FAST-41 Initiation Notice
Graphite One/Graphite Creek Project

1. Project Information

a) Title

Graphite One/Graphite Creek Project

b) Sector, Type

Mining

(Renewable Energy Production/ Energy Storage)

c) Location

Nome, Alaska and Niles, Ohio

Project Sponsor Name and Contact Information

Sponsor

Graphite One (Alaska) Inc.
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2. Statement of the purposes and objectives of the project

Graphite One Inc. (the "Company") is working to develop its Graphite One/Graphite Creek Project (the "Project"), to potentially become the dominant American producer of high grade Coated Spherical Graphite ("CSG") and other value-added products produced from Graphite Creek, north of Nome, Alaska – recognized by USGS as the largest natural graphite deposit in the U.S. and "among the largest in the world."

At present, the U.S. is 100% import-dependent for natural graphite, which appears on the Federal Government's Critical Minerals List. Graphite in its advanced CSG form is essential to electric vehicle batteries as well as energy storage systems. The U.S. Department of Interior (DoI) found that graphite is one of 9 critical minerals that meets all six of the industrial/defense sector criticality indicators identified by the DoI. The World Bank's Climate-Smart Mining Initiative includes graphite among its clean-tech, green-tech materials, projecting global graphite demand to rise 383% between 2020 and 2050.

According to the US Geological Survey, "Graphite's use in rechargeable batteries, as well as technologies under development (such as large-scale fuel-cell applications), could consume as much graphite as all

other uses combined."[1] As a result, projects like Graphite One's Graphite Creek will provide essential supply chain infrastructure for the United States' green tech/clean tech sectors, as well as advanced graphite materials for industrial and Defense Industrial Base applications.

3. Concise description including general location and/or a summary of geospatial information, if available, and the locations, if any, of environmental, cultural, and historic resources;

d) Project Description

The Project is proposed as a vertically integrated enterprise to mine, process and manufacture CSG and other battery grade materials, primarily for the electric vehicle lithium-ion battery and energy storage markets, as well as other high grade graphite products. Graphite mineralization mined from the Company's Graphite Creek Property (the "Alaska Property"), situated on the Seward Peninsula about 37 miles north of Nome, Alaska, would be processed into concentrate at a mineral processing plant to be located adjacent to the mine. The graphite concentrate would be shipped to the Company's proposed Secondary Treatment Plant ("STP") in Niles, Ohio, where CSG and other value-added graphite products would be manufactured.

The STP is designed to produce CSG on a commercial scale for the U.S. domestic market using natural graphite from Alaska as soon as it is available. At full capacity, it requires about 89.3 hectares (220 acres) of land, consists of 20 buildings, and would target to produce 256,500 tonnes of manufactured graphite and carbon products annually. The products are manufactured from natural graphite concentrate, artificial graphite, artificial graphite precursors, coke and pitch. Key components of the manufacturing process are the purification of natural graphite and graphitization of artificial graphite precursors in high temperature, electrically heated furnaces.

Graphite One (Alaska) Inc. and Graphite One (Ohio) Inc., the Company's wholly owned subsidiaries, hold the Alaska Property and leases the Ohio Property, respectively, and would be developing the Project's facilities located in Alaska and Ohio.

e) Geospatial Coordinates

Alaska Property:

Lat / Long (Degrees-Minutes-Seconds): N 65° 02' 22.029" / W 165° 32' 37.217"

UTM Zone 3, Easting / Northing (meters) 474,400E / 7,212,962N

Ohio Property:

Lat / Long (Degrees-Minutes-Seconds): N 41° 11' 55.932" latitude / E 80°47'48.552" longitude

UTM NAD83 Zone 17T, Easting / Northing (meters) 517036E / 44560854N

[1] Page 12: Draft Critical Mineral List—Summary of Methodology and Background Information—U.S. Geological Survey Technical Input Document in Response to Secretarial Order No. 3359

f) Locations, if any, of environmental, cultural, and historic resources

The general area of the Alaska Property has been used by Alaska Native peoples for hunting, fishing and gathering. Historic small-scale mining activities – periods during World Wars I and II when the deposit was mined to provide graphite for the U.S. war effort in WWI -- has also occurred in the area. Environmental baseline studies are in progress to identify important environmental resources and determine potential impacts and protection measures that may be required.

No previously recorded archaeological sites, historic resources, cemeteries, or National Register of Historic Places properties or districts are located within the proposed STP site. No significant wildlife, critical habitats or marine environments exist at the proposed STP site.

- A statement regarding the project sponsor's technical and financial ability to construct the proposed project:

i. Graphite One has a seasoned technical staff that has a great deal of experience in designing, permitting, constructing and operating mines. This experience has been utilized to develop the latest Feasibility Study.
Graphite One will issue shares to raise capital and procure loans to secure the needed financing for the Graphite Creek project.

- Statement of any Federal Financing, environmental reviews, and authorizations anticipated to be required

Federal Financing

i. The project received a DoD grant of $37.5m to accelerate the completion of the Feasibility Study and supporting environmental work. The Feasibility Study will be released in April 2025. Graphite One will review additional federal financing as it becomes available, but this is not a requirement to proceed with the project. The FS economic model does show that tariffs on Chinese production will be required to maintain a net positive cashflow for the project. The current 48.7% tariff on artificial graphite and 20% tariff on natural graphite was used in the financial model and shows a sufficient ROR to proceed with the project.

Environmental Reviews

ii. The Project will be subject to the National Environmental Policy Act (NEPA), with the US Army Corps of Engineers expected to be the lead agency. The lead agency will determine if an Environmental Assessment or an Environmental Impact Statement will be required. Other federal agencies that may participate in the NEPA process are Environmental Protection Agency, Bureau of Land Management and US Fish and Wildlife Service.

Federal Authorizations

iii. U.S. Army Corps of Engineers Wetlands Permit

The U.S. Army Corps of Engineers (ACOE) permit under Section 404 of the Clean Water Act requires an authorization (wetlands permit) before allowing discharge of fill into waters of the United States, including wetlands. The wetlands permit is likely the only major federal permit for the Project. Activities that may require a wetlands permit include road or bridge construction, construction of dams for tailings or water storage, and stream diversion structures. The ACOE is responsible for determining consistency of the proposed action with Clean Water Act, Section 404 guidelines. Under Section 404(c), the EPA has review authority over the ACOE 404 permit decisions.

iv. The ACOE provides detailed methodology for the identification of wetlands under federal jurisdiction. The Alaska Department of Environmental Conservation (DEC) must certify that the ACOE permit meets state water quality standards. DEC typically does not get involved in the wetlands mapping methodology.

v. NOAA Fisheries Essential Fish Habitat

The National Oceanic and Atmospheric Administration Fisheries agency (NOAA Fisheries), under authority of the Magnuson-Stevens Act, may require that federal agencies condition their permits to protect essential fish habitat. The Act requires cooperation among NOAA Fisheries and other federal agencies to protect, conserve, and enhance "essential fish habitat". Congress defined essential fish habitat for federally managed fish species as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." NOAA Fisheries does the essential fish habitat consultation as a part of a federal permit evaluation. Thus, NOAA-recommended stipulations would be applied to the ACOE wetland permit.

vi. USF&WS Bald Eagle Protection Act; Migratory Bird Treaty; and Threatened and Endangered Species Act

The USF&WS, under authority of the federal Bald Eagle Protection Act, will require identification of eagle nest, roost and perch trees. Under authority of various migratory bird treaties, the USF&WS may advise federal agencies to condition their permits to ensure that a project is consistent with various treaties concerning migratory birds. Finally, the USF&WS has authority over certain threatened and endangered species.

vii. U.S. Army Corps or DNR Cultural Resources

The cultural resource analysis will be required for ground disturbance that could damage archaeological artifacts. The state and federal government have overlapping jurisdiction over protection of cultural resources. For activities authorized by the state, it is the State Historic Preservation Office (SHPO) within DNR's Division of Parks and Outdoor Recreation. Because a wetlands permit will be required, the lead federal agency is the ACOE. The ACOE will coordinate evaluation of cultural resources with SHPO. The agencies will require a cultural resources analysis and possibly an on-the-ground survey if they determine there is a likelihood of historic or prehistoric cultural resources affected by the project.

viii. U.S. Army Corps of Engineers; National Historic Preservation Act

Section 106 of the National Historic Preservation Act requires review of any project funded, licensed, permitted, or assisted by the federal government for impact on significant historic properties. The agencies must allow the SHPO and the Advisory Council on Historic Preservation, a federal agency, to comment on a project. Following that review, the ACOE has the authority to require stipulations on federal permits, generally the Wetlands Permit, to protect cultural resources. The stipulation may require that an applicant protect the

physical integrity of the cultural resource, or that the applicant ensure that the information from the cultural resources is gathered before an effect takes place, or that another means is used for protection. If there were no wetlands permit, there would be no ACOE jurisdiction over this issue and the cultural resources would be regulated by the state.

The Project will benefit from the high-priority designation and FAST 41 oversight as it complies with multiple federal permitting protocols.

- Assessment that the project meets the definition of a covered project as defined in 42 U.S.C. §4370m(6)(A) of the FAST Act and a statement of reasons supporting the assessment

  i. The Project meets the definition of a covered project under in 42 U.S.C. §4370m(6)(A) of the FAST Act as it:
  ii. Requires authorization or environmental review by a Federal agency
  iii. Is subject to NEPA
  iv. Is likely to require a total investment of more than $200,000,000
  v. The Project's Feasibility Study dated March 25, 2025 (the "FS") estimates the Project's total capital cost at $4,926,000,000. This consists of the open-pit mine, infrastructure and processing plant in Alaska totaling $949,000,000 and the STP is estimated at $3,977,000,000.
  vi. Does not qualify for abbreviated authorization or environmental review processes under any applicable law
  vii. The Project is responsive to FPISC's mandate for mining as a covered sector. In addition, graphite is an essential material for 6 of the FPISC's covered sectors:

  - **Renewable Energy**

  Graphite is an essential material in Lithium-Ion battery anodes. (In fact, there is typically 6 times more graphite by volume in a lithium-ion battery than lithium.) Li-ion batteries enable eMobility – Electric Vehicles, eBikes, drones, electric ships and autonomous vehicles. Li-Ion batteries also power laptops, cell phones and all manner of consumer electronics.

  Ultra-pure nuclear graphite is required for nuclear power production.

  - **Electricity Transmission**

  Graphite is required in Energy Storage Systems, which move energy to and through the national energy grid.
  In the electrical industry, graphite is used to produce electrodes, carbon brushes, carbon rods, carbon tubes, and positive electrodes.

  - **Water Resource Projects**

  Graphite is required to produce GRP, Glass Reinforced Plastic pipe, for use in water supply systems.

- **Broadband**

Graphite is required in broadband and 5G relay towers as the sacrificial anode, for EMI suppression and as an anti-corrosion coating.

- **Pipelines**

Oil and natural gas pipelines require high-pressure graphite gaskets.

- **Manufacturing**

Graphite electrodes are required for steel manufacturing and metallurgical furnace linings. In the electrical industry, graphite is used to produce electrodes, carbon brushes, carbon rods, carbon tubes, and positive electrodes.
Graphite is used as a key component in aerospace manufacture including hypersonic systems for anti-radiation applications and heat insulation.
Graphite can produce ultra-pure synthetic diamonds, for use as a super-computer semiconductor substrate.