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STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY  
LAND USE PLANNING COMMISSION  
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# Memorandum

**To:** LUPC Commissioners  
**CC:** Judy C. East, Executive Director  
Jeremy Ouellette, Wolfden Mt. Chase LLC  
Juliet T. Browne, Verrill Dana LLP  
**From:** Stacie R. Beyer, Planning Manager  
**Date:** October 7, 2021  
**Re:** Wolfden Rezoning Petition, ZP 779, Wolfden Mt. Chase LLC, Pickett Mountain Metallic Mineral Mine, T6 R6 WELS

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## Background Information and Administrative History

On January 27, 2020, Wolfden Mt. Chase LLC (Wolfden) filed the first and second versions of its petition to rezone property the company owns in T6 R6 WELS to allow for the development of an underground metallic mineral mine at Pickett Mountain (the Petition). Since that time, Land Use Planning Commission (LUPC) staff have been working with Wolfden to obtain the information necessary for the Commission to make findings and conclusions on the Petition as required by State law and the Commission's rules. Key steps in the administrative history include:

- LUPC e-mail request for additional information, dated 1/30/2020, including a request for proper documentation for the notice of filing
- LUPC letter 1 requesting additional information, dated 3/6/2020
- LUPC letter 2 requesting additional information, dated 4/15/2020
- LUPC letter 3 requesting additional information, dated 5/27/2020
- Third version of the Petition, filed on 7/1/2020
- Wolfden letter requesting the Commission exclude from its review subjects addressed in the DEP's Chapter 200 Rules, dated 8/26/2020

- Commission acceptance of the Petition as complete for processing, 9/12/2020
- LUPC letter 4 requesting additional information, dated 9/12/2020
- LUPC letter 5 requesting additional information, dated 2/4/2021
- Commission staff generally held bi-weekly meetings with Wolfden, during which staff emphasized the need for Wolfden to ensure its next submission was internally consistent and presented credible evidence to support its arguments, 2/2021- 10/2021
- Fourth version of the Petition, filed on 9/1/2021.

### Key Regulatory Criteria

- Chapter 12, Section 4, Requirements for Changes to a Subdistrict Boundary. “The Commission shall hold at least one public hearing on a petition for the D-PD Development Subdistrict designation in accordance with Chapter 5 of the Commission's Rules, *Rules for the Conduct of Public Hearings*.”
- Chapter 10, Section 5, Burden of Proof. “In the case of any property owner or lessee who requests that the Commission place his/her land in a particular land use district, the burden of proof shall be defined as the burden of presenting sufficient evidence for the Commission to make affirmative findings as required by law or regulation.”
- Chapter 4, Section 4.03(8)(b), Additional Information May Be Required. “...Even if an application or petition is accepted as complete for processing, the Commission may deny the application or petition for failure to provide information necessary to enable the Commission to make necessary findings under applicable review criteria.”
- Chapter 4, Section 4.03(8)(c), Modification of Application. “If the applicant or petitioner (i) materially revises the application and the revised application requires new or supplemental review by the Commission ... then the Commission may:
  - (i) **If there is insufficient time to make the findings and conclusions required by law within the deadlines set forth in 12 M.R.S.A. § 685-A(7-A) and § 685-B(2-B) and (3-A), deny the application;...**
- 12 M.R.S. § 685-A(7-A)(B)(4) states: “The commission must act to adopt or not to adopt proposed land use district standards, land use boundaries or land use maps within 90 days after the date of final closure of the public hearing.”
- Chapter 4, Section 4.05(10)(a), Procedures and Time Limits for Issuing a Decision on a Petition to Adopt or Change a District Boundary, further clarifies the deadlines set forth in 12 M.R.S. § 685-A(7-A). It requires that: “[w]ithin 45 days after receipt of a petition for a change in a district boundary, the Commission shall schedule a public hearing or, if no hearing is held, set a final date by which comments on the petition may be submitted to the Commission.”

## **Staff Analysis**

LUPC staff have completed an initial review of the latest version of the Petition filed by Wolfden (the September 2021 Petition). Staff have identified 59 inconsistencies, errors, and failures to provide information requested in the LUPC's February 2021 letter (see attached spreadsheet). Wolfden itself recognizes that there are still inconsistencies in its Petition. A letter from Wolfden filed with the September 2021 Petition indicates:

The document has been fully reviewed for consistency. Please note that given the size of and the amount of content within the Petition, it is anticipated that a few minor inconsistencies may still appear. Most material numeric values in the Petition are mentioned more than once, and so any single outlier that is not the same as all the others, should be overlooked.

In addition, staff have determined that Wolfden still must submit a significant amount of information to meet its burden of proving that the Petition meets the statutory and regulatory criteria for a zone change, and particularly those criteria related to soil suitability, best reasonably available location, and no undue adverse impact to water resources and fisheries.

LUPC staff have considered the history to date with Wolfden's Petition, the significant number of deficiencies in the September 2021 Petition, and the considerable amount of time required for Wolfden to respond to the last LUPC letter requesting additional information (nearly 7 months). Based on those factors, staff have determined it is highly unlikely that Wolfden will be able to provide the additional information needed to meet its burden of proof such that the Commission could make, within applicable statutory and regulatory deadlines, the findings and conclusions required by law to approve the Petition (Chapter 4, Sections 4.03(8)(b) and (c)).

Like prior versions of Wolfden's Petition, the September 2021 Petition contains numerous errors, inconsistencies, and omissions. As a result of these deficiencies, it is the staff's opinion that scheduling a public hearing on this Petition within the time required by the LUPC's rules (45 days) would not assist the Commission in reaching its decision. The state of the Petition is such that a hearing would need to focus on the Petition's numerous errors, inconsistencies, and omissions instead of a substantive review of the Petition relative to the criteria for the zoning decision. In addition, the Petition's numerous deficiencies will prevent review agencies (e.g., the Department of Environmental Protection, Department of Inland Fisheries and Wildlife, and Maine Natural Areas Program), from providing meaningful feedback on the September 2021 Petition. Under the current circumstances, continued review of this Petition places a significant burden on LUPC staff resources, which could be redirected to pending and new matters that will further the Commission's mission. For these reasons, LUPC staff believe that it is appropriate and necessary to request that the Commission direct staff to draft a denial of the Wolfden petition.

## **Staff Recommendation**

Staff recommends the Commission direct staff to draft a denial of ZP 779 for the Commission's consideration at a future Commission meeting based on Wolfden's continued failure to provide sufficient information for the Commission to make necessary findings within the applicable deadlines, as required by Chapter 4 of the Commission's rules.

## **Attachment**

Wolfden Rezoning Petition, Inconsistencies, Errors, and Omissions Worksheet

Exhibit #	Exhibit Name	Topic	Inconsistency, Error, or Omission	Comment
10	Surrounding Uses and Impacts	Water balance	The site water balance (Fig. 10-4, page 10-12) does not reflect the 20% increase in daily processing amount over the November 2020 petition (1,000 t/d to 1,200 t/d). The following values are the same (despite the change in units from the July 2020 petition to the September 2021 petition): total water from the tailings and concentrator system to the WTP, mine makeup water, and mine dewatering. Evidence of a well managed water collection and treatment system is critical in determining whether there will be no undue adverse impact on water resources.	
10	Surrounding Uses and Impacts	Water balance	Certain details of the water balance are not included on Figure 10-4. These details include water lost in the concentrates and tailings, makeup water from the TMF collection ponds going to the concentrator, precipitation on the TMF and collection ponds, evaporation from the TMF and collection ponds, and the process water conditioner.	
10	Surrounding Uses and Impacts	Water balance	There is an inconsistency between the Figure 10-4 water balance and the narrative on page 10-39. The figure shows 50.18 gpm of flow from impacted surfaces, where as page 10-29 indicates that flow would be 120 gpm.	
10	Surrounding Uses and Impacts	Water balance	On Figure 10-11, PDF p. 263, the red arrow indicating flow direction for the southern tailings collection pond is going the wrong direction and the green arrow for the IG labeled P20 is also going in the wrong direction. Same issues found on Figure 2-2 and 2-3, PDF pages. 66 and 67.	
10	Surrounding Uses and Impacts	Water balance	There is no indication on Figures 2-2, 2-3 and 10-11 for how clean water gets to IG ID#9 north of the TMF.	
10	Surrounding Uses and Impacts	Water balance	Page 10-7 indicates the percent of water removed from the drainage basin is 1.6% and page 10-8 indicates 1.2%	
10	Surrounding Uses and Impacts	Winter/ spring operations	The petition does not provide a demonstration that snow and spring melt can be adequately managed on site, does not discuss how other northern mines handle winter/spring conditions on TMFs, and does not include specific climate comparisons requested (LUPC February 2021 letter, questions 33, 43, & 44).	
10	Surrounding Uses and Impacts	Winter/ spring operations	No basis was provided for Wolfden's conclusion that storage and disposal areas can accommodate winter storage of impacted snow, and no basis was provided for the projected volume and capacity needed for spring melt and spring runoff (LUPC February 2021 letter questions 43, 44, and 45).	

Exhibit #	Exhibit Name	Topic	Inconsistency, Error, or Omission	Comment
10	Surrounding Uses and Impacts	Storm events	No response was provided to the series of questions that LUPC posed in its February 2021 letter regarding storage of stormwater from a >500-year storm event in the mine shaft and the potential for groundwater impacts from that proposal (LUPC February 2021 letter, question 48).	
10	Surrounding Uses and Impacts	Water quantity	Table 1 and the table referenced as Table 10-12 appear to be missing from the petition (page 10-37). It looks like these tables could be critical pieces of information relating to the mounding study for the IGs. The table called 10-12 on page 10-40 relates to socioeconomic data not data on the IGs.	
10	Surrounding Uses and Impacts	Water quantity	Page 10-36 describing storwater drainage areas is confusing. The description of drainage areas first indicates that there is no change pre versus post development to DA 18 and does not include information on DA 13.1, 16.1, and DA 19 (also not shown on the associate map). Later, that page indicates that DA 13.1, 16.1, and DA 18 require water collection for treatment. The stormwater calculations are important to evaluate potential hydrologic impacts on downgradient wetlands and streams.	
10	Surrounding Uses and Impacts	Water quantity	The petition does not include distances from IGs to the nearest downgradient surface water body (LUPC February 2021 letter, question 14).	
10	Surrounding Uses and Impacts	Wastewater treatment	LUPC outlined specific chemical constituents that may be present in the wastewater stream for the proposed operation and requested a specific demonstration that all of these constituents could be removed to background levels. There is no discussion in the Petition about non-metal species that carry a negative charge, nor other products and chemicals listed in the LUPC's February 2021 letter (question 17). The responses in Wolfen's September 1, 2021 letter for this line of questions conclude no direct discharges to surface waters, which doesn't relate to the constituents in nor the potential quality of the wastewater discharge. Also, DEP comments on potential limitations of using MetClear for water treatment were not addressed (MDEP comment H).	
10	Surrounding Uses and Impacts	Wastewater treatment	There are inconsistencies in the design capacity for the WTP. Figure 10-4 indicates 146 gpm going to the treatment plant, Figure 10-6, page 10-16, indicates a 120 gpm design for the WTP, and the narrative on page 10-16 indicates the plant is designed for 200 gpm.	

Exhibit #	Exhibit Name	Topic	Inconsistency, Error, or Omission	Comment
10	Surrounding Uses and Impacts	Wastewater treatment	The model for wastewater treatment provided on page 10-20 appears to contain some errors and inconsistencies: 1) the model input was run for a product flow of 100 gpm instead of the design flow for the proposed WTP (120 , 146 or 200 gpm?), and 2) the model was run with input values for sodium of 20 (mg/l?) and nitrate at 0.20 (mg/l?). It isn't clear why these numbers vary from the values provided for the Greens Creek Mine found in Table 10-5 on page 10-19 (11.2 mg/l and 3.43 mg/l respectively).	
10	Surrounding Uses and Impacts	Wastewater treatment	The Suez letter dated 6/30/2020 regarding the performance of the WTP does not address molybdenum (LUPC February 2021 letter, question 17).	
10	Surrounding Uses and Impacts	Wastewater treatment	LUPC's request for additional information to show there is sufficient space for onsite storage of sludge was not addressed (LUPC February 2021 letter, question 19)	
10	Surrounding Uses and Impacts	Wastewater treatment	The Figure 10-5 reference appears to be incorrect (page 10-28). Figure 10-5 is a location map not data relating to zinc removal. The reference was likely intended to be Figure 10-7, Effects of Metclear2435 Addition on Zinc Removal.	
22	Soil Suitability	Soil suitability	The overburden thickness map, Figure 22-3, is missing from the petition (Technical Memorandum , May 21, 2021, ARC, PDF page 861). This is significant evidence to show whether soils are suitable for the proposal.	
22	Soil Suitability	Soil suitability	The soil suitability map does not include the entire area now proposed for rezoning, and there is no explanation as to why the prior map is sufficient.	
7	Site Plans	Soil suitability	The wetland delineation survey does not include the entire area now proposed for rezoning, and there is no explanation as to why the prior survey is sufficient.	
22	Soil Suitability	Soil suitability	The petition does not demonstrate that the costs of overcoming soil limitations are sufficiently covered in the PEA, particularly relating to the cost of bringing in a significant amount of fill to overcome shallow to bedrock and high water table limitations onsite, or for reclaiming the site, including removing all the fill to restore pre-development topography. (LUPC February 2021, question 9).	Exhibit 22 indicates that a material balance has been generated and fill volumes calculated but these calculations and figures were not provided, and the exhibit indicates the volumes are well below anticipated fill requirements outlined in the PEA without a reference to where that information can be found and verified.

Exhibit #	Exhibit Name	Topic	Inconsistency, Error, or Omission	Comment
2	Project Description	Soil suitability	The Exhibit 2 figures do not include a cross section that shows how an above grade IG could be constructed and the diagrams do not include any fill material specifications.	
10	Surrounding Uses and Impacts	Number of employees	The total number of employees is projected to be 263 (Ex 9, Consistency with the CLUP, p. 207 of PDF) but 133 employees was used in the Socioeconomic Report. Also, 103 employees was used in the PEA.	The difference affects multiple aspects of economics and socioeconomics including total compensation, the job training program, ability to hire locally, and housing. It may also have implications for the preliminary economic assessment.
16	Fire, Police, and Ambulance	Number of employees	The support letter for fire and ambulance services references 60 employees. The Petition now proposes 263 employees.	Discussion of Policy 1 on page 9-4 of the petition (page 207 of the PDF) states that the total number of employees will be 263 (approx. 133 per day with two groups alternating a 7 day-on/7-day off schedule). This is a significant difference in scope and could have a substantial impact on service provisions. Additional input from providers is necessary.
17	Education	Number of employees	The support letter for education services references 60 employees. The Petition now proposes 263 employees.	
2	Project Description	TMF	The Petition does not provide information on how Wolfden will achieve less post-closure leachate generation from the TMF than described in the EIS for the Greens Creek Mine Tailings Disposal Facility expansion (100 years) (LUPC February 2021 letter, question, 34).	
2	Project Description	TMF	The Petition does not provide sufficient evidence that the TMF is sized adequately. LUPC February 2021 letter, question 29. A statement that Wolfden checked the calculations isn't credible evidence. Given that the TMF size has been reduced significantly over time, evidence showing there is adequate space provided onsite for tailings disposal is needed.	
2	Project Description	TMF	TMF acreage is inconsistent- 54 acres (page 2-25 and PDF page 86), and 50.46 (page 7-1 and elsewhere).	
2	Project Description	TMF	The Petition does not include information on what factors could result in off-spec tailings and what mitigation measures could be put in place to overcome those factors (LUPC February 2021 letter, question 34).	

Exhibit #	Exhibit Name	Topic	Inconsistency, Error, or Omission	Comment
2	Project Description	TMF	Page 2-18 indicates that off-spec tailings will be placed within the TMF, desiccation will be readily enhanced by spreading the tailings to create a larger drying experience, and, once the adequate moisture content has been achieved, the tailings will be further dozed and compacted; while page 2-25 indicates off-spec tailings will be placed interior to the pile and subsequent lifts will not be placed on wet tailings until drainage and compaction can occur.	
2	Project Description	TMF	The petition states that "once compacted, these tailings will not be subject to infiltration of water" on page 2-18. Several other places indicate that some infiltration will occur including page 2-23, which indicates "some infiltration is expected to report as tailings seepage..." and a run-off factor of 90% for the TMF.	
2	Project Description	TMF	Page 2-23 indicates that the TMF collection ponds would require 1.3M gallons for operation pond volume and 11.3M gallons to store a 500-yr storm event, indicating a pond size of 12.6M gallons would be required. However, the PEA indicates that only 10 M gallons are needed to store a 500-year storm event and the ponds would be sized for a total of 11.3M gallons.	
2	Project Description	Financial assurance	Groundwater pollution and the need for additional monitoring are not discussed in providing additional justification for the Financial Assurance Trust figure of \$13.7 million used in the PEA, including relationship to MDEP's Chp. 200 rules on financial assurance (LUPC February 2021 letter, question 11).	
4	Notice of Filing	Public notice	Exhibit 4 is missing documentation on who was sent the public notice, when it was mailed, and the map and lot # for each property owner notified.	A public notice form was provided with updated information. Was a new public notice filed? If yes, we need new documentation. If not, the prior notice documentation (previously submitted on 1/28/20, under separate cover, should be in Exhibit 4).
10	Surrounding Uses and Impacts	Safety	The Petition, on page 10-18 indicates, "[g]iven that all residual chemicals are removed by the plant and specifically the RO system, no risk to workers using treated water as process water will be present due to the quality of the treatment water. Figure 10-4, page 10-12, shows that process water is pulled from the WTP before the RO unit, so would not be fully treated before reuse in the process, including reuse as mine water.	



Exhibit #	Exhibit Name	Topic	Inconsistency, Error, or Omission	Comment
10	Surrounding Uses and Impacts	Socioeconomic Report	The Socioeconomic Report does not contain the geographic location of existing businesses within the regional labor market area (table in socioeconomic report memo from rbouvier consulting, item 2a).	
10	Surrounding Uses and Impacts	Socioeconomic Report	The Socioeconomic Report does not contain an analysis of the economic impacts of transportation, including a description of the population and businesses along the transportation routes and a map of the transportation routes by phase (table in socioeconomic report memo from rbouvier consulting, items 1f, 3a, 3e).	
10	Surrounding Uses and Impacts	Socioeconomic Report	The Socioeconomic Report does not contain a breakdown of the number, occupational title, and type of jobs expected to be created in each phase of the project, nor a clear justification for the percentage of jobs reasonably expected to be local (table in socioeconomic report memo from rbouvier consulting, items 3a).	
10	Surrounding Uses and Impacts	Socioeconomic Report	The Socioeconomic Report does not contain a description of planned job training programs that includes the total number, intended audience, planned outreach to difficult to reach populations, transitional assistance for workers post-closure, and descriptions and outcomes of previous training programs (table in memo from rbouvier consulting, item 3b).	
10	Surrounding Uses and Impacts	Socioeconomic Report	The Socioeconomic Report does not include the extent to which consumables and services are sourced locally, a justification of assumptions, nor discussion of initiatives to increase local procurement (table in socioeconomic report memo from rbouvier consulting, items 3c & d). The report states that Wolfden estimated the portion of each expense line expected to be purchased from businesses within the economic region, but these percentages were not provided by category .	
10	Surrounding Uses and Impacts	Socioeconomic Report	The Socioeconomic Report does not address the use of economic incentives (table in socioeconomic report memo from rbouvier consulting, item 3f).	
10	Surrounding Uses and Impacts	Socioeconomic Report	The Socioeconomic Report does not include a plan to monitor the impacts of the project on local businesses, tourism, and recreation (table in socioeconomic report memo from rbouvier consulting, item 3g).	

Exhibit #	Exhibit Name	Topic	Inconsistency, Error, or Omission	Comment
3	Deed, Lease, Sales Contract, or Easement	D-PD boundaries	The legal description of the proposed subdistrict boundaries is not accurate or complete. The description references the total acreage of the proposed subdistrict inconsistently ("containing five hundred twenty-eight and twenty-three hundredths (645.96 ) acres." The description does not include the boundaries of the P-SL2 subdistricts that are now proposed to be excluded from the zone change. Also, the narrative in the legal description does not match the numerical coordinates provided. The narrative starts in the SW corner of the property but the corresponding points in the narrative start in the SE corner.	
2	Project Description	D-PD boundaries	Petition page 2-30 (as well as the Deed Sketches on PDF pg. 275) states the proposed rezoning area includes 646 contiguous acres. Elsewhere the acreage is listed as 600.1, including page 2-1.	LUPC staff recognize that the proposal, in places, removes the acreage for P-SL2 subdistricts from the rezone area, but it isn't clear throughout and not recommended by LUPC staff. Wolfden would have to submit additional information including a legal description and shape files for the P-SL2 subdistricts to remove them from the proposed subdistrict.
5	Land Division History	D-PD boundaries	The second map in Exhibit 5 states the area to be rezoned is 645 acres, which is inconsistent with other references to 600.1 acres.	
10	Surrounding Uses and Impacts	D-PD boundaries	Appendix A project drawings 1 & 2 show the proposed subdistrict as 528 acres, which is inconsistent with other references to the acreage of the subdistrict. The maps appear to be outdated.	
1	Directions and Locations	D-PD boundaries	The exhibit is missing a copy of our Land Use Guidance Map with the proposed subdistrict boundary shown.	There is one in the noise assessment, but the boundary is out of date.
2	Project Description	D-PD boundaries	Figure 2-22 does not show the existing subdistrict, the proposed P-SL2 subdistrict boundaries, nor proposed structures as the Petition narrative suggests.	
15	Harmonious Fit	Project description	There is no information in this exhibit, or elsewhere, that demonstrates the size of the employee parking is adequate for the number of employees. (LUPC February 2021, question 7).	
2	Project Description	Project description	The Petition does not contain a complete project description, nor a complete Preliminary Site Plan. Despite the indication in Wolfden's September 1 letter that Exhibit 7 includes all project components identified in the PEA, the project description, Preliminary Site Plan, and Table 7-1 do not include the mine rescue station, compressor station, cold storage building, surface water pump house, and waste oil depot.	

Exhibit #	Exhibit Name	Topic	Inconsistency, Error, or Omission	Comment
2	Project Description	Project description	A complete list of underground facilities was not provided in Exhibit 2 (missing the maintenance shop, fuel stations, and water transfer stations and tanks). Detail drawings of several underground facilities were provided; however, they are not at a readable scale and detail drawings of the underground fuel stations, water transfer stations and tanks, and electrical substations were not provided.	
2	Project Description	Project description	The figures for soil fill are missing on pages 2.22 and 2.23.	
15	Harmonious Fit	Project description	The tallest building is stated as 85 feet (headframe), PDF page 708. However, two places, including the project description, indicate 80 feet, page 2-3 and page 7-1 (Table 7-1).	
10	Surrounding Uses and Impacts	Waste disposal	The Petition does not provide information on how waste products from the Process Water Conditioner will be disposed. (LUPC February 2021 letter, question 26). The LUPC expects the activated carbon will need to be replaced on a periodic basis.	
26	Development Plan	Development Plan	<p>The Development Plan is incomplete. The document is missing the:</p> <ul style="list-style-type: none"> <li>•Purpose and scope</li> <li>•Legal boundaries of the subdistrict</li> <li>•Statement of the Petitioner's intentions with regard to future land divisions</li> <li>•Statement on any steps the petition will take to avoid or minimize the effects of the rezoning on existing uses and resources, and</li> <li>•Statement on any design requirements or standards that will ensure future development meets the purpose of the D-PD.</li> </ul>	
3	Deed, Lease, Sales Contract, or Easement	TRI	A copy of the property deed nor the easement for road access and maintenance were not included in Exhibit 3.	
21	Site Access/Legal Right of Access	Legal access	The owner of the private road planned for site access between Rte 11 and Wolfden's property is not listed in Exhibit 21.	The road easement agreement was not submitted (see Ex. 3 omission).
24	Archaeological and Historical Resources	Archaeological resources	Exhibit 24, page 24-1, indicates that three potential stone tool sites are within the project area. As a result of the expanded project boundaries, ASA 4 is now also within the project area bringing the total to four.	