

**WHATCOM COUNTY  
PLANNING & DEVELOPMENT SERVICES  
STAFF REPORT**

**I. OVERVIEW**

**File #** PLN2019-00010

**File Name:** Surface Mining Pipeline Buffer

**Applicant:** Whatcom County Council

**Summary of Request:** Amend the Whatcom County Comprehensive Plan and Whatcom County Code to determine the minimum safe distance to allow surface mining to be conducted from a petroleum pipeline to ensure a pipeline will not become exposed or rupture during an earthquake event and contaminate an aquifer. Determination should be based on independent sources where possible and assume a magnitude 9.0 or greater earthquake could occur.

**Location:** Countywide

**Staff Recommendation:** Approval

**History:** In response to the proposed amendment, staff reached out to multiple jurisdictions and pipeline operators in an attempt to find out if there is a standard minimum safe distance presently in use. The result of the inquiry is that there is not.

In response, without examples of minimum standards, the language within Exhibit A was drafted by PDS staff to be an additional Conditional Use Permit approval criterion for surface mining subject to the surface mining act.

In the proposed code language, "2 percent probability of exceedance in 50 years" is an industry standard for seismic designs that must consider large-magnitude, low-frequency seismic events. It is the common design standard for developments like essential or emergency facilities. By considering seismic events with this low recurrence potential, both on local and crustal faults and at the Cascadia Subduction Zone, the required assessment essentially addresses a worst case scenario.

The Surface Mining Advisory Committee (SMAC) voted unanimously in support of forwarding this language to the Planning Commission for their review and recommendation to the County Council.

**II. ZONING CODE EVALUATION**

In order to approve an amendment to the development regulations, the planning commission and county council shall find that the amendment is consistent with the comprehensive plan (WCC 20.10.060(2)).

The following goals and policies of the Comprehensive Plan apply to the subject zoning text amendments.

### **Natural Gas and Hazardous Liquid Transmission Pipelines**

**Goal 5M:** Protect the citizens and the environment of Whatcom County through informational, educational, and regulatory measures

Staff Comment: The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer. The proposal will require a site specific geotechnical analysis of potential impacts to gas or petroleum transmission pipelines from mineral extraction within 500 feet of pipelines.

**Policy 5N-8:** Require expanded land uses and facilities located nearer than 500 feet from the centerline of a transmission pipeline to not increase the level of risk from a pipeline failure and use site design, building, technological, and/or operational techniques to reduce or minimize risk

Staff Comment: The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer. The proposal will require a site specific geotechnical analysis of potential impacts to gas or petroleum transmission pipelines from mineral extraction within 500 feet of pipelines.

### **Mineral Resources**

**Goal 8L:** Ensure mineral extraction industries do not adversely affect the people and other properties in the vicinity, by establishing appropriate and beneficial designation and resource conservation policies, while recognizing the rights of all property owners.

**Policy 8L-1:** Avoid significant impacts on adjacent or nearby land uses, public health and safety, or natural resources from mineral extraction.

Staff Comment: The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer. The proposal will require a site specific geotechnical analysis of potential impacts to gas or petroleum transmission pipelines from mineral extraction within 500 feet of pipelines.

**Policy 8L-3:** Avoid adversely impacting ground and surface water quality. The protection of aquifers and recharge zones should have precedence over

surface mining in the event it is determined by the county that adverse impacts cannot be avoided through the standard use of best management practices. Avoid contamination of aquifers by using best management practices for reclamation or on-site storage.

Staff Comment: The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer. The proposal will require a site specific geotechnical analysis of potential impacts to gas or petroleum transmission pipelines from mineral extraction within 500 feet of pipelines.

### **Environmental Management**

**Goal 10A:** Protect natural resources and systems, life, and property from potential hazards

**Policy 10A-2:** Protect the environment through a comprehensive program that includes voluntary activity, education, incentives, regulation, enforcement, restoration, monitoring, acquisition, mitigation, and intergovernmental coordination.

Staff Comment: The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer. The proposal will require a site specific geotechnical analysis of potential impacts to gas or petroleum transmission pipelines from mineral extraction within 500 feet of pipelines.

### **Surface Water and Groundwater**

**Goal 10G:** Protect and enhance Whatcom County's surface water and groundwater quality and quantity for current and future generations.

Staff Comment: The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer.

**Policy 10G-1:** Maintain as a high priority the protection of water quality and quantity.

Staff Comment: The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer.

**Policy 10A-2:** Protect the environment through a comprehensive program that includes voluntary activity, education, incentives, regulation,

enforcement, restoration, monitoring, acquisition, mitigation, and intergovernmental coordination.

Staff Comment: The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer. The proposal will require a site specific geotechnical analysis of potential impacts to gas or petroleum transmission pipelines from mineral extraction within 500 feet of pipelines.

### **III. COMPREHENSIVE PLAN EVALUATION**

In order to approve the proposed Comprehensive Plan amendments, pursuant to Whatcom County Code (WCC) 22.10.060, the planning commission and county council must find:

- The amendment conforms to the requirements of the Growth Management Act, is internally consistent with the county-wide planning policies and is consistent with any interlocal planning agreements.
- Further studies made or accepted by the department of planning and development services indicate changed conditions that show need for the amendment.
- The public interest will be served by approving the amendment.

#### **A. That the amendment conforms to the requirements of the Growth Management Act, is internally consistent with the county-wide planning policies and is consistent with any interlocal planning agreements.**

The proposal conforms to the requirements of the Growth Management Act outlined in the planning goals and comprehensive plan mandatory elements as described below.

#### RCW 36.70A.020 - Planning Goals:

GMA planning goal #10 states: "Protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water" (RCW 36.70A.020(10)).

Staff Comment: This amendment will require a site specific geotechnical analysis to ensure aquifer protection is achieved through protection of gas and petroleum pipelines during seismic events. The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer.

#### RCW 36.70A.070 - Comprehensive plans - Mandatory elements:

##### RCW 36.70A.070(1) - Land Use Element

The land use element states, in part: "The land use element shall provide for protection of the quality and quantity of groundwater used for public water supplies.

Staff Comment: This amendment will require a site specific geotechnical analysis to ensure aquifer protection is achieved through protection of gas and petroleum pipelines during seismic events. The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer.

#### RCW 36.70A.070(5) - Rural Element

The rural element shall (in part): "include measures that apply to rural development and protect the rural character of the area, as established by the county, by protecting critical areas...and surface water and groundwater resources." (RCW 36.70A.070(5)(c)(iv))

Staff Comment: This amendment will require a site specific geotechnical analysis to ensure aquifer protection is achieved through protection of gas and petroleum pipelines during seismic events. The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer.

#### County-Wide Planning Policies

County-Wide Planning Policy N-2 states that:

The Cities and the County in cooperation with other municipal corporations and tribal governments shall adopt zoning regulations and development standards to protect water resources. Where there are potential conflicts with designations required by the Growth Management Act, such as natural resource lands and critical areas, water resource protection shall generally have priority.

Staff Comment: This amendment will require a site specific geotechnical analysis as part of the zoning regulations to ensure aquifer protection is achieved through protection of gas and petroleum pipelines during seismic events. The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer.

#### Interlocal Agreement

Staff Comment: Staff is not aware of any interlocal agreements affecting the proposed amendments.

**B. That further studies made or accepted by the department of planning and development services indicate changed conditions that show the need for the amendment.**

There have been no studies made or accepted by PDS that indicate changed conditions that show the need for the amendments. However, seismic events are known to impact the structural integrity of infrastructure. The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event

**C. That the public interest will be served by approving the amendment. In determining whether the public interest will be served, factors including but not limited to the following shall be considered:**

**1. The anticipated effect upon the rate or distribution of population growth, employment growth, development, and conversion of land as envisioned in the Comprehensive Plan.**

Staff Comment: There would be no appreciable anticipated effect upon the rate or distribution of population growth, employment growth, development, and conversion of land as envisioned in the Comprehensive Plan as a result of the proposed amendment. The proposal simply requires a site specific geotechnical analysis to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event.

**2. The anticipated effect upon the ability of the County and/or other service providers, such as cities, schools, water and/or sewer purveyors, fire districts, and others as applicable, to provide adequate services and public facilities including transportation facilities.**

Staff Comment: There is no appreciable anticipated effect upon the ability of the County and/or other service providers, such as cities, schools, water and/or sewer purveyors, fire districts, and others as applicable, to provide adequate services and public facilities including transportation facilities as a result of the proposed amendment. The proposal simply requires a site specific geotechnical analysis to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event.

**3. Anticipated impact upon designated agricultural, forest and mineral resource lands.**

Staff Comment: There is no appreciable anticipated impact upon designated agricultural or forest lands. The proposal requires a site specific geotechnical analysis to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer. The findings of the geotechnical

analysis may require a larger area of separation between mining activities and pipelines than would presently be required. This may protect the public interest of uncontaminated aquifers, as intended by the proposal.

**D. That the amendment does not include nor facilitate illegal spot zoning.**

According to the Official Whatcom County Zoning Ordinance:

“Illegal spot zoning” means a zoning action by which a smaller area is singled out of a larger area or district and specially zoned for a use classification totally different from, and inconsistent with, the classification of surrounding land and not in accordance with the Comprehensive Plan. Spot zoning is zoning for private gain designed to favor or benefit a particular individual or group and not the welfare of the community as a whole (WCC 20.97.186).

Staff Comment: The proposed amendments do not change the zoning of any area, therefore the amendment does not include nor facilitate illegal spot zoning.

**IV. PROPOSED FINDINGS OF FACT AND REASONS FOR ACTION**

1. The proposed amendments were docketed by the Whatcom County Council on March 12, 2019.
2. The Surface Mining Advisory Committee recommended approval of the proposed amendments for approval on June 26, 2019.
3. A determination of non-significance (DNS) was issued under the State Environmental Policy Act (SEPA) on April 29, 2021. The associated comment period ended May 13, 2021, and the appeal period concluded May 24, 2021.
4. A comment was received by the Department of Ecology on May 13, 2021, recommending clarification on current issues with mineral extraction near pipelines, potential and actual incidents resulting in damage to pipelines or support structures due to mineral extraction, current restrictions on mineral extractions within the vicinity of pipelines, and suggesting consideration of additional safeguards.
5. A Revised DNS was issued on May 25, 2021, in response to Department of Ecology comments.
6. The Planning Commission held a duly noticed public hearing on the proposed amendments on June 10, 2021.
7. Notice of the proposed amendment was sent to the Department of Commerce on April 21, 2021.
8. On April 21, 2021, the Department of Commerce acknowledged receipt of the

notice, and that a copy of the notice had been forwarded to other state agencies.

9. The Growth Management Act (GMA) includes a planning goal that is relevant to the proposed comprehensive plan amendment.
10. GMA Planning Goal #10: Protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.

This amendment will require a site specific geotechnical analysis to ensure aquifer protection is achieved through protection of gas and petroleum pipelines during seismic events. The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer.

11. The Growth Management Act (GMA) includes comprehensive plan mandatory elements that are relevant to the proposed comprehensive plan amendment and ensure coordination between communities and jurisdictions to reconcile conflicts.
12. Comprehensive Plan Land Use Element states, in part: The land use element shall provide for protection of the quality and quantity of groundwater used for public water supplies.

This amendment will require a site specific geotechnical analysis to ensure aquifer protection is achieved through protection of gas and petroleum pipelines during seismic events. The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer.

13. Comprehensive Plan Rural Element shall, in part: "include measures that apply to rural development and protect the rural character of the area, as established by the county, by protecting critical areas...and surface water and ground water resources.

This amendment will require a site specific geotechnical analysis to ensure aquifer protection is achieved through protection of gas and petroleum pipelines during seismic events. The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer.



14. Whatcom County's County-Wide Planning Policy N-2 states: The Cities and the County in cooperation with other municipal corporations and tribal governments shall adopt zoning regulations and development standards to protect water resources. Where there are potential conflicts with designations required by the Growth Management Act, such as natural resource lands and critical areas, water resource protection shall generally have priority.

This amendment will require a site specific geotechnical analysis as part of the zoning regulations to ensure aquifer protection is achieved through protection of gas and petroleum pipelines during seismic events. The proposal aims to determine the minimum safe distance from petroleum pipelines to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer.

15. There are no interlocal agreements affecting the proposed amendments.
16. Whatcom County Comprehensive Plan contains goals and policies that are applicable to the proposal.
17. Goal 5M: Protect the citizens and the environment of Whatcom County through informational, educational, and regulatory measures.

The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer. The proposal will require a site specific geotechnical analysis of potential impacts to gas or petroleum transmission pipelines from mineral extraction within 500 feet of pipelines.

18. Policy 5N-8: Require expanded land uses and facilities located nearer than 500 feet from the centerline of a transmission pipeline to not increase the level of risk from a pipeline failure and use site design, building, technological, and/or operational techniques to reduce or minimize risk.

The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer. The proposal will require a site specific geotechnical analysis of potential impacts to gas or petroleum transmission pipelines from mineral extraction within 500 feet of pipelines.

19. Policy 8L-1: Avoid significant impacts on adjacent or nearby land uses, public health and safety, or natural resources from mineral extraction.

The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer. The proposal will require a site specific geotechnical analysis of potential impacts to gas or petroleum transmission pipelines from mineral extraction within 500 feet of pipelines.

20. Policy 8L-3: Avoid adversely impacting ground and surface water quality. The protection of aquifers and recharge zones should have precedence over surface mining in the event it is determined by the county that adverse impacts cannot be avoided through the standard use of best management practices. Avoid contamination of aquifers by using best management practices for reclamation or on-site storage.

The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer. The proposal will require a site specific geotechnical analysis of potential impacts to gas or petroleum transmission pipelines from mineral extraction within 500 feet of pipelines.

21. Policy 10A-2: Protect the environment through a comprehensive program that includes voluntary activity, education, incentives, regulation, enforcement, restoration, monitoring, acquisition, mitigation, and intergovernmental coordination.

The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer. The proposal will require a site specific geotechnical analysis of potential impacts to gas or petroleum transmission pipelines from mineral extraction within 500 feet of pipelines.

22. Goal 10G: Protect and enhance Whatcom County's surface water and groundwater quality and quantity for current and future generations.

The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer.

23. Policy 10G-1: Maintain as a high priority the protection of water quality and quantity.

- The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer.
24. There have been no studies made or accepted by PDS that indicate changed conditions that show the need for the amendments. However, seismic events are known to impact the structural integrity of infrastructure. The proposal aims to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event.
  25. There would be no appreciable anticipated effect upon the rate or distribution of population growth, employment growth, development, and conversion of land as anticipated in the Comprehensive Plan as a result of the proposed amendment. The proposal simply requires a site specific geotechnical analysis to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event.
  26. There is no appreciable anticipated effect upon the ability of the County and/or other services providers, such as cities, schools, water and/or sewer purveyors, fire districts, and others as applicable, to provide adequate services and public facilities including transportation facilities as a result of the proposed amendment. The proposal simply requires a site specific geotechnical analysis to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event.
  27. There is no appreciable anticipated impact upon designated agricultural or forest lands. The proposal requires a site specific geotechnical analysis to determine the minimum safe distance from a petroleum pipeline to allow surface mining to be conducted, to ensure mining operations will not increase the likelihood a pipeline becomes exposed or ruptures during an earthquake event and contaminates an aquifer. The findings of the geotechnical analysis may require a larger area of separation between mining activities and pipelines than would presently be required. This may protect the public interest of uncontaminated aquifers, as intended by the proposal.
  28. The amendment does not include nor facilitate illegal spot zoning.

**V. PROPOSED CONCLUSION**

The subject comprehensive plan amendments and zoning text amendments are consistent with the approval criteria of WCC 22.10.060.

**VI. RECOMMENDATION**

Planning and Development Services recommends the Planning Commission forward the proposed amendments to the County Council with a recommendation of approval.

**ATTACHMENTS**

1. Draft Ordinance
2. Exhibit A - DRAFT Comprehensive Plan and Zoning Code Regulations