

APPENDIX A: PROJECT AREA OF POTENTIAL EFFECTS

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to take into account the effects of their undertakings on historic properties. The act allows for consultation between Federal officials and interested parties, enabling parties the opportunity to comment. The goal of the consultation is to identify potentially affected National Register-eligible historic properties, assess the project's effects, and seek ways to avoid, minimize or mitigate adverse effects on historic properties (Section 106 Regulations). Identification of historic properties and documentation of the Area of Potential Effects (APE) is defined in 36 CFR Part 800 Protection of Historic Properties §800.16(d):

Area of potential effects means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

The attached maps illustrate the proposed APE as it applies to the applicant preferred alternative. However, we have described the APE in such a way that it will be easy to adapt it to other alternatives if they become the US Army Corps of Engineers' (USACE) preferred alternative.

The description of the APE is divided into direct and indirect effects. Adverse effects are defined in the regulations quoted below.

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable future effects caused by the undertaking that may occur later in time, be farther removed in the distance or be cumulative. (36 CFR 800.5(a)(1))

Examples of adverse effects.

Adverse effects on historic properties include, but are not limited to:

- (i) Physical destruction of or damage to all or part of the property;*
- (ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;*
- (iii) Removal of the property from its historic location;*
- (iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;*

- 1 (v) *Introduction of visual, atmospheric or audible elements that diminish the integrity of*
2 *the property's significant historic features;*
3 (vi) *Neglect of a property which causes its deterioration, except where such neglect and*
4 *deterioration are recognized qualities of a property of religious and cultural*
5 *significance to an Indian tribe or Native Hawaiian organization; and*
6 (vii) *Transfer, lease, or sale of property out of Federal ownership or control without*
7 *adequate and legally enforceable restrictions or conditions to ensure long-term*
8 *preservation of the property's historic significance. (36 CFR 800.5(a)(2))*

9 **I. Area of Potential Effects (APE)**

10 A. The USACE, in consultation with the BLM and other parties to this agreement, has
11 defined and documented the proposed APE for the Donlin Gold Project based on
12 potential direct, indirect and cumulative effects. The APE will apply to all lands
13 regardless of management status that may be affected by the mine site, pipeline
14 corridor, transportation system, staging areas, access roads, borrow areas, or other
15 related infrastructure for this Undertaking. The APE, as defined and documented, is a
16 baseline for survey and inventory.

17 1. Direct Effects—The following discussion of direct effects APE takes into account
18 ground-disturbing activities associated with the Undertaking:

- 19 a. The direct effects APE for the Mine site will consist of Donlin's mine lease area
20 (approximately 64,238 acres). This is substantially larger than the proposed
21 mine footprint, and allows for flexibility in Donlin's operations. The airstrip and
22 road between the mine site and the airstrip would also be contained within this
23 mine lease area.
- 24 b. The direct effects APE for the Donlin-Jungjuk road, and the airstrip spur road
25 will be a 500 foot wide corridor, 250 feet on either side of the road centerline,
26 matching the area that would be leased from the State of Alaska and TKC.
- 27 c. The direct effects APE for materials sites along the Donlin Mine-Jungjuk port
28 road will be the materials site footprints, plus a 100 foot buffer around them.
- 29 d. The direct effects APE for the Jungjuk port facility will be a 0.25-mile buffer
30 surrounding the facility footprint (approximately 32 acres).
- 31 e. The direct effects APE for the pipeline corridor will be a 300 foot wide corridor,
32 150 feet either side of centerline for an approximate distance of 315 miles
33 (approximately 11,385 acres).
- 34 f. The direct effects APE for the pipeline corridor access roads will be a 200 foot
35 wide corridor, 100 feet either side of the road centerline.
- 36 g. The direct effects APE for the ancillary facility areas outside of the 300-foot
37 pipeline corridor (such as material borrow sites, airstrips, temporary camps,
38 HDD sites, etc.) will generally include the footprint of the facility and a buffer of

1 100 feet around the footprint of the proposed activity (approximately 3,678
2 acres), unless otherwise specified.

- 3 • The direct effects APE for specified spur roads will be a 100 foot buffer
4 on either side of the road centerline.
- 5 • The direct effects APE for the Beluga barge landing site will consist of
6 the landing footprint and a 50-foot buffer.
- 7 • The winter access routes for construction on State lands will consist of
8 a 100 foot wide corridor, 50 feet on either side of the existing road
9 centerline. This includes existing winter roads that may need to be
10 hardened, widened, improved, etc., as well as turnouts along those
11 routes.

12 h. For all other miscellaneous items not covered above, the direct effects APE will
13 be the ground disturbance footprint plus a 100 foot construction buffer.

14 2. Indirect Effects

- 15 a. Refer to 36 CFR 800.5(a)(2)(iv) and 36 CFR 800.5(a)(2)(v) as cited above for
16 the definition of *indirect* adverse effects.
- 17 b. The indirect effects APE for the mine site will extend generally for 2 miles
18 surrounding the Mine site footprint, or to the lease boundary, whichever is
19 larger. Because the direct effect APE is the lease boundary, the indirect APE
20 will be at least as large as the direct APE, and never smaller. This is the same
21 for the whole mine site area, including the mine area, airport, Donlin-Jungjuk
22 Road, Donlin-Jungjuk materials sites, and the Jungjuk port.
- 23 c. The indirect effects APE for the pipeline ROW, including ancillary facilities and
24 access roads, will extend for 1 mile on each side of the pipeline ROW
25 centerline. This reflects viewshed analyses that have been conducted, as well
26 as variations in topography and vegetation.
- 27 d. The indirect effects APE for the Bethel port facility will be the 19.5 acre facility
28 footprint, plus a 100 foot buffer around the facility footprint. This APE may be
29 revised if a permit is submitted to the USACE for reasonably foreseeable facility
30 modifications.
- 31 e. Given the nature of the Kuskokwim River – with its constantly shifting route and
32 ongoing seasonal erosion – mapping an indirect APE buffer will result in
33 inaccuracies and will be of little use to the consulting parties. Rather, the
34 agencies and the applicant will work to seek consulting party input to identify
35 and consider significant sites along the Kuskokwim that may be affected by the
36 proposed project-related activity along the river.
- 37 f. For the Cook Inlet barge landing, winter access routes, there will be no APE for
38 indirect effects, unless the USACE identifies historic properties in the area that
39 may be affected.

1 g. Where the indirect APE includes Traditional Cultural Properties (TCPs) that are
2 identified during consultation, or other classes of visually-sensitive historic
3 properties, additional analyses may be required and the indirect APE may need
4 to be modified accordingly. These areas will require more specific analysis on a
5 case by case basis, but could include particular views of TCPs, or vistas from
6 particular viewpoints.

7 3. Cumulative Effects

8 a. The identification of the APEs will consider cumulative effects to historic
9 properties as referenced in 36 CFR 800.5. Cumulative effects may be direct,
10 indirect or both, or reasonable foreseeable effects caused by the Undertaking
11 that may occur later in time, be farther removed in distance or be cumulative.
12 The potential to increase access, and therefore, effect, to historic properties, is
13 an example of this.

14 B. Modifications to the APE

- 15 1. The APE may be modified where tribal consideration, additional field research or
16 literature review, consultation with parties to this agreement, or other factors indicate
17 that the qualities and values of historic properties that lie outside the boundaries of
18 the APE may be affected directly, indirectly or cumulatively.
- 19 2. Any party to this agreement may propose that the APE be modified by submitting a
20 written request providing a description of the area to be included, justification for
21 expanding the APE, and map of the area to be included to the USACE. USACE will
22 notify the parties to this agreement of the proposal with a written description of the
23 modification requested within 15 days of receipt of such a request. From the date of
24 notification, USACE will consult with the parties to this agreement for no more than
25 30 days to reach consensus on the proposal.
- 26 3. If the parties to this agreement cannot agree to a proposal for the modification of the
27 APE, then the USACE will consider their concerns and will render a final decision
28 within 30 days after the consultation period closes.
- 29 4. For all modifications to the APE, USACE will provide a written record of the decision
30 to the parties to this agreement.
- 31 5. Modification of the APE will not require an amendment to the PA.

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