

December 12, 2018 File: 111473003

Attention: Jennifer Howe, Environmental Assessment Officer

Suite 1145, 9700 Jasper Avenue Edmonton, Alberta T5J 4C3

Dear Jennifer,

Reference: Proposed Changes to the Layout of Infrastructure for the Alamos Gold Inc. Lynn Lake Gold Project (Canadian Environmental Assessment Reference No. 80140)

On behalf of Alamos Gold Inc. (Alamos; the Proponent), Stantec Consulting Ltd. (Stantec) is submitting this letter to inform the Canadian Environmental Assessment Agency (CEA Agency) regarding proposed changes to the layout of infrastructure for the Lynn Lake Gold Project (the Project). The CEA Agency was notified at a meeting on October 17, 2018, that the site layout will vary slightly from how it was described in the previously accepted Project Description (PD). As requested by the CEA Agency during that meeting, this letter summarizes the proposed changes to the Project layout, the rationale for the proposed changes, and potential implications for the environmental assessment (EA).

Background

The Project is the proposed redevelopment of two historical gold mines by Alamos. The Project consists of two primary deposit sites, which are both located near Lynn Lake, Manitoba: the 'Gordon' site and the 'MacLellan' site. Alamos intends to construct (redevelop), operate, and eventually close/reclaim open pit gold mines at both these historical mine sites.

A PD was prepared to initiate the federal EA process for the Project under the *Canadian Environmental Assessment Act, 2012* (CEAA 2012) and inform the provincial EA process under *The Environment Act* of Manitoba. The PD was formally filed with the CEA Agency on July 20, 2017. Project-specific final Guidelines for the Preparation of an Environmental Impact Statement (EIS) (EIS Guidelines) were issued by the CEA Agency on November 6, 2017.

Following submission of the PD, the Proponent's engineering team conducted a value engineering investigation for the purposes of improving the economics and viability of the Project. Various potential Project modifications were evaluated, and it was determined that reconfiguration of infrastructure at the MacLellan site would result in increased operational efficiency, capital savings, and environmental benefits.

Proposed Changes to the Project

The proposed changes to the Project that was presented in the PD, relate solely to the layout of infrastructure at the MacLellan site. No changes are proposed for the Gordon site or with respect to other aspects of mining described in the PD beyond those identified in **Table 1**. All other Project details will remain as described in the PD.

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Reference:

Proposed Changes to the Layout of Infrastructure for the Alamos Gold Inc. Lynn Lake Gold Project (Canadian Environmental Assessment Reference No. 80140)

Maps 5, 7, and 11 in Appendix B of the PD show the preliminary general arrangement of Project infrastructure at the MacLellan site as originally proposed. These three original PD maps are reproduced in **Attachment A** of this letter for ease of reference. **Attachment B** contains amended versions of these same Maps 5, 7, and 11 now showing the currently proposed (revised) layout of Project infrastructure at the MacLellan site. **Map A** overlays key features of the original and revised MacLellan site layouts for comparison purposes.

Chapter 5 of the PD defines the Project Development Area (PDA) as the spatial boundary encompassing "the immediate area in which Project activities and components may occur and is the anticipated area of direct physical disturbance associated with construction and operation of the Project (i.e., the Project footprint). The PDA includes the access roads to be upgraded/constructed; the proposed open pits, mine rock storage areas, overburden stockpiles, and ore stockpiles at the Gordon and MacLellan sites; and the proposed TMF and ore milling and processing plant at the MacLellan site. The PDA does not include PR 391."

Because no changes are proposed with respect to the Gordon site, all references below to the 'original PDA' and the 'revised PDA' apply exclusively to the original and revised PDAs for the MacLellan site (as originally described in the PD and subsequently revised as described in this letter, respectively).

As illustrated on **Map A**, approximately 50.8% of the revised PDA occurs within the same footprint as the original PDA. The total area occupied by the revised PDA (approximately 1,105 hectares [ha]) is approximately 1% smaller than the total area occupied by the original PDA (approximately 1,120 ha). The layout of the revised PDA is also more compact than the original PDA. Consequently, this smaller area and compacted layout of the revised PDA overlaps fewer undisturbed lands as well as fewer mineral/mining claims and leases than the original PDA (refer to Maps 5 and 7 in **Attachments A and B**).

A substantial majority (approximately 88.6%) of the revised PDA is located within the spatial boundaries of the study area in which the environmental baseline studies referred to in Table 4.1 (Chapter 4) of the PD have been and are being conducted in support of the Project. This environmental baseline study area will be expanded as necessary to allow for groundwater sampling and other relevant environmental baseline studies to be carried out within portion of the revised PDA that occurs outside of the original baseline study area. All of the relevant information with respect to the revised site plan and newly acquired baseline information will be detailed in the EIS.

Table 1 provides an overview of each of the changes to the Project that are proposed to be implemented within the revised PDA described above, as well as associated rationale and EA implications.

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Table 1 Summary of Proposed Changes to the Project and Associated Rationale and EA Implications

Proposed Change(s) to the Project	Rationale for Proposed Change(s)	EA Implications
The TMF will be relocated approximately 1.5 km to the west and the total surface area occupied by the revised TMF will increase from approximately 241 ha to approximately 254 ha.	 Moving the TMF to a more central location will contribute to increased compaction of the total PDA footprint at the MacLellan site, which is expected to improve flow and enhance operational efficiency by reducing on-site travel distances and associated travel time. The total surface area to be occupied by the TMF has increased as a result of the natural topography in the revised TMF location and efforts to reduce the dam volume while still maintaining the required capacity. 	 The shorter travel distances between the more central revised TMF location and other Project facilities at the MacLellan site will reduce potential greenhouse gas (GHG), dust, and other air emissions associated with transportation within the MacLellan site PDA. Minton Lake has very little assimilative capacity. Moving the TMF further away from Minton Lake and its headwaters may decrease potential mass loading from the TMF to that lake. Due to the closer proximity of the tailings to Payne Lake, the revised TMF location may cause additional loading to the provided TMF location.
		 loading to Payne Lake in comparison with the original TMF location. The larger footprint of the revised TMF may result in additional Project-related environmental effects associated with the relative increase in the spatial extent of physical disturbance.
		 Although the revised TMF footprint is located partially outside of the original PDA, it is predominantly contained within the boundaries of the study area in which the environmental baseline studies referred to in Table 4.1 (Chapter 4) of the PD have been and are being conducted in support of the Project. This environmental baseline study area will be expanded as necessary to allow for groundwater sampling and other relevant environmental baseline studies to be carried out within the portion of the revised PDA that occurs outside of the original baseline study area.
		The potential environmental interactions and effects identified above will be assessed in the EIS based on the revised PDA.
		The EA implications identified above do not materially affect the validity of the original PD or its continued applicability as the basis for the previously issued EIS Guidelines and for the purposes of the public and stakeholder consultation and Indigenous engagement completed to date.
(occupying a total surface area of 336 ha) the will replace the single mine rock storage	Wrapping the mine rock storage areas around the TMF will contribute to increased compaction of the total PDA footprint at the MacLellan site, which is expected to improve flow and enhance	The shorter travel distances that will be achieved by compacting the total PDA footprint at the MacLellan site will reduce potential GHG, dust, and other air emissions associated with transportation within the MacLellan site PDA.
		The upper limit of the fish-bearing headwaters of Keewatin River tributary AQM25 is located approximately 20 m from the nearest edge of the revised mine rock storage areas. In consideration of

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Proposed Change(s) to the Project	Rationale for Proposed Change(s)	EA Implications
rock storage areas will "wrap around" the south and east sides of the TMF.	 operational efficiency by reducing on-site travel distances and associated travel time. The rationale for splitting mine rock storage into two separate areas is to avoid encroaching on a fish-bearing stream (i.e., the headwaters of Keewatin River tributary AQM25). 	this distance and the management measures outlined in Section 2.6.2 (Liquid Discharges and Management) of the PD, the following statements from Section 2.3.2.5 (Water Development and Control) of the PD remain applicable: "[N]o amendment(s) to Schedule 2 of the MMER is anticipated to be required for the Project and no habitat used by any CRA fish species will be physically affected by construction of the Project. Assuming there will be no significant effects to stream flows or lake levels, no authorization(s) are likely to be required under section 35(2) of the <i>Fisheries Act</i> ."
	The total surface area to be occupied by the revised mine rock storage areas has increased as a result of the need to limit the height of the mine rock stockpiles to no higher than the maximum height of the tailings dam, since these stockpiles will abut against the dam along its south and east sides.	The larger cumulative footprint of the revised mine rock storage areas may result in additional Project-related environmental effects associated with the relative increase in the spatial extent of physical disturbance.
		 The revised mine rock storage areas will be configured such that their heights will be lower than the height of the original mine rock storage area and most of their storage capacity will be located further east than was originally proposed. These changes are expected to reduce potential visual effects on users of the Keewatin River.
		 Although the revised mine rock storage area footprint is located partially outside of the original PDA, it is entirely contained within the boundaries of the study area in which the environmental baseline studies referred to in Table 4.1 (Chapter 4) of the PD have been and are being conducted in support of the Project.
		 The EA implications identified above do not materially affect the validity of the original PD or its continued applicability as the basis for the previously issued EIS Guidelines and for the purposes of the public and stakeholder consultation and Indigenous engagement completed to date.
The plant site will be relocated to the north of the open pit.	Moving the plant site to a more central location will contribute to increased compaction of the total PDA footprint at the MacLellan site, which is expected to improve flow and enhance operational efficiency by reducing on-site travel distances and associated travel time. The revised plant site will be easily accessible via the existing western access road. This will	The shorter travel distances between the more central revised plant site and other Project facilities at the MacLellan site will reduce potential GHG, dust, and other air emissions associated with transportation within the MacLellan site PDA.
		Potential EA implications associated with removal of the southern access road are considered separately in the corresponding row of this table (below).
		 Although East Pond is no longer proposed to be dewatered and infilled to accommodate the ore milling and processing plant, the pond is expected to drain and become dry as a result of the development of the adjacent open pit. As indicated in the PD, the pond is shallow, freezes to the bottom in winter, and

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Proposed Change(s) to the Project	Rationale for Proposed Change(s)	EA Implications
	remove the requirement to construct a new southern access road, thereby eliminating substantial costs and scheduling constraints associated with winter construction in wetland areas. Relocating the plant site will remove the requirement to infill East Pond, thereby eliminating substantial costs related to the importation of clean fill material for that purpose.	 does not host any fish that are part of a commercial, recreational, or Aboriginal (CRA) fishery or that support such a fishery. Authorization under section 35(2) of the <i>Fisheries Act</i> is therefore not anticipated to be required. Although it is not yet known whether the size of the plant site will change, it is anticipated to be sized such that it will be located entirely within the boundaries of the original PDA. It will also be entirely contained within the boundaries of the study area in which the environmental baseline studies referred to in Table 4.1 (Chapter 4) of the PD have been and are being conducted in support of the Project. The EA implications identified above do not materially affect the validity of the original PD or its continued applicability as the basis for the previously issued EIS Guidelines and for the purposes of the public and stakeholder consultation and Indigenous engagement completed to date.
Construction of a new 2.6-km southern access road is no longer proposed; the existing 4.6-km western access road will be used instead. The power supply will follow the existing western access road rather than the originally proposed southern access road.	The revised plant site (described in the corresponding row of this table above) will be easily accessible via the existing western access road. This will remove the requirement to construct a new southern access road, thereby eliminating substantial costs and scheduling constraints associated with winter construction in wetland areas.	 Removal of the requirement for a new southern access road will reduce the overall size of the PDA and associated Project-related physical disturbance and potential environmental effects (including to wetlands) during construction and operation. Removal of the southern access road will result in approximately 7 km of additional travel (in each direction) for Project-related trucks transiting between the Gordon and MacLellan sites, which will increase potential GHG, dust, and other air emissions from Project-related transportation outside of the MacLellan site PDA. Upgrades to the existing western access road are not anticipated to be required. As indicated in the original PD, it is anticipated that Manitoba Hydro will independently undertake the necessary upgrade to the existing power supply from Laurie River to Lynn Lake and provide the power distribution to the MacLellan site from Lynn Lake. Alamos will not have the ability to direct or influence the construction of the power distribution system (including pole line and substation). The upgraded power distribution system is expected to be assessed, built, owned, and operated by Manitoba Hydro. The power distribution system will also be entirely under the care and control of Manitoba Hydro and is therefore excluded from the scope of the Project to be assessed. The western access road is located entirely within the boundaries of the original PDA.

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Rationale for Proposed Change(s)	EA Implications
	 The EA implications identified above do not materially affect the validity of the original PD or its continued applicability as the basis for the previously issued EIS Guidelines and for the purposes of the public and stakeholder consultation and Indigenous engagement completed to date.
 Moving the overburden stockpile to the north will enable the plant site to be moved to a more central location. As described in the corresponding row of this table above, this will contribute to increased compaction of the total PDA footprint at the MacLellan site, which is expected to improve flow and enhance operational efficiency by reducing on-site travel distances and associated travel time. The total surface area to be occupied by the overburden stockpile has increased as a result of the natural topography in the revised stockpile location and efforts to reduce the stockpile height while still maintaining the 	 The shorter travel distances that will be achieved by compacting the total PDA footprint at the MacLellan site will reduce potential GHG, dust, and other air emissions associated with transportation within the MacLellan site PDA. Although the revised overburden stockpile footprint is located substantially outside of the original PDA, it is contained entirely within the boundaries of the study area in which the environmental baseline studies referred to in Table 4.1 (Chapter 4) of the PD have been and are being conducted in support of the Project. The EA implications identified above do not materially affect the validity of the original PD or its continued applicability as the basis for the previously issued EIS Guidelines and for the purposes of the public and stakeholder consultation and Indigenous engagement completed to date.
Locating the temporary construction camp at the MacLellan site instead of off-site will reduce requirements for construction and operation of worker accommodations and supporting infrastructure (e.g., waste and water) in town during the mine construction phase as well as reduce daily transportation requirements between town and site for Project personnel.	 Constructing and operating worker accommodations and supporting infrastructure (e.g., waste and water) in the PDA instead of in town will help isolate Project-related physical disturbance and potential environmental effects to an area that will already be subject to these potential effects. It will also increase the demand for potable water from the Keewatin River and have implications for waste and wastewater management requirements at the MacLellan site. Reducing the daily transportation requirements between town and site for Project personnel will reduce potential GHG, dust, and other air emissions, as well as Project-related commuter traffic pressure on public roads outside of the PDA. Locating the construction camp at the MacLellan site will help address concerns about potential negative
	 Moving the overburden stockpile to the north will enable the plant site to be moved to a more central location. As described in the corresponding row of this table above, this will contribute to increased compaction of the total PDA footprint at the MacLellan site, which is expected to improve flow and enhance operational efficiency by reducing on-site travel distances and associated travel time. The total surface area to be occupied by the overburden stockpile has increased as a result of the natural topography in the revised stockpile location and efforts to reduce the stockpile height while still maintaining the required capacity. Locating the temporary construction camp at the MacLellan site instead of off-site will reduce requirements for construction and operation of worker accommodations and supporting infrastructure (e.g., waste and water) in town during the mine construction phase as well as reduce daily transportation requirements

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Proposed Change(s) to the Project	Rationale for Proposed Change(s)	EA Implications
		benefits of workers purchasing goods and services from town businesses as well as the potential for legacy infrastructure to benefit the town community after mine construction.
		The temporary construction camp will likely be located at least partially within the original PDA and will be contained entirely within the boundaries of the study area in which the environmental baseline studies referred to in Table 4.1 (Chapter 4) of the PD have been and are being conducted in support of the Project.
		 The EA implications identified above do not materially affect the validity of the original PD or its continued applicability as the basis for the previously issued EIS Guidelines and for the purposes of the public and stakeholder consultation and Indigenous engagement completed to date.
The original borrow sources that were identified in the PD (i.e., to the east and southeast of the original plant site) will no longer be required. New borrow sources may be identified as Project planning progresses.	The original borrow sources that were identified in the PD were only required for construction of the southern access road.	As indicated in the original PD, rockfill and aggregate for construction will be sourced from non-acid generating (NAG) mine rock and from local quarries and borrow pits near the Project sites. These quarries and borrow pits will be determined as the Project plan is further developed and included (or excluded) from the scope of the Project assessment, as required, depending on ownership and care and control of the resource. This is still the case.
progresses.		 The EA implications identified above do not materially affect the validity of the original PD or its continued applicability as the basis for the previously issued EIS Guidelines and for the purposes of the public and stakeholder consultation and Indigenous engagement completed to date.
Minor adjustments to optimize the locations, configurations, and/or footprints of individual Project components within the PDA (including supporting Project infrastructure, such as on-site pipelines, intakes, outfalls, access roads, ponds, ditches, camp facilities, and explosives storage) and the PDA itself may be required based on engineering feasibility studies and environmental considerations.	The potential requirement for any such optimizations will be determined based on engineering feasibility studies and environmental considerations.	 The final locations, configurations, and footprints of individual Project components (including secondary Project infrastructure) and the PDA will be described and assessed in the EIS as appropriate. This is consistent with the approach that was taken in the original PD. The EA implications identified above do not materially affect the validity of the original PD or its continued applicability as the basis for the previously issued EIS Guidelines and for the purposes of the public and stakeholder consultation and Indigenous engagement completed to date.

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Reference:

Proposed Changes to the Layout of Infrastructure for the Alamos Gold Inc. Lynn Lake

Gold Project (Canadian Environmental Assessment Reference No. 80140)

Although the proposed changes to the Project will have implications for the EA (as identified in Table 1), the information in the PD remains applicable with respect to the proposed Project. In particular, the potential environmental interactions and effects associated with the proposed changes to the Project are generally consistent with those that were originally contemplated in Section 5 of the PD. The proposed changes to the Project are therefore not believed to warrant new EIS Guidelines or the imposition of requirements for additional public and stakeholder consultation or Indigenous engagement.

The proposed Project changes outlined in Table 1 will be reflected in future consultation and engagement activities conducted in support of the EA and will be duly described, considered, and assessed in the EIS. A new feasibility study is currently being undertaken based on the revised PDA, and environmental baseline studies will be modified and/or added where necessary to collect the field data required to adequately characterize existing conditions in and around the revised PDA; information from these studies will inform the EA and be incorporated into the EIS where applicable.

In consideration of the above, Alamos intends to prepare the EIS for the revised Project based on the existing final EIS Guidelines, with a target filing date in October 2019.

Closing

We trust that the information in this letter and its attachments is sufficient to demonstrate that the proposed changes to the Project and associated EA implications do not materially affect the validity of the original PD or its continued applicability as the basis for the previously issued EIS Guidelines and for the purposes of the public and stakeholder consultation and Indigenous engagement completed to date. Please do not hesitate to contact the undersigned should you have any questions or wish to discuss.

Regards,

Stantec Consulting Ltd.

Original Signed

Karen Mathers M.Sc., P.Geo. FGC, PMP Principal, Environmental Services Stantec 500–311 Portage Avenue, Winnipeg MB R3B 2B9 Phone: 204-924-5735 / Cell: 204-799-6159 karen.mathers@stantec.com

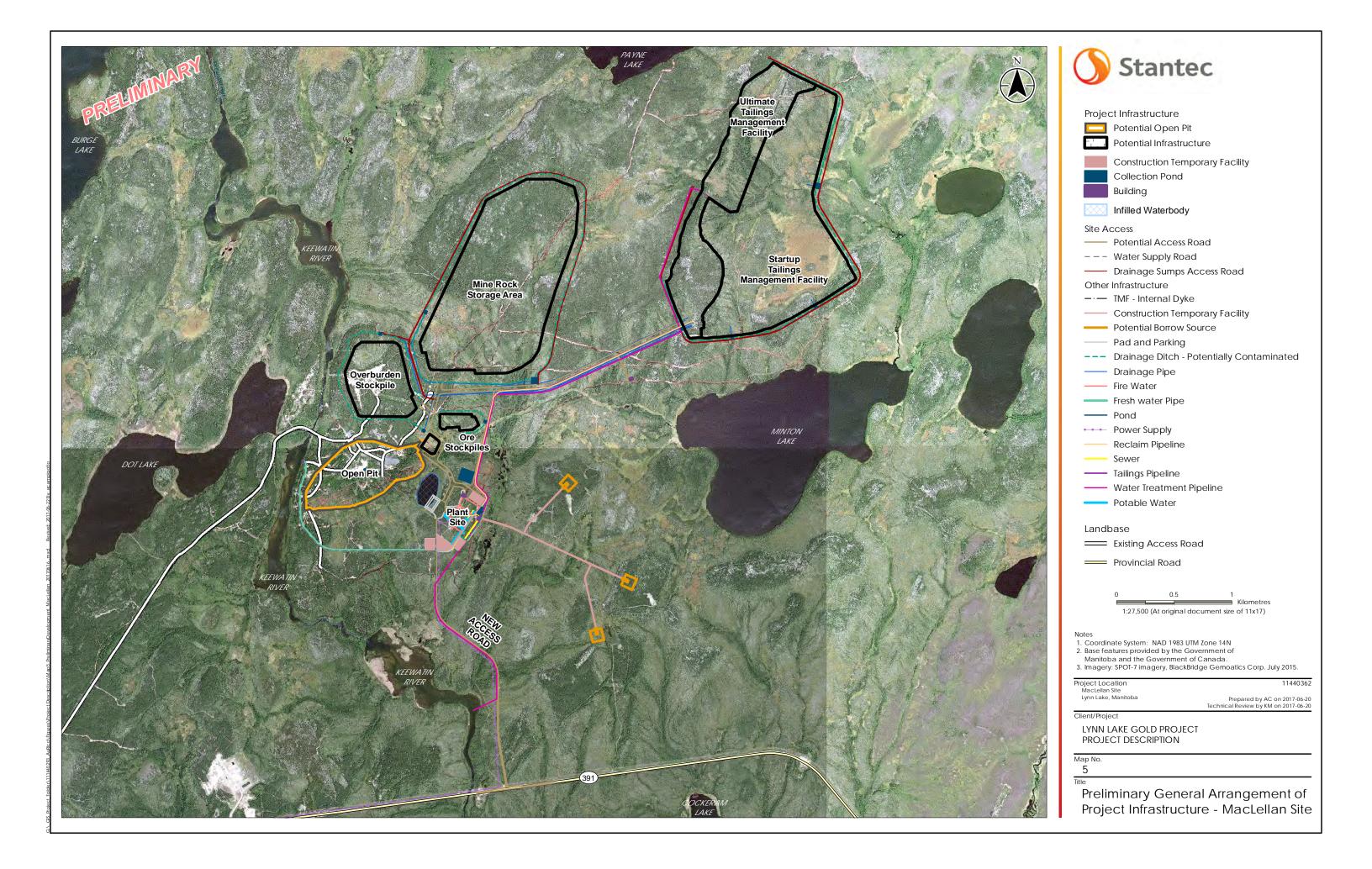
Attachment: Attachment A – Selected Maps from Original Project Description
Attachment B – Revised Maps based on Proposed Project Changes

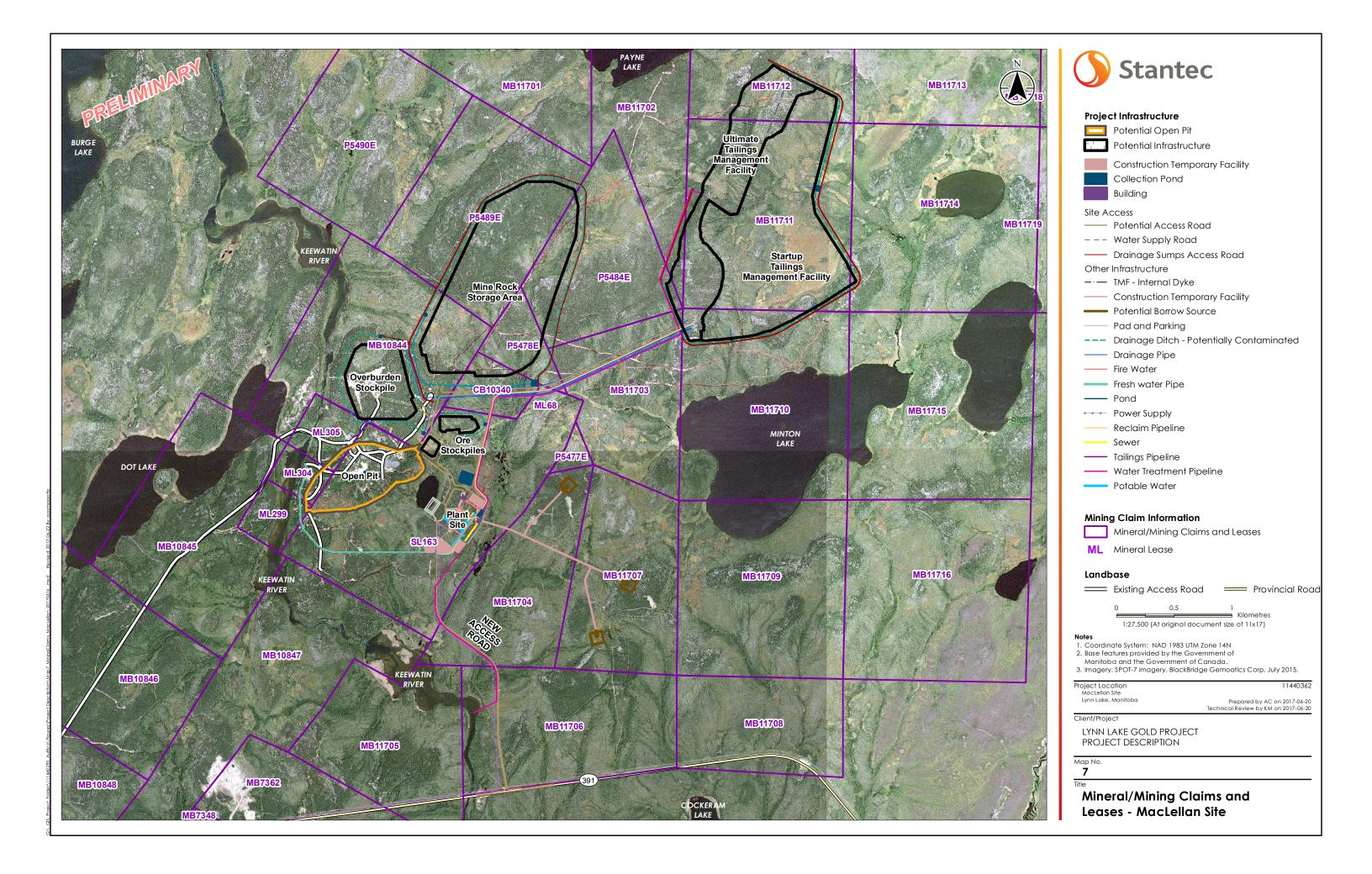
c. Paolo Toscano, Colin Webster, and Michael Raess – Alamos Gold

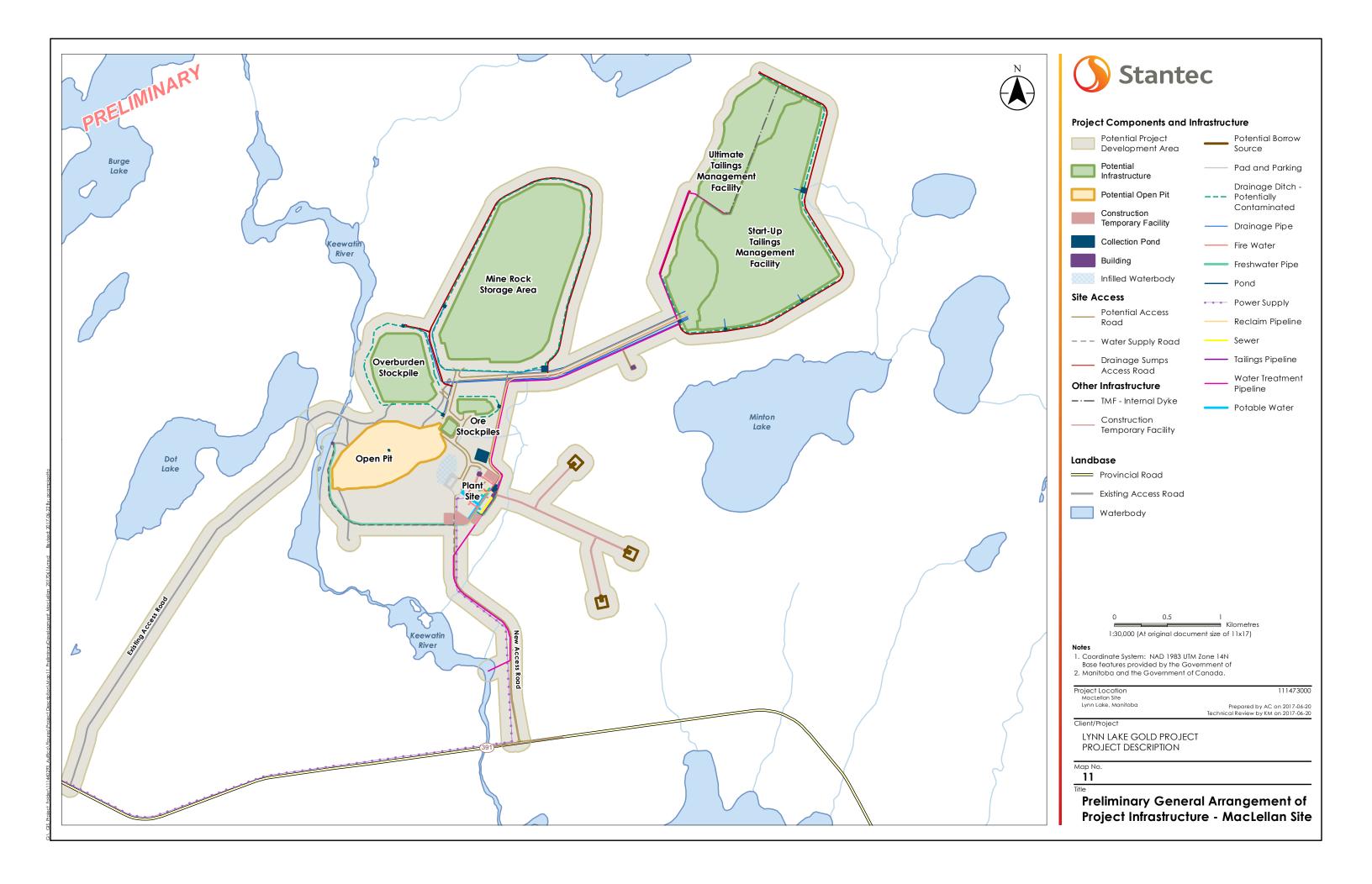
Design with community in mind

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ATTACHMENT A: SELECTED MAPS FROM ORIGINAL PROJECT DESCRIPTION







Reference:	Proposed Changes to the Layout of Infrastructure for the Alamos Gold Inc. Lynn Lake Gold Project (Canadian Environmental Assessment Reference No. 80140)
ATTACHIV	ENT B - REVISED MAPS BASED ON PROPOSED PROJECT CHANGES

