

**Independent Preliminary Economic Assessment for Northern Dynasty's Pebble Project Completed:  
positive projected financial results, excellent optionality and important benefits for Alaska**

**September 5, 2023 Vancouver** – Northern Dynasty Minerals Ltd. (TSX: NDM; NYSE American: NAK) ("Northern Dynasty" or the "Company" or "NDM") announces an independent technical report entitled *Pebble Project, NI 43-101 Technical Report Update and Preliminary Economic Assessment, Alaska, United States of America, effective date August 21, 2023* ("2023 PEA") has been completed and will be filed at [www.sedarplus.ca](http://www.sedarplus.ca).

"The proposed mine for the Pebble Project would provide good-paying, year-round employment for thousands of Alaskans, something desperately needed in Southwest Alaska," said Ron Thiessen, President and CEO of Northern Dynasty. "The mine would mean substantial tax revenues for Alaska, including contributions to the Alaska Permanent Fund, which will be important for the future economic sustainability of the region. New infrastructure developed to support the proposed project would offer the additional benefit of potentially lowering energy costs for the region. The July 2020 Environmental Impact Statement of the Pebble Project (the "FEIS") states that the proposed mine can be developed and operated without harming the fishery, and so, with Alaska's excellent track record of managing all its resources for the benefit of its people, it can have **BOTH** the mine **AND** the fishery."

The 2023 PEA was prepared to accomplish several objectives. The report is an independent review of the project that provides cost and price estimates to reflect current economic volatility. It includes an infrastructure plan that uses the "southern route" for project access as defined in the original permitting application for the Pebble Project. In addition, the 2023 PEA updates the status of the Environmental Protection Agency ("EPA") Final Determination and United States Army Corps of Engineers ("USACE") Record of Decision Appeal processes (see Northern Dynasty January 31, 2023 and July 28, 2023 news releases, respectively).

The 2023 PEA provides production, financial and cost estimates for a proposed 20-year, 180,000 tons per day ("Tpd") open pit operation with conventional processing producing two concentrates for the Pebble Project in Southwest Alaska (the "Proposed Project") as described in the Pebble Project permit application and its amendments. United States ("U.S.") dollars and U.S. standard units are used in the 2023 PEA and in the information below unless otherwise indicated. All results presented are post-tax. Unless otherwise noted, all figures in the study are based on the forecast long-term metal prices shown in the table below.

Metal	Unit	Forecast Price (\$/unit)
Copper	lb	3.90
Gold	oz	1,700
Molybdenum	lb	12.50
Silver	oz	22.50
Rhenium	kg	1,500

The Proposed Project would be capable of processing 1.3 billion tons of mineralized material over 20 years of mining at a low strip ratio of 0.12:1, with an average annual mine operating cost of \$14.17/ton. Average annual metal production is forecast to be 320 million lb copper; 368,000 oz gold; 15 million lb molybdenum; 1.8 million oz silver and 10,000 kg rhenium, with Life-of-Mine metal production of 6.4 billion lb copper; 7.4 million oz gold; 300 million lb molybdenum; 37 million oz silver; and 200,000 kg rhenium.

The forecast financial results of the Proposed Project with third parties providing key infrastructure (the "Base Case") are tabulated below. On July 27, 2022, Northern Dynasty announced a Royalty agreement by which the

Royalty Holder has the right to acquire five Royalty tranches. Currently, the Royalty Holder has acquired one tranche but the table provides the financial results assuming all five tranches of the Royalty are acquired.

In June 2021, Pedro Bay Corporation (“PBC”) announced they had signed an agreement whereby a fund had obtained an option to buy portions of their land to create a conservation easement. PBC and the fund announced the exercise of the option in December 2022. While the Pebble Partnership has not explored the full range of options available to it with this announcement, its current assumption is that the northern route defined in the FEIS is no longer practicable and thus does not qualify as an alternative as defined by the *Clean Water Act* (“CWA”). Accordingly, the 2023 PEA analyzes the amended version of the southern transportation alternative proposed by the Pebble Partnership for the transportation route in its original 2017 permit application.

The total initial capital cost for the design, construction, installation, and commissioning of the proposed project is estimated to be \$6.77 billion, which includes all direct and indirect costs, as well as a contingency. Northern Dynasty believes it is most likely that, if approved, the proposed project would be developed with partners who will provide the primary infrastructure (marine terminal, access road, ferry, natural gas pipeline, mine site power plant) in return for lease payments or tolls at rates which provide a return on investment to the developers of the infrastructure. The capital cost of this infrastructure which may be provided by third parties is estimated at \$2.64 billion, which would reduce Northern Dynasty’s portion of the cash outlay required for construction. The financial results also include anticipated metal streaming, which would provide proceeds of approximately \$1.2 billion towards the initial capital cost.

Description	Units	Proposed Project - Base Case, including Royalties
Mining Taxes & Government Royalties	US\$ M	1,487
Corporate Income Tax	US\$ M	1,931
Post – Tax Undiscounted Cash Flow	US\$ M	7,681
Post – Tax NPV at 7% <sup>1</sup>	US\$ M	2,233
Post – Tax IRR	%	16.2%
Post – Tax Payback Period	years	4.6

The 2023 PEA also evaluates potential mine expansion scenarios, which are presented to demonstrate optionality inherent in the polymetallic Pebble deposit and a possible pathway for future mine development. The study also assesses the potential of the future addition of a gold plant. Any future development option beyond the Proposed Project would require extensive federal, state and local permitting processes and approvals before proceeding, which would be in addition to the initial permits and approvals required for the Proposed Project and, very importantly, in consultation with the people and communities of Western Alaska, as well as State agencies.

The 2023 PEA has been prepared within the guidelines established by National Instrument 43-101 (“NI 43-101”) to disclose the current cost estimates and potential financial results for the Pebble Project. The Company is a “foreign issuer” under the U.S. Exchange Act and entitled to file continuous disclosure reports with the U.S. Securities and Exchange Commission (“SEC”) under the Multi-Jurisdictional Disclosure System (“MJDS”) between Canada and the U.S., and to provide disclosure on the Company’s mineral projects, including the Pebble Project, in accordance with NI 43-101 disclosure standards and Canadian Institute of Mining and Metallurgy Definition

<sup>1</sup> Net Present Value is calculated using a 7% discount rate. By convention, a discount rate of 8% is typically applied to copper and other base metal projects, while 5% is applied to gold and other precious metal projects. Given the polymetallic nature of the Pebble deposit and the large contributions of gold to total project revenues, a 7% blended discount rate has been selected.

Standards. For this reason, information contained in this news release in respect of the Pebble Project may not be comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements under the U.S. federal securities laws and rules and regulations thereunder.

The mineral resources in the 2023 PEA have been independently audited and have not changed materially from the Company's previous technical report, effective date May 19, 2023. The 2023 PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves and there is no assurance that the 2023 PEA will be realized, or that the project economics will be achieved. The 2023 PEA is a preliminary analysis of the potential viability of the Pebble Project's mineral resources, and should not be considered the same as a pre-feasibility or feasibility study, as various factors are preliminary in nature. Mineral resources that are not mineral reserves do not have demonstrated economic viability, and there is no assurance that the Pebble Project mineral resources will ever be upgraded to reserves. The 2023 PEA assumes that the Proposed Project will ultimately be able to obtain the required Federal government and State of Alaska permits to enable development of the Proposed Project. Neither the 2023 PEA, nor the mineral resource estimates on which the 2023 PEA is based, have been adjusted for any risks that (i) the Pebble Partnership may not be able to successfully appeal the record of decision issued by the USACE on November 25, 2020 denying the granting of the required permit under the CWA, or (ii) the ability to overturn the Final Determination issued by the EPA on January 31, 2023. In addition, the 2023 PEA does not account for any additional capital or operational costs that may be necessary to obtain the required Federal or State permits, should adjustments to the operating or environmental mitigation plans be required to be made in order to secure the required permits.

Investors are encouraged to read the full text of the 2023 PEA, which will be filed in Canada on SEDAR+, and will also be filed in the U.S. on EDGAR in the coming days.

The NI 43-101 Technical Report was prepared by Ausenco Engineering Canada Inc., with contributions by the Qualified Persons listed below. The Qualified Persons are independent of Northern Dynasty and have reviewed the scientific, technical and economic information contained in this news release.

Robin Kalanchey, P.Eng., Ausenco Engineering Canada Inc.  
Scott Weston, P.Geo., Ausenco Sustainability Inc.  
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Greg Z. Mosher, P.Geo., Tetra Tech Canada Inc.  
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Les Galbraith, P.Eng., P.E., Knight Piésold Ltd.  
Stuart J. Parks, P.E., NANA Worley  
James Wescott Bott, P.E., HDR Alaska Inc.  
Steven R. Rowland, P.E., RECON LLC

Stephen Hodgson, P.Eng., a qualified person who is not independent of Northern Dynasty, has approved the scientific, technical, and economic information contained in this news release on behalf of the Company.

#### **About Northern Dynasty Minerals Ltd.**

Northern Dynasty is a mineral exploration and development company based in Vancouver, Canada. Northern Dynasty's principal asset, owned through its wholly owned Alaska-based U.S. subsidiary, Pebble Limited Partnership, is a 100% interest in a contiguous block of 1,840 mineral claims in Southwest Alaska, including the Pebble deposit, located 200 miles from Anchorage and 125 miles from Bristol Bay. The Pebble Partnership is the proponent of the Pebble Project, an initiative to develop one of the world's most important mineral resources.

For further details on Northern Dynasty and the Pebble Project, please visit the Company's website at [www.northerndynastyminerals.com](http://www.northerndynastyminerals.com) or contact Investor services at (604) 684-6365 or within North America at 1-800-667-2114. Review Canadian public filings at [www.sedarplus.ca](http://www.sedarplus.ca) and U.S. public filings at [www.sec.gov](http://www.sec.gov).

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#### **Forward Looking Information and other Cautionary Factors**

This release includes certain statements that may be deemed "forward-looking statements" under the United States Private Securities Litigation Reform Act of 1995 and under applicable provisions of Canadian provincial securities laws. All statements in this presentation, other than statements of historical facts, which address permitting, development and production for the Pebble Project are forward-looking statements. These include statements regarding (i) the mine plan for the Pebble Project including the financial results of the 2023 PEA, including net present value and internal rates of return, and the ability of the Pebble Partnership to secure the financing to proceed with the development of the Pebble Project, including any stream financing and infrastructure outsourcing, (ii) the social integration of the Pebble Project into the Bristol Bay region and benefits for Alaska, (iii) the political and public support for the permitting process, (iv) the ability of the Pebble Project to ultimately secure all required federal and state permits, (v) the right-sizing and de-risking of the Pebble Project, (vi) the design and operating parameters for the Pebble Project mine plan, including projected capital and operating costs, (vii) the outcome of the USACE remand and ability to successfully appeal the negative Record of Decision and secure the issuance of a positive Record of Decision by the USACE and the ability of the Pebble Project to secure all required federal and state permits, (viii) the status/merit of the EPA Final Determination and the actions of the EPA with respect to its Final Determination with respect to the Pebble Project; (ix) exploration potential of the Pebble Project, (x) future demand for copper, gold and other metals, and (xi) if permitting is ultimately secured, the ability to demonstrate the Pebble Project is ultimately commercially viable, and (xii) the potential addition of partners in the Pebble Project. 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, achieve the required financing or develop the Pebble Project.

Forward-looking statements are necessarily based upon a number of factors and assumptions that, while considered reasonable by NDM as of the date of such statements, are inherently subject to significant business, economic and competitive uncertainties and contingencies and 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, achieve the required financing or develop the Pebble Project. Such forward looking statements or information related to the 2023 PEA include but are not limited to statements or information with respect to the mined and processed material estimates, the internal rate of return, the annual production, the net present value, the life of mine, the capital costs, operating costs estimated for each of the Proposed Project and the expansion scenarios for the Pebble Project, other costs and payments for the proposed infrastructure for the Pebble Project (including how, when, where and by whom such infrastructure will be constructed or developed), projected metallurgical recoveries, plans for further development, and securing the required permits and licenses for further studies to consider expansion of the operation, market price of precious and base metals, or other statements that are not statement of fact. Assumptions used by NDM to develop forward-looking statements include the assumptions that (i) the Pebble Project will ultimately obtain all required environmental and other permits and all land use and other licenses, (ii) any feasibility studies prepared for the development of the Pebble Project will be positive, (iii) NDM's estimates of mineral resources will not change, and NDM will be successful in converting mineral resources to mineral reserves, (iv) NDM will be able to establish the commercial feasibility of the Pebble Project, (v) NDM will be able to secure the financing required to develop the Pebble Project, and (vi) the EPA's Final Determination will ultimately not be successful in restricting or prohibiting development of 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) the current mine plan may not reflect the ultimate mine plan for the Pebble Project, (ii) 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, (iii) finalization of the mine plan for the Pebble Project, (iv) the completion of feasibility studies demonstrating that any Pebble Project mineral resources that can be economically mined, (v) completion of all necessary engineering for mining and processing facilities, (vi) the ability of NDM to secure a partner for the development of the Pebble Project, and (vii) receipt by NDM of significant additional financing, to fund these objectives as well as funding mine construction. NDM is also subject to the specific risks inherent in the mining business as well as general economic and business conditions. Investors should also consider the risk factors identified in its Annual Information Form for the year ended

December 31, 2022, as filed on SEDAR+ ([www.sedarplus.ca](http://www.sedarplus.ca)) and included in the Company's annual report on Form 40-F filed by the Company with the SEC on EDGAR ([www.sec.gov](http://www.sec.gov)), as well as the risk factors set out in the Company's subsequent public continuous disclosure filings available on SEDAR and EDGAR.

The National Environment Policy Act Environmental Impact Statement 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 currently contemplated. As a result, the Company will continue to consider various development options and no final project design has been selected at this time and no determination has been made to pursue any of the expansion options identified in the 2023 PEA.

For more information on the Company, Investors should review the Company's filings with the United States Securities and Exchange Commission at [www.sec.gov](http://www.sec.gov) and its home jurisdiction filings that are available at [www.sedarplus.ca](http://www.sedarplus.ca).