reclamation plan filed with the State of Alaska, growth media shall be segregated from non-organic overburden that is not growth media. The growth media shall be segregated and protected from erosion and contamination and shall not be buried by tailings, or waste rock.

All surface disturbances in wetlands shall be confined to the project footprint to prevent unnecessary damage to adjacent wetland areas. No motorized equipment shall be operated, stored or serviced outside of approved areas. No fuel, lubricants, or other hazardous substances shall be stored below the Ordinary High Water level of the Goodpaster River.

All of the measures described in the Pogo reclamation plan shall be included in the DA permit by reference. All measures involving reclamation in wetlands shall become enforceable conditions of the Department of Army, Section 404 permit.

All of the measures described in the Programmatic Agreement for Section 106 of the National Historic Preservation Act shall be included in the DA permit by reference. All measures within the Corps jurisdiction are enforceable conditions of the Department of Army (DA), Section 404 permit.

The permittee shall notify the District Engineer (DE) of any proposed changes to the reclamation bond amount. The DE shall concur with any bond changes that affect wetland restoration and or mitigation sites.

The DA permit shall be reviewed in 5 years as part of the State of Alaska five-year environmental audit. Conditions of the DA permit, restoration and reclamation standards, wetland restoration success and bond values shall all be reviewed for adequacy. The environmental audit results may result in DA permit changes. Should the DE determine the reclamation bond posted by the permittee, is inadequate to guarantee wetland restoration and or mitigation site(s) reclamation, the DE, at any time, may require additional bond value to be posted for the project.

The final reclamation goal for vegetative success in wetland areas is to promote natural re-vegetation with at least 70% live plant cover over the entire reclaimed area prior to bond release.

Seeding, planting, live transplants of ground cover, and/or fertilizing of re-contoured ground to promote re-establishment of natural plant communities is acceptable to meet the cover criteria. Species to be used for seeding and planting should follow this order of preference: 1) species native to the site; 2) species native to the area; 3) species native to the state. Note: If native species are not available, only non-native species, which are known to not reproduce in the general project area, may be used for revegetation. The following species are known to be highly invasive and may not be used under any circumstances for revegetation: Alopecurus arundinacea (meadow foxtail), A. pratensis (creeping foxtail), Lythrum salicaria (purple loosestrife), Melilotus alba (white sweet clover), M. officinalis (yellow sweet clover), Phalaris arundinacea (reed canary grass), Phleum pratense (timothy), and Polygonum cuspidatum (known by the common names: Japanese knotweed, crimson beauty, Mexican bamboo, and Japanese fleece flower) Lysimachia terristris (swamp loosestrife/yellow loosestrife) Phragmites australis (common reed).

eck-Pogo mc. Pogo Project Section 404 Permit Application August 15, 2003

Table 2. Summary of Project Restoration Teck-Pogo Inc. Pogo Project

| Pogo | Project Description n 404 Permit Application | Wetland Fill | Wetland Acres | | Reclamation Comments | | |
|--------------------|--|--------------|----------------|------------------------|----------------------|-----------------|-------------------------------|
| | t 15, 2003 | (yd³) | Disturbed | Restored | Created | | |
| 1 | Mine Site | 1,264,805 | 138.9 | 44.4 | 52.3 | See individual | tables. |
| Table ² | Summary of Project Footprint | 595,786 | 135.9 | 45.5 | 0.0 | See individual | tables. |
| 3 | Transmission Line | 6,380 | 7.7 | 2.8 | 0.0 | See individual | tables. |
| Sec ⁴ | Goodpaster Wippes Engpelon | 39,057 | 24.0 | Fill ^{21.} To | otal Acres.0 | Any politional | tables. Construction Comments |
| | | | | (yd³) D | isturbed | Jurisdictional? | |
| 1 | s Minoralite | 1,906,028 | 306.5 9 | 457,509 4.3 | 372 203 | Yes | See individual tables |
| 2 | Shaw Creek Hillside Road | | 4, | 066,791 | 715.1 | Yes | See individual tables |
| 3 | Transmission Line | | | 42,703 | 45.5 | Yes | See individual tables |
| 4 | Goodpaster Winter Road | | | 52,434 | 31.7 | Yes | See individual tables |

Subtotal

7,619,437 1,164.3

eck-Pogo Inc. Pogo Project Section 404 Permit Application August 15, 2003

Table 2. Summary of Project Restoration

| | Description | Description Wetland Fill Wetland Acres | | ; | Reclamation Comments | |
|---|------------------------|--|-----------|----------|----------------------|------------------------|
| | - | (yd ³) | Disturbed | Restored | Created | |
| 1 | Mine Site | 1,264,805 | 138.9 | 44.4 | 52.3 | See individual tables. |
| 2 | Access Road | 595,786 | 135.9 | 45.5 | 0.0 | See individual tables. |
| 3 | Transmission Line | 6,380 | 7.7 | 2.8 | 0.0 | See individual tables. |
| 4 | Goodpaster Winter Road | 39,057 | 24.0 | 21.6 | 0.0 | See individual tables. |
| | Subtotal | 1,906,028 | 306.5 | 114.3 | 52.3 | |

Q-1996-0211 GOODPASTER 1





















































































































































