

21.29.010. Applicability.

D. All operations must be conducted in accordance with the current publication of the State of Alaska, Alaska DEC User's Manual Best Management Practices for Gravel/Rock Aggregate Extraction Projects. In the event a provision of this chapter conflicts with the State of Alaska's manual, this chapter controls.

21.29.020. Types of permits available.

B. Conditional land use permit. A conditional land use permit (CLUP) is required for the following types of earth material extraction or uses:

3. Earth Materials Extraction Within Water Table CLUP. An Earth Materials Extraction within Water Table CLUP is required for material extraction and operations of any size within four feet of the seasonal high-water table. The conditions set forth in KPB 21.29.050 plus the requirements and conditions set forth in KPB 21.29.057 for material extraction within four feet of the seasonal high-water table are applicable to this type of CLUP.

May want to define "water table" and how this level fluctuates. May also want to differentiate it from a "potentiometric water level", or the water level expressed by a "confined aquifer".

21.29.030. Application procedure.

A. In order to obtain a counter permit or CLUP under this chapter, an applicant must first complete and submit to the borough planning department a permit application, along with the fee listed in the most current Kenai Peninsula Borough Schedule of Rates, Charges and Fees. The planning director may determine that certain contiguous parcels are eligible for a single permit. The application must include the following items, without which the application will be deemed incomplete:

8. A site plan, prepared by a qualified independent civil engineer licensed and active in the State of Alaska to include the following:

21.29.045. Required compliance with State and Federal laws

A. All applicants for permits for earth materials extraction are required to demonstrate compliance with state and federal law. Prior to final approval of the permit, the applicant or agent must provide written documentation from the permitting agency of compliance with the following:

4. Notice of intent for construction general permit or multi-sector general permit and storm water pollution prevention plan, and other associated permits or plans required by the Department of Environmental Conservation (DEC) pursuant to the Alaska Pollutant Discharge Elimination System (APDES) requirements;

B. In addition to the requirements in subsection (A) of this section, all activity must be conducted in compliance with state or federal regulations governing the items listed below. Written documentation of compliance with these regulations is not required. Complaints received by the borough of violations of requirements within this section will be forwarded to the appropriate agency for enforcement, this includes but is not limited to:

2. Water quality. EPA or ADEC regulations controlling spills, spill reporting, storage and disposal of oil, anti-freeze and hydrocarbons.

C. Failure to comply with any of the requirements in subsections (A) and (B) of this section is a violation of the permit, and is subject to enforcement pursuant to KPB Chapter 21.50.

21.29.050. Permit conditions applicable to all permits.

A. The planning commission or planning director, as applicable, must impose the following mandatory conditions prior to approval of a permit under this chapter:

2. Water source separation.

- a. Material extraction below or within four feet of the seasonal high-water table is prohibited unless the applicant is issued a CLUP Material Extraction Within Water Table Permit and the requirements and conditions set forth in KPB 21.29.057 are satisfied;
- b. Dewatering either by pumping, ditching or some other form of draining that removes water from the site or causes water to leave the site is prohibited;
- c. All permits shall be issued with a condition which prohibits any material extraction within 100 linear feet of any private well or water source existing prior to original permit issuance; and

Does this include PWS sources??

- d. On site movement of water may be permitted pursuant to KPB 21.29.057 and if: (i) the operator provides a statement under seal and supporting data from a qualified independent civil engineer licensed and active in the State of Alaska that the dewatering will not lower any known water systems; and (ii) the applicant posts a bond for liability for potential accrued damages in an amount equivalent to the cost to replace each water wells within a 300-foot radius of the site. The rebuttable presumption is that the cost per well is a minimum of \$10,000.

Re "...any known water systems..." - Does this include PWS sources?? If so, clarify.

6. Groundwater elevation. All material sites must maintain one monitoring well four feet below the proposed excavation per ten acres of excavated area.

Should this be clarified to mean one monitoring well in the same aquifer?

7. Setback. Material site excavation areas must be 250 feet from the property boundaries of any local option zoning district, existing public school ground, private school ground, college campus, childcare facility, multi-purpose senior center, assisted living home, and licensed health care facility. If overlapping, the buffer areas of the excavation must be in addition to the 250-foot setback.

B. Discretionary Conditions. The planning commission or planning director, as applicable, may set conditions of approval for issuance of a counter permit or CLUP, as appropriate for the area in which the development is sited, for the following:

1. Setbacks/Buffer Area.

- a. The mandatory buffer area condition in subsection (A) above may be increased, up to a maximum of 100 feet between the area of excavation and the parcel boundaries, if the planning commission finds based on substantial evidence presented that increasing the buffer area is necessary for the public health, welfare and safety of the surrounding community;

5. Surface water protection. Use of surface water protection measures as specified in KPB 21.29.030(A)(8)(a).

21.29.057. Material extraction below or within four feet of the seasonal high-water table.

In accordance with KPB 21.29.020(B)(3), a CLUP is required for material extraction of material below or within four feet of the seasonal high water table. Prior to a permit being issued the planning commission must impose the mandatory conditions set forth in KPB 21.29.050(A) and discretionary conditions as deemed appropriate. In accordance with KPB 21.29.050(A)(2)(b) dewatering is prohibited. The following additional application requirements and permit conditions specific to a Material Extraction within the Water Table CLUP apply:

A. Prior to application for a water table extraction permit, the following requirements must be met:

1. Installation of a sufficient number of monitoring wells and test pits, as recommended by a qualified professional, to adequately determine groundwater flow direction, hydraulic gradient, water table and seasonal high-water table elevation. Monitoring well and test pit locations must provide the qualified professional with adequate information to characterize the entire property that will be permitted for material extraction. Well casing elevations must be surveyed to a vertical accuracy of 0.01 feet by a registered land surveyor and tied to NAVD 1988.

Seems to conflict with 21.29.050(A)(6) that says "...one monitoring well...per ten acres...". Perhaps add "at least" to 21.29.050(A)(6) and reference this section for more details.

2. Determination of seasonal high-water table elevation, groundwater flow direction, hydraulic gradient, and water table elevation for the site must be measured under the supervision of a qualified professional.

3. A written report must be completed by a qualified professional that makes a determination about the potential adverse effects to groundwater and surface water body elevation, groundwater and surface water quality, surrounding water users and adjacent properties. The determination must be based on available data, interpretations of the data and knowledge of groundwater processes.

4. The report must be submitted with the CLUP application and must:

- a. Identify existing public water system sources (i.e., wells, springs, surface water intakes), as identified by the state, that are located within one-half mile of the boundary of the property on which the activity will take place;

- Recommend changing to "Identify where the property boundary on which the activity will take place intersects a public water system (PWS) Drinking Water Protection Area, as identified by the state."
- See interactive public web map, titled "Alaska DEC Drinking Water Protection Areas", at <https://www.arcgis.com/home/item.html?id=13ed2116e4094f9994775af9a62a1e85>.
- The link could be part of a supplemental fact sheet?

- b. Identify actual or presumed private drinking water wells located within one-half mile of the boundary of the property on which the activity will take place and include a copy of the available well logs;

- c. Identify existing regulated potential sources of contamination within at least one-half mile of the boundary of the property on which the activity will take place;

d. Contain maps at appropriate scales presenting the results of the well search, the setbacks required by subsection (C)(7) of this section, and illustrating wetlands and water bodies; at least one map must show identified potential sources of contamination;

e. Include the water table elevation monitoring data, monitoring well logs and records of any test pits, and a discussion of the seasonal high-water table determination; and

f. Evaluate subsurface hydrologic conditions and identify potential adverse effects that may occur as a result of material extraction. The evaluation of the hydrologic conditions must include identifying confining layers.

B. In addition to the application requirements for a CLUP for earth materials extraction, the application for a water table extraction permit must include:

1. A description of the proposed extent and depth of material extraction beneath the seasonal high-water table.

2. A written report that meets the requirements of subsection (A)(4) of this section, a monitoring plan, and a spill prevention, control, and countermeasures plan as required by this section.

C. Conditions. In addition to the requirements of KPB 21.29.050, operating conditions for extraction within or below four feet of the seasonal high-water table are as follows:

1. Implement a monitoring plan that meets the requirements of this chapter. If existing wells will provide sufficient data, no additional wells are required.

2. Implement the spill prevention, control and countermeasures plan in accordance with Environmental Protection Agency's requirements for above ground storage tank operations regardless of the quantity of petroleum products on site.

3. Groundwater flow direction, hydraulic gradient, and groundwater table elevation for the subject parcel must be measured at least monthly during active extraction. Monitoring wells must be maintained or replaced with equivalent monitoring wells.

4. Water elevation monitoring data must be retained for two years following completion of reclamation activities and must be provided to the planning director upon request.

5. A qualified professional must annually submit a report to the department that includes water table elevation monitoring data.

6. Operations must not breach or extract material from a confined aquifer or a confining layer beneath a perched aquifer.

Define "confined aquifer", "confining layer", and "perched aquifer".

a. If evidence suggests a confined aquifer or confining layer has been breached, or if groundwater or surface water elevation changes rapidly or beyond natural variation, the director must be notified within 24 hours.

i. A hydrologic assessment, conducted by a qualified professional, to determine the affected area and the nature and degree of effects and a description of potential repair or mitigation options must be submitted to the director within 14 calendar days of notification; and

ii. Repair or mitigation sufficient to address identified effects must be initiated as soon as practical, not to exceed 45 calendar days from the date the assessment is received by the director.

7. Operations must maintain the following setbacks:

- a. 500 feet from the nearest down-gradient drinking water source;
- b. 350 feet from the nearest cross-gradient drinking water source;
- c. 200 feet from the nearest up-gradient drinking water source; and
- d. Minimum separation distances do not apply to drinking water sources constructed after a permit to extract material below the water table has been issued.

21.29.060. – Reclamation plan.

E. **Close-out**. Reclamation plans and requirements survive expiration, termination, or revocation of a permit granted under this chapter. In order to close-out a permit, the planning director must be provided adequate proof that reclamation has been conducted in accordance with the reclamation plan. If a permit expires, terminates, or is revoked prior to permit close-out, the remedies under KPB 21.50 apply and the planning director may hold applicable fines and remedies in abeyance upon a finding that reclamation is actively ongoing.

Is this a good place to include requirements for decommissioning any monitoring wells? See Section 9.2.12 Well Decommissioning of the DEC Gravel Extraction BMP Manual, <https://dec.alaska.gov/water/wastewater/stormwater/gravel/>.