



# Northern Dynasty Minerals Ltd.

The **PEBBLE Project** | The **Future** of U.S. Mining & Metals

TSX: **NDM** NYSE AMERICAN: **NAK**



**IN SIGHT:  
AMERICA'S NEXT GREAT  
COPPER-GOLD MINE**

## INVESTMENT HIGHLIGHTS

100% owner of the Pebble Project, Alaska

### A WORLD CLASS RESOURCE

- Among the globe's greatest accumulations of metal
- Untapped exploration upside
- Cu/Au/Mo/Ag grades facilitate near-term development

### OPTIMIZED & DE-RISKED PROJECT

- Extraordinary near-term & long-term value upside
- Financing optionality
- Positioned to capture burgeoning markets for strategic metals

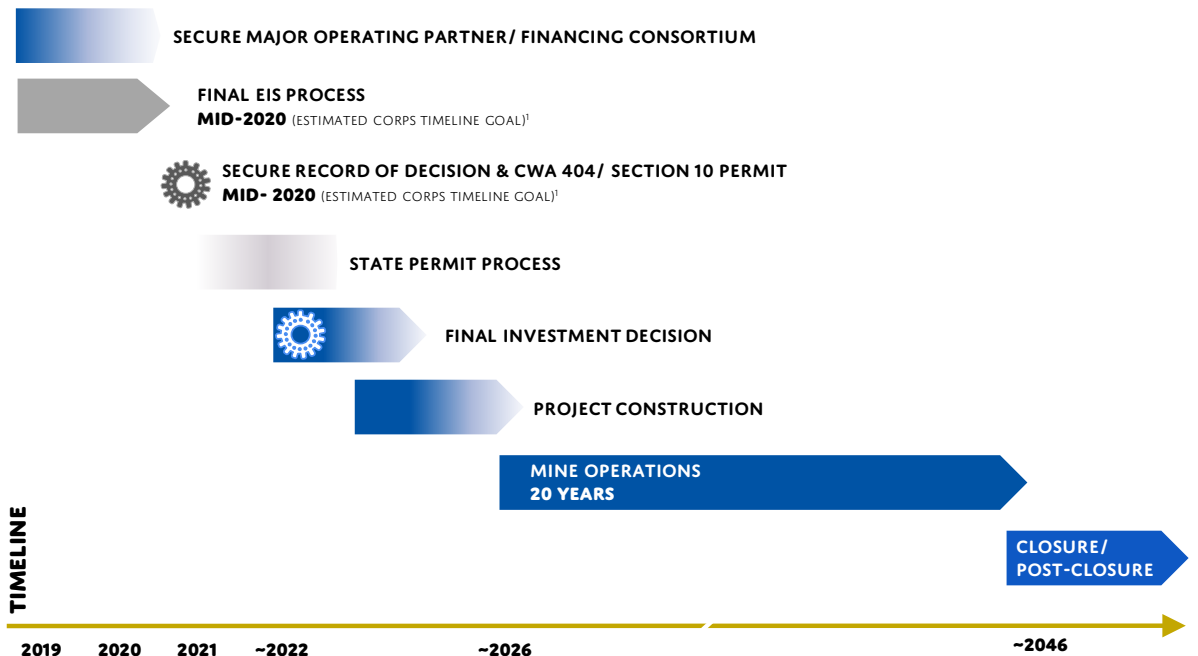
### CLEAR PATH TO VALUE

- Federal permits appear imminent
- Strong, sustainable Native partnerships in southwest Alaska
- Strategic alignment at federal and state level

### INVESTMENT OPPORTUNITY WITH CATALYSTS

- Project designed for operating & permitting success
- U.S. Soil
- U.S. Rule of Law
- Final EIS, ROD in mid 2020

## PEBBLE: NEXT GOALS



1. See <https://pebbleprojecteis.com/schedule>

# PEBBLE: A WORLD CLASS MINERAL RESOURCE

- **6.5 billion tonnes** of measured & indicated resources containing: 57 B lb Cu, 71 Moz Au, 3.4 B lb Mo & 345 Moz Ag
- **4.5 billion tonnes** of inferred resources, containing: 25 B lb Cu, 36 Moz Au, 2.2 B lb Mo & 170 Moz Ag

Category	Cut-Off		Size		Grade			Contained Metal			
	CuEQ (%)	Million Tonnes	Cu (%)	Au (g/t)	Mo (ppm)	Ag (g/t)	CuEQ (%)	Cu (B lbs)	Au (M oz)	Mo (B lbs)	Ag (M oz)
Measured + Indicated	0.3	6,456	0.40	0.34	240	1.7	0.76	56.92	70.57	3.42	344.6
	0.4	5,693	0.44	0.35	253	1.8	0.81	55.21	64.06	3.18	320.3
	0.6	3,734	0.54	0.41	291	2.0	0.97	44.44	49.22	2.40	237.7
	1.0	1,440	0.76	0.51	342	2.4	1.29	24.12	23.61	1.08	112.0
Inferred	0.3	4,454	0.25	0.25	226	1.2	0.55	24.54	35.80	2.22	170.4
	0.4	2,646	0.33	0.30	269	1.4	0.68	19.24	25.52	1.57	119.1
	0.6	1,314	0.48	0.37	292	1.8	0.89	13.90	15.63	0.85	75.6
	1.0	361	0.68	0.45	377	2.3	1.20	5.41	5.22	0.30	26.3

**NOTES:**

Copper equivalent calculations use metal prices of US\$1.85/lb for copper, US\$902/oz for gold and US\$12.50/lb for molybdenum, and recoveries of 85% for copper, 69.6% for gold, and 77.8% for molybdenum in the Pebble West zone and 89.3% for copper, 76.8% for gold, 83.7% for molybdenum in the Pebble East zone.

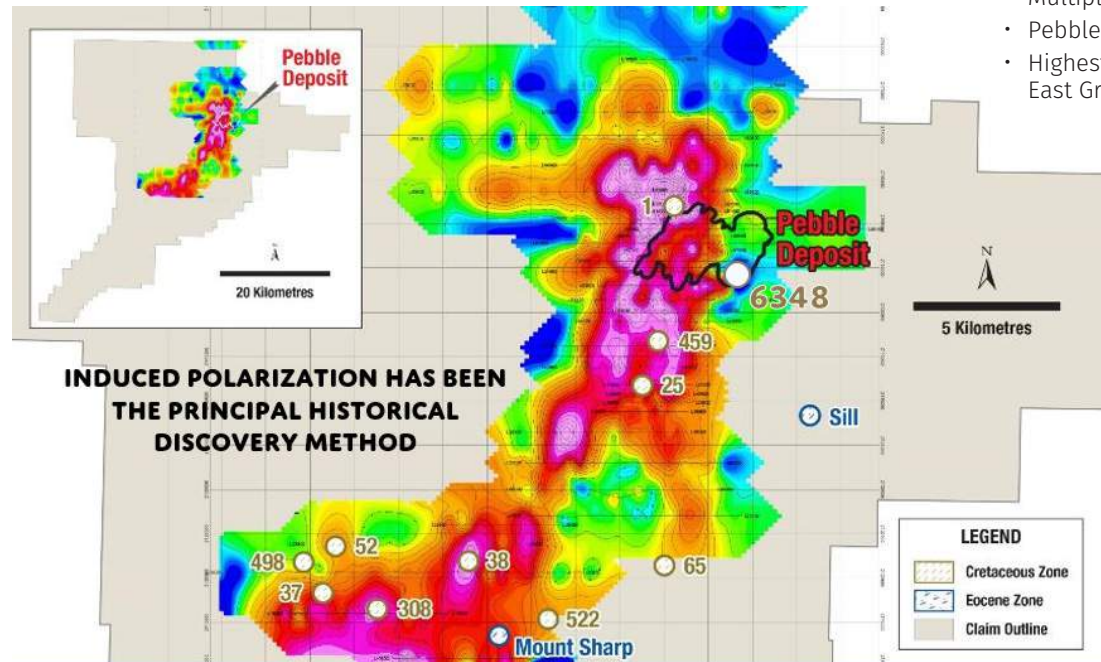
Contained metal calculations are based on 100% recoveries.

A 0.30% CuEQ cut-off is considered to be appropriate for porphyry deposit open pit mining operations in the Americas.

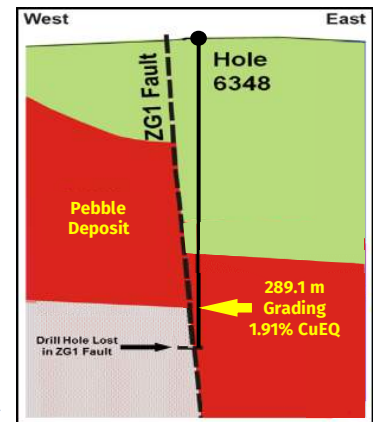
All mineral resource estimates, cut-offs and metallurgical recoveries are subject to change as a consequence of more detailed economic analyses that would be required in pre-feasibility and feasibility studies.

David Gaunt, P.Geo., a qualified person who is not independent of Northern Dynasty Minerals Ltd. ("NDM" or "Northern Dynasty"), is responsible for the estimate, which is based on drilling to the end of 2013. The effective date of the report is December 2017.

## UNTAPPED EXPLORATION POTENTIAL



- Multiple prospective targets already identified
- Pebble Deposit open at depth and to the east
- Highest grades at Pebble truncated by the East Graben
  - Faulting was a post-mineralization event; patterns west of the ZG1 may be repeated to east
  - DDH-6348 intersected 289.1 m grading 1.91% CuEQ<sup>1</sup>



1. DDH-6348 intersected 289m grading 1.91% CuEQ (1.24% Cu, 0.79g/t Au, 0.042% Mo - CuEQ metal prices \$3.00/lb Cu; \$1,400/oz Au; \$9.50/lb Mo).

## PEBBLE: CLEAR PATH TO VALUE: RECORD OF DECISION ESTIMATED MID 2020

- Initiated federal permitting under the National Environmental Policy Act (NEPA) and Clean Water Act (CWA) in December 2017
- Led by US Army Corps of Engineers (the Corps) with involvement of:
  - 7 cooperating agencies, including US Environmental Protection Agency (EPA), State of Alaska and two local tribes
  - 35 tribes engaged in government to government negotiations
- Recent circulation by the Corps of preliminary FEIS to co-operating agencies in February 2020
- Near-term milestones include *Final EIS* and *Record of Decision (ROD)*<sup>1</sup>
- Robust, defensible administrative record upon which ROD, CWA 404 permit and other permitting decisions will be made



1. See <https://pebbleprojecteis.com/schedule>

# PEBBLE: OPTIMIZED PROJECT DESIGN

## Conventional open-pit mine

- 20-year operating life
- Mining rate: ~70M tons per annum (average)

## Extremely efficient mining plan

- 0.12:1 life of mine waste: mineralized material

## 180,000 ton-per-day processing plant

- 1.3B tons over 20 years
- 12% of known mineral resource

## Conventional froth flotation with no contaminant penalties

### Average Annual metal production:

- 613,000 tons of copper-gold concentrate
  - 318 million lb copper
  - 362,000 oz gold
  - 1.8 million oz silver
- 15,000 tons of molybdenum concentrate
  - 14 million lb molybdenum

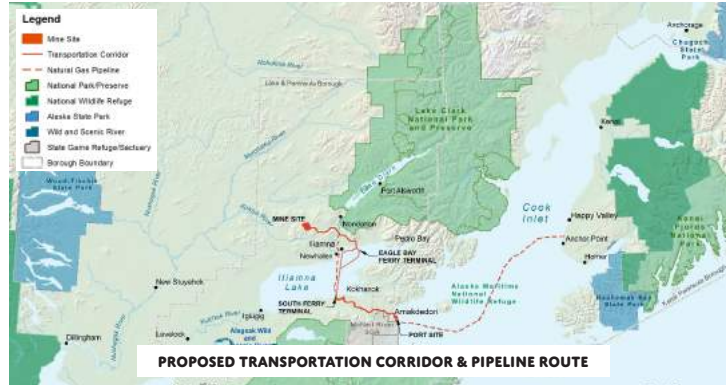
## Project infrastructure to benefit Alaska

- 270 MW natural gas fired generating plant
- 83-mile transportation system, including ferry terminals and ice-breaking ferry
- Permanent port on Cook Inlet
- 188-mile pipeline from existing natural gas infrastructure on Cook Inlet

Northern Dynasty's 100%-owned Alaska subsidiary the Pebble Limited Partnership ("PLP") filed a wetlands permit application for the Pebble Project in late 2017. The development proposal in the Project Description\* is smaller than that previously envisaged and presents significant new environmental safeguards to respond to stakeholder concerns.

The Pebble Project is now advancing through the EIS process with the scoping and Draft EIS phases completed in 2018-2019. The Corps timeline (illustrated on the previous page) forecasts the release of the *Final EIS* and *ROD* in mid 2020.

\* As part of the EIS preparation process the Corps will undertake a comprehensive alternatives assessment and consider a broad range of alternatives. NDM (through PLP) continues to advance engineering studies and has proposed some changes from the initial application which are reflected here and elsewhere in this presentation. NDM cautions that this may not be the ultimate development plan for the project and that a final development design has not been selected.



# PEBBLE: POTENTIAL BENEFITS FOR ALASKA<sup>1</sup>

<b>JOBS</b>	~850 DIRECT ~2,000 TOTAL AVERAGE MINING WAGE = \$100K+
<b>CONTRIBUTION TO ALASKA GDP</b>	OPERATING BUDGET OF \$400M+ (ANNUAL)
<b>STATE TAXES &amp; ROYALTIES</b>	\$49M - \$66M (ANNUAL) \$970M - \$1.32B OVER 20 YEARS
<b>LAKE &amp; PENINSULA BOROUGH REVENUE</b>	\$19M - \$21M (ANNUAL) \$377M - \$420M OVER 20 YEARS

## Pebble would offer substantial economic benefits: locally, regionally & statewide

### Pebble can Help Address Alaska Fiscal Crisis

- Pebble represents:
  - capital investment and GDP growth
  - jobs and economic diversification
  - much needed government revenue
  - new transportation and power infrastructure
- Lake & Peninsula Borough and Bristol Bay region are characterized by:
  - High levels of unemployment
  - High cost of living
  - Decreasing population
  - Outmigration and school closures

Note: The information in this section is indicative only and based on the mine development case submitted in the 404 permit application. As part of the EIS preparation process the Corps will undertake a comprehensive alternatives assessment and consider a broad range of development alternatives. See disclosure on Page 4. We continue to consider various development options and no final project design has been selected at this time. The information is intended to provide information about general economic effects/contribution of a development at Pebble to Alaska and the Lake and Borough Peninsula region. It should not be used to evaluate the Pebble Project's impact on Northern Dynasty.

1. Includes estimates of mineral licensing tax, corporate tax, and state royalties

## MANAGEMENT

**Ronald Thiessen**, an accredited public accountant with more than 25 years of corporate development experience, is President and CEO of Northern Dynasty and a Director of the Pebble Partnership. Mr. Thiessen leads Northern Dynasty's corporate development and financing activities.

**Mark Peters** is a Chartered Professional Accountant (CPA, CA) with more than 20 years of experience in the areas of financial reporting and taxation, working primarily with Canadian and US public corporations. As Chief Financial Officer for Northern Dynasty, Mr. Peters is responsible for financial and corporate management activities.

**Bruce Jenkins** is a corporate and environmental science executive with over 40 years of experience in project and corporate management. He is contracted to the Pebble Partnership and guides environmental and permitting activities. Mr. Jenkins is Senior Vice President, Corporate Development for Northern Dynasty.

**Stephen Hodgson** is a professional engineer with 40 years of experience in consulting, project management, feasibility-level design and implementation, and mine operations at some of the largest mineral development projects in the world, including Pine Point zinc mine in the Northwest Territories, the Red Dog zinc mine in Alaska, Antamina in Peru, and the Oyu Tolgoi copper-gold project in Mongolia. With his experience at northern and Arctic mines, he brings a unique perspective to the Pebble team and his role as Vice President, Engineering.

**Sean Magee** is a former journalist and speech writer who brings more than 25 years communications experience to his role as Vice President, Public Affairs for Northern Dynasty. Mr. Magee's experience and expertise spans the fields of government and stakeholder relations, community and First Nations/Native engagement, media relations, crisis and issues management. He has played a central role at Pebble for more than a decade.

**Doug Allen** is an asset management industry specialist with more than 35 years of experience on both the sell-side and buy-side of the investment industry, and more recently the mining industry. As Vice President Corporate Communications, Mr. Allen serves as the primary liaison with the broker-dealer and asset management industries, and also works on corporate development activities.

**Trevor Thomas** is the company secretary to Northern Dynasty. Mr. Thomas has practiced in the areas of corporate commercial, corporate finance, securities and mining law since 1995, both in the private practice environment as well as in-house positions.

## BOARD OF DIRECTORS

Robert Dickinson, Ron Thiessen, Desmond Balakrishnan, Steven Decker, Gordon Keep, David Laing, Christian Milau, Ken Pickering

## CONTACT DETAILS

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## KEY SHARE INFORMATION

TSX: NDM  
NYSE AMERICAN: NAK

AS AT FEBRUARY 20, 2020

Shares Basic:	431.4 million
Shares Fully Diluted <sup>1</sup> :	492.1 million
Insider Ownership <sup>2</sup> :	15.3%
Market Capitalization <sup>3</sup> :	US\$265 million
52-Week High/Low <sup>2</sup> :	US\$1.12/US\$0.38
Avg 3 Mo. Trade Vol <sup>2</sup> :	787,019 daily (TSX)
	2,332,452 daily (NYSE American)
Cash on hand <sup>3</sup> :	CAN\$13 million (Sept 30, 2019)

1. Fully diluted as at February 20, 2020. Assumes no % change in Retail holdings since April 24, 2019 Record Date for Annual General Meeting. Insiders<sup>2</sup> includes significant shareholder Stirling Global Value Fund and Ostvast which owns 9.41% owned by at February 20, 2020

2. As at February 20, 2020

3. This does not include any expenditures post September 30, 2019 or the December 2019 and January 2020 financing of US\$15.5m and US\$5.0m gross proceeds respectively.

All statements of Northern Dynasty Minerals Ltd. ("NDM") in this presentation, other than statements of historical facts, that address the permitting, development and production for the Pebble Project are forward-looking statements. These statements include statements regarding (i) the mine plan for the Pebble Project, (ii) the social integration of the Pebble Project into the Bristol Bay region, (iii) the political and public support for the permitting process, (iv) the timetable for completion of the EIS permitting process by the US Army Corps of Engineers, and (v) the ability of NDM to develop the Pebble Project and become a leading copper, gold and molybdenum producer. Although NDM believes the expectations expressed in these forward-looking statements are based on reasonable assumptions, such statements should not be in any way be construed as guarantees that the Pebble Project will secure all required government permits, establish the commercial feasibility of the Pebble Project or develop the Pebble Project. Assumptions used by NDM to develop forward-looking statements include the assumptions that (i) the Pebble Project will obtain all required environmental and other permits and all land use and other licenses without undue delay, (ii) studies for the development of the Pebble Project will be positive, (iii) NDM will be able to establish the commercial feasibility of the Pebble Project, and (iv) NDM will be able to secure the financing required to develop the Pebble Project. The likelihood of future mining at the Pebble Project is subject to a large number of risks and will require achievement of a number of technical, economic and legal objectives, including (i) obtaining necessary mining and construction permits, licenses and approvals without undue delay, including without delay due to third party opposition

or changes in government policies, (ii) the completion of feasibility studies demonstrating the Pebble Project mineral reserves that can be economically mined, (iii) completion of all necessary engineering for mining and processing facilities, and (iv) receipt by NDM of significant additional financing to fund these objectives as well as funding mine construction, which financing may not be available to NDM on acceptable terms or on any terms at all. NDM is also subject to the specific risks inherent in the mining business as well as general economic and business conditions. For more information, Investors should review the risk factors and related discussions in NDM's filings with the US Securities and Exchange Commission at www.sec.gov and its Canadian home jurisdiction filings available at www.sedar.com.

In January 2018, the US Army Corps of Engineers (the "Corps") confirmed that Pebble's 404 permitting application was complete and that an Environmental Impact Statement ("EIS") is required to comply with its National Environmental Policy Act ("NEPA") review of the Pebble Project. As the NEPA EIS process requires a comprehensive "alternatives assessment" be undertaken to consider a broad range of development alternatives, the final project design and operating parameters for the Pebble Project and associated infrastructure may vary significantly from that contemplated in this presentation. As a result, we will continue to consider various development options and no final project design has been selected at this time.

This presentation also uses the terms "measured resources", "indicated resources" and "inferred resources". These terms are recognized and required by Canadian regulations (under

National Instrument 43-101 Standards of Disclosure for Mineral Projects). The United States Securities and Exchange Commission (the "SEC") has adopted amendments to its disclosure rules to modernize the mineral property disclosure requirements for issuers whose securities are registered with the SEC under the U.S. Exchange Act, effective February 25, 2019 ("The SEC Modernization Rules"). The SEC Modernization Rules include the adoption of definitions of the terms and the categories of resources which are "substantially similar" to the corresponding terms under Canadian regulations in 43-101. Investors are cautioned not to assume that any part or all of the mineral deposits in these categories will ever be converted into reserves or be proven to be legally and economically mineable. In addition, "inferred resources" have a great amount of uncertainty as to their existence, and economic and legal feasibility. It cannot be assumed that all or any part of an inferred resource will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred resources may not form the basis of feasibility or pre-feasibility studies, or economic studies except for a Preliminary Economic Assessment as defined under NI 43-101. Investors are cautioned not to assume that part or all of an inferred resource exists, or is economically or legally mineable.

The technical information contained in this presentation has been reviewed and approved by qualified persons who are not independent of NDM. Information on geology, drilling and exploration potential was reviewed by James Lang, PGeo., Mineral Resources by David Gaunt, PGeo., and engineering and metallurgy by Stephen Hodgson, PEng.