

MEMORANDUM

Maine Natural Areas Program

Department of Agriculture, Conservation and Forestry
State House Station #177, Augusta, Maine 04333

Date: May 5, 2023
To: Tim Carr, LUPC
From: Lisa St. Hilaire, MNAP Information Manager
Re: Rare and exemplary botanical features: ZP 799A, Wolfden Mt. Chase LLC Rezoning to D-PD Subdistrict for the Pickett Mountain Metallic Mineral Mine, T6 R6 WELS, Maine.

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files for rare or unique botanical features in the vicinity of the proposed site in response to your request received May 3, 2023 for our agency's comments on the project.

According to our current information, there are no rare botanical features that will be disturbed within the project site.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

The Maine Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We welcome the contribution of any information collected if a site survey is performed.

Thank you for using the Maine Natural Areas Program in the environmental review process. Please do not hesitate to contact our office if you have further questions about the Natural Areas Program or about rare or unique botanical features at this site.

Tribal Historic Preservation Office
Passamaquoddy Tribe
PO Box 159 Princeton, Me. 04668
207-214-4051

May 9, 2023

State of Maine
Land Use Planning Commission
18 Elkins Lane
Augusta, Maine 04333

Re: Pickett Mountain Mine Rezoning Application, ZP 779A – Wolfden Mt. Chase LLC

Dear Stacie;

The Passamaquoddy THPO has reviewed the following applications regarding the historic properties and significant religious and cultural properties in accordance with NHPA, NEPA, AIRFA, NAGPRA, ARPA, Executive Order 13007 Indian Sacred Sites, Executive Order 13175 Consultation and Coordination with Indian Tribal Governments, and Executive Order 12898 Environmental Justice.

The Project listed above will need a detailed archeological survey of the project footprint and on any new road construction. We recommend a qualified archeologist review this proposal and conduct a ground survey. **One of the problems we have seen over the years is that dust** from a mining operation does impact water and surrounding land which can have any impact on cultural and historical concerns of the Passamaquoddy Tribe. Should buried artifacts, human remains, cultural sites or ground features be unexpectedly unearthed during ground disturbing activities, all construction should immediately cease and the resources be examined by a professional archaeologist. Additionally, all appropriate authorities-including all pertinent tribal entities should be notified.

Sincerely;

Donald Soctomah
Soctomah@gmail.com
THPO
Passamaquoddy Tribe



JANET T. MILLS
GOVERNOR

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

KIRK F. MOHNEY
DIRECTOR

May 26, 2023

Mr. Tim Carr
Maine LUPC
18 Elkins Lane
State House Station 22
Augusta, ME 04333

RECEIVED
JUN 06 2023
LUPC - AUGUSTA

Project: MHPC #1783-19 Wolfden Mt. Chase LLC
Rezoning for Metallic Mineral Mine
Town: T6 R 6 Wels, ME

Dear Mr. Carr:

In response to your recent request, I have reviewed the information received May 4, 2023 to continue consultation on the above referenced project in accordance with the requirements of the Maine Land Use Planning Commission.

A preliminary archaeological reconnaissance in the proposed Pickett Mountain mine area (NEARC 2000) covered the now-proposed rezoning area. The 2000 reconnaissance archaeological survey located several possible Indigenous tool stone sources on the surface, and a glacial terrace that requires future archaeological testing. Follow-up archaeological investigations of potential toolstone and potential prehistoric archaeological site can be done when the development proposal is reviewed.

No architectural or historic archaeological resources will be affected by this undertaking.

If you have any questions regarding archaeology, please contact Dr. Arthur Spiess of this office at Arthur.
Spiess@maine.gov.

If you have any questions regarding above ground properties, please contact Megan Rideout of this office at megan.m.rideout@maine.gov.

Sincerely,

Kirk F. Mohney
State Historic Preservation Officer



JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
LAND USE PLANNING COMMISSION
22 SHS, 18 ELKINS LANE
AUGUSTA, MAINE 04333-0022

AMANDA E. BEAL
COMMISSIONER

STACIE R. BEYER
EXECUTIVE DIRECTOR

REQUEST FOR REVIEW AND COMMENT ON PENDING APPLICATION

Date: May 4, 2023 Permit #: ZP 779A Tr#: 54022 Analyst: Tim Carr

Applicant: Wolfden Mt. Chase, LLC Location: T6 R6 WELS

Project: Rezoning to D-PD Subdistrict for the Pickett Mountain Metallic Mineral Mine

Special Notes: This is an application for a *zone change* that would allow the Applicant to move forward to the permitting stage. If the zone change is approved by the Commission, DEP would be the lead agency for permitting and LUPC would have a certifying role. Links to the petition, supporting materials, and references are attached.

TO BE CONSIDERED,
COMMENTS DUE BY:
06-15-2023

Please use this form to submit comments & recommendations regarding the petition. Those indicated below have been requested to review this petition.

✓ Bureau of Parks and Lands, SHS #22 Attn.: Outdoor Recreation, Rex Turner	✓ Maine Forest Service Attn.: Patty Cormier
✓ DEP, SHS #17 or 312 Canco Rd. Portland, ME 04103 Attn.: Mining Review, Mark Stebbins and Mike Clark	✓ Natural Areas Program, SHS #93 Attn.: Lisa St. Hilaire
✓ DEP, SHS #17 Attn.: Groundwater Review, John Hopeck	✓ State Geologist, NRIMC, SHS #22 Attn.: Stephen Dickson
✓ DEP, SHS #17 Attn.: Surface Water Review, Tom Danielson	✓ DOT, Traffic, SHS #16 Attn.: Steve Landry
✓ DEP, SHS #17 Attn.: Waste Water Treatment, Gregg Wood	✓ Penobscot County UT Director Attn.: George Buswell
✓ DEP, SHS #17 Attn.: Air Quality Review, Jeff Crawford	✓ Penobscot County Commissioners Attn.: Scott Adkins
✓ DEP, 106 Hogan Road, Bangor Attn.: Solid Waste Review, Karen Knuuti	✓ DEP, SHS #17 Attn.: Engineering Review, Ken Libbey
✓ Historic Preservation Commission, SHS #65 Attn.: Art Spiess	
✓ DIF&W, SHS #41 (email: IFWEnvironmentalreview@maine.gov) Attn.: John Perry, Environmental Review Coordinator	

~~After~~ review of the petition and consideration of the proposal's probable impacts, we have:

No comments on the proposal

Comments on the proposal are attached

Comments (attach additional pages as necessary):

Name & Signature: _____

Date: 6-08-2023

Reports of staff permitting decisions, can be found here: <http://www.maine.gov/dacf/lupc/reports/>

Review Materials

All materials for review of the rezoning application may be found on the LUPC's website. The sizes of files over 5 MB are given below.

Review Criteria

Commission Rules Chapter 12:

https://www.maine.gov/dacf/lupc/laws_rules/rule_chapters/Chapter12_ver2013.pdf

Application Materials

Application (PDF file, 174 MB):

https://www.maine.gov/dacf/lupc/projects/wolfden/review/ZP779A_Pickett_Mtn_ZoneChg_20230118.pdf

Additional Information Submitted (PDF file, 13.3 MB)

https://www.maine.gov/dacf/lupc/projects/wolfden/review/ZP779A_WolfdenResponseToLUPC_2-24InfoRequests_2023-04-13.pdf

Stream and Wetlands Errata:

https://www.maine.gov/dacf/lupc/projects/wolfden/review/ZP779A_Attachment_6A_errata_2023-03-07.pdf

Updated Estimated Timeline:

https://www.maine.gov/dacf/lupc/projects/wolfden/review/ZP779A_TimelineGraphic_2023-04-14Update.pdf

Project Specific Webpage

https://www.maine.gov/dacf/lupc/projects/wolfden/wolfden_rezoning.html

RECEIVED

JUN 12 2023

LUPC - AUGUSTA

AMANDA E. BEAL
COMMISSIONER

STACIE R. BEYER
EXECUTIVE DIRECTOR



JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
LAND USE PLANNING COMMISSION
22 SHS, 18 ELKINS LANE
AUGUSTA, MAINE 04333-0022

REQUEST FOR REVIEW AND COMMENT ON PENDING APPLICATION

Date: May 4, 2023 Permit #: ZP 779A Tr#: 54022 Analyst: Tim Carr

Applicant: Wolfden Mt. Chase, LLC Location: T6 R6 WELS

Project: Rezoning to D-PD Subdistrict for the Pickett Mountain Metallic Mineral Mine

Special Notes: This is an application for a *zone change* that would allow the Applicant to move forward to the permitting stage. If the zone change is approved by the Commission, DEP would be the lead agency for permitting and LUPC would have a certifying role. Links to the petition, supporting materials, and references are attached.

TO BE CONSIDERED,
COMMENTS DUE BY:
06-15-2023

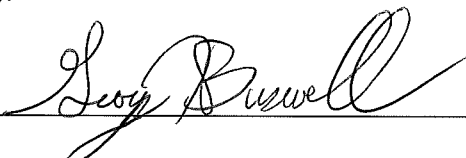
Please use this form to submit comments & recommendations regarding the petition. Those indicated below have been requested to review this petition.

✓ Bureau of Parks and Lands, SHS #22 Attn.: Outdoor Recreation, Rex Turner	✓ Maine Forest Service Attn.: Patty Cormier
✓ DEP, SHS #17 or 312 Canco Rd. Portland, ME 04103 Attn.: Mining Review, Mark Stebbins and Mike Clark	✓ Natural Areas Program, SHS #93 Attn.: Lisa St. Hilaire
✓ DEP, SHS #17 Attn.: Groundwater Review, John Hopeck	✓ State Geologist, NRIMC, SHS #22 Attn.: Stephen Dickson
✓ DEP, SHS #17 Attn.: Surface Water Review, Tom Danielson	✓ DOT, Traffic, SHS #16 Attn.: Steve Landry
✓ DEP, SHS #17 Attn.: Waste Water Treatment, Gregg Wood	✓ Penobscot County UT Director Attn: George Buswell
✓ DEP, SHS #17 Attn.: Air Quality Review, Jeff Crawford	✓ Penobscot County Commissioners Attn: Scott Adkins
✓ DEP, 106 Hogan Road, Bangor Attn.: Solid Waste Review, Karen Knuuti	✓ DEP, SHS #17 Attn.: Engineering Review, Ken Libbey
✓ Historic Preservation Commission, SHS #65 Attn.: Art Spiess	
✓ DIF&W, SHS #41 (email: IFWEnvironmentalreview@maine.gov) Attn.: John Perry, Environmental Review Coordinator	

After review of the petition and consideration of the proposal's probable impacts, we have:

No comments on the proposal Comments on the proposal are attached

Comments (attach additional pages as necessary):

Name & Signature: George Buswell  Date: 6-6-23

Reports of staff permitting decisions, can be found here: <http://www.maine.gov/dacf/lupc/reports/>

PHONE: 207-287-2631

www.maine.gov/acf

PHONE: 207-287-7439



JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
LAND USE PLANNING COMMISSION
22 SHS, 18 ELKINS LANE
AUGUSTA, MAINE 04333-0022

AMANDA E. BEAL
COMMISSIONER

STACIE R. BEYER
EXECUTIVE DIRECTOR

REQUEST FOR REVIEW AND COMMENT ON PENDING APPLICATION

Date: May 3, 2023 Permit #: ZP 779A Tr#: 54022 Analyst: Tim Carr

Applicant: Wolfden Mt. Chase, LLC Location: T6 R6 WELS

Project: Rezoning to D-PD Subdistrict for the Pickett Mountain Metallic Mineral Mine

Special Notes: This is an application for a *zone change* that would allow the Applicant to move forward to the permitting stage. If the zone change is approved by the Commission, DEP would be the lead agency for permitting and LUPC would have a certifying role. Links to the petition, supporting materials, and references are attached.

TO BE CONSIDERED,
COMMENTS DUE BY:
06-15-2023

Please use this form to submit comments & recommendations regarding the petition. Those indicated below have been requested to review this petition.

✓	Bureau of Parks and Lands, SHS #22 Attn.: Outdoor Recreation, Rex Turner	✓	Maine Forest Service Attn.: Patty Cormier
✓	DEP, SHS #17 or 312 Canco Rd. Portland, ME 04103 Attn.: Mining Review, Mark Stebbins and Mike Clark	✓	Natural Areas Program, SHS #93 Attn.: Lisa St. Hilaire
✓	DEP, SHS #17 Attn.: Groundwater Review, John Hopeck	✓	State Geologist, NRIMC, SHS #22 Attn.: Stephen Dickson
✓	DEP, SHS #17 Attn.: Surface Water Review, Tom Danielson	✓	DOT, Traffic, SHS #16 Attn.: Steve Landry
✓	DEP, SHS #17 Attn.: Waste Water Treatment, Gregg Wood	✓	Penobscot County Commissioners Attn: George Buswell
✓	DEP, SHS #17 Attn.: Air Quality Review, Jeff Crawford	✓	DEP, SHS #17 Attn.: Engineering Review, Ken Libbey
✓	DEP, 106 Hogan Road, Bangor Attn.: Solid Waste Review, Karen Knuuti		
✓	Historic Preservation Commission, SHS #65 Attn.: Art Spiess		
✓	DIF&W, SHS #41 (email: IFWEnvironmentalreview@maine.gov) Attn.: John Perry, Environmental Review Coordinator		

After review of the petition and consideration of the proposal's probable impacts, we have:

No comments on the proposal Comments on the proposal are attached

Comments (attach additional pages as necessary):

Name & Signature: Rex Turner  Date: 6-13-23

Reports of staff permitting decisions, can be found here: <http://www.maine.gov/dacf/lupc/reports/>



STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
BUREAU OF PARKS AND LANDS
22 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

June 12, 2023

Mr. Tim Carr
Maine Land Use Planning Commission
22 State House Station
Augusta, Maine 04333-0022

RE: Wolfden Mt. Chase LLC Rezoning to D-PD Subdistrict for the Picket Mountain Metallic Mineral Mine

Dear Mr. Carr,

The Maine Department of Agriculture, Conservation and Forestry, Bureau of Parks and Lands has reviewed the Land Use Planning Commission Zoning Permit 779A by Wolfden Mt. Chase LLC and has several specific comments shared below. As a preface to the comments, it is important to note that the Bureau does not directly own and manage lands in the immediate vicinity of the proposed mining area. As such, the Bureau's comments center on ATV and snowmobile trail connectivity and general access to private lands for traditional recreational activities.

ATV and Snowmobile Trail Connectivity

The Bureau's Off-Road Vehicle program provides grant funding and works with snowmobile and ATV clubs across Maine to develop and maintain interconnected trail linkages. ATV and snowmobile trail connections on private lands in the general vicinity of the project provide important links and experiences. Motorized trail use in the region is instrumental to local businesses and others who cater to trail use. Trails in T6R6 WELS are a major connection for Millinocket, East Millinocket, Patten, and Shin Pond. The Bureau would like to see the existing trail connectivity retained.

Access for Traditional Recreational Activities

It is reasonable to assume the area supports traditional recreational activities including but not limited to hunting, fishing, and wildlife observation. Supporting and upholding Maine's tradition of public access to private lands for outdoor recreation is regularly identified as a significant issue in reports, most notably the Maine State Comprehensive Outdoor Recreation Plan. The Bureau would appreciate commitments to continued public recreational access, with reasonable exceptions associated with public safety. The Bureau also would like to acknowledge the Maine Department of Inland Fisheries and Wildlife's (MDIFW) observations and recommendations submitted in this review process. MDIFW highlights aquatic resources, with particular reference to the significance of native brook trout and to the quality of landlocked salmon and brook trout fisheries in Pleasant and Mud Lakes.

ANDREW R. CUTKO, DIRECTOR
BUREAU OF PARKS AND LANDS
18 ELKINS LANE, HARLOW BUILDING



PHONE: (207) 287-3821
FAX: (207) 287-6170
WEB: WWW.MAINE.GOV/DACF/

Summary

The recreation resources in the geographic area surrounding the project – including but not limited to fishing, hunting, and motorized recreation - deserve appropriate planning and consideration to maintain public access and opportunity. Continuing ATV and snowmobile trail connectivity, enabling appropriate public access for hunting and wildlife observation, and protecting fishing quality and opportunities should all be strong considerations in the review process.

Thank you for the opportunity to provide these comments. If you have any questions about the comments, please do not hesitate to contact me at 207-441-9152 or at rex.turner@maine.gov.

Sincerely,

A handwritten signature in black ink, consisting of a stylized, cursive 'R' followed by a long horizontal line extending to the right.

Rex Turner
Outdoor Recreation Planner, Maine Bureau of Parks and Lands

Cc: Andrew Cutko, Director, Maine Bureau of Parks and Lands



JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
LAND USE PLANNING COMMISSION
22 SHS, 18 ELKINS LANE
AUGUSTA, MAINE 04333-0022

AMANDA E. BEAL
COMMISSIONER

STACIE R. BEYER
EXECUTIVE DIRECTOR

REQUEST FOR REVIEW AND COMMENT ON PENDING APPLICATION

Date: May 3, 2023 Permit #: ZP 779A Tr#: 54022 Analyst: Tim Carr

Applicant: Wolfden Mt. Chase, LLC Location: T6 R6 WELS

Project: Rezoning to D-PD Subdistrict for the Pickett Mountain Metallic Mineral Mine

Special Notes: This is an application for a *zone change* that would allow the Applicant to move forward to the permitting stage. If the zone change is approved by the Commission, DEP would be the lead agency for permitting and LUPC would have a certifying role. Links to the petition, supporting materials, and references are attached.

TO BE CONSIDERED,
COMMENTS DUE BY:
06-15-2023

Please use this form to submit comments & recommendations regarding the petition. Those indicated below have been requested to review this petition.

✓ Bureau of Parks and Lands, SHS #22 Attn.: Outdoor Recreation, Rex Turner	✓ Maine Forest Service Attn.: Patty Cormier
✓ DEP, SHS #17 or 312 Canco Rd. Portland, ME 04103 Attn.: Mining Review, Mark Stebbins and Mike Clark	✓ Natural Areas Program, SHS #93 Attn.: Lisa St. Hilaire
✓ DEP, SHS #17 Attn.: Groundwater Review, John Hopeck	✓ State Geologist, NRIMC, SHS #22 Attn.: Stephen Dickson
✓ DEP, SHS #17 Attn.: Surface Water Review, Tom Danielson	✓ DOT, Traffic, SHS #16 Attn.: Steve Landry
✓ DEP, SHS #17 Attn.: Waste Water Treatment, Gregg Wood	✓ Penobscot County Commissioners Attn.: George Buswell
✓ DEP, SHS #17 Attn.: Air Quality Review, Jeff Crawford	✓ DEP, SHS #17 Attn.: Engineering Review, Ken Libbey
✓ DEP, 106 Hogan Road, Bangor Attn.: Solid Waste Review, Karen Knuuti	
✓ Historic Preservation Commission, SHS #65 Attn.: Art Spiess	
✓ DIF&W, SHS #41 (email: IFWEnvironmentalreview@maine.gov) Attn.: John Perry, Environmental Review Coordinator	

After review of the petition and consideration of the proposal's probable impacts, we have:

No comments on the proposal Comments on the proposal are attached

Comments (attach additional pages as necessary): See attached

Name & Signature: Stephen M. Dickson  Date: 6/15/2023

Reports of staff permitting decisions, can be found here: <http://www.maine.gov/dacf/lupc/reports/>

PHONE: 207-287-2631

www.maine.gov/acf

PHONE: 207-287-7439

INTERDEPARTMENTAL MEMORANDUM

MAINE GEOLOGICAL SURVEY, DEPARTMENT OF AGRICULTURE, CONSERVATION
AND FORESTRY

93 STATE HOUSE STATION, AUGUSTA, ME 04333-0093, (207) 287-2801

DATE: 06/15/2023
TO: TIM CARR, SENIOR PLANNER, LUPC
CC: HENRY N. BERRY, IV, SENIOR GEOLOGIST; RYAN GORDON, HYDROGEOLOGIST
FROM: STEPHEN M. DICKSON, PH.D., STATE GEOLOGIST, MGS
RE: REZONING FOR THE PICKETT MOUNTAIN METALLIC MINE, T6 R6 WELS, PENOBSCOT COUNTY

After a review of the above project, as presented to us, and consideration of our agency's standards, programs, and responsibilities, the following comments are submitted to the Land Use Planning Commission.

Staff of the Maine Geological Survey (MGS) reviewed parts of the application by Wolfden Mount Chase LLC to the Land Use Planning Commission (LUPC) to rezone parts of T6 R6 WELS as a Planned Development subdistrict for the purposes of permitting and operating an underground polymetallic mine. The documents reviewed included sections of the Application prepared by Stantec Consulting Services Inc., dated January 18, 2023, and the Response to LUPC Comments of February 24, 2023, dated April 13, 2023.

The focus of the MGS review was on the size of the rezone area, the completeness of the mine facilities, the logistics of the surface operation, and potential impacts to natural resources, including water resources. As such, the entire application was not read or reviewed by MGS staff. MGS specifically reviewed the following sections from the January 18, 2023 application:

1. Executive Summary
2. Exhibits 1-2
3. Exhibit 6.1
4. Exhibits 7-8
5. Exhibit 10
6. Exhibits 24-25

plus, the answers in the Response to LUPC Comments of February 24, 2023 document, including Attachments A and B.

Appropriateness of New District Designation

One of the criteria for approval of a zone change petition is whether the new designation is more appropriate for the management of existing resources in the affected area [LUPC Chapter 12 Rules, Section 4B (1)(b)]. Environmentally responsible mining of metallic mineral resources is a goal of the CLUP, as the Application mentions. We would add that there are currently very few mineral deposits in Maine known to be of significant size and grade (see Metallic Mineral Deposits of Maine <https://www.maine.gov/dacf/mgs/explore/mining/metal.pdf>). Of those few, the Pickett Mountain polymetallic deposit stands out as most compatible with the objectives of the Maine Metallic Minerals Mining Act (MMMMMA) which favors small, high-grade deposits that can be mined underground, having less potential environmental impact than large, low-grade, surface mines. Also, one of the commodities in the deposit, zinc, is on the federal list of critical minerals, essential to the economic and national security of the United States. Therefore, in our view, it would be more appropriate management of the metallic mineral deposit to allow it to proceed to the permitting process as envisioned by the CLUP and regulated by the MMMMA, than to have it remain in the M-GM zone.

Size of Rezone Area

In response to the LUPC guidance (Chapter 12 Rules, Section 3) that the size of the Subdistrict "... shall be limited to an area necessary to reasonably conduct authorized mining ..." we observe that the proposed rezone area fits closely around the features shown on the conceptual plan (Figure 2-1). While the plan as proposed does fit within this footprint, we encourage the Commission to consider allowing the applicant and the DEP some room for alternative designs that might be indicated during the permitting process as more detailed information is obtained. Specifically, we note that detailed soils information and engineering designs could require adjustments in the positioning of certain features. It might be preferable at the zoning stage to allow enough space for the regulators to work than to require the applicant to return for an amendment. This is simply a matter of contingency as would be encountered in any major construction project. It is challenging to know exactly what area is "necessary" before there is an "authorized" mining project.

The specific areas that we see where the existing boundary might need to be expanded slightly to allow redesign as more detailed information becomes available in the permitting process are:

1. At the southwest corner of the rezone area. The Organics Storage (26) is pressed against the western boundary of the rezone area. As currently designed, this is acceptable. However, as shown on Figure 2-6, Section G, there is not much space between the Organics Storage (26) and the excavation for Waste Rock Pad #2 (30). If the soils or engineering studies show that a more gradual slope is required for the west side of the

waste rock pad excavation, the DEP might ask for the Organics Storage to be moved uphill, for example.

2. At the south edge of the rezone area, a Proposed Access Road is shown on the Conceptual Site Plan (Figure 2-1) leading south from Waste Rock Storage Pad #2 (30). This access road appears to make an unreasonably sharp left turn onto the existing gravel road leading to the northeastern part of the site. Is there adequate space there to accommodate this turn reasonably and safely in the current footprint without affecting the wetland area?
3. The northeast boundary of the rezone area, where the Security Guard Gatehouse (36) is located. We have some questions about the layout of the site area between the Mine Portal (24) and the Snow Storage Area (3). Any adjustments or additional structures in this area that might be indicated during the permitting process could require moving the northeastern boundary slightly to the northeast.

Site Facilities and Operations

The features of the site and their arrangement overall are well laid out, efficient, and logical. They have been situated well in consideration of the topography and wetland areas. The phased plan using a hoist to access the southwestern ore body is creative. That said, there are some details that we don't see in the conceptual plan.

1. How does waste rock get from the backfill plant to the mine portal? We don't see an access road to the backfill plant. On Figure 2-5, Section F the backfill plant is not shown. From that section it would appear to be 10 feet higher than the access road.
2. Is there a facility on site where mine waste testing and characterization will take place? If not, does it need to be added?
3. How will the backfill material be "neutralized or otherwise treated to prevent contamination of groundwater," as required by DEP Chapter 200 Rules?
4. How and where will ore be loaded into the semi-tractor trailer dump trucks, from both ore pads?
5. Is there a truck scales for weighing loads of ore leaving the site?
6. There is an existing gravel road within the rezone area between the northeast and southwest operations areas. This road passes through a wetland area. What is the condition of this road? It appears to be the primary route of loaded ore trucks from Ore Storage Pad #2 (29) to the off-site processing facility. If it needs improvement, will it require a NRPA permit?

Impacts to Water Quantity

The analysis of area hydrology and the general water balance of the site (Exhibit 10.5.2 and Table 10-1) appears to be sufficient. The precipitation and runoff modeling presented in Attachment 10-C also appears sufficient and reasonable. Furthermore, the two reports by Sevee & Maher Engineers (Attachment 10-E to the application and Attachment B to the Response to LUPC Comments of February 24, 2023) concerning spray irrigation, snowmaking, and changes to water flow timing and quantity all appear to be well-considered. On the other hand, we would like to see more discussion and details about anticipated uses and sources of water in the project area. In Attachment 10-C and in the Sevee & Maher reports, the combined wastewater volume resulting from mine dewatering and mining operations is estimated at 30 gallons per minute (15.8 million gallons per year); however, details about this estimate are lacking. Specifically, we have the following questions about this estimate and other uses and sources of water:

1. How much of the estimated 15.8 MGY would be from groundwater infiltration into the mine, and how much from mining operations? How was the volume of groundwater infiltration estimated, and what is the reasonable range or uncertainty for this estimate?
2. What is the volume of water anticipated to be used for the mining operations, and how was this estimate made? What are the anticipated uses of water in the underground workings? Potential water uses that are not thoroughly discussed include:
 - a. drilling and excavation
 - b. underground dust control
 - c. underground equipment and vehicle washing
3. Further uses of water on the surface and elsewhere on site are not considered at all in the potential volume of water requiring treatment. Would these constitute significant volumes, and are the water treatment systems sized appropriately to include any of these potential uses? Additional potential uses include:
 - a. fire suppression
 - b. surface dust control
 - c. washing of paved surfaces
 - d. washing of transport trucks
 - e. exploration drilling
4. Might the fire suppression system use PFAS or other chemical flame retardants, and is the water treatment system able to remove these substances if there is a use of the fire suppression system anywhere in the mine or on the development site?
5. What are the anticipated sources of water to be used on-site and where will they be located? A potable water well is briefly mentioned for use in staff washrooms, but not located on the site plan, but the source of mining water is not described at all or located on the plan.

Impacts to Water Quality

The general design of contact water treatment (holding ponds, treatment works, and treated water disposal), as described in Attachment 10-D, appears well-considered and appropriate, as long as they are designed for the appropriate volume of water produced (see questions on water uses above). However, the design of contact water collection is lacking in some details. For example, the ore and waste rock storage pads are proposed to have engineered liner and leachate collection systems that are described in some detail (Exhibit 2 and figures), but the design of water collection from other infrastructure within the “water collection area” shown on Figure 2-1 is not described. Specifically, we have the following questions:

1. Will the snow storage area be underlain by an engineered liner and leachate collection system similar to the ore and waste rock storage pads?
2. What methods will be used to reduce or eliminate the infiltration of contact water through roads, lots, ditches, etc., that are not designed with liners within the “water collection area”?
3. How will water be collected from other surfaces and structures within the “water collection area,” including road ditches, lots, and buildings such as the maintenance shop, equipment fueling, backfill plant, etc.?
4. From the standpoint of potential environmental impact, we would assign all water in the rezone area to either contact water or non-contact water. We consider the water in the “water collection area” to be contact water because it has been exposed to mine truck traffic, backfill processing, and loading or unloading ore or waste rock. Are there areas where ore or waste rock will be loaded or unloaded that are outside the “water collection areas” indicated on the conceptual site plan (Figure 2-1)?

Miscellaneous Questions

1. Exhibit 6.1.9 shows a bedrock map taken from the 1:500,000 Bedrock Geologic Map of Maine. There is a more detailed 1:62,500 scale map available from the U.S. Geological Survey (Ekren and Frischknecht, 1967). This is a technical point, but not a significant issue, since the applicant has conducted more recent detailed bedrock mapping as presented in Figure 7.4 of the Preliminary Economic Assessment.
2. Attachment 10-B reports the results of seven samples that were analyzed for acid-generating potential. What are the locations of the samples?
3. What will become of the Low-Grade Ore?



JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
LAND USE PLANNING COMMISSION
22 SHS, 18 ELKINS LANE
AUGUSTA, MAINE 04333-0022

AMANDA E. BEAL
COMMISSIONER

STACIE R. BEYER
EXECUTIVE DIRECTOR

REQUEST FOR REVIEW AND COMMENT ON PENDING APPLICATION

Date: May 3, 2023 Permit #: ZP 779A Tr#: 54022 Analyst: Tim Carr

Applicant: Wolfdon Mt. Chase, LLC Location: T6 R6 WELS

Project: Rezoning to D-PD Subdistrict for the Pickett Mountain Metallic Mineral Mine

Special Notes: This is an application for a *zone change* that would allow the Applicant to move forward to the permitting stage. If the zone change is approved by the Commission, DEP would be the lead agency for permitting and LUPC would have a certifying role. Links to the petition, supporting materials, and references are attached.

TO BE CONSIDERED,
COMMENTS DUE BY:
06-15-2023

Please use this form to submit comments & recommendations regarding the petition. Those indicated below have been requested to review this petition.

✓ Bureau of Parks and Lands, SHS #22 Attn.: Outdoor Recreation, Rex Turner	✓ Maine Forest Service Attn.: Patty Cormier
✓ DEP, SHS #17 or 312 Canco Rd. Portland, ME 04103 Attn.: Mining Review, Mark Stebbins and Mike Clark	✓ Natural Areas Program, SHS #93 Attn.: Lisa St. Hilaire
✓ DEP, SHS #17 Attn.: Groundwater Review, John Hopeck	✓ State Geologist, NRIMC, SHS #22 Attn.: Stephen Dickson
✓ DEP, SHS #17 Attn.: Surface Water Review, Tom Danielson	✓ DOT, Traffic, SHS #16 Attn.: Steve Landry
✓ DEP, SHS #17 Attn.: Waste Water Treatment, Gregg Wood	✓ Penobscot County Commissioners Attn: George Buswell
✓ DEP, SHS #17 Attn.: Air Quality Review, Jeff Crawford	✓ DEP, SHS #17 Attn.: Engineering Review, Ken Libbey
✓ DEP, 106 Hogan Road, Bangor Attn.: Solid Waste Review, Karen Knuuti	
✓ Historic Preservation Commission, SHS #65 Attn.: Art Spiess	
✓ DIF&W, SHS #41 (email: IFWEnvironmentalreview@maine.gov) Attn.: John Perry, Environmental Review Coordinator	

After review of the petition and consideration of the proposal's probable impacts, we have:

No comments on the proposal Comments on the proposal are attached

Comments (attach additional pages as necessary):

Name & Signature: Morten Moenwilde (MFS) Date: 6/15/2023

Reports of staff permitting decisions, can be found here: <http://www.maine.gov/dacf/lupc/reports/>



JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
LAND USE PLANNING COMMISSION
22 SHS, 18 ELKINS LANE
AUGUSTA, MAINE 04333-0022

AMANDA E. BEAL
COMMISSIONER

STACIE R. BEYER
EXECUTIVE DIRECTOR

REQUEST FOR REVIEW AND COMMENT ON PENDING APPLICATION

Date: May 3, 2023 Permit #: ZP 779A Tr#: 54022 Analyst: Tim Carr

Applicant: Wolfden Mt. Chase, LLC Location: T6 R6 WELS

Project: Rezoning to D-PD Subdistrict for the Pickett Mountain Metallic Mineral Mine

Special Notes: This is an application for a *zone change* that would allow the Applicant to move forward to the permitting stage. If the zone change is approved by the Commission, DEP would be the lead agency for permitting and LUPC would have a certifying role. Links to the petition, supporting materials, and references are attached.

TO BE CONSIDERED,
COMMENTS DUE BY:
06-15-2023

Please use this form to submit comments & recommendations regarding the petition. Those indicated below have been requested to review this petition.

✓	Bureau of Parks and Lands, SHS #22 Attn.: Outdoor Recreation, Rex Turner	✓	Maine Forest Service Attn.: Patty Cormier
✓	DEP, SHS #17 or 312 Canco Rd. Portland, ME 04103 Attn.: Mining Review, Mark Stebbins and Mike Clark	✓	Natural Areas Program, SHS #93 Attn.: Lisa St. Hilaire
✓	DEP, SHS #17 Attn.: Groundwater Review, John Hopeck	✓	State Geologist, NRMIC, SHS #22 Attn.: Stephen Dickson
✓	DEP, SHS #17 Attn.: Surface Water Review, Tom Danielson	✓	DOT, Traffic, SHS #16 Attn.: Steve Landry
✓	DEP, SHS #17 Attn.: Waste Water Treatment, Gregg Wood	✓	Penobscot County Commissioners Attn: George Buswell
✓	DEP, SHS #17 Attn.: Air Quality Review, Jeff Crawford	✓	DEP, SHS #17 Attn.: Engineering Review, Ken Libbey
✓	DEP, 106 Hogan Road, Bangor Attn.: Solid Waste Review, Karen Knuuti		
✓	Historic Preservation Commission, SHS #65 Attn.: Art Spiess		
✓	DIF&W, SHS #41 (email: IFWEnvironmentalreview@maine.gov) Attn.: John Perry, Environmental Review Coordinator		

After review of the petition and consideration of the proposal's probable impacts, we have:

No comments on the proposal Comments on the proposal are attached

Comments (attach additional pages as necessary):

Name & Signature: Bob Strouton IFW Date: June 27, 2023

Reports of staff permitting decisions, can be found here: <http://www.maine.gov/dacf/lupc/reports/>

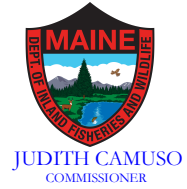
PHONE: 207-287-2631

www.maine.gov/acf

PHONE: 207-287-7439



STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
353 WATER STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041



June 27, 2023

Tim Carr
Senior Planner
Maine Land Use Planning Commission
22 State House Station
Augusta, Maine 04333-0022

RE: Wolfden Mt. Chase LLC, Rezoning Request ZP 779A, Pickett Mountain Metallic Mineral Mine, T6R6 WELS

Dear Tim,

Per your request received on May 4, 2023, the Maine Department of Inland Fisheries and Wildlife (MDIFW) has reviewed application materials related to the request by Wolfden Mt. Chase LLC to rezone 374 acres in T6R6 WELS from a General Management (M-GN) Subdistrict to a Planned Development (D-PD) Subdistrict. If rezoning is approved, Wolfden would then have the opportunity to apply for regulatory review and possible permitting of the proposed underground Pickett Mountain Metallic Mineral Mine. MDIFW has provided previous reviews and correspondences on July 27, 2022; September 11, 2020; November 25, 2019; and participated in a site visit and onsite meeting on September 3, 2020, related to this project.

MDIFW has previously noted potential concerns related to State listed bats and their critical habitats; intermittent and perennial streams; lakes and ponds; fisheries and other aquatic resources; freshwater wetlands; Inland Waterfowl and Wadingbird Habitats; vernal pools; and other known and potential resources of concern. The September 11, 2020, correspondence (attached) provides information on fisheries, aquatic, and wetland resources in the area. These resources, as well as the surface water and groundwater resources that supply them, are significant concerns for the agency and will be the subject of further review and recommendations in any future regulatory proceedings.

MDIFW notes that the proposed project has undergone substantial modifications and that application materials suggest that significant analyses have been and are being conducted. The applicant indicates that 129 acres of the 374 acres proposed for rezoning will be cleared for the project, with mine facilities, water treatment, water storage, and a water recharge area located within an approximately 31-acre portion of impervious development. The project site may also include a possible future 47-acre solar development. The applicant's consultant indicates that the proposed design will avoid jurisdictional wetland, stream, and vernal pool resources. In the current proposed design, concentrator and tailings processing facilities will be proposed at another location to be determined and not located at this site. MDIFW will be interested in the location proposed for these operations.

Mineral deposits are reportedly located at depths of 160-2,700 feet below surface. Thus, the project design appears to allow for maintaining approximately 160 feet of overburden material beneath natural resources, seemingly reducing the potential for the mining activity itself to affect groundwater flows to wetland and aquatic resources on the surface. This concept merits further review.

Application materials indicate that mined ore and waste rock will be temporarily stockpiled on impermeable, lined storage pads with leachate and storm water collection and treatment, including settling and reverse osmosis, prior to surface discharge through spray irrigation and wastewater snowmaking. Spray irrigation/snowmaking discharges are proposed to be located within water recharge areas to provide approximately equivalent pre and post construction water budgets to offset lost surface flows to aquatic and wetland resources from adjacent areas altered by development. MDIFW will be interested in more detailed analyses of this proposal as designs are further developed, to ensure that distributed water is free of contaminants from mine activities and that any adverse impacts to surface water and groundwater resources, fisheries, wildlife, and their critical habitats, are avoided, minimized, and, if appropriate, adequately mitigated.

MDIFW's preliminary desktop reviews and record searches identify known resources, but site surveys are often necessary to identify other important resources that have not yet been investigated but may be present in an area. Locating a project in or in proximity to certain habitats can result in adverse impacts to those habitats and the species that utilize them and, in those situations, MDIFW will likely recommend increased siting and design considerations, operational measures, monitoring practices, and/or other efforts in attempt to avoid, minimize, and possibly mitigate for such impacts. Resource surveys, project siting, facility design/layout, and operational practices are all very important steps in this process. MDIFW provides recommendations based on known and reported resource information but, it is the applicant's ultimate responsibility to ensure that its activities do not result in substantial detrimental impacts to resources.

Based on review of the materials provided, MDIFW offers no objection at this time to Wolfden Mt. Chase LLC's request to rezone 374 acres in T6R6 WELS from a General Management (M-GN) Subdistrict to a Planned Development (D-PD) Subdistrict. MDIFW anticipates that any future application materials will include compelling information on measures to avoid or minimize adverse impacts to important natural resources such as, but not limited to, those noted above and in MDIFW's previous correspondences. Further, we anticipate that any regulatory proceedings will include opportunities for MDIFW to review and provide recommendations for the protection of important fisheries, wildlife, and critical aquatic, wetland, riparian, and terrestrial habitats, and that such recommendations will be appropriately considered in regulatory actions.

Thank you for this opportunity. If you have any questions or concerns, please feel free to contact me at robert.d.stratton@maine.gov or (207) 287-5659.

Sincerely,



Robert D. Stratton
Environmental Program Manager
Maine Department of Inland Fisheries & Wildlife

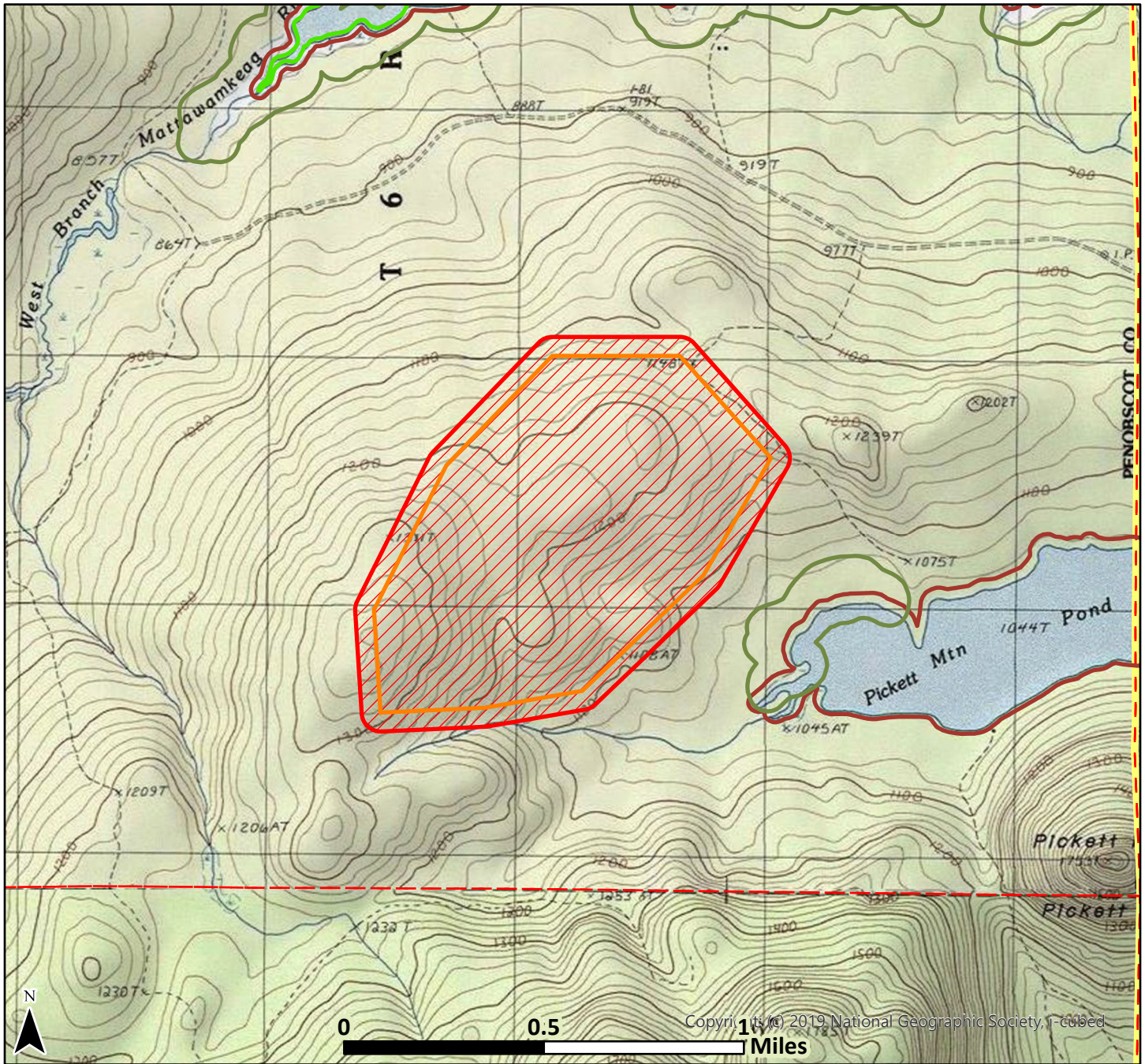
cc: Kevin Dunham, Mark Caron (MDIFW)

encl: MDIFW Preliminary Resource Map (2023)
MDIFW Fish and Wildlife Resources Review (September 11, 2020)
Wolfden Preliminary Stream Resources Map (2020)



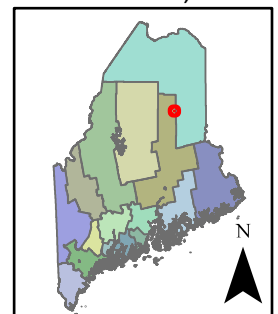
Maine Department of Inland Fisheries and Wildlife
 Environmental Review of Fish and Wildlife Observations and Priority Habitats

Wolfden Metallic Mineral Mining Rezoning



- County Boundary
- Township Boundary
- Project Footprint
- Search Area
- Inland Waterfowl/Wading Bird
- Maine Heritage Fish Waters
- Special Concern Fish

Date: 6/23/2023
 Projection:
 UTM Zone 19N, NAD83



Legend only lists resources visible in the map; see response letter for all resources that were evaluated.



STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
284 STATE STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041



September 11, 2020

Ms. Stacie J. Beyer
Planning Manager
Maine Land Use Planning Commission
22 State House Station,
Augusta, Maine 04333-0022

RE: Wolfden Resources Mineral Mining Rezoning Petition, T6R6 WELS; Additional Resource Information.

Dear Stacie,

Per your request, and as a follow up to the site visit conducted on September 3, 2020, the Maine Department of Inland Fisheries and Wildlife (MDIFW) offers the following additional observations and recommendations related to Wolfden Resources' petition to rezone 528 acres in T6R6 WELS to allow for an application to construct a metallic mineral mine. We appreciate the opportunity to attend the site visit, which was very informative and provided an opportunity to discuss resource concerns with the applicant and other parties present.

In MDIFW's letter of November 25, 2019, we described our agency's focus on Rare, Threatened, and Endangered Species and Habitats; Significant Wildlife Habitats; and Protected Natural Resources. Based on preliminary information provided, we also noted several resources for further investigation and of particular concern, some of which are further addressed below. The following is in response to your request for additional information related to the presence, use, and concerns for potential impacts to natural resources in the vicinity of the proposed project.

Significant Wildlife Habitat, Potential for Maine Threatened Species

It is noted that a designated Inland Waterfowl and Wading Bird Habitat (IWWH) is located on the inlet on the western end of Pickett Mountain Pond, adjacent to the proposed project site. MDIFW anticipates receiving and reviewing additional project information in the future to ensure that there are no unreasonable, adverse impacts to this resource, which is a Significant Wildlife Habitat (SWH) pursuant to the Natural Resources Protection Act (38 M.R.S., §480-B.10) and SWH Rules (06-096 CMR 335; 09-137 CMR 10). In addition, MDIFW recommends investigation of the IWWH for presence / absence of shrubby cinquefoil, the host plant for the State Threatened Clayton's copper butterfly. Aerial photo interpretation suggests that the IWWH may have conditions that favor this plant and there is an existing population of Clayton's copper butterflies in nearby Crystal. The Clayton's copper butterfly is currently known from only ten sites in Maine, including four in a ten square mile area of eastern Penobscot County in the vicinity of Lee and Springfield, and three sites in northern Piscataquis and eastern Aroostook Counties. Clayton's copper is found only in association with its larval host plant, the shrubby cinquefoil. This uncommon shrub requires limestone soils and has a scattered distribution throughout Maine, however, there are relatively few stands large enough to support viable Clayton's copper populations. Shrubby cinquefoil is intolerant of shade and can only thrive in open areas. It

PHONE: (207) 287-8000

FISH AND WILDLIFE ON THE WEB:
www.maine.gov/ifw

EMAIL ADDRESS:
ifw.webmaster@maine.gov

typically occurs along the edge of calcareous (limestone) wetlands. It can also be found in old fields, but these stands are typically short-lived because of forest succession. All of the currently known occurrences for Clayton's copper are in enriched fens and bogs, and streamside shrublands or meadows. Please contact MDIFW's Reptile, Amphibian, and Invertebrate Biologist, Beth Swartz (beth.swartz@maine.gov, 207- 941-4476), for further guidance. If MDIFW-approved surveys are conducted and indicate that shrubby cinquefoil is not present, or if it can be demonstrated that the Wolfden proposal will not adversely affect shrubby cinquefoil and will avoid Take or Harassment of the Maine Threatened Clayton's copper butterfly, MDIFW anticipates having no concerns for this species.

Bat Habitat Creation, Post-Closure

During the September 3, 2020 site visit, we briefly explored the potential to create habitat for at-risk bat species as part of the post-operational site remediation plan. As I understand it, the main underground portal will consist of an approximately 16-foot x 16-foot opening surrounded by a larger rock face. There will also be both east and west ventilation raises with approximately 10-foot x 10-foot openings. Wolfden intends to fill and add concrete around the openings to prevent water intrusion after closure. We briefly discussed the potential to slope and berm around the openings to discourage water entry and to leave gated openings as possible caves for bat hibernacula. We also discussed the possibility of installing some piles of rock rubble on the closed tailings storage area as potential hibernacula. These discussions were conceptual but, Wolfden expressed interest in further exploring the concept to determine the potential for creating viable habitat conditions while also meeting site closure needs.

Aquatic Resources

The proposed project site is located in the Rockabema Lake subwatershed (HUC 12), in proximity and west of Pickett Mountain Pond, which flows to Grass Pond, then to Mud Lake, and other waters downstream. It is also east and south of the West Branch of the Mattawamkeag River, which flows to Pleasant Lake, Mud Lake, Duck Pond, Rockabema Lake, and other downstream resources along the West Branch of the Mattawamkeag River. The watershed contains other resources including intermittent and perennial streams, associated riparian habitats, and freshwater wetlands, and is considered important for brook trout.

Pickett Mountain Pond has a maximum depth of seven feet, with warm, well oxygenated water. The initial fisheries survey (1958) indicated that the inlet tributary had no potential for brook trout spawning, rearing, or adults, and the outlet had little potential. One trout was captured during the initial survey, none in subsequent samples (1996, 2004). MDIFW Regional Fisheries Biologist Kevin Dunham indicates that Pickett Mountain Pond contains white sucker, fine-scale dace, red-belly dace, fallfish, creek chub, golden shiner, common shiner, red-breasted sunfish, black-nose dace, and pearl dace, and would make a great place to harvest bait fish.

Pleasant Lake, Mud Lake, and Grass Pond are all designated as Heritage Fish Waters. Maine Heritage Fish Waters are native and wild brook trout lakes and ponds which represent unique, valuable, and irreplaceable ecological and angling resources. MDIFW recognizes the unrivaled historic and economic importance of Maine's wild and native brook trout resource and focuses on the conservation and protection of this uniquely valuable resource. MDIFW's primary intent for managing wild brook trout in lakes and ponds is the protection and conservation of these self-sustaining fisheries. The inlets of these lakes originate in the West Branch of the Mattawamkeag River as well as Picket Mountain Pond, positioned west and east of the proposed project site, respectively.

MDIFW regional fisheries staff consider Pleasant Lake and Mud Lake to be some of the best brook trout and landlock salmon waters available in the Region. Kevin Dunham notes, *“Though the initial survey of the lakes in 1953 describes them as being shallow and having warm water throughout, it does go on to say, ‘trout and salmon seek the cool water of spring holes...’. Pleasant Lake has an adequate amount of cool-water spring holes to support an excellent trout and salmon fishery. Subsequent fishery surveys, the most recent conducted in June 2019, found extraordinary growth of one-year old wild brook trout averaging 9.1”, most of which probably took place in a cooler tributary stream. Additionally, while the lake does not stratify and temperatures remain homogenous throughout the water column, dissolved oxygen levels also remain ideal from top to bottom. Multiple age-classes of brook trout were captured during recent surveys as well, indicating year to year holdover is taking place at Pleasant and Mud Lakes.”* Anecdotal evidence suggests moderate angling pressure in these waters and the fisheries resources are protected and managed through specialized regulations. *“The landlocked salmon fishery is not as robust as the trout fishery, but past surveys have sampled multiple age-classes in the 7-17” size ranges. While the lakes are somewhat limiting in cold-water refugia they do support healthy populations of salmonids (and other fish including smelt) and it is vitally important to protect the tributaries as well as the lakes since they contain an abundance of spawning and rearing habitat.”*

Merry Gallagher, MDIFW’s Native Fish Conservation Biologist, provided the attached map of preliminary stream resources, and noted that the orange stream lines *“signify streams that are of medium/moderate value for wild brook trout conservation according to (MDIFW’s) recent effort to classify streams.”* As noted during our November 5, 2019 meeting, brook trout streams are plentiful throughout this region. During surveys conducted in September 2008, one survey site indicated on the map yielded 16 wild brook trout, while the second site provided two wild brook trout, along with common shiner, black nose dace, creek chub, white sucker, and black nose shiner.

MDIFW requests additional information on the proposed mining operation and associated activities to ensure that it will not result in unreasonable adverse impacts to these valuable resources.

Streams and Wetlands

Wolfden’s plan during the mining operation includes capturing water from runoff and infiltration on site, treating it to equal to or better than ambient conditions, and discharging treated water into bedrock aquifers. During the September 3, 2020 site visit, MDIFW noted that intermittent and perennial streams and freshwater wetlands in the area are likely supplied by water from shallow features that flow through the overburden and less likely from bedrock sources. MDIFW expressed concern with the potential for these natural resources to be adversely affected by removing water from surficial and shallow horizons and discharging it to bedrock aquifers. The concern is with a potential dewatering and/or change in water chemistry, temperature, etc. of these natural resources that are important habitats by themselves as well as through their contributions to the larger resources described above. Also, additional information is necessary to demonstrate that the proposed mining operation and associated activities will not cause physical interruptions in subsurface flow patterns that supply these resources, even if Wolfden is able to maintain recommended undisturbed, forested buffer distances. During the site visit, we discussed investigating spray irrigation of the treated water to the ground surface during operation, allowing it to infiltrate the overburden and potentially provide flows to surface water resources. However, even if this is determined feasible and beneficial, the question remains of potential long term/permanent effects as this practice will not be in use after operations cease. MDIFW requests additional information to address concerns for potential direct and indirect impacts to surface and groundwater features and flow patterns that contribute to these resources.

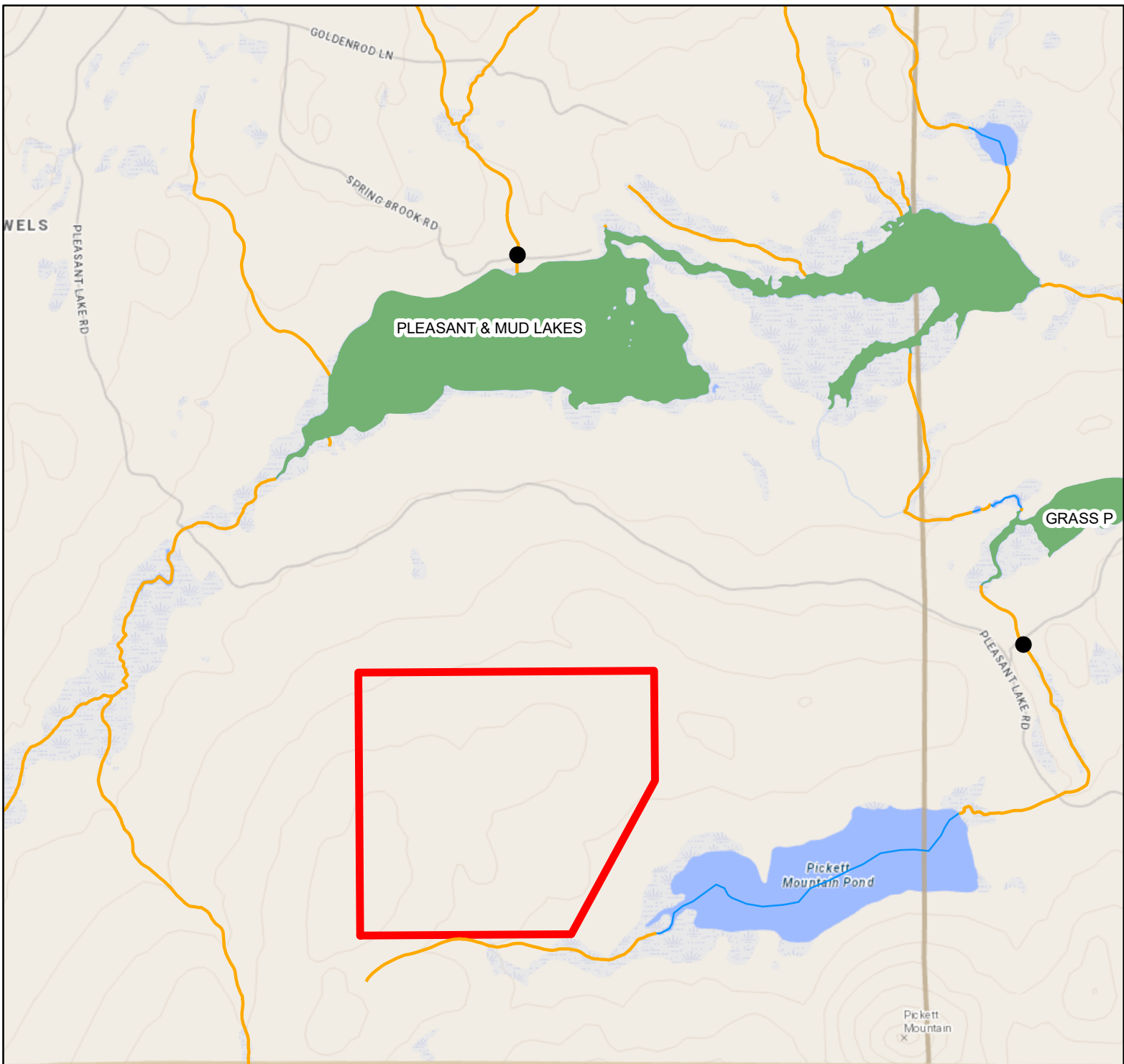
We hope that this information is valuable to your process. If you have any questions or concerns, please feel free to contact me at robert.d.stratton@maine.gov or (207) 287-5659.

Thank you,

A handwritten signature in black ink that reads "Bob Stratton" with a small "IFW" written below the name.

Robert D. Stratton
Environmental Program Manager
Maine Department of Inland Fisheries & Wildlife

Cc: Jim Connolly, Director, Bureau of Resource Management, MDIFW



- StrmSrvyLocationID
- Maine_Heritage_Fish_Waters
- IFW_BKT_Habitat_Rating_2020**
- <all other values>
- IFW_PRTY**
- Very High
- High
- Medium
- Low
- Not
- IFW_Wild_BKT_Priority_Conservation_Areas
- WolfdenRezone



JANET T. MILLS
GOVERNER

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



MELANIE LOYZIM
COMMISSIONER

MEMORANDUM

To: Tim Carr, Senior Planner, Land Use Planning Commission
From: Michael Clark, Mining Coordinator, Bureau of Land Resources
Date: July 5, 2023 *MS*
Re: Department comments on Wolfden Mt. Chase, LLC's petition to rezone portion of Township 6, Range 6 Penobscot County, Maine for development of an underground metallic mineral deposit, January 18, 2023

The Department of Environmental Protection (Department or DEP) has reviewed the above noted zoning petition (the Petition), submitted to the Land Use Planning Commission (Commission or LUPC) by Wolfden Mt. Chase, LLC (Wolfden or Applicant). The Petition provides information in support of Wolfden's request to rezone approximately 374 acres that are currently within the General Management subdistrict, to allow construction, mining, closure, and reclamation activities over an estimated 10-15 years. The project is named Pickett Mountain and is located north of Patten, in Penobscot County near the border with Aroostook County. The Department's comments on the Petition follow.

In preparing these comments, the Department has attempted to (a) provide observations based on its experience and expertise that may assist the LUPC in its review, (b) identify any obvious issues with the proposed project that, if not addressed, would automatically preclude the Department from permitting the project under the Maine Metallic Mineral Mining Act (Mining Act), and (c) note additional information the Department would require before it could accept an application for the proposed project as complete for processing. This Petition review is similar to a Department memorandum dated January 28, 2021, which provided comments on a previously submitted, and subsequently withdrawn, petition revised June 30, 2020. The current Petition presents a notable difference from the prior petition in that no beneficiation structures, processes or activity is proposed for the mine site; the current Petition is for the underground mine and associated aboveground infrastructure only. The Petition makes several acknowledgements that much more detail and information would be provided in any permit application to the Department. Considering that context, the Department is providing proportionately fewer comments with respect to (c) above.

When considering the Department's comments, it is important to understand that the Department conducted a high-level review of the Petition. This is far more limited than the type of review the Department conducts when reviewing permit applications. Recognizing this, there may be important environmental considerations associated with the project, including considerations that could be identified from a closer review of the Petition, that are not reflected in the comments below.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
207-941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

As noted appropriately throughout the Petition, it is also important to recognize that far more information would be required as part of any permit application filed pursuant to the Mining Act and the Department's accompanying rules, 06-096 CMR ch. 200, *Metallic Mineral Exploration, Advanced Exploration and Mining* (Chapter 200). This is inherent in the difference between a zoning petition and a metallic mineral mining permit application. The Department recognizes, however, that the Commission may require some similar information and that there is overlap between the information needed by the Commission to review a zoning petition and by the Department to review a permit application. Therefore, the Department includes references to Chapter 200 and notes some of the information that a permit applicant would be required to provide pursuant to this rule. This may help the Commission when evaluating its own information needs and assessing whether similar information, or a subset of similar information, is necessary as part of the rezoning process or more appropriately deferred to any subsequent permitting process.

Finally, should an application for a mining permit ever be filed with the Department by Wolfden or any other person, the Department would review that application under the governing statute and rules based on the information in that application and the accompanying record materials. Nothing in these comments is intended to prejudge any future application, should one be filed.

A. Clarity and Consistency

The Petition is voluminous and contains several sub-documents with Attachments. The Department suggests efforts be made to improve accessibility for readers, including the public, such as creating tabs to separate exhibits and using a whole-document page numbering system.

The Preliminary Economic Assessment (PEA) contains references to aspects of the prior petition, and while the Introduction in the Petition itself states that the current Petition is for the mine only, it still contains references to a Tailings Management Facility (TMF) and subsurface wastewater disposal options that are not part of the updated proposal. Suggestions include an edited PEA, or a preface to the PEA that identifies which aspects are no longer relevant or are revised for the current proposal.

There is a potential inconsistency pertaining to the applicant's intentions for providing potable water. According to Section 2.5.2, the Applicant apparently does not intend to operate a public water well at this site during the construction phase but will be providing drinking water from an offsite source, although this section of the application refers to "potable water via a drilled well and storage tank... within the footprint of the office complex." However, Section 16.14.2 of the PEA states that a "drilled well will be used to meet all of the potable water demand at the mine." If the Applicant does not intend to operate a public water system at this site, at a minimum, all taps served by on-site water sources would need to be clearly labelled as non-potable water or otherwise marked so that they are not used for drinking water. The applicant should review this proposal with the Drinking Water Program of the Maine Department of Health and Human Services to determine whether this or additional procedures are required for this well to not be considered a public water supply. Also note that, according to Section 17.4 of the PEA, the facility will require 325m³/day (approximately 86,000 gallons/day) of makeup water, the source

for which is not identified. Again, it is possible that these noted inconsistencies are rooted in parts of the PEA which may or may not be applicable to the current proposal.

A similar potential relic is described in Section 16.14.2 of the PEA, which states that the facility will include a “mine laydown yard...constructed near the portal.” This is not clearly labeled on the preliminary site plans received for review. Is this intended to be a portion of the main infrastructure pad (PEA Section 13.3, Figure 18-2)?

The PEA indicates that exploration for exploitable resources is ongoing. If this is still the case, Wolfden should consider the availability of space or need for expansion of at least some proposed development areas if additional areas of the deposit are identified.

Figure 2-7 provides details for wastewater disposal, including an infiltration gallery without identifying that it is for a septic system design for the aboveground infrastructure sanitary wastewater disposal, as noted in the text of Exhibit 24, ‘Sewage Water/Wastewater Disposal’. This led more than one DEP staff member to question if a subsurface mine and process water treatment option is also proposed.

B. Chapter 200 Prohibitions

The General Prohibitions section of Chapter 200 states, in relevant part, that:

The Department may not approve a mining permit in an unorganized or deorganized area of the State unless the Maine Land Use Planning Commission certifies to the Department that:

- (1) The proposed mine is an allowed use within the subdistrict or subdistricts in which the project is located; and
- (2) The proposed mine meets any land use standard established by the Maine Land Use Planning Commission applicable to the project that is not considered in the Department’s review.

If the LUPC grants rezoning approval and subsequently affirms the above criteria, Wolfden has indicated that it will file an application for a mining permit, subject to the provisions and requirements of Chapter 200. The Department has not identified any proposal within the Petition that is prohibited under Subchapter 1 (1)(B). The listed prohibitions include:

- (1) Heap, Percolation or in-situ leaching;
- (2) Mining for Thorium or Uranium ore;
- (3) Block caving;
- (4) Open-pit mining; and
- (5) Wet mine waste units and tailings impoundments.

The Department also did not identify any aspects of the currently proposed mine location that would not meet the siting criteria of being greater than ¼-mile from the jurisdictional limits of specific geographical, ecological, or recreational features such as National and state parks, state

July 5, 2023

Memorandum to the LUPC

or national historical sites, and wildlife refuges or management areas. The complete list of these areas is found in Chapter 200, Subchapter 5 (B)(4). Similarly, the Department has not identified that the proposed mine site is located wholly or partially in, on or under any state land listed in 12 M.R.S §549-B(7)(C-1), as would be prohibited by Chapter 200, Subchapter 5 (B)(5).

C. Ore processing and Waste Rock management

The Petition does not propose Beneficiation or other ore processing on-site, nor does it propose a specific off-site location for such. Any application to the Department for a mining permit under Chapter 200 must include a Mining Operation Plan to include processing of the metallic mineral ore and disposal of associated reactive mine waste. Processing and waste disposal may be proposed for an off-site location(s). If the off-site location(s) is within the state of Maine, the application must provide sufficient evidence that the processing and disposal activities will meet the Chapter 200 standards. Regardless of location, the plan must also include a Transportation Plan, including transport of lean ore, ore concentrate, or metallic product, as well as proposals to prevent leaks, fugitive dust, and contingency in the event of a transportation accident.

Attachment 10-B of the Petition presents limited mine waste characterization (Final Report: Static Acid Rock Drainage (ARD) Testing, April 16, 2021). While the testing did use material from the site, no information is presented showing the location of the samples and the extent to which they are representative of the likely waste rock, lean ore, and other rock materials requiring disposal on the site. An application for a mining permit would require more detailed ARD testing and characterization as part of a Mining Operation Plan.

Chapter 200 Subchapter 1 (1)(B) prohibition 5 states that a mining operation may place into a mine shaft waste rock that is neutralized or otherwise treated to prevent contamination of groundwater or surface water. Wolfden is proposing to backfill waste rock into the mine, with or without cement, as indicated in Section 2.5.3.1.2, 'Production Activities'. However, in the following section, 'Backfilling and Source of Backfill Material', there is not a specific discussion of the criteria that would be used to make a determination regarding whether cement will be necessary for neutralization of some waste rock; only whether the cement is needed for additional structural stability (Note: this section is also identified as Section 2.5.3.1.2 and is likely a typo that should be 2.5.3.1.3) Additional detailed discussion would be needed in any application under Chapter 200 in order to ensure that reactive mine waste would be properly characterized, neutralized and appropriately managed.

This section also indicates that an offsite borrow source will be used. Note that the letter in Attachment 2-C describing this material indicates that the estimate "is contingent on the ability of Sargent to successfully permit and utilize the quarry", suggesting that the proposed site is not a currently licensed quarry. If permitting under 38 M.R.S. Article 8-A is required for this quarry, the applicant and fill contractor should schedule this permitting so that the source would be available for use in a timely manner. For certain quarrying activities, a monitoring program with at least one year of background data may be required for excavation below certain depths, in addition to review and approval of other information.

D. Solid Waste

As presented, the Petition generally addresses solid waste disposal requirements and there are options near the mine site for management of the identified waste. “Organics Storage” is identified on the site plans, but without a specific description. If this is for temporary storage of ground land-clearing debris until being transported off site for the indicated use as erosion control material, that should be clarified.

E. Air Emissions / Licensing

The air quality within the area of the requested rezoning is currently designated as attainment/unclassifiable for all national ambient air quality standards (NAAQS), meaning the existing levels of air contaminants for which NAAQS have been established are below the levels which would trigger air quality concerns.

Exhibit 9.4.1, ‘Air and Climate Resources,’ addresses air quality almost exclusively with respect to dust control, including from rock crushing operations. Crushers and other heavy equipment may require air emissions licenses, and there may be other aspects of the mining operation that could generate air contaminants. Regulated air pollutants expected to be emitted from such equipment and activities include particulate matter (PM), particulate matter less than 10 microns (PM₁₀), particulate matter less than 2.5 microns (PM_{2.5}), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), and lead (Pb), as well as hazardous air pollutants (HAP).

Chapter 200, Subchapter 5 (20)(L) Air Quality Standards, requires that mining operations not discharge air contaminants into the ambient air in such a manner as to violate the Maine ambient air quality standards or emissions standards established pursuant to 38 M.R.S §§ 585, 585-B or 585-K. The Petition’s exhibit section states, as Policy 1: “Require compliance with all state and federal air quality standards. Require compliance with more stringent standards where necessary to preserve the air quality or unique values of identified sensitive areas, or to improve the air quality of identified nonattainment areas.”

Based on the limited information provided by Wolfden to the LUPC, the Department expects that the proposed facility would emit regulated air pollutants at levels requiring Wolfden to apply for and obtain an air emissions license in accordance with *Major and Minor Air Emission License Regulations*, 06-096 C.M.R. ch. 115 (Chapter 115). Chapter 115 provides for different application and licensing procedures depending on whether the proposed facility would be a minor source or a major source of emissions. The Chapter 115 licensing process would require Wolfden to provide additional information to the Department that would allow the Department to determine applicable requirements to control air pollution pursuant to state and federal laws and regulations, including control technology, emission standards and limitations, ambient air quality standard compliance demonstration, monitoring, equipment and operational restrictions, and recordkeeping and reporting.

F. Water Treatment (permitting)

Water resources within the area of the requested rezoning are currently classified as described in 38 M.R.S. § 464, Classification of Maine waters and 38 M.R.S. § 470, Classification of ground water. Standards associated with each of these waterbodies can be found in 38 M.R.S. § 465, Standards for classification of fresh surface waters; 38 M.R.S. § 465-A, Standards for classification of lakes and ponds; and 38 M.R.S. § 465-C, Standards of classification of ground water.

The surface water streams on the project site are classified as Class A waterbodies pursuant to 38 M.R.S. § 464. Maine law 38 M.R.S. § 465 for Class A waterbodies states in relevant part;

C. Except as provided in this paragraph, direct discharges to these waters licensed after January 1, 1986 are permitted only if, in addition to satisfying all the requirements of this article, the discharged effluent will be equal to or better than the existing water quality of the receiving waters. Prior to issuing a discharge license, the department shall require the applicant to objectively demonstrate to the department's satisfaction that the discharge is necessary and that there are no other reasonable alternatives available. Discharges into waters of this classification licensed prior to January 1, 1986 are allowed to continue only until practical alternatives exist.

(1) This paragraph does not apply to a discharge of storm water that is in compliance with state and local requirements.

D. Storm water discharges to Class A waters must be in compliance with state and local requirements.

E. Material may not be deposited on the banks of Class A waters in any manner that makes transfer of pollutants into the waters likely.

In addition to Maine statutes, Maine Department of Environmental Protection rule 06-098 C.M.R. 586 establishes criteria for discharges to Class A waterbodies as follows;

1. Scope. Under 38 MRSA section 464 discharges to class A waters must be equal to or better than the receiving water in order to ensure that habitat, aquatic life, and bacteria are as naturally occurs. The following sections define effluent criteria necessary to ensure these requirements are met.

2. Criterion for pH. The pH of the discharged effluent shall not be greater than or less than a 0.2 pH unit difference from that of the seasonal median value of the receiving water upstream of the discharge.

3. Criterion for plant nutrients. Nutrients in the discharged effluent shall not exceed the seasonal median concentration of nutrients in the receiving water, or a value demonstrated by the applicant to be better than the seasonal median and which does not cause the aquatic life to be other than as naturally occurs.

The effluent shall not significantly alter the particle size distribution of the downstream floral community or otherwise alter the natural character of the downstream biotic community.

4. Criterion for temperature. The temperature of the discharged effluent shall not vary by more than 0.5°F from the temperature of the receiving water at the time of discharge.

5. Criterion for dissolved oxygen. In addition to the requirements of 38 M.R.S. section 465(2)(B) the dissolved oxygen content of the discharged effluent shall not be less than that of the receiving water at the time of discharge.

6. Criteria for other water quality parameters. Except as provided above, the concentration in the discharged effluent of biochemical oxygen demand and all constituents listed in Quality Criteria for Water 1986 (EPA 440/5-86-001) shall not exceed the seasonal median concentration as measured in the receiving water upstream of the discharge or prior to a discharge where a suitable upstream site is not available.

7. Establishment of seasonal values. For the purpose of establishing seasonal values in the receiving water pursuant to Sections 2, 3, and 6 of this rule, an applicant will provide data based on seasons and sample frequencies approved by the Department on a case-by-case basis.

The applicant has indicated the shallow ground water and surrounding wetlands will be recharged by way of treated wastewater being disposed of on-site via spray irrigation and snowmaking activities covering 15-29 acres. The Department has taken a long-standing position that wetlands that are hydraulically connected to a surface waterbody take on the same classification as the surface waterbody. For this project, any discharge to a wetland must meet the Class A criteria cited above. Given that streams are expression of ground water, the characteristics of the Class A surface waterbodies must not be adversely impacted by changes in the characteristics of the ground water as a result of the disposal of treated wastewater via spray irrigation or snowmaking. And lastly, as previously stated in the Department of Environmental Protection's January 28, 2021, memorandum to the Land Use Planning Commission, effluent discharged to wetlands or groundwater that reaches surface waters must be characterized as natural and may not alter the flow or the habitat of the surface waters. See 38 M.R.S. §§ 465(1 & 2), 465-A.

The Department notes that depending on final design, the proposed facility may be subject to the requirements of the Department's Multi-Sector General Permit (MSGP) for Stormwater Discharge Associated with Industrial Activity and the requirements of the Environmental Protection Agency's Ore Mining and Dressing Effluent Guidelines and Standards (40 CFR Part 440).

G. Water Treatment (proposal and site considerations)

Detailed soils mapping of application areas at a Class A level will be necessary to define application rates for any spray application or snowmaking area. Note that the soils analysis reports oxyaquic soils in many areas of the site (Soil Suitability Evaluation page 3-8, for example) proposed for wastewater application; the higher water table in these soils, often not

July 5, 2023

Memorandum to the LUPC

associated with redoximorphic features in many cases, will need to be determined and used to define areas that can meet the necessary minimum depth to the seasonal high water table for spray application. In particular, high seasonal water tables during periods of extended snowmelt can lead to saturation of large areas of soil, with potential impacts on soil and vegetation characteristics, slope stability, and downgradient potential for seepage erosion. The Petition presents information regarding mine water treatment using the water chemistry obtained from a mine in generally similar deposits in New Brunswick (Water Treatment Scoping Study, Attachment 10-D). However, no information is presented demonstrating chemical similarity between this water and potential mine water at this site. It is expected that these waters would be generally similar, and the proposed treatment methods are known to be effective in general in systems designed, operated, and maintained correctly, but final approval by the Department will require analysis of waters from the site and generated from leaching tests and other means more accurately simulating conditions that could obtain at the site of the proposed development. It is also not explicitly stated whether the treatment goals (Water Treatment Scoping Study, Table 1) reflect ambient water quality, aquatic life criteria, or other factors relevant to specific conditions at the proposed mine site. Final approval of a wastewater treatment system will require more explicit evaluation of possible water inflow to the mine than is presented in this application (see for example Preliminary Economic Assessment Section 16.6.5, which does not include or reference a source for the values used), possible revision of the pre-and post-development runoff values and description of the volume available for contingency storage due to mechanical failures or other issues in the treatment system (Note that contingency sizing of the plant, rather than of water storage requirements, is discussed on p. 21 ff. of the Water Treatment Scoping Study).

H. Surface Water and Aquatic Life Protection

Chapter 200, Subchapter 3, Permits, Section 9(C) requires submission of a Baseline Site Characterization Report, which, among other things, must include documentation of aquatic and terrestrial flora and fauna species presence, distribution, and abundance, including the existence of endangered and threatened species and significant wildlife habitats. It must also contain a water balance of the affected area including, but not limited to, consideration of precipitation, evapotranspiration, infiltration, runoff, surface and groundwater flow, hydraulic gradients, velocity, flowpaths, elevations, and groundwater/surface water interactions. The report must contain an ambient water quality monitoring plan and monitoring results that provide baseline water quality information for any surface or groundwater that potentially may be impacted as a result of the mining activity. The baseline water quality monitoring shall include at least two (2) years of data collected over 24 or more consecutive months unless pre-existing data are approved for use by the Department. For this proposed project, potential impacts of concern to aquatic resources include erosion/sedimentation, nutrient enrichment, contamination of surface and groundwater from roads (e.g., road salt, petroleum, etc.), stormwater and mine water, and impacts to vegetative communities caused by spray irrigation (water level changes, conversion of community type, introduction of invasive species, erosion/gullying).

The following comments are specific to Attachment 6A, Wetland and Watercourse Delineation and Potential Vernal Pool Survey Report, July 28, 2022:

Section 4.1. State and Federal Regulations: Under the Water Classification Program, all waters of the State are assigned a statutory water quality class by the Maine Legislature with associated management goals (designated uses) and water quality criteria, including criteria for aquatic habitat and aquatic life (biological criteria). Riverine waters and associated freshwater wetlands are assigned to Class AA, A, B, or C. There is a single classification for lakes and ponds (Class GPA).

Streams and freshwater wetlands in the vicinity of the project area are assigned statutory Class A (see §465-2 under Standards for classification of fresh surface waters: <http://www.mainelegislature.org/legis/statutes/38/title38sec465-A.html>). In addition, Chapter 579 Classification Attainment Evaluation Using Biological Criteria for Rivers and Streams (<https://www.maine.gov/dep/water/rules/index.html>) includes assessment methods based on aquatic macroinvertebrate communities to determine if rivers and streams attain numeric biological criteria for their assigned statutory class. Standards for classification of lakes and ponds are found in §465-A: <http://www.mainelegislature.org/legis/statutes/38/title38sec465-A.html>.

Section 6.1.1. Water Features: It is not clear from this section which waterbodies are in the project area as well as which are within a 3-mile radius. More details would be needed to fully evaluate potential impacts to aquatic resources.

Figure 1. Delineated Wetlands and Streams Map does not show connectivity with waterbodies outside the project area. This is pertinent information that is needed to evaluate potential adverse impacts to downstream waters. A comprehensive map depicting aquatic resources within the project area and 3-mile radius (required under LUPC guidance), including streams, lakes, and ponds (labeled with waterbody names if available), and wetlands (labeled with NWI classification) should be provided in any application for a mining permit.

Section 6.1.3 Wetlands: The Department was unable to locate a summary of acreages for various mapped wetland types. Is this information available?

The following comments are specific to Exhibit 10.0. Surrounding Uses and Anticipated Impacts:

Section 10.5.4. Wetlands/Streams/Waterbodies: Although lakes and ponds in the project area and 3-mile radius are listed, no details are provided regarding streams in the project area or within a 3-mile radius.

Section 10.5.2. Hydrology and Water Quality: It would be helpful to see discussion of the potential for unanticipated groundwater flow direction and depth and factors that may increase risks of contamination to aquatic resources.

Section 10.5.2.1. Water Treatment and Management Approach: Stormwater and mine water are proposed to be collected and stored in a lined 3.25-acre pond, then fed to an on-site wastewater treatment facility and tested before discharging via spray irrigation and snowmaking. Discharges would be upgradient of wetlands and streams so that existing hydrology is maintained, and at

least 75 feet from the edge of the waterbody. An estimated 15-29 acres of land would be needed for recharge of treated water. Given the large extent of the area to be used for wastewater storage and discharge of treated water, are there contingency plans for accidental release of untreated or partially treated water due to unanticipated circumstances such as system failure or extreme weather events?

I. Stormwater Management

Chapter 200, Subchapter 5 (20)(C)(2) requires that stormwater management practices meet the standards of 06-096 C.M.R. ch. 500. While significantly more information would be needed for a complete review, the Department generally finds that the concept plan and preliminary calculations presented in the Petition can be reviewed under Chapter 500 and could meet the applicable standards.

J. Fuel Storage and Spill Prevention

The Petition identifies several above-ground and below-ground fuel and oil storage locations, including diesel storage, a fuel station, a maintenance facility, emergency power, an electrical substation, various transformer pads, and possibly facilities associated with the proposed solar array (see Section 2.3). A complete Spill Prevention Control and Countermeasures program, together with all elements of Groundwater Protection Plan (see Site Location Application Section 15(B)), would be required as part of the application for the mine; this would require significantly more detail than indicated in Section 18.9 of the Preliminary Economic Assessment.

K. Soils

The applicant has presented a Class D-level soils map for the facility, with field verification and additional analysis of site suitability prepared by a Maine Certified Soil Scientist. This information is consistent with the surficial geology and observations at the site, but additional information would be required for the Department to process any mining permit application. Although the Site Location of Development Law (M.R.S. 38 §§481-489-E) does not apply to the proposed development, developments such as that proposed for this site would be expected to meet comparable criteria for soils mapping levels and other relevant aspect of the development as those described in Section 11(B) of the Site Location of Development application, including Class A soil mapping in areas proposed for wastewater disposal. Where more detailed soils mapping exists or is performed for the application, the more detailed mapping should be used in preference to the Class D mapping for the purposes of evaluating predevelopment runoff conditions and other relevant information for the application; this could require substantial revision of, for example, Figure 10-1 and any predevelopment runoff calculations based on that figure and/or level of soils mapping, depending on the areas used for wastewater management or other purposes that would require more detailed soils mapping.

L. Closure / Reclamation

Section 2.5.4 of the Petition states that reclamation activities will be based on a reclamation plan that will be submitted as part of an application to the Department under Chapter 200.

July 5, 2023
Memorandum to the LUPC

Reclamation plans are required as part of the Mining Operation Plan and Reclamation standards are found in Chapter 200, Subchapter 5 (23).

Section 18.22.7 of the Preliminary Economic Assessment describes possible breaching of collection ponds as part of reclamation, as does Section 2.5.4 of the Petition itself. The permitting process under Chapter 200 could, however, identify stormwater management features that must be retained and maintained on the site as part of the long-term post-development hydrology management of the site, and it is premature to consider regrading of all such features at this time.