

BEFORE THE BOARD OF COUNTY COMMISSIONERS
FOR COLUMBIA COUNTY, OREGON

In the Matter of the Application by NW	)	
Natural for a Conditional Use Permit to Drill	)	
Twelve Injection/Withdrawal and Monitoring	)	FINAL ORDER NO. 23-2026
Gas Wells in the Primary Forest (PF-80) Zone	)	
(CU 25-169) off Miller Station Road Near	)	
Mist	)	

WHEREAS, NW Natural (“Applicant”), submitted a Conditional Use permit application (the “Application”) to authorize the construction and operation of twelve (12) wells and associated wellheads, as well as three (3) remote terminal unit buildings (“RTUs”) containing monitoring and control equipment, on four properties in the PF-80 Zone, Map I.D. Nos.: 7500-00-04500, 7500-00-04700, 7500-00-04800 and 7500-00-05000 (the “Subject Site”); and

WHEREAS, on March 9, 2026, the Planning Commission held a hearing on the Application, received evidence and testimony, closed the record to additional oral testimony but left the record open to March 16, 2026 for additional written submissions, March 23, 2026 for responses to written submissions received, and March 30, 2026 for the Applicant’s final written argument; and

WHEREAS, the Planning Commission continued its hearing until April 6, 2026 for deliberations; and

WHEREAS, at the continued hearing on April 6, 2026, the Planning Commission received all new written evidence and testimony submitted into the record, deliberated, and voted to approve the Application subject to the recommended conditions of approval contained in the March 2, 2026 staff report to the Planning Commission (the “Staff Report”) except recommended Condition 4.D – addressing potential road construction – on the basis that the Application did not propose any new road construction; and

WHEREAS, the Planning Commission’s final written decision approving the Application, Final Order CU 25-169 (the “Planning Commission Approval”), was signed by the Planning Commission Chair on April 9, 2026; and

Notices of Decision of the Planning Commission Approval were duly mailed to interested parties on April 15, 2026; and

WHEREAS, in accordance with Columbia County Zoning Ordinance (“CCZO”) Section 1703, pursuant to CCZO Section 1701.4 an appeal of the Planning Commission Approval (the “Appeal”) was filed with the Columbia County Clerk on April 21, 2026; and

WHEREAS, the Columbia County Board of Commissioners (the “Board”) scheduled a hearing on the Appeal for June 10, 2026; and

WHEREAS, notice of the Appeal was duly provided in accordance with CCZO Section 1701.4; and

WHEREAS, on June 10, 2026, the Board held a *de novo* hearing on the Appeal, received additional evidence and testimony into the record, and closed the record to additional evidence and testimony; and

WHEREAS, after closing the record, the Board deliberated on the Appeal and, following deliberations, voted unanimously to deny the Appeal and approve the Application, subject to the same conditions of approval imposed by the Planning Commission in the Planning Commission Approval, with direction to Staff to prepare an appropriate order;

NOW, THEREFORE, IT IS HEREBY ORDERED as follows:

- A. Based on the foregoing and the whole record on this matter, the Board of County Commissioners DENIES the appeal of Planning Commission Final Order CU 25-169 and hereby APPROVES Application File No. CU 25-169, granting a Conditional Use Permit to NW Natural to drill twelve (12) injection/withdrawal and monitoring gas wells on property in the PF-80 Zone off Miller Station Road near Mist, identified as Tax Map I.D. Nos.: 7500-00-04500, 7500-00-04700, 7500-00-04800 and 7500-00-05000, subject to the following conditions of approval:

1. Expiration: The Applicant must secure a development construction permit from Land Development Services within four (4) years from the date of this Final Order No. 23-2026 or this approval shall expire. If such permit has not been secured by that deadline, an extension may be granted by the Planning Manager if requested in writing with the appropriate fee before the expiration date CCZO Section 509.7.
2. Prior to Issuance of Building Permits and/or Commencing Operations:
 - a. Federal and State Agency Permits: The Applicant shall obtain all necessary permits from all federal and state agencies as identified in the EFSC Final Order.
 - b. Waiver of Remonstrance: For all four (4) of the properties that comprise the Subject Site, waivers of remonstrance shall be signed by a duly authorized agent of the entity owning the property, notarized, and then recorded with the County Clerk. These waivers shall certify that the

owner will not remonstrate against or begin legal action or suit proceeding to cause or persuade the owner or operator of any farm or forest lands to modify the conduct of legal and accepted farm or forest operations. The Applicant shall submit recorded copies to the Planning Division of Columbia County Land Development Services, prior to issuance of any building permits or commencement of the use.

3. Prior to Commencing Operations:

- a. Columbia County Building Permits: The Applicant shall coordinate with the Columbia County Building Official to submit/apply for all building (electrical, structural, mechanical and plumbing) permits deemed applicable by the Building Official, including but not limited to: Site Development Permits for earth movement (grade and fill) and any necessary electrical, mechanical and plumbing permits.

4. Ongoing Conditions of Approval:

- a. ODF Noticing for Activities Including Power Driven Machinery: At any time when Power Driven Machinery (“PDM”) activities will be conducted, the Applicant shall coordinate with and provide notice to the Oregon Department of Forestry – Columbia Unit to meet the legal requirements for notification of use of PDM.
- b. Height Limitation on Structures: Structures (wellheads and RTUs) shall be no more than 50 feet or 2 ½ stories in height. Compliance with this requirement shall be verified at the time of submittal for building permits.
- c. Wildlife Protection: The owner/occupant of the resource parcel shall assume responsibility for protection from damage by wildlife.

B. The Board of County Commissioners hereby adopts the following in support of its decision:

- 1. The Supplemental Appeal Findings, attached hereto as “Exhibit A” and incorporated herein by this reference, including all documents incorporated therein, to the extent those findings are consistent with this Final Order; and

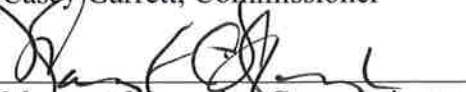
2. The above recitals.

DATED this 8th day of July, 2026.

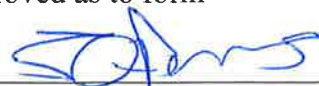
BOARD OF COUNTY COMMISSIONERS
FOR COLUMBIA COUNTY, OREGON

By: 
Kellie Jo Smith, Chair

By: 
Casey Garrett, Commissioner

By: 
Margaret Magruder, Commissioner

Approved as to form

By: 
Office of County Counsel

BEFORE THE BOARD OF COUNTY COMMISSIONERS
FOR COLUMBIA COUNTY, OREGON

In the Matter of the Application by NW)
Natural for a Conditional Use Permit to Drill)
Twelve Injection/Withdrawal and Monitoring) SUPPLEMENTAL APPEAL FINDINGS
Gas Wells in the Primary Forest (PF-80) Zone)
(CU 25-169) off Miller Station Road Near)
Mist)

1. Incorporation of Findings and Disposition of Irrelevant Issues

In support of its decision, the Board expressly adopts and incorporates herein the following documents as its own, including an express adoption of all findings of fact and interpretations of local regulations in those documents as the Board’s own:

1. Applicant’s Revised Application Submittal dated October 23, 2025 (Attachment A);
2. Applicant’s Supplemental Submittal dated Feb. 17, 2026 (Attachment B);
3. Applicant’s Supplemental Submittal dated Mar. 2, 2026 (Attachment C);
4. Planning Commission Staff Report dated Mar. 2, 2026 (Attachment D);
5. Applicant’s Written Testimony dated Mar. 16, 2026 (Attachment E);
6. Applicant’s Written Testimony dated Mar. 23, 2026 (Attachment F);
7. Applicant’s Written Testimony dated Mar. 30, 2026 (Attachment G);
8. Planning Commission’s Order dated Apr. 9, 2026 (Attachment H); and
9. Supplemental Staff Report dated June 3, 2026 (Attachment I).

The Board also adopts supplemental appeal findings on those issues specifically raised to the Board by Mary Stites on behalf of Northwest Environmental Defense Center (the “Appellant”), which are set forth below (the “supplemental appeal findings”). Collectively, all findings adopted and incorporated by the Board, including the supplemental appeal findings, constitute the County’s “Findings” in support of its final land use decision to approve CU 25-169 (the “Application”). To the

extent there is any conflict between the Board’s supplemental appeal findings and any other document expressly adopted and incorporated herein, the Board’s supplemental appeal findings supersede and shall control.

The Board relies on these collective Findings to resolve all other issues not specifically addressed in these supplemental appeal findings but raised by the Appellant or any other member of the public regarding this application before the Planning Commission or the Board. If these collective Findings do not address any issue raised by any member of the public, the Board expressly finds that the issue is irrelevant to the approval criteria.

2. Findings of Fact and Conclusions of Law

The Board finds that Northwest Natural Gas Company (“Applicant”) has carried its burden of proof to demonstrate that the Application satisfies all applicable legal criteria. Accordingly, the Application is approved.

In the Appellant’s notice of appeal dated April 21, 2026, the Appellant raised two assignments of error by the Planning Commission, which the Appellant argued warranted reversal—or, in the alternative, remand—of the Planning Commission’s decision. Those two arguments are addressed below. The Board finds that the Appellant has waived all other arguments previously raised by the Appellant before the Planning Commission but not asserted in the Appellant’s notice of appeal. The Board reaches that finding based on the Board’s interpretation of Columbia County Zoning Ordinance (CCZO) 1701.1(C), which requires appellants to provide “specific reasons why the decision should be modified or reversed” in their notice of appeal. ORS 197.825(2)(a). *See also Miles v. City of Florence*, 190 Or App 500, 505–10 (2003) (rejecting argument that *de novo* hearing allows new issues to be raised not specified in the appeal statement where required by local code); *Stricklin v. City of Astoria*, 56 Or LUBA 535, 544–45 (2008) (holding the same, relying on *Miles*).

a. Scope of Proposed Use Subject to County Review (Assignment of Error 2)

In the notice of appeal and at the June 10 hearing, Appellant argued that the Planning Commission had erred by limiting its review of the Application to the above-ground portions of the Applicant’s project (the “Proposed Use” described further below). In the notice of appeal, the Appellant asserted: “Under ORS 469.300(11)(a)(I),^[1] which explicitly exempts underground storage reservoirs and associated wells from [Energy Facility Siting Council (“EFSC”)] jurisdiction, the County retains land use jurisdiction for the full proposed storage use, including the underground storage reservoirs.” The Appellant further argued that the Staff Report dated March 2 adopted by the Planning Commission (Attachment D) improperly limited the County’s review to the “proposed *processing* of Natural Gas as it is proposed to occur in the above-ground (surface) portions of the twelve (12) proposed new wells/wellheads.” Notice of Appeal at 2 (emphasis in original).

The Applicant has explained that the Mist Facility and underground reservoir are part of a broader, integrated process that permits natural gas to be converted into a “seasonally balanced product” that can be delivered to customers throughout the year to match demand. *See* Attachment B, Exhibit I, at 3. However, the majority of the components in this process are subject to EFSC jurisdiction, rather than the County’s jurisdiction, under EFSC’s jurisdictional statutes, ORS 469.300(12)(a)(I) and ORS 469.320. As explained in the June 3 Supplemental Staff Report and elsewhere in these Findings, the vast majority of the broader Mist “storage” facility has already been approved by the County in prior land use decisions or is expressly exempt from the County’s land use jurisdiction and has already been reviewed by EFSC under EFSC’s exclusive jurisdiction. *See, e.g.,*

¹ *Former* ORS 469.300(11) (2024), *renumbered as* ORS 469.300(12) (2025) is the version of the EFSC jurisdictional statute predating the application at issue in this appeal. This Order relies on ORS 469.300(12) (2025), the controlling version of the statute for purposes of this appeal.

Attachment I at 3 (“[A]ny Mist Facility component approved through the EFSC Final Order is not subject to review by Columbia County under the current proposal.”). This conclusion is consistent with ORS 469.300(12)(a)(I), which defines an “energy facility” subject to EFSC’s exclusive siting jurisdiction to *include* “a surface facility related to an underground storage reservoir” meeting certain criteria but *exclude* (i) the “underground storage reservoir” and (ii) the “injection, withdrawal or monitoring wells and individual wellhead equipment.” Accordingly, as a threshold matter, the Board rejects the Appellant’s request to evaluate the Proposed Use subject to this application within the context of the Applicant’s broader existing facility.

Instead, in this conditional use permit application proceeding, the County is bound to review the “Proposed Use” for which the Applicant has requested conditional use approval. The “Proposed Use,” as framed by the Applicant and reviewed by the Board, is the development and operation of both above-ground and below-ground components of 12 new wells and associated wellhead equipment at 4 well pads to be used for handling natural gas moving in and out of underground storage. *See, e.g.*, Attachment I at 3–4 (“Summary of Current Proposal”). The Applicant is not proposing any development of the underground storage reservoir, which is an existing naturally occurring geologic formation. To the extent that the Applicant’s Proposed Use includes subsurface wellhead development or operations within the underground storage reservoir, the Board considers those activities to be part of the same “use” as the above-ground development and operations. *See* Attachment I at 6.

At the June 10 hearing, the Board considered the Supplemental Staff Report dated June 3, 2026 (Attachment I), which contains findings that the Board has adopted and incorporated as its own in support of its decision. As further explained in the June 3 Supplemental Staff Report and elsewhere in these Findings, the Board finds that the County’s land use jurisdiction *does* extend to certain

subsurface components of the Applicant’s project (including the subsurface portions of the wells), and the Board fully considered those subsurface components as part of its own *de novo* review of the appeal. *See, e.g.*, Attachment I at 6–7 (“Scope of Board’s Review”). Accordingly, to the extent that the Planning Commission erred by limiting its review to above-ground project components, the Board has corrected that error. Appellant has not identified—nor has the Board independently identified—any procedural basis under the CCZO or any other relevant provision of law that would require the Board to reverse or remand the Planning Commission’s decision based on Appellant’s second assignment of error.

The Board further finds that all subsurface components of the Proposed Use within the Board’s jurisdiction, to the extent not previously reviewed by the Planning Commission, comply with all applicable approval criteria. Applicable legal criteria include but are not limited to reviewing potential impacts to nearby forest operations, fire safety, and compatibility with surrounding land uses. The record contains ample evidence to find that those criteria are satisfied, as set forth in these Findings. On appeal, the Appellant did not allege otherwise.

For those reasons, the Board finds that the Appellant’s second assignment of error, as stated in the notice of appeal, does not constitute a basis to reverse or remand the Planning Commission’s decision or otherwise deny the application.

b. Land Use Classification of Proposed Use (Assignment of Error 1)

In the notice of appeal and at the June 10 hearing, Appellant also argued that the Planning Commission had erred by finding that the Applicant’s Proposed Use constitutes the “processing” of natural gas under CCZO Section 500 and OAR 660-006-0025. In the notice of appeal, the Appellant asserted: “The proposed use’s primary purpose is storage of natural gas, not ‘processing’ of natural gas.” At the hearing, among other things, the Appellant argued that the County must evaluate the

“primary function” of the Applicant’s broader facility, which, the Appellant asserted, is “storage” rather than “processing.” In the Appellant’s view, any “processing” of natural gas at the Applicant’s broader facility is “incidental” to the “primary” storage use and the word “storage” is not included in CCZO § 500 nor OAR 660-006-0025 as a permissible land use in the PF-80 zone.

Following consideration of the relevant regulatory language and the record materials, the Board finds that the Proposed Use set forth by the Applicant as described above constitutes the “[e]xploring, mining, and processing of oil, gas, or other subsurface resources,” which is an allowable use in the PF-80 zone under CCZO § 505.2 and OAR 660-006-0025(4)(g). The Board expressly finds that the Proposed Use constitutes “processing” of gas under the relevant provisions in full recognition that the Proposed Use includes subsurface development and operations within the County’s land use jurisdiction that interact with underground storage.

CCZO § 505.2 identifies “[e]xploring, mining and processing of oil, gas, or other subsurface resources, as defined in ORS Chapter 520 and the mining and processing of mineral and aggregate resources as defined in ORS Chapter 517” as a conditional use allowable in the PF-80 zone. *Accord* CCZO Table 502. Those provisions implement OAR 660-006-0025(3)(m) and (4)(g), the relevant state administrative rules that control allowable uses in forest zones. Consistent with the CCZO:

- OAR 660-006-0025(3)(m) authorizes as a use that “may be allowed outright” the “exploration for and production of geothermal, gas, oil and other associated hydrocarbons, including the placement and operation of compressors, separators and other customary production equipment for an individual well adjacent to the well head,” and
- OAR 660-006-0025(4)(g) authorizes as a use that “may be allowed” subject to standards, “[m]ining and processing of oil, gas, or other subsurface resources, as defined in ORS chapter 520,” except for facilities otherwise addressed under OAR 660-006-0025(3)(m).

The Board has interpreted these controlling provisions of state law² to determine the correct use classification for the Applicant's Proposed Use.

The Applicant has requested that its Application be reviewed under OAR 660-006-0025(4)(g), and the key interpretive dispute before the Board is the meaning of the word “processing” in that rule. Thus, the Board must analyze the regulatory text, context, and history (to the extent the Board deems it helpful³), with the goal of discerning the Land Conservation and Development Commission's (“LCDC”) intent when it enacted that rule. *State v. Gaines*, 346 Or 160, 171–72, 206 P3d 1042 (2009) (outlining Oregon statutory interpretation principles); *PGE v. Bureau of Labor and Industries*, 317 Or 606, 610–12, 859 P2d 1143 (1993) (same); *State v. Hogevooll*, 348 Or 104, 109–10, 228 P3d 569 (2010) (“In construing an administrative rule, we apply the same analytical framework that applies to the construction of statutes.”).

Beginning with the regulatory text, neither the CCZO nor the OARs define “processing,” and neither the Land Use Board of Appeals (“LUBA”) nor any Oregon appellate court has interpreted that term in the context of the relevant provision. OAR 660-006-0025(4)(g) cross-references ORS Chapter 520, which also does not define “processing.” Thus, the Board must look to the “plain and ordinary meaning” of “processing,” as informed by dictionary definitions. *Cf.*

² CCZO Table 502 and CCZO § 505.2 appear to collapse OAR 660-006-0025(3)(m) and (4)(g) into a single use category. Although the Board finds that the Proposed Use constitutes “processing” under subsection (4)(g), subsection (3)(m) provides relevant interpretive context for that conclusion. Notably, subsection (3)(m) explicitly references the “placement and operations of * * * customary production equipment for an individual adjacent to the well head,” indicating that those types of activities are well within the range of land uses contemplated by state law as permissible within forest zones.

³ The parties to this appeal have not offered regulatory history for the Board's review, and the Board has not independently reviewed or considered it. The Board resolves Appellant's first assignment of error based on the plain meaning of the applicable regulatory text, as discussed further in these Findings.

State v. Kimble, 236 Or App 613, 618, 237 P3d 871 (2010) (“When the legislature has not provided an express definition for a particular term, we generally look to the term’s plain and ordinary meaning.”); *Pete’s Mountain Homeowners Ass’n v. Oregon Water Res. Dep’t* 236 Or App 507, 516–17, 238 P3d 395 (2010) (“The usual source for determining the ordinary meaning of statutory terms is a dictionary of common usage.”).

Webster’s Third New International Dictionary, the preferred dictionary of choice of Oregon’s appellate courts, includes multiple definitions of “process.” One particularly helpful definition is “to subject to a particular method, system or technique of preparation, handling, or other treatment designed to effect a particular result,” and “to prepare for market, manufacture or other commercial use by subjecting to some process.” *Webster’s Third New Int’l Dictionary* 1808 (unabridged ed 2002).⁴ Both the Applicant and the Appellant appear to accept this definition as relevant. Indeed, the Appellant first raised this definition to the Planning Commission below through its reliance on *Fritch v. Clackamas County*, LUBA No. 2012-094, 68 Or LUBA 184 (2013).⁵ The Board adopts this definition of “process” (and its associated gerund “processing”) as the Board’s operative definition for purposes of interpreting the scope of “processing” uses described in CCZO § 505.2 as it implements OAR 660-006-0025(4)(g).

The Board finds that, as a factual matter, the Proposed Use fits comfortably within the ordinary meaning of “processing” adopted above. The Applicant submitted substantial testimony detailing how the Proposed Use involves a systematic, highly engineered method of handling natural gas through injection, containment, monitoring, and withdrawal to achieve a specific

⁴ Notably, “handling” is defined as “a *process* by which something is handled” or “the manner in which something is handled.” *Webster’s* at 1027 (emphasis added).

⁵ The Board concludes that *Fritch* ultimately does not support the Appellant’s arguments, for the reasons discussed in these Findings.

commercial result, namely converting natural gas into a subsurface resource with a regulated supply to ensure reliable availability for distribution and use when it is most needed. The Proposed Use requires specialized wells, pressure management, monitoring systems, and operational protocols to safely inject natural gas into subsurface formations, maintain it underground over time, and withdraw it as needed to meet demand. These activities are continuous and operational in nature, and they depend on coordinated technical processes designed to control the condition, movement, and availability of the natural gas. *See, e.g.,* Attachment B at Exhibit I. The record also reflects that these operations are managed through detailed engineering standards and ongoing operational oversight. This evidence supports the Board’s finding that the Proposed Use is a form of structured handling and treatment of natural gas consistent with the ordinary meaning of “processing.”

The Appellant has argued that the Proposed Use as described above does not constitute “processing” because the Proposed Use does not “transform” raw natural gas into a marketable product. This argument appears to rely on *Fritch v. Clackamas County*, a case in which LUBA interpreted the unrelated term “primary processing of forest products” under OAR 660-006-0025(4)(a). The Board rejects that argument because, among other things, LUBA’s decision in *Fritch* hinged on the meaning of “primary” as a modifier to “processing” under an unrelated land use category, which is not relevant for purposes of OAR 660-006-0025(4)(g). Also, as a factual matter established by the record in this matter, the Board finds that the natural gas injected underground as part of the Applicant’s Proposed Use is not withdrawn in the same condition in which it was received. Even if some sort of “transformation” were required as Appellant has argued, the processes of injection, underground storage, and withdrawal alter the composition and quality of the gas, such that additional handling and treatment are required before the gas is suitable

for distribution and commercial use.

The Appellant has also argued that the Proposed Use cannot constitute “processing” because it is really just “storage.” In support of this argument, the Appellant points to CCZO § 221, which provides that “[o]nly one principal use may be placed on each legal lot or parcel,” defined as “[t]he main use to which the premises are devoted and the primary purpose for which the premises exist,” CCZO § 100.84. Thus, the Appellant argues, the “primary” or “principal” use proposed by the Applicant is “storage,” and any “processing” is separate from and “incidental” to that use. As further support, the Appellant points to various provisions of the CCZO, including CCZO § 940, which expressly reference “storage” among their use classifications.

Initially, the Board rejects the Appellant’s reliance on the CCZO “principal use” provisions as irrelevant to the dispositive legal issue for the Proposed Use: the meaning of “processing” under OAR 660-006-0025(4)(g). However, to the extent that further consideration of “principal use” under the CCZO is relevant, the Board considers any subsurface wellhead development and activities within the underground storage reservoir that are included in the Applicant’s Proposed Use to be part of the same “principal use” as the above-ground development and activities. *See* Attachment I at 6. Further, the Board interprets CCZO §§ 100 and 221 as allowing multiple related activities that collectively constitute a single “principal use.” The Board further finds that the “principal use” should be evaluated consistent with the broader purpose of a project based on the *development* that is taking place. This interpretation is consistent with the language of CCZO § 221, which specifies that a “principal use” is one that is “placed on” each legal lot or parcel, and thus will cause any impacts to be assessed. This interpretation is also consistent with the Board’s historic interpretation of “principal use” under its code, to which LUBA has previously deferred. *See Brockman v. Columbia County*, 59 Or LUBA 302, 319–21 (2009). The Applicant is not proposing any development of the

underground storage reservoir, which is an existing naturally occurring geologic formation, and any subsurface activities interacting with the storage reservoir are interrelated with other processing activities as part of the Proposed Use. Consistent with this interpretation, the Board finds that the processing activities contemplated by the Proposed Use are the single “principal use” subject to the County’s review, as the Board interprets CCZO §§ 100 and 221.

This finding is consistent with the fact that the Proposed Use includes subsurface activities that interact with the underground storage reservoir as part of the “processing” use authorized by OAR 660-006-0025(4)(g) and subject to the Board’s review. This interrelated process contrasts with the “storage” uses identified by the Appellant, such as “fuel storage facilities” in the Airport Industrial Zone under CCZO § 942.3, which contemplate the passive warehousing of materials where goods are held in the same condition in which they are received and later retrieved in that same condition. Underground gas processing activities associated with storage as contemplated by Applicant’s Proposed Use are fundamentally different. As the Applicant testified, the natural gas injected into an underground reservoir is not returned in the same condition in which it was received. The processes of injection, underground storage, and withdrawal alter the composition and quality of the gas, such that additional handling and treatment are required before the gas is suitable for distribution and commercial use.

The Board further finds that the statutory definition of “underground storage” in ORS Chapter 520 supports its conclusion that the single principal Proposed Use constitutes “processing,” notwithstanding the relationship to underground storage activities. OAR 660-006-0025(4)(g) expressly cross-references ORS Chapter 520, which addresses unique challenges associated with oil and gas production, including underground reservoirs. ORS 520.005(14) defines “underground storage” as “the *process* of injecting and storing natural gas within and

withdrawing natural gas from an underground reservoir.” (Emphasis added.) The Board finds that cross-reference significant because (1) it indicates that the drafters of OAR 660-006-0025(4)(g) looked to ORS Chapter 520 as the governing framework to define permissible subsurface resource activities in forest zones and (2) they understood underground gas storage activities like those contemplated as part of the Proposed Use to inherently involve active gas processing.

Finally, the Board notes that it has historically found activities similar to the Proposed Use to be “processing” under OAR 660-006-0025(4)(g), and this decision is consistent with those prior land use decisions addressing similar facilities and operations. EFSC has also independently reached the conclusion that the Applicant’s broader facility constitutes “processing” under OAR 660-0025(4)(g)—most recently in EFSC’s Final Order on Request for Amendment 13, issued after a public proceeding in which the Appellant participated without challenging that land use classification. Although EFSC’s determination is not binding on the Board, it is persuasive authority that reinforces the Board’s longstanding interpretation of OAR 660-006-0025(4)(g) and treatment of the Applicant’s facility and proposals similar to the Proposed Use. Accordingly, the Board reaffirms its position that the Proposed Use constitutes the “[e]xploring, mining, and processing of oil, gas, or other subsurface resources,” which is a use that may be conditionally allowed in the PF-80 zone under CCZO § 505.2.

For these reasons, the Board finds that the Appellant’s first assignment of error, as stated in the notice of appeal, does not constitute a basis to reverse or remand the Planning Commission’s decision or otherwise deny the application.

CONDITIONAL USE PERMIT APPLICATION**PROPOSED USE:** Well Pads for injection/withdrawl of natural gas and observation/monitoring of operations.**APPLICANT:** Name: NW NaturalMailing address: 250 SW Taylor Street

<u>Portland</u>	<u>OR</u>	<u>97204</u>
City	State	Zip Code

Phone No.: Office 503-226-4211 Home _____Email Address: Austin.Mann@nwnatural.comAre you the _____ property owner? X owner's agent?**PROPERTY OWNER:** same as above, OR:Name: Weyerhaeuser Timber--7N5W 4700, 4800Claruth Inc. / Willna, Inc. / Franbea, Inc. -- 7N5W 4500, 5000

Mailing Address: _____

See attached Sheet for ownership contact information.

_____	_____	_____
City	State	Zip Code

Phone No.: Office _____ Home _____

PROPERTY ADDRESS (if assigned): No Situs.

_____	_____	_____
City	State	Zip Code

TAX MAP NO.: 7N5W 4700 - Medicine I/W Acres: 1.5 AC Zoning: PF-807N5W 4800 - Stegosaur I/W Acres: 2.0 AC Zoning: PF-807N5W 5000 - Newton I/W Acres: 2.0 AC Zoning: PF-807N5W 4500 - Medicine O/M 0.50 AC PF-80**PRESENT USES:** (farm pasture, forest, residential, etc.)

Use: _____ Approx. Acres _____

Forest (Total for all sites listed above) 6.00 AC

_____	_____
Total acres (must agree with above):	<u>6.00 AC</u>

WATER SUPPLY: N/A Private well. Is the well installed? Yes No
N/A Community system. Name _____

METHOD OF SEWAGE DISPOSAL: Community Sewer. Name _____
 X Not applicable.
 Septic System.
If Septic, does the subject property already have a system? Yes No
If no, is the property approved for a Septic System? Yes No

ELECTRICITY SUPPLIER:

CONTIGUOUS PROPERTY: List all other properties you own which have boundary lines touching this property:

<u>Tax Account No.</u>	<u>Acres</u>	<u>Co-owners (if any)</u>
<u>7N5W 4701</u>	<u>6.70 AC</u>	_____
_____	_____	_____

ACCESS CONSULTATION: The applicant has consulted with the local Rural Fire Protection District regarding emergency apparatus access.

Fire Official's Signature: _____ Date: _____

CERTIFICATION:
I hereby certify that all of the above statements, and all other documents submitted, are accurate and true to the best of my belief and knowledge.

Date: 10/23/25 Signature: 

+++++

Planning Department Use Only

Date Rec'd. _____ Hearing Date: _____
Or: Administrative _____ Receipt No. _____

Zoning: _____ Staff Member: _____

Previous Land Use Actions: _____

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Conditional Use Permit Application
NW Natural Gas – Mist Facility

Property Owner Contact Information:

Weyerhaeuser Timber Holdings Inc.
Attn: Steve Keniston
3539 Industrial Way
Longview, WA 98632
(503) 899-7158

Claruth Inc. / Wilna Inc. / Franbea Inc.
PO Box 127
Clatskanie, OR 97016
(503) 728-2411

CONDITIONAL USE PERMIT FACT SHEET

Please attach extra pages if necessary.

1. New Uses: What new uses will occur on the property if this Conditional Use Permit is approved? Describe your project.

The Applicant proposes four well pads for injection/withdrawal (I/W) and observation/monitoring (O/M) activities at the NWN's Mist Underground Natural Gas Storage Facility ("Mist Facility"). As shown on the attached site plans and vicinity map, the well pads will be located at the Newton, Stegosaur,

Medicine I/W, and Medicine O/M sites. The three I/W well pads will be sited adjacent to reservoirs to be developed and existing compressor station. The proposed injection/ withdrawal and observation/ monitoring well pads will support the processing of gas resources, which is allowed as a conditional use in the Primary Forest (PF-80) zone, per CCZO Section 505.2.

2. Suitability: Why is the property suitable for this use (considering lot size, shape and location, access and roads, natural features and topography, existing improvements, etc.)?

The proposed well pads will be located in an area developed with other natural gas production and storage facilities which have been permitted separately through the Oregon Energy Facility Siting Council (EFSC). The proposed injection/withdrawal well pads have been sited adjacent to reservoirs to be developed and existing compressor station at the Mist facility in order to minimize impacts. The sites will be accessed by existing logging roads from OR Highway 47 or OR Highway 202 to the extent practicable.

3. Compatibility: How will the use be compatible with surrounding uses?

The well pads will relate to NWN's proposed development of new underground storage reservoirs and other related improvement at the Mist facility which have been permitted through the EFSC. As discussed above, impacts will be minimized by proximity to existing facilities and use of existing logging roads. The well pad sites are located on leased land, and all operations by the Applicant are done with the agreement of the landowner(s).

4. **Impact:** What impact will the proposed use have on existing public facilities, or on your neighbors' use of their land? Why?

The proposed use will not require new public facilities or services. The Applicant and its contractors will use existing logging roads to the extent practicable. Tree removal will be coordinated with the property

owner and will be limited to the well pads. Temporary construction activities associated with the wells will be coordinated with the property owner. The area has a history of natural gas production and storage uses alongside forest management activities, demonstrating the cooperative relationship between the Applicant and the forest landowners. The proposed activities and improvements are not anticipated to negatively impact continued forest management practices.

5. **Hazards:** Does the proposed use create any hazardous conditions such as fire hazards, traffic hazards, slope stability hazards or use any poisonous materials? Please describe them.

The Applicant will ensure that access to the well sites is approved by the Mist Birkenfeld Fire District. The cleared areas around the proposed well pads will provide an adequate break for fire safety, ensuring that the drilling and operation of the wells will not create a fire hazard risk. In addition, the wells and pipeline

facilities have numerous safety features. A geologic hazards evaluation was conducted as part of the Mist Facility RFA13 approval process. Conditions of the EFSC approval and other measures are planned by NWN to address any potential hazards, including erosion and sediment control and fire safety.

+++++
Submission: All of the following must be completed and submitted for a complete application:

1. The attached CONDITIONAL USE PERMIT APPLICATION.
2. Answers to the above questions.
3. An accurate site plan of your property including property lines and dimensions, all existing and proposed structures, septic tank and drainfield and well locations, prominent natural features (slopes, cliffs & streams, etc.), roads, easements, and forested areas.
4. Proof of legal usable access to your property (unless you can show an unobstructed frontage on a public or county road or on a state highway).
5. A vicinity map.
6. The application fee.
7. Please also address the criteria (on a separate sheet of paper) of Section 1503, Conditional Uses, from the Columbia County Zoning Ordinance. (See below.)

+++++

+ **Section 1503, Conditional Uses:**

- .5 Granting a Permit: The Commission may grant a Conditional Use Permit after conducting a public hearing, provided the applicant provides evidence substantiating that all the requirements of this ordinance relative to the proposed use are satisfied and demonstrates the proposes use also satisfies the following criteria:
- A. The use is listed as a Conditional Use in the zone which is currently applied to the site;
 - B. The use meets the specific criteria established in the underlying zone;
 - C. The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements, and natural features;
 - D. The site and proposed development is timely, considering the adequacy of transportation systems, public facilities, and services existing or planned for the area affected by the use;
 - E. The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs, or precludes the use of surrounding properties for the primary uses listed in the underlying district;
 - F. The proposal satisfies the goals and policies of the Comprehensive Plan which apply to the proposed use;
 - G. The proposal will not create any hazardous conditions.

Please see attached narrative.

Supplemental Information for Northwest Natural's Columbia County Conditional Use Permit Application

I. Introduction

Northwest Natural Gas Company (“NWN” or “Applicant”) proposes to construct and operate seven injection/withdrawal wells and five observation wells on Township 7N, Range 5W, Tax Parcels 4500, 4700, 4800, and 5000 in Columbia County (“County”). These wells will become part of NWN’s Mist Underground Natural Gas Storage Facility (“Mist Facility”). The Mist Facility provides NWN with a means of balancing relatively constant pipeline gas supplies with widely fluctuating market requirements. NWN injects gas into storage during off-peak periods and withdraws it when demand exceeds available supplies from other sources. Existing components of the Mist Facility are permitted through either the County or the Oregon Energy Facility Siting Council (“EFSC”).

The new wells relate to NWN’s proposed development of new underground storage reservoirs and other related improvements, which have been permitted separately through EFSC. Under Amendment 13 to Mist Under Ground Gas Storage Field (RFA-13), EFSC did not make land use decisions related to the well pads described in this application.

The new injection/withdrawal well pads will be connected to the compressor station with underground injection/withdrawal pipelines, which have been permitted through EFSC.

Construction and operation of the proposed wells will conform to the requirements of the Department of Geology and Mineral Industries (“DOGAMI”), which has exclusive jurisdiction over the non-pipeline subsurface elements of the Mist Facility, and NWN will secure all other permits required by federal, state, and local government agencies. Removal of trees and other vegetation will be strictly limited to the immediate drill pads and any necessary access roads. The approximate clearance areas for the well pads include 87,120 square feet for Newton; 87,120 square feet for Stegosaur; 65,340 square feet for Medicine I/W, and 21,780 square feet for Medicine O/M.

II. Applicable Criteria

1503.5 Granting a Permit. The Commission may grant a Conditional Use Permit after conducting a public hearing, provided the applicant provides evidence substantiating that all the requirements of this ordinance relative to the proposed use are satisfied and demonstrates the proposed use also satisfies the following criteria:

A. The use is listed as a Conditional Use in the zone which is currently applied to the site;

Response: The proposed injection/withdrawal and observation wells pertain to the processing of gas resources and therefore are allowable as conditional uses within the County’s Primary Forest (“PF-80”) zone. Accordingly, this criterion is met.

B. The use meets the specific criteria established in the underlying zone;

Response: The specific criteria applicable to conditional uses within the PF-80 zone are found at CCZO 508 and addressed below:

508 General Review Standards. The Planning Director or hearings body shall determine that a use authorized by Sections 504 and 505 meets all of the following requirements:

.1 The proposed use will not force significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands;

Response: The proposed injection/withdrawal and observation wells will be located in an area developed with other natural gas production and storage facilities, all of which were previously approved by the County or EFSC. Despite a history natural gas production and storage uses in the area, forest management practices have continued, and the Applicant and the forest landowners have had a longstanding cooperative relationship. In other words, as demonstrated by longstanding Mist Field operations, the proposed use does not preclude the continued management of the surrounding area for the primary purposes of the PF-80 zone.

The Project itself is consistent with forest and farm uses and will not unduly interfere with or detract from those uses. Each of the three injection/withdrawal well pads will be constructed in a cleared area ranging from 65,340 to 87,120 square feet. The observation well pad will be constructed in a cleared area not to exceed 21,780 squarefeet. The Applicant will access the proposed well sites from existing logging roads to the extent practicable. Tree removal will be strictly limited to the immediate drill pads and will be coordinated with the surface property owner. Temporary construction activities associated with drilling the wells will also be coordinated with the landowner to ensure that there are no conflicts with ongoing forest practices. The proposed use will not result in the withdrawal of forest lands from forest use on a permanent basis: no permanent structures will be constructed onsite. Accordingly, this criterion is met.

.2 The proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel;

Response: The proposed use will not significantly increase fire hazard. As in the past, the Applicant will ensure that access to the well sites is approved by the Mist Birkenfeld Fire District. The cleared areas around the proposed wells will provide an adequate break for fire safety, ensuring that the drilling and operation of the wells will not create a fire hazard risk. To further ensure fire safety, the Applicant will inform the fire district or its key personnel as to the date drilling operations will commence and the date drilling has been completed. The wells and pipeline facilities have numerous safety features,

including relief valves, fusible plugs, and automatic shutdown systems. Accordingly, this criterion is met.

.3 A waiver of remonstrance shall be recorded with the County Clerk certifying that the owner will not remonstrate against or begin legal action or suit proceeding to cause or persuade the owner or operator of any farm or forest lands to modify the conduct of legal and accepted farm or forest operations; and

Response: The Applicant is not the owner of the property on which the wells will be drilled. However, all operations by the Applicant are done with the full agreement and participation of the affected landowner(s). The Applicant does not anticipate that the owner would remonstrate against or cause legal action to modify its own forest practices. Accordingly, this criterion does not apply.

.4 The proposed use is consistent with requirements contained in the Comprehensive Plan or implementing ordinances, including, but not limited to, regulations which apply to flood hazard areas, development within the Willamette River Greenway, development in forested areas or development in significant resource areas, such as riparian, wetlands or slide-prone areas.

Response: Columbia County's Zoning Ordinance ("CCZO") contains land use regulations and standards that implement the goals and policies of the Comprehensive Plan. The proposal's consistency with applicable sections of the CCZO are addressed above and in the application form. Provided the proposed use complies with all applicable sections of the CCZO, it will also comply with the requirements of the Comprehensive Plan. Nonetheless, consistency with the Comprehensive Plan is discussed below. Accordingly, this criterion is met.

C. The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements, and natural features;

Response: The proposed wells will be sited in close proximity to other gas production wells, well heads, and underground natural gas storage facilities. Properties in the vicinity are devoted to resource use, and there is no residential development in the area. Accordingly, this criterion is met.

D. The site and proposed development is timely, considering the adequacy of transportation systems, public facilities, and services existing or planned for the area affected by the use;

Response: The proposed use will not require new public facilities or services. The Applicant and its contractors will use private logging roads to access the site from OR Highway 47 and OR Highway 202. Accordingly, this criterion is met

E. The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs, or precludes the use of surrounding properties for the primary uses listed in the underlying district;

Response: The PF-80 zone allows a number of uses, with uses permitted outright focused on the propagation, harvesting and management of forest and farm products, as well as uses associated with air and water conservation and fish and wildlife management. The proposed use will not result in the removal of a significant number of trees or construction of permanent structures. As noted above, tree removal will be coordinated with the landowner. Because the area has been developed for natural gas production and storage for many years, the proposed use will not alter the character of the area. Accordingly, this criterion is met.

F. The proposal satisfies the goals and policies of the Comprehensive Plan which apply to the proposed use;

Response:

Part IV, Forest Lands: The County's Forest Lands Goal is applicable to the proposed use and directs the County to conserve forest lands for forest use. As explained above in response to the standards applicable to the PF-80 zone, which are acknowledged to be consistent with the CCCP, the proposed use is consistent with this goal because it will be located in an area that is already approved for resource drilling and subsurface natural gas storage. Further, the proposed use pertains to a subsurface resource and therefore will have little impact on above-ground resources. Moreover, as noted above, the Applicant will access the proposed well sites from existing logging roads to the extent practicable. Tree removal will be strictly limited to the immediate drill pads and will be coordinated with the surface property owner. Temporary construction activities associated with drilling the wells will also be coordinated with the landowner to ensure that there are no conflicts with ongoing forest practices. The proposed use will not result in the withdrawal of forest lands from forest use on a permanent basis: no permanent structures will be constructed onsite.

Part X, Economy: The County's Economy Goal is applicable because it directs the County to strengthen and diversify the economy to ensure stable economic growth. The Mist Gas Field has been of significant economic importance to the County since its discovery in 1979. Gas production and storage in this area creates jobs and provides energy to the region. The proposed use satisfies the County's Economy Goal by using a natural resource to expand and diversify the County's economic base.

Part XIV, Public Facilities and Services: Construction and operation of the proposed use will not require the commitment of public facilities and/or services. The Applicant will access the proposed well sites directly from OR Highway 47, OR Highway 202, and existing private logging roads. As noted above, the Applicant will ensure that access to the well sites is approved by the Mist Birkenfeld Fire District and will coordinate with the district during construction and operations. As noted above, the proposed wells relate to a number of other proposed improvements to the Mist Facility, all of which have been permitted separately through EFSC. Through that process, EFSC undertook a comprehensive review of the impacts of the proposed improvements on public facilities. In other words, potential impacts associated with related improvements were addressed through the EFSC process.

Part XVI: Open Space, Scenic and Historic Area, and Natural Resources: The proposed wells are subject to the regulations of the Department of Geology and Mineral Industries, which regulates gas operations to ensure that such activities are done in a manner that ensures conservation of the resource, protection of the environment including groundwater resources, and equitable allocation of revenue from production owners among owners of mineral rights. As noted above, construction and operation of the proposed wells will conform to DOGAMI's requirements, and NWN will secure all other permits required by federal, state, and local government agencies. Each of the three injection/withdrawal well pads will be constructed in a cleared area ranging from 65,340 to 87,120 square feet. The observation well pad will be constructed in a cleared area not to exceed 21,780 square feet. Removal of trees and other vegetation will be strictly limited to the immediate drill pads and any necessary access roads. Accordingly, approval of this request will have little to no effect on open space, scenic, and natural resources.

Part XVII: Air, Land, and Water Resources: Although the County's Comprehensive Plan identifies the potential for environmental consequences associated with the development of natural gas resources, including disruption of sensitive ecosystems by land disturbance and water source pollution, the proposed use will have little to no effect on air and water quality. The County minimizes potential impacts to these resources by requiring compliance with federal and state environmental regulations. As in past applications, the Applicant agrees to secure proper permits from DOGAMI and the Oregon Department of Forestry and coordinate with the Oregon Department of Fish and Wildlife to minimize impacts to fish and wildlife resources. Each of the three injection/withdrawal well pads will be constructed in a cleared area ranging from 65,340 to 87,120 square feet. The observation well pad will be constructed in a cleared area not to exceed 21,780 square feet. The Applicant will access the proposed well sites from existing logging roads to the extent practicable. Tree removal will be strictly limited to the immediate drill pads and will be coordinated with the surface property owner. Accordingly, approval of this request will have little to no effect on air, land, and water resources.

G. The proposal will not create any hazardous conditions.

Response: The Applicant will comply with all applicable safety standards for natural gas facilities and consult with the Mist Birkenfeld Fire District to ensure that all necessary precautions are taken to reduce the risk of fire hazard.

Conclusion

The proposed construction and operation of injection/withdrawal and observation wells at the Mist Underground Natural Gas Storage Facility will help support the balancing of natural gas supplies and widely fluctuating market requirements.

The Applicant has provided substantial evidence through the application materials and narrative above that the proposed well development is in compliance with applicable conditional use standards. The Applicant respectfully requests approval of this application as proposed.



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VIA EMAIL

Kate McGuire, Planning Division Manager
Deborah Jacob, Senior Planner
Columbia County Land Development Services
445 Port Avenue
St. Helens, OR 97051

February 17, 2026

Re: Columbia County Application CU 25-169

Dear Ms. McGuire and Ms. Jacob:

Northwest Natural Gas Company ("NW Natural"), the applicant in the above-referenced matter is seeking approval from Columbia County ("County") to develop and operate well pads, wells, and related equipment in connection with processing natural gas ("Proposed Use") on four sites in Columbia County ("County") in the PF-80 zone. To facilitate the Proposed Use, NW Natural is proposing to drill twelve wells on four well pads (three new pads and one existing pad that will be expanded) (the "Project"). The Project is being developed in the context of NW Natural's existing Mist Underground Natural Gas Storage Facility ("Mist Facility"), which has been permitted by the Oregon Energy Facility Siting Council ("EFSC") and safely operating for decades.

In August 2025, NW Natural filed its initial application with the County, seeking approval of the Project. NW Natural subsequently provided an updated application and additional materials, and the County deemed the application complete on December 4, 2025. The Project was initially set for hearing on February 2, 2026. Because the Planning Commission did not have a quorum at that hearing, the hearing has been rescheduled for March 9, 2026. NW Natural provides this additional information to support the County in preparing its staff report for the upcoming hearing.

Background

The Mist Facility is an existing underground natural gas storage facility in Columbia County. It plays a critical role in balancing seasonal energy demands across NW Natural's service territory and the broader Pacific Northwest region. During periods of low natural gas demand, gas is injected into underground storage reservoirs. This injection process requires increasing the gas pressure above standard pipeline levels to ensure effective storage. When demand rises, the stored gas is produced (or withdrawn) from the reservoirs and then processed by removing moisture from the gas and mitigating against hydrate formation in the withdrawn gas. ORS 520.005(14) (pertaining to gas and oil resources) defines "underground storage" as "the process of injecting and storing natural gas within and withdrawing natural gas from an underground reservoir."

The vast majority of components within the existing Mist Facility are subject to EFSC's exclusive siting jurisdiction and have been permitted through the Mist Facility's Site Certificate, issued by EFSC in 1981, and subsequent Requests for Amendment ("RFAs"), issued by EFSC over the past four decades. Within the last

ten years, NW Natural expanded the Mist Facility by adding a second central compressor station, called the North Mist Compressor Station (“Compressor Station”), and developing the Adams reservoir for underground gas storage (“RFA 11”). The Compressor Station was authorized by the EFSC and included, among other things, two triethylene glycol gas dehydration systems that “following withdrawal from the underground storage reservoir, [] process wet natural gas through contact towers and dehydrate the gas with lean glycol for pipeline distribution of dry gas.” See EFSC, Final Order on Request for Contested Case and Mist Facility Amendment No. 11 (April 21, 2016) at 151.¹

However, wells and wellhead equipment are expressly exempt from EFSC’s jurisdiction pursuant to ORS 469.300(11)(a)(i)(ii). Accordingly, as part of that recent expansion, NW Natural has previously sought, and the County has issued, two conditional use permits (“CUPs”) under CCZO § 505.2 authorizing six additional wells at the Mist Facility. In 2015, the County issued CU 15-12, authorizing the “drilling and operations of four new natural gas injection/withdrawal wells” at a single well pad location, and one nearby monitoring well. Exhibit A (CU 15-12, Final Order & Staff Report). In 2017, the County issued CU 17-04, authorizing the conversion of an unused well into an observation/monitoring well. (Exhibit B, CU 17-04, Final Order & Staff Report). In both prior approvals, the County concluded that the proposed development and operation of the wells and associated wellhead equipment and well pad were authorized as “[e]xploring, mining and processing of oil, gas, or other subsurface resources, as defined in ORS Chapter 520” and, therefore, a conditional use authorized in the PF-80 zone. These approvals are consistent with both the County’s and EFSC’s historical treatment of wells and well pads at the Mist Facility as the “exploration, mining, and processing of * * * subsurface resources” since at least the 1990s. See, e.g., Exhibit C (CU 2-97, Final Order & Staff Report) (authorizing NW Natural’s development of four new wells and associated equipment at nearby Calvin Creek gas field pursuant to previous version of CCZO § 505.2).

Last year, EFSC authorized NW Natural’s Mist Resiliency Project, which includes expanding the Compressor Station by installing, among other things, three reciprocating gas fired compressors and two dehydration contact towers and glycol regenerating skids with reboilers for use in connection with utilizing additional reservoirs for gas storage (“RFA 13”). EFSC, Final Order on Request for Amendment No. 13 (Jan. 17, 2025) at 1, 17.² EFSC concluded that “[c]onsistent with OAR 660-006-0025(4), which implements Statewide Planning Goal 4, these improvements relate to the processing of gas resources and therefore are allowed conditional uses under CCZO Section 505.2.” *Id.* at 75.

Because wells and wellhead equipment are exempt from EFSC’s jurisdiction, NW Natural filed this application with the County for a CUP pursuant to CCZO § 505.2. As noted, the Project proposes to construct and operate twelve wells. Seven of the new wells will be “injection/withdrawal” (“IW”) wells that will inject gas into and produce (or withdraw) gas from three reservoirs. Five of the new wells will be observation and monitoring (“OM”) and/or pressure monitoring (“KI”) wells. The Project’s twelve wells will be located on four well pads. See Exhibit D (Updated Vicinity Plan). Three of the well pads (Medicine, Medicine OM, and Newton) will be

¹ Available at https://www.oregon.gov/energy/facilities-safety/facilities/Facilities%20library/FINAL%20ORDER%20MIST%20FACILITY%20RFA%2011_2016-4-21.pdf.

² Available at <https://www.oregon.gov/energy/facilities-safety/facilities/Facilities%20library/2025-01-17-MSTAMD13-Final-Order-w-Site-Cert-and-Attachments.pdf>.

new. The fourth well pad, the existing Stegosaur well pad, will be modified to accommodate the new wells. Project equipment to be located at the wellheads on these well pads include initial processing equipment for moisture removal and hydrate mitigation and small RTU (remote terminal unit) buildings containing monitoring and control equipment.

The Project, including the number and type of wells and RTU buildings proposed for each well pad is summarized below:

Table 1: Project Summary

Well Pad	New or Existing	IW Wells	OM/KI Wells	RTU Buildings	Notes
Medicine	New	2	1	1	See Exhibit E (Updated Medicine Site Plan).
Medicine OM	New	0	1	0	See Exhibit F (Updated Medicine OM Site Plan).
Newton	New	3	1	1	See Exhibit G (Updated Newton Site Plan).
Stegosaur	Existing (to be expanded)	2	2	1	See Exhibit H (Updated Stegosaur Site Plan).
Total		7	5		12 Total Wells

The Project will serve a fundamental role in producing the gas stored in existing underground reservoirs at the Mist Facility and then processing that gas so it can be injected into pipelines for distribution and use. See Exhibit I (Letter from David Weber). Every time gas is injected into or produced (or withdrawn) from the underground reservoirs, it must pass through a well. When gas is being withdrawn, initial gas processing occurs at the wellhead, including removing moisture and heating to prevent ice-like blockages, known as “hydrate formation,” in the gas. See *id.* The gas is then sent to the Compressor Station for further gas processing to ensure that it meets the specific quality measures before being injected into pipelines for distribution and use. *Id.* Without the wells and associated wellhead equipment, natural gas cannot be injected into or withdrawn from the underground reservoir, nor can it be processed for distribution and use. *Id.*

With that background in mind, NW Natural offers the following supplemental information regarding the Project and its compliance with applicable approval criteria.

Supplemental Project Information

1. The Proposed Use is allowed in the PF-80 zone under applicable state and local land use regulations.

The Proposed Use is a conditionally allowed use in the PF-80 zone because state and local land use regulations expressly authorize the production and processing of natural gas. CCZO § 505.2 implements the state standards in OAR 660-006-0025 by identifying the resource-zone uses permitted in the PF-80 zone. Both CCZO § 505.2 and OAR 660-006-0025(4)(g) authorize “exploring, mining, and processing of subsurface resources as defined in ORS Chapter 520” in the PF-80 zone. CCZO § 505.2 (authorizing, as a conditional use, “mining and processing of ... gas”); *see also* OAR 660-006-0025(4)(g) (allowing “mining and processing of ... gas, or other subsurface resources, as defined in ORS chapter 520” including “e.g. compressors, separators, and *storage serving multiple wells*” (emphasis added)). The Project is an essential part of the “processing of subsurface resources.” As outlined in Exhibit I (Letter from Dave Weber), the Project is an integral component of the processing of gas both before it is injected and when it is withdrawn from the underground reservoir. The Project therefore clearly falls within the use category defined at CCZO § 505.2 and OAR 660-006-0025(4)(g), as the Project operates as an integral component of a natural-gas processing system.

As noted above, the County has previously reached this conclusion in multiple prior CUPs. *See* Exhibits A through C. This conclusion is also consistent with EFSC’s jurisdictional determinations in its Final Order on RFA 13 for the Mist Resiliency Project.³

2. CCZO § 1193 (A)–(B) do not apply because that standard only applies to residential development.

The Project is not subject to CCZO § 1193(A)–(B) because, by their express terms those provisions apply only to residential development and residential uses. Because the Project is not a residential use, these standards do not apply.

3. The Proposed Use will not force a significant change in or significantly increase the cost of accepted forest practices under CCZO § 508.1 and OAR 690-006-0025(5).

CCZO § 508.1 implements OAR 690-006-0025(5). As noted, the vast majority of components within the existing Mist Facility are subject to EFSC’s exclusive siting jurisdiction and have already been evaluated for external impacts through the Site Certificate and Request For Amendment process. Thus, the County’s scope of review under this criterion is extremely minimal and limited to evaluating external impacts from the “Proposed Use.” The Proposed Use is the development and operation of the proposed well pads, wells, and

³ See note 2.

related wellhead equipment to process natural gas, which constitutes the “exploring, mining, and processing of subsurface resources,” under CCZO § 505.2 and OAR 660-006-0025(4)(g).

The Proposed Use will not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agricultural or forest land for the following reasons.

First, the Proposed Use is located on forest, not agricultural land. The Project is located in an area that has long been developed and actively used for natural gas production, processing, and storage operations for decades. Throughout decades of Mist Facility operations, NW Natural’s forest management partners have raised no concerns that these uses have interfered with forest practices, contaminated groundwater or soil, or degraded air quality. Indeed, as reflected by the approval letters from Weyerhaeuser Timber Holdings, Inc. and Evenson Timberland Agency, Inc. in the record, NW Natural’s forest management partners are supportive of the Project. Natural gas operations and active forest management have coexisted without issue for years without a significant change in, or significant increase in the cost of, accepted forest practices.

Second, accepted forest practices include long-term forest management for timber and reproduction. Removal of trees and other vegetation will be strictly limited to the immediate well pads. The approximate clearance areas for the well pads include 87,120 square feet for the Newton well pad, 87,120 square feet for the Stegosaur well pad, 65,340 square feet for one of the Medicine well pads, and 21,780 square feet for the other Medicine well pad. This totals just six acres.

As noted above, broader concerns about the Mist Facility fall outside the scope of this standard. CCZO § 508.1 is not a general “significant impact” test; instead, the analysis is limited to whether the use subject to the County’s review will cause significant changes in, or significantly increase the cost of, accepted forest practices. See *Oregon Pipeline Company v. Clatsop County*, 71 Or LUBA 246 (2015). The same general land uses have operated at the Project site for decades without increasing the cost of, or forcing changes to, ongoing forest practices, and the Project will not do so now.

Even if the County has questions about impacts associated with the Mist Facility as a whole, EFSC has already evaluated those concerns during its prior reviews and approvals. EFSC’s approvals in RFA 11 and RFA 13 included a comprehensive analysis of potential fire, explosion, groundwater, and air-quality impacts and imposed appropriate mitigation.

Within the County’s limited scope of review, the record demonstrates that the Proposed Use will not force a significant change in or significantly increase the cost of accepted forest practices.

4. The Proposed Use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel.

CCZO § 508.2 implements OAR 690-006-0025(5). As with CCZO § 508.1, the County’s scope of review under this criterion is extremely minimal and limited to evaluating external impacts from the “Proposed Use”: the development and operation of the proposed well pads, wells, and related wellhead equipment to process natural gas.

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The Proposed Use will not significantly increase fire hazard, significantly increase fire suppression costs, or significantly increase risks to fire suppression personnel. The Project is located within an existing, developed natural-gas storage area that has been operating safely for decades. The Mist Facility currently includes 38 well pads, 25 injection/withdrawal wells, and 25 observation wells. The new well pads reduce fire risk by serving as a buffer between the wells and related wellhead equipment and the surrounding area. The wells themselves are designed with modern safety features that further limit potential hazards, including but not limited to Emergency Shutdown Valves (“ESD”) designed to instantly isolate the wellhead from pipelines and processing equipment during potential emergencies like fires, overpressure, or leaks.

The four Project well pads are within the Mist-Birkenfeld Rural Fire Protection District (RFPD). The Fire Chief for the Mist-Birkenfeld RFPD does not anticipate that the Project will have a significant adverse impact on their ability to provide fire protection and EMS services. See Exhibit J (Letter from Mist-Birkenfeld RFPD Chief Kaczinski). The history of safe operation of the Mist Facility, of which the Project will be a part, and this statement from the Fire Chief for the Mist-Birkenfeld RFPD demonstrate that the Proposed Use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel.

Concerns raised about hypothetical failures of the broader Mist Facility are not before the County. The relevant inquiry is the Proposed Use’s impact, *i.e.*, the Project’s plan to develop and operate, for processing natural gas, seven injection/withdrawal wells and five monitoring wells. Consideration of previously approved components of the Mist Facility, whether permitted by the County or EFSC, falls outside the scope of this review. See, *e.g.*, *Marks v. Land Conservation and Development Comm’n*, 327 Or App 708, 727–28, 536 P3d 995 (2023) (analysis of significant impacts is based on the impacts that would occur “as a result of the decision”).

To the extent the County has any concerns about fire risks associated with the broader Mist Facility, EFSC has already evaluated and required that NW Natural implement mitigation for those risks. For example, EFSC’s approval of RFA 13 analyzed seismic, wildfire, and explosion risks associated with the underground storage facility and imposed appropriate mitigation measures. See, *e.g.*, Exhibit K (Selected Excerpts from EFSC RFA 13 Final Order). We would be happy to provide additional relevant portions of EFSC’s Final Order and the Mist Facility’s Site Certificate Agreement at the County’s request.⁴

Within the County’s limited scope of review, the record demonstrates that the Proposed Use will not significantly increase fire hazards, suppression costs, or risks to fire personnel.

⁴ EFSC’s additional analysis of these issues appears in EFSC’s Final Order on Request for Amendment No. 13 (Jan. 17, 2025). That complete document is also available on the Oregon Department of Energy’s (“ODOE”) website and is hyperlinked in note 2.

5. The project complies with applicable development standards.

As explained above, the Project under the County's review is extremely limited. The Project consists of three new well pads and modification of one existing well pad, 12 new wells and associated wellhead equipment, which includes three new RTU buildings at three of the well pads. The County has previously determined on multiple occasions that well pads, wells, and associated wellhead equipment (other than RTU buildings) do not meet the County's definition of a "structure" at CCZO § 100.114. See Exhibit A at 4 ("Sections 506 and 507 are not applicable because this application does not seek to site any dwellings or structures."); Exhibit B at 4 (same).⁵ CCZO § 100.114 defines a "structure" as

"[a] building or other major improvement that is built, constructed or installed, not including minor improvements, such as fences, utility poles, flagpoles or irrigation system components, that are not customarily regulated through zoning ordinances."

The County's prior analysis is correct, because well pads, wells, and associated wellhead equipment (other than RTU buildings) are clearly not "buildings," nor are they "major improvements." Commonly understood examples of "major improvements" are buildings, towers, turbines, substations, pump stations, etc.—i.e., developed land features that have a significant, above-ground presence appropriate to regulate for setbacks, height, massing, and neighborhood impacts. Wells are mostly subsurface improvements, and well pads are flat, graded areas with minimal to no above-ground impacts. Meanwhile, wellheads and associated wellhead equipment are essentially above-ground pipes with extremely minimal above-ground impacts to the subject property or neighboring properties. See, e.g., Attachment 1 to Exhibit I, Letter from David Weber (providing representative images of wellheads and associated equipment to be constructed and operated as part of the Project).

Accordingly, well pads, wells, and associated wellhead equipment (other than RTU buildings) do not qualify as "structures" subject to any requirements of CCZO §§ 507, 509, and 510. However, to the extent the County concludes otherwise, these Project components comply with CCZO §§ 507, 509, and 510 for the reasons described below. The RTU buildings are "structures," and the RTU buildings also comply with CCZO §§ 507, 509, and 510 for the reasons explained below.

A. CCZO § 507 Siting of Dwellings and Structures (OAR 660-006-0029)

.1 All new dwellings and structures are subject to the siting standards in this section. Relevant physical and locational factors including, but not limited to, topography, prevailing winds, proximity to existing roads, access, surrounding land use and source of domestic water shall be used to identify a site which:

Response: There is no dispute that no Project components qualify as a "dwelling," as no Project components will serve as a residence for any person. See CCZO § 100.22–26 (defining related terms "Dwelling Unit,"

⁵ Exhibits D through H reflect that fences are the only other permanent development proposed under the Project, and CCZO § 100.114 expressly exempts "fences" from the definition of "structure."

“Dwelling, One-Family or Single Family,” “Dwelling, Duplex or Two-Family,” and “Dwelling, Apartment”). The following responses address the provisions of CCZO § 507, to the extent the County concludes they apply to the RTU buildings and any other Project component the County considers to be a “structure.”

A. Has the least impact on nearby or adjacent lands zoned for forest or agricultural use;

Response: This criterion implements OAR 660-006-0029(1)(a). As explained in NW Natural’s previously submitted application materials, all Project components will be developed in an area already developed with other natural gas facilities that have been permitted separately through EFSC. The total area to be disturbed by Project development and operation will be just six acres. This criterion is satisfied.

B. Ensures that forest operations and accepted farming practices on the tract will not be curtailed or impeded by locating dwellings and structures as near to each other and to existing developed areas as possible considering topography, water features, required setbacks and firebreaks;

Response: This criterion implements OAR 660-006-0029(1)(b). As explained in NW Natural’s previously submitted application materials, all Project components will be developed in an area already developed with other natural gas facilities that have been permitted separately through EFSC. The Project has been designed to minimize the total ground disturbance area to the maximum extent practicable. This criterion is satisfied.

C. Minimizes the amount of forest lands used for building sites, road access and service corridors;

Response: This criterion implements OAR 660-006-0029(1)(c). As explained in NW Natural’s previously submitted application materials, all Project components will be developed in an area already developed with other natural gas facilities that have been permitted separately through EFSC. The Project has been designed to minimize the total ground disturbance area to the maximum extent practicable. This criterion is satisfied.

D. Is consistent with the provisions of Section 510 related to Fire Siting Standards and minimizes the risk associated with wildfire; and

Response: This criterion implements OAR 660-006-0029(1)(d). As explained further in response to CCZO § 510, Section 510 applies only to new “dwellings.” No Project component qualifies as a “dwelling” and, therefore, the provisions of Section 510 do not apply. However, wildfire risks have been thoroughly evaluated, and the Project has been designed to minimize these risks, as discussed further below.

EFSC completed an extensive evaluation of wildfire risks associated with the larger Mist Facility during the RFA 13 process. See, e.g., Exhibit K at 168–86. There, EFSC concluded that NW Natural had thoroughly characterized wildfire risks associated with Mist Facility development and operations and that the Mist Facility could be safely developed and operated by implementing appropriate conditions. Those conditions imposed by EFSC require NW Natural to perform construction and operations at the Mist Facility pursuant to a Construction Wildlife Mitigation Plan and an Operational Wildfire Mitigation Plan, both reviewed and approved



by EFSC. See Exhibit L (Mist Facility's Construction Wildfire Mitigation Plan); Exhibit M (Mist Facility's Operational Wildfire Mitigation Plan).

In addition, all operations at the Mist Facility are inspected annually by the Mist-Birkenfeld RFPD to confirm fire safety. These annual inspections include a review of the Mist Facility's fire suppression equipment, emergency plans, emergency access, and on-site fire equipment. The RFPD's most recent annual inspection letter, confirming that the Mist Facility meets current fire safety access requirements, is attached. See Exhibit N (Mist-Birkenfeld RFPD 2025 Annual Inspection Letter).

E. Is consistent with other requirements contained in the Comprehensive Plan or implementing ordinances, including, but not limited to, regulations which apply to flood, steep slopes, and landslide hazard areas, development within the Willamette River Greenway, development in forested areas or development in significant resource and natural areas, such as wetland riparian and slide-prone areas.

Response: To the extent the County concludes that this criterion applies to the RTU buildings or any other Project component the County considers to be a "structure," the Project is consistent with all applicable requirements in the Comprehensive Plan and the CCZO for the reasons identified in NW Natural's application materials, the January 26, 2026 Staff Report, and this submittal. This criterion is satisfied.

.2 The applicant shall provide evidence consistent with OAR 660-006-0029(3) that domestic water supply is from a source authorized in accordance with the Department of Water Resources' administrative rules for the appropriation of ground water or surface water in OAR Chapter 690 and not from a Class II stream as defined in the Forest Practices Rule in OAR Chapter 629. If the water supply is unavailable from public sources or sources located entirely on the subject property, then the applicant shall provide evidence that a legal easement has been obtained permitting domestic water lines to cross the properties of affected owners.

Response: This criterion implements OAR 660-006-0029(3)(a)–(c). To the extent the County concludes that this criterion applies to the RTU buildings or any other Project component the County considers to be a "structure," CCZO § 507.2 and OAR 660-006-0029(3)(a)–(c), by their express terms, do not apply to the Project, because the Project will not utilize a "domestic water supply."

.3 As a condition of approval, if road access to the dwelling is by a road owned and maintained by a private party or by the Oregon Department of Forestry or the U.S. Bureau of Land management, then the applicant shall provide proof of a long-term road access use permit or agreement. The road use permit may require the applicant to agree to accept responsibility for road maintenance.

Response: This criterion implements OAR 660-006-0029(4). CCZO § 507.3 and OAR 660-006-0029(4), by their express terms, do not apply to the Project, because these criteria apply only to road access to a "dwelling." No Project components qualify as a "dwelling."



.4 Pursuant to OAR 660-006-0029(5), approval of a dwelling shall be subject to the following requirements:

- A. The owner of the tract shall plant a sufficient number of trees on the tract to demonstrate that the tract is reasonably expected to meet Department of Forestry stocking requirements at the time specified in the Department of Forestry administrative rules;*
- B. Land Development Services shall notify the Columbia County Assessor of the above condition at the time the dwelling is approved;*
- C. If the property is over 10 acres the owner shall submit a stocking survey report or a Forest Land Assessment and Stocking Compliance Application to the Columbia County Assessor and the Assessor shall verify that the minimum stocking requirements have been met by the time required by the Department of Forestry administrative rules;*
- D. Upon notification by the Assessor, the Department of Forestry shall determine whether the tract meets minimum stocking requirements of the Forest Practices Act. If the Department determines that the tract does not meet those requirements, the Department shall notify the owner and the Assessor that the land is not being managed as forest land. The Assessor shall then remove the forest land designation pursuant to ORS 321.359 and impose additional tax pursuant to ORS 321.372; and*
- E. A waiver of remonstrance shall be recorded with the County Clerk certifying that the owner will not remonstrate against or begin legal action or suit proceeding to cause or persuade the owner or operator of any farm and forest lands to modify the conduct of legal and accepted farm and forest operations*

Response: These criteria implement OAR 660-006-0029(5)(a)–(e). CCZO § 507.4.A–E and OAR 660-006-0029(5)(a)–(e), by their express terms, do not apply to the Project, because these criteria apply only to “approval of a dwelling.” No Project components qualify as a “dwelling” and, therefore, these criteria do not apply.

.5 Dwellings and other structures to be located on a parcel within designated Big Game Habitat areas pursuant to the provisions of Section 1190 are subject to the additional siting criteria contained in Section 1190.

Response: To the extent the County concludes that this criterion applies to the RTU buildings or any other Project component the County considers to be a “structure,” the siting criteria contained in CCZO § 1190 still do not apply. By their terms, the Development Siting Standards of CCZO § 1193 only apply to “new residential development and uses.” The Project does not qualify as “new residential development” or a “new residential * * * use.” Additionally, as County staff previously found in the January 26, 2026 Staff Report, staff notified ODFW of the Project on January 13, 2026, and ODFW has not responded with any concerns.

ODFW also reviewed and commented on the larger Mist Facility through the EFSC process, and any issues related to potential impacts to big game have been addressed and mitigated through that process. EFSC completed an extensive evaluation of potential habitat impacts, including big game big game habitat impacts, associated with the larger Mist Facility during the RFA 13 process.⁶ EFSC specifically addressed the Mist Facility's compliance with CCZO § 509.5 and stated:

"[ODOE] notified and coordinated with ODFW on the review of RFA13. The proposed RFA13 changes are located within the County's designated Big Game Habitat Overlay zone. However, ODFW did not have any specific comments or concerns related to the impacts of the proposed RFA13 changes within Big Game Habitat."⁷

As part of RFA 13, EFSC also reviewed and approved the Mist Facility's Habitat Mitigation Plan, which addresses big game habitat impacts and mitigation measures within the broader Mist Facility site. See Exhibit O (Mist Facility's Habitat Mitigation Plan).

A. CCZO § 509 Standards of Development

.1 The minimum average lot or parcel width and minimum average lot or parcel depth shall be 100 feet for all activities except farming or forestry.

Response: The Project will not result in the creation of any new lots or parcel and, therefore, this criterion does not apply. Additionally, as reflected on Exhibits D through H, all parcels where Project development and operations are proposed to occur satisfy minimum parcel size requirements.

.2 Access to parcels in this zone shall meet Fire Safety Design Standards for Roads in the County Road Standards and access standards found in Section 510 of the Zoning Ordinance.

Response: The Project does not include any new roads, road expansions, or new access proposal and, therefore, this criterion does not apply. Additionally, the RFPD's most recent annual inspection letter, confirming that the Mist Facility meets current fire safety access requirements, is attached. See Exhibit N, Mist-Birkenfeld RFPD 2025 Annual Inspection Letter. This criterion is satisfied.

⁶ EFSC's full analysis of potential big game habitat impacts appears in EFSC's Final Order on Request for Amendment No. 13 (Jan. 17, 2025). That complete document is also available on ODOE's website and is hyperlinked in note 2.

⁷ *Id.* at 82.



.3 There shall be no height limitation for forest operation and management- related structures unless otherwise permitted in the Primary Forest Zone. The maximum building height for all non-farm, non-forest structures shall be 50 feet or 2 ½ stories, whichever is less.

Response: To the extent the County concludes that this criterion applies to the RTU buildings or any other Project component the County considers to be a “structure,” no Project components will exceed 50 feet or 2 ½ stories. This criterion is satisfied.

.4 The standards and requirements described in Section 1300 of the Zoning Ordinance shall apply to all signs and name plates in the Primary Forest Zone.

Response: The Project does not include any proposed signage and, therefore, this criterion does not apply.

.5 The Oregon Department of Fish & Wildlife shall be notified and provided with the opportunity to comment on any development within major and peripheral Big Game Habitat.

Response: As County staff previously found in the January 26, 2026 Staff Report, staff notified ODFW of the Project on January 13, 2026 and did not receive a response. This criterion is satisfied.

.6 Setbacks:

A. There shall be a minimum setback of 50' for front, side, and rear yards for all development in the Primary Forest Zone.

Response: As demonstrated on Exhibits D through H, all development subject to the Project meets this 50-foot setback requirement. This criterion is satisfied.

B. When this Ordinance or any other ordinance requires a greater or lesser setback than is required by this subsection, the greater setback shall apply.

Response: NW Natural has not identified any ordinance requiring a special setback. This criterion does not apply.

C. All structures are subject to any special setbacks when adjacent to arterial or collector streets designated in the County Transportation Systems Plan.

Response: The Project area is not adjacent to any designated arterial or collector street. To the extent the County concludes that this criterion applies to the RTU buildings or any other Project component the County considers to be a “structure,” this criterion does not apply.



- D. No structure or use shall be established in a manner likely to cause contamination of a stream, lake or other body of water. Riparian and natural hazard setbacks set forth in Sections 1170 and 1180 of the Zoning Ordinance shall apply.*

Response: As reflected on Exhibit D (Updated Vicinity Plan), development and operation of the Project will avoid all streams, lakes, and other bodies of water. Accordingly, this criterion is satisfied.

- E. When land divisions create parcels of less than 40 acres for uses listed in Subsection 511.2A., provided those uses have been approved pursuant to this Ordinance, required building setbacks for these parcels will be determined on a case-by-case basis by the Director or the hearings body.*

Response: The Project will not result in any land division. This criterion does not apply.

- F. The owner shall provide and maintain primary fuel-free fire break and secondary fire break areas on land surrounding the dwelling and primary fuel-free break areas surrounding accessory structures in the Primary Forest Zone pursuant to the provisions in Subsections 510.2 and .3.*

Response: As explained further in response to CCZO § 510, Section 510 applies only to new “dwellings.” No Project component qualifies as a “dwelling” and, therefore, the provisions of Section 510 do not apply. Additionally, the well pads serve as fire breaks around the wells and related wellhead equipment.

.7 Approval Period for Use Permits. For all uses approved under sections 504 and 505, the approval period shall be valid for four (4) years. At a minimum, a development construction permit must be issued by the Land Development Services within the approval period. If a construction permit is not issued within the approval period, the land use permit expires. An extension of two years on the approval period may be granted by the Director if a written request is received prior to its expiration and the reason for the delay is beyond the control of the owner.

Response: In the January 6, 2026 Staff Report, staff’s recommended Condition of Approval 1 satisfies this criterion. Condition of Approval 1 is consistent with conditions of approval previously adopted by the County in CU 15-12 and 17-04. See Exhibits A & B. With staff’s recommended Condition of Approval 1, this criterion is satisfied.

B. CCZO § 510 Fire Siting Standards for Dwellings, Structures and Roads

The following fire siting standards or their equivalent shall apply to new dwellings in this zone:

.1 If a water supply is available, suitable and acceptable for fire protection by the fire protection district, such as a swimming pool, pond, stream, or lake, then road access to within 15 feet of the water’s edge shall be provided for pumping units. The road access to the dwelling and access to the on-site water supply shall accommodate the turnaround of fire fighting equipment during the fire



season. The applicant shall provide verification from the Water Resources Department that any permits or registrations required for water diversion or storage have been obtained or that permits or registrations are not required for the use. Permanent signs shall be posted along the access route to indicate the location of the emergency water source.

Response: This criterion does not apply to the Project, because this criterion applies only to “new dwellings.” No Project components qualify as a “dwelling.” However, NW Natural does maintain two fire trailers with its fire suppression water supply at the Mist Facility, and these will be available during all Project development and operations.

.2 The owner of the dwelling shall establish and maintain a primary fuel-free fire break surrounding the dwelling and accessory structure(s) no less than 30 feet wide in accordance with the provisions in "Protecting Your Home From Wildfire" published by the National Fire Protection Association. The owner may be required to increase the primary fuel-free fire break if the dwelling or structure is located on a 10% or greater slope. The primary fuel-free fire break could include a lawn, low ornamental shrubbery less than 24" in height and/or individual or groups of trees separated by a distance equal to the diameter of the crowns adjacent to each other, or 15 feet, whichever is greater. All existing tree limbs shall be pruned from the base to at least eight feet in height. Dead fuels shall also be removed.

Response: This criterion does not apply to the Project, because this criterion applies only to “new dwellings.” No Project components qualify as a “dwelling.” Additionally, the well pads serve as fire breaks around the wells and related wellhead equipment.

.3 A secondary fire break of 100 feet outside the primary fuel-free fire break, or its equivalent allowed by Columbia County Board Order No. 239-97 Firebreak Equivalents, shall also be provided and maintained for the dwelling in accordance with the provisions in "Protecting Your Home From Wildfire" published by the National Fire Protection Association. All existing trees shall be pruned from the base to at least 8 feet in height. Dead fuels shall be removed from the secondary fire break area. If the placement of the proposed dwelling cannot meet the secondary fire break due to physical constraints of the land or parcel size, the applicant may apply to obtain a secondary fire break easement from a neighbor or build the structure to a Class 1 or 2 Ignition Resistance Construction as allowed by Board Order No. 239-97, Firebreak Equivalents.

Response: This criterion does not apply to the Project, because this criterion applies only to “new dwellings.” No Project components qualify as a “dwelling.” Additionally, the well pads serve as fire breaks around the wells and related wellhead equipment.

.4 All roads in this zone, except private roads and bridges for commercial forest uses, shall be constructed so as to provide adequate access for fire fighting equipment according to the standards



provided by the local rural fire protection district, the County Road Department, or the State Department of Forestry.

Response: This criterion does not apply to the Project, because this criterion applies only to “new dwellings.” No Project components qualify as a “dwelling.” Additionally, the Project does not include any new proposed road construction. However, as discussed in response to CCZO § 507.1(D), the RFPD’s most recent annual inspection letter, confirming that the Mist Facility meets current fire safety access requirements, is attached. See Exhibit N, Mist-Birkenfeld RFPD 2025 Annual Inspection Letter.

.5 No portion of a tree or any other vegetation shall extend to within 15 feet of the outlet of a stove pipe or chimney.

Response: This criterion does not apply to the Project, because this criterion applies only to “new dwellings.” No Project components qualify as a “dwelling.” Additionally, the Project does not include any proposed stove pipe or chimney. This criterion does not apply.

.6 A dwelling shall meet all of the following requirements:

- A. The dwelling shall have a fire retardant roof;*
- B. The dwelling shall not be sited on a slope of greater than 40 percent;*
- C. If the dwelling has a chimney or chimneys, each chimney shall have a spark arrester; and*
- D. The dwelling shall be located upon a parcel within a fire protection district unless the applicant meets the criteria of subsection 510.7.*

Response: By its express terms, this criterion only applies “dwellings.” The Project does not include any proposed “dwelling.” This criterion does not apply.

.7 If the dwelling is not within a fire protection district, the applicant shall provide written documentation to the County of residential fire protection. The applicant shall provide evidence that the applicant has asked to be included within the nearest such district. If the County determines that inclusion within a fire protection district or contracting for residential fire protection is impracticable, the County and fire protection district may provide an alternative means for protecting the dwelling from fire hazards which may include a fire sprinkling system, onsite equipment and water storage or other methods that are reasonable given the site conditions.

Response: By its express terms, this criterion only applies “dwellings.” The Project does not include any proposed “dwelling.” This criterion does not apply. Additionally, the Project is located within the Mist-Birkenfeld RFPD and, for that additional reason, this criterion does not apply.

Conclusion

In short, the Project satisfies the applicable standards in the PF-80 zone. NW Natural appreciates the County's careful review of its application materials and is available to answer any questions or provide additional materials, including the EFSC Final Order and Site Certificate Agreement, should the County find them helpful. NW Natural respectfully requests approval of its application.

Sincerely,



Austin Mann
Engineering Manager – Underground Gas Storage
NW Natural

Enclosures:

Exhibit A – CU 15-12, Final Order & Staff Report
Exhibit B – CU 17-04, Final Order & Staff Report
Exhibit C – CU 2-97, Final Order & Staff Report
Exhibit D – Updated Vicinity Plan
Exhibit E – Updated Medicine Site Plan
Exhibit F – Updated Medicine OM Site Plan
Exhibit G – Updated Newton Site Plan
Exhibit H – Updated Stegosaur Site Plan
Exhibit I – Letter from David Weber
Exhibit J – Letter from Mist-Birkenfeld RFPD Chief Kaczinski
Exhibit K – Selected Excerpts from EFSC RFA 13 Final Order
Exhibit L – Mist Facility's Construction Wildfire Mitigation Plan
Exhibit M – Mist Facility's Operational Wildfire Mitigation Plan
Exhibit N – Mist-Birkenfeld RFPD 2025 Annual Inspection Letter
Exhibit O – Mist Facility's Habitat Mitigation Plan

Exhibit A – CU 15-12, Final Order & Staff Report

COLUMBIA COUNTY
LAND DEVELOPMENT SERVICES

COURTHOUSE
230 STRAND
ST. HELENS, OREGON 97051
(503)397-1501

RECEIVED

APPEAL INFORMATION for
FINAL ORDER CU 15-12

JUN 08 2015 *dj1*
STOEL RIVES LLP

Applicant: NW Natural Gas

Notice Date: 6-3-15

Appeal Body:

- ☐ **Planning Commission**, for appeal of an administrative decision; file this appeal in the Land Development Services office, ground floor, Courthouse Annex, St. Helens, OR 97051. The appeal must be filed **within 12 calendar days** of the above Notice Date, the date this notice was mailed to the applicant and to other persons entitled to notice. The appeal must be accompanied by the appropriate appeal fee.
- ☒ **Board of County Commissioners**, for appeal of this Planning Commission decision; file this appeal in the Office of the County Clerk, second floor, Courthouse Annex, St. Helens, OR 97051. The appeal must be filed **within 7 calendar days** of the above Notice Date, the date this notice was mailed to the applicant and to other persons entitled to notice. The appeal must be accompanied by the appropriate appeal fee.
- ☐ **Land Use Board of Appeals (LUBA)**, for appeal of this Planning Commission or Board of Commissioner decision. File a Notice of Appeal with the Land Use Board of Appeals; PUC Building, 550 Capitol Street NE, Salem, OR 97310. The appeal must be filed with the Land Use Board of Appeals **within 21 calendar days** of the above Notice Date, the date this notice was mailed to the applicant and to other persons entitled to notice.

Attached is the FINAL ORDER on the application listed above. This decision, or any part of it, or any condition attached to it, may be appealed to the **Appeal Body** noted above.

If a local appeal is filed, and after notice is given to those persons entitled to notice, a public hearing will be held by the Appeal Body at its earliest available regular meeting. At the hearing, all interested parties will have an opportunity to appear and be heard.

The applicant and other interested persons should contact the Planning Department after the applicable appeal period has run to determine whether an Appeal has been filed. Applicants are cautioned against beginning development if an Appeal has been filed.

PLEASE NOTE: An appeal may be filed only by persons who appeared in person or in writing before the Planning Department, the Planning Commission or the Board of County Commissioners. You have "appeared" if you supplied information or argument in favor of or opposed to the application listed above.

If any of the above is not clear, or you have questions or require additional information, please contact Glen Higgins at (503) 397-1501, or FAX to his attention at (503) 366-3902.

**BEFORE THE COLUMBIA COUNTY
PLANNING COMMISSION
ST. HELENS, OREGON**

In the Matter of the Application of Northwest)
Natural Gas Co. for a Conditional Use Permit)
to Drill Four Injection/Withdrawal Gas Wells)
in the Primary Forest PF-80 Zone)

Final Order CU 15-12

This matter came before the Columbia County Planning Commission on the application of Northwest Natural Gas Company for a Conditional Use Permit to drill four injection/withdrawal Gas Wells and one Monitoring Well on property identified by Tax Map No. 7N5W00-5000. The well sites are in the vicinity of a proposed new Adams Underground Storage Reservoir for the Mist Gas Field, north of the Bruer/Flora Underground Storage Area and northwest of the Miller Station.

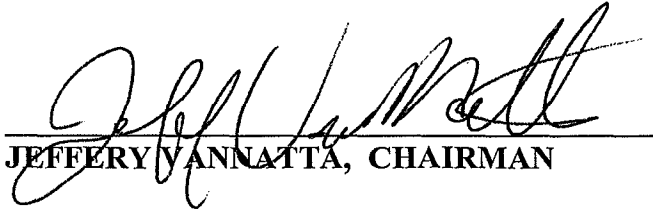
Notice of the land use application was provided to the Mist Birkenfeld CPAC, the Upper Nehalem Watershed Council, Columbia Soil & Water Conservation, ODFW, Mist-Birkenfeld Fire District, Oregon State Forestry, DOGAMI, the County Road Master and surrounding property owners. A public hearing was held on June 1, 2015 at which time the Planning Commission reviewed the application, heard the presentation from the applicant, and considered written materials including the Staff Report dated May 21, 2015.

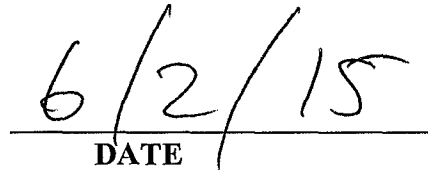
After due consideration, the Columbia County Planning Commission hereby adopts the findings, conclusions and recommendations of the Staff Report and **APPROVES** CU 15-12 with the following conditions:

Conditions of Approval:

1. This permit shall become void 4 years from the date of the final decision if well drilling has not begun on the property in substantial compliance with the conditions herein set out. Extensions of time may be granted by the Planning Director if requested in writing before the expiration date and if the applicant was not responsible for the failure to develop.
2. Prior to operations, the applicant shall obtain the proper permits from DOGAMI and the Oregon State Forestry Department.
3. This permit will not be valid unless the applicant meets fire safety requirements as determined by the Mist-Birkenfeld Rural Fire Protection District (RFPD). The applicant shall have the well site inspected by the Mist-Birkenfeld Rural Fire Protection District prior to any drilling operations, and the applicant shall notify the RFPD as to the exact date and location of drilling operations at least three days prior to the commencement of said activities. The applicant shall notify the Fire District when they have vacated the site.
4. If the completed well(s) is not or can not be used for its purpose, well site(s) shall be abandoned in accordance with DOGAMI's regulations and the well site returned to its original condition.
5. The applicant shall assume responsibility for any damages from wildlife to the gas well development and the site.

6. The applicant shall closely follow and implement the Emergency Management Plan developed with Mist-Birkenfeld Fire District and emergency responders.

COLUMBIA COUNTY PLANNING COMMISSION

JEFFERY VANNATTA, CHAIRMAN

DATE

COLUMBIA COUNTY PLANNING COMMISSION

STAFF REPORT

May 21, 2015

Conditional Use Permit - PF-80 Zone

HEARING DATE: June 1, 2015

FILE NUMBER: CU 15-10 - Natural Gas Wells

APPLICANT: Northwest Natural Gas Company
220 N W Second Avenue
Portland, OR. 97209

OWNER: Claruth Inc, Willna Inc &
Franbea Inc EA 1/3

TAX MAP NO: Township 7N, Range 5W, Tax Lot 5000 (7N5W00 5000)

LOCATION: The site is located approximately two and a half miles northwest of the Miller Station, NW
Natural Gas control/processing/distribution center; and 4 miles northeast of Birkenfeld;

REQUEST: Drilling of Four injection/withdrawal gas wells and One observation/monitoring well;

ZONING: Primary Forest (PF-80)

APPLICATION COMPLETE: April 10, 2015

150 DAY DEADLINE: September 7, 2015

APPLICABLE REVIEW CRITERIA:

<u>Columbia County Zoning Ordinance</u>	<u>Page</u>
Section 505 Conditional Uses	4
Section 508 General Review Standards	4
Section 1190 Big Game Range Overlay	6
Section 1503 Conditional Uses	7

<u>Columbia County Comprehensive Plan</u>	<u>Page</u>
Part IV Forest Lands	9
Part X Economy	9
Part XIV Public Facilities & Services	10
Part XVI Goal 5: Open Space, Scenic and Historic Areas and Natural Resources	10
Part XVIII Air, Land and Water Resources	11

BACKGROUND:

Northwest Natural Gas Company (NWN) has submitted a Conditional Use Permit application to allow for the drilling and operations of four new natural gas injection/withdrawal wells at a single pad location, and one monitoring well at a close, but different location, all within the greater Mist Gas Field area. The Mist Gas Field consists of numerous existing gas production wells in the Nehalem Valley formation and two natural gas storage areas. According to the Oregon Department of Geology and Mineral Industries (DOGAMI) the Mist Gas Field has "produced over 65 billion cubic feet of gas since its discovery in 1979." These proposed new gas wells will become a part of a new NWN Mist Underground Natural Gas Storage Facility. The current Mist Storage Facility is comprised of a couple underground storage locations: the Bruer/Flora area and the Calvin Creek area. The storage areas are used by injecting the excess flow of gas (at low demand times) into selected underground caverns or a storage reservoirs, and using the stored gas to serve customers at times of high demand, throughout their service area and intrastate. The four injection/withdrawal wells, of this application, are located over a new storage reservoir site called the Adams Storage Reservoir.

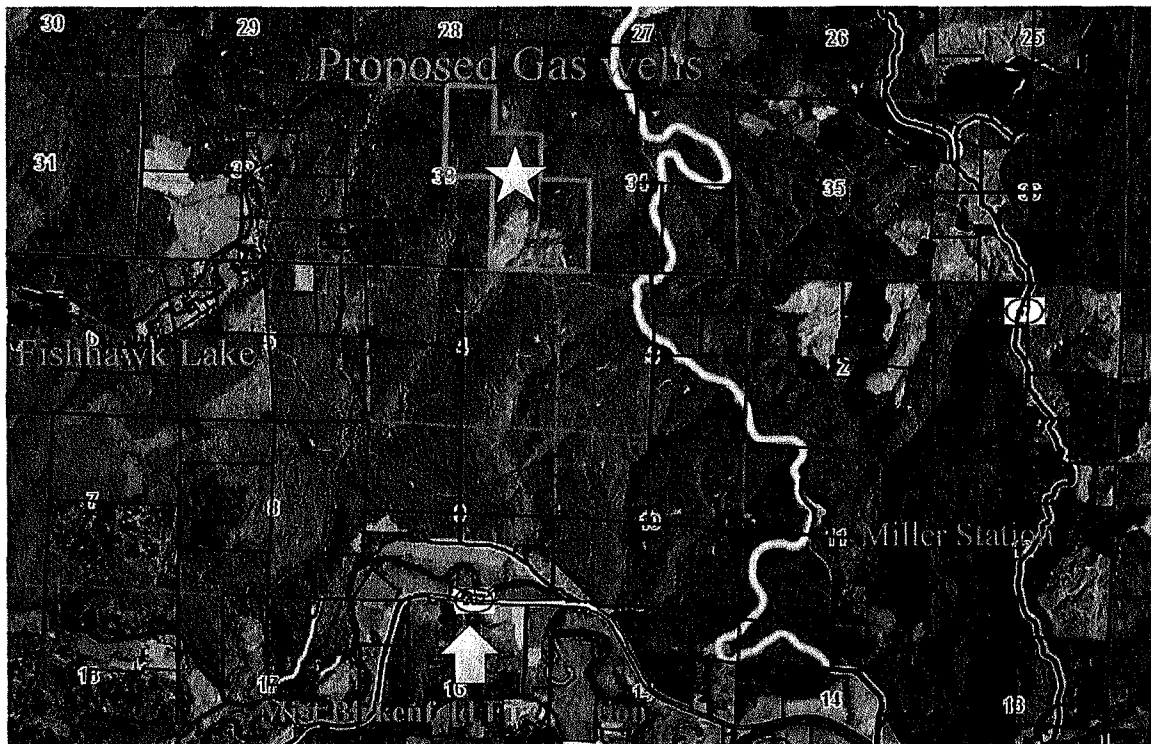
This conditional use permit (CU 15-12) is part of a larger project. NWN is seeking to expand the Mist Underground Natural Gas Storage Site Certificate (Site Certificate) boundary, by extending it to the north. The Adams Storage reservoir is the first of three the potential storage areas of this extension. The Energy Facilities Siting Council (EFSC) has the jurisdiction for permitting of this facility expansion through the Site Certificate Amendment #11. The only portion of this larger project that Columbia County Planning Commission will be reviewing is the Conditional Use Permit CU 15-12 for the drilling the four gas wells themselves. The State Department of Geology and Mineral Industries (DOGAMI) has the permitting authority for subsurface gas well drilling. The State Department of Energy (DOE) administers and provides staff for the EFSC, within the guiding law of the Code of Federal Regulation for siting of regional energy facilities. At this time by amending the Site Certificate, through Amendment #11, NWN proposes to develop the Adams reservoir as a new underground storage area, to install injection/withdrawal wells, transmission lines to and build a new compressor facility, located nearby the injection/withdrawal wells, and to construct an approximately 13 mile, up to 24", natural gas transmission pipeline between the new compressor station and Port Westward Industrial Park near Clatskanie. These overall gas facilities, the new wells, new underground storage reservoir, piping, compressor stations, transmissions lines and other related improvements are all permitted separately through EFSC. The County Board of Commissioners and the Planning Division are reviewing the application (EFSC Site Certificate Amendment #11) and will provide comments to DOE prior to June 8, 2015.

The site for these proposed gas wells, serving the proposed Adams Storage Reservoir, is located in an area that does not have any farm use parcels within miles. Adjacent properties are all large timber properties used for forest management. The area is mountainous with steep slopes, any streams in this area are very small in deep ravines near their head-waters. The drilling site is at an elevation of approximately 1200 feet above sea level. There are no floodplain or wetlands near the subject site, as per FIRM Map # 41009C0125D November 26, 2010 and National Wetlands Inventory NWI, Marshland Map. This area has little to no public facilities available, no public roads but is within the Mist-Birkenfeld Fire Protection District. The Planning Commission has reviewed other gas wells in the remote areas near Birkenfeld and has set usual conditions that have been imposed on other gas well applications. Those conditions of approval generally included obtaining a State DOGAMI drill permit and coordination activities with various state and local agencies for oversight and emergency preparedness.

Zoning Map - Columbia County Web Maps (GeoMoose, 2014)



Aerial Photo (GEOMoose, 2009)



REVIEW CRITERIA & FINDINGS:**COLUMBIA COUNTY ZONING ORDINANCE:****Section 500 PRIMARY FOREST - 80**

- 505 Conditional Uses. The following conditional uses may be allowed subject to the general review standards and process in Sections 1503 and 1603 of the Zoning Ordinance. All authorized uses and permanent structures shall also meet the applicable standards listed in Sections 506, 507, and 508 of the Zoning Ordinance and all other local, state, and federal laws pertaining to these uses.
- .2 Exploring, mining and processing of oil, gas, or other subsurface resources, as defined in ORS Chapter 520 and the mining and processing of mineral and aggregate resources as defined in ORS Chapter 517.

Finding 1: Natural gas is a subsurface resource in Columbia County. Mining, extracting and processing subsurface resources (natural gas) may be permitted in the PF-80 Zone through approval of a Conditional Use Permit by the Planning Commission, subject to Section 508 General Review Standards. Note: Sections 506 and 507 are not applicable because this application does not seek to site any dwellings or structures.

Zoning Ordinance Section 508 requires the following:

- 508 General Review Standards The Planning Director or hearings body shall determine that a use authorized by Sections 504 and 505 meets all of the following requirements:
- .1 The proposed use will not force significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands;

Finding 2: The proposed use should not increase the cost, force a change in, nor interfere with farming or forest uses on adjacent lands, if the applicant proceeds professionally and the recommended/imposed conditions are satisfied. The subject property is located in west Columbia County in the Nehalem River valley formation, in an area developed with other natural gas wells (hundreds) and gas storage projects, all of which were approved through siting permits. To the county's knowledge none of these existing gas facilities have forced significant changes in farming or forestry for nearby property owners. Despite the historic drilling of any or all of these older gas wells, dating back to 1979, forest and farm management practices adjacent to the existing sites have been and will be continued. In the Mist and Birkenfeld areas, gas well sites have become a norm and most of the farmers and loggers have grown to operate their farms or forestry with the wells on their land. There is no evidence presented that gas well use precludes the opportunity to use surrounding parcels for the primary forest purposes of the PF-80 District.

Surrounding property owners, all large timberland holding companies, were notified of this request, and non have responded with any concerns. The four injection/withdrawal wells pad and site improvements (all one drilling pad) will remove a minimal amount of land from production, 3.6 acres, at most, and the monitoring well pad will be just one acre in size. The well pad sites will be fenced and the immediate surrounding area will continue to grow trees.

The access for the new well sites will be from existing logging roads to the extent practical. A new 100 foot road will be constructed to access the proposed monitoring well site from the nearest existing logging road. The applicant has stated in the application that temporary activities associated with the drilling of the well are coordinated with landowners conducting farm or forestry activities to ensure, that from a timing standpoint, there are no conflicts with adjoining forest or farm operations. The applicant states there will be no discharge of waste into the air, water or soil, and the "proposed operations will not require the use of any hazardous or poisonous materials." The drillsite and drilling facilities are self-sustaining and temporary. Furthermore, ORS 527.722(2)(e), the Oregon Forest Practices Act, permits local governments to allow physical alterations of the land for purposes of exploration or mining. The drilling and operation of natural gas wells is, therefore, consistent with forest and farm uses and the intent and purpose set forth in the Oregon Forest Practices Act. Staff finds that the criterion is met.

Continuing with Section 508 General Review Standards

- .2 The proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel;

Finding 3: The proposed use will not significantly increase fire hazard, suppression costs or risk to firefighting personnel. The applicant shall take appropriate measures to ensure that the drilling and operating of the new gas wells will not create a fire hazard risk as various state permits require. To ensure fire safety, the Mist Birkenfeld Rural Fire Protection District (RFPD) requires the drill site supervisor to inform the fire district or its key personnel as to the date that the site will be occupied, the date that operations will commence, and the date that the drilling area has been vacated. This information must be provided for each well drilled. The purpose of this coordination is to give the fire district an opportunity to locate and inspect the site and to inspect the equipment operating on the site for fire safety. Once the inspection has been completed the fire district compiles the information into a packet to help fire district personnel know where to respond and what to expect in the case of an emergency. In the past the Assistant Fire Chief confirmed that gas drilling companies have been cooperative in supplying the requested information to the District for past well projects. Notification of start and stop drilling operations as required by the Mist Birkenfeld RFPD are addressed through the conditions of approval. Staff finds that the criterion is met subject to conditions.

Continuing with Section 508 General Review Standards

- .3 A waiver of remonstrance shall be recorded with the County Clerk certifying that the owner will not remonstrate against or begin legal action or suit proceeding to cause or persuade the owner or operator of any farm or forest lands to modify the conduct of legal and accepted farm or forest operations; and

Finding 4: The applicant, Northwest Natural Gas Company (NWN), is not the owner of the property on which the wells will be drilled. All operations conducted by NWN, however, are done so with the full agreement and participation of the effected landowner(s). Landowners are not anticipated to remonstrate against or cause legal action to modify their own forest and/or farm practices. A waiver of remonstrance is not applicable to the request as submitted. Staff finds that the criterion does not apply.

Continuing with Section 508 General Review Standards

- .4 The proposed use is consistent with requirements contained in the Comprehensive Plan or implementing ordinances, including, but not limited to, regulations which apply to flood hazard areas, development within the Willamette River Greenway, development in forested areas or development in significant resource areas, such as riparian, wetlands or slide-prone areas.

Finding 5: Columbia County's Zoning Ordinance provides land use regulations and standards to implement the goals and policies of the Comprehensive Plan. The proposal's consistency with applicable sections of the County's Zoning Ordinance are addressed through findings in this staff report. Such findings address uses permitted in the PF-80 zone, standards of development of the underlying zone, as well as standards of development relevant to overlay zones such as flood hazard areas, riparian corridors, and big game habitat. There are no flood hazards or riparian corridors with the area of the proposed gas wells. The well sites are roughly at 1200 feet elevation on ridges and hills well above any small drainage ways in this mountainous area. As such, as long as the proposal is found to comply with all applicable sections of the Zoning Ordinance, it will also comply with the requirements of the Comprehensive Plan. Consistency with the Comprehensive Plan is discussed in Findings 13-17 of this Staff Report. Staff finds that the criterion is met subject to conditions.

Continuing with Sections of the Columbia County Zoning Ordinance

Zoning Ordinance Section 1190 requires the following:

Section 1190 BIG GAME RANGE OVERLAY

1193 Development Standards:

All new development located in Major and Peripheral Big Game Habitat shall implement the following siting standards:

- .1 Dwellings and structures shall be located as near each other and existing developed areas as possible considering topography, water features, required setbacks and firebreaks.
- .2 Dwellings and structures shall be located to avoid habitat conflicts and utilize least valuable habitat areas.
- .3 Road development shall be minimized to that which is necessary to support the proposed use and the applicant shall utilize existing roads as much as possible.
- .4 The owner/occupant of the resource parcel shall assume responsibility for protection from damage by wildlife.

Finding 6: The project site is within a Major Big Game Habitat Area as shown on the *Clatskanie-Quincy BEAK, Wildlife Game Habitat Map*. According to the applicant, no dwellings or permanent structures will be constructed, and very minimal road building will occur. Existing logging roads will be used for access to the extent practical.

One new short road will be built to access the new monitoring well site. During operations of the Adams Storage Reservoir only limited access by NWN staff will be needed. The well sites will be fenced for security and to protect big game from possible injury from the piping and equipment used in transferring gas to the constructed pipelines. The applicant is proposing to locate these new wells in the existing Mist Gas Field, an area already committed natural gas production and numerous gas wells. Initial drilling and set up of the wells may temporarily disrupt big game activities, but should not result in any long-term impacts to the big game range and/or big game behavior. Once in place, impacts to habitat from the well and gas recovery system will be minimal. The overall area proposed for these new gas wells have been used for natural gas exploration, storage and extraction for almost 30 years and is among other gas producing wells. Impacts to the area from an additional natural gas wells and facilities will be minimal. The applicant shall assume responsibility for any damages to the site from wildlife. Staff finds that the criterion is met.

Continuing with Section 1190 Big Game Development Standards

- .6 Columbia County shall notify the Oregon Department of Fish and Wildlife (ODFW) of all proposed uses or activities located within the Big Game Range Habitat. The County will consider the comments and recommendations of ODFW before making a decision concerning the requested use or activity.

Finding 7: The subject property is located within an area of Major Big Game Range Habitat as designated on the Wildlife Maps for the Clatskanie-Quincy area. The County notified the Oregon Department of Fish and Wildlife (ODFW) of the proposed request and received as response of "no comments at this time." The applicant shall be required, however, to coordinate with the Oregon Department of Fish and Wildlife in conjunction with the State DOGAMI permitting of said wells as a Condition of Final Approval. Staff finds that the criterion is met subject to conditions.

Zoning Ordinance Section 1500, Discretionary Permits, requires the following:

"1503 Conditional Uses:

- .5 **Granting a Permit:** The Commission may grant a Conditional Use Permit after conducting a public hearing, provided the applicant provides evidence substantiating that all the requirements of this ordinance relative to the proposed use are satisfied and demonstrates the proposed use also satisfies the following criteria:

A. The use is listed as a Conditional Use in the zone which is currently applied to the site;"

Finding 8: "Exploring, mining and processing of oil, gas, or other subsurface resources..." are a Conditional Use in the PF-80 zone under Section 505.2 of Columbia County's Zoning Ordinance (See Finding 1). Gas well drilling and extraction of gas is considered a conditional use in this zone. Staff finds that the criterion is met.

Continuing with Zoning Ordinance Section 1503.5

"B. The use meets the specific criteria established in the underlying zone:"

Finding 9: Compliance with the criteria of the PF-80 Zone is discussed in Findings 1 through 5 of this report. Staff finds that the criterion is met.

Continuing with Zoning Ordinance Section 1503.5

"C. The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements, and natural features;"

Finding 10: The drilling activity will be in the area generally known as the Mist Gas Field where there are other gas production wells, well heads and gas storage projects. Most properties located within this area are used for resource use (commercial timber management, small farms, natural gas storage and extraction, etc...) and are not developed to any extent with residential uses. The proposed drilling site provided by the applicant for the location of the gas wells are located in an area that appears remote and relatively secluded from human activity. The applicant states, "The site characteristics are suitable for the proposed use. Gas well drilling has been conducted in the area for many years. Drilling activities will not permanently affect any topographic feature, improvement or other natural feature." As discussed previously in this report, the proposed gas well sites are in a remote mountainous area between the Nehalem River and Columbia River valleys. There are no streams, riparian areas or floodplains within miles of the proposed well sites. The existing natural features, existing uses, and the remote nature of this part of the County make this site suitable for the proposed gas well use. Staff finds that the criterion is met.

Continuing with Zoning Ordinance Section 1503.5

"D. The site and proposed development is timely, considering the adequacy of transportation systems, public facilities, and services existing or planned for the area affected by the use."

Finding 11: The proposed activity will not require new public facilities or services. Existing County roads and/or State Highway will be used for access into the Mist-Birkenfeld area. Existing private logging roads will be used to access the new drill sites. Where public roads are used, the small number of vehicle trips associated with the use will not place an inappropriate burden on the roadways. Water will be provided by and sewage disposed of by the applicant. According to the applicant, "Water for this project will be contracted for and trucked to location from outside the drilling area...Portable chemical toilets will be utilized for sewage handling..." The proposed natural gas operations will not require improvements to existing transportation or public facilities and services in the area. Staff finds that the criterion is met.

Continuing with Zoning Ordinance Section 1503.5

"E. The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs, or precludes the use of surrounding properties for the primary

uses listed in the underlying district;"

Finding 12: The PF-80 zoning district allows a number of uses, with primary uses (uses permitted outright) focused on the propagation, harvesting and management of forest and farm products and uses associated with soil, air and water conservation and fish and wildlife management. Other uses are allowed subject to administrative review, including single family dwellings and fire stations. Specific uses permitted in the PF-80 zone are outlined in Chapter 215 of Oregon Revised Statutes (ORS) and in Sections 503, 504 and 505 of Columbia County's Zoning Ordinance. The proposed gas wells would not seem to alter the character of the overall west county natural gas field area. Huge investments have been made for the extraction of this energy source, and property use is already developed for natural gas production and storage activities. Forestry, farming and natural gas operations have existed (together) in this area for many years. Staff finds that this criterion is met.

Continuing with Zoning Ordinance Section 1503.5

"F. The proposal satisfies the goals and policies of the Comprehensive Plan which apply to the proposed use;"

COLUMBIA COUNTY COMPREHENSIVE PLAN:

PART IV FOREST LANDS

GOAL: To conserve forest lands for forest uses.

Finding 13: This application conserves forest lands for forest uses because it uses an existing/designated area that is already approved for resource drilling and subsurface natural gas storage. Furthermore, the proposed use deals with a subsurface resource and will have little impact on above ground forest resources. The operation will not result in the withdrawal of forest lands or forest uses on a permanent basis. Upon retirement of the Mist Gas Field, the small areas of above ground improvements will be removed and the well sites returned to timber production. Staff finds that this plan goal is met.

Continuing with the Columbia County Comprehensive Plan

PART X ECONOMY

GOALS:

1. To strengthen and diversify the economy of Columbia County and insure stable economic growth.
2. To utilize Columbia County's natural resources and advantages for expanding and diversifying the economic base.

POLICIES: It shall be a policy of the County to:

7. Protect identified aggregate resources until they are extracted, and plan for the reclamation and future productive uses of those sites.

Finding 14: According to DOGAMI, the Mist Gas Field has been of significant economic importance to the County, producing over 65 billion cubic feet of gas since its discovery in 1979, with a value of about \$125 million. (Not updated figures) Currently, there are multiple gas producing wells and two underground natural gas storage projects in the Mist Gas Field. Northwest Natural Gas delivers energy to more than 650,000 customers from the gas reservoirs and storage projects located in the area. The continuing expansion of natural gas extraction in the County creates jobs and provides energy to the region. Additionally, a percentage of the income generated through production of a natural gas well is returned to the owner of the mineral rights. New natural gas wells in this area will satisfy the goals and policies of Part X (Economy) of the Comprehensive Plan by using a natural resource to expand and diversify the County's economic base. Staff finds that this plan policy is met.

Continuing with the Columbia County Comprehensive Plan

PART XIV PUBLIC FACILITIES AND SERVICES

GOAL:

To plan and develop a timely, orderly, and efficient arrangement of public services as a framework for urban and rural development.

Finding 15: Only minimal use of public facilities will be necessary to accommodate drill equipment and infrastructure improvements. With the exception of travel on county roadways and state highways to and from the well sites, drilling and production operations associated with the proposed gas wells will not require the use of public facilities and/or services. Staff finds that this plan policy is met.

Continuing with the Columbia County Comprehensive Plan

PART XVI GOAL 5: OPEN SPACE, SCENIC AND HISTORIC AREAS, AND NATURAL RESOURCES

ENERGY SOURCES

GOAL:

To protect deposits of energy materials in the County and prevent injury to surrounding lands and residents.

POLICIES: It is the policy of the County to:

1. Rely on ODOGAMI to require that wells are drilled, cased, and plugged in such a manner as to ensure public safety.
2. Coordinate with ODOGAMI to conduct a comprehensive inventory of energy sources in the County, including those oil and coal deposits determined as (1B). Upon completion of this study, the County shall complete the Goal 5 process for newfound resources, and up-date zoning and other implementary ordinances to accommodate them.

Finding 16: The proposed activities are subject to the conditional use criteria outlined in Columbia County's Zoning Ordinance and to the regulations of DOGAMI. The Oil, Gas and Geothermal Regulatory and Reclamation Program at DOGAMI regulates activities associated with oil and gas operations to ensure that these activities are done in a manner which ensures "conservation of the resource, protects the environment including groundwater resources, and allocates revenue from production among owners of mineral rights in an equitable manner." Protection of energy materials and prevention of injury to surrounding lands and residents are handled through required permits conforming to federal, state and local regulations. Staff finds that these plan policies are met subject to conditions.

Continuing with the Columbia County Comprehensive Plan

PART XVIII AIR, LAND, AND WATER RESOURCES

GOAL:

To maintain and improve land resources and the quality of the air and water of the County.

Finding 17: Columbia County's Comprehensive Plan identifies the potential for environmental consequences, including disruption of sensitive ecosystems by land disturbance and water source pollution, from gas well drilling. The proposed gas wells are not in the immediate vicinity of sensitive and protected water resources, as mentioned earlier in Finding 5. As far as air quality, it does not appear from evidence submitted that the proposed gas well drilling or production will impact air quality. The only possible impact to air quality could be a remote possibility of a gas well head explosion and fire. The applicant in conjunction with the Fire district has an emergency plan in place for such an occurrence. Generally, the County minimizes and/or prevents such impacts by relying on federal and state agency's safety standards, specifically DOGAMI, to require compliance with gas drilling regulations and through this conditional use permit process. Approval of this application and the resulting exploration activities will have little to no effect on air and water quality if regulatory permit conditions are met, and will result in no permanent surface damage. The applicant has stated that at which point natural gas production ceases, the wells will be abandoned and the site returned to its original state. Staff finds that this plan goal is met with conditions.

Continuing with Zoning Ordinance Section 1503.5

"G. The proposal will not create any hazardous conditions."

Finding 18: The proposed drilling and operation activities will not be hazardous if precautions are taken in accordance with regulations set forth by the Oregon State Forestry Department, DOGAMI, the Mist Birkenfeld Rural Fire Protection District and recommendations set forth by the Oregon Department of Fish and Wildlife. According to the applicant, the proposed operations will not require the use of any hazardous or poisonous materials; in addition, the operations will not create undue hazardous conditions and will be governed by and conducted under the oversight and control of the aforementioned agencies.

The location will be graded and rocked to control and/or prevent any drainage or soil erosion. A mud pit conforming to DOGAMI specifications will be constructed and adequately lined as part of a 'closed' mud system which adequately controls any water/fluids utilized and or produced during drilling. No toxic chemicals are used in the drilling fluids and any additives are food grade and non-toxic. All materials brought to the surface during drilling are non-toxic and will have no effect on the environment. Operations will have no effect on any streams or wetlands or their riparian zones within proximity to the drillsite. When the well construction is complete the drilling rig will be moved off the site, the drilling fluid will be disposed of and/or treated in accordance to DEQ guidelines.

Finally, the applicant states that regular visits by operations personnel will be made to the site to ensure that all operations are running safely and efficiently. Staff finds that the criterion is met subject to conditions.

Continuing with Zoning Ordinance Section 1503.6:

- "6 Design Review: The Commission may require the Conditional Use be subject to a site design review by the Planning Commission."

Finding 19: Staff does not recommend a Site Design Review.

COMMENTS:

Mist Birkenfeld CPAC: No Comment received.

Mist-Birkenfeld Rural Fire Protection District: Letter submitted April 27, 2015, See Attached Letter. "...there will be no significant adverse impacts of construction and operation of the North Mist Expansion Project on the ability of the Mist-Birkenfeld RFPD to provide fire and EMS services."

Oregon State Forestry: Date received April 20, 2015; We have reviewed the application and have no objection to its approval.

Soil and Water Conservation District: Date received April 22, 2015; We have reviewed the application and have no objection to its approval.

Upper Nehalem Watershed Council: No Comment

Oregon Department of Fish and Wildlife: Date received April 27, 2015; We have no comments at this time.

DOGAMI: No Comment

County Roadmaster: Date received April 28, 2015; No Objection to its approval.

County Counsel: No Comment

Building Official: No Comment

Notified Property Owners: No Comment received.

No other comments have been received from government agencies or nearby property owners as of the date of the initial hearing of this staff report (May 21, 2015).

CONCLUSION AND RECOMMENDATION:

Based on the above findings, staff recommends **APPROVAL** this request for a natural gas wells (CU 15-01) with the following conditions:

1. This permit shall become void 4 years from the date of the final decision if well drilling has not begun on the property in substantial compliance with the conditions herein set out. Extensions of time may be granted by the Planning Director if requested in writing before the expiration date and if the applicant was not responsible for the failure to develop.
2. Prior to operations, the applicant shall obtain the proper permits from DOGAMI and the Oregon State Forestry Department.
3. This permit will not be valid unless the applicant meets fire safety requirements as determined by the Mist-Birkenfeld Rural Fire Protection District (RFPD). The applicant shall have the well site inspected by the Mist-Birkenfeld Rural Fire Protection District prior to any drilling operations, and the applicant shall notify the RFPD as to the exact date and location of drilling operations at least three days prior to the commencement of said activities. The applicant shall notify the Fire District when they have vacated the site.
4. If the completed well(s) is not or can not be used for its purpose, well site(s) shall be abandoned in accordance with DOGAMI's regulations and the well site returned to its original condition.
5. The applicant shall assume responsibility for any damages from wildlife to the gas well development and the site.
6. The applicant shall closely follow and implement the Emergency Management Plan developed with Mist-Birkenfeld Fire District and emergency responders.

Attachments

Application
Maps (as submitted by the applicant)
Zoning Map
Vicinity Map
Mist Gas Field Map

Exhibit B – CU 17-04, Final Order & Staff Report

COLUMBIA COUNTY
LAND DEVELOPMENT SERVICES

COURTHOUSE
230 STRAND
ST. HELENS, OREGON 97051
(503)397-1501

**APPEAL INFORMATION for
FINAL ORDER CU 17-04**

Applicant: Northwest Natural Gas Co.

Notice Date: 1/20/17

Appeal Body:

- ☐ **Planning Commission**, for appeal of an administrative decision; file this appeal in the Land Development Services office, ground floor, Courthouse Annex, St. Helens, OR 97051. The appeal must be filed **within 12 calendar days** of the above Notice Date, the date this notice was mailed to the applicant and to other persons entitled to notice. The appeal must be accompanied by the appropriate appeal fee.
- ☒ **Board of County Commissioners**, for appeal of this Planning Commission decision; file this appeal in the Office of the County Clerk, second floor, Courthouse Annex, St. Helens, OR 97051. The appeal must be filed **within 7 calendar days** of the above Notice Date, the date this notice was mailed to the applicant and to other persons entitled to notice. The appeal must be accompanied by the appropriate appeal fee.
- ☐ **Land Use Board of Appeals (LUBA)**, for appeal of this Planning Commission or Board of Commissioner decision. File a Notice of Appeal with the Land Use Board of Appeals; PUC Building, 550 Capitol Street NE, Salem, OR 97310. The appeal must be filed with the Land Use Board of Appeals **within 21 calendar days** of the above Notice Date, the date this notice was mailed to the applicant and to other persons entitled to notice.

Attached is the FINAL ORDER on the application listed above. This decision, or any part of it, or any condition attached to it, may be appealed to the **Appeal Body** noted above.

If a local appeal is filed, and after notice is given to those persons entitled to notice, a public hearing will be held by the Appeal Body at its earliest available regular meeting. At the hearing, all interested parties will have an opportunity to appear and be heard.

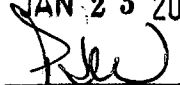
The applicant and other interested persons should contact the Planning Department after the applicable appeal period has run to determine whether an Appeal has been filed. Applicants are cautioned against beginning development if an Appeal has been filed.

PLEASE NOTE: An appeal may be filed only by persons who appeared in person or in writing before the Planning Department, the Planning Commission or the Board of County Commissioners. You have "appeared" if you supplied information or argument in favor of or opposed to the application listed above.

If any of the above is not clear, or you have questions or require additional information, please contact Glen Higgins at (503) 397-1501, or FAX to his attention at (503) 366-3902.

RECEIVED
STOEL RIVES LLP

JAN 23 2017

BY 

**BEFORE THE COLUMBIA COUNTY
PLANNING COMMISSION
ST. HELENS, OREGON**

In the Matter of the Application of Northwest)
Natural Gas Co. for a Conditional Use Permit)
to Convert an Old Gas Well to a Monitoring)
Well for Adams Storage Reservoir)

Final Order CU 17-04

This matter came before the Columbia County Planning Commission on the application of Northwest Natural Gas Company for a Conditional Use Permit to convert an old production gas well into an observation/monitoring well on property identified by Tax Map No.7N5W00-5000. The well site is in the vicinity of the new Adams Underground Storage Reservoir for the Mist Gas Field, northwest of the Miller Station.

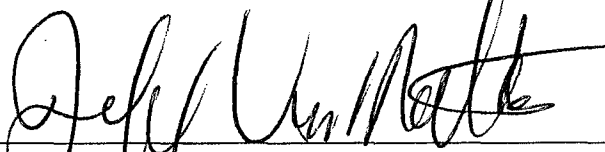
Notice of the land use application was provided to the Mist Birkenfeld CPAC, the Upper Nehalem Watershed Council, Columbia Soil & Water Conservation, ODFW, Mist-Birkenfeld Fire District, Oregon State Forestry, DOGAMI, the County Road Master and surrounding property owners. A public hearing was held on January 9, 2017 at which time the Planning Commission reviewed the application, heard the presentation from the applicant, and considered written materials including the Staff Report dated December 29, 2016.

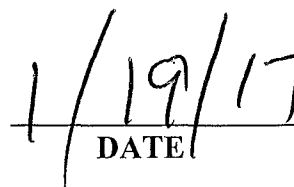
After due consideration, the Columbia County Planning Commission hereby adopts the findings, conclusions and recommendations of the Staff Report and **APPROVES** CU 17-04 with the following conditions:

Conditions of Approval:

1. This permit shall become void 4 years from the date of the final decision if well monitoring has not begun on the property in substantial compliance with the conditions herein set out. Extensions of time may be granted by the Planning Director if requested in writing before the expiration date and if the applicant was not responsible for the failure to develop.
2. Prior to operations, the applicant shall obtain the proper permits from DOGAMI and the Oregon State Forestry Department.
3. The applicant shall assume responsibility for any damages from wildlife to the gas well development, equipment and the site.
4. The applicant shall closely follow and implement the Emergency Management Plan developed with Mist-Birkenfeld Fire District, State Forestry Department and emergency responders.

COLUMBIA COUNTY PLANNING COMMISSION


JEFFERY VANNATTA, CHAIRMAN


DATE

COLUMBIA COUNTY PLANNING COMMISSION

STAFF REPORT

December 29, 2016

Conditional Use Permit - PF-80 Zone

HEARING DATE: January 9, 2017**FILE NUMBER:** CU 17-04 - Gas Well, Monitoring**APPLICANT:** Northwest Natural Gas Company
220 N W Second Avenue
Portland, OR. 97209**OWNER:** Claruth Inc, Willna Inc &
Franbea Inc EA 1/3**TAX MAP NO:** Township 7N, Range 5W, Tax Lot 5000 (7N5W00 5000)**LOCATION:** The site is located approximately two and a half miles northwest of the Miller Station; and
4 miles northeast of Birkenfeld;**REQUEST:** Conversion of an old production gas well into an observation/monitoring well; this old
well has no land use permit of record;**ZONING:** Primary Forest (PF-80)**APPLICATION COMPLETE:** November 30, 2016 **150 DAY DEADLINE:** April 29, 2017**APPLICABLE REVIEW CRITERIA:****Columbia County Zoning Ordinance**

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BACKGROUND:

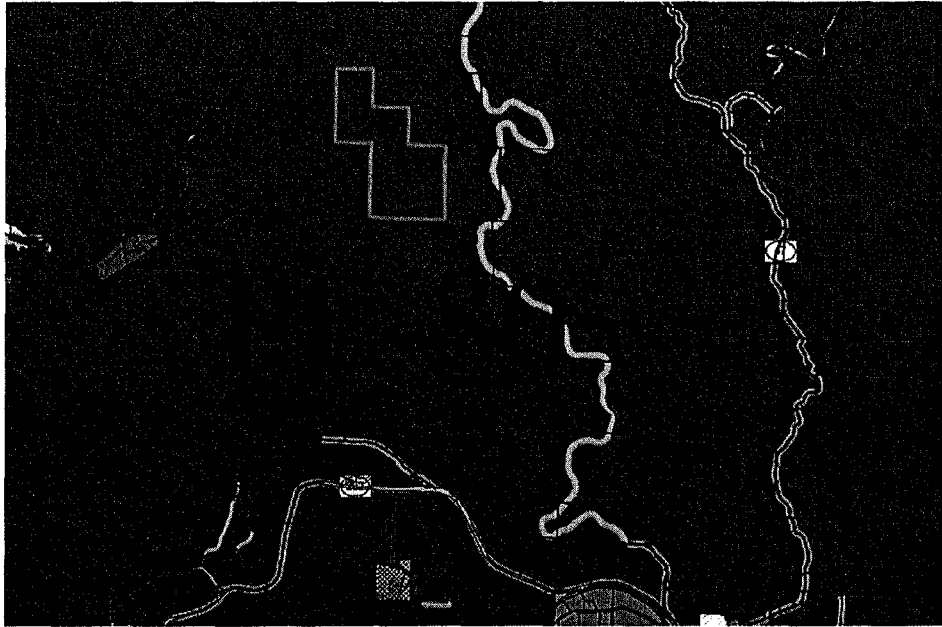
Northwest Natural Gas Company (NWN) has submitted a Conditional Use Permit application to convert an old depleted and unused production well into an observation/monitoring well for a new Mist Underground Natural Gas Storage area. NWN determined that this old well was drilled sometime around 1982. This predates the adoption of Columbia County Zoning and Conditional Use Permits for such uses. Having no land use authorization, NWN is applying for a Conditional Use permit to ensure consistency in land use planning for all gas wells they plan to use in conjunction with the new underground storage facility. The overall Mist Gas Field consists of numerous existing gas production wells in the Nehalem Valley formation and two existing natural gas storage areas. NWN is in the process of developing a third underground storage area to the north of Miller Station. The proposed use of this well will monitor static reservoir pressure in the new Mist Underground Natural Gas Storage Facility. The current Mist Storage Facility is comprised of a couple underground storage locations: the Bruer/Flora area and the Calvin Creek area. The storage areas are used by injecting the excess flow of gas (at low demand times) into selected underground caverns or a storage reservoir, and using the stored gas to serve customers at times of high demand, throughout their service area and intrastate. This application for a monitoring well is located over a new storage reservoir site called the Adams Storage Reservoir.

This conditional use permit and others already heard by the Commission (CU 15-12) are part of a larger project. NWN is getting necessary permitting for expanding the Mist Underground Natural Gas Storage Site Certificate (Site Certificate) boundary, by extending it to the north. The Energy Facilities Siting Council (EFSC) has the jurisdiction for permitting of this facility expansion through the Site Certificate Amendment #11, which was approved. The only portion of this larger project that Columbia County Planning Commission will be reviewing is the conditional use permits for the gas wells involved in the storage facility. The State Department of Geology and Mineral Industries (DOGAMI) has the permitting authority for subsurface gas well drilling. The State Department of Energy (DOE) administers and provides staff for the EFSC, within the guiding law of the Code of Federal Regulation for siting of regional energy facilities. EFSC approved the Site Certificate Amendment #11. NWN is now developing this new Adams Storage Reservoir as an underground storage area by installing injection/withdrawal wells, transmission lines and building a new compressor facility, located nearby the injection/withdrawal wells, and constructing approximately 13 miles of 24" transmission pipeline between the new compressor station and Port Westward Industrial Park near Clatskanie. These overall natural gas storage facilities and the infrastructure for its use and other related improvements are all reviewed and approved separately through EFSC. The County Board of Commissioners and the Planning Division reviewed the application (EFSC Site Certificate Amendment #11) and provided comments to DOE in their fact finding process.

The site of this existing well for proposed gas pressure monitoring, serving the proposed Adams Storage Reservoir, is located in an area that does not have any farm use parcels within miles. Adjacent properties are all large timber properties used for forest management. The area is mountainous with steep slopes, any streams in this area are very small in deep ravines near their head-waters. There are no floodplain or wetlands near the subject site, as per FIRM Map # 41009C0125D dated November 26, 2010 and National Wetlands Inventory NWI, Marshland Map. This area has little to no public facilities available, no public roads, but is within the Mist-Birkenfeld Fire Protection District. The Planning Commission has reviewed other gas wells in the remote areas near Birkenfeld and has set usual conditions that have been imposed on other gas well applications. Those conditions of approval generally included obtaining a State DOGAMI drill permit and

coordination activities with various state and local agencies for oversight and emergency preparedness.

Zoning Map - Columbia County Web Maps (GeoMoose, 2014)



Aerial Photo (GEOMoose, 2009)



REVIEW CRITERIA & FINDINGS:**COLUMBIA COUNTY ZONING ORDINANCE:****Section 500 PRIMARY FOREST - 80**

505 Conditional Uses. The following conditional uses may be allowed subject to the general review standards and process in Sections 1503 and 1603 of the Zoning Ordinance. All authorized uses and permanent structures shall also meet the applicable standards listed in Sections 506, 507, and 508 of the Zoning Ordinance and all other local, state, and federal laws pertaining to these uses.

- .2 Exploring, mining and processing of oil, gas, or other subsurface resources, as defined in ORS Chapter 520 and the mining and processing of mineral and aggregate resources as defined in ORS Chapter 517.

Finding 1: Natural gas is a subsurface resource in Columbia County. Mining, extracting and processing subsurface resources (natural gas) may be permitted in the PF-80 Zone through approval of a Conditional Use Permit by the Planning Commission, subject to Section 508 General Review Standards. Note: Sections 506 and 507 are not applicable because this application does not seek to site any dwellings or structures.

As a matter of explanation, the subject gas well and its drilling pad are existing. The application refers to it as a production well No. 13-34-75, probably drilled in 1982. Columbia County has no permit or record for the well. Assuming that DOGAMI or other state agency, at the time, issued a permit for its drilling, we could deduct that the well is probably a legal non-conforming use under our Zoning Ordinance. NWN is not asking the County to make a non-conforming use determination; instead, the applicant is seeking a conditional use approval for this well to ensure consistency with land use standards with all its facilities. In terms of the larger project, although the gas storage, gas pump station and gas transport through pipelines are all part of processing and subject to conditional use, the Energy Facility Siting Council (EFSC) took jurisdiction of this energy facility because of its domain and interstate use. (See background section)

Zoning Ordinance Section 508 requires the following:

508 General Review Standards The Planning Director or hearings body shall determine that a use authorized by Sections 504 and 505 meets all of the following requirements:

- .1 The proposed use will not force significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands;

Finding 2: The proposed use to convert an exhausted gas well into a monitoring well should not increase the cost, force a change in, nor interfere with farming or forest uses on adjacent lands, if the applicant proceeds professionally and the recommended/imposed conditions are satisfied. The subject property is located in west Columbia County in the Nehalem River valley formation, in an area developed with other natural gas wells (hundreds) and gas storage projects. To the county's knowledge none of these existing gas facilities have forced significant changes in farming or forestry for nearby property owners. Despite the historic drilling of any or all of these older gas wells, dating back to 1979, forest and farm management practices adjacent to the existing sites have been and will be continued. In the Mist and Birkenfeld areas, gas well sites have become a norm and most of the

farmers and loggers have grown to operate their farms or forestry with the wells on their land. There is no evidence presented that gas well use precludes the opportunity to use surrounding parcels for the primary forest purposes of the PF-80 District.

Surrounding property owners, all large timberland holding companies, were notified of this request, and none have responded with any concerns. The existing well to be converted to a monitoring well is already constructed and the existing well pad is rocked. Access to the 0.18 acre well site is from an existing logging road. The applicant has stated in the application that temporary construction activities associated with the converting the well to a monitoring device will be coordinated with neighboring landowners to ensure, that from a timing standpoint, there are no conflicts with adjoining forest or farm operations. The applicant states there will be no discharge of waste into the air, water or soil, and the "proposed operations will not require the use of any hazardous or poisonous materials." The old site and monitoring facilities are self-sustaining and temporary. Furthermore, ORS 527.722(2)(e), the Oregon Forest Practices Act, permits local governments to allow physical alterations of the land for purposes of exploration or mining. The operation of a natural gas well for monitoring of the Adams Underground Storage Facility is, therefore, consistent with forest and farm uses and the intent and purpose set forth in the Oregon Forest Practices Act. Staff finds that the criterion is met.

Continuing with Section 508 General Review Standards

- .2 The proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel;

Finding 3: The proposed use will not significantly increase fire hazard, suppression costs or risk to firefighting personnel. The applicant shall take appropriate measures to ensure that the conversion and operating of the new monitoring well will not create a fire hazard risk as various state permits require. To ensure fire safety, the applicant has a good working relationship with the Mist Birkenfeld Rural Fire Protection District (RFPD); as per agreement, the applicant informs the fire district or its key personnel as to the date that the site will be occupied, the date that operations will commence, and the date that the site has been vacated. The purpose of this coordination is to give the fire district an opportunity to locate and inspect the site and to inspect the equipment operating on the site for fire safety. Once the inspection has been completed the fire district compiles the information into a packet to help fire district personnel know where to respond and what to expect in the case of an emergency. In the past the Assistant Fire Chief confirmed that gas drilling companies have been cooperative in supplying the requested information to the District for past well projects. Notification of start and stop of equipment installation and operations as required by the Mist Birkenfeld RFPD are addressed through the conditions of approval. Staff finds that the criterion is met subject to conditions.

Continuing with Section 508 General Review Standards

- .3 A waiver of remonstrance shall be recorded with the County Clerk certifying that the owner will not remonstrate against or begin legal action or suit proceeding to cause or persuade the owner or operator of any farm or forest lands to modify the conduct of legal and accepted farm or forest operations; and

Finding 4: The applicant, Northwest Natural Gas Company (NWN), is not the owner of the property on which

the well is located. All operations conducted by NWN, however, are done so with the full agreement and participation of the effected landowner(s). Landowners are not anticipated to remonstrate against or cause legal action to modify their own forest and/or farm practices. A waiver of remonstrance is not applicable to the request as submitted. Staff finds that the criterion does not apply.

Continuing with Section 508 General Review Standards

- .4 The proposed use is consistent with requirements contained in the Comprehensive Plan or implementing ordinances, including, but not limited to, regulations which apply to flood hazard areas, development within the Willamette River Greenway, development in forested areas or development in significant resource areas, such as riparian, wetlands or slide-prone areas.

Finding 5: Columbia County's Zoning Ordinance provides land use regulations and standards to implement the goals and policies of the Comprehensive Plan. The proposal's consistency with applicable sections of the County's Zoning Ordinance are addressed through findings in this staff report. Such findings address uses permitted in the PF-80 zone, standards of development of the underlying zone, as well as standards of development relevant to overlay zones such as flood hazard areas, riparian corridors, and big game habitat. There are no flood hazards or riparian corridors with the area of the proposed monitoring well. The well site is roughly at 1200 feet elevation on ridges and hills well above any small drainage ways in this mountainous area. As such, as long as the proposal is found to comply with all applicable sections of the Zoning Ordinance, it will also comply with the requirements of the Comprehensive Plan. Consistency with the Comprehensive Plan is discussed in Findings 13-17 of this Staff Report. Staff finds that the criterion is met subject to conditions.

Continuing with Sections of the Columbia County Zoning Ordinance

Zoning Ordinance Section 1190 requires the following:

Section 1190 BIG GAME RANGE OVERLAY

1193 Development Standards:

All new development located in Major and Peripheral Big Game Habitat shall implement the following siting standards:

- .1 Dwellings and structures shall be located as near each other and existing developed areas as possible considering topography, water features, required setbacks and firebreaks.
- .2 Dwellings and structures shall be located to avoid habitat conflicts and utilize least valuable habitat areas.
- .3 Road development shall be minimized to that which is necessary to support the proposed use and the applicant shall utilize existing roads as much as possible.
- .4 The owner/occupant of the resource parcel shall assume responsibility for protection from

damage by wildlife.

Finding 6: The project site is within a Major Big Game Habitat Area as shown on the *Clatskanie-Quincy BEAK, Wildlife Game Habitat* Map. According to the applicant, no dwellings or permanent structures will be constructed, and very minimal road building will occur. Existing logging roads will be used for access to the extent practical. During operations of the Adams Storage Reservoir, only limited access by NWN staff will be needed. The monitoring well site will be fenced for security and to protect big game from possible injury from the piping and equipment used in transferring gas to the constructed pipelines. The new monitoring well is in an area already committed to natural gas production and numerous gas wells. Initial equipment installation and set up of the monitoring well will not disrupt big game activities, and will not result in any long-term impacts to the big game range and/or big game behavior. Once in place, impacts to habitat from the monitoring devices will be minimal. The overall area proposed for this monitoring facility has been used for natural gas exploration, storage and extraction for almost 30 years and is among other gas producing wells. Impacts to the area from this facility will be minimal. The applicant shall assume responsibility for any damages to the site from wildlife. Staff finds that the criterion is met with a condition.

Continuing with Section 1190 Big Game Development Standards

- .6 Columbia County shall notify the Oregon Department of Fish and Wildlife (ODFW) of all proposed uses or activities located within the Big Game Range Habitat. The County will consider the comments and recommendations of ODFW before making a decision concerning the requested use or activity.

Finding 7: The subject property is located within an area of Major Big Game Range Habitat as designated on the Wildlife Maps for the Clatskanie-Quincy area. The County notified the Oregon Department of Fish and Wildlife (ODFW) of the proposed request and received as response of "we have reviewed the application and have no objection to its approval." The applicant shall be required, however, to coordinate with the Oregon Department of Fish and Wildlife in conjunction with the State DOGAMI permitting of said wells as a Condition of Final Approval. Staff finds that the criterion is met subject to conditions.

Zoning Ordinance Section 1500, Discretionary Permits, requires the following:

"1503 Conditional Uses:

- .5 **Granting a Permit:** The Commission may grant a Conditional Use Permit after conducting a public hearing, provided the applicant provides evidence substantiating that all the requirements of this ordinance relative to the proposed use are satisfied and demonstrates the proposed use also satisfies the following criteria:

- A. The use is listed as a Conditional Use in the zone which is currently applied to the site;"

Finding 8: “Exploring, mining and processing of oil, gas, or other subsurface resources...” are a Conditional Use in the PF-80 zone under Section 505.2 of Columbia County’s Zoning Ordinance (See Finding 1). Gas well drilling, extraction and processing of gas is considered a conditional use in this zone. Staff finds that the criterion is met.

Continuing with Zoning Ordinance Section 1503.5

"B. The use meets the specific criteria established in the underlying zone:"

Finding 9: Compliance with the criteria of the PF-80 Zone is discussed in Findings 1 through 5 of this report. Staff finds that the criterion is met.

Continuing with Zoning Ordinance Section 1503.5

"C. The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements, and natural features;"

Finding 10: The existing well site to be used for underground storage monitoring is in the area generally known as the Mist Gas Field where there are other gas production wells, well heads and gas storage projects. Most properties located within this area are used for resource use (commercial timber management, small farms, natural gas storage and extraction, etc...) and are not developed to any extent with residential uses. The proposed monitoring site is located in an area that appears remote and relatively secluded from human activity. The applicant states, “The site characteristics are suitable for the proposed use. Gas well drilling has been conducted in the area for many years. Drilling activities will not permanently affect any topographic feature, improvement or other natural feature.” As discussed previously in this report, the proposed gas monitoring well site is in a remote mountainous area between the Nehalem River and Columbia River valleys. There are no streams, riparian areas or floodplains within miles of the proposed well sites. The existing natural features, existing uses, and the remote nature of this part of the County make this site suitable for the proposed use. Staff finds that the criterion is met.

Continuing with Zoning Ordinance Section 1503.5

"D. The site and proposed development is timely, considering the adequacy of transportation systems, public facilities, and services existing or planned for the area affected by the use."

Finding 11: The proposed activity will not require new public facilities or services. Existing County roads and/or State Highway will be used for access into the Mist-Birkenfeld area. Existing private logging roads will be used to access the new storage facility and monitoring devices. Where public roads are used, the small number of vehicle trips associated with the use will not place an inappropriate burden on the roadways. The proposed natural gas operations will not require improvements to existing transportation or public facilities and services in the area. Staff finds that the criterion is met.

Continuing with Zoning Ordinance Section 1503.5

"E. The proposed use will not alter the character of the surrounding area in a manner which

substantially limits, impairs, or precludes the use of surrounding properties for the primary uses listed in the underlying district;"

Finding 12: The PF-80 zoning district allows a number of uses, with primary uses (uses permitted outright) focused on the propagation, harvesting and management of forest and farm products and uses associated with soil, air and water conservation and fish and wildlife management. Other uses are allowed subject to administrative review, including single family dwellings and fire stations. Specific uses permitted in the PF-80 zone are outlined in Chapter 215 of Oregon Revised Statutes (ORS) and in Sections 503, 504 and 505 of Columbia County's Zoning Ordinance. The proposed monitoring well would not seem to alter the character of the overall county natural gas field area. Huge investments have been made for the extraction of this energy source, and property use is already developed for natural gas production and storage activities. Forestry, farming and natural gas operations have existed (together) in this area for many years. Staff finds that this criterion is met.

Continuing with Zoning Ordinance Section 1503.5

"F. The proposal satisfies the goals and policies of the Comprehensive Plan which apply to the proposed use;"

COLUMBIA COUNTY COMPREHENSIVE PLAN:

PART IV FOREST LANDS

GOAL: To conserve forest lands for forest uses.

Finding 13: This application conserves forest lands for forest uses because it uses an existing well and well pad that is part of an already approved resource drilling and subsurface natural gas storage. Furthermore, the proposed use deals with a subsurface resource and will have little impact on above ground forest resources. The operation will not result in the withdrawal of forest lands or forest uses on a permanent basis. Upon retirement of the Mist Gas Field, the small areas of above ground improvements will be removed and the well sites returned to timber production. Staff finds that this plan goal is met.

Continuing with the Columbia County Comprehensive Plan

PART X ECONOMY

GOALS:

1. To strengthen and diversify the economy of Columbia County and insure stable economic growth.
2. To utilize Columbia County's natural resources and advantages for expanding and diversifying the economic base.

POLICIES: It shall be a policy of the County to:

7. Protect identified aggregate resources until they are extracted, and plan for the reclamation and

future productive uses of those sites.

Finding 14: According to DOGAMI, the Mist Gas Field has been of significant economic importance to the County, producing over 65 billion cubic feet of gas since its discovery in 1979, with a value of about \$125 million. (Not updated figures) Currently, there are multiple gas producing wells and three underground natural gas storage projects in the Mist Gas Field. Northwest Natural Gas delivers energy to more than 650,000 customers from the gas reservoirs and storage projects located in the area. The continuing expansion of natural gas extraction in the County creates jobs and provides energy to the region. Additionally, a percentage of the income generated through production of a natural gas well is returned to the owner of the mineral rights. New monitoring well in this area will satisfy the goals and policies of Part X (Economy) of the Comprehensive Plan by using a natural resource to expand and diversify the County's economic base. Staff finds that this plan policy is met.

Continuing with the Columbia County Comprehensive Plan

PART XIV PUBLIC FACILITIES AND SERVICES

GOAL:

To plan and develop a timely, orderly, and efficient arrangement of public services as a framework for urban and rural development.

Finding 15: Only minimal use of public facilities will be necessary to accommodate monitoring equipment and infrastructure improvements. With the exception of travel on county roadways and state highways to and from the general area of the monitoring well site, the use will not require the use of public facilities and/or services. Staff finds that this plan policy is met.

Continuing with the Columbia County Comprehensive Plan

PART XVI GOAL 5: OPEN SPACE, SCENIC AND HISTORIC AREAS, AND NATURAL RESOURCES

ENERGY SOURCES

GOAL:

To protect deposits of energy materials in the County and prevent injury to surrounding lands and residents.

POLICIES: It is the policy of the County to:

1. Rely on ODOGAMI to require that wells are drilled, cased, and plugged in such a manner as to ensure public safety.
2. Coordinate with ODOGAMI to conduct a comprehensive inventory of energy sources in the County, including those oil and coal deposits determined as (1B). Upon completion of this study, the County shall complete the Goal 5 process for newfound resources, and up-date zoning and other

implementary ordinances to accommodate them.

Finding 16: The proposed activities are subject to the conditional use criteria outlined in Columbia County's Zoning Ordinance and to the regulations of DOGAMI. The Oil, Gas and Geothermal Regulatory and Reclamation Program at DOGAMI regulates activities associated with oil and gas operations to ensure that these activities are done in a manner which ensures "conservation of the resource, protects the environment including groundwater resources, and allocates revenue from production among owners of mineral rights in an equitable manner." Protection of energy materials and prevention of injury to surrounding lands and residents are handled through required permits conforming to federal, state and local regulations. Staff finds that these plan policies are met subject to conditions.

Continuing with the Columbia County Comprehensive Plan

PART XVIII AIR, LAND, AND WATER RESOURCES

GOAL:

To maintain and improve land resources and the quality of the air and water of the County.

Finding 17: Columbia County's Comprehensive Plan identifies the potential for environmental consequences, including disruption of sensitive ecosystems by land disturbance and water source pollution, from gas well drilling. The proposed gas wells are not in the immediate vicinity of sensitive and protected water resources, as mentioned earlier in Finding 5. As far as air quality, it does not appear from evidence submitted that the proposed monitoring well will impact air quality. The only possible impact to air quality could be a remote possibility of a gas well head explosion and fire. The applicant in conjunction with the Fire district has an emergency plan in place for such an occurrence. Generally, the County minimizes and/or prevents such impacts by relying on federal and state agency's safety standards, specifically DOGAMI, to require compliance with gas drilling regulations and through this conditional use permit process. Approval of this application and the resulting exploration activities will have little to no effect on air and water quality if regulatory permit conditions are met, and will result in no permanent surface damage. The applicant has stated that at which point natural gas production ceases, the wells will be abandoned and the site returned to its original state. Staff finds that this plan goal is met with conditions.

Continuing with Zoning Ordinance Section 1503.5

"G. The proposal will not create any hazardous conditions."

Finding 18: The proposed monitoring activities will not be hazardous if precautions are taken in accordance with regulations set forth by the Oregon State Forestry Department, DOGAMI, the Mist Birkenfeld Rural Fire Protection District and recommendations set forth by the Oregon Department of Fish and Wildlife. According to the applicant, the proposed operations will not require the use of any hazardous or poisonous materials; in addition, the operations will not create undue hazardous conditions and will be governed by and conducted under the oversight and control of the aforementioned agencies.

Continuing with Zoning Ordinance Section 1503.6:

"6 Design Review: The Commission may require the Conditional Use be subject to a site design review by the Planning Commission."

Finding 19: Staff does not recommend a Site Design Review.

COMMENTS:

Mist Birkenfeld CPAC: No Comment received.

Mist-Birkenfeld Rural Fire Protection District: Returned a Referral and Acknowledgment form to the County on December 6, 2016. They have reviewed the application and have no objections to its approval as submitted.

Oregon State Forestry: No comment received.

Soil and Water Conservation District: No comment received.

Upper Nehalem Watershed Council: No Comment received.

Oregon Department of Fish and Wildlife: Date received December 12, 2016; We have reviewed the application and have no objection to its approval.

DOGAMI: No Comment

County Roadmaster: No comment receive.

County Counsel: No Comment

Building Official: No Comment

Notified Property Owners: No Comment received.

No other comments have been received from government agencies or nearby property owners as of the date of the initial hearing of this staff report (December 29, 2016).

CONCLUSION AND RECOMMENDATION:

Based on the above findings, staff recommends **APPROVAL** this request for a monitoring well (CU 17-04) for a new underground storage facility, with the following conditions:

1. This permit shall become void 4 years from the date of the final decision if well monitoring has not begun on the property in substantial compliance with the conditions herein set out. Extensions of time may be granted by the Planning Director if requested in writing before the expiration date and if the applicant was not responsible for the failure to develop.
2. Prior to operations, the applicant shall obtain the proper permits from DOGAMI and the Oregon State Forestry Department.
3. The applicant shall assume responsibility for any damages from wildlife to the gas well development, equipment and the site.
4. The applicant shall closely follow and implement the Emergency Management Plan developed with Mist-Birkenfeld Fire District, State Forestry Department and emergency responders.

Attachments

Application
Maps (as submitted by the applicant)
Zoning Map
Vicinity Map

File No. CU 17-04**CONDITIONAL USE PERMIT APPLICATION****PROPOSED USE:** Observation/Monitoring Well**APPLICANT: Name:** Northwest Natural Gas CompanyMailing address: 220 NW Second AvenuePortlandOR97209

City

State

Zip Code

Phone No.: Office 503-226-4211

Home _____

Are you the _____ property owner? ☒ owner's agent?**PROPERTY OWNER:** same as above, OR:Name: Evenson Timberland Agency, Inc.Mailing Address: P.O. Box 127ClatskanieOR97016

City

State

Zip Code

Phone No.: Office _____ Home _____

PROPERTY ADDRESS (if assigned): N/A

City

7500 000 05600

State

Zip Code

TAX MAP NO.: 7N 5W 0050000Acres: 280Zoning: PF80_____
Acres: _____ Zoning: __________
Acres: _____ Zoning: _____**PRESENT USES:** (farm pasture, forest, residential, etc.)Use:Approx. AcresCommercial Timberland, with existing natural gas wells and280gathering lines in immediate area

Total acres (must agree with above):

280

File No. CU _____

WATER SUPPLY: N/A Private well.

Is the well installed? ____ Yes ____ No

N/A Community system.

Name _____

METHOD OF SEWAGE DISPOSAL: _____ Community Sewer. Name _____
☒ Not applicable.
☐ Septic System.

If Septic, does the subject property already have a system? ____ Yes ____ No

If no, is the property approved for a Septic System? ____ Yes ____ No

ELECTRICITY SUPPLIER: Western Oregon Electric Cooperative

CONTIGUOUS PROPERTY: List all other properties you own which have boundary lines touching this property:

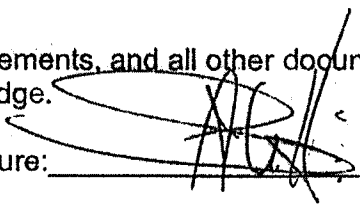
Tax Account No.AcresCo-owners (if any)_____

ACCESS CONSULTATION: The applicant has consulted with the local Rural Fire Protection District regarding emergency apparatus access.

Fire Official's Signature: _____ Date: _____

CERTIFICATION:

I hereby certify that all of the above statements, and all other documents submitted, are accurate and true to the best of my belief and knowledge.

Date: 10/24/2016 Signature: 

+++++

Planning Department Use OnlyDate Rec'd. 11-1-16 Hearing Date: _____Receipt No. 18668 895272 Or: Administrative _____

Zoning: _____ Staff Member: _____

Previous Land Use Actions: _____

+++++

File No. CU 17-04**CONDITIONAL USE PERMIT FACT SHEET**

Please attach extra pages if necessary.

1. New Uses: What new uses will occur on the property if this Conditional Use Permit is approved? Describe your project.

If approved, the Applicant will convert one existing production well to an observation/
monitoring well and operate the well. The well will allow the Applicant to monitor the
underground storage reservoir. The well is under the jurisdiction of the Department of
Geology and Mineral Industries, so the Applicant is only seeking local approval of the well
pad.

2. Suitability: Why is the property suitable for this use (considering lot size, shape and location, access and roads, natural features and topography, existing improvements, etc.)?

As explained in detail in the attached document, the existing well site is suitable for the
proposed use because it is in close proximity to other gas wells. No tree removal or
vegetative removal will be required.

3. Compatibility: How will the use be compatible with surrounding uses?

As described in detail in the attached document, conversion and operation of the existing
well will be compatible with existing commercial timberland operations on the property.

File No. CU _____

4. Impact: What impact will the proposed use have on existing public facilities, or on your neighbors' use of their land? Why?

The well will have no impact on public facilities. The Applicant will access the site via an existing logging road. No permanent structures will be erected, and the well is not located near any residential dwellings.

5. Hazards: Does the proposed use create any hazardous conditions such as fire hazards, traffic hazards, slope stability hazards or use any poisonous materials? Please describe them.

As described in greater detail in the attached documents, the Applicant has operated the Mist Underground Storage Facility since 1988 without causing any fires or other hazards. Northwest Natural's wells have numerous safety features, including relief valves and automatic shutdown systems.

+++++

File No. CU _____

Submission: All of the following must be completed and submitted for a complete application:

1. The attached CONDITIONAL USE PERMIT APPLICATION.
2. Answers to the above questions.
3. An accurate site plan of your property including property lines and dimensions, all existing and proposed structures, septic tank and drainfield and well locations, prominent natural features (slopes, cliffs & streams, etc.), roads, easements, and forested areas.
4. Proof of legal usable access to your property (unless you can show an unobstructed frontage on a public or county road or on a state highway).
5. A vicinity map.
6. The application fee.
7. Please also address the criteria (on a separate sheet of paper) of Section 1503, Conditional Uses, from the Columbia County Zoning Ordinance. (See below.)

+++++

Section 1503, Conditional Uses:

- .5 Granting a Permit: The Commission may grant a Conditional Use Permit after conducting a public hearing, provided the applicant provides evidence substantiating that all the requirements of this ordinance relative to the proposed use are satisfied and demonstrates the proposed use also satisfies the following criteria:
- A. The use is listed as a Conditional Use in the zone which is currently applied to the site;
 - B. The use meets the specific criteria established in the underlying zone;
 - C. The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements, and natural features;
 - D. The site and proposed development is timely, considering the adequacy of transportation systems, public facilities, and services existing or planned for the area affected by the use;
 - E. The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs, or precludes the use of surrounding properties for the primary uses listed in the underlying district;
 - F. The proposal satisfies the goals and policies of the Comprehensive Plan which apply to the proposed use;
 - G. The proposal will not create any hazardous conditions.

Supplemental Information for Northwest Natural's Columbia County Conditional Use Permit Application

I. Introduction

Northwest Natural Gas Company ("NWN" or "Applicant") proposes to convert an existing shut-in production well (No. 13-34-75) into an observation/monitoring well. The well is located in Township 7N, Range 5W, Tax Parcel 5000 in Columbia County ("County"). See **Exhibit A**. This well will become part of NWN's Mist Underground Natural Gas Storage Facility ("Mist Facility"), and relates to NWN's development of a new underground storage reservoir and other related improvements, all of which have been permitted separately through the Oregon Energy Facility Siting Council ("EFSC"). The well will be used to monitor static reservoir pressure."¹

NWN records indicate that the well was drilled on or around 1982, which predates the Columbia County Zoning Ordinance ("CCZO") and Columbia County Comprehensive Plan ("CCCP"). Although the date of development and absence of a permit suggests that the well itself is a legal nonconforming use under the CCZO, NWN is seeking conditional use approval to ensure consistency with current land use standards.

The Mist Facility provides NWN with a means of balancing relatively constant pipeline gas supplies with widely fluctuating market requirements. NWN injects gas into storage during off-peak periods and withdraws it when demand exceeds available supplies from other sources. Existing components of the Mist Facility, including the adjacent injection and withdrawal wells and North Mist Compressor Station, are permitted through either the County or EFSC.

Conversion and operation of the well will conform to the requirements of the Department of Geology and Mineral Industries ("DOGAMI"), which has exclusive jurisdiction over the non-pipeline subsurface elements of the Mist Facility, and NWN will secure all other permits required by federal, state, and local government agencies. The well is located in a 0.18-acre cleared area. Because the well and well pad are existing, removal of trees and other vegetation is not necessary.

II. Applicable Criteria

1503.5 Granting a Permit. The Commission may grant a Conditional Use Permit after conducting a public hearing, provided the applicant provides evidence substantiating that all the

requirements of this ordinance relative to the proposed use are satisfied and demonstrates the proposed use also satisfies the following criteria:

A. The use is listed as a Conditional Use in the zone which is currently applied to the site;

Response: The existing well proposed for conversion to an observation/monitoring well pertains to the processing of gas resources and therefore are allowable as conditional uses within the County's Primary Forest ("PF-80") zone. Accordingly, this criterion is met.

B. The use meets the specific criteria established in the underlying zone;

Response: The specific criteria applicable to conditional uses within the PF-80 zone are found at CCZO 508 and addressed below:

508 General Review Standards. The Planning Director or hearings body shall determine that a use authorized by Sections 504 and 505 meets all of the following requirements:

.1 The proposed use will not force significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands;

Response: The well is located in an area developed with other natural gas production and storage facilities, all of which were previously approved by the County or EFSC. Despite a history of natural gas production and storage uses in the area, forest management practices have continued, and the Applicant and the forest landowners have had a longstanding cooperative relationship. As demonstrated by nearly three decades of Mist Facility operations, the proposed use does not preclude the continued management of the surrounding area for the primary purposes of the PF-80 zone.

As shown on **Exhibit B**, the well is located in a 0.18-acre cleared area. The well pad is covered with crushed aggregate. The Applicant will access the well site from an existing logging road. Because the well pad is existing, no tree removal is necessary. Temporary construction activities associated with converting the well will be coordinated with the landowner to ensure that there are no conflicts with ongoing forest practices. The proposed use will not result in the withdrawal of forest lands from forest use on a permanent basis: upon retirement of the Mist Facility, all above-ground improvements will be removed and the well sites will be returned to timber production. There will be no discharge of waste into the air, water, or soil, and the proposed operations will not require the use of any hazardous or poisonous materials. Accordingly, this criterion is met.

.2 The proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel;

Response: As in the past, the Applicant will ensure that access to the well site is approved by the Mist Birkenfeld Rural Fire District. The cleared area around the proposed well provides an adequate break for fire safety, ensuring that the operation of the well will not create a fire hazard risk. The Applicant has operated the Mist Facility since 1988 without causing any fires or other hazards. The wells and pipeline facilities have numerous safety features, including relief valves and automatic shutdown systems. Accordingly, this criterion is met.

.3 A waiver of remonstrance shall be recorded with the County Clerk certifying that the owner will not remonstrate against or begin legal action or suit proceeding to cause or persuade the owner or operator of any farm or forest lands to modify the conduct of legal and accepted farm or forest operations; and

Response: The Applicant is not the owner of the property on which the well is located. However, all operations by the Applicant are done with the full agreement and participation of the affected landowners. The Applicant does not anticipate that the owner would remonstrate against or cause legal action to modify its own forest practices. Accordingly, this criterion does not apply.

.4 The proposed use is consistent with requirements contained in the Comprehensive Plan or implementing ordinances, including, but not limited to, regulations which apply to flood hazard areas, development within the Willamette River Greenway, development in forested areas or development in significant resource areas, such as riparian, wetlands or slide-prone areas.

Response: The CCZO contains land use regulations and standards that implement the goals and policies of the CCCP. The proposal's consistency with applicable sections of the CCZO are addressed above and in the application form. Provided the proposed use complies with all applicable sections of the CCZO, it will also comply with the requirements of the CCCP. Nonetheless, consistency with the CCCP is discussed below. Accordingly, this criterion is met.

C. The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements, and natural features;

Response: The well is sited in close proximity to other gas production wells and underground natural gas storage facilities. Properties in the vicinity are devoted to resource use, and there is no residential development in the area. Accordingly, this criterion is met.

D. The site and proposed development is timely, considering the adequacy of transportation systems, public facilities, and services existing or planned for the area affected by the use;

Response: The well will not require new public facilities or services. As shown on **Exhibit A**, the Applicant and its contractors will use private logging roads to access the site from Oregon State Highway 202. No County roads will be used. Accordingly, this criterion is met.

E. The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs, or precludes the use of surrounding properties for the primary uses listed in the underlying district;

Response: The PF-80 zone allows a number of uses, with uses permitted outright focused on the propagation, harvesting and management of forest and farm products, as well as uses associated with air and water conservation and fish and wildlife management. The well will not require the removal of any trees or construction of permanent structures. As noted above, the well is located in a 0.18-acre cleared area. Because the area has been developed for natural gas production and storage for many years, the proposed use will not alter the character of the area. Accordingly, this criterion is met.

F. The proposal satisfies the goals and policies of the Comprehensive Plan which apply to the proposed use;

Response:

Part IV, Forest Lands: The County's Forest Lands Goal is applicable to the proposed use and directs the County to conserve forest lands for forest use. As explained above in response to the standards applicable to the PF-80 zone, which are acknowledged to be consistent with the CCCP, the well is consistent with this goal because it is located in an area that is already approved for resource drilling and subsurface natural gas storage. Further, the well pertains to a subsurface resource and therefore has little impact on above-ground forest resources. Moreover, as noted above, the Applicant will access the well from an existing logging road. The conversion of the existing well to an observation/monitoring well will not result in the withdrawal of forest lands from forest use on a permanent basis; upon retirement of the Mist Facility, all above-ground improvements will be removed and the well sites will be returned to timber production. There will be no discharge of waste into the air, water, or soil, and the proposed operations will not require the use of any hazardous or poisonous materials. Accordingly, the proposed wells are consistent with the County's Forest Lands Goal.

Part X, Economy: The County's Economy Goal directs the County to strengthen and diversify the economy to ensure stable economic growth. The Mist Gas Field has been of significant economic importance to the County since its discovery in 1979. Gas production and storage in this area creates jobs and provides energy to the region by using a natural resource to expand and diversify the County's economic base. Accordingly, the conversion of the existing well to an observation/monitoring well is consistent with the County's Economy Goal.

Part XIV, Public Facilities and Services: Conversion of the existing well will not require the commitment of public facilities and/or services. The Applicant and its contractors will use private logging roads to access the site from Oregon State Highway 202. The Applicant will also ensure that access to the site is approved by the Mist Birkenfeld Rural Fire District. As noted above, the well relates to a number of other proposed improvements to the Mist Facility, all of which have been permitted separately through EFSC. Through that process, EFSC undertook a comprehensive review of the impacts of the proposed improvements on public facilities. In other words, potential impacts to public facilities associated with related improvements have already been addressed through the EFSC process. Accordingly, the conversion of the existing well to an observation/monitoring well is consistent with the County's Public Facilities and Services Goal.

Part XVI: Open Space, Scenic and Historic Area, and Natural Resources: NWN's wells are subject to the regulations of the Department of Geology and Mineral Industries, which regulates gas operations to ensure that such activities are done in a manner that ensures conservation of the resource, protection of the environment including groundwater resources, and equitable allocation of revenue from production owners among owners of mineral rights. As noted above, conversion of the existing well will conform to DOGAMI's requirements, and NWN will secure all other permits required by federal, state, and local government agencies. The observation well is located in a 0.18-acre cleared area. No removal of trees and other vegetation is necessary. Accordingly, the observation/monitoring well will have little to no effect on open space, scenic, and natural resources, and are therefore consistent with the County's Open Space, Scenic and Historic Area and Natural Resources Goal.

Part XVII: Air, Land, and Water Resources: Although the CCCP identifies the potential for environmental consequences associated with the development of natural gas resources, including disruption of sensitive ecosystems by land disturbance and water source pollution, the conversion of the existing well to an observation/monitoring well will have little to no effect on air and water quality. The County minimizes potential impacts to sensitive resources by requiring compliance with federal and state environmental regulations. As in the past, the Applicant will secure proper permits from DOGAMI and the Oregon Department of Forestry. No tree removal is necessary. Accordingly, the conversion of the existing well to an

observation/monitoring well will have little to no effect on air, land, and water resources, and are therefore consistent with the County's Air, Land, and Water Resources Goal.

G. The proposal will not create any hazardous conditions.

Response: The Applicant will comply with all applicable safety standards for natural gas facilities and consult with the Mist Birkenfeld Rural Fire District to ensure that all necessary precautions are taken to reduce the risk of fire hazard. Conversion of the existing well will not require the use of any hazardous or poisonous materials. With respect to potential erosion concerns, NWN holds a 1200-C permit that covers this location. Accordingly, this criterion is met.

Supplemental Information for Northwest Natural's Columbia County Conditional Use Permit Application

III. Introduction

Northwest Natural Gas Company ("NWN" or "Applicant") proposes to convert an existing shut-in production well (No. 13-34-75) into an observation/monitoring well. The well is located in Township 7N, Range 5W, Tax Parcel 5000 in Columbia County ("County"). See **Exhibit A**. This well will become part of NWN's Mist Underground Natural Gas Storage Facility ("Mist Facility"), and relates to NWN's development of a new underground storage reservoir and other related improvements, all of which have been permitted separately through the Oregon Energy Facility Siting Council ("EFSC"). The well will be used to observe water movement within the reservoir and monitor potential underground "spill points."²

NWN records indicate that the well was drilled on or around 1982, which predates the Columbia County Zoning Ordinance ("CCZO") and Columbia County Comprehensive Plan ("CCCP"). Although the date of development and absence of a permit suggests that the well itself is a legal nonconforming use under the CCZO, NWN is seeking conditional use approval to ensure consistency with current land use standards.

The Mist Facility provides NWN with a means of balancing relatively constant pipeline gas supplies with widely fluctuating market requirements. NWN injects gas into storage during off-peak periods and withdraws it when demand exceeds available supplies from other sources.

² "Spill points" for an underground storage reservoir are those areas where a reservoir is most likely to leak from one formation to another if it is filled beyond its capacity. Fill volumes are monitored closely so this is not likely to occur and create a hazard at the surface, but it could lead to loss of the stored natural gas from the storage reservoir.

Existing components of the Mist Facility, including the adjacent injection and withdrawal wells and North Mist Compressor Station, are permitted through either the County or EFSC.

Conversion and operation of the well will conform to the requirements of the Department of Geology and Mineral Industries ("DOGAMI"), which has exclusive jurisdiction over the non-pipeline subsurface elements of the Mist Facility, and NWN will secure all other permits required by federal, state, and local government agencies. The well is located in a 0.18-acre cleared area. Because the well and well pad are existing, removal of trees and other vegetation is not necessary.

IV. Applicable Criteria

1503.5 Granting a Permit. The Commission may grant a Conditional Use Permit after conducting a public hearing, provided the applicant provides evidence substantiating that all the requirements of this ordinance relative to the proposed use are satisfied and demonstrates the proposed use also satisfies the following criteria:

A. The use is listed as a Conditional Use in the zone which is currently applied to the site;

Response: The existing well proposed for conversion to an observation/monitoring well pertains to the processing of gas resources and therefore are allowable as conditional uses within the County's Primary Forest ("PF-80") zone. Accordingly, this criterion is met.

B. The use meets the specific criteria established in the underlying zone;

Response: The specific criteria applicable to conditional uses within the PF-80 zone are found at CCZO 508 and addressed below:

508 General Review Standards. The Planning Director or hearings body shall determine that a use authorized by Sections 504 and 505 meets all of the following requirements:

.1 The proposed use will not force significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands;

Response: The well is located in an area developed with other natural gas production and storage facilities, all of which were previously approved by the County or EFSC. Despite a history of natural gas production and storage uses in the area, forest management practices have continued, and the Applicant and the forest landowners have had a longstanding cooperative relationship.

As demonstrated by nearly three decades of Mist Facility operations, the proposed use does not preclude the continued management of the surrounding area for the primary purposes of the PF-80 zone.

As shown on **Exhibit B**, the well is located in a 0.18-acre cleared area. The well pad is covered with crushed aggregate. The Applicant will access the well site from an existing logging road. Because the well pad is existing, no tree removal is necessary. Temporary construction activities associated with converting the well will be coordinated with the landowner to ensure that there are no conflicts with ongoing forest practices. The proposed use will not result in the withdrawal of forest lands from forest use on a permanent basis; upon retirement of the Mist Facility, all above-ground improvements will be removed and the well sites will be returned to timber production. There will be no discharge of waste into the air, water, or soil, and the proposed operations will not require the use of any hazardous or poisonous materials. Accordingly, this criterion is met.

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in forested areas or development in significant resource areas, such as riparian, wetlands or slide-prone areas.

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D. The site and proposed development is timely, considering the adequacy of transportation systems, public facilities, and services existing or planned for the area affected by the use;

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conversion of the existing well will conform to DOGAMI's requirements, and NWN will secure all other permits required by federal, state, and local government agencies. The observation well is located in a 0.18-acre cleared area. No removal of trees and other vegetation is necessary. Accordingly, the observation/monitoring well will have little to no effect on open space, scenic, and natural resources, and are therefore consistent with the County's Open Space, Scenic and Historic Area and Natural Resources Goal.

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G. The proposal will not create any hazardous conditions.

Response: The Applicant will comply with all applicable safety standards for natural gas facilities and consult with the Mist Birkenfeld Rural Fire District to ensure that all necessary precautions are taken to reduce the risk of fire hazard. Conversion of the existing well will not require the use of any hazardous or poisonous materials. With respect to potential erosion concerns, NWN holds a 1200-C permit that covers this location. Accordingly, this criterion is met.



NW Natural

220 NW 2nd Ave, Portland, OR 97209
Phone 503.226.4211

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Access Road to Proposed Well Pad 13-34-75



750 0 150 Feet

North Mist Expansion Project

CUP Application

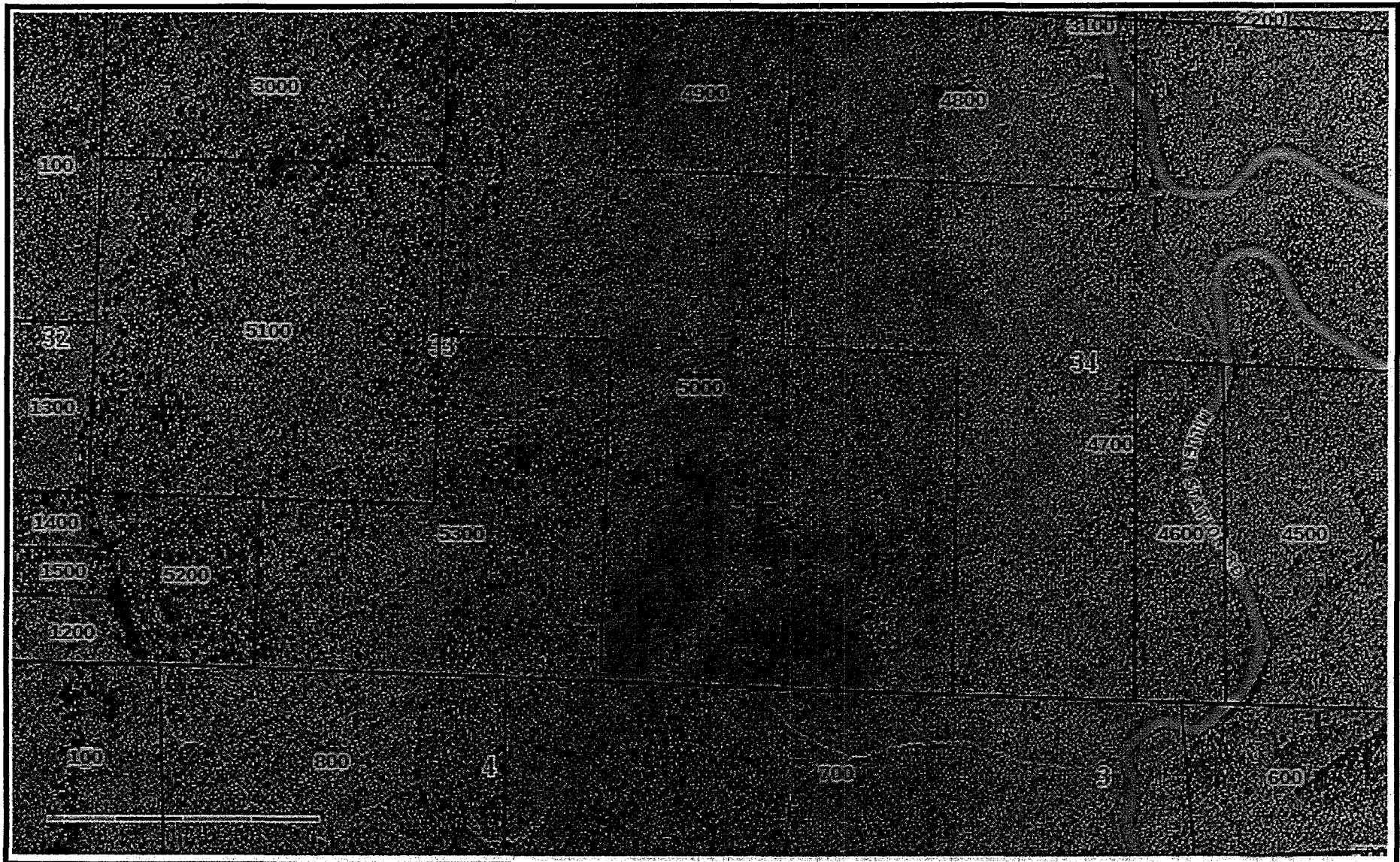
Vicinity Map & Construction Access Roads

Revised By: 10/4/2016

EXHIBIT A

CU 17-04, Aerial Map

BOOK _____ PAGE _____



Columbia County



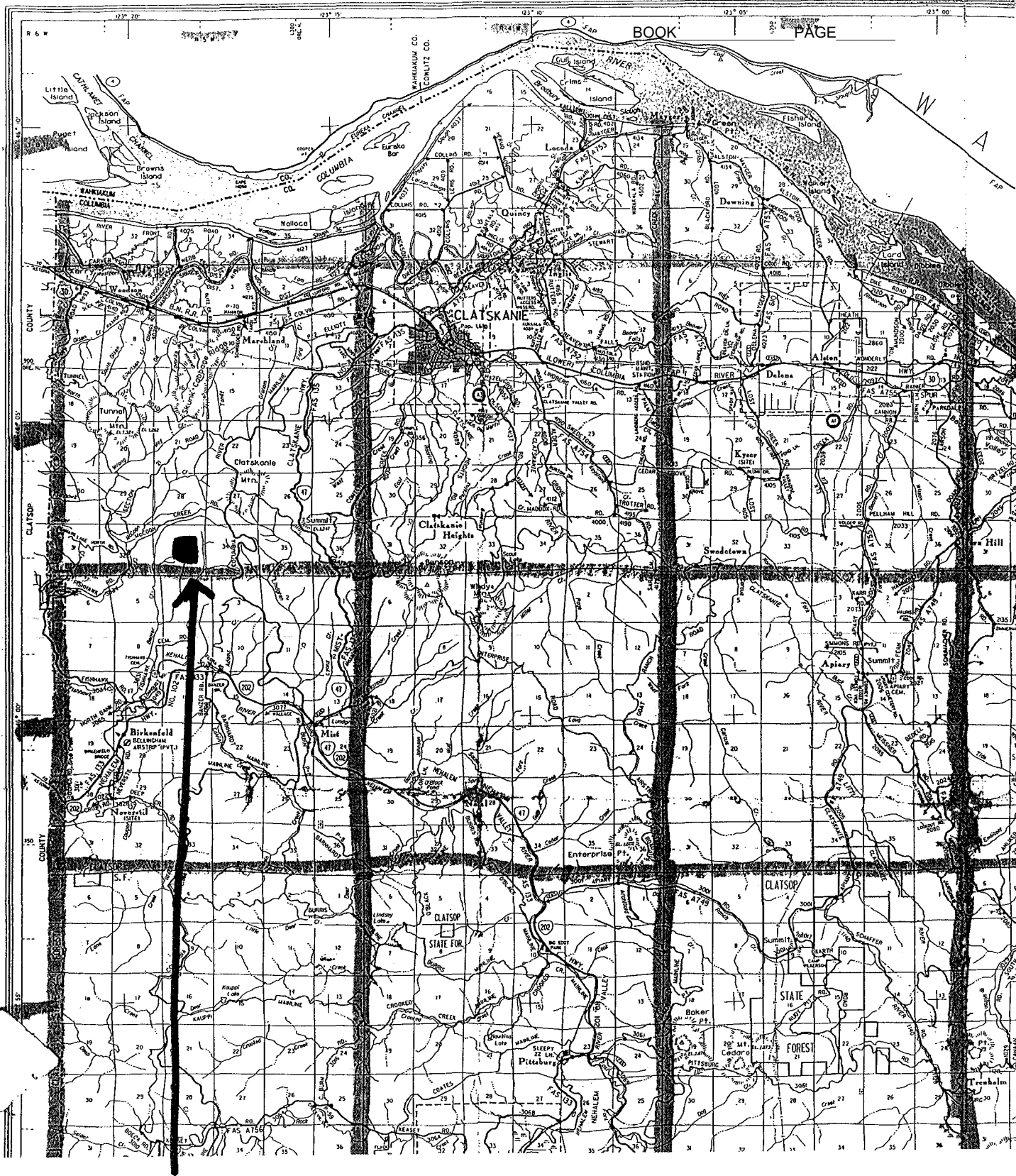
Oregon

Columbia County Web Maps

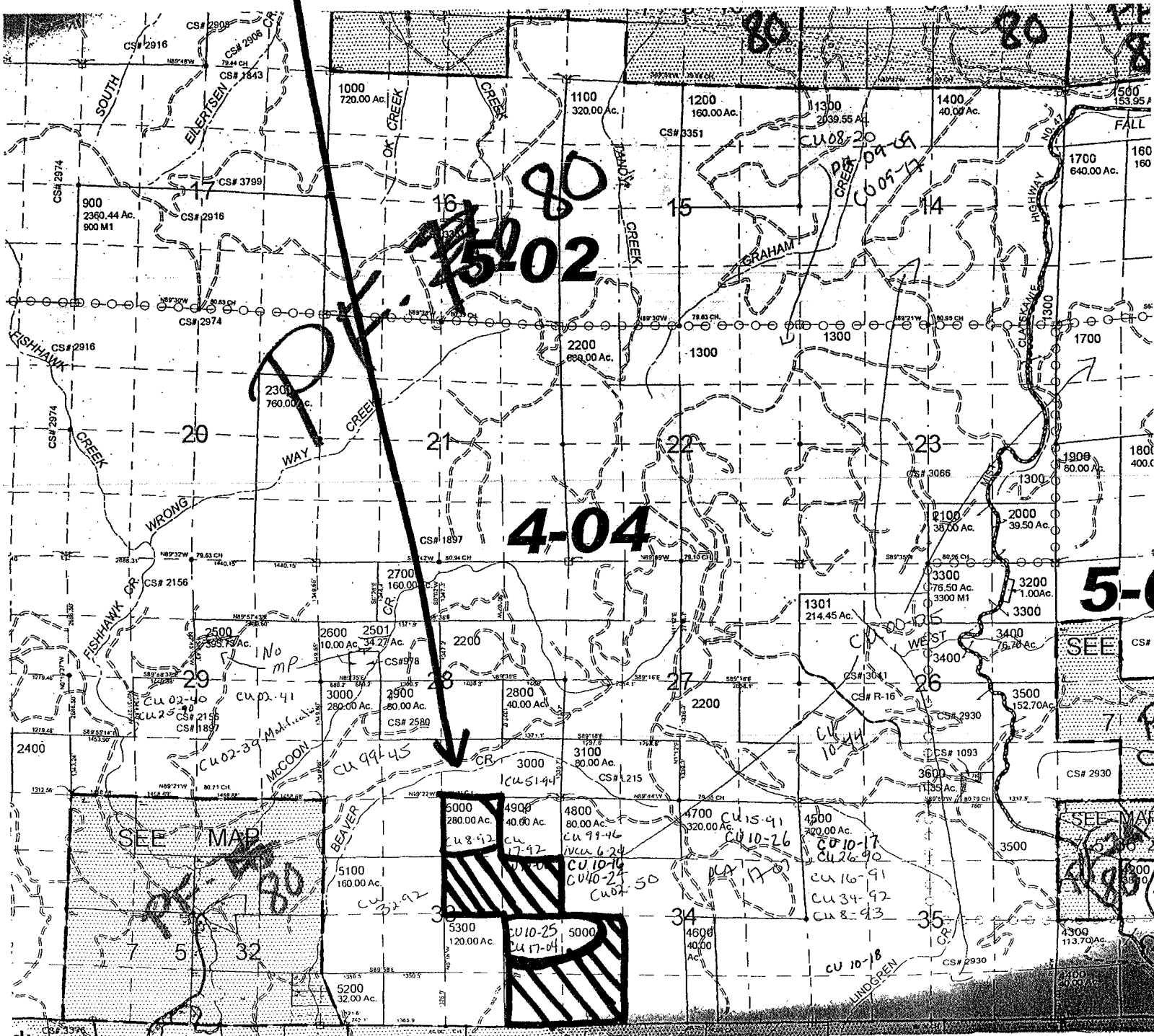
Disclaimer: This map was produced using Columbia County GIS data. The GIS data is maintained by the County to support its governmental activities and is subject to change without notice. This map should not be used for survey or engineering purposes. Columbia County assumes no responsibility with regard to the selection, performance or use of information on this map.

GeoMoore

Printed 11/01/2016



CU 17-04
Vicinity Map



bing™

Well 13-34-75

0.18 Acres

NW Natural
 220 NW 2nd Ave, Portland, OR 97209
 Phone 503.226.4211

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10 5 0 10 20 Feet

North Mist Expansion Project

CUP Application
Well 13-34-75

Revised By: 10/4/2016

Exhibit C – CU 2-97, Final Order & Staff Report

BEFORE THE PLANNING COMMISSION
COLUMBIA COUNTY, STATE OF OREGON

Conditional Use Permit CU 2-97

In the Matter of the Application of Northwest Natural)
Gas Company for a Conditional Use Permit in the)
Primary Forest and Primary Agriculture Zones)

Final Order CU 2-97

This matter came before the Columbia County Planning Commission on the application of Northwest Natural Gas Company for a Conditional Use Permit to allow the construction and operation of an underground storage reservoir and up to 16 gas wells on 4 well sites in the Mist Gas Storage Area, which includes the Calvin Creek Gas Field, and twin 8" and 16" pipelines to the Miller Station, in the PA-38 and PF-76 Zones.

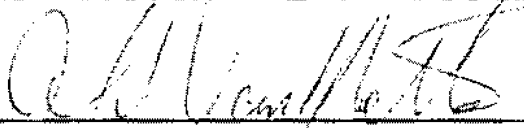
The subject properties are located southwest, west and northwest of Mist and are described on the Assessor's records as Tax Account Numbers 6500-000-02500, 02501, 02600, 04500, 04600, 04900, and 05000; 6514-000-00100 and 00900; 6515-000-00100, 00200, and 00500; and 6523-000-00500.

A public hearing was held on March 3, 1997. The Planning Commission heard testimony from the applicant and all interested parties, and considered all written materials submitted and the Planning Commission staff report.

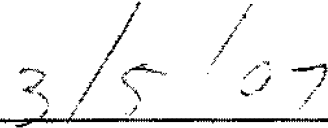
The Planning Commission hereby adopts the findings and conclusions in the attached Staff Report dated February 19, 1997, and orders this application for a Conditional Use Permit APPROVED with the following conditions:

1. Applicants shall provide Land Development Services with drawings showing the final locations of all wells and pipelines as constructed.
2. Prior to construction, applicants shall submit plans for avoiding, restoring or mitigating any wetlands crossed by the pipelines, or shall provide documentation from the Oregon Division of State Lands or the Oregon Energy Facility Siting Council that all DSL's requirements have been met regarding wetlands in the area.

COLUMBIA COUNTY PLANNING COMMISSION



JEFFREY VANNATTA, CHAIRMAN



DATE

pw

CU 2-97

1

**Columbia County Planning Commission
STAFF REPORT**

Conditional Use Permit - PF-76 Zone

FILE NUMBER: CU 2-97

APPLICANT/OWNER: Northwest Natural Gas Com
220 NW Second Avenue
Portland, OR 97209

AGENTS: Michael C. Robinson
Peter D. Mostow
Steel Rives LLP
900 SW Fifth Avenue, Ste. 2300
Portland, OR 97204-1268

PROPERTY LOCATION: Miller Station to Calvin Creek Gas Storage Area, southwest, west, and northwest of Mist.

REQUEST: To construct up to 4 injection/withdrawal gas wells in the Calvin Creek field, and to connect them with the existing gas processing facilities at Miller Station 3 miles northwest of Mist.

TAX ACCT. NUMBERS: 6500-000-02500, 02501, 02600, 04500, 04600, 04900, 05000;
6514-000-00100, 00900;
6515-000-00100, 00200, 00500;
6523-000-00500.

ZONING: Primary Forest (PF-76) and Primary Agriculture (PA-38)

APPLIC'N. COMPLETE: 1-31-97 **120 DAY DEADLINE:** 5-31-97

WAIVER SIGNED?: No.

BACKGROUND:

The applicants request approval to drill up to 4 new injection/withdrawal gas wells in the existing Calvin Creek gas field in order to store and withdraw natural gas as needed, and to construct an 8" gathering pipeline connected to twin 16" pipelines going north to Miller Station.

The wellsites will be about 200' x 250' in size during the drilling operations, and about 125' x 175' final size. There will be about 3 acres of timberland taken out of production. Two of the 4 wells

CU 2-97

2

are on existing roads, the other 2 will need access roads about 200 to 500' in length.

The 8" gathering pipe will be about 1 mile long, connecting to twin 16" transmission pipelines going about 2.5 miles north to the existing compression and dehydration facilities at Miller Station. The pipelines will need an 80' construction right-of-way and a 40' permanent right-of-way, and will remove about 11 acres of timber land from production.

The 16" lines will cross both the Nehalem River and Highway 202 about 1 mile west of Mist. To avoid disturbing the river, the pipelines will be drilled 20' under the riverbed from points about 400' north and south of the river. The highway crossing will be done in cooperation with the Oregon Department of Transportation.

The twin 16" pipelines will cross two identified wetlands (National Wetlands Inventory, Marshland and Birkenfeld quad maps). The Nehalem River is designated R3UBH (Riverine, Upper Perennial, Unconsolidated Bottom, Permanent), but the pipelines will be drilled under the river and should not disturb it. The other wetland is in the level area north of Highway 202 near the base of the hills, and is designated PSSC (Palustrine, Scrub/Shrub, Seasonal). If this wetland is disturbed during construction of the pipeline, it will need to be restored as before, or a mitigation area will need to be constructed. The wellsites and 8" pipeline are on uplands and have no wetlands nearby.

The Nehalem River has a 100-year flood plain about 650' wide where the 16" pipelines will cross (FEMA maps 41009C0125 C and 41009C0250 C). Drilling the pipelines from points 400' north and south of the river centerline would appear to keep the operation outside the floodplain.

The property is within the Mist-Birkenfeld Rural Fire Protection District.

FINDINGS:

The following sections of the Zoning Ordinance and state laws are pertinent to this application:

Columbia County Zoning Ordinance Section 503 requires the following:

"Section 503 Conditional Uses: In the PF zone the following conditional uses and their accessory uses are permitted subject to the provisions of Sections 504 and 505. A conditional use shall be reviewed according to the procedures provided in Section 1503.

- ...
2 Operations conducted for the exploration, mining, and processing of...mineral or subsurface resources not permitted outright."

Finding 1: In the PF-76 zone, the expansion of mineral resources mining facilities requires a Conditional Use Permit.

Zoning Ordinance Section 504 requires the following:

"Section 504 All Conditional Uses Permitted In The PF Zone Shall Meet The Following Requirements:

CU 2-97

3

- .1 The use is consistent with forest and farm uses and with the intent and purposes set forth in the Oregon Forest Practices Act."

The Oregon Forest Practices Act (ORS Chapter 527) includes the following:

"527.630 Policy. (1) ...it is declared to be the public policy of the State of Oregon to encourage economically efficient forest practices that assure the continuous growing and harvesting of forest tree species and the maintenance of forest land for such purposes as the leading use on privately owned land, consistent with sound management of soil, air, water and fish and wildlife resources that assures the continuous benefits of those resources for future generations of Oregonians."

Finding 2: The wellsites will remove about 5 acres from timber production during drilling, and about 2-3 acres permanently. The pipelines will theoretically remove about 17 acres from timber production (3.5 miles @ 40" wide = 16.97 acres); however, much of the 16" pipeline will follow an existing road right-of-way and cross pasture lands. The entire project should not remove more than 11 acres from production.

Continuing with Zoning Ordinance Section 504:

- "2 The use will not significantly increase the cost, nor interfere with accepted forest management practices or farm uses on adjacent or nearby lands devoted to forest or farm use."

Finding 3: The proposed use will not interfere with farm or forest uses on adjacent lands if appropriate measures are taken to prevent fire from spreading to adjacent forests. Once the pipelines and wells are in place, there should be minimal disturbance of forest or farm activities on nearby and adjacent lands.

Continuing with Zoning Ordinance Section 504:

- "3 The use will be limited to a site no larger than necessary to accommodate the activity and, as such will not materially alter the stability of the overall land use pattern of the area or substantially limit or impair the permitted uses of surrounding properties. If necessary, measures will be taken to minimize potential negative effects on adjacent forest lands."

Finding 4: The wellsites and pipeline routes have been chosen to cover the minimum area necessary to accomplish their purpose. The overall land use pattern of the area is timber and natural gas production. Appropriate measures will need to be taken to minimize the danger of fire spreading to adjacent forest lands.

2-19-97

2-19-97

CU 2-97

4

Continuing with Zoning Ordinance Section 504:

- "4 The use does not constitute an unnecessary fire hazard, and provides for fire safety measures in planning, design, construction, and operation."

Finding 5: Fire safety measures will need to be strictly enforced in planning, design, construction and occupation of the new wells and pipelines. Miller Station has many established fire detection and prevention facilities, including fire extinguishers, a 20,000 gallon water tank and an onsite fire truck. Applicants have consulted with the Mist-Birkenfeld RFPD, which has submitted a letter in favor of the project, stating that they are confident the project "...presents no unreasonable fire hazards."

Continuing with Zoning Ordinance Section 504:

- "5 Public utilities are to develop or utilize rights-of-way that have the least adverse impact on forest resources. Existing rights-of-way are to be utilized wherever possible.

Finding 6: All public utilities are in place. The new 16" pipelines will follow an existing road for over half their length. The new 8" line will follow new routes.

Continuing with Zoning Ordinance Section 504:

- "6 Development within major and peripheral big game ranges shall be sited to minimize the impact on big game habitat. To minimize the impact, structures shall: be located near existing roads; be as close as possible to existing structures on adjoining lots; and be clustered where several structures are proposed."

Finding 7: The area is a major big game range. During construction of the wells and pipelines, there will be unavoidable disturbance of big game, but this should be temporary. When completed, the wellsites and pipelines should occupy minimum timber land and should not disturb big game.

Zoning Ordinance Section 1503 requires the following:"1503 Conditional Uses:

- .5 Granting a Permit: The Commission may grant a Conditional Use Permit after conducting a public hearing, provided the applicant provides evidence substantiating that all the requirements of this ordinance relative to the proposed use are satisfied and demonstrates the proposed use also satisfies the following criteria:

2-19-97

CU 2-97

5

- A. The use is listed as a Conditional Use in the zone which is currently applied to the site;"

Finding 8: The PF-76 zone lists "Operations conducted for the exploration, mining, and processing of...mineral or subsurface resources not permitted outright" under Conditional Uses.

Continuing with Zoning Ordinance Section 1503.5:

- "B. The use meets the specific criteria established in the underlying zone:"

Finding 9: The criteria of the PF-76 zone have been shown to be met in Findings 1 through 7.

Continuing with Zoning Ordinance Section 1503.5:

- "C. The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements, and natural features;"

Finding 10: The pipelines and wellsites have been located so as to minimize the impact on wildlife, the Nehalem River, wetlands and timber production. The Mist Storage Area, including the Calvin Creek reservoir, is the only known location in the state that is suitable for natural gas storage. These appear to make the site suitable for the proposed new wells and pipelines.

Continuing with Zoning Ordinance Section 1503.5:

- "D. The site and proposed development is timely, considering the adequacy of transportation systems, public facilities, and services existing or planned for the area affected by the use."

Finding 11: The only transportation systems in the area are South Mainline Road, owned by Longview Fibre and used mostly for log trucking, other logging roads, and State Highway 202. Public facilities are electric power and telephone. These appear to make the proposed use timely, as no additional facilities will be required by the new wells and pipelines.

Continuing with Zoning Ordinance Section 1503.5:

- "E. The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs, or precludes the use of surrounding properties for the primary uses listed in the underlying district;"

2-19-97

CU 2-97

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Finding 12: The surrounding area is in timber production. The proposed wells and pipelines, once constructed, will not alter the character of the area, as it will remain a timber and gas producing region of the county. Timber management operations should not be affected by the new facilities.

Continuing with Zoning Ordinance Section 1503.5:

"F. The proposal satisfies the goals and policies of the Comprehensive Plan which apply to the proposed use;"

Finding 13: The Columbia County Comprehensive Plan (CCCP) ENERGY SOURCES section includes these findings (p.224):

"Potential conflicting uses for natural gas wells in the County are minimized by the controls and regulations imposed by ODOGAMI [Oregon Department of Geology and Mineral Industries]. They are also minimized since wells are located in remote forested areas and surrounding property owners share in the profits of producing wells. The county will conserve forest lands for forest uses and allow operations conducted for the exploration, mining, and processing of subsurface resources as a conditional use. The County will rely on ODOGAMI to insure future protection of resources and surrounding lands."

The Energy Sources GOAL is (CCCP p.225):

"To protect deposits of energy materials in the County and prevent injury to surrounding lands and residents."

The new wells and pipelines will be regulated by DOGAMI rules, and will be used to transport and store natural gas to and from Miller Station. The Miller Station and its related facilities have been previously approved by the County as a way to prolong the useful life of the gas fields.

Continuing with Zoning Ordinance Section 1503.5:

"G. The proposal will not create any hazardous conditions."

Finding 14: The proposed new wells and pipelines should be no more hazardous than the existing facilities in the Mist gas field. Suitable precautions have been taken to detect and control fire and to prevent its spread to surrounding forest lands. Applicants have consulted with the Mist-Birkenfeld RFPD and have its full support.

Continuing with Zoning Ordinance Section 1503:

"6 **Design Review:** The Commission may require the Conditional Use be subject to a site design review by the Planning Commission."

CU 2-97

7

Finding 15: A Site Design Review is required for the new facilities; see DR 3-97.

The following state laws must also be met by this application:

Oregon Revised Statutes: ORS Chapter 527, the Oregon Forest Practices Act, contains no regulations for gas wells or their production facilities.

Oregon Administrative Rules: OAR 660-06-025(4) reads:

"The following uses may be allowed on forest lands subject to the review standards in section (5) of this rule:

....

(f) Mining and processing of oil, gas or other subsurface resources...not otherwise permitted under section (3)(m) of this rule (e.g., compressors, separators and storage serving multiple wells)..."

OAR 660-06-025(5) sets out the following requirements for non-forest uses in forest lands:

"(a) The proposed use will not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agricultural or forest lands;"

Finding 16: The new wells and pipelines, once in place, should have minimal impact on farm and forest operations in the area.

Continuing with OAR 660-06-025(5):

"(b) The proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel; and"

Finding 17: The new wells and pipelines will not require the Mist-Birkenfeld RFPD to increase their equipment. Applicants have coordinated their fire fighting facilities with the RFPD and have its full support.

Continuing with OAR 660-06-025(5):

"(c) A written statement recorded with the deed or written contract with the county or its equivalent is obtained from the land owner which recognizes the rights of adjacent and nearby land owners to conduct forest operations consistent with the Forest Practices Act and Rules..."

CU 2-97

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Finding 18: Recorded leases between the applicant and property owners recognize the applicant's right to conduct storage and processing operations without unnecessarily harming or limiting adjacent and nearby forest and agricultural operations.

COMMENTS:

1. David Hill, County Public Works Director, has no objection to approval of the request as submitted.
2. Dennis L. Olmstead, Petroleum Engineer, DOGAMI, has no objection to approval of the request as submitted.
3. Jane Estes, Permit Specialist, ODOT District 2A, commented, "NW Natural Gas required to contact this office @ 229-5002 for permit to go under Nehalem Highway..."
4. Rich Morse, County Building Official, has no objection to approval of the request as submitted.
5. Dave Crawford, Chief, Mist-Birkenfeld Rural Fire Protection District, is "...confident that the project has adequate personal safety features and...presents no unreasonable fire hazards."
6. Larry Potter, Natural Resources Coordinator, Clatsop and Columbia Counties, Oregon State Lands, has no objection to approval of the request as submitted, and commented, "I have been working with NW Gas for a year now to help address all their concerns and needs as far as state lands and waters of the state are concerned. As of this date, they have complied with all state rules and guidelines. Their cooperation is admirable. They still will need to acquire a lease from DSL and have submitted needed information to do so."

No other comments have been received from government agencies or nearby property owners as of the date of this staff report (February 19, 1997).

CONCLUSION AND RECOMMENDATION:

Based on the above findings, staff recommends APPROVAL of this request, with the following conditions:

1. Applicants shall provide Land Development Services with drawings showing the final locations of all wells and pipelines as constructed.

CU 2-97

9

2. Applicants shall submit plans for avoiding, restoring or mitigating any wetlands crossed by the pipelines, or shall provide a letter from the Oregon Division of State Lands that all DSL's requirements have been met regarding wetlands in the area.

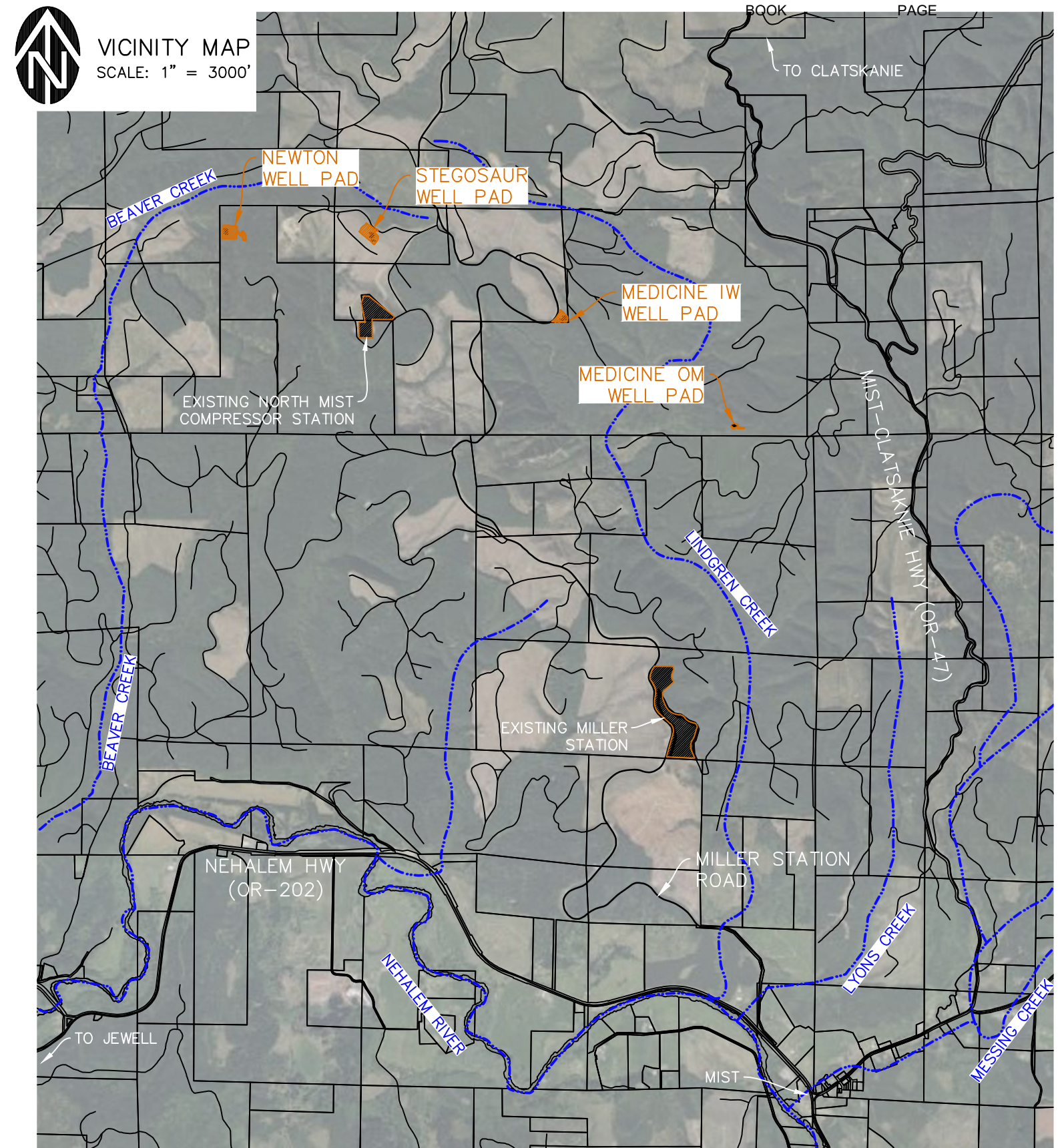
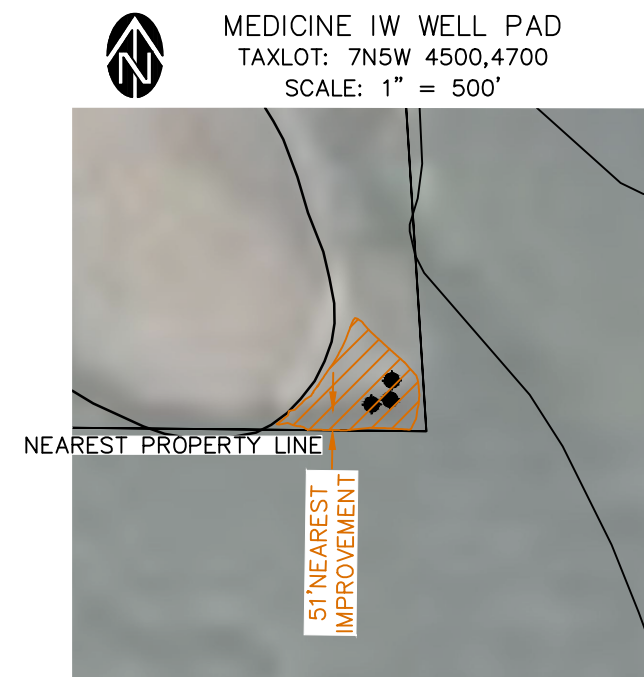
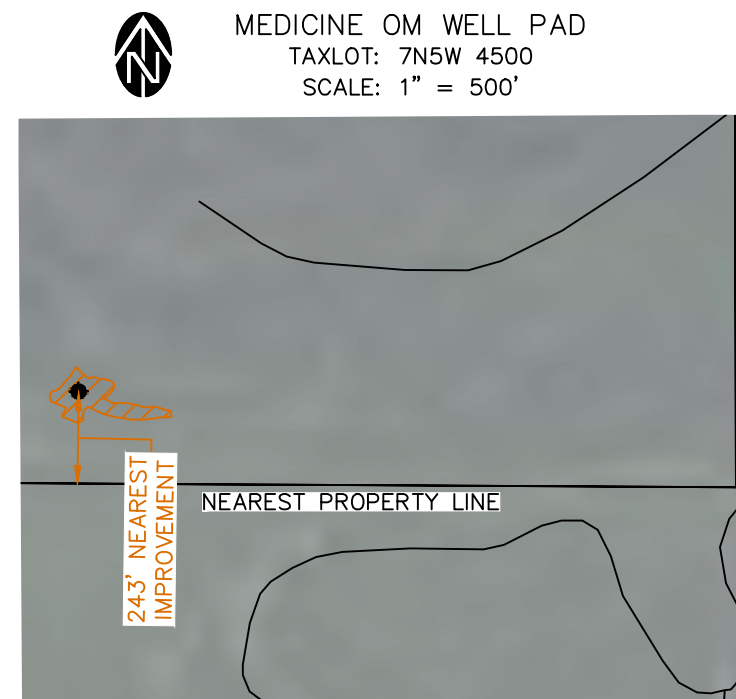
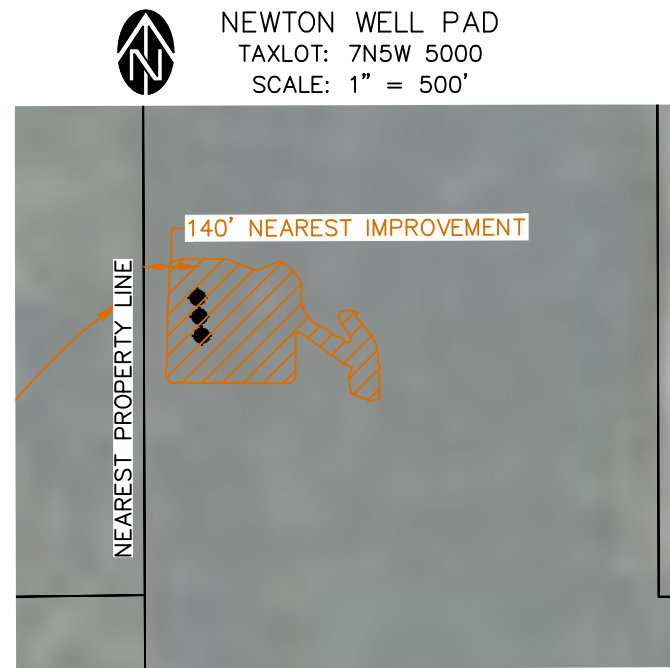
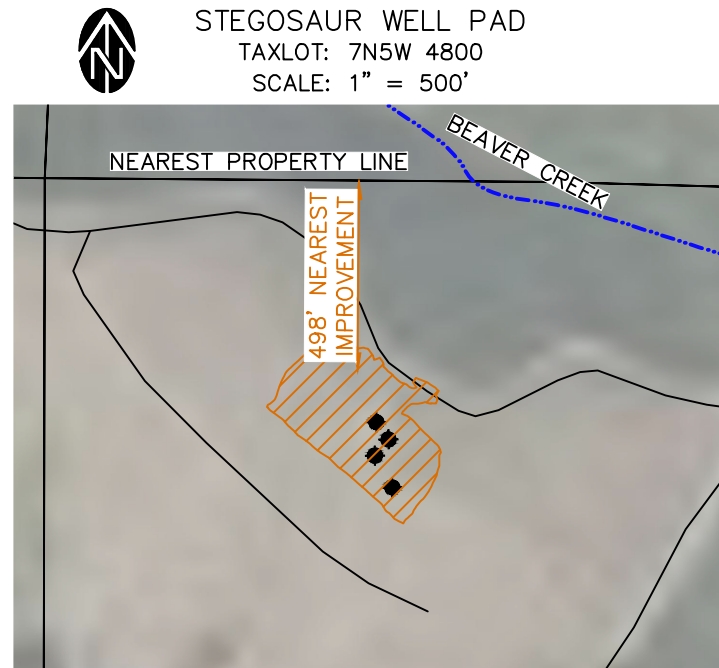
Note: ORS 671.025 requires that the plans and specifications for certain buildings in Oregon must have the stamp on them of a registered architect or registered professional engineer. Exceptions are (ORS 671.030(2):

1. Single family residential buildings.
2. Farm buildings.
3. Accessory buildings to single family residences and farm buildings.
4. Buildings of 4,000 sq.ft. or less ground area.
5. Buildings with an interior height of 20' or less (top surface of lowest floor to highest interior overhead finish).
6. Non-structural alterations or repairs to a building.

The structures proposed in this application do not appear to be subject to ORS 671.025.

pw

Exhibit D – Updated Vicinity Plan



LEGEND

- FOREST ROADS
- GIS TAXLOTS
- MAJOR ROADS
- PROPOSED FENCE
- STREAMS
- PROPOSED GRADING LIMITS
- PROPOSED WELL LOCATION

Exhibit E – Updated Medicine Site Plan

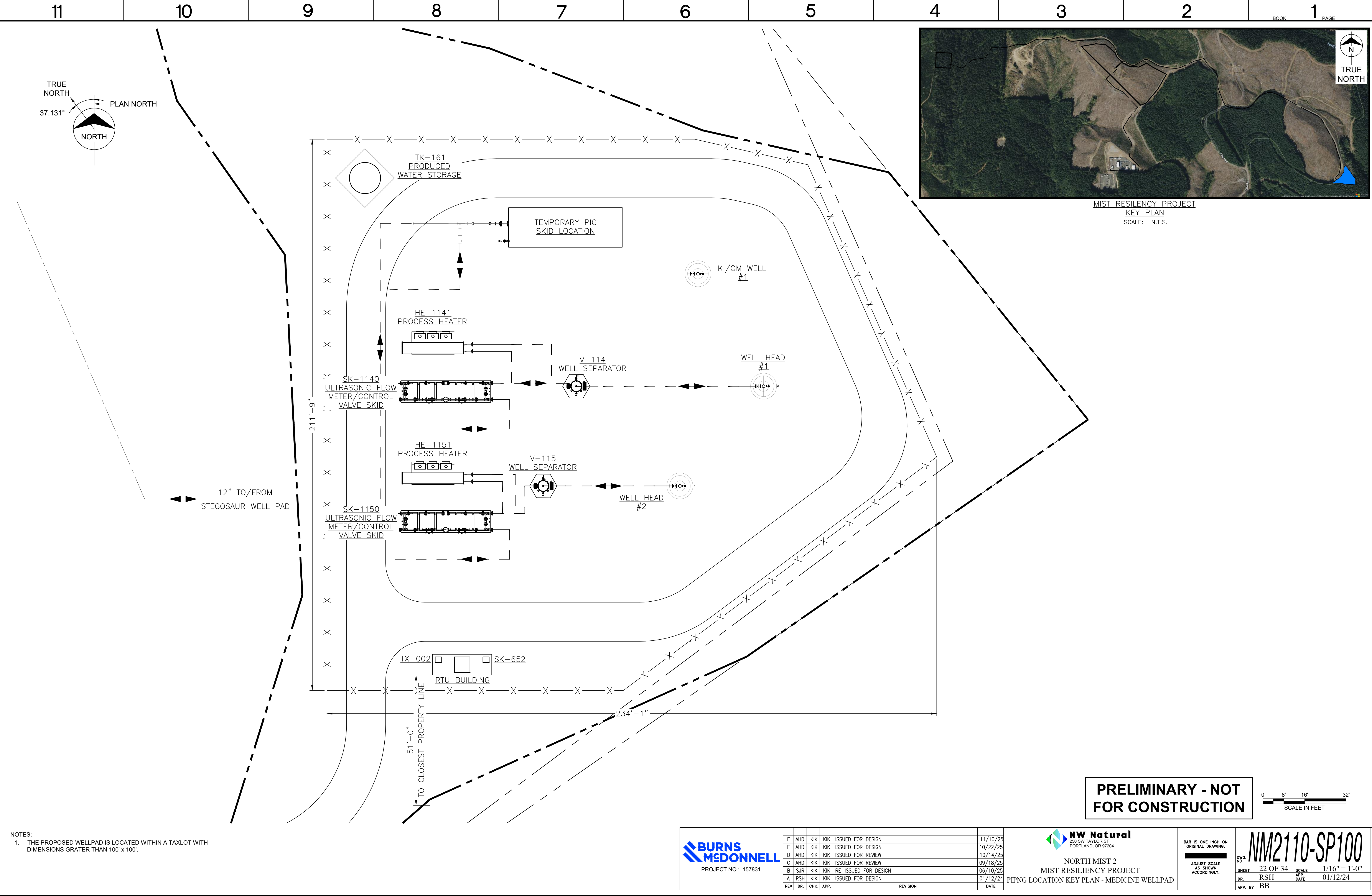
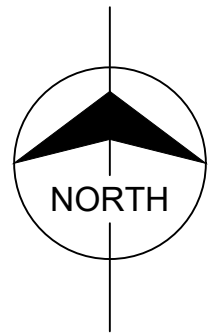


Exhibit F – Updated Medicine OM Site Plan



MEDICINE 4
OM WELL
OM 44B-35-75

243'-0"
TO CLOSEST PROPERTY LINE

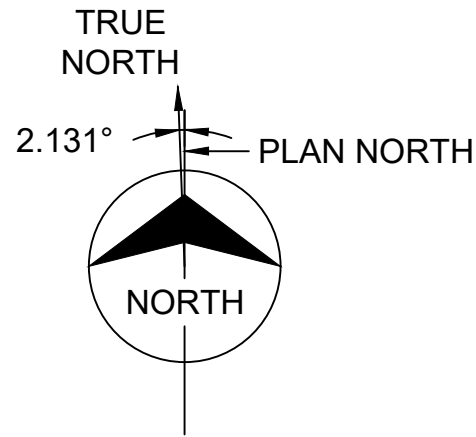
**PRELIMINARY - NOT
FOR CONSTRUCTION**

- NOTES:
- 1. WELL COORDINATES: 46.0401477, -123.2651562
 - 2. THE PROPOSED WELLPAD IS LOCATED WITHIN A TAXLOT WITH DIMENSIONS GRATER THAN 100' x 100'.

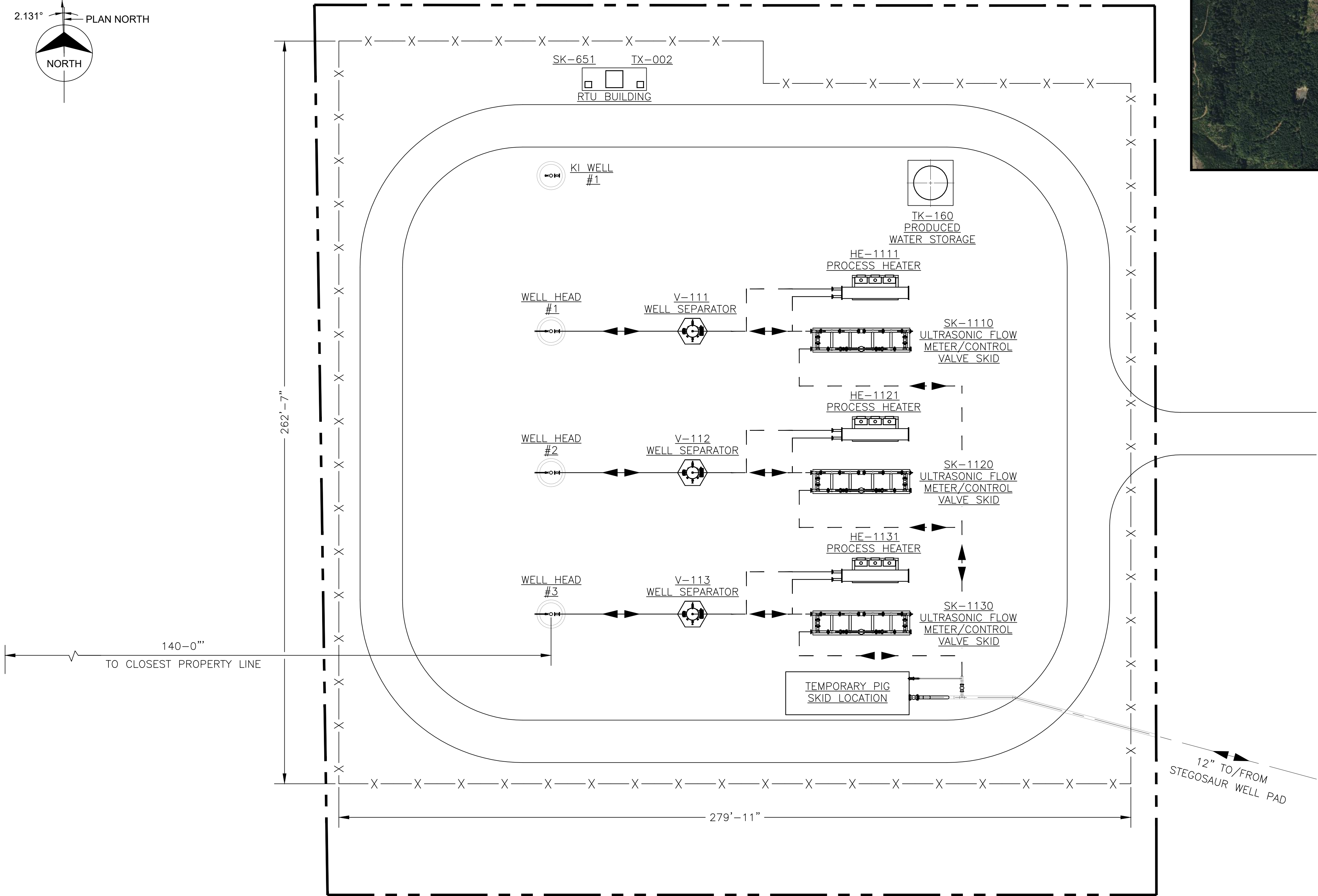
 PROJECT NO.: 157831							 230 SW TAYLOR ST PORTLAND, OR 97204 NORTH MIST MIST RESILIENCY PROJECT PIPNG LOCATION KEY PLAN - MEDICINE 4	BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALE AS SHOWN ACCORDINGLY.	
	A	AHD	CFB	KIK	ISSUED FOR REVIEW	10/01/25			
	REV	DR.	CHK.	APP.	REVISION	DATE			

DWG. NO.	SHEET 1 OF 1		SCALE	N.T.S.
DR.	AHD	APP. DATE	10/01/25	
APP. BY	KIK			

Exhibit G – Updated Newton Site Plan

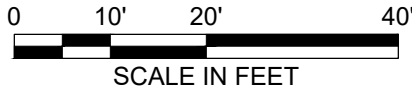


MIST RESILIENCY PROJECT
KEY PLAN
SCALE: N.T.S.



NOTES:
1. THE PROPOSED WELLPAD IS LOCATED WITHIN A TAXLOT WITH DIMENSIONS GRATER THAN 100' x 100'.

PRELIMINARY - NOT FOR CONSTRUCTION



 PROJECT NO.: 157831							 NW Natural 250 SW TAYLOR ST PORTLAND, OR 97204	NORTH MIST 2 MIST RESILIENCY PROJECT PIPNG LOCATION KEY PLAN - NEWTON WELLPAD	BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALE AS SHOWN ACCORDINGLY.	DWG. NO. NM2100-SP100 SHEET 17 OF 34 DR. RSH APP. BY BB SCALE 1" = 20' APP. DATE 01/12/24
	E	AHD	KIK	BB	ISSUED FOR DESIGN	10/22/25				
	D	AHD	KIK	BB	ISSUED FOR REVIEW	10/14/25				
	C	AHD	KIK	BB	ISSUED FOR REVIEW	09/18/25				
	B	SJR	KIK	BB	RE-ISSUED FOR DESIGN	06/10/25				
	A	RSH	KIK	BB	ISSUED FOR DESIGN	01/12/24				
REV	DR.	CHK.	APP.	REVISION	DATE					

Exhibit H – Updated Stegosaur Site Plan

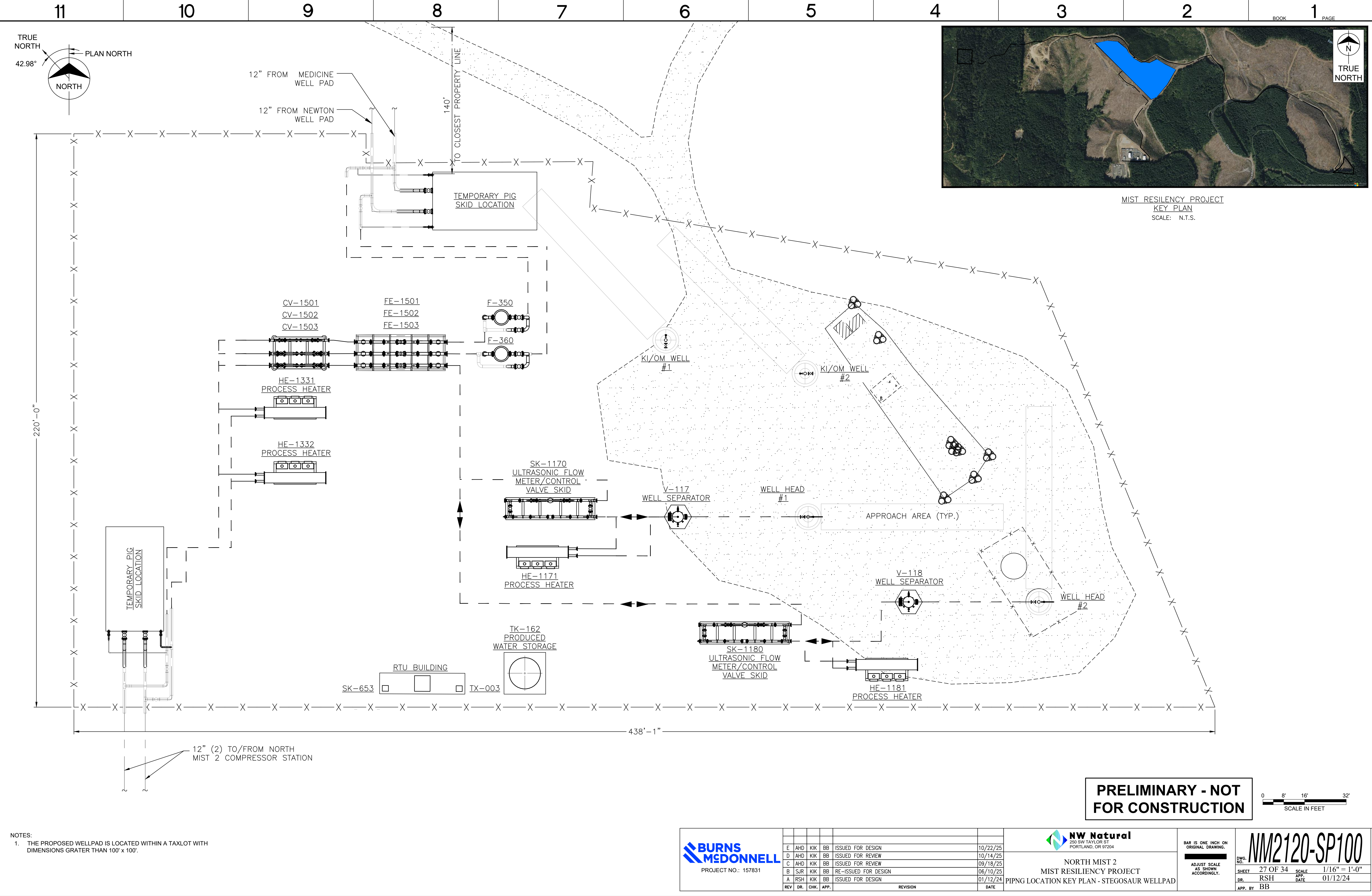


Exhibit I – Letter from David Weber

250 SW Taylor Street
Portland, OR 97204

503-226-4211
nwnatural.com

February 17, 2026

VIA EMAIL

Kate McGuire, Planning Division Manager
Deborah Jacob, Senior Planner
Columbia County Land Development Services
445 Port Avenue
St. Helens, OR 97051

Re: Letter from David Weber for CU 25-169

Dear Ms. McGuire and Ms. Jacob:

My name is David Weber, and I am the Vice President of Gas Supply and Utility Support Services at Northwest Natural Gas Company ("NW Natural"). In my role at NW Natural, I oversee how we store natural gas underground at the Mist Underground Natural Gas Storage Facility ("Mist Facility") and process that gas to make sure we have enough natural gas to serve customers year-round. My role includes managing the Mist Facility's operational and infrastructure needs and overseeing associated permitting efforts.

Because of my background, I am familiar with NW Natural's proposal to develop and operate twelve wells on four well pads (the "Project") and NW Natural's corresponding Conditional Use Permit ("CUP") application, CU 25-169. This letter is intended to clarify the gas processing operations that will occur once the Project is developed, as well as how the Project supports the broader natural gas processing system already occurring at the Mist Facility.

A. Overview of the Mist Facility's Importance to Oregon

The Mist Facility plays a critical role in turning natural gas into a resource that Oregon customers can rely on year-round. People need more gas in the winter than in the summer, but gas supply does not naturally match those swings. The Mist Facility solves this mismatch by letting us save gas when demand is low and use it when demand is high.

This seasonal balancing directly supports a wide range of Oregonians and others in the Pacific Northwest. Portland General Electric uses gas stored at the Mist Facility to generate electricity at Port Westward. The Mist Facility also supports supplying gas to about two million people for home heating, hot water, cooking, and emergency power. During the winter, about 30% of the gas supplied by NW Natural comes from the Mist Facility. In fact, on the coldest days of the year about one million people would not have enough natural gas to heat their homes if NW Natural did not have this storage-driven balancing capability.

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B. The Role of Natural Gas Storage in Oregon's Energy System

Natural gas demand in Oregon swings dramatically between seasons. Demand is low in the summer, and high in the winter. Storage is the key step in the natural gas lifecycle that smooths out these extremes. In other words, storage turns natural gas from a resource with severe timing and capacity limitations into one that NW Natural can deliver precisely when needed.

Oregon's particular challenge is that the western and most populated half of the state is served by just one interstate pipeline, and that pipeline alone cannot supply the gas needed during peak winter conditions. Buying more gas does not solve the problem, because any gas purchased from outside the region would still have to travel through that same single line.

Oregon is fortunate: We happen to have the right kind of underground rock formations in Columbia County that make safe storage possible. When withdrawn from storage at the Mist Facility, that gas bypasses the interstate bottleneck entirely; it can be moved through local pipelines and delivered directly and immediately to customers during peak demand. That is why, during lower-demand spring and summer months, NW Natural injects natural gas into the Mist Facility's reservoirs. Storage is the essential processing step that turns summertime surplus into wintertime supply.

C. How Natural Gas Storage Works: Injection and Withdrawal as Key Natural Gas Processing Functions

Storage is not a passive activity. Storage requires conditioning, stabilizing, and preparing gas so that NW Natural can then deliver it to customers when they actually need it. In that sense, the storage field functions much like a battery for the natural-gas system: It absorbs excess gas when demand is low and discharges that gas back to customers during periods of high demand, ensuring a steady and reliable supply across the seasons.

This Project represents just one small component of the much larger natural-gas lifecycle, which starts with resource extraction, includes storage and related processing, and ends with delivery for consumer use. The Project is a critical component of this lifecycle, which cannot function without the wells and associated equipment proposed as part of the Project. The Project wells make the physical acts of injecting, storing, and withdrawing natural gas possible, while also ensuring the existing storage reservoir remains stable and well-managed. In this way, the Project serves as an essential link in the larger Mist Facility system that processes, manages, and ultimately enables the delivery of natural gas to customers across the region.

To understand how the Project performs these essential processing functions, it is helpful to examine the equipment located on each well pad and its role in the process of injecting and withdrawing natural gas.

a. Summary of Equipment on the Well Pads

At the Mist Facility, each well pad includes several key pieces of equipment that work together to move, condition, and monitor the natural gas as NW Natural injects it into storage or withdraws it for customer use.

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An approximately 8-foot-tall wellhead sits at the surface of an underground “injection/withdrawal” (“I/W”) well. The wellhead controls the flow of gas in and out of the well. See Attachment 1, Mist Wellhead Picture. Beneath the wellhead is, speaking generally, an underground pipe that carries gas safely to and from an existing underground reservoir consisting of naturally occurring sandstone. A flow meter measures how much gas passes through the well. When NW Natural brings the gas back to the surface, the gas often contains moisture and particulates from the reservoir. The gas withdrawn from the reservoir also includes some “native gas” that would exist within the reservoir, regardless of NW Natural’s I/W process. A large piece of equipment called a separator removes moisture and particulates from the commingled stored and native gas. A process heater keeps the gas warm enough, so it flows easily through the lines.

NW Natural also uses two other types of wells to ensure the gas stored in the reservoir remains contained and stable during storage. These wells do not inject or withdraw natural gas for use. First, pressure monitoring (“KI”) wells track internal reservoir behavior, preventing over- and under-pressurization of storage reservoirs. Second, observation and monitoring (“O/M”) wells ensure that gas stays within the intended storage zone and does not migrate beyond geological boundaries.

Together, this well equipment is essential for safely processing natural gas throughout NW Natural’s storage and withdrawal operations at the Mist Facility.

Throughout the entire injection, storage, and withdrawal process, small “RTU” (remote terminal unit) buildings containing monitoring and control equipment ensure the safety of storage and processing operations.

b. Injection

Injection is the first major step in turning natural gas into a seasonally balanced product. Injection is not simply putting gas underground. It is a controlled, engineered process that prepares and conditions the gas for future withdrawal. The gas first passes through the North Mist Compressor Station (“Compressor Station”), which EFSC permitted and which is not subject to County land use jurisdiction. Although the Compressor Station is not part of this Project or the pending CUP request, compression is another processing step that allows gas to reach the pressures needed for underground injection and to be prepared for safe delivery after withdrawal, and the Project is integrally connected to Compressor Station processing operations.

After the Compressor Station, the natural gas flows to the well pad, through the wellhead and is injected into the underground reservoir. As noted, when NW Natural injects gas into the underground reservoirs, the injected gas refills the same formation originally used only to produce native gas. The injected gas mixes with remaining native gas, creating a blend of stored and native gas.

Throughout the injection process (and until the gas is subsequently withdrawn), O/M wells and KI wells actively monitor pressure, reservoir integrity, and gas containment, ensuring that the gas NW Natural stores today will be safe, stable, and ready to be withdrawn and processed for delivery to customers months later. This injection step transforms natural gas into a subsurface resource that NW Natural can deliver safely throughout the year.

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c. Withdrawal

Withdrawal is where the processing role of the wells is most visible. When gas comes back to the surface, it does not return in a condition that is ready for transport. Instead, it arrives mixed with water, moisture, and particulates from the reservoir. Each withdrawal well is equipped with a separator and a process heater that cleans and stabilizes the gas. The separator removes most moisture and particulates, which is a necessary step to prevent moisture from entering NW Natural's distribution system. NW Natural also heats the gas using the process heater to prevent ice-like blockages, known as "hydrate formation," ensuring safe and reliable flow during cold temperatures.

After the separator and the process heater, the gas flows back to the Compressor Station. The Compressor Station removes remaining moisture and impurities and compresses the gas so it is in a condition that can be transported via pipeline. See Attachment 2, Mist Gas Processing Overview. Only then can NW Natural distribute the final, processed gas to customers via pipeline. *Id.* These final processing steps both at the well pads and at the Compressor Station turn withdrawn gas into a clean, consistent product that meets the same quality standards as interstate pipeline gas.

E. Safety and Monitoring Systems (OM/KI Wells)

A system that processes natural gas must be safe. For this reason, the Project includes a mix of KI, O/M and KI/OM wells to ensure that the gas remains contained in the subsurface reservoirs and stable during gas injection, storage, and withdrawal operations.

As explained further in NW Natural's Supplemental Response dated February 17, 2026, NW Natural is proposing to install one O/M well on the Medicine O/M well pad, one KI/OM well on the Medicine well pad, two KI/OM wells on the Stegosaurus well pad, and one KI well on the Newton well pad. This mix of KI/OM wells and a KI well at different well pads is based on the specifics of each underlying reservoir. These wells ensure the safety of the process of injecting, storing, and withdrawing natural gas before it is ready for transport and delivery to customers.

In addition to subsurface monitoring, NW Natural maintains cleared areas around the wells, implements strong fire-prevention practices, and works closely with local fire agencies. Operations staff regularly inspect every well to ensure both system reliability and public safety. These layers of monitoring support NW Natural's ability to safely process natural gas at the well pads.

F. Conclusion

In summary, the Project is not simply a "storage" facility, because safe natural gas storage, by definition, includes multiple "processing" steps. All well pad equipment works together as an essential processing operation that transforms natural gas from a resource that arrives at the wrong times into one that the region can rely on throughout the year. Through injection, conditioning, monitoring, withdrawal, and final preparation, the wells and associated equipment actively change the timing, quality, and deliverability of the gas. This is what makes heat possible on the coldest days and what keeps homes, businesses, and power plants operating safely and reliably.

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Portland, OR 97204

503-226-4211
nwnatural.com

For all of these reasons, development and operation of the Project proposed in this CUP application are best understood as a “processing” use: a set of deliberate, engineered steps that make natural gas usable when customers need it most.

Thank you for your consideration.

Sincerely,



David Weber
Vice President of Gas Supply and Utility Support Services
NW Natural

Enclosures:

- Attachment 1 – Mist Wellhead Picture
- Attachment 2 – Mist Gas Processing Overview

Attachment 1 – Mist Wellhead Picture



Representative wellhead with moisture and particulates separator in the background

Attachment 2 – Mist Gas Processing Overview

Mist Gas Processing Overview

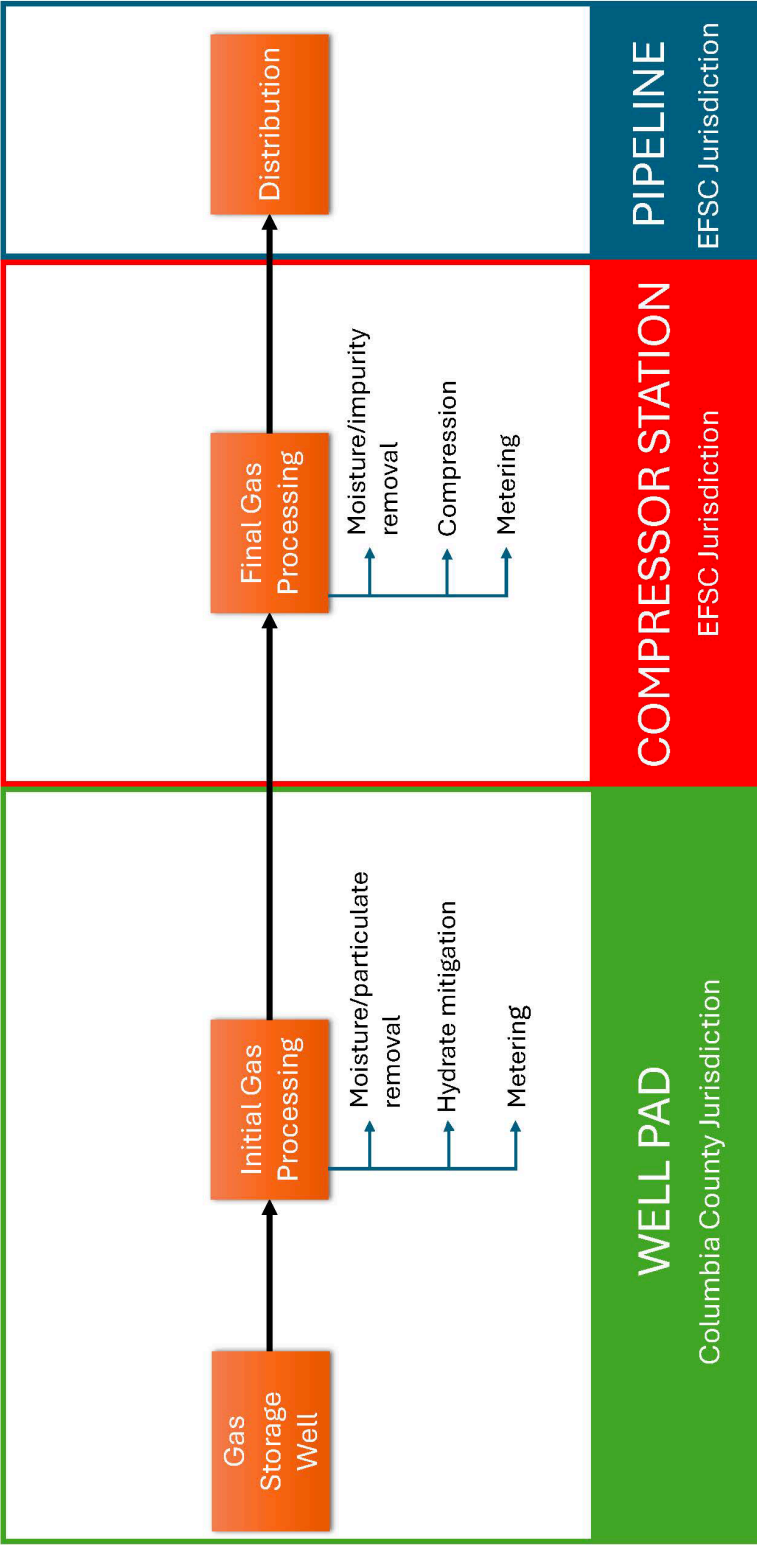


Exhibit J – Letter from Mist-Birkenfeld RFPD Chief Kaczinski



BOOK _____ PAGE _____
Mist-Birkenfeld Rural Fire Protection District

12525 Highway 202, Mist, OR 97016
Office- 503-755-2710 Fax- 503-755-2556

February 16, 2024

To: Brion Larson, Project Manager
NW Natural
250 SW Taylor Street
Portland, OR 97204

Re: NW Natural Mist Resiliency Permitting Project

Northwest Natural proposes to amend the Mist Underground Natural Gas Storage Site Certificate for its underground natural gas storage facility at Miller Station and the North Mist facility site in Columbia County. NW Natural's work to replace end-of-life compressors at Miller Station and the enhancements, expansion, and upgrade of the facilities at the North Mist site will have minimal additional impact on the services required from our Fire District. I have had a conversation with Nina Carlson, government affairs representative from NW Natural to discuss the project and am satisfied that this project will not add undue burden to our Fire District. I am satisfied that the concerns that were expressed have been answered in an appropriate manner.

Mist-Birkenfeld RFPD is the primary fire protection agency responsible for the NW Natural's Mist area facilities and will respond appropriately and as necessary to any fire protection or emergency medical issues that arise with respect to construction projects at Miller Station and the North Mist sites. After reviewing a description of the NW Natural Resiliency Project, I have concluded that there will be no significant adverse impacts of the enhancements, expansion, and upgrades of the Mist area facilities on the ability of Mist-Birkenfeld RFPD to provide fire protection and EMS services.

The cooperation demonstrated by NW Natural with the needs of our fire district has been exemplary. Mist-Birkenfeld RFPD is in total support of the continuance of this and future projects.

Sincerely,

A handwritten signature in dark ink, appearing to read "Joe Kaczinski", is written over a light blue horizontal line.

Joe Kaczinski
Fire Chief
Mist-Birkenfeld RFPD
joek@mistbirkenfeldrfd.org

Exhibit K – Selected Excerpts from EFSC RFA 13 Final Order

BEFORE THE
ENERGY FACILITY SITING COUNCIL
OF THE STATE OF OREGON

In the Matter of Request for Amendment 13 of the Site Certificate for the Mist Underground Natural Gas Storage Facility	) FINAL ORDER DENYING REQUESTS) FOR CONTESTED CASE AND) APPROVING REQUEST FOR) AMENDMENT 13
---	---

January 17, 2025

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ATTACHMENTS

Attachment A: Thirteenth Amended Site Certificate

Attachment B-1: Reviewing Agency Comments on preliminary RFA13

Attachment B-2: Public Comments on RFA13 and DPO

Attachment B-3: Certificate Holder’s Responses to Comments

Attachment B-4: Department’s Third-Party Consultant Review of American Aquifers DPO Comments

Attachment C: Horizontal Directional Drilling Inadvertent Return Response Plan

Attachment P-1: Draft Restoration of Temporary Impacts Plan

Attachment P-3: Draft Habitat Mitigation Plan

Attachment S: Inadvertent Discovery Plan

Attachment V-1: Construction Wildfire Mitigation Plan

Attachment V-2: Operational Wildfire Mitigation Plan with Vegetation Management Plan

Attachment W: Waste Minimization and Recycling Plan

ABBREVIATIONS AND ACRONYMS

AADT	Annual average daily traffic
ACDP	Air Contaminant Discharge Permit
ASC	Application for Site Certificate
BHP	Brake horsepower
BMP	Best Management Practice
Btu/hp-hr	British thermal units per horsepower-hour
CCCP	Columbia County Comprehensive Plan
CCZO	Columbia County Zoning Ordinance
Council	Energy Facility Siting Council
CWTD	Columbian white-tailed deer
dBA	Decibel A-weighting
Department	Oregon Department of Energy
DEQ	Oregon Department of Environmental Quality
DLCD	Oregon Department of Land Conservation and Development
DOGAMI	Oregon Department of Geology and Mineral Industries
DSL	Oregon Department of State Lands
EFSC	Energy Facility Siting Council
EFU	Exclusive farm use
EPA	U.S. Environmental Protection Agency
ESCP	Erosion and Sediment Control Plan
FERC	Federal Energy Regulatory Commission
GIS	Geographic Information System
HMP	Habitat Mitigation Plan
HP	Horsepower
HDD	Horizontal directional drilling
IBC	International Building Code
IRRP	Inadvertent Return Response Plan
ISO	International Organization for Standardization
I/W	Injection/withdrawal
JPA	Joint Permit Application
JBHR	Julia Butler Hansen National Wildlife Refuge
Hr/yr	Hours per year
lbs CO ₂ /HP-hr	Pounds of carbon dioxide per horsepower-hour
Mist Facility	Mist Underground Natural Gas Storage Facility
MMBtu/yr	Million British thermal units per year
MMscfd	Million standard cubic feet per day
NMFS	National Marine Fisheries Service
NMCS	North Mist Compressor Station
NMEP	North Mist Expansion Project
NMTP	North Mist Transmission Pipeline
NOAA	U.S. National Oceanic and Atmospheric Agency
NPDES	National Pollutant Discharge Elimination System

NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWN	Northwest Natural Gas Company
OAR	Oregon Administrative Rule
ODAg	Oregon Department of Agriculture
ODAv	Oregon Department of Aviation
ODFW	Oregon Department of Fish and Wildlife
ODF	Oregon Department of Forestry
ODOE	Oregon Department of Energy
ODOT	Oregon Department of Transportation
OHWM	Ordinary high-water mark
ONG	Oregon Natural Gas Development Company
OR	Oregon Route
ORS	Oregon Revised Statute
OSSC	Oregon Structural Specialty Code
OWRD	Oregon Water Resources Department
PA-80	Primary agriculture zone
PF-80	Primary forest zone
pRFA	Preliminary Request for Amendment
RFA	Request for Amendment
RFPD	Rural Fire Protection Department
RIPD	Rural Industrial – Planned Development
SAG	Special Advisory Group
SHPO	Oregon State Historic Preservation Office
SPMP	Spill Prevention and Management Plan
USFWS	United States Fish and Wildlife Service
WMP	Wildfire Mitigation Plan
WPCF	Water Pollution Control Facilities

III.B.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the site certificate conditions described above, the Council find that the certificate holder has the organizational expertise to construct, operate and retire the facility, with the proposed RFA13 changes, in compliance with Council standards and conditions of the site certificate.

III.C. STRUCTURAL STANDARD: OAR 345-022-0020

(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that:

(a) The applicant, through appropriate site-specific study, has adequately characterized the seismic hazard risk of the site; and

(b) The applicant can design, engineer, and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site, as identified in subsection (1)(a);

(c) The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soils hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility; and

(d) The applicant can design, engineer and construct the facility to avoid dangers to human safety and the environment presented by the hazards identified in subsection (c).

(2) The Council may not impose the Structural Standard in section (1) to approve or deny an application for an energy facility that would produce power from wind, solar or geothermal energy. However, the Council may, to the extent it determines appropriate, apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

(3) The Council may not impose the Structural Standard in section (1) to deny an application for a special criteria facility under OAR 345-015-0310. However, the Council may, to the extent it determines appropriate, apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.¹⁶

¹⁶ OAR 345-022-0020, effective October 18, 2017, as amended by minor correction filed May 28, 2019.

1 **III.C.1. Findings of Fact**

2
3 OAR 345-022-0020 requires Council to find that the certificate holder has adequately
4 characterized the potential seismic, geological and soil hazards of the proposed RFA13 site, and
5 that the certificate holder can design, engineer and construct the proposed RFA13 changes to
6 avoid dangers to human safety from these hazards. The analysis area for the Structural
7 Standard is the area within the site boundary.

8
9 To facilitate Council's evaluation of compliance with the Structural Standard, OAR 345-021-
10 0010(1)(h)(A) requires that the certificate holder provide a geologic report meeting
11 Oregon State Board of Geologist Examiners geologic report guidelines. Current guidelines must
12 be determined based on consultation with the Oregon Department of Geology and Mineral
13 Industries (DOGAMI). And OAR 345-021-0010(1)(h)(E) requires the certificate holder to provide
14 an assessment of seismic hazards, in accordance with standard-of-practice methods and best
15 practices, that addresses all issues raised in consulting with DOGAMI.

16
17 Consultation between Department staff, certificate holder and DOGAMI occurred on
18 September 21, 2023. . Various sources and methods were presented by the certificate holder
19 during the consultation, as described below. DOGAMI concurrence on the methods and sources
20 was obtained and is provided in RFA13 Exhibit H Attachment H-1.

21
22 Certificate holder retained GeoEngineers, Inc. (GeoEngineers) to perform an evaluation meeting
23 current OSBGE guidelines (OSBGE 2014) "Guideline for Preparing Engineering Geologic
24 Reports." GeoEngineers conducted several reconnaissance visits to the Mist Resiliency Project's
25 proposed injection and withdrawal (I/W) pipeline routes, powerline route, well pads, NMCS,
26 Miller Station and selected landslides on several dates. Site-specific geotechnical work was
27 conducted by certificate holder's contractor, GeoEngineers in 2023. Geotechnical work
28 completed in 2023 at NMCS included: 4 borings (two 100-foot deep and 2 60-foot deep);
29 downhole seismic testing in 2 100-foot borings; electrical resistivity testing; and soil
30 classification and corrosion resistant testing. Geotechnical work completed in 2023 at Miller
31 Station included: 2 80-foot borings; downhole seismic testing in 1 80-foot boring; soil
32 classification and corrosion design. Geotechnical reports, with seismic design and foundation
33 recommendations, specific to NMCS and Miller Station are provided in RFA13 Exhibit H
34 Attachment H-3 and H-4. Based on completion of the consultation meeting and DOGAMI review
35 and concurrence, as documented in RFA13 Exhibit H Attachment H-1, the Council finds that the
36 sources relied upon for the evaluation of seismic and non-seismic hazards represent reasonably
37 available sources, consistent with OAR 345-021-0010(1)(h).

38 39 *Seismic Hazard Risk at Site*

40
41 Subsection (1)(a) of the standard requires Council to find that certificate holder "through
42 appropriate site-specific study, has adequately characterized the seismic hazard risk of the
43 site." As noted above, certificate holder contracted with GeoEngineers to prepare a geologic

report pursuant to the DOGAMI guidelines. To study the seismic hazard risks that the facility with the RFA13 changes would face at the site, GeoEngineers, among other actions:

- evaluated seismic hazards for the proposed well pads, injection/withdrawal pipelines, NMCS, Miller Station and Power line,
- evaluated potential presence of faults using USGS fault and fold database (as of August 2023), and by review of a Light Detection and Ranging (LiDAR) hillshade model, as interpreted by GeoEngineers;
- obtained a list of recorded earthquakes within approximately 50 miles of the proposed route using United States Geologic Survey's (USGS) earthquake catalog Search (as of August 2023);
- evaluated contributing earthquake sources using USGS Probabilistic Seismic Hazard Mapping Tool;
- evaluated the geologic setting, stratigraphy, geologic structure, site geology, geologic unit stability, soils and groundwater of the site using Oregon Geologic Data Compilation (OGDC) Version 6 mapping; and the Statewide Landslide Information Database for Oregon (SLIDO) Version 3.4; and
- completed borings at NMCS and Miller Station to evaluate geologic conditions

Based on a September 21, 2023 discussion and subsequent email confirmation, DOGAMI agreed with GeoEngineers' seismic hazard evaluation approach. Therefore, the Council finds the certificate holder has engaged in "appropriate site-specific study" to characterize the seismic hazard risk, in compliance with OAR 345-022-0020(1)(a).

Contributing Earthquake Sources

As noted above, in compliance with OAR 345-021-0010(1)(h)(E), certificate holder conducted a site-specific study of seismic hazards, known as a Probabilistic Seismic Hazard Analysis (PSHA). Certificate holder states in Exhibit H that seismic hazard de-aggregations were performed for 475-year, 2,475-year, and 4,975-year hazard levels for rock outcrop conditions. The 475-year motion corresponds to a 10 percent probability of exceedance in 50 years, the 2,475-year motion corresponds to a 2 percent probability of exceedance in 50 years, and the 4,975-year motion has a 1 percent probability of exceedance in 50 years. The modeling is described in detail in RFA13 Exhibit H. The results show that the dominant seismic hazard source for the 475-year, 2,475-year and 4,975-year earthquake levels are magnitude (M) 8.8 to M9.1 Cascadia Subduction Zone (CSZ) interface event. The second greatest seismic hazard is a M6.9 to M7.0 deep (35 to 70 kilometers in depth) intraslab earthquake similar to the M6.8 Nisqually earthquake that occurred in February 2001 near Olympia, Washington. Crustal earthquakes of M6.2 from background seismicity also pose a risk in the 475-year earthquake level, but the background seismicity risk is effectively muted by the hazard presented by the CSZ earthquake when longer return periods are considered.

1 Based on USGS's Quaternary Fault and Fold Database, as of August 2023, there are 13
 2 quaternary faults within 50 miles of the site, as presented in Figure 5 below and in RFA13
 3 Exhibit H Table H-8. Figure 5 below and Table H-8 from RFA13 Exhibit H include only mapped
 4 Quaternary active fault traces (from 2.6 million years to present day). USGS's Quaternary Fault
 5 and Fold Database accounts for crustal rotations and displacement along with other geological
 6 and seismological data in the interpretation of potential seismicity in the region.¹⁷

7
 8 Within the area of the facility and proposed Mist Resiliency Project site, there are older faults
 9 that date from the Late Eocene (38 to 33.9 million years ago).¹⁸ Three mapped fault traces are
 10 identified within the facility site (Niem et al. 1990), which are documented as being inactive.^{19,20}

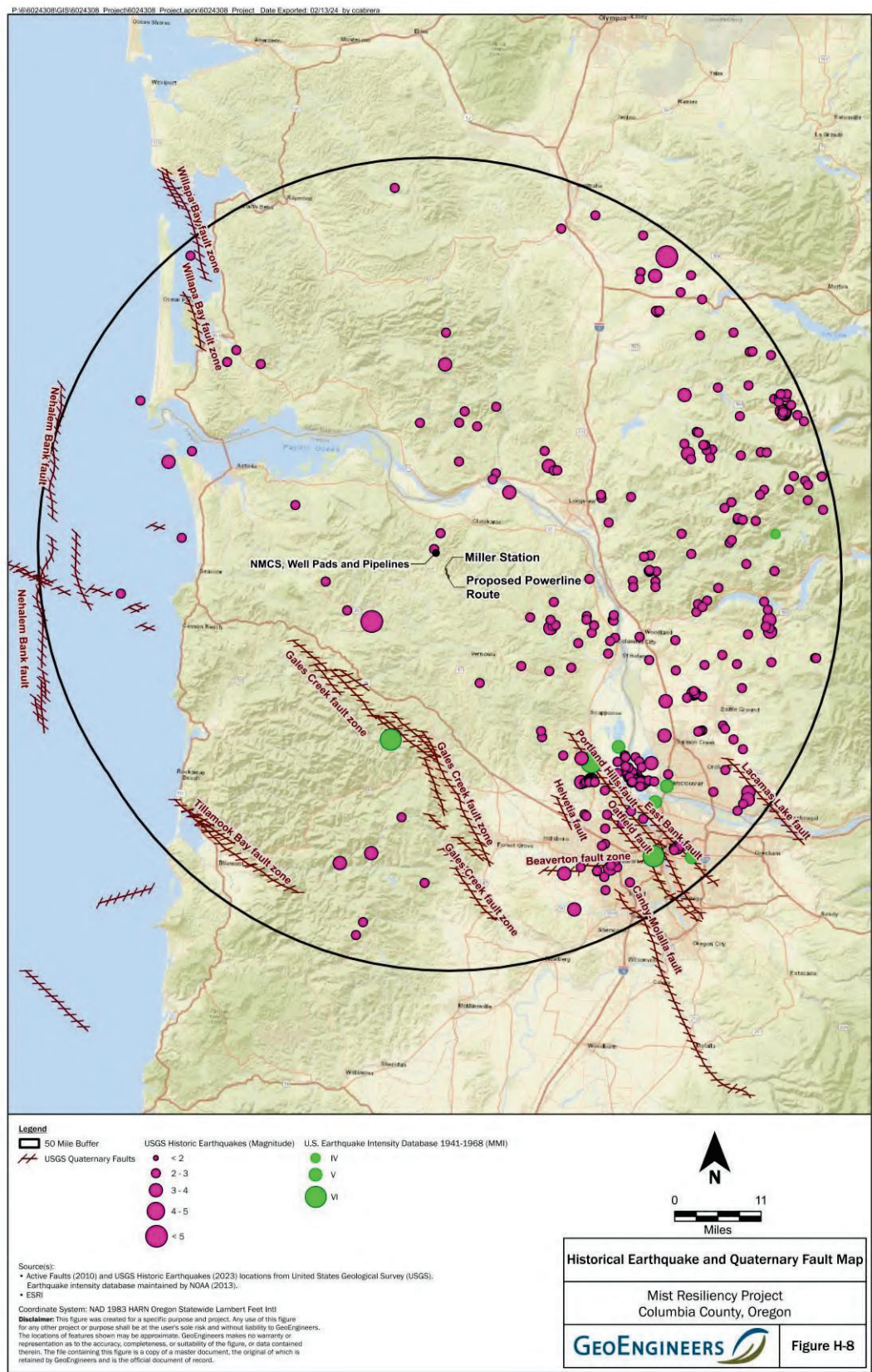
¹⁷ On the record of the DPO, American Aquifers expressed concerns that geologic hazards had not been adequately evaluated at the site, based on rotation beneath the gas field. MSTAMD13 DPO Public Comment 5 Maria Gibson 2024-09-19. Based on review by the Department's third-party consultant, Haley-Aldrich, crustal rotation and displacement impacts are accounted for in USGS's Fault and Fold Database, which was the source relied upon by the certificate holder. See Attachment B-4 of this order.

¹⁸ MSTAMD13 RFA13 Exhibit H Geologic 2024-08-09, Section 4.1.3.

¹⁹ MSTAMD13 RFA13 Exhibit H Geologic 2024-08-09, Figure H-3.

²⁰ On the record of the DPO, American Aquifers expressed concerns that the geologic hazards had not been adequately evaluate at the site, based on the USGS's 2020 Portland Map that was alleged not to have been relied upon by the certificate holder. MSTAMD13 DPO Public Comment 5 Maria Gibson 2024-09-19. Based on review by the Department's third-party consultant, Haley-Aldrich, the evaluation of faults and geologic mapping presented in RFA13 Exhibit H are appropriate to inform the site and seismic design parameters. See Attachment B-4 of this order.

Figure 5: Geological Faults within 50 miles of RFA13 Site Boundary



1 Site Seismic Hazards

3 • Ground shaking

5 Certificate holder's consultant assessed ground shaking for the 475-year, 2,475-year, and 4,975-
6 year hazard level, characterized ground motion amplification effects along the proposed
7 pipeline route and collected mapped acceleration parameters at each well pad, approximate
8 midpoint of each pipeline between well pads, the NMCS, Miller Station, the south end of the
9 powerline alignment, and the approximate midpoint of the powerline alignment. They are of
10 the opinion that there is a low risk of ground shaking in the absence of other deformation
11 adversely affecting the proposed pipeline or the proposed powerline.

13 • Fault rupture

15 Two faults are mapped by DOGAMI (2020) crossing the powerline alignment within the
16 Nehalem River Valley. These faults are not considered active because they are not mapped by
17 the USGS quaternary fault and fold database. Accordingly, certificate holder's consultant
18 concluded that there is a low probability of fault rupture adversely affecting the facility,
19 however DOGAMI coordination²¹ indicated that fault rupture could potentially impact buried
20 transmission lines, and for this reason, recommended that the preconstruction site-specific
21 geotechnical study should include a detailed assessment of potential impacts of fault rupture
22 on underground transmission.

24 • Seismically Induced Landslides

26 The proposed pipelines, NMCS and Stegosaur and Medicine well pads are not located in
27 proximity to existing landslides that could be re-activated during a seismic event and avoid very
28 steep slopes. Therefore, there is a relatively low risk of seismically induced landsliding affecting
29 these facility components.

31 Miller Station is near two past landslides (Lindgren Creek/LS-4 and Miller Station/LS-5). The
32 powerline alignment also crosses LS-4. LS-5 has been regraded and mitigated by installing
33 drainage features and GeoEngineers did not observe indications of instability, therefore it is
34 unlikely it would be reactivated by earthquake shaking. There is a risk LS-4 could be reactivated
35 during a seismic event, potentially affecting Miller Station and the powerline alignment. If LS-4
36 is reactivated, there is a low to moderate risk that the scarp would retrogress through a
37 weathered formation underlying the compressor station replacement area and adversely affect
38 the proposed Miller Station. A reactivated LS-4 could damage the powerline and adjacent
39 pipelines within the right of way (ROW) following the powerline, but the risk to the public
40 should be low because the landslide is in an unpopulated area.

²¹ MSTAMD13Doc46 pRFA13 ODOE-DOGAMI Consultation Notes 2023-09-21

The Miller Station Storage Area is located close to LS-7 and LS-7, which is a road fill related to a past failure. However, given mitigation and the upslope location of Miller Station Storage Area, certificate holder's consultant believes it is unlikely additional failure of LS-7 would impact the Miller Station Storage Area.

- Liquefaction and Liquefaction-Induced Hazards

Liquefaction takes place when loosely packed, water-logged sediments at or near the ground surface lose their strength in response to strong ground shaking. During a liquefaction event, such as that which could be produced by an earthquake, soil particles, in combination with the water located in the pore spaces between them, tend to behave like quicksand.

The Nehalem River Valley contains alluvial materials (sand, silt, clay, gravel) and relatively high groundwater levels and therefore may be susceptible to liquefaction during earthquake shaking. Based on four borings conducted by GeoEngineers within the Nehalem River Valley and a review of well logs, the Exhibit H concludes that soils susceptible to liquefaction will be between 20 and 30 feet in thickness overlying bedrock. No structures are proposed for construction within the Nehalem River Valley, but the proposed powerline alignment is partially located within the valley, which may be susceptible to liquefaction during earthquake shaking.

GeoEngineers conducted a liquefaction triggering and settlement analysis for each of the four logged soil borings that represent subsurface conditions along the proposed powerline alignment using three separate methods²² and assuming groundwater is within 5 feet of the ground surface along the portion of the powerline alignment in the Nehalem River Valley. The analyses were conducted using methods developed by Boulanger and Idriss (2014), Youd et al (2001), and Seed et al (2003).²³ The methods and results were submitted to DOGAMI for review and comment. Based on this analysis, liquefaction induced settlement is estimated to result in approximately 1½ inches to 7 inches of surface settlement along the powerline alignment located within the Nehalem River Valley after a design level earthquake. The liquefaction settlement primarily occurs from 5- to 10-foot thick loose sand layers observed in the borings

Based on geological conditions along the proposed pipeline alignments and at the NMCS, Miller Station, Miller Station Storage Area and well pads, and the evaluation conducted by GeoEngineers, the certificate holder concludes, with their consultant that analysis does not identify liquefaction to be a likely hazard to the RFA13 proposed facility components.

²² ATC (Applied Technology Council). 2023. ATC Hazards by Location. Reference Document ASCE 7-16. Accessed August 30, 2023. <https://hazards.atcouncil.org/>; USGS. 2023b. Interactive Deaggregations, Earthquake Hazards Program, 2008. Accessed August 30, 2023. <https://earthquake.usgs.gov/hazards/interactive/>

²³ Boulanger, R. W., and Idriss, I. M. (2014). "CPT and SPT based liquefaction triggering procedures.", Univ. of California, Davis, CA.; Youd, T.L., et. al., October 2001, Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils., "Journal of Geotechnical and Geoenvironmental Engineering, Vol. 127, No. 10.; Seed, R. B., et al., 2003, "Recent Advances in Soil Liquefaction Engineering: A Unified and Consistent Framework," 26th Annual ASCE Los Angeles Geotechnical Spring Seminar.

As discussed above, Council’s Structural Standard, OAR 345-022-0020(1)(a), requires Council to find that the certificate holder, through appropriate site-specific study, has adequately characterized the seismic hazard risk of the site. Considering the foregoing analyses and the certificate holder’s reliance on qualified consultants and coordination and reliance on DOGAMI-recommended sources, the Council finds that the certificate holder has adequately characterized the seismic hazard risks at the location of the proposed RFA13 components.

Mitigation of Seismic Hazards

Certificate holder commits to designing and building the RFA13 components to meet the standards of the Oregon Structural Specialty Code, which incorporates the 2021 International Building Code (IBC), specifically the design codes related to geology, seismicity, and near-surface soil, in IBC Section 1613, with slight modifications by the current amendments of the state of Oregon and local agencies. Buildings and foundations will be designed assuming Risk Category IV. Using USGS’s 2014 National Seismic Hazard Model (NSHM), with a 2,475 year return period, predicted ground acceleration (PGA) values could be 0.5 g at the site, based on a magnitude MW 9.1 megathrust event on the CSZ. Therefore, the seismic design parameters for PGA are 0.558 g (NMCS) and 0.523 g (Miller Station).^{24,25} Constructing the proposed RFA13 changes to meet these standards will reduce potential dangers to human safety presented by seismic hazards at the site. These requirements are addressed by existing site certificate conditions adopted in alignment with Council’s mandatory conditions in OAR 345-025-0006. As presented in Section III.A. General Standard of Review, the Council administratively amends these conditions to ensure applicability to the proposed RFA13 changes.

Subject to compliance with Council’s mandatory conditions, the Council finds that the certificate holder can design, engineer, and construct the facility, with proposed RFA13 changes, to avoid dangers to human safety and the environment presented by seismic hazards affecting the site, and therefore meets OAR 345-022-0020(1)(b).

Non-seismic Geologic and Soils Hazards

²⁴ MSTAMD13 RFA14 Exhibit Geologic 2024-08-09, Attachment H-3, Table 4 and Attachment H-4, Table 1.

²⁵ On the record of the DPO, America Aquifers expressed concern that because the 2023 version of the earthquake catalogue was not used, seismic hazards at the site were not properly evaluated. MSTAMD13 DPO Public Comment 5 Maria Gibson 2024-09-19. Based on review by the Department’s third-party consultant, Haley-Aldrich, USGS released a new NSHM in 2023. It incorporates the most recent seismic data and models available in the literature, as well as the feedback received from academia, industry, and public. Based on a comparison of RFA13 Table H-9 and relevant values using the 2023 USGS NSHM (Peterson et al., 2024), there is an approximate 12 percent difference in the certificate holder’s data sources compared to the 2023 USGS NSHM. This difference is not considered to represent a significant difference for the purpose of informing seismic risk hazard, IBC code requirements or seismic design parameters as provided in the GeoEngineers Report. See Attachment B-4 of this order.

\$4,827,000 million, to demonstrate its ability to obtain a bond or letter of credit.⁷⁵ The certificate holder also provided a copy of its' 2022 Annual Report,⁷⁶ and an opinion from certificate holder's General Counsel affirming the legal authority of certificate holder to construct and operate the facility, with proposed RFA13 changes without violating existing bond indenture provisions, common stock covenants, or similar agreements.⁷⁷

The 2022 Annual Report highlights that the utility reported net income for 2022 of \$86.3 million, an increase of 10% in net income, compared to \$78.7 million for 2021. The Report also highlights that the utility achieved an annual customer growth rate of 1.1% by adding 8,600 new natural gas meters, bringing their customers to approximately 2.5 million. The Council finds that based on the certificate holder's historic business experience, the maintenance of current authorized payment bond, and the financial and customer growth data provided in its 2022 Annual Report, the certificate holder has demonstrated a reasonable likelihood of obtaining a new bond in the amount specified to restore the site to a useful nonhazardous condition.

III.G.2. Conclusions of Law

Based on the foregoing findings of fact, and subject to compliance with new Retirement and Financial Assurance Conditions 1, 2, and 3 provided above, the Council finds that under OAR 345-027-0375(2)(e), the amount of the bond or letter of credit required under OAR 345-022-0050 is adequate, and that the certificate holder has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount to retire the RFA13 facility components and site to a useful, nonhazardous condition.

III.H. FISH AND WILDLIFE HABITAT: OAR 345-022-0060

To issue a site certificate, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are consistent with:

(1) The general fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025(1) through (6) in effect as of February 24, 2017, and

(2) For energy facilities that impact sage-grouse habitat, the sage-grouse specific habitat mitigation requirements of the Greater Sage-Grouse Conservation Strategy for Oregon at OAR 635-415-0025(7) and OAR 635-140-0000 through - 0025 in effect as of February 24, 2017.⁷⁸

III.H.1. Findings of Fact

⁷⁵ MSTAMD13Doc62 RFA13 Exhibit M Financial Capability 2024-08-09, Attachment M-5 and MSTOPS 2024 Bond Rider 2024-03-06.

⁷⁶ MSTAMD13Doc62 RFA13 Exhibit M Financial Capability 2024-08-09, Attachment M-4.

⁷⁷ MSTAMD13Doc62 RFA13 Exhibit M Financial Capability 2024-08-09, Attachment M-6.

⁷⁸ OAR 345-022-0060, effective Mar. 8, 2017.

1 The analysis area for the Fish and Wildlife Habitat standard is the area within and extending 0.5
2 miles from the RFA13 site boundary.

3
4 Certificate Holder Methodology

5
6 Literature review and field studies were conducted in 2022 and 2023. Habitat categorization
7 surveys were conducted along with a generalized, simultaneous search for all special status
8 wildlife species. Surveys were planned primarily for the month of June to coincide with the period
9 of highest biological activity of neotropical migrant and breeding birds, foraging and breeding
10 wildlife species, flowering plants, and other taxa. Surveyors compiled a comprehensive list of
11 species (or their sign) encountered.

12
13 In preparation for biological and botanical field surveys, the certificate holder conducted desktop
14 analyses of information regarding special status species (e.g., federal or state listed, state
15 sensitive, U.S. Fish and Wildlife Service (USFWS) species of concern) occurrence and habitat
16 requirements and special habitats (e.g., west side big game range spatial data, ODFW 2017) that
17 could occur within the analysis area. The certificate holder consulted the Oregon Biodiversity
18 Information Center (ORBIC) to identify special status species that may occur within the Analysis
19 Area, as well as other sources, including National Oceanic and Atmospheric Administration and
20 Oregon Department of Fish and Wildlife (ODFW) data resources. They also used aerial imagery to
21 inform the desktop analysis of potential habitat types and subtypes within the RFA13 site
22 boundary and analysis area as shown in Figures 14 and 15 below. The survey area is presented in
23 Figure 13 below. Habitat Categories within the RFA13 analysis area are presented in Figures 14
24 and 15.

Figure 13: RFA13 Biological and Botanical Surveys within Analysis Area

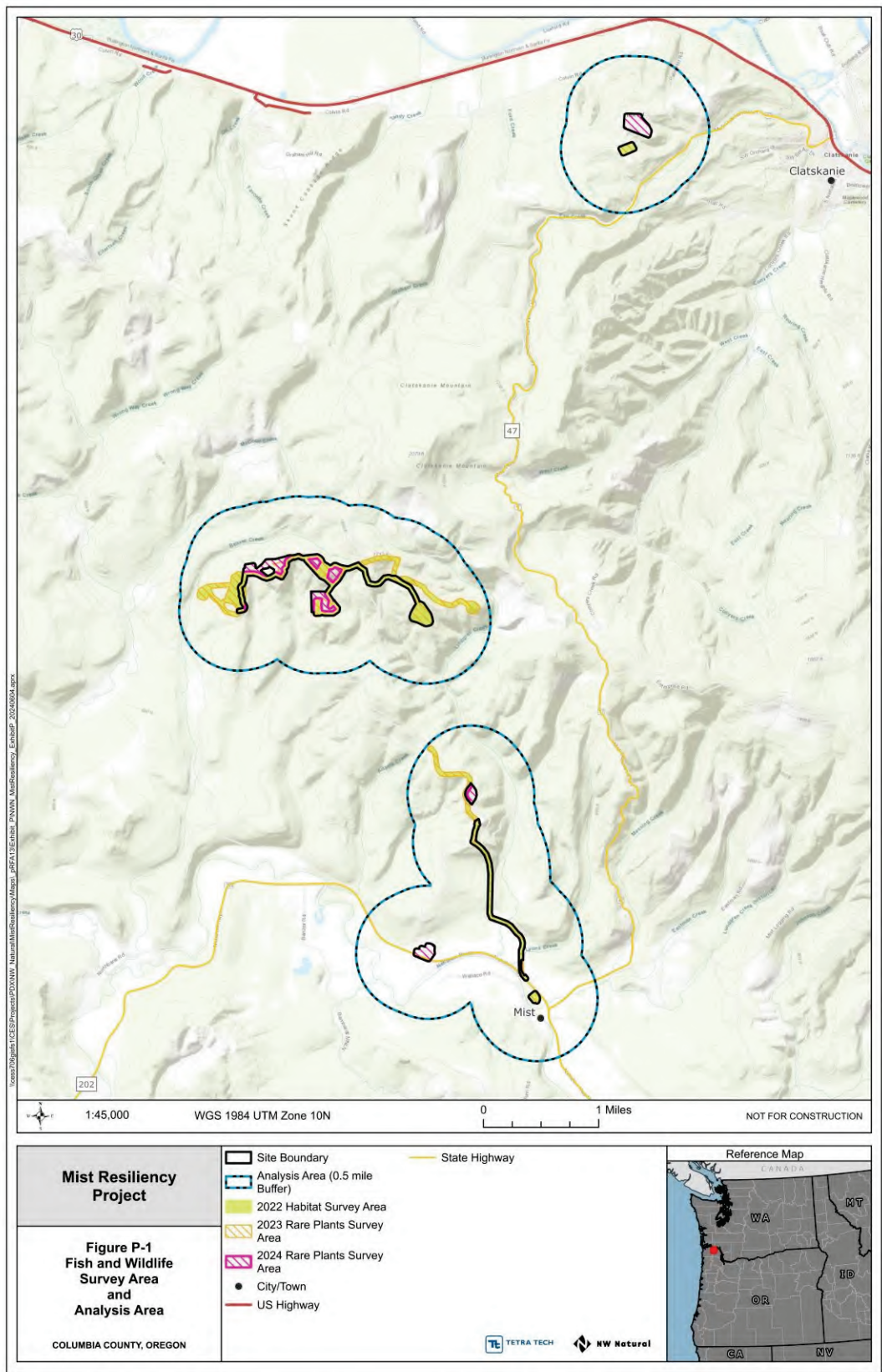


Figure 14: ODFW Habitat Types and Subtypes in RFA13 Analysis Area

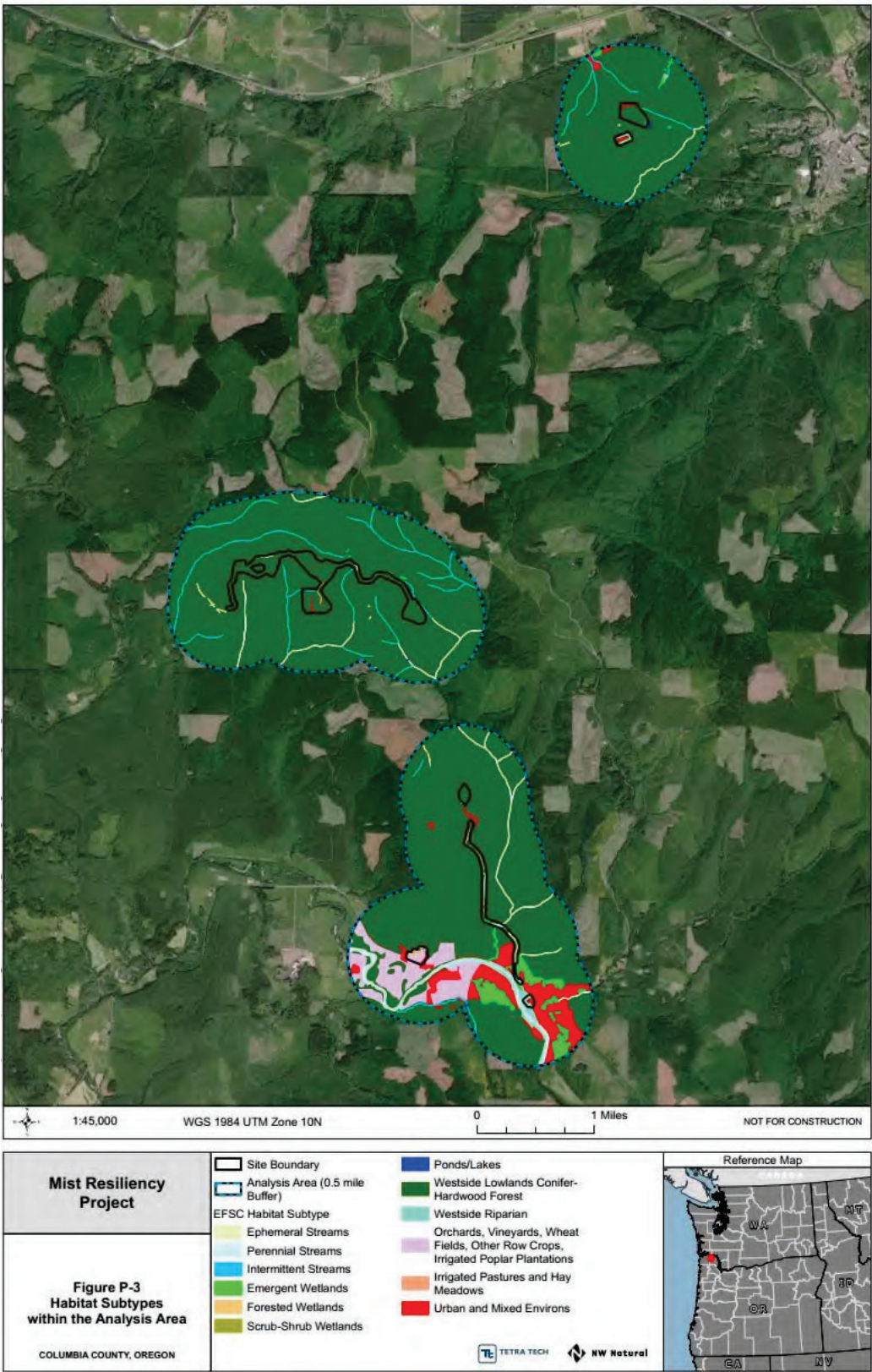
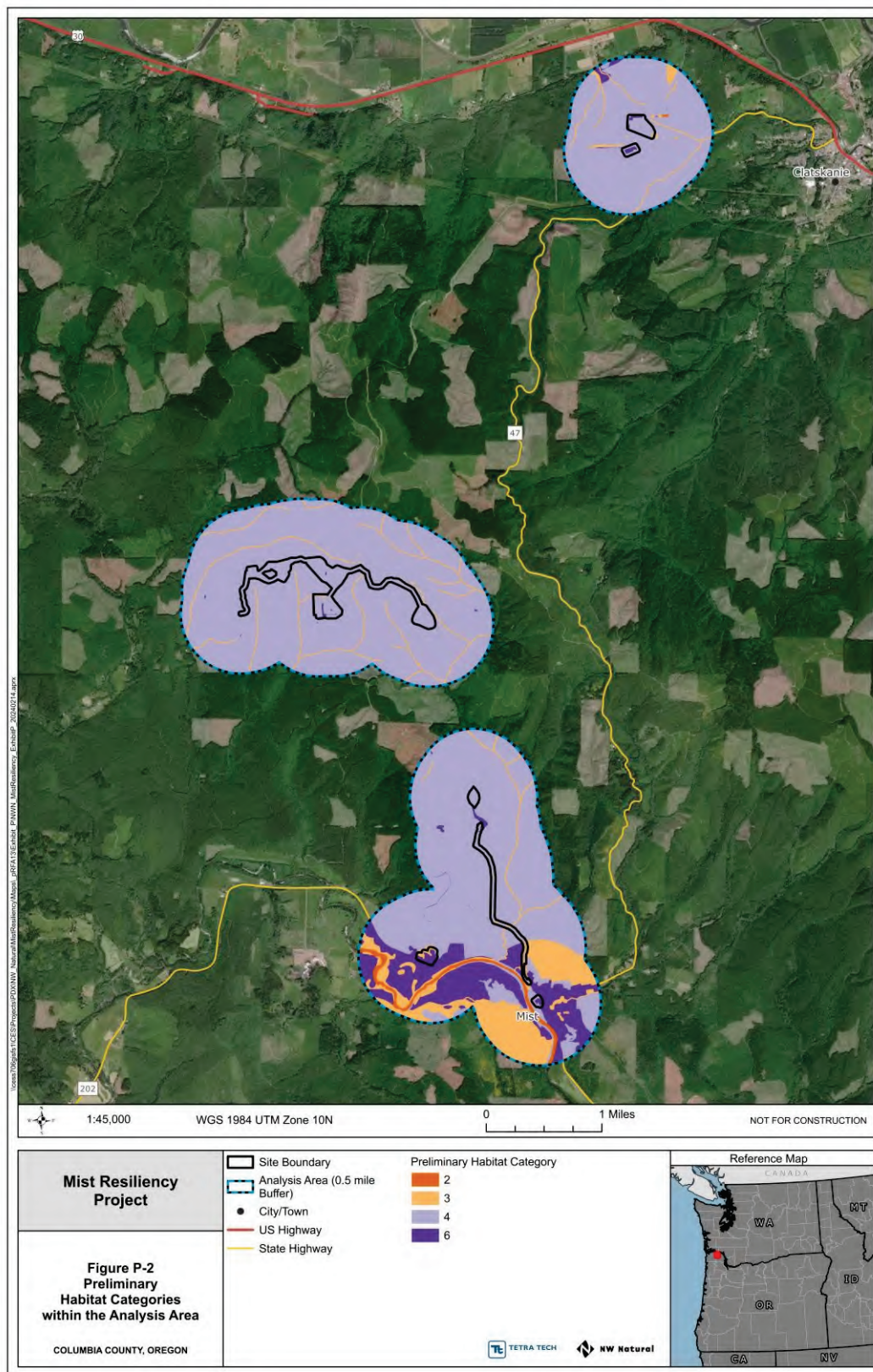


Figure 15: ODFW Habitat Categories within RFA13 Analysis Area



The certificate holder identified wetlands during a separate wetland delineation survey effort described in RFA13 Exhibit J and in Section IV.D Removal-Fill of this order. As part of ODFW consultation of RFA13 proposed changes, the certificate holder submitted to ODFW their wetland delineation results and estimates of wetlands as habitat. ODFW concurred on the wetlands classifications as ODFW Habitat Categories 3 and 4 for wetland areas identified in RFA13 as potentially impacted during RFA13 construction. These areas are included in habitat impacts totals (temporary and permanent) and are included in the associated mitigation plans as described and shown in Tables 10 and 11 below.

Identified habitat types and categories in the analysis area are:

- Open water (ODFW habitat categories 2, 3 and 4)
- Upland forests and woodlands (ODFW habitat categories 2, 3 and 4)
- Riparian forest and shrubland complexes (ODFW habitat categories 3 and 4)
- Wetlands (ODFW habitat categories 3 and 4)
- Agriculture, pasture, and mixed environs (ODFW habitat categories 3 and 4)
- Urban and mixed environs (ODFW habitat category 6)

Habitat Impacts and Mitigation

RFA13 changes would result in approximately 63.7 acres of temporary disturbance and up to 27.7 acres of permanent habitat impacts, as presented in Table 10 below.

Table 10: Habitat Impacts from Proposed RFA13 Changes

Habitat Category	Habitat Type-Subtype ¹	Permanent Impact - Acres	Temporary Impact - Acres
3	Upland Forests and Woodlands- Westside Lowlands Conifer-Hardwood Forest	—	0.004
	Wetlands- Emergent Wetlands	—	0.01
	Wetlands- Scrub-Shrub Wetlands	—	0.005
	Agriculture, Pasture, and Mixed Environs- Irrigated Pastures and Hay Meadows	—	5.55
	Open Water - Lakes, Rivers, Streams- Ephemeral Streams	—	0.01
	Upland Forests and Woodlands- Westside Lowlands Conifer-Hardwood Forest	26.90	27.55
Total Impacts Category 3 Acres		26.90	33.13
4	Agriculture, Pasture, and Mixed Environs- Irrigated Pastures and Hay Meadows	—	0.24
	Open Water - Lakes, Rivers, Streams- Ephemeral Streams	—	—
	Riparian Forest and Shrubland Complexes- Westside Riparian	—	0.50
	Upland Forests and Woodlands- Westside Lowlands Conifer-Hardwood Forest	—	12.59

Table 10: Habitat Impacts from Proposed RFA13 Changes

Habitat Category	Habitat Type-Subtype¹	Permanent Impact - Acres	Temporary Impact - Acres
	Agriculture, Pasture, and Mixed Environs- Orchards, Vineyards, Wheat Fields, Other Row Crops, Irrigated Poplar Plantations	—	5.26
Total Impacts Category 4 Acres		—	18.58
6	Urban and Mixed Environs- Urban and Mixed Environs	0.83	11.98
Total Impacts Category 6 Acres		0.83	11.98
Total RFA13 Estimated Impacts - Acres		27.73	63.69

Temporary impacts

Construction will involve vegetation removal, trenching, grading, and excavation work, use of heavy equipment, all which have the potential to impact habitat and wildlife. Construction impacts include temporary habitat loss and habitat fragmentation. Potential indirect impacts from construction include increased potential for invasion of noxious weeds into the right-of-way and adjacent habitats.

The certificate holder will mitigate areas temporarily impacted by RFA13 activities as described in the draft Restoration of Temporary Impacts Plan (Attachment P-1 of this order). These measures include restoring, revegetating, and returning all areas temporarily impacted by construction to original contours and vegetation type. The Council imposes new conditions to require that the certificate holder finalize and implement the Restoration of Temporary Impacts Plan as set forth in Fish and Wildlife Conditions 1 and 2, below. Following restoration of temporary impacts, ongoing maintenance of the restored areas will be addressed through the certificate holder's adherence to its Vegetation Control and Management Plan as provided in RFA13 Exhibit P Attachment P-2. This plan includes obligations to monitor and control for noxious weeds, along with vegetation clearance requirements that address wildfire risk. This plan is incorporated into the certificate holder's Wildfire Mitigation Plan, provided in Attachment V-2 of this order, required to be implemented under Wildfire Prevention and Risk Mitigation Condition 1.

Fish and Wildlife Condition 1 [PRE]: Prior to construction of components or phase of the Mist Resiliency Project, as applicable, the certificate holder shall finalize the Restoration of Temporary Impacts Plan similar to the draft plan provided in Attachment P-1 of this order, to be prepared in consultation with ODFW and approved by ODOE. The scope of finalization shall adhere to the requirements established in Section 1.0 of the plan.
[PRE-FW-01; Final Order on AMD13]

Fish and Wildlife Condition 2 [GEN]: Following construction of components or phase of the Mist Resiliency Project, as applicable, and during operations, for the duration required for restoration, the certificate holder shall implement the Restoration of Temporary Impacts Plan.

[GEN-FW-01; Final Order on AMD13]

Permanent impacts

The proposed RFA13 changes will result in approximately 27.73 acres of permanent impacts to Category 3 habitat. The mitigation goal for Category 3 habitat, as set forth in OAR 635-415-0025, is presented below:

- **Habitat Category 3:** Essential habitat for fish and wildlife, or important habitat for fish and wildlife that is limited either on a physiographic province or site-specific basis, depending on the individual species or population.

Mitigation Goal: No net loss in either existing habitat quantity or quality. Mitigation must be in-kind and in-proximity.

Mitigation Ratio: 1:1

Permanent impacts: 26.90 acres

Permanent habitat impacts require long-term mitigation. Certificate holder proposes to minimize and mitigate all permanent impacts that cannot be avoided, as described in the draft Habitat Mitigation Plan (See Attachment P-3 of this Order). The HMP would mitigate any permanent impacts to Category 3 and 4 habitats at a 1:1 ratio: 1 acre of in-kind mitigation to every 1 acre of permanent impact. The draft HMP identifies a permittee mitigation option to be implemented at a mitigation area. Three potential sites are identified (referred to as Options 1 through 3). The draft HMP offers a second mitigation approach (Option 4), a compensatory mitigation payment program to ODFW, which is not an available option through ODFW currently and is not evaluated in this order.

The three potential habitat mitigation areas presented in the draft HMP are proposed adjacent to HMCS, Miller Station, and near the site. The HMA conditions and potential enhancement are summarized below.

HMA Site - Option 1: Habitat Mitigation Area Adjacent to NMCS. Potential enhancement actions at this site include: removing the site from harvest rotation; reshaping the existing rock quarry by adding soil to fill in the quarry; restoring contours and installing erosion control structures as needed; and replanting with an ODFW-approved seed mix.

HMA Site - Option 2: Habitat Mitigation Area Adjacent to Miller Station. Potential enhancement actions at this site include: removing the site from harvest rotation and other enhancement actions to be determined, prior to construction, based on consultation with ODFW.

HMA Site - Option 3: Habitat Mitigation Area Near the proposed RFA13 changes. Potential enhancement actions at this site include: removing the site from harvest rotation and other enhancement actions to be determined, prior to construction, based on consultation with ODFW.

1 *ODFW Coordination*

2
3 The Department held a coordination call with ODFW on the preliminary RFA13 on May 8, 2024,
4 conducted a site visit with ODFW on June 12, 2024, and held a follow-up coordination call with
5 ODFW biologists on July 20, 2024. ODFW concurred with the habitat categorizations and acres of
6 potential impacts to habitat requiring mitigation. The May 8th call focused on the surveys and
7 findings, the requirements for the HMP/HMA and discussed the habitat protection and HMP
8 habitat enhancement measures for an HMA. ODFW comments are summarized and included in
9 Attachment B of this order.

10
11 The draft HMP provided in RFA13 Exhibit P Attachment P-1 is in draft form. Council establishes the
12 following requirements and scope to finalize the HMP.

- 13 • Prior to fully securing the legal right to the habitat mitigation area, if other than HMA Site –
14 Option 1 as presented in the draft HMP, certificate holder shall be required to complete
15 desktop and field surveys of the HMA site and propose suitable enhancement actions for
16 the site, and obtain concurrence from ODOE, in coordination with ODFW, on the adequacy
17 of the enhancement actions in meeting the Category 3 mitigation goal for no net loss of
18 habitat quality. If concurrence is not obtained from ODOE and ODFW, certificate holder
19 shall propose another HMA site.
- 20 • Certificate holder shall be required to demonstrate that it has acquired the legal right to
21 create, enhance, maintain and protect the HMA site concurred with by ODOE and ODFW,
22 by means of outright purchase, conservation easement or similar conveyance.
- 23 • Certificate holder shall finalize the plan by specifying the scope and schedule of the
24 selected enhancement actions, including monitoring protocol and success criteria that
25 apply both short-term and for the operational life of the facility.

26
27 **Fish and Wildlife Condition 3 [PRE]:** Prior to construction of components or phase of the
28 Mist Resiliency Project, as applicable, the certificate holder shall finalize the draft Mist
29 Resiliency Project Habitat Mitigation Plan as provided in Final Order on Amendment 13
30 Attachment P-3. The scope of finalization shall adhere to the requirements established in
31 Section 1.0 of the plan.

32 [PRE-FW-02; Final Order on AMD13]

33
34 **Fish and Wildlife Condition 4 [OPR]:** During operation, the certificate holder shall
35 implement and adhere to the requirements of the Mist Resiliency Project Habitat
36 Mitigation Plan.

37 [OPR-FW-01; Final Order on AMD13]

38 39 Potential Adverse Impacts to State Sensitive Fish and Wildlife Species

40
41 In addition to habitat impacts as discussed above, individual species can be affected by other
42 aspects of a project, such as construction noise or other sensory disturbance, and direct mortality
43 through vehicle collision, among other concerns. Risks common to all species include direct
44 impacts from injury or mortality due to collision with construction or maintenance vehicles and
45 equipment or exposure to herbicides potentially used to control the growth of woody vegetation

in the pipeline corridor. Indirect impacts could include increased mortality because of noise, loss of habitat, disturbances causing nest abandonment.

As required by OAR 345-021-0010(1)(p), certificate holder conducted a desktop analysis, as described in RFA13 Exhibit P, that resulted in the identification of 24 state sensitive species with the potential to occur in the analysis area. RFA13 Exhibit P also summarizes the results of field surveys. Tetra Tech surveyed the 259-acre survey area⁷⁹ on June 7, 8, and 9, 2022. Species targeted during general surveys included federal and state endangered, threatened, proposed, and candidate species, species of concern, birds of conservation concern, sensitive and sensitive-critical species.

There were 24 state sensitive species identified as having the potential to occur within the analysis area.

State Sensitive Mammals

State sensitive mammals that may occur in the analysis area include 3 species of bats (silver-haired, fringed myotis long-legged myotis) and 1 red tree vole. Certificate holder and its consultants did not observe any bats during wildlife surveys but also did not perform any acoustic or other surveys used to identify bats.

State Sensitive Birds

State sensitive bird species that may be present in the analysis area include olive-sided flycatcher, caspian tern, purple martin, western bluebird, white-breasted nuthatch (slender billed nuthatch), American peregrine falcon, arctic peregrine falcon, bald eagle. Of these species, the olive-sided flycatcher was the only one observed during the field surveys. The olive-sided flycatcher is a state sensitive species, as well as a Bird of Conservation Concern, and a Conservation Strategy Species.

State Sensitive Amphibians and Reptiles

State sensitive amphibians and reptiles that may be present in the analysis area include western pond turtle, coastal tailed frog, northern red-legged frog, foothill yellow-legged frog, western toad, clouded salamander, Cope's giant salamander, Columbia torrent salamander, and Southern torrent salamander.

The use of HDD at stream crossings should largely avoid the need to clear riparian areas, reducing the potential for upland impacts to amphibians.

State Sensitive Fish

In addition to T&E listed fish, state sensitive fish species that may be present in the analysis area (the Nehalem River, Lindgren Creek, Lyons Creek) include Pacific lamprey, western brook lamprey,

⁷⁹ Field survey area was based on footprint of RFA13 activities within the larger analysis area.

coastal cutthroat trout (Southwestern Washington/Columbia River ESU), steelhead (Southwest Washington ESU, winter run; Oregon Coast ESU, winter run). Impacts on streams, rivers, riparian areas, and wetlands are addressed in Section V.B. Removal Fill Law of this order.

The certificate holder proposes to implement the following measures to avoid and minimize impacts to habitat and state sensitive species. Based upon certificate holder representations, the Council imposes the following conditions:

Fish and Wildlife Condition 5 [CON]: During construction of components or phase of the Mist Resiliency Project, as applicable, certificate holder shall not remove vegetation during the nesting bird season (February 1 to September 15).

- a. If vegetation removal is necessary during the nesting season, a qualified biologist will conduct a preconstruction nesting bird survey on and within 500 feet of the construction area no more than 14 days prior to proposed initiation of any vegetation removal or construction activities and provide the results of the survey to the Department no less than 10 days prior to any vegetation removal.
- b. The certificate holder shall not begin vegetation removal until the nesting bird survey has been approved by the Department, in consultation with ODFW. If there are construction delays of greater than 14 days during the nesting season, the certificate holder shall repeat the surveys in vegetated areas and obtain Department approval of the surveys prior to restarting construction.

[CON-FW-01; Final Order on AMD13]

Finally, to ensure that construction of the proposed RFA13 changes are conducted in a manner that minimizes potential impacts to sensitive fish and wildlife habitat, the Council imposes the following conditions to require adequate environmental awareness training of contractors, workers, and staff, and monitoring during construction and operations:

Fish and Wildlife Condition 6 [CON]: During construction of components or phase of the Mist Resiliency Project, as applicable, certificate holder shall require that all onsite workers attend an environmental awareness training session conducted by an environmental professional.

- a. The training shall include, but not be limited to, the following topics: identification of approved Project boundaries and access roads including flagged exclusion areas; identification of sensitive wetland and waterbody resources; identification of sensitive and special status plant and wildlife species found in the analysis area; techniques regarding avoidance and minimization measures the certificate holder will implement; the notification process to be followed if new sensitive resources are identified; permit requirements; buffer distances from sensitive and protected resources; work timing restrictions including seasonal restrictions; the role of the onsite environmental inspector(s) and NWN environmental personnel; 25 mph speed limit restrictions; and other topics as necessary.
- b. A copy of the training shall be provided to the department.
- c. Records of completed worker training shall be maintained onsite and made available to the department upon request.

[CON-FW-02; Final Order on AMD13]

III.H.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the site certificate conditions described above, the Council finds that the design, construction and operation of the facility, with proposed RFA13 changes, are consistent with the mitigation goals and requirements of the Oregon Department of Fish and Wildlife's Fish and Wildlife Habitat Mitigation Policy under OAR 635-415-0025.

III.I. **THREATENED AND ENDANGERED SPECIES: OAR 345-022-0070**

To issue a site certificate, the Council, after consultation with appropriate state agencies, must find that:

(1) For plant species that the Oregon Department of Agriculture has listed as threatened or endangered under ORS 564.105(2), the design, construction and operation of the proposed facility, taking into account mitigation:

(a) Are consistent with the protection and conservation program, if any, that the Oregon Department of Agriculture has adopted under ORS 564.105(3); or

(b) If the Oregon Department of Agriculture has not adopted a protection and conservation program, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species; and

(2) For wildlife species that the Oregon Fish and Wildlife Commission has listed as threatened or endangered under ORS 496.172(2), the design, construction and operation of the proposed facility, taking into account mitigation, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species.⁸⁰

III.I.1. Findings of Fact

The analysis area for threatened or endangered plant and wildlife species is the area within 5 miles of the RFA13 site boundary.

RFA13 Discovery Measures

RFA13 Exhibit Q provides a desktop analysis of potential T&E species within the analysis area.

The desktop review relied on academic literature, a review of previous field surveys in the vicinity, and the following sources to identify the potential species that are known to occur, or may be likely to occur within the analysis area:

⁸⁰ OAR 345-022-0070, effective May 15, 2007.

- 2022-2023 National Oceanic and Atmospheric Administration (NOAA) Fisheries, National Marine Fisheries Service;
- 2022-2023 Oregon Department of Agriculture (ODAg); Plant Conservation Program;
- 2007- 2024 Oregon Department of Fish and Wildlife (ODFW) fish and wildlife habitat data;
- Oregon Biodiversity Information Center (ORBIC), Threatened and Endangered species of Oregon;
- Oregon State University, Department of Botany and Plant Pathology, 2023 Oregon Flora Project. 2023;
- U.S. Fish and Wildlife Service (USFWS), White Tailed Deer data.

Based on the available data from the sources reviewed, 15 species or populations listed as state threatened, endangered, or candidate were identified as having the potential to occur within the analysis area: 1 mammal, 11 vascular plants, and 3 fish as shown in Table 11 below.

Table 11: State-Listed T&E and Candidate Species

Species ¹	State Status	Occurrence within Analysis Area ²
Columbian white-tailed deer - <i>Odocoileus virginianus leucurus</i>	T	No
Coho salmon (Oregon Coast Evolutionarily Significant Unit [ESU]) - <i>Oncorhynchus kisutch</i>	S	Yes
Coho salmon (Lower Columbia River ESU) - <i>Oncorhynchus kisutch</i>	E	Yes
Chinook salmon (Lower Columbia River ESU, spring run and fall run) <i>Oncorhynchus tshawytscha</i>	SC	Yes
Tall bugbane - <i>Actaea elata</i> var. <i>elata</i> (syn. <i>Cimicifuga</i>)	C	No
Willamette Valley larkspur - <i>Delphinium oreganum</i>	C	No
Peacock larkspur - <i>Delphinium pavonaceum</i> (syn. <i>Delphinium menziesii</i> ssp. <i>pallidum</i>)	E	No
Coast Range fawn-lily - <i>Erythronium elegans</i>	T	No
Queen-of-the-forest - <i>Filipendula occidentalis</i>	C	No
Howell's montia - <i>Montia howellii</i>	C	Yes
Saddle Mt. saxifrage - <i>Saxifraga hitchcockiana</i> (syn. <i>Micranthes hitchcockiana</i>)	C	No
Meadow checkermallow - <i>Sidalcea campestris</i>	C	No
Bristly-stemmed sidalcea - <i>Sidalcea hirtipes</i>	C	No
Nelson's sidalcea - <i>Sidalcea nelsoniana</i>	T	No
Oregon sullivantia - <i>Sullivantia oregana</i>	C	No

T&E Fish - Salmon Species

The desktop analysis identified that there are 3 known T&E-listed salmon species in the analysis area:

- Coho salmon (Oregon Coast Evolutionarily Significant Unit [ESU])
Oncorhynchus kisutch
- Coho salmon (Lower Columbia River ESU)
Oncorhynchus kisutch
- Chinook salmon (Lower Columbia River ESU, spring run and fall run)
Oncorhynchus tshawytscha

The Oregon Coast ESU of coho salmon is federally listed as Threatened and is Sensitive in the state of Oregon; the Lower Columbia River ESU is federally listed as Threatened and is listed as Endangered in the state of Oregon. The Lower Columbia River ESU of Chinook salmon is federally listed as Threatened and is Sensitive Critical in the state of Oregon. All 3 species are known to utilize Lindgren Creek and Nehalem River as habitat.

Howell's Montia (*Montia howellii*)

The desktop analysis identified one state candidate plant species as occurring within the RFA13 site boundary: Howell's Montia (*Montia howellii*). Howell's montia occurs west of the Cascades from British Columbia to California. Howell's montia occurs in sparsely vegetated moist to seasonally wet areas such as riparian and wetland areas. Threats to the species include timber harvest, road construction and maintenance, vehicles, and competition. The species is not T&E-listed at the federal or state level.

Field Surveys for T&E Species in RFA13 Analysis Area

Based upon the results of the updated desktop analysis, the certificate holder retained qualified biologists to conduct wildlife habitat and botanical field surveys in 2022 and 2023 within the RFA13 site boundary.

T&E Fish and Wildlife Surveys

Qualified biologists conducted wildlife and habitat categorization surveys in 2022 (June 7, 8, and 9) for compliance with EFSC's Fish and Wildlife Habitat standard. Transect surveys were performed to characterize habitat throughout the RFA13 project boundary, with simultaneous searches for special status wildlife species and special habitats. No proposed, candidate, threatened, or endangered fish or wildlife species were observed during these surveys, however none of these surveys were protocol-level surveys designed for specific species. No field surveys for T&E fish were conducted as part of RFA13 analysis in Exhibit Q.

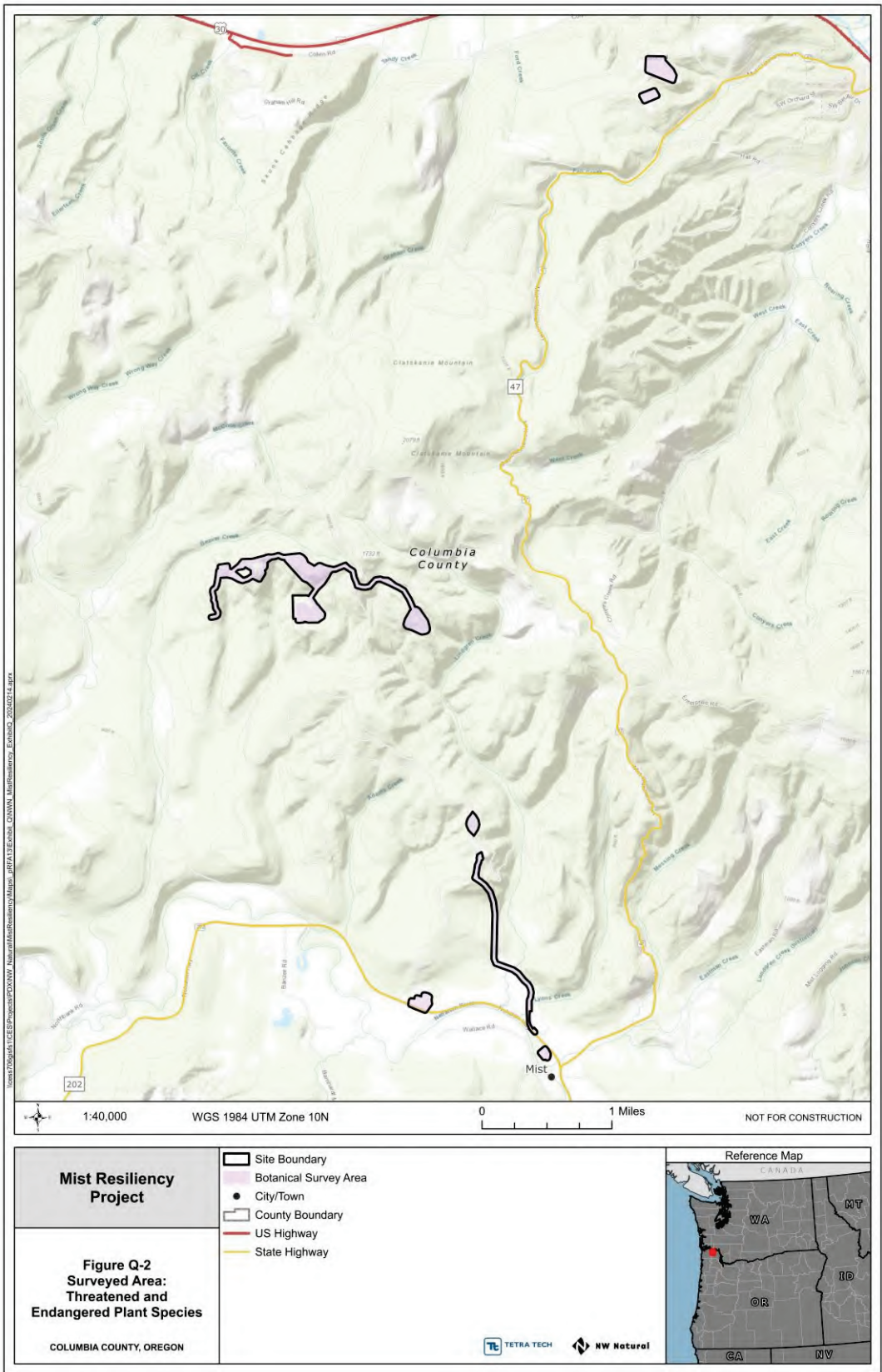
T&E Plant Surveys

1 Field surveys for listed and candidate plant species were conducted in 2022 and 2023 (See
 2 Figure 16 below). Surveyors used the intuitive controlled transect method⁸¹ to document the
 3 presence or absence of target plant species. Surveys were conducted within the RFA13 site
 4 boundary in suitable habitat and when an area with high potential for target plants was
 5 encountered (e.g., wetland). In 2022, field surveys were conducted during the appropriate time
 6 of year to capture target species during blooming or fruiting. The 2023 field surveys within the
 7 site boundary occurred outside the recommended survey period and did not follow a species-
 8 level protocol.

9
 10 Of the 11 potential plant species that are state listed or are a candidate or proposed for state
 11 listing, only one of these, Howell's montia (*Montia howellii*), was found to occur within the
 12 RFA13 analysis area and site boundary during 2022 field surveys. During 2022 surveys, a single
 13 population consisting of approximately 2,700 plants growing densely within the two-track road
 14 matrix comprising approximately 800-square feet. Two additional Howell's montia sub-
 15 populations consisting of one plant and eight dispersed plants (35 square foot area) were 15
 16 and 40 feet further north along the mainline road's eastern edge. In 2023, surveys of additional
 17 areas were conducted in September, outside of the Howell's montia blooming period. While it
 18 is a candidate for listing as a state-listed T&E plant species, it has not been listed and is not
 19 listed as a T&E species at a federal or state level.

⁸¹ An intuitive controlled survey is a complete survey of habitats with the highest potential for supporting rare plant populations and a less intense survey of all other habitats present. This type of survey requires botanists familiar with the habitats of all the plant species that may reasonably be expected to occur in the project area. The botanist traverses through the project area enough to see a representative cross section of all the major plant habitats and topographic features. During the survey, the botanist compiles a species list of all plant taxa seen en route and keeps track of the plant community or habitat type where each taxon occurs. Source: https://www.cnps.org/wp-content/uploads/2019/10/Bot-Cert_US-BLM-plant-survey-protocols-LR.pdf

Figure 16: Threatened and Endangered Plant Survey Area



1 *Threatened and Endangered Species within the Analysis Area*

2
3 The Council reviewed the information used to identify T&E species within the analysis area and
4 based on the information submitted in Exhibits Q and P, the Council finds that there are 3
5 known T&E listed species within the analysis area: the Oregon Coast ESU of coho salmon, the
6 Lower Columbia River ESU of coho salmon and the Lower Columbia River ESU of Chinook
7 salmon.
8

9 *Potential Impacts to Identified Threatened and Endangered Species*

10
11 The RFA13 changes will cross Lindgren Creek, designated as essential spawning habitat for
12 these 3 T&E-listed salmon species, near its confluence with the Nehalem River. These fish
13 species could be impacted by RFA13 activities near streams, wetlands, and associated aquatic
14 habitat within the analysis area. Impacts on streams, rivers, riparian areas, and wetlands are
15 addressed in Section V.B. Removal Fill Law of this order.
16

17 RFA13 proposed changes will not impact any T&E listed plant species and the only state
18 candidate plant species, *Howell's Montia*, while known to occur in the analysis area, will be
19 avoided entirely during construction, if encountered. For these reasons, the Council finds that
20 RFA13 proposes changes that will not impact any T&E plants under this standard.
21

22 *ODFW and ODAg Coordination*

23
24 The Department held a coordination call with ODFW on the preliminary RFA13 on May 8, 2024,
25 conducted a site visit with ODFW on June 12, 2024, and held a follow-up coordination call with
26 ODFW biologists on July 20, 2024. Coordination with ODFW habitat biologists focused on RFA13
27 proposed changes, RFA13 survey and report methods and findings for T&E wildlife, and the
28 certificate holder's proposed minimization and avoidance measures to avoid any impacts to
29 T&E listed fish. ODFW also provided technical review on the methods proposed to avoid
30 impacts to T&E salmon using horizontal directional drilling (HDD) to cross under Lindgren Creek.
31 Based on that coordination and review, the certificate holder revised and submitted the
32 Inadvertent Return Response Plan (See Attachment C of this Order) for the use of HDD near
33 Lindgren Creek. The revised plan incorporated comments from ODFW to ensure the use of HDD
34 does not impact T&E fish. ODFW will continue to be consulted on the finalization of the plan
35 prior to construction.
36

37 The Department consulted with ODAg, on July 24, 2024 on the potential for T&E plants in the
38 RFA13 analysis area, RFA13 survey and report methods and findings, and concurred that the
39 only T&E candidate species likely to occur is Howell's Montia, and that methods used to identify
40 the species were sufficient and confirmed that it is not currently a T&E-listed plant. No other
41 T&E plants are likely to occur in the analysis area. There are no recommendations or mitigations
42 required for T&E plants for RFA13. ODAg appreciated the efforts to avoid Howell's Montia, but
43 acknowledges it is not T&E listed and warrants no additional T&E protection.

Minimization and Mitigation Measures

RFA13 proposes to work near and around areas designated as essential habitat for federal and state T&E-listed fish: the Oregon Coast ESU of coho salmon is federally listed as Threatened and is Sensitive in the state of Oregon; the Lower Columbia River ESU of coho is federally listed as Threatened and is listed as Endangered in the state of Oregon; and the Lower Columbia River ESU of Chinook salmon. The certificate holder proposes avoiding all impacts to T&E fish through the placement and use of HDD to cross under Lindgren Creek and through the implementation of BMPs to ensure that HDD and other trenching work does not impact T&E fish or their habitat.

In RFA13 Exhibit Q, the certificate holder states that HDD will be used to cross under Lindgren Creek, thereby avoiding all impacts to T&E fish. Additionally, the certificate holder has proposed methods and BMPs to minimize any impact to T&E fish in the draft HDD Inadvertent Return Response Plan (See Attachment C of this Order). Based upon consultation with ODFW, the certificate holder identified the following BMPs to ensure that the use of HDD will not impact T&E fish or their habitat. These representations have been added to the draft HDD Inadvertent Return and Response Plan:

- NWN will minimize the use of herbicides to the extent practicable including avoiding their use in the vicinity of sensitive environments or species. If use of herbicides is required to control the growth of vegetation in the pipeline corridor, NWN will comply with all applicable federal and state regulations.
- An HDD Design has been prepared to reduce the risk of impacts on Lindgren Creek. This design includes analysis of hydraulically fracturing the bore hole during drilling, which could lead to drilling fluid surface release, and adjusting the depth of the HDD profile such that the risk of drilling fluid surface release is minimized. In addition, entry and exit points are set back from Lindgren Creek between approximately 175 and 185 feet to minimize impacts to the creek and riparian areas surrounding the creek. Entry and exit workspace are located within Mainline Road or an adjacent pull out to reduce impacts to surrounding areas.
- Silt fences will be installed adjacent to the entry and exit workspaces to limit migration of any surface water or drilling fluid. However, the risk of drilling fluid leaving the workspace is low as discussed in the following bullet point.
- Drilling fluid will be contained in drilling fluid returns pits excavated at the entry and exit points. These pits are typically 4 feet wide by 4 feet long by 4 feet deep. Drilling fluid used during drilling will return to these pits where they will be pumped to a vacuum truck and hauled off site.
- Drilling fluids can be inadvertently released to the ground surface during HDD operations. The likelihood of drilling fluid surface release is typically higher near the HDD entry/exit pits. Therefore, the HDD is being designed to cross the stream in the

HDD profile's bottom tangent (deepest depth of the profile). Hydraulic fracture analyses completed during preliminary design of the HDD indicate that the risk of hydraulic fracture (and subsequent drilling fluid release to Lindgren Creek) is low, with calculated factors of safety against hydraulically fracturing the bore hole greater than 1.5.

- Drilling fluid returns to the entry or exit pits are visually monitored during drilling to verify that drilling fluid returns are maintained to the entry or exit pits at all times during construction. If a decrease in drilling fluid returns is observed (which could indicate a blockage downhole that could lead to hydraulic fracture and subsequent drilling fluid surface release) the contractor will take measures such as tripping out tooling to clean the hole and reestablish drilling fluid returns. Provided drilling fluid returns are maintained during drilling, there is typically a low risk of hydraulic fracture and subsequent inadvertent returns.
- The HDD contractor will designate a person to continually monitor the HDD alignment for surface indications of drilling fluid surface release. If observed, the contractor will immediately disengage drilling fluid pumps to minimize the release and will immediately contain and clean the release.
- Downhole drilling fluid pressures will be monitored during construction and compared to the hydraulic fracture analysis. If drilling fluid pressures are significantly higher than anticipated, the contractor will implement mitigation measures to reduce the downhole drilling fluid pressures. Such measures may include tripping out tooling to clean the hole, adjusting drilling fluid properties to more effectively clean the hole and reduce drilling fluid pressures or performing partial reaming passes to enlarge the hole thereby creating more annular space downhole for drilling fluid flow which in turn reduces downhole annular pressures.
- An HDD design and associated report are being prepared, including specifications for deviance from the HDD profile depth and HDD alignment. The contractor will be required to maintain the HDD alignment and profile specifications, follow the designed HDD alignment and profile, and follow recommendations contained within the HDD design report. Requiring the contractor to follow the HDD design alignment and profile, alignment and profile specifications, and recommendations of the HDD design report will reduce the risk of impact on essential fish habitat.

The draft HDD Inadvertent Return Response Plan as relied upon to protect soils under the Council's Soil Protection standard, as evaluated in Section III.D of this order. The Council adopts the above representations into the draft HDD plan and require adherence to those requirements under Soil Protection Condition 3.

III.I.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the proposed site certificate conditions described above, the Council finds that the design, construction and operation of the facility, with proposed 13 changes, are not likely to cause a significant reduction in the likelihood of survival or recovery of species listed as threatened or endangered by the Oregon Department of Agriculture or Oregon Fish and Wildlife Commission.

III.J. SCENIC RESOURCES: OAR 345-022-0080

(1) To issue a site certificate, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse visual impacts to significant or important scenic resources.

(2) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1). In issuing such a site certificate, the Council may impose conditions of approval to minimize the potential significant adverse visual impacts from the design, construction, and operation of the facility on significant or important scenic resources.

(3) A scenic resource is considered to be significant or important if it is identified as significant or important in a current land use management plan adopted by one or more local, tribal, state, regional, or federal government or agency.

(4) The Council shall apply the version of this rule adopted under Administrative Order EFSC 1-2007, filed and effective May 15, 2007, to the review of any Application for Site Certificate or Request for Amendment that was determined to be complete under OAR 345-015-0190 or 345-027-0363 before the effective date of this rule. Nothing in this section waives the obligations of the certificate holder and Council to abide by local ordinances, state law, and other rules of the Council for the construction and operation of energy facilities in effect on the date the site certificate or amended site certificate is executed.⁸²

III.J.1. Findings of Fact

Scenic Resources in the Analysis Area

The analysis area for Scenic Resources is 10 miles from the RFA13 site boundary.

⁸² OAR 345-022-0080, effective December 19, 2022.

Schools

The number of school-age children that could enter local public schools during construction, based on the peak number of 113 non-local workers, ranges from 5 to 20. Operation of the Mist Resiliency Project would result in twelve (12) new, fulltime employees and approximately twelve (12) school-age children.

Within the analysis area, there are two Oregon counties: Columbia and Clatsop. Within Columbia County, there are 5 school districts and 24 schools. Within Clatsop County, there are 5 school districts and 14 schools. The student teacher ratio ranges from a low of 7.8 to 1 to 18 to 1. Oregon public schools must maintain an average ratio of 20 to 1. Based on the student teacher ratio at the Oregon schools within the analysis area, and the relatively low number of potential students that could result from construction (20) or operation (12), there is adequate capacity within the Oregon school districts within the analysis area to support the temporary incremental increase in students associated with construction and during operation.

Based on this analysis, the Council finds that the facility, with proposed RFA13 changes, would not likely result in a significant adverse impact on the ability of public school systems to deliver educational services.

III.M.2.Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the new site certificate conditions described above, the Council finds that construction and operation of facility, with proposed RFA13 changes, are not likely to result in significant adverse impacts to the ability of public and private providers to provide the services listed in OAR 345-022-0110.

III.N. WILDFIRE PREVENTION AND RISK MITIGATION: OAR 345-022-0115

(1) To issue a site certificate, the Council must find that:

(a) The applicant has adequately characterized wildfire risk within the analysis area using current data from reputable sources, by identifying:

(A) Baseline wildfire risk, based on factors that are expected to remain fixed for multiple years, including but not limited to topography, vegetation, existing infrastructure, and climate;

(B) Seasonal wildfire risk, based on factors that are expected to remain fixed for multiple months but may be dynamic throughout the year, including but not limited to, cumulative precipitation and fuel moisture content;

1 (C) Areas subject to a heightened risk of wildfire, based on the information
2 provided under paragraphs (A) and (B) of this subsection;

3
4 (D) High-fire consequence areas, including but not limited to areas containing
5 residences, critical infrastructure, recreation opportunities, timber and
6 agricultural resources, and fire-sensitive wildlife habitat; and

7
8 (E) All data sources and methods used to model and identify risks and areas
9 under paragraphs (A) through (D) of this subsection.

10
11 (b) That the proposed facility will be designed, constructed, and operated in
12 compliance with a Wildfire Mitigation Plan approved by the Council. The
13 Wildfire Mitigation Plan must, at a minimum:

14
15 (A) Identify areas within the site boundary that are subject to a heightened
16 risk of wildfire, using current data from reputable sources, and discuss data
17 and methods used in the analysis;

18
19 (B) Describe the procedures, standards, and time frames that the applicant
20 will use to inspect facility components and manage vegetation in the areas
21 identified under subsection (a) of this section;

22
23 (C) Identify preventative actions and programs that the applicant will carry
24 out to minimize the risk of facility components causing wildfire, including
25 procedures that will be used to adjust operations during periods of heightened
26 wildfire risk;

27
28 (D) Identify procedures to minimize risks to public health and safety, the
29 health and safety of responders, and damages to resources protected by
30 Council standards in the event that a wildfire occurs at the facility site,
31 regardless of ignition source; and

32
33 (E) Describe methods the applicant will use to ensure that updates of the plan
34 incorporate best practices and emerging technologies to minimize and
35 mitigate wildfire risk.

36
37 (2) The Council may issue a site certificate without making the findings under
38 section (1) if it finds that the facility is subject to a Wildfire Protection Plan
39 that has been approved in compliance with OAR chapter 860, division 300.

40
41 (3) This Standard does not apply to the review of any Application for Site
42 Certificate or Request for Amendment that was determined to be complete

under OAR 345-015-0190 or 345-027-0363 on or before the effective date of this rule.⁹⁸

III.N.1. Findings of Fact

Council adopted the Wildfire Prevention and Risk Mitigation standard on July 29, 2022, after approval of the site certificate and past site certificate amendments. Compliance with the standard has, therefore, not previously been evaluated by Council and is applicable to the proposed RFA13 changes. The analysis area to evaluate potential wildfire risks is the site boundary and one-half mile from the site boundary.⁹⁹

III.N.1.a. Characterization of Wildfire Risk within Analysis Area

Under OAR 345-022-0115(1)(a), a certificate holder must adequately characterize the wildfire risk within the analysis area using reputable sources to describe Baseline Wildfire Risk, Seasonal Wildfire Risk, Areas Subject to Heightened Risk of Wildfire, and High-fire Consequence Areas. Each of these are discussed in detail in this section with a description of the data source, as necessary to support the findings and conclusions. The data sources the applicant used to evaluate wildfire risk include:

- Oregon Wildfire Risk Explorer-Advanced Report;¹⁰⁰
- Columbia County Community Wildfire Protection Plan (CWPP), dated 1 August 2007¹⁰¹
- Oregon CWPP Planning Tool 2018;¹⁰²
- Pyrologix 2018 Pacific Northwest Quantitative Wildfire Risk Assessment: Methods and Results. Prepared for the U.S. Forest Service by Pyrologix LLC;
- Conservation Biology Institute (CBI), 2020 Wildfire Risk Assessment Data Layer Descriptions Spreadsheet;
- National Oceanic and Atmospheric Administration (NOAA) climate data;
- U.S. Forest Service (USFS) Guide for Application of Meteorological Information to Forest Fire Control Operations.

⁹⁸ OAR 345-022-0115, effective July 29, 2022.

⁹⁹ OAR 345-001-0010(35)(c).

¹⁰⁰ MSTAMD13Doc70 RFA13 Exhibit V Wildfire 2024-08-09, Attachment V-2. Oregon Wildfire Risk Explorer-Advanced Report, Columbia County. Accessed September 8, 2023. Available online at: https://tools.oregonexplorer.info/OE_HtmlViewer/Index.html?viewer=wildfireplanning

¹⁰¹ MSTAMD13Doc70 RFA13 Exhibit V Wildfire 2024-08-09, Attachment V-1. Columbia County Community Wildfire Protection Plan, Columbia County, Oregon. August 1, 2007. The Columbia County CWPP has been agreed upon and endorsed by a stakeholder group including the Columbia County Board of Commissioners, the District Forester of the Forest Grove District for Oregon Department of Forestry, Scappoose Rural Fire Protection District, Clatskanie Rural Fire Protection District, Columbia River Fire and Rescue, Mist-Birkenfeld Rural Fire Protection District, and Vernonia Rural Fire Protection District.

¹⁰² Oregon Community Wildfire Protection Plan Planning Tool. Available online at: https://tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=wildfireplanning

Based upon the analysis provided below of the certificate holder and Council's evaluation of baseline and seasonal fire risk, areas subject to heightened fire risk, and high-fire consequence areas using current and reputable data sources and methods, the Council finds that the wildfire risk is moderate to high within the site boundary and analysis area.

III.N.1.b. Baseline Wildfire Risk

Baseline wildfire risk within the analysis area is evaluated based on factors expected to remain fixed for multiple years, including historic wildfires, topography of the site, vegetation, existing infrastructure, regional climate, and burn probability. The facility, with RFA13 changes, is located within a matrix of private timberlands, operation of the facility within this area is guided by the Oregon Department of Forestry (ODF) fire protection rules, namely ODF's Industrial Fire Precaution Level (IFPL) requirements and fire season requirements, which are discussed further in Section III.N.1.f, *Wildfire Mitigation Plan*, below.¹⁰³

Columbia County Wildfire History

There are no historic fires recorded during 2008 and 2019 within the facility site boundary, and one 0.25-acre fire was recorded in 2007 at the northernmost edge of the wildfire analysis area, approximately 0.25 miles south of the Lower Columbia River Highway, northwest of Clatskanie town center. On average in Columbia County between 2008 and 2019, 18 fires occurred each year, and most of these fires were considered small. There were two causes of fire: 94.5 percent were human-caused, and 5.5 percent were caused by lightning strikes.¹⁰⁴ There were no large fires in Columbia County between 2008 and 2019, with "large fire" defined by the National Wildland Coordinating Group as any wildland fire in timber 100 acres or greater, 300 acres or greater in grasslands/rangelands, or has an Incident Management Team assigned to it.

Topography

Potential wildfires travel quicker on steeper slopes and slower on the flatter portions of land. Columbia County is delineated by the Columbia River in the northern and eastern portion of the County of and the western portion of the County extends into the Coast Range, providing a diverse topographical landscape. The elevation within the site boundary ranges from 461 to 1,576 feet above mean sea level with an average of 1,075 feet; the larger analysis area elevation ranges from 18 to 1,739 feet, with an average of 843 feet. Over 98 percent of the site boundary and 93 percent of the analysis area have less than a 25-degree slope.¹⁰⁵

Vegetation and Fuel Models

¹⁰³ MSTAMD13Doc70 RFA13 Exhibit V Wildfire 2024-08-09, Attachment V-3, Section 1.0.

¹⁰⁴ MSTAMD13Doc70 RFA13 Exhibit V Wildfire 2024-08-09, Section 3.2.

¹⁰⁵ Slope groupings are from 0-25%, 26-50%, and 51-75%.

As discussed in Section III.H., *Fish and Wildlife Habitat*, of this order, most of the vegetation type and habitat category are Category 4 habitat that is made up of upland forests and woodlands, and westside lowlands conifer-hardwood forests. Approximately seven percent of the habitat within the site boundary is Category 6 habitat, with no burn potential because the area is urban or a waterbody.

The Oregon CWPP Planning Tool offers a data layer that provides Fuel Models which describe the composition and characteristics of fire fuels. Fuel Model groups describe the fire-carrying fuel type of surface fuel. The groups are broad categories (grass, shrub, timber, timber litter, timber understory, and slash/blowdown) of burnable fuels based on descriptions of live and dead vegetation that represent distinct fuel types, size classes, and load distributions. The dominant fuel models that the Oregon CWPP Planning Tool describes as making up the area within the site boundary are Fuel Models 162, 185, 101, and 102; ASC Exhibit V, Table V-2 lists all the Fuel Models that make up the site boundary and analysis area.

Fuel Model 162 (moderate load humid climate timber-shrub) makes up 33 percent of the site boundary. This Fuel Model is in the timber understory fuel group for which the primary carrier of fire is forest litter, in combination with herbaceous and shrub fuels, moderate litter load with a shrub component, moderate spread rate, and low flame length. Importantly, it also has high extinction moisture, indicating that the vegetation in these areas is less susceptible to ignition and combustion, and less likely to sustain fire than in other Fuel Models. This Fuel Model also makes up 30 percent of the larger analysis area.

Fuel Model 185 (high load conifer litter) makes up 21 percent of acres within the site boundary. This Fuel Model is in the timber litter fuel group and contains smaller, easily ignitable materials on the forest floor (light slash fuels) as well as dead plant material, such as dead trees, fallen branches, and standing dead trees. This Fuel Model burns slash quickly and can carry fires quickly keeping it on the forest floor, however, burning larger fuel sources (dead trees) can contribute to the intensity and duration of fires. Overall, it has a low spread rate and low flame length.

Fuel Models 101 (short, sparse dry climate grass) and 102 are (low load dry climate grass) both make up approximately 8 percent of the site boundary.

Existing Infrastructure

Understanding the type and location of existing infrastructure for baseline fire risk is important because overall wildfire risk for an area is based, in part, on wildfire risk to assets, people and property which includes where people live, critical infrastructure, developed recreation, housing unit density, and other factors.

Existing structures within the site boundary that could potentially be impacted include underground pipelines, well pads and supporting infrastructure, underground powerlines, and

the NMCS.¹⁰⁶ The majority of existing structures in the site boundary fall within the NMCS, where the hazard to potential structures is moderate to high. At the southern end of the proposed in RFA13 changes, the site boundary includes the Bark and Haul and Highway 202 laydown areas, and a buried electrical feed connecting at Miller Station. Bark and Haul Laydown Yard is in the norther part of the community of Mist where there are residential and farm structures, utilities, community buildings, and paved roads. Mist Grade School also falls within the wildfire analysis area, less than one half mile from the Bark and Haul laydown yard. Highway 202 Laydown Yard is west of the Community of Mist close to dispersed agricultural and residential buildings off Hwy 202. The Highway 202 laydown yard contains a barn and additional storage sheds within the site boundary. The well pads proposed to be modified in RFA13 are located centrally to the facility and do not have significant infrastructure around them, aside from the operational facility itself. The surrounding areas are forested, cleared forested areas and rural roads. The north Sorting Yard Laydown areas are surrounded by forested areas, rural roads with some nearby highways and sparse residential structures.

Climate

Columbia County has a modified marine climate with annual precipitation ranging from 40 inches in the eastern portion to 100 inches in the higher elevations of the Coast Range. Average annual precipitation is 61 inches. Winters are relatively wet and mild with warm and dry summers; and the total average annual precipitation for the area is 54.7 inches per year, which is indicative of a temperate warm-summer Mediterranean climate.

**Table 16: Summary of Monthly Temperature and Precipitation
at Clatskanie, Oregon, Station (1991 – 2020)**

Month	Avg. Max Temperature (°F)	Avg. Temperature (°F)	Avg. Min Temperature (°F)	Avg. Precipitation (inches)
January	46.6	39.8	33.0	8.3
February	50.3	41.5	32.8	5.7
March	54.5	44.9	35.3	6.1
April	58.8	48.6	38.3	4.3
May	64.8	54.4	44.0	2.7
June	68.8	58.6	48.5	1.7
July	74.7	63.5	52.2	0.6
August	75.8	64	52.2	0.7
September	72	59.8	47.6	2.1
October	61.6	51.3	41.1	4.5
November	51.7	43.9	36.1	8.6

¹⁰⁶ MSTAMD13Doc70 RFA13 Exhibit V Wildfire 2024-08-09, Section 3.5.

**Table 16: Summary of Monthly Temperature and Precipitation
at Clatskanie, Oregon, Station (1991 – 2020)**

Month	Avg. Max Temperature (°F)	Avg. Temperature (°F)	Avg. Min Temperature (°F)	Avg. Precipitation (inches)
December	45.7	39.3	32.8	9.4
Monthly / Annual Average ¹	60.5	50.8	41.2	54.7

Source: ASC Exhibit V, Table V-3; Clatskanie Station, OR US USC00351643 (NOAA 2023).

Note: The sum of annual precipitation was averaged annually from 1991 through 2020.

Burn Probability

Burn Probability shows the likelihood of a wildfire greater than 250 acres burning in each location, based on wildfire simulation modeling. This is an annual burn probability, adjusted to be consistent with the historical annual area burned. The burn probability classes range from non-burnable (including nonburnable groundcover types such as water, agriculture, or urban) to very high burn probability, which indicates greater than a 1 in 50 chance of a wildfire greater than 250 acres in a single year. Most of the land in both the site boundary (89 percent) and the analysis area (87 percent) fall within the very low burn probability regions (≤ 1 in 10,000).¹⁰⁷ The only area with a low burn probability (1 in 10,000 to 1 in 5,000) in the site boundary falls due south of the proposed Newton well pad, directly east of Beaver Creek. There are no regions within the site boundary or analysis area which have moderate, high, or very high burn probabilities.

III.N.1.c. Seasonal Wildfire Risk

Seasonal wildfire risk within the analysis area is expected to remain fixed for multiple months but may be dynamic throughout the year, including cumulative annual and monthly precipitation, weather advisories which include fuel moisture content data, and Average Flame Length which is the average length of flames expected during a fire, given local fuel and weather conditions discussed below.

Precipitation

As discussed above, under baseline climatic conditions and provided in Table 16: *Summary of Monthly Temperature and Precipitation at Clatskanie, Oregon, Station (1991 – 2020)*, the total average annual precipitation for the area is approximately 55 inches, which is indicative of a temperate warm-summer Mediterranean climate.

¹⁰⁷ MSTAMD13Doc70 RFA13 Exhibit V Wildfire 2024-08-09, Section 3.3.5.

Fuel Moisture Content

Fuel moisture content varies depending on changes in weather (both seasonally and during short periods) and determination of exact fuel-moisture values at any time is complicated by both the nature of the fuels and their responses to the environment. Higher fuel moisture content makes it more challenging for fires to start and spread. Living plants and dead fuels react differently to changes in weather, and the wetting and drying processes of dead fuels result in significant fluctuations in their moisture content. These changes are affected by various factors such as precipitation, air moisture, surface and air temperatures, wind, and cloudiness, as well as fuel properties like surface to volume ratio, compactness, and arrangement. Current conditions such as precipitation to-date, current fuel moisture data, and local weather may increase or decrease seasonal fire risk.

A related and more easily measured concept to fuel moisture content is moisture of extinction: the moisture content of a specific fuel type above which a fire will not propagate itself. As such, Fuel Models with higher moisture of extinction levels decrease overall fire risk. The moisture of extinction rate also varies seasonally in response to changing weather and environmental conditions. During the wetter seasons, such as spring and early summer, live fuels tend to have a higher moisture content due to increased rainfall and higher humidity levels. This results in a higher moisture of extinction, making the fuel less flammable and reducing the risk of ignition. Conversely, in the drier seasons, like late summer and fall, live fuels become drier as moisture evaporates and is less replenished by rainfall, leading to a lower fuel moisture content that approaches the moisture of extinction threshold, and increases susceptibility to ignition, which can elevate the risk of wildfires.¹⁰⁸ As discussed above, the dominant Fuel Models within the site boundary are Fuel Model 162, at 33 percent and Fuel Model 185, at 21 percent, which are associated with moderate load humid climate timber-shrub and high load conifer litter vegetation types. The moisture of extinction levels for the Fuel Models within the site boundary and analysis area are relatively low but are subject to change according to seasonal weather changes and overall trending changes to the region's climate.

Discussed further below under Section III.N.1.d., *Wildfire Mitigation Plan*, the facility, with proposed RFA13 changes, is located within the National Interagency Fire Center's Predictive Service Area NW03, along with Portland, Oregon. The Northwest Interagency Coordination Center Predictive Services is a resource which provides links to relevant fuel status reports and fuel moisture content predictions. National Weather Service's fire weather advisories (such as Red Flag Warning and Fire Weather Watch) and fire behavior advisories for each Predictive Service Area in the Northwest.

Flame Length

¹⁰⁸ MSTAMD13Doc70 RFA13 Exhibit V Wildfire 2024-08-09, Section 3.4.2.

According to the 2018 Oregon Wildfire Risk Explorer, Average Flame Length shows the average length of flames expected, given local fuel and weather conditions. Flame lengths have potential to exceed the mapped values shown, even under normal weather conditions. Flame length is commonly used as a direct visual indication of fire intensity and is a primary factor to consider for firefighter safety and for gauging potential impacts to resources and assets. Fires with a flame length of 4 to 8 feet can be expected to have moderate intensity under normal weather conditions and fires with a flame length of below four feet are expected to be low intensity under normal weather conditions. Table 17 below identifies the average flame length associated with the areas of proposed RFA13 changes. As shown, 50 percent of the site boundary has a modeled average flame length that is greater than zero and up to 4 feet followed by 26 percent that is modeled at 4 to 8 feet (76 percent of total RFA13 site boundary). Certificate holder indicates that there are two relatively large areas with greater than 11-foot flame length along canyons with steeper terrain in the vicinity of the NMCS and the Medicine well pad. Those areas contain, predominately, Fuel Models 162 and 185, which have low to moderate average flame lengths. The NMCS sits directly west of a steep, shallow canyon, which facilitates larger flames due to wind-channeling and updrafts. As discussed below, the NMCS would be graveled below and surrounding its structures, with the gravel acting as a functional fire break, but could still be affected by large, fast-moving flames from the neighboring canyon. Similarly, the Medicine well pad is at the top of a hill, which has steep slopes close to its base that will facilitate the growth of flames and expedite their speed up the hillside.

Table 17: Average Flame Length

Average Flame Length (feet)	Acres within Site Boundary (Percent of Area)	Acres within Wildfire Analysis Area (Percent of Area)
0	17 (7%)	517 (9%)
>0-4	116 (50%)	2,976 (54%)
4-8	59 (26%)	1,369 (25%)
8-11	10 (4%)	195 (4%)
>11	29 (13%)	471 (9%)
Totals	232 (100%)	5,528 (100%)
* Note that totals may not sum correctly due to rounding.		

III.N.1.d. Areas Subject to Heightened Risk of Wildfire and High-Fire Consequence Areas

Under OAR 345-022-0115(1)(a)(C), Council must find that the applicant has adequately characterized wildfire risk within the site boundary and analysis area by identifying areas subject to a Heightened Risk of Wildfire, using the information provided in support of the baseline and seasonal wildfire risk evaluation under OAR 345-022-0115(1)(a)(A) and (B), including the identification of existing infrastructure. Therefore, the Council finds that the areas within the RFA13 site boundary and analysis area that have higher wildfire risk are the areas described above under *Baseline Wildfire Risk for Existing Infrastructure* Section, which are the

1 areas where there is existing infrastructure such as the operational facility, roads, residences,
2 agricultural equipment, and community areas.

3
4 The certificate holder also explains that the Wildland Urban Interface (WUI), described in the
5 2007 Columbia County Community Wildfire Protection Plan (Columbia County CWPP), is
6 another method for determining potential impact of wildfire on existing structures at a large
7 scale. The WUI boundaries consider the distribution of structures and communities adjacent to
8 or intermixed with wildland fuels. The Community at Risk within Columbia County are identified
9 based on population density and assumed values at risk for threats to life, property and
10 infrastructure by wildfire. The northernmost laydown yards, as well as the Highway 202
11 laydown yard, Bark and Haul laydown yard, and a small portion of the new buried powerline
12 along Highway 202 falls within the Columbia County WUI and in the Community at Risk
13 delineations. Additionally, the Newton and Medicine well pads may also cross into the
14 Columbia County WUI. Most land within the site boundary and analysis area is non-WUI listed;
15 based on the WUI delineations, the Council finds that the impact of wildfire on Columbia
16 County communities is moderate to low across the site boundary and analysis area.

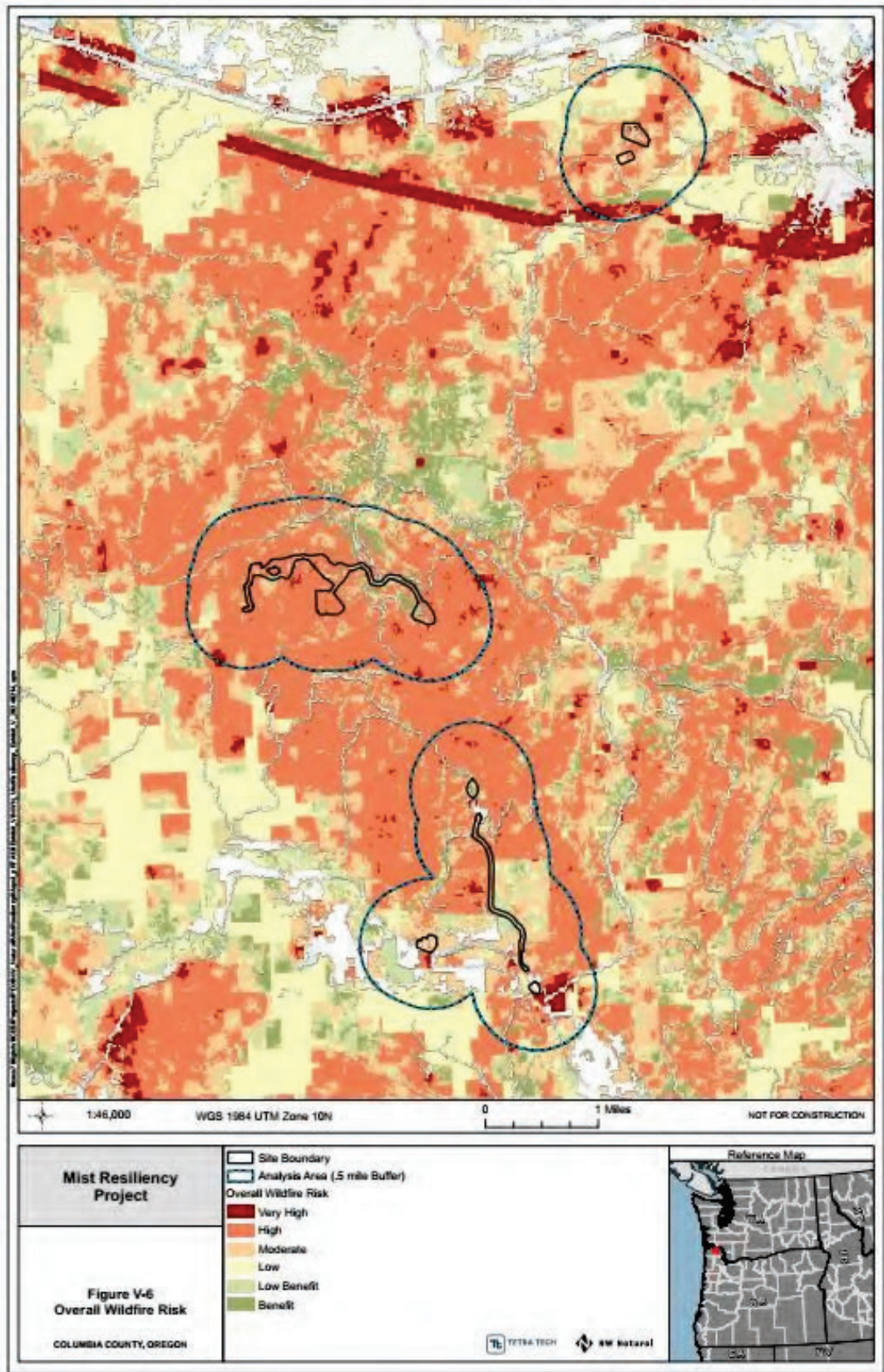
17 18 *III.N.1.e. High-Fire Consequence Areas*

19
20 Under OAR 345-022-0115(1)(a)(D), Council must also find that the applicant has adequately
21 characterized wildfire risk within the analysis area by identifying High-Fire Consequence Areas,
22 which include but are not limited to areas containing residences, critical infrastructure,
23 recreation opportunities, timber and agricultural resources, and fire-sensitive wildlife habitat.
24 These are the data inputs that the Oregon CWPP Planning Tool uses to model and produce the
25 Overall Wildfire Risk data layer. This dataset considers the likelihood of wildfire greater than
26 250 acres, the susceptibility of resources and assets to wildfire of different intensities, and the
27 likelihood of those intensities. Risk ratings range from very high, wherein wildfire may be
28 detrimental to one or more resources, to beneficial, where fires may improve resources, such
29 as timber stands or wildlife habitat. Overall Wildfire Risk in the RFA13 site boundary and
30 analysis area is illustrated below in Figure 19.

31
32 Fifty-six percent of the land within the site boundary has an overall fire risk rating of high, this is
33 mostly because timber is a value asset that is reflected in the modeling. Sixteen percent of the
34 site boundary has an overall wildfire risk of moderate. The overall fire risk for twelve percent of
35 the site boundary acreage was listed as No Data, indicating that those regions contained no
36 highly valued resources or assets (such as critical infrastructure or developed recreation areas),
37 or that simulated wildfires did not burn the area due to low historical occurrence or an absence
38 of burnable fuel. The areas making up one percent of the site boundary that are listed with a
39 very high overall fire risk rating; they are distributed throughout the northern and central
40 sections of the site boundary. The area in the larger analysis area with a very high overall fire
41 risk is near the town of Mist, Oregon, which lies to the southeast of the Bark and Haul laydown
42 yard.

- 1 According to this overall wildfire risk modeling and the evaluation of baseline and seasonal
- 2 wildfire risk provided in this Section, the Council finds that the overall wildfire risk is moderate
- 3 to high within the site boundary and analysis area.

Figure 19: Overall Wildfire Risk in Analysis Area



III.N.1.f. Wildfire Mitigation Plan

Under OAR 345-022-0115(1)(b), Council must find that the facility will be designed, constructed, and operated in compliance with a Wildfire Mitigation Plan (WMP) approved by Council. The certificate holder's construction and operational WMPs are included in RFA13 Exhibit V, Attachment V-3 and V-4, respectively. The Construction Wildfire Mitigation Plan is attached to this order as Attachment V-1 and the Operational Wildfire Mitigation Plan is attached as Attachment V-2.

Facility Design:

Facility design standards and measures that would minimize wildfire risk to and from the facility, with RFA13 changes, includes, but is not limited to the following:

- RFA13 facility components, and overall facility design, will meet National Electrical Code and Institute of Electrical and Electronics Engineers standards;
- Emergency shutdown systems, notification systems, and venting systems at the Miller Station and NMCS will be in place in the event of mechanical failure that could cause fire and will be equipped with internal fire suppression systems to reduce the potential for structural fires;
- A defensible space clearance along RFA13 facility features will be free of combustible vegetation or other materials;
- Roads and parking areas will be maintained to be free of vegetation tall enough to contact the vehicle undercarriage (see also vegetation management described below);
- Existing county roads will form a fire break between fields that will discourage the spread of wildfire between fields into wildlife habitat;
- Facility access roads will be sufficiently sized for emergency vehicle access, in accordance with local building code and local fire department requirements. The fenced areas around RFA13 infrastructure will be graveled, with no vegetation present;
- Installation of fire detection systems (including smoke detectors and fire alarms) will be installed throughout the buildings to detect and control fires in their early stages;
- The site plan will identify fire breaks, access roads, and other relevant features, as well as high hazard areas, including but not limited to, residences, croplands and agricultural operations, that will be prioritized for protection during fire suppression activities;
- Operation of the facility, with RFA13 changes, will be monitored and remotely controlled by trained operators at Miller Station, which is staffed 24 hours per day. Staff at NWN Gas Control, located in Portland, Oregon, will continue to provide additional monitoring of the newly integrated facilities on a 24-hour basis.

Oregon Department of Forestry Fire Season Requirements:

Council's Wildfire Prevention standard and Wildfire Mitigation Plan requirements apply to construction and operation of the proposed facility. RFA13, Exhibit V, Attachment V-3 provides a summary of the wildfire risk assessment described above as well as wildfire risk mitigation

measures that apply to both construction and operation of the facility, with RFA13 changes. Notably, the facility with RFA13 changes, is located within a matrix of private timberlands (commercial timber lands) and is subject to the Oregon Department of Forestry Oregon's (ODF) rules and statutes namely Industrial Fire Precaution Level (IFPL) Requirements (WMP Attachment A¹⁰⁹) and Fire Season Requirements (WMP Attachment B¹¹⁰). The facility, with proposed RFA13 changes, is located within ODF Predictive Service Area fire district: PSA NW-03. The requirements specified for industrial facilities within these areas are designated in WMPs Attachment A and B and become effective when fire season is declared in each ODF Fire Protection District by an ODF forester. During fire season, ODF identifies the IFPL throughout fire season as listed below. The Council provides a short summary of some of the restrictions associated with each IFPL (Attachment A) that may be applicable to the facility:

- IFPL I – fire season:
 - Fire season requirements are in effect (See WMP Attachment B – summarized below). In addition to other fire prevention measures, a Firewatch is required at this and all higher levels unless otherwise waived.
- IFPL II – limited shutdown:
 - The following may operate only between the hours of 8 P.M. and 1 P.M.:
 - Power saws except at loading sites;
 - Blasting;
 - Welding, cutting, or grinding metal.
- IFPL III – restricted shutdown:
 - The following are permitted to operate between the hours of 8 P.M. and 1 P.M. where mechanized equipment capable of constructing fire lines is immediately available to quickly reach and effectively attack a fire start:
 - Ground-based operations;
 - Power saws on ground-based operations;
 - The following are permitted to operate between the hours of 8 P.M. and 1 P.M.:
 - Power saws at loading sites;
 - Loading or hauling of any product or material;
 - Blasting;
 - Welding, cutting, or grinding metal;
 - Any other spark emitting operation not specifically mentioned.
- IFPL IV – complete shutdown:
 - All operations are prohibited.

Once the ODF fire season becomes declared, the following Fire Season Requirements (WMP Attachment B), become applicable depending on the type of construction or operation activity:

- No smoking while working or traveling in an operation area;
- Supply hand tools for each operation site;

¹⁰⁹ Industrial Fire Precaution Levels (IFPLs) for Oregon Department of Forestry Protection west of the Cascades.

¹¹⁰ FIRE SEASON REQUIREMENTS: The following fire season requirements become effective when fire season is declared in each Oregon Department of Forestry Fire Protection District, including those protected by associations (DFPA, CFPA, WRPA).

- Each internal combustion engine used in an operation, except power saws, shall be equipped with a chemical fire extinguisher;
- Power saws must meet Spark Arrester Guide specifications;
- Equip each truck driven in forest areas for industrial purposes with:
 - 1 round pointed shovel at least 8 inches wide, with a handle at least 26 inches long;
 - 1 axe or Pulaski with 26 inch handle or longer;
 - 1 fire extinguisher rated not less than 2A:10BC (5 pound).
- All non-turbo charged engines must meet Spark Arrester Guide specifications with a list of exceptions;
- Supply a pump, hose and water supply for equipment used on an operation;
 - Pump must be maintained ready to operate and capable of providing a discharge of not less than 20 gallons per minute at 115 psi at pump level;
 - One water supply is adequate if the operator can deliver water to the fire within 10 minutes.

Fire watch Service is also designated in the ODF Fire Season Requirements and described by the certificate holder in the WMP. Each operation area is to have a Firewatch, unless otherwise waived.¹¹¹ Fire watch shall be on duty during any breaks (up to 3 hours) and for three hours after all power driven machinery used by the operator has been shut down for the day.¹¹²

Fire watch shall:

- Be physically capable and experienced to operate firefighting equipment;
- Have facilities for transportation and communications to summon assistance;
- Observe all portions of the operation on which activity occurred during the day.
- Upon discovery of a fire, Firewatch personnel must:
 - First report the fire, summon any necessary firefighting assistance, describe intended fire suppression activities and agree on a checking system; then, after determining a safety zone and an escape route that will not be cut off if the fire increases or changes direction, immediately proceed to control and extinguish the fire, consistent with firefighting training and safety.

As noted by the certificate holder, the tasks and actions identified in the IFPL Requirements WMP Attachment A and Fire Season Requirements WMP Attachment B apply to applicable activities during both construction and operation of the facility, with RFA13 changes.

¹¹¹ OAR 629-043-0030(1) and ORS 477.665 designate the applicability, timing, and requirements for Fire Watch Service. OAR 629-043-0030(2) and (3), identify state that the Oregon State Forrester may waive fire watch requirements. Council added the language of this rule to both the construction and operational WMPs to provide clarity if in the future there may be questions of Fire Watch duties or if any of the Fire Watch requirements may be waived by the Forrester.

¹¹² Some ODF districts waive this requirement based on the IFPL in place. See Attachment B and OAR 629-043-0030.

As stated in the WMPs and required by ODF procedures and policies, the certificate holder will follow the restrictions associated with each IFPL and the associated best management practices throughout the season. Both the construction and operational WMP include Attachment C: Oregon Department of Forestry Forest Activity Inspection Report (ODF Inspection Report). The ODF Inspection Report is used by ODF and provides a check list of compliance with the above-listed measures discussed in this section and is discussed further below. The certificate holder indicates that if it needs to be finalized and/or amended, on an annual basis while construction is occurring as a record of inspection during construction, it will be submitted to the Department. As highlighted below and under Wildfire Prevention and Risk Mitigation Conditions 1 and 2, the Department may also use this inspection form to ensure compliance with applicable measures outlined in the WMP's and may amend the inspection report to satisfy any concerns regarding wildfire risk during construction and operation.

Facility Construction:

The ODF fire season requirements discussed above apply and are included in the construction WMP. Construction personnel will be trained on the RACE (i.e., Remove, Alarm, Confine and Extinguish or Evacuate) procedure to implement in the event of a fire start. RACE procedure includes:

- Rescue anyone in danger (if safe to do so);
- Alarm – call the control room, who will then determine if 911 should be alerted;
- Contain the fire (if safe to do so); and
- Extinguish the incipient fire stage (if safe to do so).

As indicated above, during construction, the Department, certificate holder, and ODF may use the WMP Attachment C: Oregon Department of Forestry Forest Activity Inspection Report to record compliance with wildfire risk mitigation measures. If the Department, certificate holder, or ODF determine different or additional measures are needed to reduce or address wildfire risk, the ODF Inspection Report may be amended and submitted to the Department. To ensure the facility is constructed in compliance with a construction WMP, the Council imposes the Wildfire Prevention and Risk Mitigation Condition 1 which would require that the construction WMP be implemented by the certificate holder and its contractors during facility construction:

Wildfire Prevention and Risk Mitigation Condition 1 [CON]: During construction of a phase or component of the Mist Resiliency Project, as applicable, the certificate holder shall implement and require all onsite contractors and employees to adhere to, the Construction Wildfire Mitigation Plan as provided in Attachment V-1 to the Final Order on RFA13. Updates to the Wildfire Mitigation Plan, including Attachment C: Oregon Department of Forestry Forest Activity Inspection Report, may be required if determined necessary by the certificate holder, certificate holder's contractor(s) or the Department to address wildfire hazard to public health and safety. Any Department required updates shall be implemented within 14 days, unless otherwise agreed to by the Department based on a good faith effort to address wildfire hazard.

1 [CON-WF-01; Final Order on AMD13]

2
3 Facility Operation:

4
5 *Facility Component Inspections and Vegetation Management*

6
7 OAR 345-022-0115(1)(b)(B) requires the description of procedures, standards, and time frames
8 that a certificate holder will use to inspect proposed facility components. Certificate holder
9 explains that fire safety inspections at a natural gas facility involve a systematic assessment of
10 various components to identify potential fire hazards and ensure the safety of personnel,
11 equipment, and the surrounding environment. Up to 12 staff members are on site daily at the
12 facility and the facility is remotely monitored 24 hours a day, as well as on-site staff present at
13 the monitoring station for the new operations building at NMCS.

14
15 Visual inspections for facility components are as followed as described in Attachment V-2 to
16 this order.¹¹³ Visual inspections for:¹¹⁴

- 17 • Electrical systems and surrounding areas (components, grounding, clearances,
18 vegetation, fencelines): conducted at least annually in accordance with NFPA and
19 NERC safety requirements;
- 20 • Fuel supply systems occur at least monthly to detect and address gas leaks,
21 damaged pipelines, or other issues that could lead to combustible gas escaping;
- 22 • Fuel tanks: performed semiannually to check for leaks, corrosion, or other
23 vulnerabilities that could lead to fuel spillage and potential fires standards;
- 24 • Piping and valves: completed semiannually to detect leaks, damage, or malfunction;
- 25 • In-plant pipe and surround areas: conducted annually to check for leaks;
- 26 • Underground pipelines will be visually inspected on a seven-year assessment
27 schedule to address any leaks or damage;
- 28 • Emergency shutdown, notification, and venting systems are in place at Miller Station
29 and will be implemented at the NMCS, all of which will be visually inspected annually
30 to ensure they are operational and capable of responding quickly to fire or safety
31 incidents;
- 32 • Fire suppression systems, including fire extinguishers and fire sprinklers, occur
33 annually or as recommended by the system manufacturer to verify functionality;
- 34 • Emergency response equipment, such as personal protective gear, first-aid kits, and
35 communication devices, conducted annually;
- 36 • Facility grounds inspections occur weekly to maintain cleanliness, remove
37 combustible debris, assure proper chemical storage and leak treatment as
38 applicable, and assure proper maintenance of all heat-producing equipment to

¹¹³ MSTAMD13Doc70 RFA13 Exhibit V Wildfire 2024-08-09, Attachment V-3, Section 3.2.2; Attachment V-2 to this order.

¹¹⁴ Inspections are governed by Pipeline and Hazardous Materials Safety Administration (PHMSA) standards and Operational Spill Prevention, Control, and Countermeasure Plan, Subpart L 29 CFR 1910.155-165, as applicable.

1 prevent accidental ignition of combustible materials, in accordance with applicable
2 equipment guidelines and manuals.

3
4 A defensible space clearance along RFA13 facility features will be maintained to be free of
5 combustible vegetation or other materials. Roads and parking areas will be maintained to be
6 free of vegetation tall enough to contact the undercarriage of the vehicle. Travel off road or
7 parking in vegetated areas will be restricted during fire season and will adhere to IFPL
8 restrictions and requirements, cited above. The operational WMP also includes Attachment C:
9 Oregon Department of Forestry Forest Activity Inspection Report. As highlighted below under
10 Wildfire Prevention and Risk Mitigation Condition 2, the Department, certificate holder or ODF
11 may use this form to use as a check list for applicable BMPs that reduce wildfire risk at the site.
12 The ODF Inspection Reports may be modified, as needed, to address any concerns on the site
13 and submitted to the Department.

14
15 A physical vegetation survey assessment of the fenced area will be completed at least annually
16 to monitor vegetation growth. The initial vegetation survey assessments will occur typically in
17 the spring, prior to the start of the dry season, a time when wildfire risk is usually heightened
18 due to low fuel moisture and high temperature. The vegetation survey assessment will be
19 conducted by operations staff and will be used to assess the frequency of upcoming vegetation
20 maintenance and identify areas that may need additional attention. Around the NMCS
21 components will be installed with a gravel base and managed with herbicide or mechanical
22 application on all associated gravel pads.

23
24 RFA13, Exhibit P, Attachment P-4 includes the certificate holder's Vegetation Control and
25 Management Plan. The Vegetation Control and Management Plan includes measures to control
26 noxious weeds, requirements for herbicide use and recordation, and prioritization and
27 coordination for vegetation removal standards including tree clearance maintenance. The
28 Council adds Attachment P-4: Vegetation Control and Management Plan to Attachment V-2, to
29 the operational WMP because the vegetation management measures are consistent with those
30 that also reduce and manage wildfire risk as the site and should be consolidated into one
31 location (plan) for simplified referencing and compliance.

32 *Preventative Actions and Programs and Mitigation of Wildfire Risks*

34
35 OAR 345-022-0115(1)(b)(C) requires the identification of preventative actions that the applicant
36 will carry out to minimize the risk of proposed facility components causing wildfire. Certificate
37 holder indicates that all workers and the facility will operate under an OSHA-Compliant Fire
38 Prevention Plan, which is designated under the Code of Federal Regulations 29 CFR 1910.39 and
39 Subpart L 29 CFR 1910.155-165, some of these measures include:

- 40 • Procedures to control accumulations of flammable and combustible waste materials;
- 41 • Procedures for regular maintenance of safeguards installed on heat-producing
- 42 equipment to prevent the accidental ignition of combustible materials;
- 43 • The name or job title of employees responsible for maintaining equipment to
- 44 prevent or control sources of ignition or fires;

- Facility contains properly maintained portable fire extinguishers, and staff are trained to use them;
- Automatic sprinkler, fire detection, fixed extinguishing, and employee alarm systems.

Plan Updates

RFA13 WMP states that the certificate holder will review its WMP in accordance with Mist Underground Storage operation and maintenance manuals. After each review, a copy of the updated WMP will be provided to the Department within the annual compliance report required under OAR 345-026-0080(2). In the annual monitoring report, a discussion of any significant changes to the wildfire mitigation program, including the reason for any such changes, will be described. The Council clarifies in the operational WMP that the certificate holder's review will occur annually. As required under OAR 345-022-0115(1)(b), because the proposed facility site has a moderate to high wildfire risk, and to ensure the measures intended to reduce and mitigate wildfire risk at the site to during operation are conducted in compliance with the WMP, the Council imposes the following condition:

Wildfire Prevention and Risk Mitigation Condition 2 [OPR]: During operation, the certificate holder shall:

- a. Implement the Operational Wildfire Mitigation Plan, included as Attachment V-2 to the Final Order on RFA13.
 - b. After the first operational year, annually review and update the evaluation of wildfire risk under OAR 345-022-0115(1)(b) and submit the results in the annual report for that year, including any updates to Attachment C: Oregon Department of Forestry Forest Activity Inspection Report.
 - c. Submit an updated Operational Wildfire Mitigation Plan to the Department if substantive changes are made to the plan because of the review under sub (b) of this condition, or at any other time substantiative revisions are made to Attachment V-2 of the Final Order on RFA13.
- [OPR-WF-01; Final Order on AMD13]

III.N.2. Conclusions of Law

Based on the foregoing findings of fact, and subject to compliance with site certificate conditions, Council finds that the certificate holder has adequately characterized wildfire risk at the site using current data from reputable sources, and that the facility, with proposed RFA13 changes, will be constructed and operated in compliance with a Wildfire Mitigation Plan approved by Council.

III.O. WASTE MINIMIZATION: OAR 345-022-0120

(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that, to the extent reasonably practicable:

Exhibit L – Mist Facility’s Construction Wildfire Mitigation Plan

Construction Wildfire Mitigation Plan

**Mist Resiliency Project
August 2024**

Amended by Department August 2024

Prepared for



Prepared by



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List of Attachments

Attachment A. ODF Industrial Fire Precaution Levels (IFPLs) for West of the Cascades

Attachment B. ODF's Fire Season Requirements

Attachment C. Oregon Department of Forestry Forest Activity Inspection Report

Acronyms and Abbreviations

CFR	Code of Federal Regulations
CWPP	Community Wildfire Protection Plan
ERRP	Emergency Response and Recovery Plan
Facility	Mist Underground Natural Gas Storage Facility
IFPL	Industrial Fire Precaution Levels
NERC	North American Electric Reliability Corporation
NMCS	North Mist Compressor Station
NWN	Northwest Natural Gas
OAR	Oregon Administrative Rule
ODF	Oregon Department of Forestry
Plan	Wildfire Mitigation Plan
RACE	Remove, Alarm, Confine and Extinguish or Evacuate
RFA	Request for Amendment

1.0 Introduction

Northwest Natural Gas (NWN) and its contractor(s) will follow all relevant Occupational Safety and Health Administration and National Fire Protection Association requirements related to fire hazards including a no smoking policy, fire permit requirement, hazardous material and combustible storage areas, pre-task planning to assess fire risks, relevant fire awareness training, lockout-tagout requirement, hazardous materials documentation, appropriate management, and disposal. NWN and its contractor(s) will follow Oregon Department of Forestry's (ODF) Industrial Fire Precaution Levels (IFPL; Attachment A) and general fire season requirements (Attachment B).

NWN will submit a Notification of Operations and Application for Permit NO/AP to ODF prior to any well work or major construction; note that a NO/AP is technically not required for work outside of the fence lines of the Facility, but travel to and from the Facility (outside of the Facility fence line) will still adhere to IFPL restrictions and requirements.

NWN will also provide ODOE with an ODF Forest Activity Inspection Report (Attachment C), to be finalized and/or amended as needed, on an annual basis while construction is occurring as a record of inspection during construction.

2.0 Design Features Applicable to Construction for Reducing Wildfire Risk

NWN will design the Facility to maintain a defensible space clearance along Facility features. Defensible space will be free of combustible vegetation or other materials. Roads and parking areas will be maintained to be free of vegetation tall enough to contact the undercarriage of the vehicle. Travel off road or parking in vegetated areas will be restricted during fire season. The existing county roads will form a fire break between fields that will discourage the spread of wildfire between fields into wildlife habitat. The fenced areas around Facility infrastructure will be graveled, with no vegetation present.

3.0 Fire Watch, Hot Work, and Fire Weather Monitoring

During fire season (as identified by ODF) each construction area is required to have a Firewatch unless otherwise waived (see Attachment B; ORS 477.665, OAR 629-043-0030)¹. As described in

¹ OAR 629-043-0030

(1) Pursuant to ORS 477.665 (Fire watch service), during fire season inside or within one-eighth of one mile of a forest protection district, operators must comply with the following fire watch requirements. A person performing fire watch service must:

(a) Constantly observe the operation area during any breaks (up to three hours) in operation activity and for three hours after the power driven machinery used by the operator has been shut down for the day;

Attachment A, a fire watch shall be on during any breaks and for three hours after all power-driven machinery used by the operator has been shut down for the day. Based on weather and the probability of fire, ODF identifies different IPFLs which have associated rules about what work may occur, as well as when and where that work may occur (ODF 2024). For example, IFPL II allows for most activities between 8pm and 1pm, whereas IFPL IV represents a complete shutdown of operations. For construction outside of fire season, hot work permits will be in-place, issued by managers at Miller Station and NMCS.

Fire watch shall be on duty during any breaks (up to 3 hours) and for three hours after all power driven machinery used by the operator has been shut down for the day. Note: Some ODF districts waive this requirement based on the IFPL in place.

Fire watch shall:

- Be physically capable and experienced to operate firefighting equipment.
- Have facilities for transportation and communications to summon assistance.
- Observe all portions of the operation on which activity occurred during the day.

Upon discovery of a fire, Firewatch personnel must: first report the fire, summon any necessary firefighting assistance, describe intended fire suppression activities and agree on a checking system; then, after determining a safety zone and an escape route that will not be cut off if the fire increases or changes direction, immediately proceed to control and extinguish the fire, consistent with firefighting training and safety. Regular coordination with ODF will continue to occur during the fire season.

Classification of Fire Precaution Level is decided by ODF and communicated directly to NWN staff at Miller Station, posted online, and posted at all area fire stations. In addition, ODF operates a guard station at the northern end of Facility on Palm Hill Road, which is staffed during fire season.

4.0 Vegetation Management

NWN and contractor(s) will maintain vegetation within the Amended Site Boundary and will also maintain a defensible space clearance along Facility features, per their existing Vegetation Control

-
- (b)Visually observe all portions of the operation area on which operation activity occurred during the preceding period of activity; and
- (c)Be qualified in the use and operation of assigned firefighting equipment and tools; be physically capable of performing assigned fire suppression activities; and be advised of single employee assignment responsibilities (OAR 437-007-1315 (Single Personnel Assignments)), when working alone.
- (2)After a measurable amount of rain on the operation area, the forester may suspend the requirements of subsection (1) of this rule until such time as, in the judgment of the forester, conditions warrant reinstatement.
- (3)The forester may reduce or waive any requirement of subsection (1)(a) or (b) of this rule in a written order if, in the judgment of the forester, conditions so warrant.
- (4)Immediately following a period when the only operation activity has been the use of self-loading log trucks on improved roads or landings cleared of flammable material, fire watch service is not required.***

and Management Plan (see Attachment P-4). Defensible space will be free of combustible vegetation or other materials. Roads and parking areas will be maintained to be free of vegetation tall enough to contact the undercarriage of the vehicle. Travel off road or parking in vegetated areas will be restricted during fire season and will adhere to IFPL restrictions and requirements. Per ODF fire season requirements, Attachment B, all power driven machinery will be kept free of excess flammable material which may create a risk of fire (ORS 477.625, OAR 629-043-0026); line-rub on rock or woody material will also be avoided, which may result in sparks or sufficient heat to cause ignition of a fire. Additionally, all non-turbo charged engines must meet Spark Arrester Guide specifications outlined in ODF fire season requirements, spark arresters and mufflers, Attachment B (ORS 477.645, OAR 529-043-0015).

5.0 Minimization of Fire Risk from Construction Activities and Best Management Practices

Best management practices to minimize fire risk from vehicle travel and fueling activities would be implemented at the site during fire season (typically June/July through September/October) per ODF IFPL requirements and fire season requirements (see Attachments A and B). Additional measures identified in the Request for Amendment 11 Exhibit U, and RFA 13, Exhibit U, may be required by the Oregon Department of Energy.

6.0 Emergency Response

Personnel will be trained on the Remove, Alarm, Confine and Extinguish or Evacuate (RACE) procedure to implement in the event of a fire start. RACE procedure includes:

- Rescue anyone in danger (if safe to do so);
- Alarm – call the control room, who will then determine if 911 should be alerted;
- Contain the fire (if safe to do so); and
- Extinguish the incipient fire stage (if safe to do so).

Personnel on site will carry fire suppression equipment during the fire season in their vehicles. Per ODF fire season requirements, Attachment B (fire tools, extinguishers for trucks; ORS 477.655, OAR 629-043-0025), each truck shall be equipped with:

- 1 round pointed shovel at least 8 inches wide, with a handle at least 26 inches long
- 1 axe or Pulaski with 26 inch handle or longer
- 1 fire extinguisher rated not less than 2A:10BC (5-pound).

Miller Station and the NMCS will also maintain emergency firefighting equipment including shovels, portable water for hand sprayers, fire extinguishers, and other equipment (see also Section 3.2.6,

Fire Protection (Subpart L 29 CFR 1910.155-165)). Per ODF fire season requirements, Attachment B (hand tools; ORS 477.655, OAR 629-043-0025), hand tools will be available at each construction site. Tools will be stored in a sturdy box clearly identified as containing firefighting tools. One box will be provided for each construction area. Crews of four or less are not required to have a fire tools box as long as each person has a shovel, suitable for fire-fighting that is available for immediate use during construction.

Additionally, each internal combustion engine used in construction, except power saws, shall be equipped with a chemical fire extinguisher rated as not less than 2A:10BC (5-pound).

Personnel will receive training on use of suppression equipment and have onsite fire extinguishers to respond to small fires. In the event of a large fire, 911 will be called and emergency responders will be dispatched. Prior to construction of the Facility, NWN will provide employee fire prevention and response training that shall include instruction on Facility fire hazards, fire safety, emergency notification procedures, use of fire safety equipment, and fire safety rules and regulations. Equivalent training shall be provided to new employees or subcontractors working on site that are hired after the start of construction. All personnel shall be equipped with communication equipment capable of reaching the control room from all locations within the Amended Site Boundary.

To minimize wildfire impacts, NWN will utilize the expertise of local fire brigades in the event of a fire. NWN has written agreements with the Clatskanie Rural Fire Protection District and the Mist-Birkenfeld Rural Fire Protection District dating back to 2015 (Request for Amendment 11, Attachment U-2). Both groups have willingness and ability to respond as staffing allows to any fire protection issues which may arise during construction of the Facility. Additionally, NWN will continue to provide notice to Mist-Birkenfeld Rural Fire Protection District whenever they are performing well work or major construction for emergency response purposes.

7.0 References

ODF. 2024. Industrial Fire Precaution Levels.

<https://gisapps.odf.oregon.gov/firerestrictions/IFPL.html>. Accessed July 11, 2024.

Attachment A. ODF Industrial Fire Precaution Levels (IFPLs) for West of the Cascades

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FIRE SEASON REQUIREMENTS

The following fire season requirements become effective when fire season is declared in each Oregon Department of Forestry Fire Protection District, including those protected by associations (DFPA, CFPA, WRPA).

NO SMOKING (477.510)

No smoking while working or traveling in an operation area.



HAND TOOLS (ORS 477.655, OAR 629-43-0025)

Supply hand tools for each operation site - 1 tool per person with a mix of pulaskis, axes, shovels, hazel hoes. Store all hand tools for fire in a sturdy box clearly identified as containing firefighting tools. Supply at least one box for each operation area. Crews of 4 or less are not required to have a fire tools box as long as each person has a shovel, suitable for fire-fighting and available for immediate use while working on the operation.



FIRE EXTINGUISHERS (ORS 477.655, OAR 629-43-0025)

Each internal combustion engine used in an operation, except power saws, shall be equipped with a chemical fire extinguisher rated as not less than 2A:10BC (5 pound).



POWER SAWS (ORS 477.640, OAR 629-043-0036)

Power saws must meet Spark Arrester Guide specifications - a stock exhaust system and screen with $\leq .023$ inch holes.

The following shall be immediately available for prevention and suppression of fire:

- ◆ One gallon of water or pressurized container of fire suppressant of at least eight ounce capacity
- ◆ 1 round pointed shovel at least 8 inches wide with a handle at least 26 inches long
- ◆ The power saw must be moved at least 20' from the place of fueling before it is started.



FIRE TOOLS, EXTINGUISHERS FOR TRUCKS (ORS 477.655, OAR 629-043-0025)

Equip each truck driven in forest areas for industrial purposes with:

- ◆ 1 round pointed shovel at least 8 inches wide, with a handle at least 26 inches long
- ◆ 1 axe or Pulaski with 26 inch handle or longer
- ◆ 1 fire extinguisher rated not less than 2A:10BC (5 pound).



SPARK ARRESTERS AND MUFFLERS (ORS 477.645, OAR 629-043-0015)

All non-turbo charged engines must meet Spark Arrester Guide specifications except:

- ◆ Fully turbo charged engines.
- ◆ Engines in motor vehicles operating on improved roads equipped with an adequate muffler and exhaust system.
- ◆ Engines in light trucks (26,000 GVW or less) that are equipped with an adequate muffler and an exhaust system.
- ◆ Engines in heavy trucks (greater than 26,000 GVW) that are equipped with an adequate muffler and exhaust system.
- ◆ If a truck engine is not fully turbo-charged, then the exhaust must extend above the cab and discharge upward or to the rear, or to the end of the truck frame.
- ◆ Water pumping equipment used exclusively for fighting fire.
- ◆ Engines of 50 cubic inch displacement or less, except ATV's and motorcycles, shall be equipped with an adequate muffler and an exhaust system.
- ◆ Engines in ATV's and motorcycles must be equipped with an adequate muffler and exhaust system or an approved screen, which completely encloses exhaust system.
- ◆ Power saws. (See power saw requirements)



PUMP, HOSE, AND WATER SUPPLY (ORS 477.650, 477.625, OAR 629-043-0026, 629-43-0020)

Supply a pump, hose and water supply for equipment used on an operation.

- ◆ Pump must be maintained ready to operate and capable to provide a discharge of not less than 20 gallons per minute at 115 psi at pump level. **Note: Volume pumps will not produce the necessary pressure to effectively attack a fire start. Pressure pumps are recommended.**
- ◆ Water supply shall be a minimum of 300 gallons if a self-propelled engine.
Water supply shall be a minimum of 500 gallons if not self-propelled (pond, stream, tank, sump, trailer, etc.)
- ◆ One water supply is adequate as long as the operator can deliver water to the fire within 10 minutes
- ◆ Provide enough hose (500 feet minimum) not less than 3/4" inside diameter to reach areas where power driven machinery has worked.



Note: Should a fire occur, the operator must be able to position the water supply in a location where enough hose is available to reach the area worked by power driven machinery. This includes mobile equipment as well as motorized carriages and their moving lines. Moving lines are defined as main lines and haul back lines. This can be achieved in many ways, including the practice of having a water tank and hose attached to a piece of equipment, like a skidgen or skidder, that can get the water to the fire.

- ◆ Water supply, pump, and at least 250' of hose with nozzle must be maintained as a connected, operating unit ready for immediate use.

CABLE LOGGING OPERATIONS (ORS 477.625, 477.655, OAR 629-043-0026, 629-043-0025)

Clear the ground of flammable debris within a 10-foot radius around any block. This cleared area shall be kept free of flammable debris while the block is in use.

Provide at each block:

- ◆ 5 gallon pump can filled with water
- ◆ 1 round pointed shovel at least 8 inches wide with a handle at least 26 inches long.

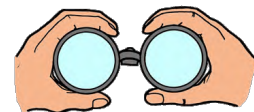
FIRE WATCH SERVICE (477.665, 629-043-0030)

Each operation area is to have a Firewatch.

Fire watch shall be on duty during any breaks (up to 3 hours) and for three hours after all power driven machinery used by the operator has been shut down for the day. ***Note: Some ODF districts waive this requirement based on the IFPL in place. Check with the district in which you are working.***

Fire watch shall:

- ◆ Be physically capable and experienced to operate firefighting equipment.
- ◆ Have facilities for transportation and communications to summon assistance.
- ◆ Observe all portions of the operation on which activity occurred during the day.



Upon discovery of a fire, Firewatch personnel must: First report the fire, summon any necessary firefighting assistance, describe intended fire suppression activities and agree on a checking system; then, after determining a safety zone and an escape route that will not be cut off if the fire increases or changes direction, immediately proceed to control and extinguish the fire, consistent with firefighting training and safety.

OPERATION AREA FIRE PREVENTION (477.625, 629-043-0026)

- ◆ Keep all power driven machinery free on excess flammable material which may create a risk of fire.
- ◆ Avoid line-rub on rock or woody material, which may result in sparks or sufficient heat to cause ignition of a fire.
- ◆ Disconnect main batteries from powered components (other than what may be necessary to retain computer memory) through a shut-off switch or other means or, leave equipment on ground cleared of flammable material.

NOTICE:

THESE ARE MINIMUM STANDARDS BY LAW. MANY LANDOWNERS REQUIRE ADDITIONAL REQUIREMENTS.

Attachment B. ODF's Fire Season Requirements

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Industrial Fire Precaution Levels (IFPLs) for Oregon Department of Forestry Protection west of the Cascades

IFPL I. Fire Season

Fire season requirements are in effect. In addition to other fire prevention measures, a Firewatch is required at this and all higher levels unless otherwise waived.

IFPL II. Limited Shutdown

The following may operate only between the hours of 8 P.M. and 1 P.M.:

- ◆ Power saws except at loading sites;
- ◆ Feller-bunchers with rotary head saws;
- ◆ Cable yarding;
- ◆ Blasting;
- ◆ Welding, cutting, or grinding of metal.



IFPL III. Restricted Shutdown

The following is prohibited except as indicated:

- ◆ Cable yarding - except that gravity operated logging systems employing non-motorized carriages or approved motorized carriages (defined below), may operate between 8 P.M. and 1 P.M. when all blocks and moving lines are suspended 10 feet above the ground except the line between the carriage and the chokers and during rigging.

The following are permitted to operate between the hours of 8 P.M. and 1 P.M. where mechanized equipment capable of constructing fire line is immediately available to quickly reach and effectively attack a fire start:

- ◆ Ground-based operations (defined below);
- ◆ Power saws on ground-based operations;
- ◆ Rotary head saw feller-bunchers with a continuous Firewatch;
- ◆ Non-rotary head saw feller-bunchers;
- ◆ Tethered logging systems (defined below).

The following are permitted to operate between the hours of 8 P.M. and 1 P.M.:

- ◆ Power saws at loading sites;
- ◆ Loading or hauling of any product or material;
- ◆ Blasting;
- ◆ Welding, cutting, or grinding of metal;
- ◆ Any other spark emitting operation not specifically mentioned.



IFPL IV. Complete Shutdown

All operations are prohibited.

NOTE: Where hauling involves transit through more than one shutdown/regulated use area, the precaution level at the woods loading site shall govern the level of haul restriction, unless otherwise prohibited by other than the IFPL system. Under IFPL III, all trucks must be loaded and leaving the loading site no later than 1 P.M.

IFPL Definitions

Approved motorized carriage: a cable yarding system employing a motorized carriage with two fire extinguishers, each with at least a 2A:10BC rating, mounted securely on opposite sides of the carriage, an emergency motor cutoff, and an approved exhaust system.

Cable yarding system: a yarding system employing cables, and winches in a fixed position.

Fire Season: that season of the year when a fire hazard exists as declared by the responsible agency official.

Ground-based operations: mobile and stationary equipment operations other than cable yarding systems, including but not limited to tractor/skidder, feller-buncher, forwarder, processor, and shovel operations.

Loading sites: a place where any product or material (including, but not limited to logs, firewood, slash, soil, rock, poles, etc.) is placed in or upon a truck or other vehicle. loading site shall govern the level of haul restriction, unless otherwise prohibited by other than the industrial precaution level system.

Tethered logging system: winch-assisted, cable-assisted, traction-assisted, etc., which enable ground-based timber harvesting machines to operate on steep slopes.

Waivers

Waivers, written in advance, may be used for any and all activities. Activities for which waivers may be issued include, but are not limited to:

- ◆ mechanized loading and hauling.
- ◆ road maintenance such as sprinkling, graveling, grading and paving.
- ◆ cable yarding using gravity systems or suspended lines and blocks, or other yarding systems where extra prevention measures will significantly reduce the risk of fire.
- ◆ power saws at loading sites or in felling and bucking where extra prevention measures will significantly reduce the risk of fire.
- ◆ maintenance of equipment (other than metal cutting and welding) or improvements such as structures, fences and powerlines.

Best Management Practices for Forest Operations Checklist

- ◆ Assure good communications are established with protection district.
- ◆ Keep all equipment clean of flammable material and debris.
- ◆ Utilize and keep in good working condition manufacturer recommended non-sparking clamping jaws on braking systems on carriages.
- ◆ Clean out spark arrester ports.
- ◆ Hydraulic and fuel lines are in good condition.
- ◆ Battery hold-downs are in good repair and positive terminal is insulated;
- ◆ Electrical wiring and circuit breakers are in good working order according to manufacturer specifications;
- ◆ Pumps and fire trucks are in good working condition;
- ◆ Line rub is eliminated;
- ◆ Where possible, and when not in use, park equipment overnight in location clear of flammable material.
- ◆ Monitor relative humidity hourly and consider shut down when relative humidity drops below 30 percent.

NOTE: The IFPL system does not apply on lands protected by ODF east of the summit of the Cascades.

Attachment C. Oregon Department of Forestry Forest Activity Inspection Report

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Oregon Department of Forestry Forest Activity Inspection Report

BOOK: _____ DATE: _____ PAGE: _____
Notification / Unit No.: _____
Sale or Job Name: _____
FPF Name/No.: _____

Operator: _____ Landowner: _____ Timber Owner: _____

FIRE PREVENTION

- REQUIRED OK THIS DATE ☐ Slash Hazard Inspection ☐ Not Active This Date
- ☐ ☐ Fire Tools: Number of workers in operation: _____
Power Saws: Number in operation: _____ Number Checked _____
- ☐ ☐ Spark Arresters / Exhaust Systems
☐ ☐ Shovels and Fire Extinguishers
- Trucks: Number in operation: _____ Number Checked _____
- ☐ ☐ Exhaust Systems
☐ ☐ Tools and Fire Extinguishers
- Other Power Driven Machinery and Engines:
- ☐ ☐ Spark Arresters / Exhaust Systems
☐ ☐ Debris Accumulation Removed
☐ ☐ Fire Extinguishers
- Cable Logging Systems:
- ☐ ☐ Cable lines clear
☐ ☐ Blocks cleared Number checked: _____
☐ ☐ Shovels and water at blocks
- ☐ ☐ Water Supply / Pump / Hose / Nozzle
- ☐ ☐ Fire Watch Hours after operation: _____
- ☐ ☐ Alternate methods or equipment, as described below are approved for use.
☐ ☐ Other: _____
☐ ☐ Other: _____
- ☐ IFPL Waiver, as described below, is approved
- ☐ Order: For the items described below, you are hereby ordered to cease violation of ORS Chapter 477. Your Permit to Use Fire or Power Driven Machinery is suspended for these items until compliance is restored.

FOREST PRACTICES

- ☐ Pre-Operation Inspection ☐ Active or Post-Operation Inspection ☐ Complaint Investigation ☐ Waiver of 15 Day Waiting Period

Prior Approval / Written Plans

- ☐ Prior Approval Granted: Applicable rule(s) _____

Written Plan Action: ☒ Required ☐ Approved ☐ Approval Denied

Written plan rule(s): _____

Written plan resources: _____

RECOMMENDATIONS

Written below are recommendations. The inspecting Forest Practices Forester recommends these actions to prevent an unsatisfactory condition which may result in a violation of the Forest Practices Act. These recommendations pertain to the following rules:

- ☐ Written Plans ☐ Chemicals ☐ Water Protection
☐ Reforestation ☐ Road Construction ☐ Other _____
☐ Slash ☐ Harvesting

WRITTEN STATEMENT OF UNSATISFACTORY CONDITION

This operation is not in compliance with the Forest Practices Act. Further enforcement action will begin if damage occurs or if you do not comply with the instructions written below by this compliance date: _____

This unsatisfactory condition(s) pertain to rule(s) or statute(s):

- ☐ Written Plans ☐ Chemicals ☐ Water Protection
☐ Reforestation ☐ Road Construction ☐ Other _____
☐ Slash ☐ Harvesting

ORS/OAR(s): _____

INFORMATION ON ITEMS CHECKED ABOVE:

Page ____ of ____

THIS REPORT INDICATES THE CONDITIONS FOUND TO EXIST AT THE TIME OF THIS INSPECTION FOR THOSE ITEMS CHECKED OR NOTED ABOVE. IT DOES NOT IMPLY THAT ALL PARTS OF THE OPERATION WERE INSPECTED NOR DOES IT INDICATE ITEMS NOT INSPECTED ARE SATISFACTORY.

Signed _____ Received By: _____ Date: _____

☐ Copies Mailed _____ Date: _____

State Forester's Representative _____ Date: _____

Attachment V-2: Operational Wildfire Mitigation Plan

Mist Underground Natural Gas Storage Facility RFA13

Exhibit M – Mist Facility’s Operational Wildfire Mitigation Plan

Operational Wildfire Mitigation Plan

**Mist Resiliency Project
August 2024**

Amended by Department August 2024

Prepared for



Prepared by



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Attachment B. ODF's Fire Season Requirements

Attachment C. Oregon Department of Forestry Forest Activity Inspection Report

Acronyms and Abbreviations

CFR	Code of Federal Regulations
CWPP	Community Wildfire Protection Plan
ERRP	Emergency Response and Recovery Plan
Facility	Mist Underground Natural Gas Storage Facility
IFPL	Industrial Fire Precaution Levels
NERC	North American Electric Reliability Corporation
NMCS	North Mist Compressor Station
NWN	Northwest Natural Gas
OAR	Oregon Administrative Rule
ODF	Oregon Department of Forestry
Plan	Wildfire Mitigation Plan
RACE	Remove, Alarm, Confine and Extinguish or Evacuate
RFA	Request for Amendment

1.0 Introduction

NWN and its contractor(s) will follow all relevant Occupational Safety and Health Administration and National Fire Protection Association requirements related to fire hazards including: no smoking policy, fire permit requirement, hazardous material and combustible storage areas, pre task planning to assess fire risks, relevant fire awareness training, lockout-tagout requirement, hazardous materials documentation, appropriate management, and disposal. NWN and its contractor(s) will follow Oregon Department of Forestry's (ODF) Industrial Fire Precaution Levels (IFPL; Attachment A) and general fire season requirements (Attachment B).

NWN will submit an annual Notification of Operations and Application for Permit NO/AP to ODF prior to any well work or major construction; note that a NO/AP is technically not required for work outside of the fence lines of the Facility, but travel to and from the Facility (outside of the Facility fence line) will still adhere to IFPL restrictions and requirements. NWN will also provide ODOE with an ODF Inspection Form (Attachment C), to be finalized and/or amended throughout operations as needed, on an annual basis as a record of inspection during operations.

2.0 Wildfire Mitigation Through Facility Design

The Facility's components, and overall project design, will meet National Electrical Code and Institute of Electrical and Electronics Engineers standards and will not pose a significant fire risk. Emergency shutdown systems, notification systems, and venting systems at the Miller Station and NMCS will be in place in the event of mechanical failure that could cause fire and will be equipped with internal fire suppression systems to reduce the potential for structural fires.

NWN will design the Facility to maintain a defensible space clearance along Facility features. Defensible space will be free of combustible vegetation or other materials. Roads and parking areas will be maintained to be free of vegetation tall enough to contact the undercarriage of the vehicle. Travel off road or parking in vegetated areas will be restricted during fire season. The existing county roads will form a fire break between fields that will discourage the spread of wildfire between fields into wildlife habitat.

Vegetation within the fence line will be managed as needed to reduce fuels for fire. Facility access roads are sufficiently sized for emergency vehicle access, in accordance with local building code and local fire department requirements. The fenced areas around Facility infrastructure will be graveled, with no vegetation present. The public will also be excluded from the well pads, Miller Station, and NMCS facilities by this fencing. Installation of fire detection systems (including smoke detectors and fire alarms; see also Section 3.2.6, Fire Protection (Subpart L 29 CFR 1910.155-165)) will be installed throughout the operations buildings to detect and control fires in their early stages. A water truck, water buffalo or tank of at least 500 gallons will also be available onsite. Any potential fires inside the Amended Site Boundary will be controlled by onsite trained staff who will be able to access the Facility around the clock. These measures will help keep external fires out or

internal fires in. NWN shall provide an updated site plan to all fire protection districts, first responders identified in RFA 13 Exhibit U, and the Department if additional structures are later added to the Facility.

3.0 Vegetation Management

NWN and contractor(s) will maintain vegetation within the Amended Site Boundary and will also maintain a defensible space clearance along Facility features. The vegetation will be managed in accordance with their existing Vegetation Control and Management Plan (see Attachment P-4). Defensible space will be free of combustible vegetation or other materials. Roads and parking areas will be maintained to be free of vegetation tall enough to contact the undercarriage of the vehicle. Travel off road or parking in vegetated areas will be restricted during fire season and will adhere to IFPL restrictions and requirements. Per ODF fire season requirements (Attachment B), all power - driven machinery will be kept free of excess flammable material which may create a risk of fire (ORS 477.625, OAR 629-043-0026); line-rub on rock or woody material will also be avoided, which may result in sparks or sufficient heat to cause ignition of a fire. Additionally, all non-turbo charged engines must meet Spark Arrester Guide specifications outlined in ODF fire season requirements, spark arresters and mufflers, Attachment B (ORS 477.645, OAR 529-043-0015).

A physical vegetation survey assessment of the fenced area will be completed at least annually to monitor for vegetation growth. This survey will focus on areas of heightened risk and high fire consequences as described in Section 2.0 and displayed in Figures V-1 through V-6 (see Exhibit V). The initial vegetation survey assessments will occur typically in the spring, prior to the start of the dry season, a time when wildfire risk is usually heightened due to low fuel moisture and high temperature. The vegetation survey assessment will be conducted by operations staff and will be used to assess the frequency of upcoming vegetation maintenance and identify areas that may need additional attention.

To reduce the availability of fuels for wildfire near electrical components, NWN will install a non-flammable gravel base around the NMCS components and implement ongoing vegetation management outlined in Table 1 to ensure that vegetation does not grow in these graveled areas.

Table 1. Vegetation Management Procedures by Facility Component

Vegetation Management	Procedure	Standard	Time Frame
NMCS	Herbicide or mechanical application on all associated gravel pads (e.g., compressor stations). Highly compacted gravel foundations are not suitable for vegetation.	IEEE 80 ¹ NEC 70 ² North American Electric Reliability Corporation (NERC) ³	Yearly, depending on vegetation condition.
1. IEEE (2015) 2. NFPA (2023) 3. NERC (2023)			

Vegetation control will begin following the surveys and employ best management practices and techniques that are most appropriate for the local environment. In areas where vegetation is present and could pose a fire risk, vegetation management and removal measures shall be implemented prior to fire season. Encroaching vegetation near aboveground structures within Miller Station and NMCS, along with the newly built well pads will be treated accordingly depending on the location, soil type, etc., in accordance with Exhibit P and the Habitat Mitigation Plan (Attachment P-2), Restoration of Temporary Impacts Plan (Attachment P-3), and the Vegetation Control and Management Plan (Attachment P-4). Any herbicides used for vegetation management the site will be selected and used in a manner that fully complies with all applicable laws and regulations and will adhere to the No-Spray guidelines outlined in the Vegetation Control and Management Plan (see Exhibit P, Attachment P-4). Noxious weeds within the Site Boundary will be controlled in accordance with the Vegetation Control and Management Plan (see Exhibit P, Attachment P-4).

4.0 Fire Weather Monitoring

During fire season (as identified by ODF) a fire watch is required (ORS 477.665, OAR 629-043-0030) for each operation area¹. As described in Attachment A, a fire watch shall be on duty during any breaks (up to 3 hours) and for three hours after all power-driven machinery used by the operator has been shut down for the day. Note: Some ODF districts waive this requirement based on the IFPL in place; the current IFPL for the Facility site is IFPL II which requires a fire watch.

Fire watch shall:

- Be physically capable and experienced to operate firefighting equipment.

¹ OAR 629-043-0030

(1) Pursuant to ORS 477.665 (Fire watch service), during fire season inside or within one-eighth of one mile of a forest protection district, operators must comply with the following fire watch requirements. A person performing fire watch service must:

- (a) Constantly observe the operation area during any breaks (up to three hours) in operation activity and for three hours after the power driven machinery used by the operator has been shut down for the day;
- (b) Visually observe all portions of the operation area on which operation activity occurred during the preceding period of activity; and
- (c) Be qualified in the use and operation of assigned firefighting equipment and tools; be physically capable of performing assigned fire suppression activities; and be advised of single employee assignment responsibilities (OAR 437-007-1315 (Single Personnel Assignments)), when working alone.

(2) After a measurable amount of rain on the operation area, the forester may suspend the requirements of subsection (1) of this rule until such time as, in the judgment of the forester, conditions warrant reinstatement.

(3) The forester may reduce or waive any requirement of subsection (1)(a) or (b) of this rule in a written order if, in the judgment of the forester, conditions so warrant.

(4) Immediately following a period when the only operation activity has been the use of self-loading log trucks on improved roads or landings cleared of flammable material, fire watch service is not required.***

- Have facilities for transportation and communications to summon assistance.
- Observe all portions of the operation on which activity occurred during the day.

Upon discovery of a fire, fire watch personnel must: first report the fire, summon any necessary firefighting assistance, describe intended fire suppression activities and agree on a checking system; then, after determining a safety zone and an escape route that will not be cut off if the fire increases or changes direction, immediately proceed to control and extinguish the fire, consistent with firefighting training and safety. Regular coordination with ODF will occur during the fire season.

Classification of Fire Precaution Level is decided by ODF and communicated directly to NWN staff at Miller Station, posted online, and posted at all area fire stations. In addition, ODF operates a guard station at the northern end of Facility on Palm Hill Road, which is staffed during fire season.

5.0 Emergency Response

Personnel will be trained on the RACE (i.e., Remove, Alarm, Confine and Extinguish or Evacuate) procedure to implement in the event of a fire start. RACE procedure includes:

- Rescue anyone in danger (if safe to do so);
- Alarm – call the control room, who will then determine if 911 should be alerted;
- Contain the fire (if safe to do so); and
- Extinguish the incipient fire stage (if safe to do so).

Personnel on site will carry fire suppression equipment during the fire season in their vehicles. Per ODF fire season requirements, Attachment B (fire tools, extinguishers for trucks; ORS 477.655, OAR 629-043-0025), each truck shall be equipped with:

- 1 round pointed shovel at least 8 inches wide, with a handle at least 26 inches long
- 1 axe or Pulaski with 26 inch handle or longer
- 1 fire extinguisher rated not less than 2A:10BC (5 pound).

Miller Station and the NMCS will maintain emergency firefighting equipment including shovels, portable water for hand sprayers, fire extinguishers, and other equipment (see also Section 3.2.6, Fire Protection (Subpart L 29 CFR 1910.155-165)). Per ODF fire season requirements, Attachment B (hand tools; ORS 477.655, OAR 629-043-0025), hand tools will be available for each operation site. Tools will be stored in a sturdy box clearly identified as containing firefighting tools. One box will be provided for each operation area. Crews of four or less are not required to have a fire tools box as long as each person has a shovel, suitable for fire-fighting and available for immediate use during operations. Additionally, per ODF fire season requirements, Attachment B (fire tools, extinguishers for trucks; ORS 477.655, OAR 629-043-0025), each truck shall be equipped with:

- 1 round pointed shovel at least 8 inches wide, with a handle at least 26 inches long

- 1 axe or Pulaski with 26 inch handle or longer
- 1 fire extinguisher rated not less than 2A:10BC (5 pound).

Additionally, each internal combustion engine used in an operation, except power saws, shall be equipped with a chemical fire extinguisher rated as not less than 2A:10BC (5 pound).

Personnel will receive training on use of suppression equipment and have onsite fire extinguishers to respond to small fires. In the event of a large fire, 911 will be called and emergency responders will be dispatched. Prior to construction of the Facility, NWN will provide employee fire prevention and response training that shall include instruction on Facility fire hazards, fire safety, emergency notification procedures, use of fire safety equipment, and fire safety rules and regulations. Equivalent training shall be provided to new employees or subcontractors working on site that are hired after the start of construction. All personnel shall be equipped with communication equipment capable of reaching the control room from all locations within the Amended Site Boundary.

To minimize wildfire impacts, NWN will utilize the expertise of local fire brigades in the event of a fire. NWN has written agreements with the Clatskanie Rural Fire Protection District and the Mist-Birkenfeld Rural Fire Protection District dating back to 2015 (Amendment 11, Attachment U-2). Both groups have willingness and ability to respond as staffing allows to any fire protection issues which may arise during the operation of the Facility. NWN shall provide the Mist Birkenfeld Rural Fire Protection District with an annual tour of the Miller Station to familiarize personnel with the facility in case of an emergency; these meetings will also cover any updated firefighting responses to electrical and gas leak fires. Additionally, NWN will continue to provide notice to Mist-Birkenfeld Rural Fire Protection District whenever they are performing well work or major construction for emergency response purposes.

6.0 Plan Updates and Modifications - OAR 345-022-0115(1)(b)(E)

OAR 345-022-0115(1)(b)(E) Describe methods the applicant will use to ensure that updates of the plan incorporate best practices and emerging technologies to minimize and mitigate wildfire risk.

NWN will annually review this WMP in accordance with NWN Mist Underground Storage operation and maintenance manuals. Evaluation of wildfire risk will be consistent with the requirements of OAR 345-022-0115(1) using current data from reputable sources. Updates to this Plan will account for changes in local fire protection agency personnel and changes in best practices for minimizing and mitigating fire risk. NWN will consult with Columbia County, the local fire department, and the Columbia County Emergency Manager.

After each review, a copy of the updated Plan will be provided to the Oregon Department of Energy within the annual compliance report required under OAR 345-026-0080(2). In the annual report's

monitoring report, a discussion of any significant changes to the wildfire mitigation program, including the reason for any such changes, will be described (OAR 345-026-0080(2)(e)). If after the review of the Plan by ODOE (as appended to the annual report), a determination is made that no changes are required, an explanation of this determination will be provided. Additionally, the annual report's compliance report will describe the certificate holder's compliance with all site certificate conditions that are applicable during the preceding year (OAR 345-026-0080(2)(f)).

Updates to this Plan will be submitted to the Department for approval or Council approval prior to adopting any changes. NWN shall document and report annually to the Department (pursuant to OAR 345-022-0080(2):

- Whether wildfire risk has changed significantly at the site.
- Whether the industry groups and applicable design standards outlined in Table 2 have changed or been updated to resulting in new future technologies or best practices that could be implemented at the Facility. The Plan shall be updated based on changes in best practices or technologies deemed necessary and appropriate at the site, or as needed at the site based on changes in site conditions and modeled wildfire risk.
- Any significant changes in vegetation management.

NWN shall update Table 2 below prior to operation, subject to Department approval. Emerging technologies will likely contribute to increased knowledge of wildfire risk and wildfire mitigation. Improvements in wildfire modeling and detection will be monitored and integrated into the plan. Specifically, this document will be updated if wildfire models cited in this report are updated.

Table 2. Resources for Future Best Practices

Reference	Description	Method
ODF's Fire Season Requirements (Attachment B; ODF 2023a)	Fire season requirements which come into effect by PSA, according to ODF foresters.	Facility personnel will keep up-to-date with changes to ODF's Fire Season Requirements document for PSA NW03.
Industrial Fire Precaution Levels (IFPLs) for Oregon Department of Forestry Protection west of the Cascades (Attachment A; ODF 2023b, ODF 2023c)	Additional fire season requirements and Best Management Practices, which change according to the local severity of fire risk.	Facility personnel will keep up-to-date with changes to ODF's IFPL requirements for PSA NW03.
North American Electric Reliability Corporation (NERC; NERC 2023)	NERC develops electrical standards for large energy facilities.	NWN will follow the NERC reliability guidelines for natural gas, as outlined in their March, 2023 report.
Pipeline and Hazardous Materials Safety Administration (PHMSA 2021)	PHMSA exists through the US Department of Transportation and is responsible for developing and enforcing regulations for the safe, reliable, and environmentally sound transportation of energy and other hazardous materials.	Remain up to date with new bulletins shared through PHMSA regarding changes to regulations or recommended safety procedures.

Reference	Description	Method
ODF's Fire Season Requirements (Attachment B; ODF 2023a)	Fire season requirements which come into effect by PSA, according to ODF foresters.	Facility personnel will keep up-to-date with changes to ODF's Fire Season Requirements document for PSA NW03.
Industrial Fire Precaution Levels (IFPLs) for Oregon Department of Forestry Protection west of the Cascades (Attachment A; ODF 2023b, ODF 2023c)	Additional fire season requirements and Best Management Practices, which change according to the local severity of fire risk.	Facility personnel will keep up-to-date with changes to ODF's IFPL requirements for PSA NW03.
Oregon Structural Specialty Code (OSSC 2022)	Building codes applicable to inhabitable spaces, including the Operations and Maintenance building, and written according to the 2021 International Fire Code.	Remodeling to the Operations and Maintenance building that requires permits will follow any updates to the Oregon Structural Specialty Code at that time.

7.0 References

- NERC (North American Electric Reliability Corporation). 2023. Reliability Guideline Natural Gas and Electrical Operational Coordination Considerations. https://www.nerc.com/comm/RSTC_Reliability_Guidelines/Reliability%20Guideline%20-%20Gas%20and%20Electric%20Operational%20Coord%20Considerations.pdf. Accessed October 2023.
- ODF (Oregon Department of Forestry). 2023a. Fire Season Requirements. <https://www.oregon.gov/odf/fire/documents/fire-season-requirements-for-industrial-operations.pdf>. Accessed October 2023.
- ODF. 2023b. Industrial Fire Restrictions. <https://gisapps.odf.oregon.gov/firerestrictions/IFPL.html>. Accessed October 2023.
- ODF. 2023c. Industrial Fire Precaution Levels (IFPLs) for Oregon Department of Forestry Protection west of the Cascades. <https://www.oregon.gov/odf/fire/documents/industrial-fire-precaution-levels.pdf>. Accessed October 2023.
- OSSC (Oregon Structural Specialty Code). 2022. Commercial Structures Code Program. <https://www.oregon.gov/bcd/codes-stand/pages/commercial-structures.aspx>. Accessed November 14, 2023.
- PHMSA (Pipeline and Hazardous Materials Safety Administration). 2021. Underground Natural Gas Storage. December 20, 2021. <https://www.phmsa.dot.gov/pipeline/underground-natural-gas-storage/underground-natural-gas-storage>. Accessed November 14, 2023.

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Attachment A. ODF Industrial Fire Precaution Levels (IFPLs) for West of the Cascades

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FIRE SEASON REQUIREMENTS

The following fire season requirements become effective when fire season is declared in each Oregon Department of Forestry Fire Protection District, including those protected by associations (DFPA, CFPA, WRPA).

NO SMOKING (477.510)

No smoking while working or traveling in an operation area.



HAND TOOLS (ORS 477.655, OAR 629-43-0025)

Supply hand tools for each operation site - 1 tool per person with a mix of pulaskis, axes, shovels, hazel hoes. Store all hand tools for fire in a sturdy box clearly identified as containing firefighting tools. Supply at least one box for each operation area. Crews of 4 or less are not required to have a fire tools box as long as each person has a shovel, suitable for fire-fighting and available for immediate use while working on the operation.



FIRE EXTINGUISHERS (ORS 477.655, OAR 629-43-0025)

Each internal combustion engine used in an operation, except power saws, shall be equipped with a chemical fire extinguisher rated as not less than 2A:10BC (5 pound).



POWER SAWS (ORS 477.640, OAR 629-043-0036)

Power saws must meet Spark Arrester Guide specifications - a stock exhaust system and screen with $\leq .023$ inch holes.

The following shall be immediately available for prevention and suppression of fire:

- ◆ One gallon of water or pressurized container of fire suppressant of at least eight ounce capacity
- ◆ 1 round pointed shovel at least 8 inches wide with a handle at least 26 inches long
- ◆ The power saw must be moved at least 20' from the place of fueling before it is started.



FIRE TOOLS, EXTINGUISHERS FOR TRUCKS (ORS 477.655, OAR 629-043-0025)

Equip each truck driven in forest areas for industrial purposes with:

- ◆ 1 round pointed shovel at least 8 inches wide, with a handle at least 26 inches long
- ◆ 1 axe or Pulaski with 26 inch handle or longer
- ◆ 1 fire extinguisher rated not less than 2A:10BC (5 pound).



SPARK ARRESTERS AND MUFFLERS (ORS 477.645, OAR 629-043-0015)

All non-turbo charged engines must meet Spark Arrester Guide specifications except:

- ◆ Fully turbo charged engines.
- ◆ Engines in motor vehicles operating on improved roads equipped with an adequate muffler and exhaust system.
- ◆ Engines in light trucks (26,000 GVW or less) that are equipped with an adequate muffler and an exhaust system.
- ◆ Engines in heavy trucks (greater than 26,000 GVW) that are equipped with an adequate muffler and exhaust system.
- ◆ If a truck engine is not fully turbo-charged, then the exhaust must extend above the cab and discharge upward or to the rear, or to the end of the truck frame.
- ◆ Water pumping equipment used exclusively for fighting fire.
- ◆ Engines of 50 cubic inch displacement or less, except ATV's and motorcycles, shall be equipped with an adequate muffler and an exhaust system.
- ◆ Engines in ATV's and motorcycles must be equipped with an adequate muffler and exhaust system or an approved screen, which completely encloses exhaust system.
- ◆ Power saws. (See power saw requirements)



PUMP, HOSE, AND WATER SUPPLY (ORS 477.650, 477.625, OAR 629-043-0026, 629-43-0020)

Supply a pump, hose and water supply for equipment used on an operation.

- ◆ Pump must be maintained ready to operate and capable to provide a discharge of not less than 20 gallons per minute at 115 psi at pump level. **Note: Volume pumps will not produce the necessary pressure to effectively attack a fire start. Pressure pumps are recommended.**
- ◆ Water supply shall be a minimum of 300 gallons if a self-propelled engine.
Water supply shall be a minimum of 500 gallons if not self-propelled (pond, stream, tank, sump, trailer, etc.)
- ◆ One water supply is adequate as long as the operator can deliver water to the fire within 10 minutes
- ◆ Provide enough hose (500 feet minimum) not less than 3/4" inside diameter to reach areas where power driven machinery has worked.



Note: Should a fire occur, the operator must be able to position the water supply in a location where enough hose is available to reach the area worked by power driven machinery. This includes mobile equipment as well as motorized carriages and their moving lines. Moving lines are defined as main lines and haul back lines. This can be achieved in many ways, including the practice of having a water tank and hose attached to a piece of equipment, like a skidgen or skidder, that can get the water to the fire.

- ◆ Water supply, pump, and at least 250' of hose with nozzle must be maintained as a connected, operating unit ready for immediate use.

CABLE LOGGING OPERATIONS (ORS 477.625, 477.655, OAR 629-043-0026, 629-043-0025)

Clear the ground of flammable debris within a 10-foot radius around any block. This cleared area shall be kept free of flammable debris while the block is in use.

Provide at each block:

- ◆ 5 gallon pump can filled with water
- ◆ 1 round pointed shovel at least 8 inches wide with a handle at least 26 inches long.

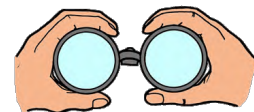
FIRE WATCH SERVICE (477.665, 629-043-0030)

Each operation area is to have a Firewatch.

Fire watch shall be on duty during any breaks (up to 3 hours) and for three hours after all power driven machinery used by the operator has been shut down for the day. ***Note: Some ODF districts waive this requirement based on the IFPL in place. Check with the district in which you are working.***

Fire watch shall:

- ◆ Be physically capable and experienced to operate firefighting equipment.
- ◆ Have facilities for transportation and communications to summon assistance.
- ◆ Observe all portions of the operation on which activity occurred during the day.



Upon discovery of a fire, Firewatch personnel must: First report the fire, summon any necessary firefighting assistance, describe intended fire suppression activities and agree on a checking system; then, after determining a safety zone and an escape route that will not be cut off if the fire increases or changes direction, immediately proceed to control and extinguish the fire, consistent with firefighting training and safety.

OPERATION AREA FIRE PREVENTION (477.625, 629-043-0026)

- ◆ Keep all power driven machinery free on excess flammable material which may create a risk of fire.
- ◆ Avoid line-rub on rock or woody material, which may result in sparks or sufficient heat to cause ignition of a fire.
- ◆ Disconnect main batteries from powered components (other than what may be necessary to retain computer memory) through a shut-off switch or other means or, leave equipment on ground cleared of flammable material.

NOTICE:

THESE ARE MINIMUM STANDARDS BY LAW. MANY LANDOWNERS REQUIRE ADDITIONAL REQUIREMENTS.

Attachment B. ODF's Fire Season Requirements

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Industrial Fire Precaution Levels (IFPLs) for Oregon Department of Forestry Protection west of the Cascades

IFPL I. Fire Season

Fire season requirements are in effect. In addition to other fire prevention measures, a Firewatch is required at this and all higher levels unless otherwise waived.

IFPL II. Limited Shutdown

The following may operate only between the hours of 8 P.M. and 1 P.M.:

- ◆ Power saws except at loading sites;
- ◆ Feller-bunchers with rotary head saws;
- ◆ Cable yarding;
- ◆ Blasting;
- ◆ Welding, cutting, or grinding of metal.



IFPL III. Restricted Shutdown

The following is prohibited except as indicated:

- ◆ Cable yarding - except that gravity operated logging systems employing non-motorized carriages or approved motorized carriages (defined below), may operate between 8 P.M. and 1 P.M. when all blocks and moving lines are suspended 10 feet above the ground except the line between the carriage and the chokers and during rigging.

The following are permitted to operate between the hours of 8 P.M. and 1 P.M. where mechanized equipment capable of constructing fire line is immediately available to quickly reach and effectively attack a fire start:

- ◆ Ground-based operations (defined below);
- ◆ Power saws on ground-based operations;
- ◆ Rotary head saw feller-bunchers with a continuous Firewatch;
- ◆ Non-rotary head saw feller-bunchers;
- ◆ Tethered logging systems (defined below).

The following are permitted to operate between the hours of 8 P.M. and 1 P.M.:

- ◆ Power saws at loading sites;
- ◆ Loading or hauling of any product or material;
- ◆ Blasting;
- ◆ Welding, cutting, or grinding of metal;
- ◆ Any other spark emitting operation not specifically mentioned.



IFPL IV. Complete Shutdown

All operations are prohibited.

NOTE: Where hauling involves transit through more than one shutdown/regulated use area, the precaution level at the woods loading site shall govern the level of haul restriction, unless otherwise prohibited by other than the IFPL system. Under IFPL III, all trucks must be loaded and leaving the loading site no later than 1 P.M.

IFPL Definitions

Approved motorized carriage: a cable yarding system employing a motorized carriage with two fire extinguishers, each with at least a 2A:10BC rating, mounted securely on opposite sides of the carriage, an emergency motor cutoff, and an approved exhaust system.

Cable yarding system: a yarding system employing cables, and winches in a fixed position.

Fire Season: that season of the year when a fire hazard exists as declared by the responsible agency official.

Ground-based operations: mobile and stationary equipment operations other than cable yarding systems, including but not limited to tractor/skidder, feller-buncher, forwarder, processor, and shovel operations.

Loading sites: a place where any product or material (including, but not limited to logs, firewood, slash, soil, rock, poles, etc.) is placed in or upon a truck or other vehicle. loading site shall govern the level of haul restriction, unless otherwise prohibited by other than the industrial precaution level system.

Tethered logging system: winch-assisted, cable-assisted, traction-assisted, etc., which enable ground-based timber harvesting machines to operate on steep slopes.

Waivers

Waivers, written in advance, may be used for any and all activities. Activities for which waivers may be issued include, but are not limited to:

- ◆ mechanized loading and hauling.
- ◆ road maintenance such as sprinkling, graveling, grading and paving.
- ◆ cable yarding using gravity systems or suspended lines and blocks, or other yarding systems where extra prevention measures will significantly reduce the risk of fire.
- ◆ power saws at loading sites or in felling and bucking where extra prevention measures will significantly reduce the risk of fire.
- ◆ maintenance of equipment (other than metal cutting and welding) or improvements such as structures, fences and powerlines.

Best Management Practices for Forest Operations Checklist

- ◆ Assure good communications are established with protection district.
- ◆ Keep all equipment clean of flammable material and debris.
- ◆ Utilize and keep in good working condition manufacturer recommended non-sparking clamping jaws on braking systems on carriages.
- ◆ Clean out spark arrester ports.
- ◆ Hydraulic and fuel lines are in good condition.
- ◆ Battery hold-downs are in good repair and positive terminal is insulated;
- ◆ Electrical wiring and circuit breakers are in good working order according to manufacturer specifications;
- ◆ Pumps and fire trucks are in good working condition;
- ◆ Line rub is eliminated;
- ◆ Where possible, and when not in use, park equipment overnight in location clear of flammable material.
- ◆ Monitor relative humidity hourly and consider shut down when relative humidity drops below 30 percent.

NOTE: The IFPL system does not apply on lands protected by ODF east of the summit of the Cascades.



STEWARDSHIP IN FORESTRY

Oregon Department of Forestry Forest Activity Inspection Report

BOOK Date: _____ PAGE _____
Notification / Unit No.: _____
Sale or Job Name: _____
FPF Name/No.: _____

Operator: _____ Landowner: _____ Timber Owner: _____

FIRE PREVENTION

REQUIRED OK THIS DATE ☐ Slash Hazard Inspection ☐ Not Active This Date

☐ ☐ Fire Tools: Number of workers in operation: _____
Power Saws: Number in operation: _____ Number Checked _____

☐ ☐ Spark Arresters / Exhaust Systems
☐ ☐ Shovels and Fire Extinguishers

Trucks: Number in operation: _____ Number Checked _____

☐ ☐ Exhaust Systems
☐ ☐ Tools and Fire Extinguishers

Other Power Driven Machinery and Engines:

☐ ☐ Spark Arresters / Exhaust Systems
☐ ☐ Debris Accumulation Removed
☐ ☐ Fire Extinguishers

Cable Logging Systems:

☐ ☐ Cable lines clear
☐ ☐ Blocks cleared Number checked: _____
☐ ☐ Shovels and water at blocks

☐ ☐ Water Supply / Pump / Hose / Nozzle

☐ ☐ Fire Watch Hours after operation: _____

☐ ☐ Alternate methods or equipment, as described below are approved for use.

☐ ☐ Other: _____

☐ ☐ Other: _____

☐ IFPL Waiver, as described below, is approved

☐ Order: For the items described below, you are hereby ordered to cease violation of ORS Chapter 477. Your Permit to Use Fire or Power Driven Machinery is suspended for these items until compliance is restored.

FOREST PRACTICES

☐ Pre-Operation Inspection ☐ Active or Post-Operation Inspection ☐ Complaint Investigation ☐ Waiver of 15 Day Waiting Period

Prior Approval / Written Plans

☐ Prior Approval Granted: Applicable rule(s) _____

Written Plan Action: ☒ Required ☐ Approved ☐ Approval Denied

Written plan rule(s): _____

Written plan resources: _____

RECOMMENDATIONS

Written below are recommendations. The inspecting Forest Practices Forester recommends these actions to prevent an unsatisfactory condition which may result in a violation of the Forest Practices Act. These recommendations pertain to the following rules:

☐ Written Plans ☐ Chemicals ☐ Water Protection
☐ Reforestation ☐ Road Construction ☐ Other _____
☐ Slash ☐ Harvesting

WRITTEN STATEMENT OF UNSATISFACTORY CONDITION

This operation is not in compliance with the Forest Practices Act. Further enforcement action will begin if damage occurs or if you do not comply with the instructions written below by this compliance date: _____

This unsatisfactory condition(s) pertain to rule(s) or statute(s):

☐ Written Plans ☐ Chemicals ☐ Water Protection
☐ Reforestation ☐ Road Construction ☐ Other _____
☐ Slash ☐ Harvesting

ORS/OAR(s) _____

INFORMATION ON ITEMS CHECKED ABOVE:

Page ____ of ____

THIS REPORT INDICATES THE CONDITIONS FOUND TO EXIST AT THE TIME OF THIS INSPECTION FOR THOSE ITEMS CHECKED OR NOTED ABOVE. IT DOES NOT IMPLY THAT ALL PARTS OF THE OPERATION WERE INSPECTED NOR DOES IT INDICATE ITEMS NOT INSPECTED ARE SATISFACTORY.

Signed _____

Received By: _____ Date _____

☐ Copies Mailed _____ Date _____

State Forester's Representative _____ Date _____

Exhibit N – Mist-Birkenfeld RFPD 2025 Annual Inspection Letter



BOOK _____ PAGE _____
Mist-Birkenfeld Rural Fire Protection District

12525 Highway 202, Mist, OR 97016
Office- 503-755-2710 Fax- 503-755-2556

April 17, 2025

RE: NW Natural
Columbia County

Board Members

President

Pamela Owen

::

Vice President

Paul Ramsey

::

Treasurer

Barbara Smith

::

Secretary

Rene Armstrong

::

Member

Larry Boxman

::

Fire Chief

Joe Kaczinski

To Whom It May Concern,

I was contacted by a NW Natural Representative requesting documentation that the facilities within Columbia County meet current requirements as outlined for site access:

This requirement comes from Section 10.3.2 (Fences and Enclosures) of API RP 1171 (Functional Integrity of Natural Gas Storage in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs) which states:

Ingress or egress of the site may be controlled by fences or enclosures. When used at well locations, fences or enclosures shall comply with applicable fire codes and regulations.

The NW Natural sites located within the boundaries of this Fire District meet all required access conditions per the 2022 Oregon Fire Codes, Chapter 5, Section 503, and Section 506.

Please feel free to contact our office if you have questions or concerns.

Sincerely,

Joe Kaczinski
Fire Chief
Mist-Birkenfeld RFPD
503-755-2710
joek@mistbirkenfeldrfd.org

Exhibit O – Mist Facility's Habitat Mitigation Plan

Habitat Mitigation Plan

Mist Resiliency Project August 2024

Amended by the Department as part of recommendations in DPO, August 2024

Prepared for



Prepared by



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1.0 Introduction

This Habitat Mitigation Plan (HMP or Plan) describes how Northwest Natural Gas (NWN), the Certificate Holder, proposes to mitigate for the unavoidable impacts of the Mist Resiliency Project (Project) on habitats based on the Oregon Department of Fish and Wildlife (ODFW) Habitat Mitigation Policy. This Plan addresses mitigation for both the temporary and permanent impacts of Project construction associated with Request for Amendment 13. NWN proposes to protect and enhance a nearby mitigation area.

1.1 Plan Finalization

- Prior to fully securing the legal right to the habitat mitigation area, if other than HMA Site – Option 1 as presented in the draft HMP, certificate holder shall be required to complete desktop and field surveys of the HMA site and propose suitable enhancement actions for the site, and obtain concurrence from ODOE, in coordination with ODFW, on the adequacy of the enhancement actions in meeting the Category 3 mitigation goal for no net loss of habitat quality. If concurrence is not obtained from ODOE and ODFW, certificate holder shall propose another HMA site.
- Certificate holder shall be required to demonstrate that it has acquired the legal right to create, enhance, maintain and protect the HMA site concurred with by ODOE and ODFW, by means of outright purchase, conservation easement or similar conveyance.
- Certificate holder shall finalize the plan by specifying the scope and schedule of the selected enhancement actions, including monitoring protocol and success criteria that applies both short-term and for the operational life of the facility.

2.0 Description of the Impacts Addressed by the HMP

Project impacts will include primarily temporary impacts to wildlife habitat. Temporary impact areas are those areas that will be disturbed during construction activities but will be restored and revegetated following construction. Permanent impacts will occur at the Miller Station storage yard, Newton wellpad, Stegosaur wellpad, and Medicine wellpad. Temporary impacts will occur at the powerline replacement corridor, transmission pipeline corridors, construction storage and laydown yards, and North Mist Compressor Station improvement areas.

The Project would create impacts to habitat field-mapped as ODFW Habitat Categories 3, 4, and 6. These categories and the accompanying mitigation goals are set forth in OAR 635-415-0025, as follows:

- **Habitat Category 3:** Essential habitat for fish and wildlife, or important habitat for fish and wildlife that is limited either on a physiographic province or site-specific basis, depending on the individual species or population.

Mitigation Goal: No net loss in either existing habitat quantity or quality. Mitigation must be in-kind and in-proximity.

- **Habitat Category 4:** Important habitat for fish and wildlife species.

Mitigation Goal: No net loss in either existing habitat quantity or quality. Mitigation may be in-kind or out-of-kind, and in-proximity or off-proximity.

- **Habitat Category 6:** Habitat that has low potential to become essential or important habitat for fish and wildlife.

Mitigation Goal: Minimize impacts. Mitigation may include actions that minimize direct habitat loss and avoid impacts to off-site habitat.

NWN mapped the habitat type and category of each area potentially impacted by the Project, as required in OAR 345-021-0010(1)(p)(B) and (C). Details and methods for habitat categorization and mapping effort can be found in Exhibit P and Attachment P-1. Based on the habitat categorization mapping, NWN calculated the expected Project impacts by habitat type and category (Table 1). Preliminary habitat categories were assigned based on vegetative characteristics observed in the field (Exhibit P, Attachment P-1), while final habitat categories provided in Table 1 below were determined based on overlap with Year-Round Peripheral (Category 4) and Year-Round Major (Category 3) habitats defined in the ODFW West Side Big Game Habitat overlay.

The area of impact to each habitat type and category will depend on final Project design. The impact areas presented in this Plan are preliminary and are based on NWN's estimate of reasonable maximum potential impacts. Impact areas are expected to decrease overall through continued avoidance measures.

Table 1. Acres of Impact to Habitat Categories and Types

Final Habitat Category	Preliminary Habitat Category	Habitat Type-Subtype ¹	Permanent Impact	Temporar y Impact
3 Year- Round Major Big Game Habitat	3	Upland Forests and Woodlands- Westside Lowlands Conifer-Hardwood Forest	–	0.004
		Wetlands- Emergent Wetlands	–	0.01
		Wetlands- Scrub-Shrub Wetlands	–	0.005
	4	Agriculture, Pasture, and Mixed Environs- Irrigated Pastures and Hay Meadows	–	5.55
		Open Water- Lakes, Rivers, Streams- Ephemeral Streams	–	0.01
		Upland Forests and Woodlands- Westside Lowlands Conifer-Hardwood Forest	26.90	27.55
Category 3 Final Total			26.90	33.13
4 Year- Round Peripheral	4	Agriculture, Pasture, and Mixed Environs- Irrigated Pastures and Hay Meadows	–	0.24
		Open Water- Lakes, Rivers, Streams- Ephemeral Streams	–	–

Final Habitat Category	Preliminary Habitat Category	Habitat Type-Subtype¹	Permanent Impact	Temporary Impact
Big Game Habitat		Riparian Forest and Shrubland Complexes- Westside Riparian	-	0.50
		Upland Forests and Woodlands- Westside Lowlands Conifer-Hardwood Forest	-	12.59
	6	Agriculture, Pasture, and Mixed Environs- Orchards, Vineyards, Wheat Fields, Other Row Crops, Irrigated Poplar Plantations	-	5.26
Category 4 Final Total			-	18.58
	6	Urban and Mixed Environs- Urban and Mixed Environs	0.83	11.98
Category 6 Final Total			0.83	11.98
Grand Total			27.73	63.69
Note: Totals in this table may not be precise due to rounding. 1. Only impacted Habitat Types-Subtypes present within the proposed micro-siting corridor are represented.				

3.0 Mitigation Approach

3.1 Temporary Impacts

Temporary impact areas are addressed in the Restoration of Temporary Impacts Plan (Attachment P-3).

3.2 Permanent Impacts

For the up to approximately 28 acres permanently impacted by the Project, NWN has identified two options for addressing the mitigation obligation where habitat protection or commensurate funding are feasible and consistent with this HMP. NWN may use one or both options to mitigate for habitat impacts and will determine the mitigation option that best correlates to the impacted areas in consultation with ODFW and the affected landowners, subject to approval by the Oregon Department of Energy (ODOE). The final mitigation approach will offer enough suitable habitat to achieve the ODFW goal of no net loss of habitat quantity or quality. NWN met with ODFW and ODOE at the Project site on June 6, 2024 to view the general area, as well as the proposed habitat mitigation area. At this meeting, ODFW and ODOE provided recommendations on the range of enhancement actions that could occur at the habitat mitigation area.

3.2.1 Option 1. Habitat Mitigation Area Adjacent to the North Mist Compressor Station

Under this option, NWN has identified a parcel available for establishing a habitat mitigation area adjacent to the Project (Figure 1). The parcel is proximate to the Project, provides ample acreage, and is composed of similar habitat types suitable for in-kind mitigation.

NWN has performed a desktop analysis of the mitigation parcels (Figure 1). The desktop review confirmed the identified parcels are currently managed for timber harvest, which would provide in-kind forest habitat beneficial to big game and other forest-associated species. As the potential mitigation location is within ODFW-mapped West Side Big Game Year-Round Major Habitat, acquisition of this area constitutes acquisition of Category 3 habitat regardless of the habitat condition and thus meets the ODFW goal of no net loss of habitat quantity or quality.

This area would be taken out of timber harvest rotation, thus allowing the habitat to improve over time. NWN would reshape the existing rock quarry by adding soil to fill in the quarry, restoring contours and installing erosion control structures as needed, and replanting with an ODFW-approved seed mix. NWN will manage the mitigation area over the long-term for overall forest health and habitat in consultation with a forestry and habitat consultant. NWN would conduct an assessment of the HMA every 5 years to understand and document current status of the HMA and identify actions that may continue to increase habitat quality. These actions may include but would not be limited to: removing individual trees by hand to increase spacing between trees, placement of downed wood, creation of snags by girdling, or planting of native forage species. NWN will review proposed actions with ODFW and ODOE prior to implementation. The HMA would be incorporated into NWN's standard vegetation management program to minimize and treat noxious weeds.

Prior to operation of the Project, NWN will acquire the legal right to create, maintain, and protect the habitat mitigation area for the life of the Project¹ by means of an outright purchase and will provide a copy of the documentation to ODOE.

3.2.2 Option 2. Habitat Mitigation Area Adjacent to Miller Station

NWN identifies Option 2 as a parcel that is located just west of Miller Station. This parcel has been cleared and replanted within the last 5 years and falls within ODFW West Side Big Game Year-Round Major Habitat. In addition, NWN will reclaim a rock quarry on another parcel near the Project.

Similar to Option 1, this area would be taken out of timber harvest rotation, thus allowing the habitat to improve over time. NWN would manage the mitigation area over the long-term for overall forest health and habitat in consultation with a forestry and habitat consultant. NWN would work with ODFW and ODOE to identify a set of appropriate enhancement actions to meet the ODFW

¹ As used in this Plan, "life of the Project" means continuously until the Project site is restored and the site certificate is terminated in accordance with Oregon Administrative Rules 345-027-0110.

Habitat Mitigation Policy goal of no net loss. NWN would conduct an assessment of the HMA every 5 years to understand and document current status of the HMA and identify actions that may continue to increase habitat quality. These actions may include but would not be limited to: removing individual trees by hand to increase spacing between trees, placement of downed wood, creation of snags by girdling, or planting of native forage species. NWN would review proposed actions with ODFW and ODOE prior to implementation. The HMA would be incorporated into NWN's standard vegetation management program to minimize and treat noxious weeds. NWN would reshape the existing rock quarry by adding soil to fill in the quarry, restoring contours and installing erosion control structures as needed, and replanting with an ODFW-approved seed mix.

Prior to operation of the Project, NWN will acquire the legal right to create, maintain, and protect the habitat mitigation area for the life of the Project², the details of that control are currently being negotiated with the property owner(s). NWN will provide an agreement letter between the parties to ODOE for their records. NWN cannot provide contractual documentation to ODOE as the property owners have asked that the terms of any signed lease or purchase agreements remain confidential.

3.2.3 Option 3. Habitat Mitigation Area Near the Project

To address any uncertainty associated with Options 1 and 2, NWN identifies Option 3 as an as yet unidentified parcel within the vicinity of the Project. The region southwest of Clatskanie, Oregon where the Project occurs, is marked by large areas of privately owned timber lands. If NWN is unable to secure the parcel identified in Options 1 or 2, they will identify a similar parcel as close to the Project as possible. This parcel would ideally also fall within ODFW West Side Big Game Year-Round Major Habitat to be categorized as Category 3 habitat.

Similar to Option 1, this area would be taken out of timber harvest rotation, thus allowing the habitat to improve over time. NWN would manage the mitigation area over the long-term for overall forest health and habitat in consultation with a forestry and habitat consultant. NWN would work with ODFW and ODOE to identify a set of appropriate enhancement actions to meet the ODFW Habitat Mitigation Policy goal of no net loss. NWN would conduct an assessment of the HMA every 5 years to understand and document current status of the HMA and identify actions that may continue to increase habitat quality. These actions may include but would not be limited to: removing individual trees by hand to increase spacing between trees, placement of downed wood, creation of snags by girdling, or planting of native forage species. NWN would review proposed actions with ODFW and ODOE prior to implementation. The HMA would be incorporated into NWN's standard vegetation management program to minimize and treat noxious weeds.

² As used in this Plan, "life of the Project" means continuously until the Project site is restored and the site certificate is terminated in accordance with Oregon Administrative Rules 345-027-0110.

Prior to operation of the Project, NWN will acquire the legal right to create, maintain, and protect the habitat mitigation area for the life of the Project³. NWN will provide a copy of the documentation to ODOE.

3.2.4 Option 4. ODFW Payment to Provide

NWN understands that ODFW is considering a payment-to-provide program that could be used to mitigate habitat impacts related to energy facilities. However, at this time, this program is not yet available. Should such a program become available in the future, NWN could use a payment-to-provide mitigation option with the approval of ODOE and ODFW.

4.0 Implementation Schedule

Within temporary impact areas affected by construction of the Project, mitigation in the form of restoration will occur no later than fall of the year of construction in order to stabilize the area for winter weather. The legal mechanism to secure the mitigation areas for permanent impacts would be secured prior to construction.

5.0 Monitoring and Reporting

NWN will provide a copy of the documentation to ODOE showing purchase or other protective conveyance of the Habitat Mitigation Area. NWN will provide a memo report summarizing actions taken at the Habitat Mitigation Area the year following completed construction, and every five years after that year. This memo report will provide general site photos and a summary of any actions taken on the property. As mentioned above, NWN would conduct an assessment of the HMA every 5 years to understand and document current status of the HMA and identify actions that may continue to increase habitat quality. NWN will review proposed actions with ODFW and ODOE prior to implementation.

6.0 Amendment of the Plan

This Habitat Mitigation Plan may be amended from time to time by agreement between NWN and the Energy Facility Siting Council (EFSC). Such amendments may be made without amendment of the Site Certificate. EFSC authorizes ODOE to agree to amendments to this Plan and to mitigation actions that may be required under this Plan. ODOE-approved amendments to this Plan will be in consultation with ODFW. ODOE shall notify EFSC of all amendments and

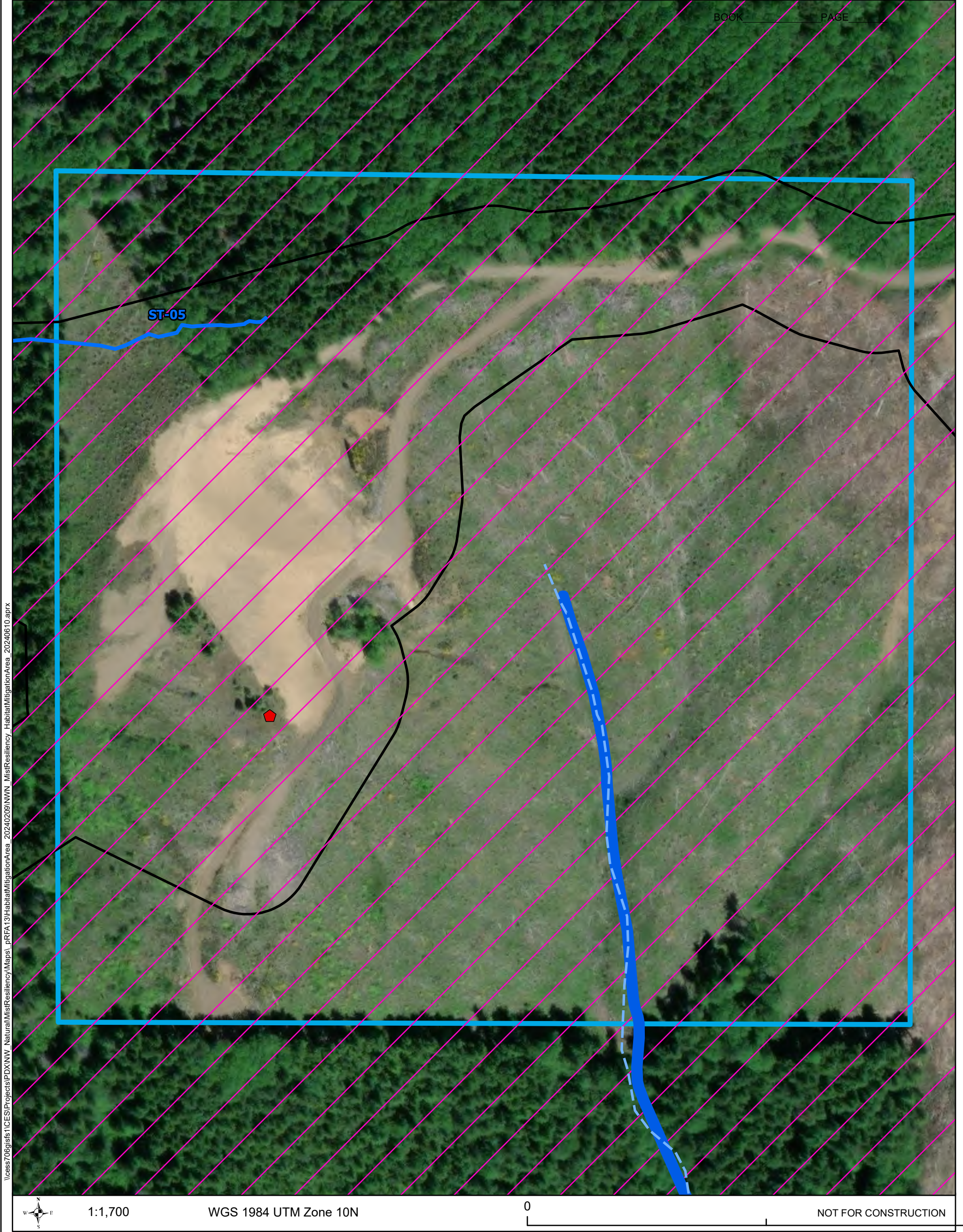
³ As used in this Plan, “life of the Project” means continuously until the Project site is restored and the site certificate is terminated in accordance with Oregon Administrative Rules 345-027-0110.

mitigation actions, and EFSC retains the authority to approve, reject, or modify any amendment of this Plan or mitigation action agreed to by ODOE.

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Figure

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Mist Resiliency Project Figure 1 Potential Habitat Mitigation Areas COLUMBIA COUNTY, OREGON	Site Boundary Potential Habitat Mitigation Areas Olive-sided Flycatcher Field Delineated Stream Wetlands and Waters Riverine (NWI) Stream Intermittent Stream (NHD) ODFW West Side Big Game Overlay Year-round Major Habitat	Reference Map CANADA WA MT ID OR CA NV
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VICINITY MAP
SCALE: NOT TO SCALE

LEGEND



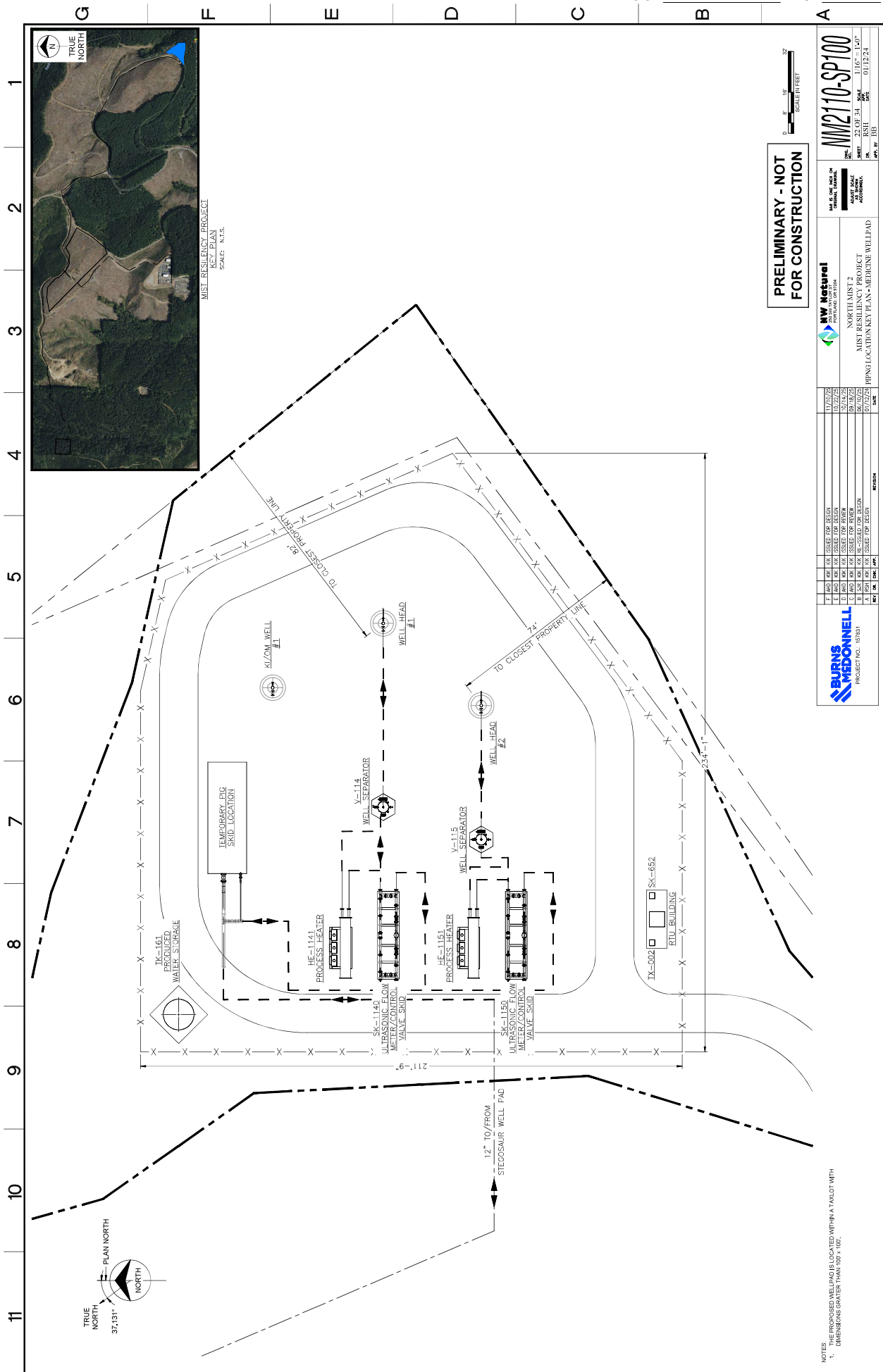
PROPOSED GRADING LIMITS

DATE	03/02/2026
DRAWN BY	MIA
CHECKED BY	LSL
REVISION	0
JOB NO.	1266-281

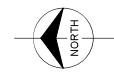


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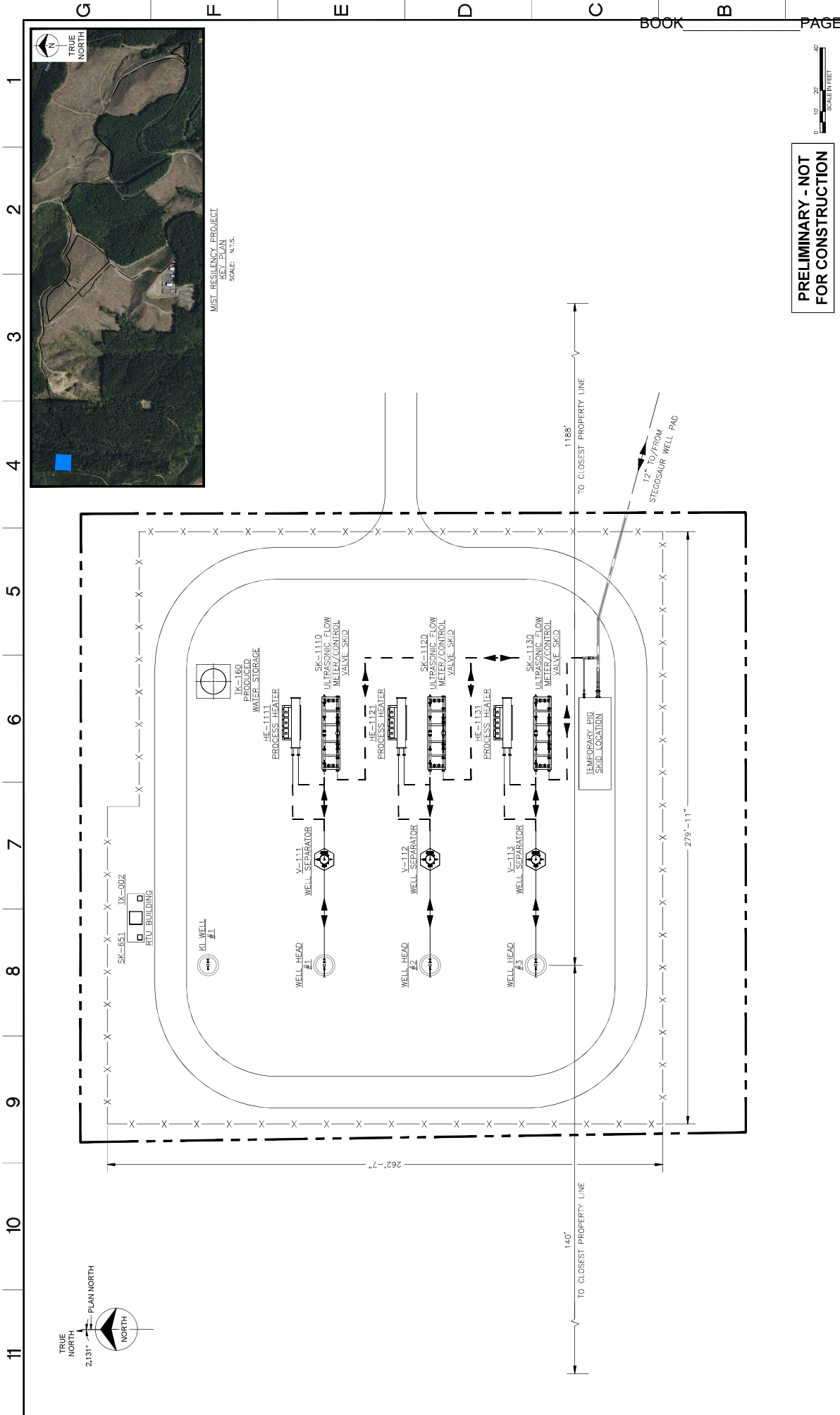
PRELIMINARY - NOT
FOR CONSTRUCTION

NOTES:
1. THE PROPOSED WELL PAD IS LOCATED WITHIN A TAXLOT WITH
DIMENSIONS GREATER THAN 100' x 100'.

**BURNS
MEDONNELL**
PROJECT NO. 157831

NW Natural
NORTH MIST
MIST RESILIENCY PROJECT
PIPING LOCATION KEY PLAN - MEDICINE 4

NW2130-SP100
SHEET 1 OF 1
DATE 10/01/25
BY: RJK



NOTES:
1. DIMENSIONS ARE UNLESS OTHERWISE NOTED. MINOR TOLERANCES ARE 1/8". DIMENSIONS GREATER THAN 100' ARE 1/4".

PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & MCDONNELL
PROJECT NO. 157831
10/22/25
10/14/25
08/17/25
07/12/24

NW Natural
PORTLAND, OREGON
NORTH MIST 2
MIST RESILIENCY PROJECT
PIPING LOCATION KEY PLAN - NEWTON WELL PAD

MM2100-SP100
SHEET 17 OF 34
RSH
01/12/24
APP. BY: BB

REV	DATE	DESCRIPTION
A	08/17/25	ISSUED FOR DESIGN
B	10/14/25	ISSUED FOR DESIGN
C	08/17/25	ISSUED FOR DESIGN
D	10/14/25	ISSUED FOR DESIGN
E	10/22/25	ISSUED FOR DESIGN

COLUMBIA COUNTY PLANNING COMMISSION
Conditional Use Permit

March 2, 2026, Staff Report

HEARING DATE: March 9, 2026

FILE NUMBER: CU 25-169

PROJECT PLANNER: Kate McGuire, Planning Division Manager

APPLICANT: NW Natural Gas Company (NWN)

PROPERTY OWNERS: Weyerhaeuser Timber Holdings, Claruth Inc., Wilna Inc., Franbea Inc.

LOCATION: The subject properties do not have a situs address, but are located off Miller Station Road near Mist, Oregon.

MAP ID NUMBERS: 7500-00-04500/04700/04800/05000

TAX ACCOUNT NUMBERS: 25544/25546/25547/25549

ZONING: Primary Forest (PF-80)

SIZE: 1,328 +/- acres

REQUEST: The proposal is a request for approval of a Conditional Use (CU) Permit to authorize the Processing of Natural Gas pursuant to Columbia County Zoning Ordinance §505.2 and OAR 660-006-0025(4)(g).

APPLICABLE REVIEW CRITERIA:

Columbia County Zoning Ordinance (CCZO) Sections (§):

§ 500	Primary Forest (PF-80)
§ 505.2	Conditional Uses in the PF-80 zone district
§ 507	Siting of Dwellings and Structures
§ 508	General Review Standards
§ 509	Standards of Development
§ 510	Fire Siting Standards for Dwellings, Structures and Roads
§ 1190	Big Game Habitat Overlay
§ 1503	Conditional Uses

Columbia County Comprehensive Plan Sections:

Part IV	Forest Lands
Part X	Economy
Part XVI	Goal 5 - Open Space, Scenic and Historic Areas and Natural Resources - Article VII: ENERGY SOURCES GOALS AND POLICIES

BACKGROUND:

As detailed by the Applicant, Northwest Natural Gas Company (NWN) within their application submittals:

The Mist Facility is an existing underground natural gas storage facility in Columbia County. It plays a critical role in balancing seasonal energy demands across NW Natural's service territory and the broader Pacific Northwest region. During periods of low natural gas demand, gas is injected into underground storage reservoirs. This injection process requires increasing the gas pressure above standard pipeline levels to ensure effective storage. When demand rises, the stored gas is produced (or withdrawn) from the reservoirs and then processed by removing moisture from the gas and mitigating against hydrate formation in the withdrawn gas. ORS 520.005(14) (pertaining to gas and oil resources) defines "underground storage" as "the process of injecting and storing natural gas within and withdrawing natural gas from an underground reservoir." The vast majority of components within the existing Mist Facility are subject to EFSC's exclusive siting jurisdiction and have been permitted through the Mist Facility's Site Certificate, issued by EFSC in 1981, and subsequent Requests for Amendment ("RFAs"), issued by EFSC over the past four decades.

Within the last ten years, NW Natural expanded the Mist Facility by adding a second central compressor station, called the North Mist Compressor Station ("Compressor Station"), and developing the Adams reservoir for underground gas storage ("RFA 11"). The Compressor Station was authorized by the EFSC and included, among other things, two triethylene glycol gas dehydration systems that "following withdrawal from the underground storage reservoir, [] process wet natural gas through contact towers and dehydrate the gas with lean glycol for pipeline distribution of dry gas." However, wells and wellhead equipment are expressly exempt from EFSC's jurisdiction pursuant to ORS 469.300(11)(a)(I)(ii). Accordingly, as part of that recent expansion, NW Natural has previously sought, and the County has issued, two conditional use permits ("CUPs") under CCZO § 505.2 authorizing six additional wells at the Mist Facility.

- *In 2015, the County issued CU 15-12, authorizing the "drilling and operations of four new natural gas injection/withdrawal wells" at a single well pad location, and one nearby monitoring well.*
- *In 2017, the County issued CU 17-04, authorizing the conversion of an unused well into an observation/monitoring well.*

Last year, EFSC authorized NW Natural's Mist Resiliency Project, which includes expanding the Compressor Station by installing, among other things, three reciprocating gas fired compressors and two dehydration contact towers and glycol regenerating skids with reboilers for use in connection with utilizing additional reservoirs for gas storage ("RFA 13").

The Oregon Energy Facility Siting Council ("EFSC") is responsible for overseeing the development of certain large electric generating facilities, high voltage transmission lines, gas pipelines, radioactive waste disposal sites, and other energy-related projects that meet the statutory definition of an "energy facility" at ORS 469.300(12). This state-level oversight of energy facilities helps ensure that Oregon has an adequate energy supply while protecting Oregon's environment and public safety. After issuing a site certificate for an "energy facility," the EFSC has ongoing regulatory authority over the construction and operation of the energy facility.

A proposed energy facility must undergo a thorough review and meet the EFSC legal standards to receive site certificates, as outlined in Oregon Administrative Rule (OAR) 345-022-0000. As identified in OAR 345-022-0000 and within the Final Order approving the request for the 13th amendment to the Mist Underground Natural Gas Storage Facility, dated January 17, 2025 (the "EFSC Final Order"), those standards include but are not limited to requiring the proposal to address; Structural Standards (OAR 345-022-0020), Soil Protection (OAR 345-022-0022), Land Use (OAR 345-022-0030), Protected Areas (OAR 345-022-0040), Fish and Wildlife Habitat (OAR 345-022-0060), Threatened and Endangered Species (OAR 345-022-0070), Scenic

Resources (OAR 345-022-0080), Historic, Cultural, and Archaeological Resources (OAR 345-022-0090), Impacts to Recreational Opportunities (OAR 345-022-0100), Impacts to Public Services (OAR 345-022-0110), Wildfire Prevention and Risk Mitigation (OAR 345-022-0115), Waste Minimization (OAR 345-022-0120), Public Health and Safety Standards for Surface Facilities Related to Underground Gas Storage Reservoirs (OAR 345-024-0030), Noise Control Regulations (OAR 035-0035), and Removal and Fill Law (Oregon Revised Statutes (ORS) Chapter 196 and OAR Chapter 141).

As identified on page 1 of EFSC Final Order:

“RFA13 requested approval from the Energy Facility Siting Council (EFSC or Council) to make the following changes:

At Miller Station:

- *replace two existing (end of life) natural-gas fired turbines*
- *replace existing (end of life) underground distribution powerline from Highway 202 to Miller Station; and,*
- *increase the fenced boundary of Miller Station by adding approximately 7.52 acres adjacent to the existing station to create a permanent storage yard.*

At North Mist Compressor Station (NMCS):

- *Install approximately 2.6 miles of underground gas transmission pipelines to connect the new storage reservoirs to the NMCS;*
- *add three reciprocating gas fired compressors;*
- *add two dehydration trains, new air compressor, inlet and outlet coalescing filters, two new back-up power generators, fuel gas heater, skidded fuel gas regulators, and a power transformer;*
- *add a control building, a Power Distribution Center, compressor building, dehydration regeneration building, and associated equipment.*

These additions at NMCS will enable an increase of allowable throughput of natural gas from 635 MMscfd to 835 MMscfd.

*Based upon review of RFA13 and the Proposed Order, the Council **approves** the amendment request and adopts the Proposed Order as the Final Order on RFA13 and grants issuance of the Thirteenth Amended Site Certificate, subject to existing, new and amended conditions set forth in this order.*

This final order is issued by the Council in accordance with ORS 469.405(1) and OAR 345-027-0371.”

Therefore, **any component approved through the EFSC Final Order, is not subject to review by Columbia County under the current proposal.** Pursuant to the EFSC Final Order, as addressed on page 2 under the “SITE CERTIFICATE PROCEDURAL HISTORY” section, lines 24-28:

*“Underground storage reservoirs, injection, withdrawal, and monitoring wells, and individual wellhead equipment are expressly excluded from Council’s jurisdiction by ORS 469.300(11)(a)(i)-(ii). Those components remain under DOGAMI’s authority over wells and other subsurface components. **Well pads are also excluded from the site certificate as they are under the authority of DOGAMI and Columbia County.**”*

Underground storage reservoirs, injection, withdrawal, and monitoring wells, and individual wellhead equipment are regulated by the Oregon Department of Geology and Mineral Industries (DOGAMI). Columbia County’s jurisdiction is limited to reviewing these components (with the exception of storage reservoirs) for

compliance with applicable land use and development standards under the Columbia County Zoning Ordinance. The current Conditional Use (CU) review conducted by Columbia County is limited, specifically and only, to review of the proposed processing of Natural Gas as it is proposed to occur in the above-ground (surface) portions of the twelve (12) proposed new wells/wellheads.

SUMMARY OF CURRENT PROPOSAL:

The current proposal is a request for authorization to conduct a Conditional Use (CU) in the PF-80 zone district, pursuant to Columbia County Zoning Ordinance §505.2 and OAR 660-006-0025(4)(g): the processing of Natural Gas, specifically as it is proposed to occur in the above-ground (surface) portions of the twelve (12) proposed new wells/wellheads.

To conduct the processing use, NWN proposes the construction and operation of twelve (12) wells/wellheads and three (3) Remote Terminal Unit (RTU) buildings, containing monitoring and control equipment. These RTU buildings are a necessary and essential component for monitoring the processing that occurs in both the surface and subsurface components of the wells/wellheads, as further described below. Seven (7) of the new wells will be “injection/withdrawal” (IW) wells that will inject gas into (or withdraw) gas from three (3) reservoirs. Five (5) of the new wells will be observation and monitoring (OM) and/or pressure monitoring (KI) wells. The twelve (12) wells will be located on four (4) well pads. Three (3) of the well pads (Medicine, Medicine OM, and Newton) will be new. The fourth well pad “Stegosaur” is already existing and will be modified to accommodate four (4) new wells and one (1) RTU building.

Well Pad	New or Existing	IW Wells	OM/KI Wells	RTU Buildings	Location (Map ID No.)
MEDICINE	NEW	2	1	1	7500-00-04700
MEDICINE OM	NEW	0	1	0	7500-00-04500
NEWTON	NEW	3	1	1	7500-00-05000
STEGOSAUR	EXISTING (to be expanded)	2	2	1	7500-00-04800
<u>Total = 12 Wells & 3 RTU Buildings</u>		<u>7</u>	<u>5</u>	<u>3</u>	

Page 3 of NW Natural Supplemental Response holistically describes the ***processing***, production, storage, and transportation of natural gas as follows:

*“The Project will serve a fundamental role in producing the gas stored in existing underground reservoirs at the Mist Facility and then **processing** that gas so it can be injected into pipelines for distribution and use. Every time gas is injected into or produced (or withdrawn) from the underground reservoirs, it must pass through a well. When gas is being withdrawn, **initial gas processing occurs at the wellhead**, including removing moisture and heating to prevent ice-like blockages, known as “hydrate formation,” in the gas. The gas is then sent to the Compressor Station for further gas processing to ensure that it meets the specific quality measures before being injected into pipelines for distribution and use. Without the wells and associated wellhead equipment, natural gas cannot be injected into or withdrawn from the underground reservoir, nor can it be processed for distribution and use.”*

///

*Images of existing development (wells/wellheads and RTU Building) within the Mist Facility -
The kind of development proposed in this application is nearly identical.*



SUMMARY OF SITE CONDITIONS:

The subject and adjacent properties are located within the Primary Forest-80 (PF-80) zone district and are used for forest management and timber production purposes and the existing Mist Natural Gas Facility that has been developed at the site for more than 45 years when the first EFSC Site Certificate was issued in 1981. Most of the adjacent properties are owned by timber production companies—primarily the same owner/lessors of the subject properties. The subject properties on which the processing use and associated infrastructure reviewed through this application will be located, are a combined total of 1,328 +/- acres in size (Map ID No.'s: 7500-00-04500 [629.69 +/- acres], 7500-00-04700 [325.57 +/- acres], 7500-00-04800 [82.09 +/- acres] and 7500-00-05000 [290.55 +/- acres]).

Revised Vicinity Map - February 18, 2026



Beaver Creek (a non-fish bearing stream pursuant to the Oregon Department of Forestry Stream Classification Maps (ODF SCM)) is the nearest mapped stream from the Newton and Stegosaur well pad locations, running northerly of and more than 500' from both by linear measure and, as measured using both 20' and 100' contours in county GIS, both these well pad locations are 300'+ in elevation from Beaver Creek.

An unnamed tributary of Lindgren Creek (a non-fish bearing stream pursuant to the ODF SCM) runs approximately 300' easterly of the Medicine IW well pad location by linear measure, and the Medicine IW well pad is approximately 150' higher in elevation than this unnamed tributary.

Lindgren Creek (a fish bearing stream pursuant to the ODF SCM) runs between the Medicine IW and Medicine OM well pads, however, they are both located more than 1,500' from the stream bed by linear measure. The Medicine IW well pad is approximately 600' higher in elevation than the creek bed, and the Medicine OM well pad location is approximately 500' higher in elevation than the creek bed.

Consequently, there is no development proposed in proximity to riparian areas associated with fish bearing and non-fish bearing streams. Likewise, according to the Oregon Department of State Lands Wetlands Inventory Maps, wetlands are found only in the same locations as those identified streams. There are no wetlands identified near the well pad locations. Additionally, according to FEMA FIRM No. 41009C0125D, and county GIS, the well pads are not located in any identified special flood hazard areas.

The Clatskanie-Quincy CPAC Beak Maps verify these properties are within Major and Peripheral Big Game Habitat Areas.

The subject properties are situated within the Mist-Birkenfeld Rural Fire Protection District service area.

FINDINGS ADDRESSING COMPLIANCE WITH THE RELEVANT CRITERIA OF THE COLUMBIA COUNTY ZONING ORDINANCE (CCZO):

Section 500 PRIMARY FOREST ZONE – 80 (PF-80)

501 Purpose

The purpose of this zone is to retain forest land for forest use and to encourage the management of forest land for the growing, harvesting, and processing of forest crops consistent with the Oregon Forest Practices Act. Uses in this zone will also provide for other forest uses including watershed protection, soil protection, maintenance of clean air and water, wildlife and fisheries habitat, outdoor recreation activities, open space and scenic preservation, and agricultural activities free from the encroachment of conflicting non-forest uses and influences.

.1 The Primary Forest (PF) Zone is intended to:

- E. Recognize locationally dependent uses, such as communication towers, mineral and aggregate resources, etc.;

FINDING: The proposal supports the continuation of an established locationally dependent use. As identified in the Background section of this report, the Mist Facility’s Site Certificate was issued by EFSC in 1981. Additionally, in a letter dated February 17, 2026, provided by the applicant, Vice President of Gas Supply and Utility Support Services at NWN, David Weber, provides:

“We happen to have the right kind of underground rock formations in Columbia County that make safe storage possible. When withdrawn from storage at the mist facility, that gas bypasses the interstate bottleneck entirely it can be moved through local pipelines and delivered directly and immediately, to customers during peak demand.”

Although the “storage” Mr. Weber refers to is not the use that is currently being reviewed, the processing use that is being reviewed will be conducted in support of the larger operation of the Mist Facility that includes these naturally occurring underground reservoirs. Additionally, as found in EFSC Final Order Section **I.A. “SITE CERTIFICATE PROCEDURAL HISTORY”** the initial site certificate issued by EFSC in 1981 for the Mist Facility, contained authorization “to construct and operate two naturally existing underground gas reservoirs (the Flora and Bruer pools)...”. Therefore, as recognized by the Oregon EFSC, and further supported by the statement provided by Mr. Weber, staff finds that the proposed processing use, to occur at the injection and withdrawal wellheads, which will be conducted in support of the larger Mist Facility, is recognized as a locationally dependent use.

505 Conditional Uses

The following conditional uses may be allowed subject to the general review standards and process in Sections 1503 and 1603 of the Zoning Ordinance. All authorized uses and permanent

structures shall also meet the applicable standards listed in Sections 506, 507, and 508 of the Zoning Ordinance and all other local, state, and federal laws pertaining to these uses.

- .2 Exploring, mining and processing of oil, gas, or other subsurface resources, as defined in ORS Chapter 520 and the mining and processing of mineral and aggregate resources as defined in ORS Chapter 517.

FINDING: The proposed use is for the processing of natural gas.¹ Pursuant to OAR 660-006-0025(4), uses that may be conditionally approved in the PF-80 zone include:

- (g) Mining and processing of oil, gas, or other subsurface resources, as defined in ORS chapter 520, and not otherwise permitted under subsection (3)(m) of this rule (e.g., compressors, separators and storage serving multiple wells), and mining and processing of aggregate and mineral resources as defined in ORS chapter 517.

The applicant submitted a letter prepared by Vice President of Gas Supply and Utility Support Services at NWN, David Weber, in which the holistic picture of processing that occurs throughout the facility is detailed. As found in Section C. of that letter, *How Natural Gas Storage Works: Injection and Withdrawal as Key Natural Gas Processing Functions*, subsection c. *Withdrawal*, Mr. Weber identifies how processing of natural gas will occur specifically at the seven (7) “injection/withdrawal” (IW) wells under the authority of Columbia County for review:

“Withdrawal is where the processing role of the wells is most visible. When gas comes back to the surface, it does not return in a condition that is ready for transport. Instead, it arrives mixed with water, moisture, and particulates from the reservoir. Each withdrawal well is equipped with a separator and process heater that cleans and stabilizes the gas. The separator removes most moisture and particulates which is a necessary step to prevent moisture from entering NE Natural’s distribution system. NW Natural also heats the gas using the process heater to prevent ice-like blockages, known as “Hydrate formation,” ensuring safe and reliable flow during cold temperatures.”

The letter further explains how all other infrastructure subject to this application is directly related to the processing functions that will occur at the wells/wellheads. There is sufficient evidence in the record identifying that the proposed facility developments support the processing of natural gas, a conditional use which may be permitted in the PF-80 zone district, subject to the Conditional Use requirements of CCZO §1503.5, as addressed further within this staff report. Staff finds that the criterion of this section has been demonstrated as met.

507 Siting of Dwellings and Structures

FINDING: The current proposal does not include any dwellings, however, CCZO §100.105 defines STRUCTURE to mean: “a building or other major improvement that is built, constructed or installed, **not including minor improvements, such as fences, utility poles, flagpoles or irrigation system components, that are not customarily regulated through zoning ordinances.**” Historically, in previous Conditional Use reviews of the same nature approved conducted on the subject properties, Columbia County Planning staff has not found the above definition of “STRUCTURE” to be applicable to the development of wells and wellheads.

¹ Columbia County Zoning Ordinance (CCZO) §505.2 was intended to incorporate OAR 660-006-0025(4)(g). However, as incorporated into the CCZO, the word “Exploring”—which does not appear in OAR 660-006-0025(4)(g)—was placed in the text of §505.2 and also in Permitted Uses §503.8. Staff concludes that the inclusion of the word “Exploring” in CCZO §505.2 was an error. This discrepancy regarding the placement of the word “Exploring” in the CCZO is neither here nor there with regard to the current proposal to conduct a processing use, appropriately reviewed under the provisions of CCZO §1503 – CONDITIONAL USES, it is simply an acknowledgement made by reviewing staff in order to maintain clarity.

Staff concludes that this is likely because that infrastructure is comprised primarily of piping/plumbing components (as shown in the representative photographs above on page 5 of this report) and they were likely determined to be “*minor improvements, such as...*”. Additionally, upon review of the building permit history of the subject properties, staff can find no instance where any building permits were issued for the wells/wellheads approved in previous conditional use permit reviews.

Notwithstanding the foregoing, because the definition of “structure” in CCZO 100.105 does not explicitly identify the proposed development within the acknowledged “minor improvements” current reviewing staff errs on the side of caution and identifies that, in the event the proposed wells/wellheads and RTU buildings should be acknowledged as “*a major improvement that is built, constructed or installed*” the standards of this section would be applicable to the physical construction of the exterior (above-ground) components of the twelve (12) wellheads and to the three (3) Remote Terminal Unit (RTU) buildings, and as such, these components are addressed below.

- .1 All new dwellings and structures are subject to the siting standards in this section. Relevant physical and locational factors including, but not limited to, topography, prevailing winds, proximity to existing roads, access, surrounding land use and source of domestic water shall be used to identify a site which:

- A. Has the least impact on nearby or adjacent lands zoned for forest or agricultural use;

FINDING: As previously addressed above, where the criterion of CCZO §501.1(E) was addressed, the proposal supports the continuation of an established locationally dependent use due to the relevant physical and locational factors of the naturally occurring underground reservoirs and exiting infrastructure at the Mist Facility the new wells will be interconnected to. Additionally, staff identifies that the wells are entirely contained on the subject properties. As evidenced by State of Oregon 2024 aerial imagery, the four (4) well pad locations have been logged and cleared of timber and thus, also substantially cleared of any wildfire ignition fuel in the immediate vicinity of the proposed wells/wellheads.

As acknowledged within the ECONOMIC, SOCIAL, ENVIRONMENTAL, AND ENERGY CONSEQUENCES section of Article VII – ENERGY, in PART XVI of the Columbia County Comprehensive Plan:

“A natural gas well is a temporary land use that affects approximately one-half acre of ground.”

A half-acre square contains exactly 21,780 square feet. When measuring from the centroid of that half acre square (the midpoint location of both the length and width of the half acre square) and placing said centroid on a well, the area of potential impact extends 74 feet in all directions from the location of a well. As shown on the site plan submitted on February 18, 2026, and applicants Exhibit Q - “Medicine Site Plan” (updated) the nearest of the four (4) well pads, and the associated infrastructure contained upon it, to any common property boundary is the Medicine IW well pad, proposed in the southeastern quadrant of 7500-00-04500. The RTU building to be located at this site is represented to be 51’ from the southern property boundary. The two nearest wells, adjacent to a common property boundary are “WELLHEAD #2”, shown to be situated 74 feet from the southern property boundary and “WELLHEAD #1”, shown to be 82 feet from the eastern property boundary. Therefore, it has been demonstrated that the impact area for all twelve wells will be contained entirely on the subject properties.

CCZO § 507.1(A), which implements OAR 660-006-0029(1)(a), does not require that development have “no impact” on nearby or adjacent lands zoned for forest or agricultural use. Rather, the purpose of this criterion is to ensure that the proposed location of new structures in the PF-80 zone will have the “least impact” on nearby or adjacent farm and forest lands, including when considering the related siting considerations set forth in CCZO §§ 507.1(B)–(D), as they implement OAR 660-006-0029(1)(b)–(e). As relevant here, all proposed

development and operations subject to the County's review will occur on previously cleared lands fully within the subject properties and within a broader area already reviewed and approved by EFSC for development and operation of the Mist Facility and North Mist Compressor Station expansion in RFA 13. It is reasonable to conclude that the least-impactful location for the additional development and operations now proposed by the applicant to occur would be anywhere within these existing cleared areas, where the well impact area will be contained entirely on the subject properties. The specific sites selected by the applicant meet these sideboards, and there is no reason to believe that the specific sites selected by the applicant would have any more or different impacts than any other sites on the property that also meet these sideboards. Staff finds that the criterion of this section is satisfied.

2024 Oregon State Aerial Imagery with locations of well pads as compared to the submitted site plan



- B. Ensures that forest operations and accepted farming practices on the tract will not be curtailed or impeded by locating dwellings and structures as near to each other and to existing developed areas as possible considering topography, water features, required setbacks and firebreaks;

FINDING: The proposal does not include any dwellings. The subject and surrounding properties are all zoned PF-80 and primarily used for forest management and timber production, coincidentally, there are no dwellings or other structures on surrounding properties in near vicinity of the subject properties. As evidenced by Oregon State 2024 Aerial Imagery, above, the proposed location of the well pads and associated wells/wellheads and RTU buildings will be situated in portions of the subject properties that have already been logged. Additionally, the applicant and the owners of the subject properties who lease the land to the applicant, and who were required to supply letters of authorization that were signed by a duly authorized agents of the entities that own each of the subject properties to the record, have worked in coordination to successfully continue forestry operations and operate the Mist Facility on the subject properties in tandem, for more than 45 years. No impacts from the existing Mist Facility or the associated and already-occurring processing uses previously reviewed and approved by the County have ever been reported by the landowners who are conducting forest operations on the subject properties. For these reasons, staff finds that the (minor) addition of twelve (12) wells/wellheads and associated infrastructure that will facilitate processing of natural gas, a use which has previously been reviewed and conditionally permitted by the County and therefore, is already occurring in various locations on

the subject properties, will not impede the forestry operations currently occurring on those properties. Staff finds that the criterion of this section can be considered to be demonstrated as satisfied.

- C. Minimizes the amount of forest lands used for building sites, road access and service corridors;

FINDING: As evidenced by State of Oregon 2024 Aerial Imagery (above), the four (4) proposed well pad locations that will contain the facilities reviewed within this application, have already been recently logged. Within the applicant's submitted findings and as confirmed by the EFSC Final Order, road access to the well pad locations to be developed with the facilities reviewed herein, are established and no new road accesses are necessary or proposed.

Service corridors necessary for the addition of any pipelines for transportation of natural gas from the facilities reviewed in this application to different sites within the Mist Facility, are not within the scope of this review and have been addressed where the criteria of this section were reviewed by EFSC in the Final Order.

Staff finds that, because merchantable timber has already been harvested, and the land cleared at the locations of the proposed well pads and processing infrastructure (wells/wellheads and RTU buildings), and because no new roadway construction has been identified as needed for the current proposal, the criterion of this section regarding minimization of the use of forested lands for building sites and road access has been demonstrated as satisfied. In the event that it is identified that new roads would be necessary upon commencement of construction activities, a condition of approval requiring that, to the practical extent possible, the amount of forest lands used for building sites, road access and service corridors should be minimized.

- D. Is consistent with the provisions of Section 510 related to Fire Siting Standards and minimizes the risk associated with wildfire; and

FINDING: Where the criteria of CCZO §510 are addressed further herein, this section is also addressed.

- E. Is consistent with other requirements contained in the Comprehensive Plan or implementing ordinances, including, but not limited to, regulations which apply to flood, steep slopes, and landslide hazard areas, development within the Willamette River Greenway, development in forested areas or development in significant resource and natural areas, such as wetland riparian and slide-prone areas.

FINDING: The CCZO provides standards and criteria to implement the goals and policies of the Comprehensive Plan. The current proposal is consistent with applicable sections of the CCZO as addressed throughout findings within this staff report including but not limited to addressing; Conditionally Permitted Uses in the PF-80 Zoning District, General Review Standards, and applicable Standards of Development relevant to any pertinent Overlay Zones. As addressed in previous and subsequent sections of this staff report, there are no flood hazards or riparian corridors within close proximity to any proposed well pads. As long as the proposal is found to comply with all applicable sections of the Zoning Ordinance, it will also comply with the requirements of the Comprehensive Plan. The proposal's consistency with the Policies and Goals of the Comprehensive Plan is further evaluated where the criteria of CCZO Section 1503.5(F) are addressed further herein.

- .2 The applicant shall provide evidence consistent with OAR 660-006-0029(3) that domestic water supply is from a source authorized in accordance with the Department of Water Resources' administrative rules for the appropriation of ground water or surface water in OAR Chapter 690 and not from a Class II stream as defined in the Forest Practices Rule in OAR Chapter 629. If the water supply is unavailable from public sources or sources located

entirely on the subject property, then the applicant shall provide evidence that a legal easement has been obtained permitting domestic water lines to cross the properties of affected owners.

FINDING: The proposal is not for a dwelling or residential (domestic) use domestic/potable water supply is not required to serve the processing use that is reviewed through this application. Therefore, the standard of this section is not applicable.

- .3 As a condition of approval, if road access to the dwelling is by a road owned and maintained by a private party or by the Oregon Department of Forestry or the U.S. Bureau of Land management, then the applicant shall provide proof of a long-term road access use permit or agreement. The road use permit may require the applicant to agree to accept responsibility for road maintenance.

FINDING: The standard of this section is explicit to “dwellings.” Because the current proposal is not for a dwelling, the standard of this section is not applicable.

- .4 Pursuant to OAR 660-006-0025 (5), approval of a dwelling shall be subject to the following requirements:

FINDING: The standard of this section is explicit to “dwellings.” Because the current proposal is not for a dwelling, the standard of this section is not applicable.

- .5 Dwellings and other structures to be located on a parcel within designated Big Game Habitat areas pursuant to the provisions of Section 1190 are subject to the additional siting criteria contained in Section 1190.

FINDING: The subject properties are located within the Big Game Habitat Overlay. The standards and criteria of CCZO §1190 are addressed further herein.

508 General Review Standards

The Planning Director or hearings body shall determine that a use authorized by Sections 504 and 505 meets all of the following requirements:

- .1 The proposed use will not force significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands;

FINDING: The well pads and associated infrastructure (wells/wellheads and RTU Buildings) necessary to support the proposed processing use will occur on properties that are already developed with infrastructure serving the Mist Natural Gas Facility. As identified in the Background Section of this report, all existing facilities have been previously approved by Columbia County, EFSC, and DOGAMI. The Mist Facility has been in operation for 45 years with no documented evidence of impediment to active forest management practices occurring on the subject and surrounding properties. The applicant, NWN, is a leaseholder on the subject properties and as such, has developed a successful longstanding cooperative work relationship with the landowners who are simultaneously conducting their forestry operations. Those areas range between .50 acres to 2 acres in size. There is no evidence that the currently proposed processing use to occur within the above-ground portions/components of the new wells/wellheads reviewed through this application, which will be connected to and incorporated into the existing, larger, comprehensive Facility, where the processing and other uses are already occurring in different locations on the subject properties, would force significant changes in, or significantly increase the cost of conducting forestry practices on the subject and immediately surrounding properties. The proposal was noticed to neighboring property owners within 750’ of the boundaries of the

subject properties. Most of those properties are in common ownership of those entities that own the subject properties. The nearest property in other ownership (6500-00-00600 / Tax account 25096) is located approximately one-half mile south of the “Medicine” IW well pad located on subject properties 7500-00-04700 & 04500. No return comments were received from any property owners within the required 750’ notice area.

For the reasons identified above, and without any contrary evidence, staff finds that the current proposal, to conduct a processing use at new locations on a property already supporting that use at a far larger scale, will not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on the subject and surrounding lands devoted to farming and forestry uses.

- .2 The proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel;

FINDING: Upon notice of the proposal, the Oregon Department of Forestry (ODF) - Columbia Unit Forester, Jasen McCoy, returned comment stating:

“ODF asks that Landowner/Operator meet legal requirements of notifying for Power Driven Machinery (PDM) within the Oregon Department of Forestry – Columbia Unit. Routine line maintenance using power driven machinery (year-round) can be noticed as “County Wide Activity”. Some projects are more of a fire risk, while others are low fire risk depending on the time of year, weather, topography, and flammable material near the site. A PDM is required year-round from ODF. Additionally, there are extra requirements during fire season.

The applicant can work with the Stewardship Forester for the area for potential consideration of fire equipment waivers.”

The requirement to notify ODF when PDM related activities are scheduled to occur, will be made a **condition of approval**.

Section III.N., WILDFIRE PREVENTION AND RISK MITIGATION (OAR 345-022-0115), of EFSC Final Order on the 13th Amendment to the operational site certificate required the applicant to:

“adequately characterize the wildfire risk within the analysis area using reputable sources to describe Baseline Wildfire Risk, Seasonal Wildfire Risk, Areas Subject to Heightened Risk of Wildfire, and High-fire Consequence Areas.”

OAR 345-001-0010(35)(c) (and the EFSC Final Order which references the OAR) defines that analysis/study area to be:

*“an area that includes all the area within the site boundary and the area within the following distances from the site boundary: (c) For land use impacts, wildfire risk, and impacts to fish and wildlife habitat, **one-half mile.**”*

Additionally, as summarized on pg. 79 of the EFSC Final Order:

“Certificate holder contacted the Clatskanie and Mist Birkenfeld RFPDs to solicit input regarding the potential effect that proposed changes to the proposed RFA13 changes could have on their fire protection work.

The Fire Chief for the Clatskanie RFPD indicated that the potential impact to his district would depend on the number of emergencies that occurred during construction and operation. The Fire Chief for the Mist-Birkenfeld Fire District did not anticipate that the proposed RFA13 changes would have a significant

*adverse impact on their ability to provide fire protection and EMS services.² The history of safe operation of the facility and the statements from the Fire Chiefs support Council finding **the proposed use will not significantly increase fire hazard or significantly increase fire suppression costs.**"*

As presented previously herein, the current request for approval of a conditional processing use reviewed by Columbia County is explicitly limited to where the *processing* use occurs in the above-ground components of the wells/wellheads. However, it is important to note that the components that are reviewed within the current application are part of, and contained within, the larger Mist Resiliency Project boundary and thus, were incorporated into the review and analysis of Wildfire Prevention and Risk Mitigation in the EFSC Final Order. The EFSC Final Order identifies that Wildfire Prevention standards and the Wildfire Mitigation Plan requirements apply to construction and operation of the entirety of the proposed facility, consequently, including those components reviewed in this application. EFSC concluded [EFSC RFA 13 Final Order, pg. 186] that the facility will be constructed and operated in compliance with a Wildfire Mitigation Plan [EFSC RFA 13 Final Order, Attachment V-2] approved by the Council.

The analysis of potential increases to fire hazards and the mitigation requirements addressed within the EFSC Final Order, which included the four (4) well pad locations reviewed within the current application, are more than adequate to address compliance with the criteria of this section. Staff finds that the proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel. The criteria of this section are satisfied.

- .3 A waiver of remonstrance shall be recorded with the County Clerk certifying that the owner will not remonstrate against or begin legal action or suit proceeding to cause or persuade the owner or operator of any farm or forest lands to modify the conduct of legal and accepted farm or forest operations; and

FINDING: Signature and recordation of a waiver of remonstrance on each of the four (4) subject properties will be made a condition of approval. After recordation of the four (4) waivers with the Columbia County Clerk, the applicant shall submit copies of the recorded documents to the Planning Division, prior to issuance of any building permits or commencement of the use reviewed through this application. Staff finds that compliance with the requirement of this section can be satisfied through a condition of approval.

- .4 The proposed use is consistent with requirements contained in the Comprehensive Plan or implementing ordinances, including, but not limited to, regulations which apply to flood hazard areas, development within the Willamette River Greenway, development in forested areas or development in significant resource areas, such as riparian, wetlands or slide-prone areas.

FINDING: Where the nearly identical criteria of CCZO §507.1 (E) were previously addressed, the criteria of this section were also already addressed. Staff finds that the criteria of this section are satisfied.

509 Standards of Development

- .1 The minimum average lot or parcel width and minimum average lot or parcel depth shall be 100 feet for all activities except farming or forestry.

FINDING: The proposed use is not for farming or forestry. Therefore, the standard of this section is applicable. Accordingly, the minimum average lot or parcel width and depth of all four (4) subject properties greatly

² The February 16, 2024, letter from Joe Kaczinski, Mist-Birkenfeld RFPD Fire Chief, was incorporated to the record as part of applicants February 17, 2026, revised submittal.

exceeds the 100 feet minimum average lot or parcel depth requirement of this section. Consequently, the standard of this section is demonstrated as met.

- .2 Access to parcels in this zone shall meet Fire Safety Design Standards for Roads in the County Road Standards and access standards found in Section 510 of the Zoning Ordinance.

FINDING: CCZO §510 explicitly states “The following fire siting standards or their equivalent shall apply to new dwellings in this zone.” The current proposal is not for a dwelling, therefore, the standards of CCZO §510, and by default, the criterion of this section are not applicable to the current proposal.

- .3 There shall be no height limitation for forest operation and management- related structures unless otherwise permitted in the Primary Forest Zone. The maximum building height for all non-farm, non-forest structures shall be 50 feet or 2 ½ stories, whichever is less.

FINDING: The structures (wellheads and RTU Buildings) subject to this review are not part of a forest management operation or use. Therefore, a condition of approval will limit any structure reviewed through this application to no more than 50 feet or 2 ½ stories in height. Compliance with this requirement shall be verified at the time of submittal for building permits.

- .4 The standards and requirements described in Section 1300 of the Zoning Ordinance shall apply to all signs and name plates in the Primary Forest Zone.

FINDING: No signs or name plates were proposed as part of the current application. In the event signs or name plates are proposed in the future, they will be required to comply with the standards and requirements of CCZO §1300 as applicable to the PF-80 zone district.

- .5 The Oregon Department of Fish & Wildlife shall be notified and provided with the opportunity to comment on any development within major and peripheral Big Game Habitat.

FINDING: The subject properties are located within the Big Game Habitat Overlay. The standards and criteria of CCZO §1190 are addressed further herein. Pursuant to the requirement of this section, the Oregon Department of Fish and Wildlife (ODFW) was sent notice of the proposal with request for comment, on January 13, 2026. As of the date of this staff report, no response has been received from ODFW. Accordingly, Columbia County Planning has satisfied its obligation to provide notice of the proposal and provide opportunity to comment, to ODFW. Compliance with the noticing requirement of this section has been demonstrated as met.

- .6 Setbacks:

- A. There shall be a minimum setback of 50' for front, side, and rear yards for all development in the Primary Forest Zone.

FINDING: As demonstrated on the revised overall site plan dated February 18, 2026, all proposed structural development (wells/wellheads and RTU Buildings) will be located more than 50' from any property line. Compliance with the standard of this section has been demonstrated as met.

- B. When this Ordinance or any other ordinance requires a greater or lesser setback than is required by this subsection, the greater setback shall apply.

FINDING: There is no other greater setback required by this ordinance or any other applicable ordinance. Therefore, the criterion of this section is not applicable to the current proposal.

- C. All structures are subject to any special setbacks when adjacent to arterial or collector streets designated in the County Transportation Systems Plan.

FINDING: The structures proposed in this application are not adjacent to any arterial or collector streets designated in the County Transportation Systems Plan. Therefore, the criterion of this section is not applicable to the current proposal.

- D. No structure or use shall be established in a manner likely to cause contamination of a stream, lake or other body of water. Riparian and natural hazard setbacks set forth in Sections 1170 and 1180 of the Zoning Ordinance shall apply.

FINDING: The submitted site plan, Oregon Department of State Lands (DSL) maps, and county GIS confirm, there are no streams, lakes or other bodies of water in close proximity to the four (4) well pads and associated structural development reviewed in the current proposal. Due to the spatial separation of the proposed facilities from any body of water, compliance with the criteria of this section is demonstrated as satisfied. Consequently, the standards of CCZO §1170 and §1180 do not apply to the current proposal.

- E. When land divisions create parcels of less than 40 acres for uses listed in Subsection 511.2A., provided those uses have been approved pursuant to this Ordinance, required building setbacks for these parcels will be determined on a case-by-case basis by the Director or the hearings body.

FINDING: The proposal is not for a land division. Therefore, the criterion of this section is not applicable to the current proposal.

- F. The owner shall provide and maintain primary fuel-free fire break and secondary fire break areas on land surrounding the dwelling and primary fuel-free break areas surrounding accessory structures in the Primary Forest Zone pursuant to the provisions in Subsections 510.2 and .3.

FINDING: The proposal does not include any dwellings and consequently, it does not include any residential accessory structures. Therefore, the standards of this section are not applicable to the current proposal.

- .7 Approval Period for Use Permits. For all uses approved under sections 504 and 505, the approval period shall be valid for four (4) years. At a minimum, a development construction permit must be issued by [the] Land Development Services within the approval period. If a construction permit is not issued within the approval period, the land use permit expires. An extension of two years on the approval period may be granted by the Director if a written request is received prior to its expiration and the reason for the delay is beyond the control of the owner.

FINDING: The proposal is a request for approval of a Conditional Use, as identified in CCZO §505.2. Therefore, in the event an approval is issued, the approval period for the applicant to secure a development construction permit will remain valid for four (4) years from the date of the final decision.

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510 Fire Siting Standards for Dwellings, Structures and Roads

The following fire-siting standards or their equivalent shall apply to new dwellings in this zone:

FINDING: The proposal is not for a dwelling, therefore the standards of this section are not applicable to the current proposal.

516 Notification of State Agencies

The Oregon Department of Forestry's Columbia Unit Office and the Oregon Department of Fish and Wildlife's Forest Grove Office shall be notified and requested to comment on all conditional use requests filed under Section 503 of this Zone and all building or placement permit application filed under the Primary Forest Zone. Responses should be received within 10 days of the date of mailing to be assured consideration.

FINDING: Pursuant to the requirement of this section, notice of the proposal was emailed to Jasen McCoy (Oregon Department of Forestry - Unit Forester, Columbia County) and to Mark Nebeker (Oregon Department of Fish and Wildlife - Northern Willamette Valley, Wildlife Biologist). As of the date of this staff report, no responses have been received from either agency. Accordingly, Columbia County Planning has satisfied its obligation to provide notice to these two agencies. Compliance with the noticing requirement of this section has been demonstrated as met.

1190 BIG GAME HABITAT OVERLAY**1191 Purpose**

To protect sensitive habitat areas for the Columbian white-tailed deer and other Big Game by limiting uses and development activities that conflict with maintenance of the areas. This section shall apply to all areas identified in the Comprehensive Plan as a **major** and **peripheral** big game range or Columbian white-tailed deer range, as shown on the 1995 Beak Consultant's map, entitled "Wild Game Habitat" in the Comprehensive Plan in Appendix Part XVI, VIII(A).

FINDING: The western 2/3rd of 7500-00-05000 (where the "Newton" Well Pad and associated infrastructure will be located) in Section 33, are in the Birkenfeld-Mist C.P.A.C. area. The other 1/3rd of 7500-00-05000, all of 7500-00-04800 (where the existing, to be expanded, "Stegosaur" Well Pad and associated infrastructure are to be located), 7500-00-04700 (where the "Medicine I/W" Well Pad and associated infrastructure will be located) and 7500-00-04500 (where the "Medicine O/M" Well Pad and associated infrastructure will be located) in Sections 34 and 35, are in the Clatskanie-Quincy C.P.A.C. area. Both area "Wildlife Game Habitat" Maps have been incorporated into this record. As evidenced by both maps, there is no Columbian white-tailed deer range in vicinity of the proposed development.

The legend on the Beak Consultants maps identifies "Big Game Habitat" in hatched blue lines, and "Peripheral Big Game Habitat" with a swath of red triangles. The term "Major" is not included on these maps, however, staff assumes that any area not mapped as "Peripheral" is by default, "Major".

Consequently, "Major" Big Game Habitat encompasses all four (4) of the subject properties, and "Peripheral" habitat is shown in the northeastern corner of 7500-00-04500. Therefore, staff finds that the standards of this section are applicable.

1193 Development Siting Standards

All new residential development and uses located in Major and Peripheral Big Game or Columbian White-tailed Deer Habitat shall be subject to following siting standards:

- A. Dwellings and structures shall be located as near each other and existing developed areas as possible considering topography, water features, required setbacks, and firebreaks.

FINDING: The only structures existing on the subject properties are those that are committed to use in the Mist Natural Gas Facility and primarily located on 7500-00-04701, a property centrally located within the subject properties, and not part of the current proposal. Simply because there is a limited number of structures contained on a site that is 1,328 acres in size for the proposed new structures to be situated next to, does not have the effect of precluding a use which may be conditionally approved, and which may require placement of infrastructure to conduct the use, as is the case in this instance. As previously addressed herein, where the criteria of CCZO §501.1(E) and §507.1(A) were addressed, the proposal supports the continuation of an established locationally dependent use due to the relevant physical and locational factors of the naturally occurring underground reservoirs and exiting infrastructure at the Mist Facility the new wells will be interconnected to. Staff finds that, due to existing development and infrastructure in the facility boundary as acknowledged, approved and permitted by EFSC, the proposal satisfies the criteria of this section to the degree possible, considering that there is no development in proximity in which to cluster, that would also allow the use to occur as safely and necessarily as possible, to process gas at the proposed wells as it recharges or exits a naturally occurring reservoir that exists underground.

- B. Dwellings and structures shall be located to avoid habitat conflicts and utilize least valuable habitat areas.

FINDING: The Columbia County Comprehensive Plan (Part XVI – GOAL 5, Article VIII – Fish and Wildlife Habitat, §A – Big Game Habitat, 1. – LOCATION, pg. 236) identifies “Major” Big Game Habitat as:

“Areas of the County which supports the majority of big game. These areas provide forage and cover for game during most of the year.”

and identifies “Peripheral” Big Game Habitat as:

“Areas for the County which are also important for sustaining big game populations. These areas are generally at lower elevations and serve as critical habitat during severe winter months.”

The same section of the Comprehensive Plan, §A. 3 – QUANTITY, identifies:

“The majority of the 676 square miles of land located within Columbia County has been identified as habitat for big game by the Oregon Department of Fish and Wildlife.”

Therefore, as acknowledged by the Comprehensive Plan, there are little to no areas of land in the whole of Columbia County that any kind of development could be approved, that *would not* have any impact to Big Game Habitat. The Comprehensive Plan §A. 4 – POTENTIAL CONFLICTING USES, of that same section, identifies that other non-resource uses, such as the current conditional use under review, have the potential to permanently alter big game habitat areas when a use will require or allow groups of people to be present at a site or when large amounts of vegetative cover (forage) would be required. There will be limited staff, if any, present onsite at the well pad locations at any given time, year-round, and the proposed locations of the well pads and associated infrastructure have already been logged and consequently, cleared of vegetation for forage.

Findings presented in §A. 6 of the same section of the Comprehensive Plan acknowledge that, while there are conflicting uses in Big Game Habitat areas, such conflicting uses cannot be completely prohibited without that prohibition generating its own negative consequences. As set forth in the applicant’s written findings and as verified by calculating the development areas shown in applicants exhibits E, F, G and H (the revised individual well pad site plans), the total development area for all four (4) well pad locations will be 6+/- acres of removed vegetation. Compared to the site size of 1,328 acres, this disturbance area is only approximately .45% of the total land area of the subject properties. The well pad locations are located at higher elevations, in locations where internal roadways already exist and timber has already been harvested. Without evidence to the contrary,

staff finds that the selected sites can be qualified as some of the least valuable forage areas existing on the subject properties and finds the criterion of this section to be satisfied.

Additionally, and of note, Section III.H. of the EFSC Final Order where Fish and Wildlife Habitat disturbance is analyzed pursuant to the requirement of OAR 345-001-0010(35)(c) which requires an impacts analysis and mitigation plan for a study area that include all the area in the site boundary and within one-half mile of the site boundary. The EFSC Final Order imposes Fish and Wildlife Habitat Conditions which require the certificate holder to finalize and implement, for the life of the facility, a habitat mitigation plan that secures, protects, manages and enhances a mitigation site in an amount and quality necessary to offset the acres and quality of habitat impacted.

- C. Road development shall be minimized to that which is necessary to support the proposed use and the applicant shall utilize existing roads as much as possible.

FINDING: As addressed within the EFSC Final Order [pg. 76] the proposal does not include any new road development. Notwithstanding the foregoing, the standard of this section does not explicitly prohibit development of new roadways, it simply requires said development to be minimized to only incorporate new roadways that may become necessary to support the proposed processing use. Staff finds that compliance with this requirement is demonstrated as feasibly met and a condition of approval will be added to ensure that any new road construction will be limited to only that which is necessary to serve the processing use reviewed through this application.

- D. The owner/occupant of the resource parcel shall assume responsibility for protection from damage by wildlife.

FINDING: The requirement of this section will be made a condition of approval.

- E. Riparian and Wetland areas shall be protected in accordance with Sections 1170 and 1180.

FINDING: As previously addressed herein, there are no Riparian or Wetland areas in vicinity of proposed development reviewed within this application. Therefore, the standards of CCZO §1170 and §1180 are not applicable to the current proposal.

- 1194** The County shall notify the Oregon Department of Fish and Wildlife (ODFW) of all proposed uses or development activities which require a permit and are located in Major or Peripheral Big Game Habitat. The County will consider the comments and recommendations of ODFW, if any, before making a decision concerning the requested use or activity.

FINDING: The Oregon Department of Fish and Wildlife (ODFW) was sent notice of the proposal with request for comment, on January 13, 2026. As of the date of this report, no comments have been submitted to the record by ODFW. Staff finds that Columbia County Planning has satisfied its obligation to provide notice of the proposal and opportunity to comment, to ODFW, as required. Compliance with the noticing standard of this section has been demonstrated as met.

Additionally, as documented on page 90 of the EFSC Final Order, consultation with ODFW occurred prior to issuance of the 13th Amendment approval, and ODFW did not have any specific comments or concerns related to the impacts of the proposed changes.

- 1195** The County shall notify the Oregon Department of Fish and Wildlife (ODFW) and the U.S. Fish and Wildlife (USFW) of all proposed uses or development activities which require a permit and are located in Columbian White-tailed Deer Habitat. The County will consider the comments

and recommendations of ODFW and USFW, if any, before making a decision concerning the requested use or activity.

FINDING: As evidenced by both the Birkenfeld-Mist C.P.A.C. and Clatskanie-Quincy C.P.A.C. area “Wildlife Game Habitat” Maps, there is no Columbian white-tailed deer habitat in vicinity of the proposed development. Therefore, the noticing requirement of this section is not applicable to the current proposal.

1503 CONDITIONAL USES:

- .5 Granting a Permit: The Commission may grant a Conditional Use Permit after conducting a public hearing, provided the applicant provides evidence substantiating that all the requirements of this ordinance relative to the proposed use are satisfied and demonstrates the proposed use also satisfies the following criteria:

A. The use is listed as a Conditional Use in the zone which is currently applied to the site;

FINDING: Pursuant to CCZO §505.2, processing of natural gas is listed as a Conditional Use in the PF-80 zone district. Therefore, staff finds that the criterion of this section is demonstrated as met.

B. The use meets the specific criteria established in the underlying zone;

FINDING: The relevant criteria of the PF-80 zone are found in CCZO §500. As addressed within this staff report, the proposal demonstrates compliance or feasibility for compliance, with conditions of approval, with the specific use and development criteria listed in CCZO §500, subsections: §501 – Purpose of the PF-80 zone, §505 – Conditional Uses, §507 – Siting Standards for Dwellings and Structures, §508 – General Review Standards, and §509 – Standards of Development. Therefore, staff finds that the criterion of this section is demonstrated as met.

C. The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements, and natural features;

FINDING: Where the criteria of CCZO §507 – Siting Standards, §508 – General Review Standards, §509 – Standards of Development and §1193 – Siting Standards in the Big Game Habitat Overlay, were addressed, the criteria of this section were already addressed.

D. The site and proposed development is timely, considering the adequacy of transportation systems, public facilities, and services existing or planned for the area affected by the use;

FINDING: The application states that the proposed use will not require any new public facilities or services. Access to the site will be taken from Highways 47 and 202 and from existing County Roads. There is no anticipated impact to the established transportation systems that will be utilized to reach the site. The applicants submitted findings which state, “*The proposed construction and operation of injection/withdrawal and observation wells at the Mist Underground Natural Gas Storage Facility will help support the balancing of natural gas supplies and widely fluctuating market requirements.*” Staff finds that the proposed development is simply an expansion of existing development and use which has already been long occurring, it is timely as it is necessary to support production and provision of service of a utility used by many of the residents of and businesses in Columbia County. As addressed throughout sections of this staff report and as addressed within this finding, staff finds that the current proposal has demonstrated satisfaction with the criterion of this section.

E. The proposed use will not alter the character of the surrounding area in a manner which

substantially limits, impairs, or precludes the use of surrounding properties for the primary uses listed in the underlying district;

FINDING: As previously addressed herein, the nearest location of proposed development to any adjacent property not in common ownership with the subject properties, will be the Medicine OM well pad and associated infrastructure, to be located near to the southeastern corner of 7500-00-04500, where the well will be 243' +/- north of the common boundary with 6500-00-00100. The subject and surrounding properties are all zoned PF-80. Where the criteria of CCZO §507.1 (A) and (B) §508.1 were previously addressed herein, staff concluded that the proposal would not force a significant change in accepted farming or forestry practices on surrounding farming and forestry lands, nor on the subject properties. For the reasons identified in the findings presented in each of those aforementioned sections, staff finds that the proposed use will also not limit or impair the ability to conduct the outright permitted uses identified in CCZO §503, the administratively reviewed uses identified in CCZO §504 or any of the other conditionally authorized uses found in CCZO §505.

Additionally, and perhaps most indicative that the proposed use will not alter the character of the surrounding area, is the fact that there is no evidence in the record and no comments returned upon notice to the 750' notice area, that the proposed processing use reviewed through this application which has already been occurring at various locations on the site where other wells are established, for 45 years, has altered the character, limited, impaired or precluded the uses of surrounding properties. As addressed throughout sections of this staff report and as addressed within this finding, staff finds that the current proposal has demonstrated satisfaction with the criterion of this section.

- F. The proposal satisfies the goals and policies of the Comprehensive Plan which apply to the proposed use;

FINDING: The relevant sections of the Columbia County Comprehensive Plan are identified below. The analysis in this finding addresses how the proposal satisfies the goals and policies of each relevant section.

Part IV – Forest Lands

GOAL: To conserve forest lands for forest uses.

POLICIES: It shall be the policy of Columbia County to:

1. Conserve forest lands for forest uses, including:
 - A. The production of trees and the processing of forest products;

There has been no demonstrated impact to commercial timber production or processing thereof, in the approximately 45 years that the facility has been operating. As previously addressed herein and evidenced by Oregon State 2024 aerial imagery, the four (4) well pad locations have already been logged and cleared of merchantable timber. Access to the well pads and wells are from existing logging roads and once reforested, as timber in the vicinity of the well pads begins to regrow, removal of any trees will be only those necessary to maintain clear access, and the areas surrounding the well pads and associated facility to comply with any fire safety requirements applied by the Mist-Birkenfeld RFPD. Any tree removal necessary for compliance with those requirements will be coordinated with the surface property owners as the applicants always have, to ensure no conflicts arise between ongoing forest practices on the subject and adjacent properties. All properties within the Mist Facility have maintained their ongoing forest operations and none of the subject and surrounding properties have ceased forest management activities due to conflicts with the simultaneous site activities associated with the existing Mist Natural Gas Facility. For these reasons, staff finds that the proposal will meet Columbia County's goal of conserving forest lands for forest uses.

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Part X – Economy

PREFACE:

The problems and the opportunities found in the County are summarized here. This is not necessarily a complete list of findings.

Opportunities or Economic Advantages:

- producing natural gas wells and possibility of oil resources

GOALS:

1. To strengthen and diversify the economy of Columbia County and insure stable economic growth.
2. To utilize Columbia County's natural resources and advantages for expanding and diversifying the economic base.

POLICIES: It shall be a policy of the County to:

1. Encourage the creation of new and continuous employment opportunities
2. Encourage a stable and diversified economy.
4. Place the County in the position of being able to respond to market opportunities by providing technical assistance in locating available sites for development.
7. Protect identified aggregate resources until they are extracted, and plan for the reclamation and future productive uses of those sites.
11. Coordinate with public utility companies to insure energy supplies are available to areas programmed for development and redevelopment.

The Economy Goals of Columbia County are to strengthen and diversify it in ways that will ensure stable economic growth and to utilize the County's natural resources for expanding and diversifying its economic base. Within this section of the Comprehensive Plan, Natural Gas is identified as one of the four **Mineral and Aggregate Resources** of Columbia County, specifically the Mist Facility has been a significant contributor to the Columbia County Economy since discovery of the resource in 1979 and has allowed NWN to balance relatively constant pipeline gas supplies with widely fluctuating market requirements. The Mist Natural Gas Facility not only creates jobs but also provides a reliable, local energy source for this the citizens of Columbia County and the surrounding region. For these reasons, staff finds that the current proposal will strengthen and diversify the economy of Columbia County and ensure stable economic growth and will utilize this natural resource to expand and diversify the economic base of Columbia County.

Part XVI - Goal 5 - Open Space, Scenic and Historic Areas and Natural Resources

Article VII: ENERGY SOURCES GOALS AND POLICIES

GOAL: To protect deposits of energy materials in the County and prevent injury to surrounding lands and residents.

POLICIES: It is the policy of the County to:

1. Rely on DOGAMI to require that wells are drilled, cased, and plugged in such a manner as to ensure public safety.

The proposed wells are subject to the regulatory requirements of DOGAMI and their Oil, Gas and Geothermal Regulatory and Reclamation Program which are, in turn, designed to ensure that natural gas processing activities are conducted in ways that ensure conservation of the resource and protection of the environment. Through an imposed condition of approval, requiring the applicant to obtain all permits as required and

regulated by DOGAMI, the proposal can ensure that it meets Columbia County's goal to protect deposits of energy materials while preventing injury to surrounding lands and residents.

Part XVII - Air, Land, and Water Resources

GOAL: To maintain and improve land resources and the quality of the air and water of the County.

POLICIES: It shall be the policy of Columbia County to:

1. Work with the appropriate State and Federal agencies to insure that State and Federal water, air, and land resource quality standards are met.

The proposed processing use reviewed at the four (4) well pad sites are not in the immediate vicinity of any identified sensitive and/or protected water resources. The applicant states that the proposed use will have little to no effect on air and water quality because any approval issued by Columbia County will require compliance with the applicable federal and state environmental regulatory agency requirements, including, but not limited to the following agency permits that must be obtained, as identified on page 42 of EFSC Final Order:

- Oregon Department of Environmental Quality (DEQ) National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit 1200-C;
- DEQ Air Contaminant Discharge Modification Permit;
- DEQ 401 Water Quality Certification;
- DEQ Onsite Sewage Disposal Construction-Installation Permit;
- Oregon Department of Forestry (ODF) Notification of Operation;
- Oregon Department of State Land's (DSL) General Authorization;
- Oregon Department of Water Resources' (ODWR) groundwater permit; and
- Department of Geology and Mineral Industries (DOGAMI) Gas Well Drill Permits.

All of these agency requirements are designed to protect against destruction and mitigate fish, wildlife and human habitat conflicts, as well as to minimize water, land, and air pollution. The applicant identifies that when natural gas production ceases, all wells will be abandoned as approved by the DOGAMI, allowing all sites to be returned to their original states. Provided all federal, state and local regulatory permits are obtained as required by a condition of approval, staff finds that the proposal will meet Columbia County's goal to maintain and improve land resources and the quality of the air and water of Columbia County.

For the reasons addressed herein, and with applied conditions of approval, staff finds that the current proposal satisfies the identified relevant parts of the Columbia County Comprehensive Plan.

G. The proposal will not create any hazardous conditions.

FINDING: The EFSC Final Order assessed and addressed the potential hazards of the entirety of the Mist Facility, on a much larger scale that incorporates any hazards which may occur from the proposed processing at wellheads, the specific and *only* use reviewed by Columbia County within the current application. Additionally, the EFSC Final Order contains hazard mitigation requirements and conditions relevant to the identified potential hazards in the entire facility, including the well pad locations and supporting infrastructure reviewed within this current proposal. The potential hazards reviewed were: Site Seismic Hazards, including Landslide and Slope Stability per the review requirements of OAR 345-022-0020, potential impacts to soils and soil protection measures pursuant to OAR 345-022-0022, Wildfire Prevention and Risk Mitigation per OAR 345-022-0115, specifically, as found on page 180 of the EFSC Final Order: "*Under OAR 345-022-0115(1)(b), Council must find that the facility will be designed, constructed, and operated in compliance with a Wildfire Mitigation Plan (WMP) approved by Council.*"

Staff finds that the current proposal demonstrates feasibility for compliance with this section, and compliance can be assured through a condition of approval requiring the applicant to obtain all applicable federal, state and local agency permits, and to follow the associated regulatory compliance programs and reporting requirements thereof.

COMMENTS RECIEVED:

- Columbia County Building Official:

Has no objections to the proposal, provided the applicant submit a Site Development Permit and obtain any necessary building permits, including electrical, mechanical and plumbing permits.

- Oregon Department of Forestry (ODF):

ODF asks that Landowner/Operator meet legal requirements of notifying for Power Driven Machinery (PDM) within the Oregon Department of Forestry – Columbia Unit. Routine line maintenance using power driven machinery (year-round) can be noticed as “County Wide Activity”. Some projects are more of a fire risk, while others are low fire risk depending on the time of year, weather, topography, and flammable material near the site. A PDM is required year-round from ODF. Additionally, there are extra requirements during fire season.

The applicant can work with the Stewardship Forester for the area for potential consideration of fire equipment waivers.

- As of the date of this staff report, no comments have been received from the following agencies who were sent notice of the proposal:

Mist Birkenfeld Fire District / West Oregon Electric / Mist Birkenfeld CPAC / Oregon Department of Geology and Minerals (DOGAMI) / Oregon Department of Fish & Wildlife (ODFW)

- As of the date of this report, no comments have been received from neighboring property owners who received notice of the proposal, within the statutory 750’ notice area as required by ORS 215.416(11)(c)(A)(iii).

CONCLUSION and RECOMMENDATION TO PLANNING COMMISSION:

Based upon staff’s research and investigation of the subject and surrounding properties and the findings presented within this staff report, staff recommends the Planning Commission **APPROVE** this request for a conditional use to allow the processing of natural gas at four (4) new well pad locations on the subject properties, to facilitate continued efficient operation at the existing Mist Natural Gas Facility, subject to the following conditions:

RECOMMENDED CONDITIONS OF APPROVAL:

1. **EXPIRATION:** The applicant must secure a development construction permit from Land Development Services within four (4) years from the date of the final decision or this approval shall expire. If such permit has not been secured by that deadline, an extension may be granted by the Planning Manager if requested in writing with the appropriate fee before the expiration date [CCZO Section 509.7].
2. **PRIOR TO ISSUANCE OF BUILDING PERMITS AND/OR COMMENCING OPERATIONS:**
 - A. **FEDERAL AND STATE AGENCY PERMITS:** The applicant shall obtain all necessary permits from all federal and state agencies as identified in the EFSC Final Order.

- B. WAIVER OF REMONSTRANCE:** For all four (4) of the subject properties, waivers of remonstrance shall be signed by a duly authorized agent of the entity owning the property, and notarized, then recorded with the County Clerk. This waiver certifies that the owner will not remonstrate against or begin legal action or suit proceeding to cause or persuade the owner or operator of any farm or forest lands to modify the conduct of legal and accepted farm or forest operations. Applicants shall submit recorded copies to the Planning Division of Columbia County Land Development Services, prior to issuance of any building permits or commencement of the use.

3. PRIOR TO COMMENCING OPERATIONS:

- A. COLUMBIA COUNTY BUILDING PERMITS:** The applicant shall coordinate with the Columbia County Building Official to submit/apply for all building (electrical, structural, mechanical and plumbing) permits deemed applicable by the Building Official. Including but not limited to; Site Development Permits for earth movement (grade and fill) and any necessary electrical, mechanical and plumbing permits.

4. ONGOING CONDITIONS OF APPROVAL:

- A. ODF NOTICING FOR ACTIVITIES INCLUDING POWER DRIVEN MACHINERY (PDM):** At any time when Power Driven Machinery (PDM) activities will be conducted, the applicant shall coordinate with and provide notice to the Oregon Department of Forestry (ODF) – Columbia Unit to meet the legal requirements of notification of use of Power Driven Machinery (PDM).
- B. HEIGHT LIMITATION ON STRUCTURES:** Structures (wellheads / RTU Buildings) shall be no more than 50 feet or 2 ½ stories in height. Compliance with this requirement shall be verified at the time of submittal for building permits.
- C. WILDLIFE PROTECTION:** The owner/occupant of the resource parcel shall assume responsibility for protection from damage by wildlife.
- D. ROAD DEVELOPMENT:** Road development shall be conservative and minimized to only that which is necessary to support development of the use authorized through this review. The applicant shall utilize existing roads as much as possible.



March 16, 2026

Merissa A. Moeller
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D. 503.294.9455
merissa.moeller@stoel.com

VIA EMAIL

Columbia County Planning Commission
230 Strand Street
St. Helens, OR 97051
c/o Kate McGuire, Planning Division Manager

Re: Application CU 25-169 – Applicant’s First Open Record Period Submittal

Dear Chair Lynch and Honorable Planning Commissioners:

My office represents Northwest Natural Gas Company (“NW Natural”), the applicant in the above-referenced matter. As you know, NW Natural has submitted a Conditional Use Permit application (“Application”) to develop four well pads and twelve wells (“Project”) at the existing Mist Facility. County planning staff have carefully reviewed the Application, determined that it meets all applicable criteria, and recommended approval.

NW Natural’s previous submittals more than justify approval of the Application, as staff have already concluded. Nonetheless, this submittal provides brief supplemental responses to several issues raised in the Northwest Environmental Defense Center’s (“NEDC”) March 9, 2026 comments, received shortly before last week’s hearing.

1. GeoEngineers Memorandum (Exhibit U)¹

GeoEngineers, NW Natural’s professional geotechnical consultant, addresses NEDC’s allegations regarding seismic risks. Their analysis concludes that (1) seismic hazards pose a low risk of adverse impacts from the well pads and wells and (2) the Project’s siting, engineering, and design already incorporate measures that mitigate any potential seismic-related effects.

2. Letter from Austin Mann (Exhibit V)

Mr. Mann, whom you met at last week’s hearing, responds to NEDC’s assertions regarding potential gas leaks, wildfire risk, groundwater impacts, and methane emissions. As Mr. Mann explains, the well pads and wells were sited and engineered with these exact concerns in mind.

¹ For the Commission’s convenience, this exhibit lettering continues the lettering in NW Natural’s February 17, 2026 and March 2, 2026 supplemental submittals, which included Exhibits A through T.

Columbia County Planning Commission
March 16, 2026
Page 2

NW Natural employs multiple safety systems to prevent and mitigate leaks or containment failures, making the likelihood of adverse impacts to Columbia County very low.

3. Letter from Evenson Timberland Agency (Exhibit W)

NEDC broadly claims that the Project could adversely affect accepted forest practices. Evenson Timberland Agency, which manages commercial timberlands on which well pads are proposed as part of the Project, confirms that “the new well pads will have no impact on our operational costs or our ongoing forestry activities.”

4. Tetra Tech Memorandum (Exhibit X)

Tetra Tech, NW Natural’s professional wildlife biologists, respond to NEDC’s allegations concerning big game habitat. Their professional conclusion is that NW Natural accounted for big game considerations when siting the well pads, the Project will not meaningfully affect big game habitat or movement opportunities in the Project area, and there are no alternative locations for the well pads that would have meaningfully fewer impacts to big game habitat.

Thank you for your continued time, work, and attention to this Application.

Sincerely,



Merissa A. Moeller

Enclosures:

Exhibit U – GeoEngineers Memorandum
Exhibit V – Letter from Austin Mann
Exhibit W – Letter from Evenson Timberland Agency
Exhibit X – Tetra Tech Memorandum

Exhibit U – GeoEngineers Memorandum



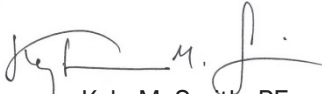
Memorandum

4000 Kruse Way Place, Building 3, Suite 200, Lake Oswego, Oregon 97035, Telephone: 503.624.9274

www.geoengineers.com

To: Columbia County Planning Commission

From: Brian C. Ranney, CEG


Kyle M. Smith, PE



Digitally signed by Brian C. Ranney
Date: 2026.03.16 11:25:03 -07'00'

Date: March 16, 2026

EXP 12-01-2026

Subject: Application CU 25-169: Response to NEDC Comments Regarding Seismic Risk

Introduction

The purpose of this memorandum is to address assertions made by the Northwest Environmental Defense Center (NEDC) regarding seismic risks in their letter to the Columbia County Planning Commission, regarding “CU- 25-169, Northwest Natural’s Proposal for an Expansion of the Mist Underground Natural Gas Storage Facility” dated March 9, 2026. The specific comments and GeoEngineers, Inc’s (GeoEngineers) responses are included below.

Executive Summary

NW Natural evaluated seismic risks for the proposed well pads and wells subject to CU 25-169 through a geologic hazard study and site-specific geotechnical reports. Seismic risks, including those related to landsliding, Cascadia Subduction Zone (CSZ) and Portland Hills Fault generated earthquakes, were considered when selecting the proposed well pad locations. Well pad infrastructure at each of the sites will be designed to account for earthquake ground motions (seismic accelerations) in accordance with the 2025 Oregon Structural Specialty Code. Therefore, in GeoEngineers’ professional opinion, there is a low risk of loss of containment due to seismic hazards, and the project has already incorporated measures into its project design to mitigate the losses that could result from seismic hazards.

Comment Responses

NEDC Comment (page 6, paragraph 2): “Specifically, the applicant has not adequately addressed the potential loss of containment risk that stems from operator error or earthquakes and the subsequent impact that loss will have on emissions, wildfires, and groundwater contamination, all of which would increase the cost and force significant change in forest practices surrounding the area.”

Response: GeoEngineers has evaluated earthquake risks for all four well pads as part of NW Natural's site-selection and permitting processes for the well pads. Earthquake risks were evaluated for the Newton, Stegosaur and Medicine IW well pads in Exhibit H of the Request for Amendment No. 13 for the Mist Underground Natural Gas Storage Site Certificate submitted to the Oregon Department of Energy (ODOE). At that time, the Oregon Department of Geology and Mineral Industries (DOGAMI) was consulted regarding seismic hazard evaluation methodology. Evidence of this consultation is provided in Exhibit H. Earthquake risks were also evaluated in supplemental site-specific geotechnical reports for the Newton (GeoEngineers 2026), Stegosaur (GeoEngineers 2026a), Medicine IW (GeoEngineers 2026b) and Medicine OM (GeoEngineers 2026c) well pads.

As discussed in Exhibit H, GeoEngineers concluded that there were no mapped Quaternary (potentially active) faults crossing the Newton, Stegosaur or Medicine IW well Pads. The Medicine OM well pad was not included in the Exhibit H report; however, a review of the USGS Quaternary Fault and Fold Database (USGS 2026) does not map potentially active faults at the Medicine OM Well Pad.

A ground shaking evaluation was conducted for the Exhibit H report and included site-specific Probabilistic Seismic Hazard Analyses for the 4,975-year (1 percent probability of exceedance [PE] in 50 years), 2,475-year (2 percent PE in 50 years) and 475-year (10 percent PE in 50 years) hazard levels. The seismic site class was assigned in accordance with methods outlined in Chapter 20 of American Society of Civil Engineers (ASCE) 7-16. GeoEngineers provided the mapped seismic acceleration parameters, per ASCE 7-16, for designing structures to resist earthquake ground motions for the Newton, Stegosaur and Medicine IW well pads. The dominant seismic hazard source for the seismic acceleration parameters at each of these return periods is a magnitude (M) 8.8 to 9.1 Cascadia Subduction Zone (CSZ) interface event, which contributes to 55 to 79 percent of the seismic hazard. The seismic hazard analysis inherently includes the potential for intraslab, crustal earthquakes and background seismicity associated with crustal fault sources of non-discrete origin.

It should also be emphasized that the well pad sites are located in mountainous terrain where subsurface conditions consist of soil formed from weathering of the parent rock formation, as well as the underlying intact rock. Liquefaction is not a risk in this type of mountainous terrain and therefore precludes the risk of lateral spreading. As discussed in Exhibit H, GeoEngineers concluded there was a low risk of liquefaction, lateral spreading, fault rupture and seismically induced landsliding at the Newton, Stegosaur, and Medicine IW well pads, and thus no specific mitigation for these earthquake hazards was indicated.

The individual geotechnical reports prepared for each well pad in 2026 provided updated and site-specific earthquake engineering evaluations and parameters specific to each site, in accordance with the 2025 Oregon Structural Specialty Code. These evaluations were based on site-specific evaluations and subsurface data. The evaluations concluded that no faults are mapped at the sites, the sites are not underlain by liquefiable soil and groundwater conditions, and there is a low risk of seismically induced landsliding at each site. Each geotechnical report provides the recommended site class and associated updated mapped seismic acceleration parameters per ASCE 7-22 in accordance with the 2024 International Building Code (IBC). Site class and updated mapped seismic acceleration parameters for well pad structures are based on shear wave velocity data from downhole seismic testing at the site or from nearby sites with similar soil conditions.

Given the lack of active faulting, non-liquefiable soil and groundwater conditions, and the low risk of seismically induced landsliding at each site, there is a low risk of faulting, liquefaction, lateral spreading or seismically induced landsliding occurring at the well pad sites. Provided structures are designed in accordance with the design parameters provided in the site-specific geotechnical reports, there is a low risk of potential loss of containment and subsequent impact to emissions, wildfires and groundwater contamination resulting from earthquake related risks that could impact the surrounding area.

NEDC Comment (page 6, paragraph 3): *“The applicant must address the risk of loss of containment as it relates to forest practices because the risk of such an event occurring is not insignificant. Loss of containment may stem from human error, which is ‘widely cited as an important cause of [underground gas storage] incidents. It might also be the result of an earthquake, which has the potential to damage [gas storage] surface infrastructure by direct fault displacement, shaking and ground deformation due to liquefaction and earthquake induced landsliding.”*

Response: See discussion above. There is a low risk of loss of containment increasing the cost of or forcing significant change in forest practices in the surrounding area due to fault displacement (no active faults are mapped at the sites), ground deformation due to liquefaction (liquefiable soils are not present beneath the sites), or earthquake induced landsliding (no existing landslides on steep slopes at the sites).

In terms of seismic ground shaking, the site-specific geotechnical reports referenced above provide seismic design parameters for structures associated with the proposed well pads. Provided surface infrastructure is designed considering the seismic design parameters recommended in the site-specific geotechnical reports, there is a low risk of ground shaking alone resulting in loss of containment from the structures associated with the well pads that would increase the cost and force significant change in forest practices in the surrounding area.

With respect to earthquake-induced landslides, slopes with existing landslides are most susceptible to seismically induced landsliding. Through Exhibit H and the site-specific geotechnical reports, NW Natural conducted a landslide hazard study and selected the well pad sites to avoid existing landslides.

NW Natural, through its consultant GeoEngineers, also provides periodic landslide hazard identification training for staff that routinely visit each well pad site at the broader Mist Facility. Those staff, as well as GeoEngineers, periodically monitor existing well pads for indications of land movement. The training is conducted by a State of Oregon Certified Engineering Geologist and includes a comprehensive review of landslide classification, causation, identification, monitoring, reporting and prevention. This training allows NW Natural staff that routinely visit the well pads to identify indications of landsliding and report indications of landsliding to the appropriate professionals so the risk to the well pads and wells can be quickly assessed, and risk response plans developed as necessary. Landslide hazard training for NW Natural staff responsible for patrolling the well pads was provided in 2023 and 2024 and will continue to be provided periodically in the future. Well pad landslide hazard monitoring includes visual observation to identify indications of landslide activity or landslide development and monitoring of inclinometer casings installed within select well pads. The Newton, Stegosaur, Medicine IW and Medicine OM well pads will be added to the landslide hazard identification training and well pad monitoring program.

NEDC Comment (page 6, paragraph 4 and page 7 paragraph 1): *“The Oregon Department of Geology and Mineral Industries (DOGAMI) notes that a Cascadia Subduction Zone Earthquake of a magnitude of 9.0 has a 10 to 14 percent chance of occurring within the next 50 years. Such an event would have a ‘major impact’ on Columbia County, including potential ‘large ground deformations’ that pose a threat to fuel facilities.³⁰ A major earthquake might also occur along the Portland Hills Fault, with a magnitude 6.8 earthquake there resulting in similar damage to Columbia County as a Cascadia Subduction Zone 9.0 magnitude earthquake. DOGAMI classifies earthquake risks in Oregon as having a ‘moderate’ probability but an overall risk score of ‘very high’. While the likelihood of earthquakes along these two faults might be called into question, the uncertainty of earthquake modeling should urge more caution and rigorous examination by the applicant and the County.*

* * * * *

³⁰ *Diane Moug et al., Critical Energy Infrastructure Hub: Seismic Hazard Mitigation Study of Fuel Facilities, 8 (Dec. 2021).”*

Response: The source identified in footnote 30 of NEDC’s comment letter concerns the Critical Energy Infrastructure Hub in Portland, which consists of above-ground storage tanks along the Columbia River, largely on artificially built land less than ½ mile from the Portland Hills Fault—not naturally occurring reservoirs more than 1,000 feet underground in the Coast Range in Columbia County. The “large ground deformations” alluded to in that footnote and that NEDC alleges “pose a threat to fuel facilities” during a seismic event are only likely to occur in lowlands in Columbia County (e.g., the Columbia River or other river valleys) due to liquefaction and lateral spreading, or active fault displacement (where Quaternary faults are mapped). These geographical and geological features are not risks at the well pad sites subject to NW Natural’s application because the well pad sites are located in mountainous terrain where subsurface conditions consist of soil formed from weathering of the parent rock formation, as well as the underlying intact rock. Liquefaction is not a risk in this type of mountainous terrain and therefore precludes the risk of lateral spreading. Lastly, mapped Quaternary Faults, such as the Portland Hills fault, are not mapped near the proposed well pad sites. The nearest potentially active fault is over 17 miles away and the Portland Hills fault is located over 33 miles away.

Further, both Exhibit H and the site-specific geotechnical reports evaluated and addressed seismic risks associated with a Cascadia Subduction Zone (“CSZ”) earthquake and an earthquake occurring along the Portland Hills Fault. These evaluations are standard when generating the mapped seismic acceleration parameters described earlier in accordance with ASCE 7-22. Based on the conclusions of Exhibit H and the site-specific geotechnical reports, the only seismic-related risk associated with either of these earthquake hazard sources is the seismic acceleration parameters that account for ground shaking and effects on structures. As documented in the site-specific geotechnical reports, seismic shaking from both the CSZ and Portland Hills Fault sources are included in the procedures used to estimate seismic acceleration design parameters for each well pad site, which is standard when performing seismic siting and design analyses for these types of wells.

The recommended seismic design parameters will be utilized by NW Natural and/or project structural engineers to design well-related structures to withstand anticipated seismic shaking forces. Thus, NW Natural (1) evaluated seismic risks associated with a CSZ or Portland Hills Fault earthquake when selecting

the well pad locations and designing the wells, and (2) NW Natural will implement earthquake-risk reduction measures into its engineering, design, and construction of the well pads and wells.

References

American Society of Civil Engineers (ASCE) and Structural Engineering Institute (SEI) 2016. ASCE/SEI 7-16 Minimum Design Loads and Associated Criteria for Buildings and Other Structures.

American Society of Civil Engineers (ASCE) and Structural Engineering Institute (SEI) 2022. ASCE/SEI 7-22 Minimum Design Loads and Associated Criteria for Buildings and Other Structures.

International Code Council, 2024. International Building Code.

Oregon Department of Geology and Mineral Industries (DOGAMI) 2023. Email from Jason D. McClaughry, R.G. regarding evidence of consultation with DOGAMI – NW Natural's Mist Resiliency Project. September 28, 2023

GeoEngineers 2026. Geotechnical Engineering Report, Newton Well Pad, Columbia County Oregon. Dated February 9, 2026.

GeoEngineers 2026a. Geotechnical Engineering Report, Stegosaur Well Pad, Columbia County Oregon. Dated February 9, 2026.

GeoEngineers 2026b. Geotechnical Engineering Report, Medicine IW Well Pad, Columbia County Oregon. Dated February 9, 2026.

GeoEngineers 2026c. Geotechnical Engineering Report, Medicine OM Well Pad, Columbia County Oregon. Dated February 9, 2026.

O'Rourke, T.D. and M.C. Palmer. 1996. Earthquake Performance of Gas Transmission Pipelines, Earthquake Spectra Vol. 12, No. 3, pp. 493-527.

State of Oregon Building Codes Division 2025. Oregon Structural Specialty Code.

United States Geological Survey (USGS) 2026. Quaternary Fault and Fold Database of the United States. Accessed on March 10, 2026. <https://www.usgs.gov/programs/earthquake-hazards/faults>

One electronic copy submitted

Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Exhibit V – Letter from Austin Mann

250 SW Taylor Street
Portland, OR 97204

503-226-4211
nwnatural.com

VIA EMAIL

Columbia County Planning Commission
230 Strand St.
St. Helens, OR 97051

March 16, 2026

Re: Letter from Austin Mann for CU 25-169

Dear Honorable Planning Commissioners:

My name is Austin Mann and I am an engineering manager at Northwest Natural Gas Company (“NW Natural”). In this role, I am responsible for the oversight of land management, integrity management, operations, and monitoring of the reservoirs and wells at NW Natural’s Mist Underground Gas Storage Facility (“Mist Facility”). As part of my role, I helped identify and evaluate potential sites for the four well pads and twelve wells proposed in NW Natural’s Conditional Use Permit application CU 25-169 (the “Project”).

The purpose of this letter is to explain how the underground reservoirs and associated wells at the Mist Facility operate from a safety standpoint, and to provide additional context for why NW Natural selected these specific well and well pad locations. I also address several specific allegations made by the Northwest Environmental Defense Center (“NEDC”) in its March 9, 2026 comment letter.

1. Nature of Existing Underground Reservoirs

As further context for the Project, it is important to understand the nature of the existing underground reservoirs at the Mist Facility.

The reservoirs are deep, naturally occurring sandstone formations that were deposited tens of millions of years ago through geological processes. Located between approximately 1,200 and 2,700 feet below the ground surface, they are essentially confined pockets of sandstone that held natural gas long before NW Natural developed the Mist Facility. NW Natural now proposes to drill wells into certain of these reservoirs—which have safely contained gas for millions of years—in order to inject into, and withdraw gas from, these reservoirs as part of NW Natural’s broader operation of the Mist Facility.

The geology of these reservoirs provides inherent safety features that make the risk of underground gas migration extremely low. The reservoirs are comprised of a sandstone that is a well-sorted, fine-grained, and

loosely packed rock composed of sand-sized grains. They have high porosity and high permeability,¹ which together enable gas to be injected and withdrawn from these reservoirs without altering the sandstone. The sandstone is overlain by a thick layer of claystone and mudstone, which acts as a natural seal, preventing gas from moving upward toward the surface, while structural traps prevent lateral movement outside the reservoir. NW Natural's three-dimensional subsurface imaging indicates that these reservoirs² are like the other reservoirs that NW Natural has safely operated as part of its Mist Facility for decades without gas escaping.

2. Well Pad Site Selection

The locations of the new wells, and hence the well pads from which they are drilled, must align with the locations of the preexisting underground reservoirs, so there are practical limits on where the well pads and wells can feasibly be located. Within those locational constraints, NW Natural carefully evaluated and selected the specific well pad locations now proposed to maximize well integrity and operational efficiency.

NW Natural used detailed three-dimensional subsurface imaging to first identify the optimal location within the reservoirs for each well. We then designed well paths back to the surface and determined the potential locations for the wellhead on the surface while attempting to minimize the angle of said path. Our goal is to drill wells for a given reservoir from a common surface location, thereby minimizing disturbance to the surrounding area and simplifying our monitoring operations.

Seismic risk and ground stability were also key considerations in well pad site selection. Areas that have experienced landslides in the past are more prone to future movement, so we consciously avoided those areas. Professional geotechnical engineers evaluated these conditions, and their assessments directly informed where the well pads and wells could be safely located.

Because minimizing disturbance to the surrounding area was also a goal, we also evaluated whether potential well pad locations could connect efficiently to existing roads and pipelines so as to avoid constructing unnecessary new infrastructure. We also avoided environmentally sensitive areas such as streams and wetlands—both to protect natural resources and to minimize any possible risk of environmental contamination in the unlikely event of a well leak. We located all new well pads in areas that are already cleared of timber and relatively flat, which further reduces overall construction impacts. These gravel well pads are maintained free of vegetation and serve as potential fire breaks within the forested area surrounding them.

¹ Porosity refers to the voids – or pore space – between the sand grains of the subsurface sandstone, and permeability refers to the physical connectivity of those voids. The pore space between the sand grains at the Mist Facility is tiny, measured in microns.

² That subsurface imaging indicates that the reservoirs to be utilized as part of the Project are located in the S/2SW/4 of Section 27, the S/2SE/4 of Section 28, the N/2 of Sections 33 and 34, the SE/4 of Section 34, and the S/2 of Section 35, all of which are zoned PF-80.

3. Preventing Leaks and Emissions

In its comment letter, NEDC suggested that these new wells could result in methane emissions or other types of gas leaks. As a practical matter, emissions and leaks are extremely unlikely due to the design of these wells and associated infrastructure. Gas leaks can pose risks to workers and the environment and are subject to strict reporting and regulatory oversight, so safety and regulatory requirements are both strong incentives for NW Natural to develop infrastructure that prevents leaks. In addition, NW Natural is handling this gas on behalf of its customers and is contractually obligated to deliver it to them.

4. Well Design and Safety Systems

We design all our injection/withdrawal (“I/W”) and pressure monitoring (“KI”) wells, which are the two types of wells that penetrate the reservoirs, with multiple layers of protection.³ Each I/W and KI well includes at least two independent barriers to prevent gas from escaping: (1) a cemented steel casing system to prevent gas from flowing upwards between the surrounding rock and the steel casing; and (2) sealing devices known as “packers” between the steel casing and the interior tubing that prevents gas from flowing upwards between the steel casing and the tubing. As a result, gas can only reach the surface through the tubing, and each I/W and KI wellhead has its own additional leak protection devices that are described below. In contrast, many older facilities—including Aliso Canyon and Rager Mountain referenced by NEDC—converted old gas production wells and were operated without that second barrier, which significantly increases the risk of severe corrosion (the cause of the well control incidents at both of those facilities) and leaks. Oregon has long required a dual barrier design, and those regulatory requirements were developed in collaboration with NW Natural to enhance well integrity and safety.

In addition to these subsurface barriers, each I/W and KI wellhead is equipped with multiple isolation valves at the surface. NW Natural previously shared an image of a representative wellhead in Attachment 1 to Dave Weber’s testimony submitted on February 17, 2026. That image shows the two handle wheels on the wellhead, each of which operates an independent isolation valve. If one valve were to fail, NW Natural personnel can still stop gas flow by closing the other. For situations where personnel cannot safely access the wellhead, we also install emergency shutdown controls on the wellhead that can be closed remotely from Miller Station.

All I/W and KI wells at Mist were designed with surface casing installed to a depth below the lowest known source of fresh water. This steel casing is cemented into place and protects fresh waters from contamination as well as providing structural support for the wellbore and wellhead.

Finally, each well is equipped with a fusible plug—a heat sensitive safety device that melts at approximately 212 degrees Fahrenheit. If activated, it automatically triggers the emergency shutdown valve, providing an additional layer of protection without requiring human intervention in the unlikely event that an above-ground fire prevents personnel from accessing the well pad and overtakes the wellhead.

³ KI wells track internal reservoir behavior, preventing over- and under-pressurization of reservoirs.

In addition to the I/W and KI wells that penetrate the reservoirs, NW Natural operates observation and monitoring (“O/M”) wells around the perimeter of the reservoirs. Because these O/M wells fall outside the reservoir, we expect their wellbores to be free of injected gas. Their purpose is to verify that injected gas remains within the reservoir and to alert NW Natural in the unlikely event that injected gas ever moves outside the reservoir, prompting immediate investigation and response (e.g., withdrawing gas from the reservoir in a controlled manner). In the extremely unlikely event that injected gas is ever detected in an O/M well, that gas will be contained within the well’s cemented steel casing so it does not leak.

5. Monitoring Protocols

Once NW Natural completes construction of a well, we conduct regular inspections to ensure its continued safety and integrity. Professional geotechnical engineers train our field operators to recognize signs of ground movement or other seismic activity, and our operators visit each well pad at least once a week to identify any early warning indicators of possible seismic risks. If an operator identifies a potential issue, we can quickly close any impacted well’s valves to isolate the reservoir from the surface, or—if necessary—withdrawing gas from the reservoir in a controlled manner before the condition poses a safety concern.

During these weekly visits, operators also collect well pressure data. Each well is equipped with a continuous reading pressure sensor, and any abnormal pressure trend triggers immediate investigation.

6. Incidents at Other Facilities Are Distinct

The prior well incidents at other facilities cited by NEDC, including the incidents at Aliso Canyon and Rager Mountain, involved facilities that converted production wells into I/W wells 50+ years ago, often in residential areas, and without the modern design features required in Oregon. The incident at Moss Bluff occurred during the construction and development of a salt cavern to be used for gas storage.

In contrast, NW Natural designs its systems to modern well safety standards, incorporating redundant safety barriers. None of the Project’s I/W and KI wells are converted production wells; they were all designed specifically as I/W and KI wells. The new well pads and wells before the Planning Commission will also be located in a remote area, not in backyards or neighborhoods, and away from sensitive features. Plus, NW Natural will not be constructing a cavern in a salt formation but rather will be utilizing existing underground reservoirs that safely contained gas for millions of years. Thus, the events associated with those other facilities are extremely unlikely to occur at the Mist Facility and not remotely representative of NW Natural’s current proposal.

7. Conclusion

In summary, the Project is grounded in naturally secure geologic reservoirs, employed careful and conservative site selection, and involves multiple engineered layers of safety protection plus continuous monitoring. Together, these measures minimize risk and safeguard public safety, workers, and the environment, making the risk of gas leaks, fire, or other containment incidents that could impact Columbia County extremely low.

250 SW Taylor Street
Portland, OR 97204

503-226-4211
nwnatural.com

Thank you for your attention and careful consideration.

Sincerely,



Austin Mann
Engineering Manager – Underground Gas Storage
NW Natural

Exhibit W – Letter from Evenson Timberland Agency

Evenson Timberland Agency
PO Box 127
Clatskanie, Oregon 97016

Columbia County Planning Commission
230 Strand St.
St. Helens, OR 97051

March 12, 2026

Re: CU 25-169 – Project Impacts on Adjacent or Nearby Forest Practices

Dear Honorable Planning Commissioners:

On behalf of Evenson Timberland Agency, Inc. ("Evenson"), I write regarding Northwest Natural's ("NW Natural") Conditional Use Permit application CU 25-169, and to respond to the March 9, 2026 letter from Northwest Environmental Defense Center ("NEDC").

NEDC suggests that NW Natural's proposed well pads could significantly change or significantly increase the cost of accepted forest practices near the Mist Facility due to potential containment failures. NEDC's primary concerns appear to be speculative fears about operator error or the risk of earthquakes.

Based on decades of experience managing timberlands adjacent to the Mist Facility, we disagree. Evenson manages commercial timberlands on Tax Lots 4500 and 5000 (where the Mist Facility currently exists and where new well pads will be located), as well as many other acres nearby. The Mist Facility has operated since the 1980s without affecting our forestry operations, and NW Natural has always been a responsible operator. We have never experienced issues related to operator error that interfered with our ability to perform our forestry operations. Meanwhile, we understand that NW Natural has already addressed earthquake risks in its well design.

The new well pads will be located on areas already cleared of timber and designated for this project. As a result, the new well pads will have no impact on our operational costs or our ongoing forestry activities. In our experience, nothing about the proposed project will interfere with Evenson's ability to continue safe, economical, and effective forest operations near the Mist Facility.

If the Planning Commission approves NW Natural's application, Evenson will continue its normal forestry operations near the Mist Facility, just as we always have.

Sincerely,



David Evenson, President

Exhibit X – Tetra Tech Memorandum



MEMO

To:	Columbia County Planning Commission
From:	Susan Hurley, Tetra Tech
Date:	March 16, 2026
Subject:	Application CU 25-169: Supplemental Big Game Habitat Analysis for Mist Well Pads

This memo provides supplemental information regarding big game habitat conditions at the proposed well pad locations described in Conditional Use Permit application CU 25-169 submitted by NW Natural (NWN) to Columbia County. The application identifies four well pad locations that are described further below (Table 1; Figure 1). This memo incorporates information presented in NWN's Request for the 13th Amendment to the Mist Underground Natural Gas Storage Facility that was approved by the Oregon Energy Facility Siting Council (EFSC) in the Final Order dated January 17, 2025 (EFSC 2025).

Table 1. Proposed Well Pads

Well Pad	New or Existing	Approximate Acreage	Included in Exhibit P Analysis Area
Medicine I/W	New	1.5	Yes
Medicine OM	New	0.5	No
Newton	New	2.0	Yes
Stegosaur	Existing (to be expanded)	2.0	Yes

Development of the four proposed well pads would permanently affect approximately 6 acres of mapped Oregon Department Fish and Wildlife Big Game Year-Round Major Habitat, of which 5.5 acres were previously evaluated as part of EFSC's approval of Request for Amendment 13. Given the small footprint of the proposed pads and their location within actively managed commercial timberlands with extensive surrounding habitat, the development of the well pads is not expected to measurably affect big game habitat availability or movement in the surrounding landscape.

Habitat Categorization and Special Status Species

Three of the well pads (Medicine I/W, Newton, and Stegosaur) occur within the Analysis Area described and evaluated in Exhibit P¹ (NWN 2024). To prepare Exhibit P, field surveys were conducted within the Analysis Area, including general biological surveys, botanical surveys, and habitat categorization consistent with the Oregon Department of Fish and Wildlife (ODFW) Habitat Mitigation Policy. During those surveys, biologists documented any special status species, including big game, that were seen, and habitats were categorized according to ODFW's Habitat Mitigation Policy. Surveys and habitat categorization are summarized in Sections 2 and 3 of NWN's Exhibit P. Potential impacts to state sensitive species are summarized in Section 6.2 of Exhibit P.

The Medicine OM well pad is located outside the Analysis Area described and evaluated in Exhibit P. Accordingly, in connection with application CU 25-169, Tetra Tech conducted a desktop review of habitat and species occurrence records for the Medicine OM well pad area using aerial photography, previous field survey records, and Oregon Biodiversity Information Center data (ORBIC 2023).

Habitat surveys indicated that the proposed well pad areas consist primarily of Westside Lowlands Conifer-Hardwood Forest classified as Category 4 active commercial timberlands. The proposed well pads also fall within ODFW's mapped Big Game Year-Round Major Habitat, which ODFW generally considers Category 3 habitat. Tetra Tech's desktop review indicates that the Medicine OM well pad occurs within the same mapped habitat designations. All proposed well pads are located outside the documented range of Columbian white-tailed deer (*Odocoileus virginianus leucurus*; NWN 2024).

Based on the proposed footprint of the four well pads, approximately 6 acres of Category 3 (Big Game Year-Round Major) habitat would be permanently impacted by development of the well pads.

Habitat Conflict and Value

The location of the well pads is largely dictated by the need to provide access to the existing underground reservoirs at the Mist Facility. Although minor adjustments within the general area may be feasible, the well pads are proposed within a homogeneous landscape of working timberlands that is a patchwork of stands of varying age. The proposed well pads are located adjacent to existing roads in areas that are currently cleared and therefore provide limited value as big game foraging habitat. The proposed well pads would not provide any barrier to movement or use of adjacent habitat. Additionally, as noted in the Columbia County Planning Commission staff report dated March 2, 2026, the total development area of approximately 6 acres is less than one percent of the total land area of the subject properties. While big

¹ May be accessed at: [oregon.gov/energy/facilities-safety/facilities/Facility Exhibits/MST/2024-08-09-MSTAMD13-RFA13-Exhibit-P-Fish-and-Wildlife.pdf](https://oregon.gov/energy/facilities-safety/facilities/Facility%20Exhibits/MST/2024-08-09-MSTAMD13-RFA13-Exhibit-P-Fish-and-Wildlife.pdf)

game would not be able to use the estimated 6 acres in the future, there is significant habitat available both in the remainder of the subject properties and the surrounding landscape as illustrated on Figure 1. The localized habitat changes expected to occur as a result of this application would not be expected to measurably affect big game use of the surrounding landscape. The surrounding landscape consists largely of actively managed commercial timberlands characterized by periodic harvest and regeneration cycles. As a result, wildlife species occurring in the area are adapted to dynamic habitat conditions and regularly move among forest stands of varying age and structure.

Because well pad locations at the Mist Facility must correspond to specific portions of the underground reservoirs, they cannot be freely located across the surrounding landscape. Within those operational constraints, the proposed well pads occur within Category 3 Big Game Year-Round Habitat that is broadly distributed throughout the surrounding area and consists largely of managed commercial timberlands. Because similar habitat conditions occur across much of the surrounding landscape, relocating the well pads within the general vicinity would not be expected to meaningfully reduce impacts to big game habitat.

The Northwest Environmental Defense Center (NEDC) noted that the proposed well pads occur within designated Priority Wildlife Connectivity Areas (PWCAs). PWCAs are intended to identify areas that may facilitate wildlife movement across the landscape. As stated in the source cited by NEDC in footnote 55 to their March 6 comments, PWCAs are “an informational tool” (OCS 2026). PWCAs “are not regulatory and do not dictate land use for any public or private entity” (OCS 2026).

The PWCA analysis incorporates habitat connectivity modeling for 54 species across multiple taxa, including Roosevelt elk and black-tailed deer. Compared to the PWCA mapping, the ODFW West Side Big Game Year-Round Habitat Overlay and the County’s Big Game Habitat Overlay identify a much larger area as important to big game, covering much of the County. While the PWCA analysis provides useful regional-scale information regarding landscape connectivity, it does not necessarily identify individual project areas as high-value habitat, particularly at the scale of a single acre.

Given the limited footprint of the proposed well pads and the presence of extensive contiguous forest habitat in the surrounding area, the project would not be expected to meaningfully reduce landscape connectivity for wildlife movement. In summary, the proposed well pads would affect a small area of previously disturbed or managed timberland within a landscape that continues to provide extensive big game habitat and movement opportunities.

References

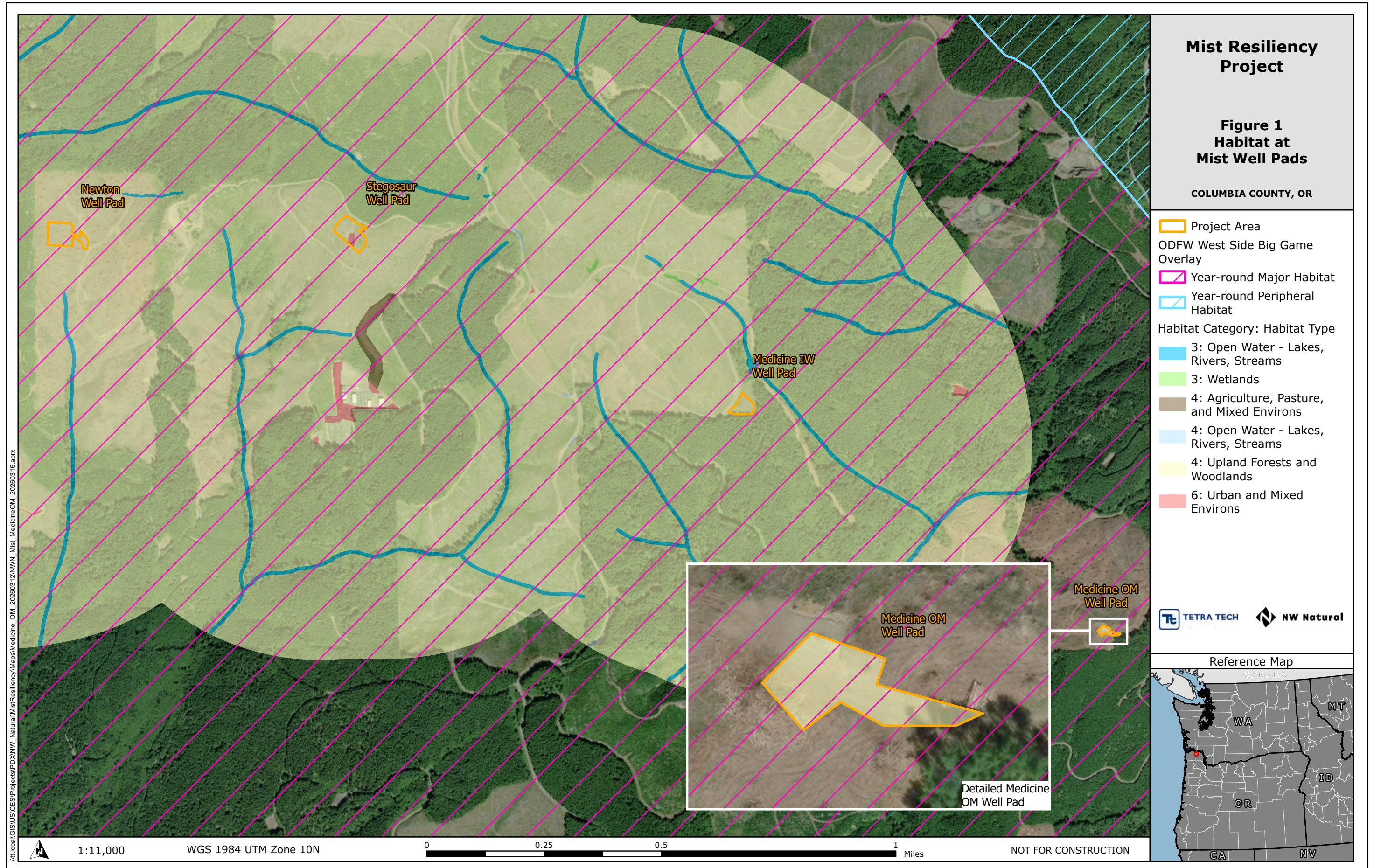
- EFSC (Oregon Energy Facility Siting Council). 2025. Final Order Denying Requests for Contested Case and Approving Request For Amendment 13. [2025-01-17-MSTAMD13-Final-Order-w-Site-Cert-and-Attachments.pdf](#)
- NWN (Northwest Natural Gas). 2024. Mist Resiliency Project. Exhibit P Fish and Wildlife Habitats and Species. Request for Amendment 13 for the Mist Natural Gas Storage Facility. <https://www.oregon.gov/energy/facilities->

safety/facilities/Pages/MST.aspx?Paged=TRUE&p_Facility_x0020_Code=MST&p_Date=20070611%2007%3a00%3a00&p_ID=1249&PageFirstRow=31&&View={50A4A924-24E3-4105-9E0D-3ACFA70B13E9}

ORBIC (Oregon Biodiversity Information Center). 2023. GIS data provided in response to data request for GIS data pertaining to listed, endangered, threatened, or special concern species occurring within Clatsop, Columbia, Tillamook, and Washington counties in Oregon. Oregon Biodiversity Information Center, Portland, Oregon.

OCS (Oregon Conservation Strategy). 2026. Priority Wildlife Connectivity Areas (PWCAs). <https://www.oregonconservationstrategy.org/success-story/priority-wildlife-connectivity-areas-pwcas/>. Accessed March 2026.

USFWS (U.S. Fish and Wildlife Service). 2025. 5-year review. Columbia white-tailed deer. Columbia River DPS. https://ecosphere-documents-production-public.s3.amazonaws.com/sams/public_docs/species_nonpublish/31494.pdf





March 23, 2026

Merissa A. Moeller
760 SW Ninth Avenue, Suite 3000
Portland, OR 97205
D. 503.294.9455
merissa.moeller@stoel.com

VIA EMAIL

Columbia County Planning Commission
230 Strand Street
St. Helens, OR 97051

Re: Application CU 25-169 – Applicant’s Second Open Record Period Submittal

Dear Chair Lynch and Honorable Planning Commissioners:

This submittal provides Northwest Natural Gas Company’s (“NW Natural”) supplemental responses to issues raised in the Northwest Environmental Defense Center’s (“NEDC”) March 16, 2026 comments in the above-referenced Application.

1. Road Proposal

NEDC incorrectly asserts that the March 2, 2026 staff report (“Staff Report”) would impermissibly grant NW Natural “ongoing, open authority to construct roads.” To the contrary, the Staff Report concludes that “road access to the well pad locations to be developed with the facilities reviewed herein, are established and no new road accesses are necessary or proposed.” Staff Report at 11.

To be clear, NW Natural has not requested and is not proposing approval to construct new roads. If the Commission believes additional clarity is needed on this point, NW Natural would support eliminating staff’s proposed Condition of Approval 4.D from the Commission’s decision.¹

2. Emergency Fire Access (Exhibit Y)²

NEDC incorrectly asserts that the Staff Report does not adequately analyze “increase[d]” fire risks from the well pads proposed as part of the Project before the County, or the sufficiency of emergency access routes to the well pads. To the contrary, fire risks have already been addressed

¹ Proposed Condition of Approval 4.D reads: “ROAD DEVELOPMENT: Road development shall be conservative and minimized to only that which is necessary to support development of the use authorized through this review. The applicant shall utilize existing roads as much as possible.” NW Natural does not agree that this condition is legally impermissible.

² For the Commission’s convenience, this exhibit lettering continues the lettering in NW Natural’s February 17, 2026, March 2, 2026, and March 16, 2026 supplemental submittals, which included Exhibits A through X.

March 23, 2026
Page 2

at length in both the Staff Report (*e.g.*, pages 9, 10, 13, 14, and 21) and NW Natural's prior submittals (*e.g.*, Applicant's Exhibits J, K, and V).

Nevertheless, Exhibit Y to this submittal is a supplemental letter from Mist-Birkenfeld Rural Fire Protection District ("RFPD") Fire Chief Joe Kaczinski confirming that:

- A. there is existing road access to all four well pads proposed in the Application;
- B. the access roads will allow RFPD fire crews and emergency response vehicles to reach each well pad in the event of a fire or other emergency; and
- C. in Chief Kaczinski's professional opinion, the well pads and wells will not significantly increase fire risks.

3. Local and Regional Benefits of Project (Exhibit Z)

Finally, NEDC relies on isolated excerpts from NW Natural's 2025 Integrated Resource Plan ("IRP") to assert that the Project is not "necessary for local or regional energy needs." This assertion is not legally relevant to the Commission's decision. Moreover, it is wrong.

To correct NEDC's assertion, Exhibit Z to this submittal is a supplemental letter from David Weber, Vice President of Gas Supply and Utility Support Services at NW Natural. Mr. Weber attended and testified at the March 9 hearing and previously submitted written testimony explaining the processing use proposed at the well pads (Applicant's Exhibit I). As further discussed in Mr. Weber's letter, the Project is a vital part of the regional energy supply, which will strengthen seasonal balancing, enhance reliability and resilience, and support energy needs in Columbia County and across Oregon and the Pacific Northwest.

Thank you for your consideration.

Sincerely,



Merissa A. Moeller

cc: Kate McGuire, Planning Director

Enclosures:

Exhibit Y – Supplemental Letter from Mist-Birkenfeld RFPD Chief Kaczinski
Exhibit Z – Supplemental Letter from David Weber
Attachment 1 – Excerpts from Stakeholder Presentation

Exhibit Y – Supplemental Letter from Mist-Birkenfeld RFPD Chief Kaczinski



BOOK _____ PAGE _____
Mist-Birkenfeld Rural Fire Protection District

12525 Highway 202, Mist, OR 97016
Office- 503-755-2710

March 18, 2026

Board Members

President

Pamela Owen

::

Vice President

Paul Ramsey

::

Treasurer

Diana Keeney

::

Secretary

Rene Armstrong

::

Member

Larry Boxman

::

Fire Chief

Joe Kaczinski

Columbia County Planning Commission
230 Strand St.
St. Helens, OR 97051

RE: CU 25-169 Planning Application from
Joe Kaczinski, Mist-Birkenfeld RFPD Fire Chief

Dear Honorable Planning Commissioners:

I understand that Northwest Natural Gas Company ("NW Natural") is proposing to develop four well pads as part of Columbia County Planning Application No. CU 25-169. I have reviewed the existing access roads serving all four well pad locations. Based on my review, there is existing road access to all four well pads, and the access roads will allow Mist-Birkenfeld RFPD fire crews and emergency response vehicles to reach each well pad in the event of a fire or other emergency. Additionally, in my professional opinion, the well pads and wells will not significantly increase fire risks.

Please feel free to contact our office if you have questions or concerns.

Sincerely,

Joe Kaczinski
Fire Chief
Mist-Birkenfeld RFPD
503-755-2710
joek@mistbirkenfeldrfd.org

Exhibit Z – Supplemental Letter from David Weber

250 SW Taylor Street
Portland, OR 97204503-226-4211
nwnatural.com**March 23, 2026****VIA EMAIL**Columbia County Planning Commission
230 Strand St.
St. Helens, OR 97051**Re: Supplemental Letter from David Weber for CU 25-169**

Dear Honorable Planning Commissioners:

My name is David Weber, and I am the Vice President of Gas Supply and Utility Support Services at Northwest Natural Gas Company (“NW Natural”). I attended the public hearing on March 9, 2026, where NW Natural’s President Kim Rush spoke to the local and regional benefits of NW Natural’s Conditional Use Permit application (CU 25-169) to construct and operate twelve wells on four well pads (the “Project”) at the existing Mist Facility. I write to further clarify those benefits and correct several misleading assertions in the Northwest Environmental Defense Center’s (“NEDC”) March 16, 2026 comment letter.

As Ms. Rush explained at the March 9 hearing and NW Natural has explained in its other submittals to the County, the Mist Facility is an essential part of the Northwest’s energy supply, security, and resiliency. While our region works toward decarbonization objectives, natural gas remains a vital energy source that currently has no replacement. As demonstrated during the January 2024 severe winter storm, the Mist Facility is indispensable to regional energy reliability. During that five-day event, the Mist Facility delivered a record volume of gas—providing reliable heat and power for the equivalent of 630,000 residential customers who would otherwise have been without service.¹ The Mist Facility also helps moderate energy costs for Oregonians and other customers throughout the Northwest. To put this benefit in concrete terms, replacing Mist’s energy storage capability with a lithium-ion battery would cost around three trillion dollars at today’s prices. NW Natural has presented these and other benefits from the Mist Facility to key stakeholders, and excerpts from that presentation are included as Attachment 1.

NEDC’s March 16 comment relies on a narrow and incorrect reading of NW Natural’s Integrated Resource Plan (“IRP”) to suggest that the Project lacks local or regional purpose because it will not serve “core” utility customers. As context, the Mist Facility serves both “core” NW Natural customers—utility customers who receive gas directly from NW Natural to heat and power their homes and businesses—and “non-core” customers—other commercial and industrial

¹ A recent Pacific Northwest Utilities Conference Committee Report further explains that the regional electric system cannot address current winter peak energy demands, even *with* continued reliance on coal and natural gas—much less address the extensive additional demands forecasted from adding gas space heating and new data centers in the region. See <https://www.pnucc.org/wp-content/uploads/2024-PNUCC-Northwest-Regional-Forecast-final.pdf>.

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nwnatural.com

entities that purchase gas from NW Natural to generate power. For example, the Project will directly support Portland General Electric (“PGE”), a non-core customer that relies on gas from the North Mist Compressor Station to generate electricity at Port Westward—a clear local benefit. The IRP addresses only core customer demand and does not govern, assess, or limit NW Natural’s service to non-core customers like PGE or others in Oregon or the broader region. NEDC’s reliance on isolated IRP excerpts therefore has no bearing on the purpose or necessity of this Project.

Moreover, the Mist Facility operates as a single, interconnected system, and NEDC’s narrow focus on core versus non-core customers is an oversimplification that ignores these operational realities. As one example, the Project before the County will enable NW Natural to draw from three additional reservoirs during maintenance or unexpected outages elsewhere at the Mist Facility. This added operational flexibility enhances resilience and ensures continuity of service during periods of stress on the regional energy grid. The fact that the Project will not be used *exclusively* to meet core customer demand does not mean the Project is *unnecessary* to meet local or regional energy needs.

As reflected in our prior submittals and testimony, the Project will strengthen seasonal balancing, enhance reliability and resilience, and support regional energy needs across Oregon and the Pacific Northwest. Thank you for your consideration.

Sincerely,



David Weber
Vice President of Gas Supply and Utility Support Services
Northwest Natural Gas Company

Enclosures:

Attachment 1 – Excerpts from Stakeholder Presentation

Attachment 1 – Excerpts from Stakeholder Presentation

Mist Underground Natural Gas Storage Resiliency Project



Mist Storage in service for 35 years

BOOK _____ PAGE _____



1979

Mist gas field discovered about 60 miles northwest of Portland

1989

Storage facility in service

1990-2007

Deliverability and capacity increases through expansion projects

2001

Beginning of FERC-approved Mist Interstate Storage Service (ISS)

2004

Completion of 24" South Mist Pipeline Extension (under separate site certificate)

2019

Completion of North Mist Expansion Project in service to Portland General Electric (PGE) to support renewable generation

Mist Storage has two compressor stations, one serving core customers and one PGE



North Mist

- 4 BCF working capacity
- 120 MMSCFD max withdraw rate
- 3,750 total compression hp
- 1 reservoir pool (Adams)

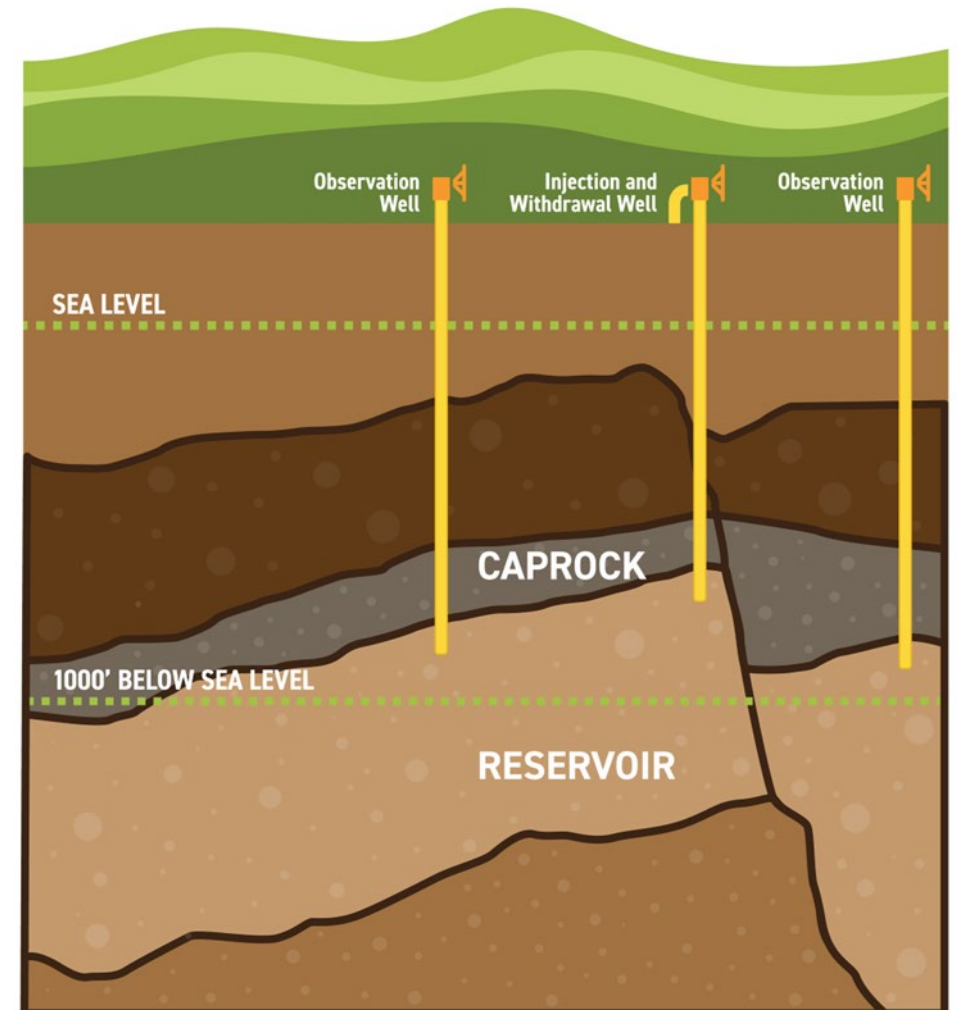


Miller Station

- 17.5 BCF working capacity
- 515 million cubic feet per day (MMSCFD) max withdraw rate
- 15,400 total compression hp
- 7 reservoir pools (Flora, Bruer, Meyer, Busch, Reichhold, Als, Schlicker)

Mist Storage Site utilizes existing natural gas reservoirs

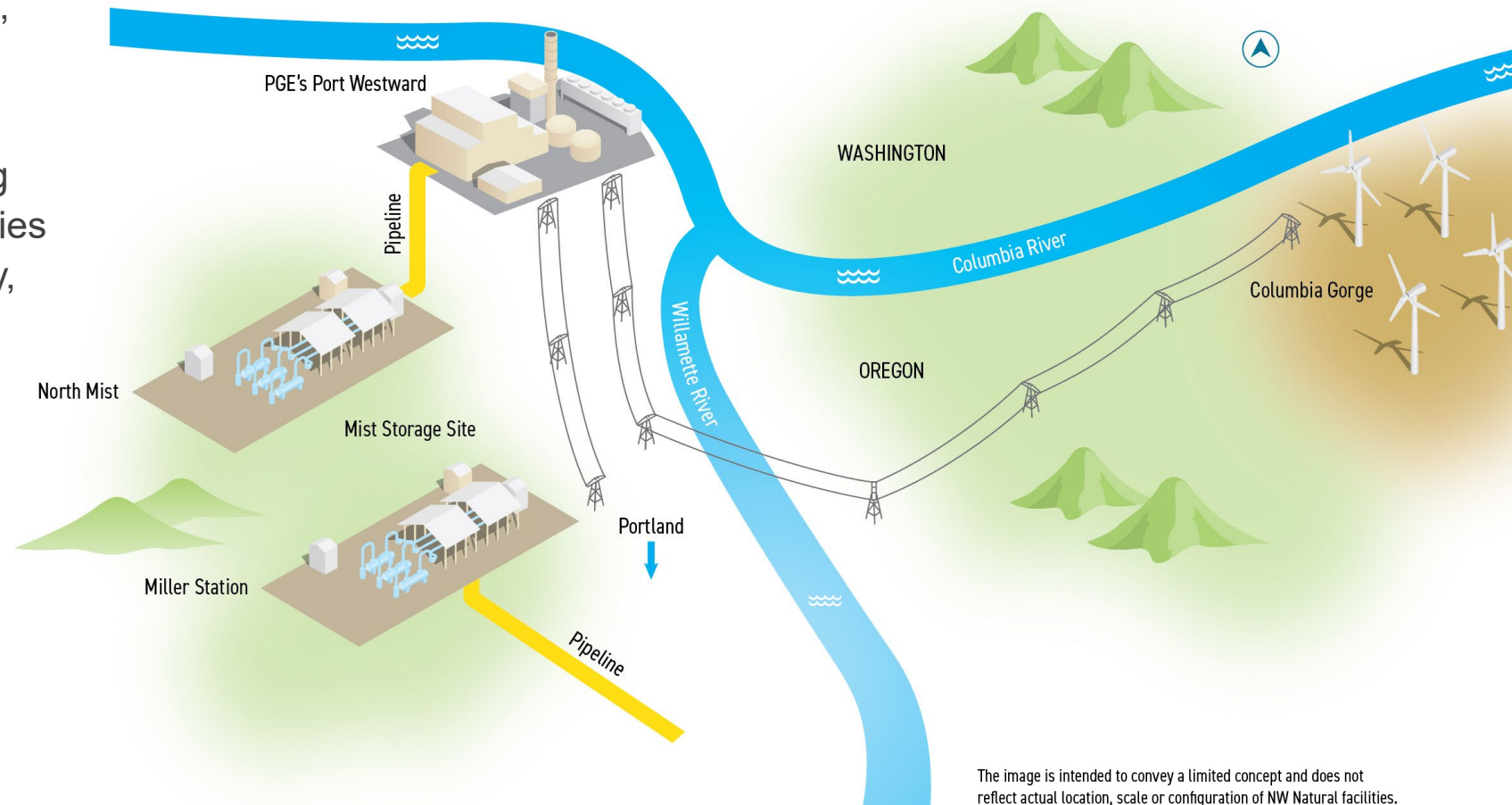
- Ideally located within NW Natural's service territory, allowing for efficient gas delivery with less pipelines
- Geological conditions include sandstone zones of reservoir quality that are used to store gas
- Oregon Department of Geology and Mineral Industries (DOGAMI) permits well construction and gas injection through ORS 520 and OAR 632-010
- Pipeline and Hazardous Materials Safety Administration (PHMSA) regulates underground gas storage through 49 CFR 192.12 and 49 CFR 192.7



The image is intended to convey a limited concept and does not reflect actual location, scale or configuration of NW Natural facilities.

Mist Storage is a core part of the Northwest energy supply

- Consists of underground natural gas storage reservoirs, associated piping, compressor stations, and operations, maintenance facilities
- Provides efficient means of balancing relatively constant pipeline gas supplies with widely fluctuating seasonal, daily, and hourly market requirements
- Current Capacity:
 - 8 Storage Reservoirs in Operation
 - 21.6 Billion Cubic Feet (BCF) Working Gas Capacity
 - 0.6+ BCF Max. Daily Deliverability
 - Equivalent to about 6 million MWh of energy



The image is intended to convey a limited concept and does not reflect actual location, scale or configuration of NW Natural facilities.

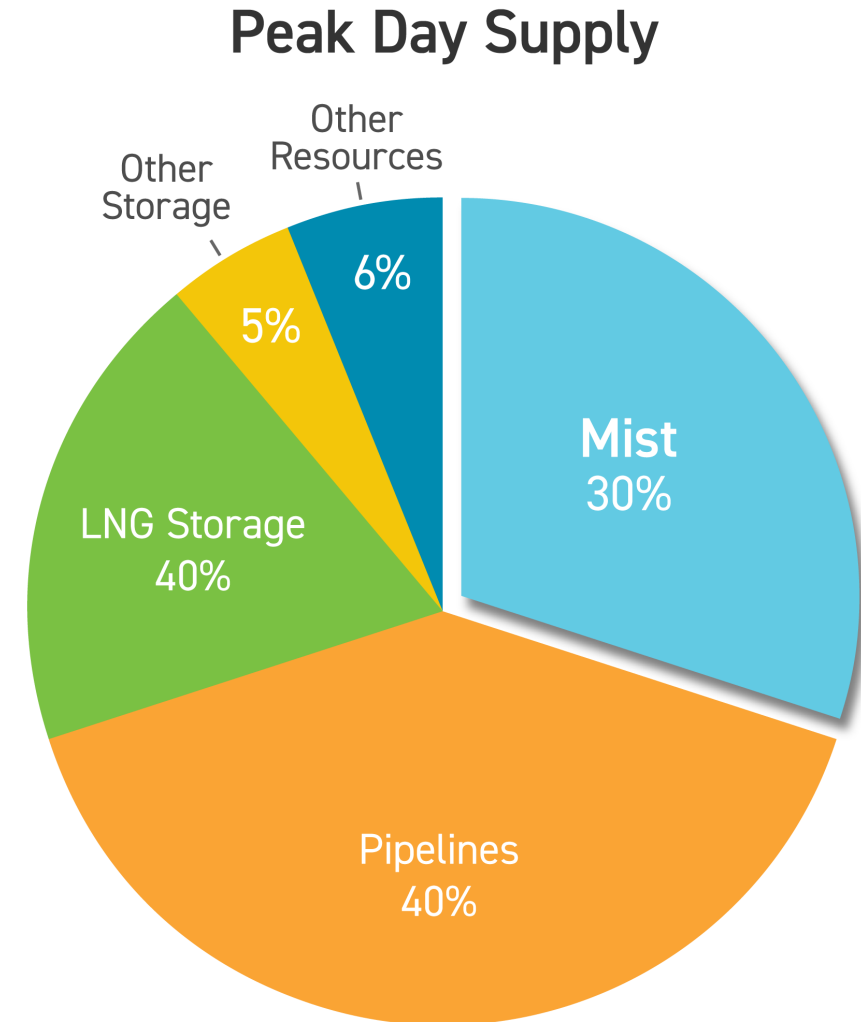
Mist Storage is an essential part of our supply portfolio

- One of only two underground energy storage facilities in the Pacific Northwest
- Ideally located in NW Natural's service territory, allowing for efficient gas delivery with less pipelines
- Valuable resiliency resource – has been beneficial to the entire region in emergencies
- To replicate NW Natural's energy storage capability with a lithium-ion battery would cost about \$3 trillion at today's prices



Mist Storage provides 30% of NW Natural customer demand during peak day

- We plan for a design peak day which is a modeled 24-hour period of maximum system deliveries
- Our planning assumes all resources are available at their maximum output, so they need to be reliable
- If we are unable to meet peak day demand, customers would lose gas service
- Mist provides 30% of the gas supply needed on our design peak day for 2023-24



Mist Storage delivers significant benefits to customers



Operational Stability and Customer Reliability

- Provides the most efficient means of balancing gas supplies with widely fluctuating seasonal, daily, and hourly demand requirements
- Ensures there is enough gas to meet customer demand during peak gas use periods or in the event of a disruption on the interstate pipeline system



Commodity Cost Optimization

- Enables NW Natural to buy gas during off peak times, like the summer – when costs are usually lowest – and store it until it is needed in the winter. Buying in the summer also reduces transportation costs on, and the need for incremental, interstate pipelines. Savings on gas and transportation costs translate directly to lower rates for customers
- Optimized financial value is credited back to utility customers



Regional Resilience

- In 2001, NW Natural began offering storage capacity at Mist to other large natural gas users or distributors throughout the Pacific Northwest which allows for increased efficiency and greater regional benefits
- In various instances, upstream pipelines have had emergencies and Mist was able to quickly reverse flows from injections to withdrawals to provide regional support

In January 2024, Mist set new delivery records

Severe weather lasting 5 days: January 12-16, 2024

- Interrupted all interruptible customers

Event System Stats:

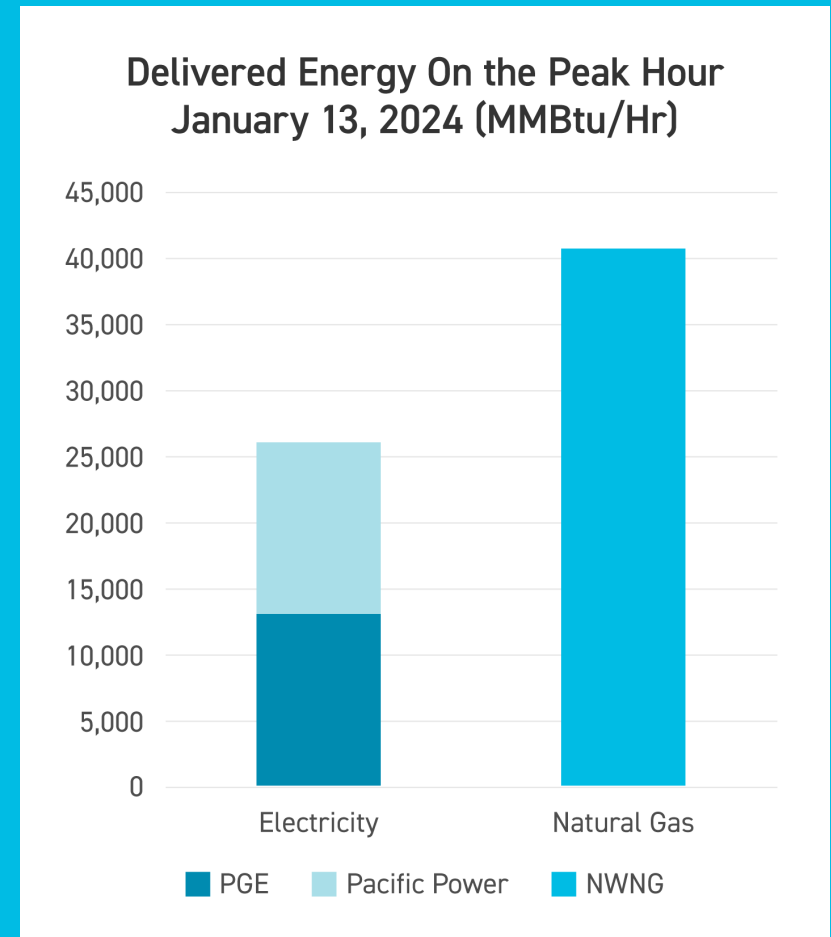
- Record Firm Sendout: 802,361 dekatherms on 01/13/2024
- Previous Record: 792,746 on 12/22/2022

Record high withdrawals from Mist storage facility: 456,571 dekatherms

- Energy to heat 633,000 homes, just from Mist storage
- During this long peak event, 5 all-time highest withdrawals from our facility

BOOK PAGE

During the peak hour on January 13, 2024, NW Natural delivered 55% more energy than PGE and Pacific Power combined.



Source: ICF Using EIA Real Time Operating Grid Data



Thank You



March 30, 2026

Merissa A. Moeller
760 SW Ninth Avenue, Suite 3000
Portland, OR 97205
D. 503.294.9455
merissa.moeller@stoel.com

VIA EMAIL

Columbia County Planning Commission
230 Strand Street
St. Helens, OR 97051
c/o Kate McGuire, Planning Division Manager

Re: Application CU 25-169 – Applicant’s Final Written Argument

Dear Chair Lynch and Honorable Planning Commissioners:

As you know, my office represents Northwest Natural Gas Company (“NW Natural”) in its application to develop four well pads and twelve wells (the “Project”) at the existing Mist Underground Storage Facility (“Mist Facility”).

The Mist Facility has been a vital contributor to Columbia County’s economy and the regional energy grid for more than 40 years. Most of the facility falls under the Oregon Energy Facility Siting Council’s (“EFSC”) exclusive siting jurisdiction, and EFSC has consistently authorized updates and expansions at the facility over that time. Just last year, EFSC approved the Mist Resiliency Project—including an expansion at the North Mist Compressor Station—after a full public process in which the Northwest Environmental Defense Center (“NEDC”) participated.

NW Natural is now seeking a Conditional Use Permit (“CUP”) for the well pads and wells necessary to implement the Mist Resiliency Project. The Project is before the County because wells and wellhead equipment are outside EFSC’s jurisdiction under ORS 469.300(11)(a)(I)(ii). County staff have recommended that the Planning Commission approve the Project. This recommendation is consistent with EFSC’s, the County’s, and NW Natural’s approach toward similar permitting at the Mist Facility since at least the 1990s.

NEDC has raised several new objections to the Project. As NW Natural explained at the March 9 hearing, both the application materials and the March 2 staff report (“Staff Report”) already address NEDC’s concerns and demonstrate why the Application meets applicable legal criteria and should be approved. Nonetheless, to assist the Planning Commission in its deliberations, this submittal briefly responds to NEDC’s latest arguments, as allowed under ORS 197.797(6)(e).

I. Analysis

This section addresses NEDC’s primary arguments. For a more detailed analysis of the Project’s compliance with applicable criteria, see NW Natural’s February 17, March 2, March 16, and March 23 supplemental submittals (“NW Natural’s Supplemental Information”).

A. The Proposed Use Qualifies as “Processing” Under Applicable Law.

CCZO § 505.2:

Exploring, mining and processing of oil, gas, or other subsurface resources, as defined in ORS Chapter 520 and the mining and processing of mineral and aggregate resources as defined in ORS Chapter 517.

NEDC argues that development and operation of the well pads and wells (the “Proposed Use”) is not a “processing” use, despite both EFSC’s and the County’s consistent conclusions to the contrary since at least the 1990s.

The Proposed Use plainly qualifies as the “processing of...gas, or other subsurface resources,” which is conditionally authorized in the PF-80 zone under both OAR 660-006-0025(4)(g) and CCZO § 505.2. The Project’s wells and associated equipment actively process gas by conditioning, stabilizing, and preparing natural gas for commercial use during injection, storage, and withdrawal. The Proposed Use is an essential step in managing pressure, moisture, particulates, and temperature so that gas can be reliably delivered when demand requires. *See* NW Natural’s Supplemental Information, Ex. I. The Proposed Use also functions as an integral part of the larger gas-processing system already approved by EFSC. *See id.*

NEDC’s reliance on *Fritch v. Clackamas County* is misplaced. *Fritch* addressed whether assembly of custom log homes qualified as the “primary processing of forest products” under an entirely different use category. 68 Or LUBA 184, 2013 WL 5507072, at *3–4 (2013). *Fritch* did not address the definition of “processing” in this context. To the extent *Fritch* is even relevant, it actually *supports* NW Natural’s view of “processing,” because the Land Use Board of Appeals (“LUBA”) generally recognized that transforming materials into products for market by “some process” qualifies as “processing.” *Id.* The Project’s active conditioning and preparation of gas for ultimate use by customers easily qualifies as processing, even under the reasoning in *Fritch*.

Accordingly, because the Proposed Use qualifies as gas “processing” in the PF-80 zone, it is properly authorized through the CUP process, as staff have correctly concluded.

B. Under the Correct Legal Standard, the Project Will Not Force a Significant Change in or Significantly Increase the Cost of Accepted Forest Practices.

CCZO § 508.1:

The proposed use will not force significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands;

NEDC misstates the legal standard under CCZO § 508.1. The “farm impacts test” repeatedly cited by NEDC simply does not apply in this context. That test, which derives from ORS 216.296, applies to certain land uses on agricultural land. Meanwhile, the applicable legal

standard—CCZO § 508.1—derives from OAR 660-006-0025(5), a distinct regulation that implements Statewide Planning Goal 4 and applies on *forest* land.

LUBA has consistently recognized that the controlling standard at OAR 660-006-0025(5) does not require application of the farm impacts test. *See, e.g., York v. Clackamas County*, 79 Or LUBA 278, 296 (2019). Oregon courts and LUBA have never extended the farm impacts test to forest lands, and NEDC cites no authority suggesting otherwise. To the contrary, in *Comden v. Coos County*, LUBA expressly rejected that approach, holding that when a county is applying local code provisions specifically applicable to forest lands, the county need not apply the farm impacts test. 56 Or LUBA 214, 223–24 (2008).

Under CCZO § 508.1, the controlling question is whether the Proposed Use will force a significant change in, or significantly increase the cost of, accepted forest practices on forest lands. Measured against that standard, NW Natural has clearly met its burden to demonstrate compliance. The Mist Facility has operated for decades in coordination with forest management activities without disrupting forestry operations. *See* NW Natural’s November 6, 2025 Revised Narrative at 5. The Project area has already been cleared of merchantable timber, Staff Report at 10, and the record includes testimony from the forest operator who owns some of the subject properties and surrounding lands confirming that the Project will not affect accepted forest practices. *See* NW Natural’s Supplemental Information, Ex. W.

Meanwhile, NEDC has identified no forest practice that will change and no forestry cost that will increase because of the Project. Instead, NEDC relies on a speculative chain of hypothetical events—*e.g.*, loss of well containment, followed by wildfire, emissions, or groundwater contamination—that could theoretically impact forest practices. *See* NEDC March 9, 2026 Comment at 6–7. This type of conjecture is not evidence of a significant change or increase in cost attributable to the Proposed Use. Further, the Project was designed with these very risks in mind, so there is simply no evidence that these types of events are likely to occur. *See, e.g.*, NW Natural’s Supplemental Information, Ex. V.

The Project satisfies the legal standard at CCZO § 508.1, as staff correctly concluded.

C. The Project Will Not Significantly Increase Fire Risk or Fire Suppression Costs.

CCZO § 508.2:

The proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel;

NEDC argues that NW Natural has failed to demonstrate compliance with CCZO § 508.2, but that argument again relies on the wrong legal standard. Under CCZO § 508.2, the County must assess whether the *Proposed Use* could significantly increase fire risk or suppression costs

compared to existing land uses (here, active forest use)—not whether the Project (or other natural gas facilities) could have any conceivable fire risks. *Cf. York*, 79 Or LUBA at 299.

NEDC offers no evidence to conclude that the Project will increase fire hazards or suppression costs. NEDC’s argument again rests on speculation that the Project could increase fire risk and therefore fire suppression costs. *See* NEDC March 9 Comment at 9. Again, that type of conjecture does not qualify as evidence relevant to the legal standard. Similarly, references to fires at unrelated facilities in other states, *see id.*, are not evidence that *this* Project will increase fire suppression costs compared to existing forest uses.

By contrast, the record shows that the Project has been carefully designed to reduce fire risks. The well pads will be gravel-surfaced and maintained free of vegetation, functioning as fuel breaks that reduce ignition potential and limit fire spread, especially when compared to unmanaged forest land. *See* NW Natural’s Revised Narrative at 5, 9 (Nov. 6, 2025); NW Natural’s Supplemental Information, Exs. L at 2–3 & M at 2–3. The Project will also incorporate state-of-the-art safety systems, including automatic shutoffs and monitoring, and NW Natural has operated similar wells in the area for years without a single fire incident. *See* NW Natural’s Supplemental Information at 6 & Ex. V at 3. The record also includes a comprehensive fire hazard plan and, critically, statements from the local fire chief confirming that the Project will not increase fire hazards or suppression burdens for his crews. *See* NW Natural’s Supplemental Information, Exs. J, L, M, & Y.

The Project satisfies the legal standard at CCZO § 508.2, as staff correctly concluded.

D. To the Extent CCZO § 1193 Applies, NW Natural Has Demonstrated Compliance with Big Game Habitat Siting Standards.

CCZO § 1193

All new residential development and uses located in Major and Peripheral Big Game or Columbian White-tailed Deer Habitat shall be subject to following siting standards:

As NW Natural explained in its Feb. 17, 2026 letter to the County, it is not clear that the requirements of CCZO § 1193 even apply to the Project, which is not a “new residential development” or “use.” Nonetheless, to the extent this criterion applies, NW Natural has demonstrated compliance with its requirements for the reasons explained in the Staff Report. NW Natural further responds to NEDC’s specific arguments as follows.

B. Dwellings and structures shall be located to avoid habitat conflicts and utilize least valuable habitat areas.

NEDC argues that NW Natural must show that the Project (1) will “avoid any impacts to big game habitat” and (2) will be “sited in the least harmful site possible.” *See* NEDC March 9, 2026 Comment at 10. That is not what the CCZO requires.

CCZO § 1193(B) does not require *zero* impact to big game habitat. As the Staff Report acknowledges, most of Columbia County has been mapped as big game habitat, so such a standard would effectively prevent development anywhere in the County. The CCZO also does not require applicants to analyze every conceivable site configuration. Instead, it recognizes that some mapped habitat areas have lower value than others and directs “dwellings and structures,” where possible, to those areas. As staff have concluded, the Project meets that standard.

The well pads and wells are “locationally dependent.” *See* Staff Report at 18. Their placement is dictated, first and foremost, by the location of the underground reservoirs, which limits where wells can be safely and effectively located. *See* NW Natural Supplemental Information, Ex. V at 1-2; *see also id.* Ex. X at 2. In selecting specific sites, NW Natural also considered subsurface conditions, avoided landslide-prone and environmentally sensitive areas such as streams and wetlands, and chose locations that are relatively flat and already cleared of timber. *Id.* Ex. V at 2. Big game habitat was one of several factors considered.

Consistently with CCZO §1193(B), the Project *was* sited to avoid habitat conflicts and use least valuable habitat areas. Conflicts with big game habitat typically arise where a use concentrates people onsite or removes substantial vegetative cover. *See* County Comprehensive Plan § A.4. Neither condition is present here. Although the Project will permanently affect approximately six acres of mapped big game habitat, it will not involve regular human presence beyond brief, infrequent maintenance visits by limited staff. *See* NW Natural Supplemental Information, Ex. V. In addition, the well pad locations are logged areas cleared of vegetative cover and are adjacent to existing roads—areas that already provide limited habitat value. *See id.* Ex. X at 2.

Further, as Tetra Tech, NW Natural’s professional wildlife biologist, explained, the Project footprint represents less than one percent of the subject properties and is surrounded by extensive, contiguous habitat that big game could utilize. *Id.* at 2–3 & Fig. 1. In Tetra Tech’s professional judgment, surrounding lands are generally of similar (or better) habitat quality than the locations selected for the Project, and “relocating the well pads within the general vicinity would not be expected to meaningfully reduce impacts to big game habitat.” *Id.* at 3.

For these reasons, the Project satisfies CCZO § 1193(B), as staff correctly concluded.

E. Staff’s Proposed Condition (4)(D) Does Not Impermissibly Defer Findings.

CCZO § 1193

C. Road development shall be minimized to that which is necessary to support the proposed use and the applicant shall utilize existing roads as much as possible.

Columbia County Planning Commission
March 30, 2026
Page 6

Staff Report Proposed Condition (4)(D):

Road development shall be conservative and minimized to only that which is necessary to support development of the use authorized through this review. The applicant shall utilize existing roads as much as possible.

Finally, NEDC claims that staff's proposed road condition improperly defers a finding of compliance with CCZO § 1193(C) and unidentified fire safety standards. *See* NEDC March 16 Comment at 2. NEDC's argument assumes the County must conduct a detailed analysis of hypothetical future roads and their potential impacts—even though no new roads are proposed.

Generally, conditions of approval may authorize future development where the existing record shows that compliance with applicable approval criteria is "feasible." *See, e.g., Gould v. Deschutes Cnty*, 227 Or App 601, 611, 206 P3d 1106 (2009). This means that (1) the condition can feasibly be implemented and (2) if the condition is implemented, it is reasonable to conclude that applicable approval criteria will be satisfied. *See id.*

Here, staff's proposed Condition (4)(D) does exactly that. It simply restates CCZO § 1193(C) by requiring road development to be limited to what is necessary and to use existing roads whenever possible. Compliance with those requirements can readily be evaluated based on the current record, including the many maps before the Commission.

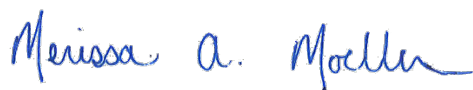
More importantly, NW Natural has not proposed to develop and is not requesting approval to develop any new roads as part of this Project. To address NEDC's concerns, the simplest resolution would be for the Planning Commission to adopt staff's recommendation approving the Application without Condition (4)(D).

II. Conclusion

For all the reasons discussed in NW Natural's written submittals and oral testimony, the Project is vital to Columbia County and our shared regional energy supply. NW Natural has also thoroughly demonstrated compliance with all applicable legal criteria. Approving the Project, as staff have recommended, is the right decision for Columbia County.

NW Natural respectfully asks the Planning Commission to approve CU 25-169 as recommended by staff. Thank you for your consideration.

Sincerely,



Merissa A. Moeller

**BEFORE THE COLUMBIA COUNTY
PLANNING COMMISSION
ST. HELENS, OREGON**

In the matter of the Application of NW Natural for a)
Conditional Use Permit to Drill Twelve (12))
Injection/Withdrawal and Monitoring Gas Wells in)
the Primary Forest (PF-80) Zone.)

FINAL ORDER CU 25-169

This matter came before the Columbia County Planning Commission on the application of NW Natural for a Conditional Use permit to authorize the Processing of Natural Gas pursuant to Columbia County Zoning Ordinance §505.2 and OAR 660-006-0025(4)(g). To conduct the conditional processing use, the applicant proposes construction and operation of twelve (12) wells/wellheads and three (3) Remote Terminal Unit (RTU) buildings, containing monitoring and control equipment on four (4) well pads to be located on four (4) properties with the Map Id. No.'s: 7500-00-04500, 7500-00-04700, 7500-00-04800 and 7500-00-05000.

Notification of the proposal was mailed to surrounding property owners within 750' of the exterior boundaries of all four (4) subject properties, and sent to the Birkenfeld-Mist C.P.A.C., the Oregon Department of Fish and Wildlife (ODFW), the Oregon Department of Forestry (ODF), the Oregon Department of Geology and Minerals (DOGAMI), the Mist Birkenfeld Fire District and the West Oregon Electric Cooperative for comment. A public hearing was scheduled on February 2, 2026, however, the meeting had to be rescheduled for lack of Planning Commission quorum. The meeting was rescheduled to the next available date and re-noticed in accordance with ORS 197.797. The public meeting was conducted on March 9, 2026, at which time the Planning Commission reviewed the application, heard staff's presentation of the staff report and took evidence and testimony from the applicant and the public. The record was closed to additional oral testimony on March 9, 2026, but the record was left open to March 16, 2026, for additional written comments, March 23, 2026, for responses to comments received during the first open record period, and March 30, 2026, for final written argument by the applicant.

The Planning Commission reconvened on April 6, 2026, to review and deliberate on materials submitted during the open record period. After considering all evidence and testimony received into the record, the Planning Commission voted to approve CU 25-169 with all but one of the conditions of approval as recommended in the Staff Report dated March 2, 2026, staff's recommended condition "4. D." which was stricken by the Commission.

The Columbia County Planning Commission hereby adopts the findings, conclusions and conditions (with the exception of condition "4.D.") as stated in the staff report, and **APPROVES** Conditional Use Permit application **CU 25-169**, subject to the following conditions:

CONDITIONS OF APPROVAL:

1. **EXPIRATION:** The applicant must secure a development construction permit from Land Development Services within four (4) years from the date of the final decision or this approval shall expire. If such permit has not been secured by that deadline, an extension may be granted by the Planning Manager if requested in writing with the appropriate fee before the expiration date [CCZO Section 509.7].

2. PRIOR TO ISSUANCE OF BUILDING PERMITS AND/OR COMMENCING OPERATIONS:

- A. FEDERAL AND STATE AGENCY PERMITS:** The applicant shall obtain all necessary permits from all federal and state agencies as identified in the EFSC Final Order.
- B. WAIVER OF REMONSTRANCE:** For all four (4) of the subject properties, waivers of remonstrance shall be signed by a duly authorized agent of the entity owning the property, and notarized, then recorded with the County Clerk. This waiver certifies that the owner will not remonstrate against or begin legal action or suit proceeding to cause or persuade the owner or operator of any farm or forest lands to modify the conduct of legal and accepted farm or forest operations. Applicants shall submit recorded copies to the Planning Division of Columbia County Land Development Services, prior to issuance of any building permits or commencement of the use.

3. PRIOR TO COMMENCING OPERATIONS:

- A. COLUMBIA COUNTY BUILDING PERMITS:** The applicant shall coordinate with the Columbia County Building Official to submit/apply for all building (electrical, structural, mechanical and plumbing) permits deemed applicable by the Building Official. Including but not limited to; Site Development Permits for earth movement (grade and fill) and any necessary electrical, mechanical and plumbing permits.

4. ONGOING CONDITIONS OF APPROVAL:

- A. ODF NOTICING FOR ACTIVITIES INCLUDING POWER DRIVEN MACHINERY (PDM):** At any time when Power Driven Machinery (PDM) activities will be conducted, the applicant shall coordinate with and provide notice to the Oregon Department of Forestry (ODF) – Columbia Unit to meet the legal requirements of notification of use of Power Driven Machinery (PDM).
- B. HEIGHT LIMITATION ON STRUCTURES:** Structures (wellheads / RTU Buildings) shall be no more than 50 feet or 2 ½ stories in height. Compliance with this requirement shall be verified at the time of submittal for building permits.
- C. WILDLIFE PROTECTION:** The owner/occupant of the resource parcel shall assume responsibility for protection from damage by wildlife.

COLUMBIA COUNTY PLANNING COMMISSION


 ALTA LYNCH, CHAIR


 DATE

COLUMBIA COUNTY BOARD OF COMMISSIONERS**Conditional Use Permit**
Supplemental Staff Report**June 3, 2026**

HEARING DATE: June 10, 2026, Board of Commissioners Hearing

FILE NUMBER: CU 25-169

PROJECT PLANNER: Kate McGuire, Planning Division Manager

APPLICANT: NW Natural Gas Company (NWN)

PROPERTY OWNERS: Weyerhaeuser Timber Holdings, Claruth Inc., Wilna Inc., Franbea Inc.

LOCATION: The subject properties do not have a situs address, but are located off Miller Station Road near Mist, Oregon.

MAP ID NUMBERS: 7500-00-04500/04700/04800/05000

TAX ACCOUNT NUMBERS: 25544/25546/25547/25549

ZONING: Primary Forest (PF-80)

SIZE: 1,328 +/- acres

REQUEST: The proposal is a request for approval of a Conditional Use (CU) Permit to authorize the Processing of Natural Gas pursuant to Columbia County Zoning Ordinance §505.2 and OAR 660-006-0025(4)(g).

APPLICABLE REVIEW CRITERIA:Columbia County Zoning Ordinance (CCZO) Sections (§):

§ 500 Primary Forest (PF-80)
§ 505.2 Conditional Uses in the PF-80 zone district
§ 507 Siting of Dwellings and Structures
§ 508 General Review Standards
§ 509 Standards of Development
§ 510 Fire Siting Standards for Dwellings, Structures and Roads
§ 1190 Big Game Habitat Overlay
§ 1503 Conditional Uses

Columbia County Comprehensive Plan Sections:

Part IV Forest Lands
Part X Economy
Part XVI Goal 5 - Open Space, Scenic and Historic Areas and Natural Resources -
Article VII: ENERGY SOURCES GOALS AND POLICIES

BACKGROUND:

As detailed by the Applicant, Northwest Natural Gas Company (NWN) within their application submittals:

The Mist Facility is an existing underground natural gas storage facility in Columbia County. It plays a critical role in balancing seasonal energy demands across NW Natural's service territory and the broader Pacific Northwest region. During periods of low natural gas demand, gas is injected into underground storage reservoirs. This injection process requires increasing the gas pressure above standard pipeline levels to ensure effective storage. When demand rises, the stored gas is produced (or withdrawn) from the reservoirs and then processed by removing moisture from the gas and mitigating against hydrate formation in the withdrawn gas. ORS 520.005(14) (pertaining to gas and oil resources) defines "underground storage" as "the process of injecting and storing natural gas within and withdrawing natural gas from an underground reservoir." The vast majority of components within the existing Mist Facility are subject to EFSC's exclusive siting jurisdiction and have been permitted through the Mist Facility's Site Certificate, issued by EFSC in 1981, and subsequent Requests for Amendment ("RFAs"), issued by EFSC over the past four decades.

Within the last ten years, NW Natural expanded the Mist Facility by adding a second central compressor station, called the North Mist Compressor Station ("Compressor Station"), and developing the Adams reservoir for underground gas storage ("RFA 11"). The Compressor Station was authorized by the EFSC and included, among other things, two triethylene glycol gas dehydration systems that "following withdrawal from the underground storage reservoir, [] process wet natural gas through contact towers and dehydrate the gas with lean glycol for pipeline distribution of dry gas." However, wells and wellhead equipment are expressly exempt from EFSC's jurisdiction pursuant to ORS 469.300(11)(a)(I)(ii). Accordingly, as part of that recent expansion, NW Natural has previously sought, and the County has issued, two conditional use permits ("CUPs") under CCZO § 505.2 authorizing six additional wells at the Mist Facility.

- *In 2015, the County issued CU 15-12, authorizing the "drilling and operations of four new natural gas injection/withdrawal wells" at a single well pad location, and one nearby monitoring well.*
- *In 2017, the County issued CU 17-04, authorizing the conversion of an unused well into an observation/monitoring well.*

Last year, EFSC authorized NW Natural's Mist Resiliency Project, which includes expanding the Compressor Station by installing, among other things, three reciprocating gas fired compressors and two dehydration contact towers and glycol regenerating skids with reboilers for use in connection with utilizing additional reservoirs for gas storage ("RFA 13").

The Oregon Energy Facility Siting Council ("EFSC") is responsible for overseeing the development of certain large electric generating facilities, high voltage transmission lines, gas pipelines, radioactive waste disposal sites, and other energy-related projects that meet the statutory definition of an "energy facility" at ORS 469.300(12). This state-level oversight of energy facilities helps ensure that Oregon has an adequate energy supply while protecting Oregon's environment and public safety. After issuing a site certificate for an "energy facility," the EFSC has ongoing regulatory authority over the construction and operation of the energy facility.

A proposed energy facility must undergo a thorough review and meet the EFSC legal standards to receive site certificates, as outlined in Oregon Administrative Rule (OAR) 345-022-0000. As identified in OAR 345-022-0000 and within the Final Order approving the request for the 13th amendment to the Mist Underground Natural Gas Storage Facility, dated January 17, 2025 (the "EFSC Final Order"), those

standards include but are not limited to requiring the proposal to address; Structural Standards (OAR 345-022-0020), Soil Protection (OAR 345-022-0022), Land Use (OAR 345-022-0030), Protected Areas (OAR 345-022-0040), Fish and Wildlife Habitat (OAR 345-022-0060), Threatened and Endangered Species (OAR 345-022-0070), Scenic Resources (OAR 345-022-0080), Historic, Cultural, and Archaeological Resources (OAR 345-022-0090), Impacts to Recreational Opportunities (OAR 345-022-0100), Impacts to Public Services (OAR 345-022-0110), Wildfire Prevention and Risk Mitigation (OAR 345-022-0115), Waste Minimization (OAR 345-022-0120), Public Health and Safety Standards for Surface Facilities Related to Underground Gas Storage Reservoirs (OAR 345-024-0030), Noise Control Regulations (OAR 035-0035), and Removal and Fill Law (Oregon Revised Statutes (ORS) Chapter 196 and OAR Chapter 141).

As identified on page 1 of EFSC Final Order:

“RFA13 requested approval from the Energy Facility Siting Council (EFSC or Council) to make the following changes:

At Miller Station:

- *replace two existing (end of life) natural-gas fired turbines*
- *replace existing (end of life) underground distribution powerline from Highway 202 to Miller Station; and,*
- *increase the fenced boundary of Miller Station by adding approximately 7.52 acres adjacent to the existing station to create a permanent storage yard.*

At North Mist Compressor Station (NMCS):

- *Install approximately 2.6 miles of underground gas transmission pipelines to connect the new storage reservoirs to the NMCS;*
- *add three reciprocating gas fired compressors;*
- *add two dehydration trains, new air compressor, inlet and outlet coalescing filters, two new back-up power generators, fuel gas heater, skidded fuel gas regulators, and a power transformer;*
- *add a control building, a Power Distribution Center, compressor building, dehydration regeneration building, and associated equipment.*

These additions at NMCS will enable an increase of allowable throughput of natural gas from 635 MMscfd to 835 MMscfd.

*Based upon review of RFA13 and the Proposed Order, the Council **approves** the amendment request and adopts the Proposed Order as the Final Order on RFA13 and grants issuance of the Thirteenth Amended Site Certificate, subject to existing, new and amended conditions set forth in this order.*

This final order is issued by the Council in accordance with ORS 469.405(1) and OAR 345-027-0371.”

Therefore, **any Mist Facility component approved through the EFSC Final Order is not subject to review by Columbia County under the current proposal.**

SUMMARY OF CURRENT PROPOSAL:

The current proposal is a request for authorization to conduct a Conditional Use (CU) in the PF-80 zone district, pursuant to Columbia County Zoning Ordinance §505.2 and OAR 660-006-0025(4)(g): the

processing of Natural Gas, specifically as it is proposed to occur in both above-ground (surface) and below-ground portions of the twelve (12) proposed new wells/wellheads and the underground storage reservoir.

To conduct the *processing* use, NWN proposes the construction and operation of twelve (12) wells/wellheads and three (3) Remote Terminal Unit (RTU) buildings, containing monitoring and control equipment. These RTU buildings are a necessary and essential component for monitoring the processing that occurs in both the surface and subsurface components of the wells/wellheads, as further described below. Seven (7) of the new wells will be “injection/withdrawal” (IW) wells that will inject gas into (or withdraw) gas from three (3) reservoirs. Five (5) of the new wells will be observation and monitoring (OM) and/or pressure monitoring (KI) wells. The twelve (12) wells will be located on four (4) well pads. Three (3) of the well pads (Medicine, Medicine OM, and Newton) will be new. The fourth well pad “Stegosaur” is already existing and will be modified to accommodate four (4) new wells and one (1) RTU building.

Well Pad	New or Existing	IW Wells	OM/KI Wells	RTU Buildings	Location (Map ID No.)
MEDICINE	NEW	2	1	1	7500-00-04700
MEDICINE OM	NEW	0	1	0	7500-00-04500
NEWTON	NEW	3	1	1	7500-00-05000
STEGOSAUR	EXISTING (to be expanded)	2	2	1	7500-00-04800
<i>Total = 12 Wells & 3 RTU Buildings</i>		<u>7</u>	<u>5</u>	<u>3</u>	

NWN is not proposing any development of the underground storage reservoir itself, which is an existing naturally occurring geologic formation.

Page 3 of NW Natural Supplemental Response holistically describes the *processing* of natural gas as follows:

*“The Project will serve a fundamental role in producing the gas stored in existing underground reservoirs at the Mist Facility and then **processing** that gas so it can be injected into pipelines for distribution and use. Every time gas is injected into or produced (or withdrawn) from the underground reservoirs, it must pass through a well. When gas is being withdrawn, **initial gas processing occurs at the wellhead**, including removing moisture and heating to prevent ice-like blockages, known as “hydrate formation,” in the gas. The gas is then sent to the Compressor Station for further gas processing to ensure that it meets the specific quality measures before being injected into pipelines for distribution and use. Without the wells and associated wellhead equipment, natural gas cannot be injected into or withdrawn from the underground reservoir, nor can it be processed for distribution and use.”*

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*Images of existing development (wells/wellheads and RTU Building) within the Mist Facility -
The kind of development proposed in this application is nearly identical.*



For clarity, and as discussed further below, as a general proposition, staff believes that development and operation of both above-ground and below-ground well and wellhead equipment are subject to the Board's review. However, practically, this distinction does not impact the Board's analysis, because NWN's proposed above-ground and below-ground operations all constitute a single "processing" "use." *See, e.g.,* CCZO § 100.84 (defining "principal use" as "[t]he main use to which the premises are devoted and the primary purpose for which the premises exist"). A helpful analogy is a house with a basement: A homeowner's use of the basement and use of the main floor are part of the same residential "use." It would not make sense to treat use of the basement as something distinct simply because it occurs underground.

SCOPE OF BOARD'S REVIEW:

The EFSC Final Order did not evaluate or approve NWN's proposed development and operations of 12 wells and associated wellhead equipment or the associated underground reservoir that the wells/wellhead equipment connect to. Therefore, and as explained further below, staff concludes that the County has land use jurisdiction over these components to the extent that NWN's proposed development and operations subject to this application constitute the "use" of land subject to the County's planning jurisdiction. *See, e.g.,* CCZO § 201 ("[L]and shall not be used, or buildings and structures erected, constructed, reconstructed, located, moved, or structures altered or used or occupied contrary to this Ordinance"); OAR 660-006-0025(1) (governing "uses" of forest land).

The Planning Commission approved NWN's application with all but one condition of approval recommended in the Staff Report dated March 2, 2026 ("March 2 Staff Report")—staff's recommended condition "4.D". The Planning Commission adopted as its own the findings, conclusion and conditions (with the exception of condition "4.D") stated in the March 2 Staff Report.

Importantly, the March 2 Staff Report adopted by the Planning Commission stated that the County's land use jurisdiction is limited to the "above-ground (surface) portions of the twelve (12) proposed new wells/wellheads." (See page 4 of March 2 Staff Report). The Northwest Environmental Defense Center ("NEDC") has since appealed the Planning Commission's decision, asserting that the Planning Commission "erred by limiting its consideration of the proposed use to above-ground infrastructure."

Staff draw the Board's attention to this issue and wish to clarify that the Board has land use jurisdiction to review all components of NWN's proposed use not already reviewed by EFSC, to the extent that NWN's proposed development and operation of those components constitute a land "use" subject to the CCZO. **For the sake of clarity, staff is recommending that the Board's analysis include review of relevant subsurface components of NWN's proposed use. However, this distinction does not change staff's ultimate conclusion that NWN's proposed use complies with all applicable legal criteria or staff's ultimate recommendation to approve NWN's application subject to the conditions of approval adopted by the Planning Commission.**

For the Board's further legal context, state statute—ORS 469.300(12)(a)(I)—distinguishes between:

- (1) the "surface facility" for an "underground gas storage reservoir"—subject to EFSC's exclusive jurisdiction, and
- (2) the "underground storage reservoir" and "injection, withdrawal or monitoring wells and individual wellhead equipment"—not subject to EFSC's exclusive jurisdiction.

The "underground storage reservoir" and "injection, withdrawal or monitoring wells, and individual wellhead equipment" are also regulated to some extent by the Oregon Department of Geology and Mineral Industries (DOGAMI). However, DOGAMI expressly does not have the authority to review those

components for compliance with local land use regulations. See OAR 632-010-0010(9)(b) (providing that an applicant for a DOGAMI well-drilling permit “must receive land use approval from the affected local government * * * before the use can commence”). Said differently, the fact that DOGAMI (a state natural resources agency) must issue permits for certain project components does not limit the County’s land use jurisdiction over those components.

EFSC’s characterization of these jurisdictional issues in the EFSC Final Order may have potentially led to some confusion as reflected in the above NEDC assertion. On page 2 of the EFSC Final Order under the “SITE CERTIFICATE PROCEDURAL HISTORY” section, lines 24-28 EFSC stated:

“Underground storage reservoirs, injection, withdrawal, and monitoring wells, and individual wellhead equipment are expressly excluded from Council’s jurisdiction by ORS 469.300(11)(a)(I)(i)-(ii). Those components remain under DOGAMI’s authority over wells and other subsurface components. Well pads are also excluded from the site certificate as they are under the authority of DOGAMI and Columbia County.”

While EFSC’s statements could be read to imply that the County lacks general land use authority over any subsurface project components, that conclusion is not consistent with the overall legal framework or the County’s historical approach toward permitting project components at the Mist Facility. Staff acknowledge that EFSC’s determinations can be useful and, at times, persuasive. As discussed below, aspects of EFSC’s analysis in the EFSC Final Order are helpful to the evaluation of this proposal. However, the County is not bound by EFSC’s analysis. It can, and must, make its own jurisdictional determinations and disregard EFSC’s statements if determined to be inconsistent with its own determinations.

Here, based on staff’s independent analysis, staff finds that (1) EFSC, DOGAMI, and other state agencies do not have land use jurisdiction over subsurface project components and (2) the County does have land use jurisdiction over those components, to the extent that NWN’s proposed development and operation of those components constitutes a land “use” subject to the CCZO. As pertains to the matter currently before the Board, it is important to note that this conclusion does not change staff’s ultimate conclusion that NWN’s proposed use, which includes development and operation of both above-ground and below-ground components of 12 new wells and associated wellhead equipment, complies with all applicable criteria.

SUMMARY OF SITE CONDITIONS:

The subject and adjacent properties are located within the Primary Forest-80 (PF-80) zone district and are used for forest management and timber production purposes and the existing Mist Natural Gas Facility that has been developed at the site for more than 45 years when the first EFSC Site Certificate was issued in 1981. Most of the adjacent properties are owned by timber production companies—primarily the same owner/lessors of the subject properties. The subject properties on which the processing use and associated infrastructure reviewed through this application will be located, are a combined total of 1,328 +/- acres in size (Map ID No.’s: 7500-00-04500 [629.69 +/- acres], 7500-00-04700 [325.57 +/- acres], 7500-00-04800 [82.09 +/- acres] and 7500-00-05000 [290.55 +/- acres]).

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Revised Vicinity Map - February 18, 2026



Beaver Creek (a non-fish bearing stream pursuant to the Oregon Department of Forestry Stream Classification Maps (ODF SCM)) is the nearest mapped stream from the Newton and Stegosaur well pad locations, running northerly of and more than 500' from both by linear measure and, as measured using both 20' and 100' contours in county GIS, both these well pad locations are 300'+ in elevation from Beaver Creek.

An unnamed tributary of Lindgren Creek (a non-fish bearing stream pursuant to the ODF SCM) runs approximately 300' easterly of the Medicine IW well pad location by linear measure, and the Medicine IW well pad is approximately 150' higher in elevation than this unnamed tributary.

Lindgren Creek (a fish bearing stream pursuant to the ODF SCM) runs between the Medicine IW and Medicine OM well pads, however, they are both located more than 1,500' from the stream bed by linear measure. The Medicine IW well pad is approximately 600' higher in elevation than the creek bed, and the Medicine OM well pad location is approximately 500' higher in elevation than the creek bed.

Consequently, there is no development proposed in proximity to riparian areas associated with fish bearing and non-fish bearing streams. Likewise, according to the Oregon Department of State Lands Wetlands Inventory Maps, wetlands are found only in the same locations as those identified streams. There are no wetlands identified near the well pad locations. Additionally, according to FEMA FIRM No. 41009C0125D, and county GIS, the well pads are not located in any identified special flood hazard areas.

The Clatskanie-Quincy CPAC Beak Maps verify these properties are within Major and Peripheral Big Game Habitat Areas.

The subject properties are situated within the Mist-Birkenfeld Rural Fire Protection District service area.

FINDINGS ADDRESSING COMPLIANCE WITH THE RELEVANT CRITERIA OF THE COLUMBIA COUNTY ZONING ORDINANCE (CCZO):

Section 500 PRIMARY FOREST ZONE – 80 (PF-80)

501 Purpose

The purpose of this zone is to retain forest land for forest use and to encourage the management of forest land for the growing, harvesting, and processing of forest crops consistent with the Oregon Forest Practices Act. Uses in this zone will also provide for other forest uses including watershed protection, soil protection, maintenance of clean air and water, wildlife and fisheries habitat, outdoor recreation activities, open space and scenic preservation, and agricultural activities free from the encroachment of conflicting non-forest uses and influences.

.1 The Primary Forest (PF) Zone is intended to:

E. Recognize locationally dependent uses, such as communication towers, mineral and aggregate resources, etc.;

FINDING: The proposal supports the continuation of an established locationally dependent use. As identified in the Background section of this report, the Mist Facility's Site Certificate was issued by EFSC in 1981. Additionally, in a letter dated February 17, 2026, provided by the applicant, Vice President of Gas Supply and Utility Support Services at NWN, David Weber, provides:

"We happen to have the right kind of underground rock formations in Columbia County that make safe storage possible. When withdrawn from storage at the mist facility, that gas bypasses the interstate bottleneck entirely it can be moved through local pipelines and delivered directly and immediately, to customers during peak demand."

As Mr. Weber explained, the processing use is dependent on the location of the existing underground reservoir, and will be conducted in support of the larger operation of the Mist Facility that includes this and other naturally occurring underground reservoirs. Additionally, as found in EFSC Final Order Section I.A. "SITE CERTIFICATE PROCEDURAL HISTORY" the initial site certificate issued by EFSC in 1981 for the Mist Facility, contained authorization "*to construct and operate two **naturally existing** underground gas reservoirs* (the Flora and Bruer pools)...". Therefore, as recognized by the Oregon EFSC, and further supported by the statement provided by Mr. Weber, staff finds that the proposed *processing* use is a locationally dependent use.

505 Conditional Uses

The following conditional uses may be allowed subject to the general review standards and process in Sections 1503 and 1603 of the Zoning Ordinance. All authorized uses and permanent structures shall also meet the applicable standards listed in Sections 506, 507, and 508 of the Zoning Ordinance and all other local, state, and federal laws pertaining to these uses.

.2 Exploring, mining and processing of oil, gas, or other subsurface resources, as defined in ORS Chapter 520 and the mining and processing of mineral and aggregate resources as defined in ORS Chapter 517.

FINDING: The proposed use is for the processing of natural gas.¹ As explained above, the March 2 Staff Report adopted by the Planning Commission stated that the County’s review was limited to the above-ground components of NWN’s proposed wells and wellhead equipment. For clarity, staff consider development and operation of both the above-ground and below-ground well and wellhead equipment components to be part of the same “processing” land use.

To the extent that NWN’s proposed “use” extends to the broader underground storage reservoir, staff considers that use to be part of the same “processing” use as the well and wellhead development and operations. This is particularly true because (1) the underground storage reservoir is an existing naturally occurring geologic formation, (2) NWN is not proposing any distinct development or operations in the existing underground storage reservoir, (3) and staff has not identified any development impacts in the broader underground storage reservoir that would warrant different treatment under applicable legal criteria.

Pursuant to OAR 660-006-0025(4), uses that may be conditionally approved in the PF-80 zone include:

(g) *Mining and processing of oil, gas, or other subsurface resources, as defined in ORS chapter 520, and not otherwise permitted under subsection (3)(m) of this rule (e.g., compressors, separators and storage serving multiple wells), and mining and processing of aggregate and mineral resources as defined in ORS chapter 517.*

The applicant submitted a letter prepared by Vice President of Gas Supply and Utility Support Services at NWN, David Weber, in which the holistic picture of processing that occurs throughout the facility is detailed. As found in Section C. of that letter, *How Natural Gas Storage Works: Injection and Withdrawal as Key Natural Gas Processing Functions*, subsection c. *Withdrawal*, Mr. Weber identifies how processing of natural gas will occur specifically at the seven (7) “injection/withdrawal” (IW) wells under the authority of Columbia County for review:

“Withdrawal is where the processing role of the wells is most visible. When gas comes back to the surface, it does not return in a condition that is ready for transport. Instead, it arrives mixed with water, moisture, and particulates from the reservoir. Each withdrawal well is equipped with a separator and process heater that cleans and stabilizes the gas. The separator removes most moisture and particulates which is a necessary step to prevent moisture from entering NW Natural’s distribution system. NW Natural also heats the gas using the process heater to prevent ice-like blockages, known as “Hydrate formation,” ensuring safe and reliable flow during cold temperatures.”

The letter further explains how all other infrastructure development and operations subject to this application are directly related to the processing functions that will occur (both above and below ground). There is sufficient evidence in the record identifying that the proposed facility developments support the processing of natural gas, a conditional use which may be permitted in the PF-80 zone district, subject to the Conditional Use requirements of CCZO §1503.5, as addressed further within this staff report. Staff finds that the criterion of this section has been demonstrated as met.

507 Siting of Dwellings and Structures

¹ Columbia County Zoning Ordinance (CCZO) §505.2 was intended to incorporate OAR 660-006-0025(4)(g). However, as incorporated into the CCZO, the word “Exploring”—which does not appear in OAR 660-006-0025(4)(g)—was placed in the text of §505.2 and also in Permitted Uses §503.8. Staff concludes that the inclusion of the word “Exploring” in CCZO §505.2 was an error. This discrepancy regarding the placement of the word “Exploring” in the CCZO is neither here nor there with regard to the current proposal to conduct a processing use, appropriately reviewed under the provisions of CCZO §1503 – CONDITIONAL USES, it is simply an acknowledgement made by reviewing staff in order to maintain clarity.

FINDING: The current proposal does not include any dwellings, however, CCZO §100.105 defines STRUCTURE to mean: “*a building or other major improvement that is built, constructed or installed, not including minor improvements, such as fences, utility poles, flagpoles or irrigation system components, that are not customarily regulated through zoning ordinances.*” Historically, in previous Conditional Use reviews of the same nature approved conducted on the subject properties, Columbia County Planning staff has not found the above definition of “STRUCTURE” to be applicable to the development of wells and wellheads (whether above or below ground). Staff concludes that this is likely because that infrastructure is comprised primarily of piping/plumbing components (as shown in the representative photographs above on page 5 of this report) and they were likely determined to be “*minor improvements, such as...*”. Additionally, upon review of the building permit history of the subject properties, staff can find no instance where any building permits were issued for the wells/wellheads approved in previous conditional use permit reviews.

Notwithstanding the foregoing, because the definition of “structure” in CCZO 100.105 does not explicitly identify the proposed development within the acknowledged “minor improvements” current reviewing staff errs on the side of caution and identifies that, in the event the proposed wells/wellheads and RTU buildings should be acknowledged as “*a major improvement that is built, constructed or installed*” the standards of this section would be applicable to the physical construction of the exterior components of the twelve (12) wellheads and to the three (3) Remote Terminal Unit (RTU) buildings, and as such, these components are addressed below. The existing underground storage reservoir itself is clearly not a new “structure” and, therefore, its compliance with CCZO Section 507 and other standards pertaining to “structures” is not addressed further.

- .1 All new dwellings and structures are subject to the siting standards in this section. Relevant physical and locational factors including, but not limited to, topography, prevailing winds, proximity to existing roads, access, surrounding land use and source of domestic water shall be used to identify a site which:

- A. Has the least impact on nearby or adjacent lands zoned for forest or agricultural use;

FINDING: As previously addressed above, where the criterion of CCZO §501.1(E) was addressed, the proposal supports the continuation of an established locationally dependent use due to the relevant physical and locational factors of the naturally occurring underground reservoirs and exiting infrastructure at the Mist Facility the new wells will be interconnected to. Additionally, staff identifies that the wells are entirely contained on the subject properties. As evidenced by State of Oregon 2024 aerial imagery, the four (4) well pad locations have been logged and cleared of timber and thus, also substantially cleared of any wildfire ignition fuel in the immediate vicinity of the proposed wells/wellheads.

As acknowledged within the ECONOMIC, SOCIAL, ENVIRONMENTAL, AND ENERGY CONSEQUENCES section of Article VII – ENERGY, in PART XVI of the Columbia County Comprehensive Plan:

“A natural gas well is a temporary land use that affects approximately one-half acre of ground.”

A half-acre square contains exactly 21,780 square feet. When measuring from the centroid of that half acre square (the midpoint location of both the length and width of the half acre square) and placing said centroid on a well, the area of potential impact extends 74 feet in all directions from the location of a well. As shown on the site plan submitted on February 18, 2026, and applicants Exhibit Q - “Medicine Site Plan” (updated) the nearest of the four (4) well pads, and the associated infrastructure contained upon it, to any common property boundary is the Medicine IW well pad, proposed in the southeastern quadrant of 7500-00-04500.

The RTU building to be located at this site is represented to be 51' from the southern property boundary (but is not subject to the area of potential impact for wells). The two nearest wells, adjacent to a common property boundary are “WELLHEAD #2”, shown to be situated 74 feet from the southern property boundary and “WELLHEAD #1”, shown to be 82 feet from the eastern property boundary. Therefore, it has been demonstrated that the impact area for all twelve wells will be contained entirely on the subject properties.

CCZO § 507.1(A), which implements OAR 660-006-0029(1)(a), does not require that development have “no impact” on nearby or adjacent lands zoned for forest or agricultural use. Rather, the purpose of this criterion is to ensure that the proposed location of new structures in the PF-80 zone will have the “least impact” on nearby or adjacent farm and forest lands, including when considering the related siting considerations set forth in CCZO §§ 507.1(B)–(D), as they implement OAR 660-006-0029(1)(b)–(e). As relevant here, all proposed development and operations subject to the County’s review will occur on previously cleared lands fully within the subject properties and within a broader area already reviewed and approved by EFSC for development and operation of the Mist Facility and North Mist Compressor Station expansion in RFA 13. It is reasonable to conclude that the least-impactful location for the additional development and operations now proposed by the applicant to occur would be anywhere within these existing cleared areas, where the well impact area will be contained entirely on the subject properties. The specific sites selected by the applicant meet these sideboards, and there is no reason to believe that the specific sites selected by the applicant would have any more or different impacts than any other sites on the property that also meet these sideboards. Staff finds that the criterion of this section is satisfied.

2024 Oregon State Aerial Imagery with locations of well pads as compared to the submitted site plan



- B. Ensures that forest operations and accepted farming practices on the tract will not be curtailed or impeded by locating dwellings and structures as near to each other and to existing developed areas as possible considering topography, water features, required setbacks and firebreaks;

FINDING: The proposal does not include any dwellings. The subject and surrounding properties are all zoned PF-80 and primarily used for forest management and timber production, coincidentally, there are no dwellings or other structures on surrounding properties in near vicinity of the subject properties. As evidenced by Oregon State 2024 Aerial Imagery, above, the proposed location of the well pads and associated wells/wellheads and RTU buildings will be situated in portions of the subject properties that have already been logged. Additionally, the applicant and the owners of the subject properties who lease the land to the applicant, and who were required to supply letters of authorization that were signed by a duly authorized agents of the entities that own each of the subject properties to the record, have worked in coordination to successfully continue forestry operations and operate the Mist Facility on the subject properties in tandem, for more than 45 years. No impacts from the existing Mist Facility or the associated and already-occurring processing uses previously reviewed and approved by the County have ever been reported by the landowners who are conducting forest operations on the subject properties. For these reasons, staff finds that the (minor) addition of twelve (12) wells/wellheads and associated infrastructure that will facilitate processing of natural gas, a use which has previously been reviewed and conditionally permitted by the County and therefore, is already occurring in various locations on the subject properties, will not impede the forestry operations currently occurring on those properties. Staff finds that the criterion of this section can be considered to be demonstrated as satisfied.

- C. Minimizes the amount of forest lands used for building sites, road access and service corridors;

FINDING: As evidenced by State of Oregon 2024 Aerial Imagery (above), the four (4) proposed well pad locations that will contain the facilities reviewed within this application, have already been recently logged. Within the applicant's submitted findings and as confirmed by the EFSC Final Order, road access to the well pad locations to be developed with the facilities reviewed herein, are established and no new road accesses are necessary or proposed.

Service corridors necessary for the addition of any pipelines for transportation of natural gas from the facilities reviewed in this application to different sites within the Mist Facility, are not within the scope of this review and have been addressed where the criteria of this section were reviewed by EFSC in the Final Order.

Staff finds that, because merchantable timber has already been harvested, and the land cleared at the locations of the proposed well pads and processing infrastructure (wells/wellheads and RTU buildings), and because no new roadway construction has been identified as needed for the current proposal, the criterion of this section regarding minimization of the use of forested lands for building sites and road access has been demonstrated as satisfied. In the event that it is identified that new roads would be necessary upon commencement of construction activities, a condition of approval requiring that, to the practical extent possible, the amount of forest lands used for building sites, road access and service corridors should be minimized.

- D. Is consistent with the provisions of Section 510 related to Fire Siting Standards and minimizes the risk associated with wildfire; and

FINDING: Where the criteria of CCZO §510 are addressed further herein, this section is also addressed.

- E. Is consistent with other requirements contained in the Comprehensive Plan or implementing ordinances, including, but not limited to, regulations which apply to flood, steep slopes, and landslide hazard areas, development within the Willamette

River Greenway, development in forested areas or development in significant resource and natural areas, such as wetland riparian and slide-prone areas.

FINDING: The CCZO provides standards and criteria to implement the goals and policies of the Comprehensive Plan. The current proposal is consistent with applicable sections of the CCZO as addressed throughout findings within this staff report including but not limited to addressing; Conditionally Permitted Uses in the PF-80 Zoning District, General Review Standards, and applicable Standards of Development relevant to any pertinent Overlay Zones. As addressed in previous and subsequent sections of this staff report, there are no flood hazards or riparian corridors within close proximity to any proposed well pads. As long as the proposal is found to comply with all applicable sections of the Zoning Ordinance, it will also comply with the requirements of the Comprehensive Plan. The proposal's consistency with the Policies and Goals of the Comprehensive Plan is further evaluated where the criteria of CCZO Section 1503.5(F) are addressed further herein.

- .2 The applicant shall provide evidence consistent with OAR 660-006-0029(3) that domestic water supply is from a source authorized in accordance with the Department of Water Resources' administrative rules for the appropriation of ground water or surface water in OAR Chapter 690 and not from a Class II stream as defined in the Forest Practices Rule in OAR Chapter 629. If the water supply is unavailable from public sources or sources located entirely on the subject property, then the applicant shall provide evidence that a legal easement has been obtained permitting domestic water lines to cross the properties of affected owners.

FINDING: The proposal is not for a dwelling or residential (domestic) use domestic/potable water supply is not required to serve the processing use that is reviewed through this application. Therefore, the standard of this section is not applicable.

- .3 As a condition of approval, if road access to the dwelling is by a road owned and maintained by a private party or by the Oregon Department of Forestry or the U.S. Bureau of Land management, then the applicant shall provide proof of a long-term road access use permit or agreement. The road use permit may require the applicant to agree to accept responsibility for road maintenance.

FINDING: The standard of this section is explicit to "dwellings." Because the current proposal is not for a dwelling, the standard of this section is not applicable.

- .4 Pursuant to OAR 660-006-0025 (5), approval of a dwelling shall be subject to the following requirements:

FINDING: The standard of this section is explicit to "dwellings." Because the current proposal is not for a dwelling, the standard of this section is not applicable.

- .5 Dwellings and other structures to be located on a parcel within designated Big Game Habitat areas pursuant to the provisions of Section 1190 are subject to the additional siting criteria contained in Section 1190.

FINDING: The subject properties are located within the Big Game Habitat Overlay. The standards and criteria of CCZO §1190 are addressed further herein.

508 General Review Standards

The Planning Director or hearings body shall determine that a use authorized by Sections 504 and 505 meets all of the following requirements:

- .1 The proposed use will not force significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands;

FINDING: The well pads and associated infrastructure (wells/wellheads and RTU Buildings) necessary to support the proposed processing use will occur on properties that are already developed with infrastructure serving the Mist Natural Gas Facility. Staff also has not identified any distinct subsurface aspects of NWN's proposed use that will result in a significant impact on forest or agricultural uses.

As identified in the Background Section of this report, all existing facilities have been previously approved by Columbia County, EFSC, and DOGAMI. The Mist Facility has been in operation for 45 years with no documented evidence of impediment to active forest management practices occurring on the subject and surrounding properties. The applicant, NWN, is a leaseholder on the subject properties and as such, has developed a successful longstanding cooperative work relationship with the landowners who are simultaneously conducting their forestry operations. Those areas range between .50 acres to 2 acres in size. There is no evidence that the currently proposed processing use reviewed through this application, which will be connected to and incorporated into the existing, larger, comprehensive Facility, where the processing and other uses are already occurring in different locations on the subject properties, would force significant changes in, or significantly increase the cost of conducting forestry practices on the subject and immediately surrounding properties. The proposal was noticed to neighboring property owners within 750' of the boundaries of the subject properties. Most of those properties are in common ownership of those entities that own the subject properties. The nearest property in other ownership (6500-00-00600 / Tax account 25096) is located approximately one-half mile south of the "Medicine" IW well pad located on subject properties 7500-00-04700 & 04500. No return comments were received from any property owners within the required 750' notice area.

For the reasons identified above, and without any contrary evidence, staff finds that the current proposal, to conduct a processing use at new locations on a property already supporting that use at a far larger scale, will not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on the subject and surrounding lands devoted to farming and forestry uses.

- .2 The proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel;

FINDING: Upon notice of the proposal, the Oregon Department of Forestry (ODF) - Columbia Unit Forester, Jasen McCoy, returned comment stating:

"ODF asks that Landowner/Operator meet legal requirements of notifying for Power Driven Machinery (PDM) within the Oregon Department of Forestry – Columbia Unit. Routine line maintenance using power driven machinery (year-round) can be noticed as "County Wide Activity". Some projects are more of a fire risk, while others are low fire risk depending on the time of year, weather, topography, and flammable material near the site. A PDM is required year-round from ODF. Additionally, there are extra requirements during fire season.

The applicant can work with the Stewardship Forester for the area for potential consideration of fire equipment waivers."

The requirement to notify ODF when PDM related activities are scheduled to occur, will be made a **condition of approval**.

Section III.N., WILDFIRE PREVENTION AND RISK MITIGATION (OAR 345-022-0115), of EFSC Final Order on the 13th Amendment to the operational site certificate required the applicant to:

“adequately characterize the wildfire risk within the analysis area using reputable sources to describe Baseline Wildfire Risk, Seasonal Wildfire Risk, Areas Subject to Heightened Risk of Wildfire, and High-fire Consequence Areas.”

OAR 345-001-0010(35)(c) (and the EFSC Final Order which references the OAR) defines that analysis/study area to be:

*“an area that includes all the area within the site boundary and the area within the following distances from the site boundary: (c) For land use impacts, wildfire risk, and impacts to fish and wildlife habitat, **one-half mile**.”*

Additionally, as summarized on pg. 79 of the EFSC Final Order:

“Certificate holder contacted the Clatskanie and Mist Birkenfeld RFPDs to solicit input regarding the potential effect that proposed changes to the proposed RFA13 changes could have on their fire protection work.

*The Fire Chief for the Clatskanie RFPD indicated that the potential impact to his district would depend on the number of emergencies that occurred during construction and operation. The Fire Chief for the Mist-Birkenfeld Fire District did not anticipate that the proposed RFA13 changes would have a significant adverse impact on their ability to provide fire protection and EMS services.² The history of safe operation of the facility and the statements from the Fire Chiefs support Council finding **the proposed use will not significantly increase fire hazard or significantly increase fire suppression costs.**”*

The Fire Chief’s analysis considered all aspects of RFA 13, including subsurface components, and concluded the proposal would not significantly increase fire risk or service demands. Additionally, it is important to note that the components that are reviewed within the current application are part of, and contained within, the larger Mist Resiliency Project boundary and thus, were incorporated into the review and analysis of Wildfire Prevention and Risk Mitigation in the EFSC Final Order. The EFSC Final Order identifies that Wildfire Prevention standards and the Wildfire Mitigation Plan requirements apply to construction and operation of the entirety of the proposed facility, consequently, including those components reviewed in this application. EFSC concluded [EFSC RFA 13 Final Order, pg. 186] that the facility will be constructed and operated in compliance with a Wildfire Mitigation Plan [EFSC RFA 13 Final Order, Attachment V-2] approved by the Council.

The analysis of potential increases to fire hazards and the mitigation requirements addressed within the EFSC Final Order, which included the four (4) well pad locations reviewed within the current application, are more than adequate to address compliance with the criteria of this section. Staff also have not identified any distinct subsurface aspects of NWN’s proposed use that will significantly increase fire hazards or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel.

² The February 16, 2024, letter from Joe Kaczinski, Mist-Birkenfeld RFPD Fire Chief, was incorporated to the record as part of applicants February 17, 2026, revised submittal.

Indeed, NWN specifically addressed subsurface fire risks in its application materials and supplemental testimony to the Planning Commission.

Staff finds that the proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel. The criteria of this section are satisfied.

- .3 A waiver of remonstrance shall be recorded with the County Clerk certifying that the owner will not remonstrate against or begin legal action or suit proceeding to cause or persuade the owner or operator of any farm or forest lands to modify the conduct of legal and accepted farm or forest operations; and

FINDING: Signature and recordation of a waiver of remonstrance on each of the four (4) subject properties will be made a condition of approval. After recordation of the four (4) waivers with the Columbia County Clerk, the applicant shall submit copies of the recorded documents to the Planning Division, prior to issuance of any building permits or commencement of the use reviewed through this application. Staff finds that compliance with the requirement of this section can be satisfied through a condition of approval.

- .4 The proposed use is consistent with requirements contained in the Comprehensive Plan or implementing ordinances, including, but not limited to, regulations which apply to flood hazard areas, development within the Willamette River Greenway, development in forested areas or development in significant resource areas, such as riparian, wetlands or slide-prone areas.

FINDING: Where the nearly identical criteria of CCZO §507.1 (E) were previously addressed, the criteria of this section were also already addressed. Staff finds that the criteria of this section are satisfied.

509 Standards of Development

- .1 The minimum average lot or parcel width and minimum average lot or parcel depth shall be 100 feet for all activities except farming or forestry.

FINDING: The proposed use is not for farming or forestry. Therefore, the standard of this section is applicable. Accordingly, the minimum average lot or parcel width and depth of all four (4) subject properties greatly exceeds the 100 feet minimum average lot or parcel depth requirement of this section. Consequently, the standard of this section is demonstrated as met.

- .2 Access to parcels in this zone shall meet Fire Safety Design Standards for Roads in the County Road Standards and access standards found in Section 510 of the Zoning Ordinance.

FINDING: CCZO §510 explicitly states “The following fire siting standards or their equivalent shall apply to new dwellings in this zone.” The current proposal is not for a dwelling, therefore, the standards of CCZO §510, and by default, the criterion of this section are not applicable to the current proposal.

- .3 There shall be no height limitation for forest operation and management- related structures unless otherwise permitted in the Primary Forest Zone. The maximum building height for all non-farm, non-forest structures shall be 50 feet or 2 ½ stories, whichever is less.

FINDING: The structures (wellheads and RTU Buildings) subject to this review are not part of a forest management operation or use. Therefore, a condition of approval will limit any structure reviewed through this application to no more than 50 feet or 2 ½ stories in height. Compliance with this requirement shall be verified at the time of submittal for building permits.

- .4 The standards and requirements described in Section 1300 of the Zoning Ordinance shall apply to all signs and name plates in the Primary Forest Zone.

FINDING: No signs or name plates were proposed as part of the current application. In the event signs or name plates are proposed in the future, they will be required to comply with the standards and requirements of CCZO §1300 as applicable to the PF-80 zone district.

- .5 The Oregon Department of Fish & Wildlife shall be notified and provided with the opportunity to comment on any development within major and peripheral Big Game Habitat.

FINDING: The subject properties are located within the Big Game Habitat Overlay. The standards and criteria of CCZO §1190 are addressed further herein. Pursuant to the requirement of this section, the Oregon Department of Fish and Wildlife (ODFW) was sent notice of the proposal with request for comment, on January 13, 2026. As of the date of this staff report, no response has been received from ODFW. Accordingly, Columbia County Planning has satisfied its obligation to provide notice of the proposal and provide opportunity to comment, to ODFW. Compliance with the noticing requirement of this section has been demonstrated as met.

- .6 Setbacks:

- A. There shall be a minimum setback of 50' for front, side, and rear yards for all development in the Primary Forest Zone.

FINDING: As demonstrated on the revised overall site plan dated February 18, 2026, all proposed structural development (wells/wellheads and RTU Buildings) will be located more than 50' from any property line. Compliance with the standard of this section has been demonstrated as met.

- B. When this Ordinance or any other ordinance requires a greater or lesser setback than is required by this subsection, the greater setback shall apply.

FINDING: There is no other greater setback required by this ordinance or any other applicable ordinance. Therefore, the criterion of this section is not applicable to the current proposal.

- C. All structures are subject to any special setbacks when adjacent to arterial or collector streets designated in the County Transportation Systems Plan.

FINDING: The structures proposed in this application are not adjacent to any arterial or collector streets designated in the County Transportation Systems Plan. Therefore, the criterion of this section is not applicable to the current proposal.

- D. No structure or use shall be established in a manner likely to cause contamination of a stream, lake or other body of water. Riparian and natural hazard setbacks set forth in Sections 1170 and 1180 of the Zoning Ordinance shall apply.

FINDING: The submitted site plan, Oregon Department of State Lands (DSL) maps, and county GIS confirm, there are no streams, lakes or other bodies of water in close proximity to the four (4) well pads and associated structural development reviewed in the current proposal. Due to the spatial separation of the proposed facilities from any body of water, compliance with the criteria of this section is demonstrated as satisfied. Consequently, the standards of CCZO §1170 and §1180 do not apply to the current proposal.

- E. When land divisions create parcels of less than 40 acres for uses listed in Subsection 511.2A., provided those uses have been approved pursuant to this Ordinance, required building setbacks for these parcels will be determined on a case-by-case basis by the Director or the hearings body.

FINDING: The proposal is not for a land division. Therefore, the criterion of this section is not applicable to the current proposal.

- F. The owner shall provide and maintain primary fuel-free fire break and secondary fire break areas on land surrounding the dwelling and primary fuel-free break areas surrounding accessory structures in the Primary Forest Zone pursuant to the provisions in Subsections 510.2 and .3.

FINDING: The proposal does not include any dwellings and consequently, it does not include any residential accessory structures. Therefore, the standards of this section are not applicable to the current proposal.

- .7 Approval Period for Use Permits. For all uses approved under sections 504 and 505, the approval period shall be valid for four (4) years. At a minimum, a development construction permit must be issued by [the] Land Development Services within the approval period. If a construction permit is not issued within the approval period, the land use permit expires. An extension of two years on the approval period may be granted by the Director if a written request is received prior to its expiration and the reason for the delay is beyond the control of the owner.

FINDING: The proposal is a request for approval of a Conditional Use, as identified in CCZO §505.2. Therefore, in the event an approval is issued, the approval period for the applicant to secure a development construction permit will remain valid for four (4) years from the date of the final decision.

510 Fire Siting Standards for Dwellings, Structures and Roads

The following fire-siting standards or their equivalent shall apply to new dwellings in this zone:

FINDING: The proposal is not for a dwelling, therefore the standards of this section are not applicable to the current proposal.

516 Notification of State Agencies

The Oregon Department of Forestry's Columbia Unit Office and the Oregon Department of Fish and Wildlife's Forest Grove Office shall be notified and requested to comment on all conditional use requests filed under Section 503 of this Zone and all building or placement permit application filed under the Primary Forest Zone. Responses should be received within 10 days of the date of mailing to be assured consideration.

FINDING: Pursuant to the requirement of this section, notice of the proposal was emailed to Jasen McCoy (Oregon Department of Forestry - Unit Forester, Columbia County) and to Mark Nebeker (Oregon Department of Fish and Wildlife - Northern Willamette Valley, Wildlife Biologist). As of the date of this staff report, no responses have been received from either agency. Accordingly, Columbia County Planning has satisfied its obligation to provide notice to these two agencies. Compliance with the noticing requirement of this section has been demonstrated as met.

1190 BIG GAME HABITAT OVERLAY

1191 Purpose

To protect sensitive habitat areas for the Columbian white-tailed deer and other Big Game by limiting uses and development activities that conflict with maintenance of the areas. This section shall apply to all areas identified in the Comprehensive Plan as a **major** and **peripheral** big game range or Columbian white-tailed deer range, as shown on the 1995 Beak Consultant's map, entitled "Wild Game Habitat" in the Comprehensive Plan in Appendix Part XVI, VIII(A).

FINDING: The western 2/3rds of 7500-00-05000 (where the "Newton" Well Pad and associated infrastructure will be located) in Section 33, are in the Birkenfeld-Mist C.P.A.C. area. The other 1/3rd of 7500-00-05000, all of 7500-00-04800 (where the existing, to be expanded, "Stegosaur" Well Pad and associated infrastructure are to be located), 7500-00-04700 (where the "Medicine I/W" Well Pad and associated infrastructure will be located) and 7500-00-04500 (where the "Medicine O/M" Well Pad and associated infrastructure will be located) in Sections 34 and 35, are in the Clatskanie-Quincy C.P.A.C. area. Both area "Wildlife Game Habitat" Maps have been incorporated into this record. As evidenced by both maps, there is no Columbian white-tailed deer range in vicinity of the proposed development.

The legend on the Beak Consultants maps identifies "Big Game Habitat" in hatched blue lines, and "Peripheral Big Game Habitat" with a swath of red triangles. The term "Major" is not included on these maps, however, staff assumes that any area not mapped as "Peripheral" is by default, "Major".

Consequently, "Major" Big Game Habitat encompasses all four (4) of the subject properties, and "Peripheral" habitat is shown in the northeastern corner of 7500-00-04500. Therefore, staff finds that the standards of this section are applicable.

1193 Development Siting Standards

All new residential development and uses located in Major and Peripheral Big Game or Columbian White-tailed Deer Habitat shall be subject to following siting standards:

- A. Dwellings and structures shall be located as near each other and existing developed areas as possible considering topography, water features, required setbacks, and firebreaks.

FINDING: The only structures existing on the subject properties are those that are committed to use in the Mist Natural Gas Facility and primarily located on 7500-00-04701, a property centrally located within the subject properties, and not part of the current proposal. Simply because there is a limited number of structures contained on a site that is 1,328 acres in size for the proposed new structures to be situated next to, does not have the effect of precluding a use which may be conditionally approved, and which may require placement of infrastructure to conduct the use, as is the case in this instance. As previously addressed herein, where the criteria of CCZO §501.1(E) and §507.1(A) were addressed, the proposal

supports the continuation of an established locationally dependent use due to the relevant physical and locational factors of the naturally occurring underground reservoirs and exiting infrastructure at the Mist Facility the new wells will be interconnected to. Staff finds that, due to existing development and infrastructure in the facility boundary as acknowledged, approved and permitted by EFSC, the proposal satisfies the criteria of this section to the degree possible, considering that there is no development in proximity in which to cluster, that would also allow the use to occur as safely and necessarily as possible, to process gas at the proposed wells as it recharges or exits a naturally occurring reservoir that exists underground.

- B. Dwellings and structures shall be located to avoid habitat conflicts and utilize least valuable habitat areas.

FINDING: The Columbia County Comprehensive Plan (Part XVI – GOAL 5, Article VIII – Fish and Wildlife Habitat, §A – Big Game Habitat, 1. – LOCATION, pg. 236) identifies “Major” Big Game Habitat as:

“Areas of the County which supports the majority of big game. These areas provide forage and cover for game during most of the year.”

and identifies “Peripheral” Big Game Habitat as:

“Areas for the County which are also important for sustaining big game populations. These areas are generally at lower elevations and serve as critical habitat during severe winter months.”

The same section of the Comprehensive Plan, §A. 3 – QUANTITY, identifies:

“The majority of the 676 square miles of land located within Columbia County has been identified as habitat for big game by the Oregon Department of Fish and Wildlife.”

Therefore, as acknowledged by the Comprehensive Plan, there are little to no areas of land in the whole of Columbia County that any kind of development could be approved, that *would not* have any impact to Big Game Habitat. The Comprehensive Plan §A. 4 – POTENTIAL CONFLICTING USES, of that same section, identifies that other non-resource uses, such as the current conditional use under review, have the potential to permanently alter big game habitat areas when a use will require or allow groups of people to be present at a site or when large amounts of vegetative cover (forage) would be required. There will be limited staff, if any, present onsite at the well pad locations at any given time, year-round, and the proposed locations of the well pads and associated infrastructure have already been logged and consequently, cleared of vegetation for forage.

Findings presented in §A. 6 of the same section of the Comprehensive Plan acknowledge that, while there are conflicting uses in Big Game Habitat areas, such conflicting uses cannot be completely prohibited without that prohibition generating its own negative consequences. As set forth in the applicant’s written findings and as verified by calculating the development areas shown in applicants exhibits E, F, G and H (the revised individual well pad site plans), the total development area for all four (4) well pad locations will be 6+/- acres of removed vegetation. Compared to the site size of 1,328 acres, this disturbance area is only approximately .45% of the total land area of the subject properties. The well pad locations are located at higher elevations, in locations where internal roadways already exist and timber has already been harvested. Without evidence to the contrary, staff finds that the selected sites can be qualified as some of the least valuable forage areas existing on the subject properties and finds the criterion of this section to be satisfied.

Additionally, and of note, Section III.H. of the EFSC Final Order where Fish and Wildlife Habitat disturbance is analyzed pursuant to the requirement of OAR 345-001-0010(35)(c) which requires an

impacts analysis and mitigation plan for a study area that include all the area in the site boundary and within one-half mile of the site boundary. The EFSC Final Order imposes Fish and Wildlife Habitat Conditions which require the certificate holder to finalize and implement, for the life of the facility, a habitat mitigation plan that secures, protects, manages and enhances a mitigation site in an amount and quality necessary to offset the acres and quality of habitat impacted.

- C. Road development shall be minimized to that which is necessary to support the proposed use and the applicant shall utilize existing roads as much as possible.

FINDING: NWN has not proposed to develop and is not requesting approval to develop any new roads as part of this application. The Planning Commission chose not to adopt staff's previously recommended condition of approval implementing this standard, in direct response to NEDC's objection to staff's proposed condition. This criterion is satisfied.

- D. The owner/occupant of the resource parcel shall assume responsibility for protection from damage by wildlife.

FINDING: The requirement of this section will be made a condition of approval.

- E. Riparian and Wetland areas shall be protected in accordance with Sections 1170 and 1180.

FINDING: As previously addressed herein, there are no Riparian or Wetland areas in vicinity of proposed development reviewed within this application. Therefore, the standards of CCZO §1170 and §1180 are not applicable to the current proposal.

- 1194** The County shall notify the Oregon Department of Fish and Wildlife (ODFW) of all proposed uses or development activities which require a permit and are located in Major or Peripheral Big Game Habitat. The County will consider the comments and recommendations of ODFW, if any, before making a decision concerning the requested use or activity.

FINDING: The Oregon Department of Fish and Wildlife (ODFW) was sent notice of the proposal with request for comment, on January 13, 2026. As of the date of this report, no comments have been submitted to the record by ODFW. Staff finds that Columbia County Planning has satisfied its obligation to provide notice of the proposal and opportunity to comment, to ODFW, as required. Compliance with the noticing standard of this section has been demonstrated as met.

Additionally, as documented on page 90 of the EFSC Final Order, consultation with ODFW occurred prior to issuance of the 13th Amendment approval, and ODFW did not have any specific comments or concerns related to the impacts of the proposed changes.

- 1195** The County shall notify the Oregon Department of Fish and Wildlife (ODFW) and the U.S. Fish and Wildlife (USFW) of all proposed uses or development activities which require a permit and are located in Columbian White-tailed Deer Habitat. The County will consider the comments and recommendations of ODFW and USFW, if any, before making a decision concerning the requested use or activity.

FINDING: As evidenced by both the Birkenfeld-Mist C.P.A.C. and Clatskanie-Quincy C.P.A.C. area "Wildlife Game Habitat" Maps, there is no Columbian white-tailed deer habitat in vicinity of the proposed

development. Therefore, the noticing requirement of this section is not applicable to the current proposal.

1503 CONDITIONAL USES:

- .5 Granting a Permit: The Commission may grant a Conditional Use Permit after conducting a public hearing, provided the applicant provides evidence substantiating that all the requirements of this ordinance relative to the proposed use are satisfied and demonstrates the proposed use also satisfies the following criteria:

A. The use is listed as a Conditional Use in the zone which is currently applied to the site;

FINDING: Pursuant to CCZO §505.2, processing of natural gas is listed as a Conditional Use in the PF-80 zone district. Therefore, staff finds that the criterion of this section is demonstrated as met.

B. The use meets the specific criteria established in the underlying zone;

FINDING: The relevant criteria of the PF-80 zone are found in CCZO §500. As addressed within this staff report, the proposal demonstrates compliance or feasibility for compliance, with conditions of approval, with the specific use and development criteria listed in CCZO §500, subsections: §501 – Purpose of the PF-80 zone, §505 – Conditional Uses, §507 – Siting Standards for Dwellings and Structures, §508 – General Review Standards, and §509 – Standards of Development. Therefore, staff finds that the criterion of this section is demonstrated as met.

C. The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements, and natural features;

FINDING: Where the criteria of CCZO §507 – Siting Standards, §508 – General Review Standards, §509 – Standards of Development and §1193 – Siting Standards in the Big Game Habitat Overlay, were addressed, the criteria of this section were already addressed.

D. The site and proposed development is timely, considering the adequacy of transportation systems, public facilities, and services existing or planned for the area affected by the use;

FINDING: The application states that the proposed use will not require any new public facilities or services. Access to the site will be taken from Highways 47 and 202 and from existing County Roads. There is no anticipated impact to the established transportation systems that will be utilized to reach the site. The applicants submitted findings which state, “*The proposed construction and operation of injection/withdrawal and observation wells at the Mist Underground Natural Gas Storage Facility will help support the balancing of natural gas supplies and widely fluctuating market requirements.*” Staff finds that the proposed development is simply an expansion of existing development and use which has already been long occurring, it is timely as it is necessary to support production and provision of service of a utility used by many of the residents of and businesses in Columbia County. As addressed throughout sections of this staff report and as addressed within this finding, staff finds that the current proposal has demonstrated satisfaction with the criterion of this section.

E. The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs, or precludes the use of surrounding properties for the primary uses listed in the underlying district;

FINDING: As previously addressed herein, the nearest location of proposed development to any adjacent property not in common ownership with the subject properties, will be the Medicine OM well pad and associated infrastructure, to be located near to the southeastern corner of 7500-00-04500, where the well will be 243' +/- north of the common boundary with 6500-00-00100. The subject and surrounding properties are all zoned PF-80. Where the criteria of CCZO §507.1 (A) and (B) §508.1 were previously addressed herein, staff concluded that the proposal would not force a significant change in accepted farming or forestry practices on surrounding farming and forestry lands, nor on the subject properties. For the reasons identified in the findings presented in each of those aforementioned sections, staff finds that the proposed use will also not limit or impair the ability to conduct the outright permitted uses identified in CCZO §503, the administratively reviewed uses identified in CCZO §504 or any of the other conditionally authorized uses found in CCZO §505.

Additionally, and perhaps most indicative that the proposed use will not alter the character of the surrounding area, is the fact that there is no evidence in the record and no comments returned upon notice to the 750' notice area, that the proposed processing use reviewed through this application which has already been occurring at various locations on the site where other wells are established, for 45 years, has altered the character, limited, impaired or precluded the uses of surrounding properties. As addressed throughout sections of this staff report and as addressed within this finding, staff finds that the current proposal has demonstrated satisfaction with the criterion of this section.

- F. The proposal satisfies the goals and policies of the Comprehensive Plan which apply to the proposed use;

FINDING: The relevant sections of the Columbia County Comprehensive Plan are identified below. The analysis in this finding addresses how the proposal satisfies the goals and policies of each relevant section.

Part IV – Forest Lands

GOAL: To conserve forest lands for forest uses.

POLICIES: It shall be the policy of Columbia County to:

1. Conserve forest lands for forest uses, including:
 - A. The production of trees and the processing of forest products;

There has been no demonstrated impact to commercial timber production or processing thereof, in the approximately 45 years that the facility has been operating. As previously addressed herein and evidenced by Oregon State 2024 aerial imagery, the four (4) well pad locations have already been logged and cleared of merchantable timber. Access to the well pads and wells are from existing logging roads and once reforested, as timber in the vicinity of the well pads begins to regrow, removal of any trees will be only those necessary to maintain clear access, and the areas surrounding the well pads and associated facility to comply with any fire safety requirements applied by the Mist-Birkenfeld RFPD. Any tree removal necessary for compliance with those requirements will be coordinated with the surface property owners as the applicants always have, to ensure no conflicts arise between ongoing forest practices on the subject and adjacent properties. All properties within the Mist Facility have maintained their ongoing forest operations and none of the subject and surrounding properties have ceased forest management activities due to conflicts with the simultaneous site activities associated with the existing Mist Natural Gas Facility. For these reasons, staff finds that the proposal will meet Columbia County's goal of conserving forest lands for forest uses.

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Part X – Economy

PREFACE:

The problems and the opportunities found in the County are summarized here. This is not necessarily a complete list of findings.

Opportunities or Economic Advantages:

- producing natural gas wells and possibility of oil resources

GOALS:

1. To strengthen and diversify the economy of Columbia County and insure stable economic growth.
2. To utilize Columbia County's natural resources and advantages for expanding and diversifying the economic base.

POLICIES: It shall be a policy of the County to:

1. Encourage the creation of new and continuous employment opportunities
2. Encourage a stable and diversified economy.
4. Place the County in the position of being able to respond to market opportunities by providing technical assistance in locating available sites for development.
7. Protect identified aggregate resources until they are extracted, and plan for the reclamation and future productive uses of those sites.
11. Coordinate with public utility companies to insure energy supplies are available to areas programmed for development and redevelopment.

The Economy Goals of Columbia County are to strengthen and diversify it in ways that will ensure stable economic growth and to utilize the County's natural resources for expanding and diversifying its economic base. Within this section of the Comprehensive Plan, Natural Gas is identified as one of the four **Mineral and Aggregate Resources** of Columbia County, specifically the Mist Facility has been a significant contributor to the Columbia County Economy since discovery of the resource in 1979 and has allowed NWN to balance relatively constant pipeline gas supplies with widely fluctuating market requirements. The Mist Natural Gas Facility not only creates jobs but also provides a reliable, local energy source for this the citizens of Columbia County and the surrounding region. For these reasons, staff finds that the current proposal will strengthen and diversify the economy of Columbia County and ensure stable economic growth and will utilize this natural resource to expand and diversify the economic base of Columbia County.

Part XVI - Goal 5 - Open Space, Scenic and Historic Areas and Natural Resources

Article VII: ENERGY SOURCES GOALS AND POLICIES

GOAL: To protect deposits of energy materials in the County and prevent injury to surrounding lands and residents.

POLICIES: It is the policy of the County to:

1. Rely on DOGAMI to require that wells are drilled, cased, and plugged in such a manner as to ensure public safety.

The proposed wells are subject to the regulatory requirements of DOGAMI and their Oil, Gas and Geothermal Regulatory and Reclamation Program which are, in turn, designed to ensure that natural gas processing activities are conducted in ways that ensure conservation of the resource and protection of the

environment. Through an imposed condition of approval, requiring the applicant to obtain all permits as required and regulated by DOGAMI, the proposal can ensure that it meets Columbia County's goal to protect deposits of energy materials while preventing injury to surrounding lands and residents.

Part XVII - Air, Land, and Water Resources

GOAL: To maintain and improve land resources and the quality of the air and water of the County.

POLICIES: It shall be the policy of Columbia County to:

1. Work with the appropriate State and Federal agencies to insure that State and Federal water, air, and land resource quality standards are met.

The proposed processing use reviewed at the four (4) well pad sites are not in the immediate vicinity of any identified sensitive and/or protected water resources. The applicant states that the proposed use will have little to no effect on air and water quality because any approval issued by Columbia County will require compliance with the applicable federal and state environmental regulatory agency requirements, including, but not limited to the following agency permits that must be obtained, as identified on page 42 of EFSC Final Order:

- Oregon Department of Environmental Quality (DEQ) National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit 1200-C;
- DEQ Air Contaminant Discharge Modification Permit;
- DEQ 401 Water Quality Certification;
- DEQ Onsite Sewage Disposal Construction-Installation Permit;
- Oregon Department of Forestry (ODF) Notification of Operation;
- Oregon Department of State Land's (DSL) General Authorization;
- Oregon Department of Water Resources' (ODWR) groundwater permit; and
- Department of Geology and Mineral Industries (DOGAMI) Gas Well Drill Permits.

All of these agency requirements are designed to protect against destruction and mitigate fish, wildlife and human habitat conflicts, as well as to minimize water, land, and air pollution. The applicant identifies that when natural gas production ceases, all wells will be abandoned as approved by the DOGAMI, allowing all sites to be returned to their original states. Provided all federal, state and local regulatory permits are obtained as required by a condition of approval, staff finds that the proposal will meet Columbia County's goal to maintain and improve land resources and the quality of the air and water of Columbia County.

For the reasons addressed herein, and with applied conditions of approval, staff finds that the current proposal satisfies the identified relevant parts of the Columbia County Comprehensive Plan.

G. The proposal will not create any hazardous conditions.

FINDING: The EFSC Final Order assessed and addressed the potential hazards of the entirety of the Mist Facility, on a much larger scale that incorporates any hazards which may occur from the proposed processing at wellheads or in the underground reservoirs. Additionally, the EFSC Final Order contains hazard mitigation requirements and conditions relevant to the identified potential hazards in the entire facility, including the well pad locations and supporting infrastructure reviewed within this current proposal. The potential hazards reviewed were: Site Seismic Hazards, including Landslide and Slope Stability per the review requirements of OAR 345-022-0020, potential impacts to soils and soil protection measures pursuant to OAR 345-022-0022, Wildfire Prevention and Risk Mitigation per OAR 345-022-

0115, specifically, as found on page 180 of the EFSC Final Order: “Under OAR 345-022-0115(1)(b), Council must find that the facility will be designed, constructed, and operated in compliance with a Wildfire Mitigation Plan (WMP) approved by Council.”

Staff finds that the current proposal demonstrates feasibility for compliance with this section, and compliance can be assured through a condition of approval requiring the applicant to obtain all applicable federal, state and local agency permits, and to follow the associated regulatory compliance programs and reporting requirements thereof.

COMMENTS RECEIVED:

- **Columbia County Building Official:**
Has no objections to the proposal, provided the applicant submit a Site Development Permit and obtain any necessary building permits, including electrical, mechanical and plumbing permits.
- **Oregon Department of Forestry (ODF):**
ODF asks that Landowner/Operator meet legal requirements of notifying for Power Driven Machinery (PDM) within the Oregon Department of Forestry – Columbia Unit. Routine line maintenance using power driven machinery (year-round) can be noticed as “County Wide Activity”. Some projects are more of a fire risk, while others are low fire risk depending on the time of year, weather, topography, and flammable material near the site. A PDM is required year-round from ODF. Additionally, there are extra requirements during fire season.

The applicant can work with the Stewardship Forester for the area for potential consideration of fire equipment waivers.
- As of the date of this staff report, no comments have been received from the following agencies who were sent notice of the proposal:

Mist Birkenfeld Fire District / West Oregon Electric / Mist Birkenfeld CPAC / Oregon Department of Geology and Minerals (DOGAMI) / Oregon Department of Fish & Wildlife (ODFW)
- As of the date of this report, no comments have been received from neighboring property owners who received notice of the proposal, within the statutory 750’ notice area as required by ORS 215.416(11)(c)(A)(iii).

CONCLUSION AND RECOMMENDATION TO BOARD:

Based upon staff’s research and investigation of the subject and surrounding properties and the findings presented within this staff report, staff recommends the Board affirm the Planning Commission’s decision and **APPROVE** this request for a conditional use to allow the processing of natural gas at four (4) new well pad locations on the subject properties, to facilitate continued efficient operation at the existing Mist Natural Gas Facility, subject to the following conditions:

RECOMMENDED CONDITIONS OF APPROVAL:

1. **EXPIRATION:** The applicant must secure a development construction permit from Land Development Services within four (4) years from the date of the final decision or this approval shall expire. If such permit has not been secured by that deadline, an extension may be granted by the

Planning Manager if requested in writing with the appropriate fee before the expiration date [CCZO Section 509.7].

2. PRIOR TO ISSUANCE OF BUILDING PERMITS AND/OR COMMENCING OPERATIONS:

- A. FEDERAL AND STATE AGENCY PERMITS:** The applicant shall obtain all necessary permits from all federal and state agencies as identified in the EFSC Final Order.
- B. WAIVER OF REMONSTRANCE:** For all four (4) of the subject properties, waivers of remonstrance shall be signed by a duly authorized agent of the entity owning the property, and notarized, then recorded with the County Clerk. This waiver certifies that the owner will not remonstrate against or begin legal action or suit proceeding to cause or persuade the owner or operator of any farm or forest lands to modify the conduct of legal and accepted farm or forest operations. Applicants shall submit recorded copies to the Planning Division of Columbia County Land Development Services, prior to issuance of any building permits or commencement of the use.

3. PRIOR TO COMMENCING OPERATIONS:

- A. COLUMBIA COUNTY BUILDING PERMITS:** The applicant shall coordinate with the Columbia County Building Official to submit/apply for all building (electrical, structural, mechanical and plumbing) permits deemed applicable by the Building Official. Including but not limited to; Site Development Permits for earth movement (grade and fill) and any necessary electrical, mechanical and plumbing permits.

4. ONGOING CONDITIONS OF APPROVAL:

- A. ODF NOTICING FOR ACTIVITIES INCLUDING POWER DRIVEN MACHINERY (PDM):** At any time when Power Driven Machinery (PDM) activities will be conducted, the applicant shall coordinate with and provide notice to the Oregon Department of Forestry (ODF) – Columbia Unit to meet the legal requirements of notification of use of Power Driven Machinery (PDM).
- B. HEIGHT LIMITATION ON STRUCTURES:** Structures (wellheads / RTU Buildings) shall be no more than 50 feet or 2 ½ stories in height. Compliance with this requirement shall be verified at the time of submittal for building permits.
- C. WILDLIFE PROTECTION:** The owner/occupant of the resource parcel shall assume responsibility for protection from damage by wildlife.