



State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Habitat Program: 600 Capitol Way N, Olympia, Washington 98501-1091 - (360) 902-2534

ENVIRONMENTAL CHECKLIST
(WAC 197-11-960)

A. BACKGROUND

1. Name of proposed project, if applicable:

Mineral prospecting rules

2. Name of Applicant:

Greg Hueckel

3. Address and phone number of applicant and contact person:

Applicant:

Greg Hueckel

Washington Department of Fish and Wildlife

600 Capitol Way N

Olympia WA 98501-1091

360-902-2416

Contact:

Lisa Wood

Washington Department of Fish and Wildlife

600 Capitol Way N

Olympia WA 98501-1091

360-902-2260

4. Date checklist prepared: 06/20/08

5. Agency requesting checklist: *Washington Department of Fish and Wildlife (WDFW)*

6. Proposed timing or schedule (including phasing, if applicable):

The Fish and Wildlife Commission is scheduled to adopt the proposed rules by October 8, 2008. Rules will become effective 30 - 60 days following adoption. A new Gold and Fish pamphlet (which outlines the rules) will be developed and published in time for the summer mineral prospecting season in 2009.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Monitoring of prospecting activities by WDFW Enforcement or Habitat staff will be conducted to determine compliance with the rules and to determine whether the rules are effective in protecting fish life from the impacts of prospecting activities. If negative impacts are detected, rule changes to address

them may be pursued. If WDFW obtains new information about presence and life histories of fish in waters of the state, necessary adjustments to the authorized work windows may be proposed through formal rule adoption proceedings required by Chapter 34.05 RCW.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal:

WDFW Habitat and Fish Management biologists compiled data on presence of fish in waters throughout the state and fish timing for spawning, incubation, and rearing, in preparation for rule development. This information was compiled from existing data from stream surveys, other agency reports and personal knowledge.

WDFW conducted a study on some of the impacts of mineral prospecting dredging on freshwater mussels and published the results in: Krueger, K., P. Chapman, M. Hallock, and T. Quinn. 2007. Some effects of suction dredge placer mining on the short-term survival of freshwater mussels in Washington. Northwest Science 81(4): 323-332.

WDFW commissioned a consultant to produce a white paper reviewing the best available science on the impacts of mineral prospecting activities. The consultant's report was delivered to WDFW in December 2006, and is available on WDFW's website at: http://wdfw.wa.gov/hcp/hpa_publications/mineral_prospecting_jan07.pdf The report is: R2 Resource Consultants. 2006. Small scale mineral prospecting white paper. Report prepared for Washington Department of Fish and Wildlife. 164 pages

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No

10. List any government approvals or permits that will be needed for your proposal, if known.

The WDFW Gold and Fish pamphlet (G&F pamphlet), which describes proposed rules, will serve as the Hydraulic Project Approval (HPA) for those activities described in it. Exceptions to the activities in the pamphlet, or others not described in it, will require prospectors to obtain an individual HPA specific to the proposed work. Withdrawal of water from state waters for beneficial use may require a water right from Washington Department of Ecology. Miners and prospectors wishing to file a claim, lease or contract on state or federal lands need to file with the appropriate agency (Washington Department of Natural Resources, US Forest Service or Bureau of Land Management). Activities involving significant surface disturbance of National Forest or Bureau of Land Management lands requires a "Notice of Intent" and/or a "Plan of Operation" with those agencies. The Corps of Engineers likely will not require a Section 404 permit for activities covered under the G&F pamphlet, but mining activities not covered by the pamphlet may require a Section 404 permit. Activities conducted in waters containing threatened or endangered species under the Endangered Species Act may require an Incidental Take Permit issued by the US Fish and Wildlife Service or the National Marine Fisheries Service, or both.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

WDFW is adopting rules that apply to mineral prospecting activities that use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state. The existing rules contained in WAC 220-110-200 through 220-110-209 were adopted in 1998 and implemented in 1999. In 2006 the Washington Fish and Wildlife Commission directed WDFW to revise these rules. The proposed rules reflect the latest available information on the impacts of mineral prospecting activities and methods to mitigate those impacts. Following rule adoption, a new G&F pamphlet describing the rules and containing other information related to mineral prospecting will be published. The G&F pamphlet will serve as the HPA for those activities described in it. The proposed rules and the G&F pamphlet will apply to all waters of Washington.

12. **Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

The proposed rules and the G&F pamphlet will apply to all waters of Washington. The rules bar mineral prospecting in lakes, saltwater and waters within state park, national park, or wilderness boundaries, except if an individual site specific HPA is granted by WDFW.

B. ENVIRONMENTAL ELEMENTS

1. Earth

- a. **General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other**

All of the above - rules apply statewide.

- b. **What is the steepest slope on the site (approximate percent slope)?**

Varies according to prospecting location in the state. The rules prohibit excavation, collection, or removal of aggregate from an unstable slope, the toe of any slope, or a portion of any slope that delivers, or has the potential to deliver sediment to state waters.

- c. **What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.**

Varies according to prospecting location in the state. Work sites within the bed of state waters typically are composed of sand, gravel, and rock. Soil composition in upland work sites will vary depending on their location.

- d. **Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

Varies according to prospecting location in the state.

- e. **Describe the purpose, type and approximate quantities of any filling or grading proposed. Indicate source of fill.**

Excavations of varying extent will occur at every project site in order for prospectors to recover placer gold and other minerals. Excavations can be of as little as a few handfuls of stream gravels for processing with a hand-held gold pan, to the movement of up to 10 cubic yards per hour of aggregate with a 5 inch suction dredge. Excavation is not allowed on unstable slopes, the toe of a slope, or any portion of a slope that delivers or has the potential to deliver sediment to state waters. Fill material will be tailings resulting from processing aggregate collected from the excavation site or other stream gravels collected from the work site within the stream.

- f. **Could erosion occur as a result of clearing, construction or use? If so generally describe.**

Yes. Excavations will disturb the earth at the excavation site. Most excavations under the proposed rules will be within active stream channels, which are inherently unstable and constantly changing. Excavations in areas upland to state waters are allowed under the proposed rules, but are restricted to areas that are stable and not likely to deliver sediment to state waters. However, because excavations disturb the earth, it is possible that erosion could result until the excavation sites stabilize.

- g. **About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

None

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:**
Stream gravels will not be removed permanently from the stream, but will be rearranged within the stream. The proposed rules prohibit disturbance of live, rooted, woody vegetation; disturbance of embedded large woody debris within the wetted perimeter; and, excavation on unstable slopes, the toe of slopes, or any portion of slopes that delivers or has the potential to deliver sediment to state waters. The proposed rules, in most cases, require filling and leveling pits, holes, and tailing piles prior to leaving the site.

2. Air

- a. What type of emissions to the air would result from the proposal (i.e., dust automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.**

Operation of pumps and other equipment (such as electrical generators) powered by internal combustion engines will result in emissions of minor amounts of exhaust fumes during dredging, highbanking and/or processing of aggregate by other means. Minor amounts of gasoline may be spilled during fueling of these engines resulting in minor gasoline fumes in the immediate vicinity.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.**

No

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:**

None

3. WATER

a. Surface

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes ponds or wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

Most mineral prospecting occurring under the proposed rules will occur in, or immediately adjacent to, waters of the state. The proposed rules cover all waters of the state, which drain directly or indirectly to the Pacific Ocean. Work within lakes and saltwaters will not be authorized under the G&F pamphlet and require individual site specific HPA.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

Yes. Excavation and processing of aggregate is allowed by the proposed rules within the streambed of state waters. Most prospecting activities will likely occur within the streambed, but excavation and processing is also permitted in upland areas.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

Excavations will occur at every project site in order to recover placer gold and other minerals. Excavations can be of as little as a few handfuls of stream gravels for processing with a hand-held gold pan, to the movement of up to 10 cubic yards per hour of aggregate with a 5 inch suction dredge. Fill material will be tailings from processing the aggregate collected from the excavation site or other stream gravels collected from within the stream.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

Highbanking will require diversion of water. The maximum pump intake hose size is 4 inches so the amount of water withdrawn by a single piece of equipment is limited by that factor. The maximum

amount of water possible to withdraw with a single pump is approximately 600 gallons per minute, Proper operation of highbankers requires much less water volume than the equipment's maximum intake. The proposed rules allow the partial diversion of stream flow into sluices, but the diversion structure may not be greater than fifty percent of the wetted perimeter width, and water may not be diverted outside the wetted perimeter.

- 5) Does the proposal lie within a 100-year floodplain? YES. NO.

If so, note location on the site plan.

Most excavations will occur within state waters.

- 6) Does the proposal involve any discharges of waste material to surface waters? If so, describe the type of waste and anticipated volume of discharge.

Yes. Tailings resulting from processing of aggregate will be returned to the location where aggregate was collected, which, in most cases will be state waters. These tailings will not be substantially altered from their condition when excavated with the exception that aggregate may be graded for size and minor quantities of valuable minerals removed. Tailings will contain rocks of varying size, settleable and suspended sediment.

3. WATER

b. Ground

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description purpose, and approximate quantities, if known.

Ground water will not be withdrawn. Wastewater may be discharged to vicinity earth and soils. The maximum amount of water discharge for the largest pump allowed by the proposed rules could be as high as 600 gallons per minute per site. Much less than maximum discharge is required for efficient use of highbanker equipment, however, so it is unlikely that such large volumes of water will be discharged by individual projects authorized by the rules.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

None

3. WATER

c. Water Runoff (including storm water):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (including quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Two sources of runoff water are possible for projects conducted under the proposed rules. Storm water runoff may occur during storms, if the ground does not absorb storm precipitation. Projects will not create impervious surfaces, so storm water runoff would be the result of amounts of precipitation greater than the ability of the landscape to absorb it. Projects conducted under the proposed rules are not required to collect, treat, or dispose of storm water runoff. Runoff due to pumped and hand withdrawals of water from state waters is likely for highbanking and rockerbox projects. Quantities could be as high as 600 gallons per minute, but likely much less than this due to requirements of efficient use of highbanker equipment. Proposed rules prohibit visible sediment plumes from entering the wetted perimeter of state waters.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

Yes. As described above, tailings containing rocks of varying size, settleable and suspended sediment will be discharged to state waters and to upland areas. Minor quantities of gasoline and other petroleum products necessary for operating internal combustion engines may spill and enter

ground or surface waters.

d. Proposed measures to reduce or control surface, ground and runoff water impacts, if any:

Tailings or visible sediment plumes may not enter redds or areas where fish life are located. When working outside of the wetted perimeter, visible sediment or muddy water may not enter the stream. Prospectors may not excavate, collect, or remove aggregate from the toe of the slope. They also may not excavate, collect, or remove aggregate from any slope that delivers, or has the potential to deliver, sediment to the wetted perimeter or frequent scour zone. If a petroleum sheen or spill is observed, prospectors must contact the Washington Military Department Emergency Management Division. They must immediately stop their activities, remove equipment from the body of water, and correct the source of the petroleum leak. They may not return equipment to the water until the problem is corrected.

4. PLANTS

a. Check or circle types of vegetation found on the site:

deciduous tree: alder, maple, aspen, other

evergreen tree: fir, cedar, pine, other

shrubs,

grass

pasture

crop or grain

wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other

water plants: water lily, eelgrass, milfoil, other

other types of vegetation

Vegetation present depends on the prospecting location.

b. What kind and amount of vegetation will be removed or altered?

Vegetation of any quantity can be disturbed under the proposed rules unless it is live, rooted, and woody.

c. List threatened and endangered species [of plants] known to be on or near the site.

Unknown. Since activities authorized by the proposed rules can occur statewide, many species could be present.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

The proposed rules require that live, rooted, woody vegetation cannot be disturbed.

5. ANIMALS

a. Circle any birds or animals which have been observed on or near the site or are known to be on or near the site:

Birds: hawk, heron, eagle, songbirds, other:

Mammals: deer, bear, elk, beaver, other:

Fish: bass, salmon, trout, herring, shellfish, other:

All of the above are present near some or all state waters, and some will likely be present during projects authorized by these rules. In addition, any other freshwater fish species present in Washington state streams may be present at project locations.

b. List any threatened or endangered species known to be on or near the site.

Unknown. Since activities authorized by the proposed rules can occur statewide, many species could be present. Currently federally listed fish species either residing in or migrating through waters of the state include bull trout, steelhead, chinook salmon, coho salmon, chum salmon, sockeye salmon, and green sturgeon.

c. Is the site part of a migration route? If so, explain.

Yes. Various runs of fish species use many waters of the state as migration routes. Salmon, steelhead, anadromous and resident cutthroat trout, bull trout, and other species migrate before and during spawning season. Juvenile fish migrate down these same streams on their way to saltwater or other areas of freshwater lakes and streams. Various wildlife use stream corridors for migration routes.

d. Proposed measures to preserve and enhance wildlife, if any:

All of the proposed rules are included as specific measures for particular types of prospecting activities to prevent harm to fish and fish habitat.

6. ENERGY AND NATURAL RESOURCES

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

The completed project has no energy needs. Once mining is completed, no structures or equipment may be left behind. Much of the equipment authorized through the proposed rules is non-motorized and hand-operated. Exceptions include motorized rotating pans that may be powered by electric motors, vac-pacs, dredges and highbankers that generally are powered by internal combustion engines. All equipment is used directly in the collection or processing of aggregate for the discovery or recovery of gold.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None

7. ENVIRONMENTAL HEALTH

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill or hazardous waste that could occur as a result of this proposal.

Yes. Internal combustion engines are used routinely for mineral prospecting. Engines operated without spark arresters could cause fires where dry vegetation is present. Careless use of fuels near hot equipment could be a fire or explosion danger. Fuel spills could occur, but because the equipment authorized by the rules is for small scale or noncommercial purposes, spills likely would be relatively small. Prospectors report routinely encountering and collecting mercury and lead while conducting their operations.

1) Describe special emergency services that might be required.

Fire response by municipal, state or federal agencies, depending on location. Hazardous spill response

team by state and federal agencies. Medical response/evacuation services, depending on location and severity of injury. Search and rescue, for backcountry sites.

2) Proposed measures to reduce or control environmental health hazards, if any:

Fueling and servicing must be done so that petroleum products do not get into state waters. Fuel is required to be stored outside of the stream channel, and in the shade when possible. If fuel spills occur, prospectors are required to contact state emergency response authorities and cease activities.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None

2) What types and levels of noise would be created by or associated with the project on an short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Noise from small internal combustion engines and digging with hand tools would result from projects conducted under these proposed rules. Dredges are restricted to operating in daylight hours, but equipment operated outside the wetted perimeter could operate 24 hour a day. Most operations would likely occur during daylight hours only. Most operations last only a few days, although they may last for months or even year-round.

3) Proposed measures to reduce or control noise impacts, if any:

None, with the exception of limiting the hours of operation of equipment within the wetted perimeter.

8. LAND AND SHORELINE USE

a. What is the current use of the site and adjacent properties?

Various. Much of the land prospectors use is public forest and rangeland managed by various federal or state agencies. The proposed rules govern work in all waters of the state, however, so private land of all uses may be adjacent to areas frequented by prospectors.

b. Has the site been used for agriculture? If so describe?

The proposed rules cover work in all waters of the state, including waters flowing through land used for all types of agriculture such as grazing and cropland. Many of these streams supply irrigation water for agricultural uses.

c. Describe any structures on the site.

N/A

d. Will any structures be demolished? If so what?

No

e. What is the current zoning classification of the site?

Varies. The proposed rules likely authorize activities on lands of all zoning classifications.

f. What is the current comprehensive plan designation of the site?

Varies

g. If applicable, what is the current shoreline master program designation of the site?

Varies

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

Varies. Since the rules authorize activity statewide, projects are possible in areas considered

environmentally sensitive, such as wetlands or critical habitat for threatened and endangered species.

i. Approximately how many people would reside or work in the completed project?

None. An unlimited number of individuals can be at the overall job site during collection and processing of aggregate. Some prospecting and mining clubs own claims that are made available for club and individual outings where scores of people may be working. Short-term camping on-site is common, however, typically no one resides at these sites on a permanent basis after processing is completed.

j. Approximately how many people would the completed project displace?

None

k. Proposed measures to avoid or reduce displacement impacts, if any:

N/A

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The proposed rules were developed with direct input from a workgroup composed of mineral prospectors, federal and state agency personnel, tribal representatives, and environmental groups. The rules and pamphlet reflect as many of their concerns as possible under the constraints of WDFW authority through the Hydraulic Code (Chapter 77.55 RCW). Draft rules will undergo public review and comment as required under the Administrative Procedures Act (Chapter 34.05 RCW)

9. HOUSING

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

N/A

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

N/A

c. Proposed measures to reduce or control housing impacts, if any:

N/A

10. AESTHETICS

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

N/A

b. What views in the immediate vicinity would be altered or obstructed?

N/A

c. Proposed measures to reduce or control aesthetic impacts, if any:

N/A

11. LIGHT AND GLARE

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

A small percentage of projects conducted under the proposed rules will use artificial lighting during the night. These projects are restricted to those operating wholly out of the water. These projects would likely use floodlights to illuminate either an area being excavated or the aggregate processing location. The impact would be minor and localized since most activities are small operations in remote areas.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No

c. What existing off-site sources of light or glare may affect your proposal?

None

d. Proposed measures to reduce or control light and glare impacts, if any:

In-water work is restricted to daylight hours. No restrictions on other activities.

12. RECREATION

a. What designated and informal recreational opportunities are in the immediate vicinity?

Since projects can occur statewide in waters of the state, potentially all types of activities occurring in or near streams would be in the vicinity. These activities include but are not limited to fishing, hiking, boating, bird watching, camping, fish watching, hunting, horseback riding, bicycling, motorcycling, and rockhounding.

b. Would the proposed project displace any existing recreational uses? If so, describe.

Yes. The presence of internal combustion engines in some locations is not compatible with other uses of stream corridors. Camping, wildlife viewing, boating and fishing, among others, are generally engaged in so that the participant can enjoy the peace and solitude of the natural environment. Conflicts have and will arise among different users. Those pursuing activities for the solitude likely will not return to locations where noisy equipment is being used. Streams may be partially blocked by prospectors and their equipment for varying lengths of time. Overhead lines anchoring dredges may be a navigation hazard to boaters.

c. Proposed measures to reduce or control impacts on recreation, including recreational opportunities to be provided by the project or applicant, if any:

Dredging within the wetted perimeter is restricted to a particular season that varies according to the stream. Competing activities can occur outside these times without conflict.

13. HISTORIC AND CULTURAL PRESERVATION

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

Unknown. Rules apply statewide, so some prospecting sites may be adjacent to sites listed or proposed for listing on preservation registers.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

Unknown

c. Proposed measures to reduce or control impacts, if any:

The G&F pamphlet or accompanying documents or websites will refer prospectors to the Department of Archaeology and Historic Preservation, which can inform them of the requirements for protecting sites of archeological or historical significance.

14. TRANSPORTATION

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Varies

b. Is site currently served by public transit? If no, what is the approximate distance to the nearest transit stop?

Varies

c. How many parking spaces would the completed project have? N/A

How many would the project eliminate? N/A

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

No

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

N/A

g. Proposed measures to reduce or control transportation impacts, if any:

N/A

15. PUBLIC SERVICES

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? IF so generally describe.

No

b. Proposed measures to reduce or control direct impacts on public services, if any:

N/A

16. UTILITIES

a. Circle utilities currently available at the site: ELECTRICITY, NATURAL GAS, WATER, REFUSE SERVICE, TELEPHONE, SANITARY SEWER, SEPTIC SYSTEM, OTHER.

N/A

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

N/A

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.



SIGNATURE: _____

DATE SUBMITTED: 6/20/08