Classification of Water: A Description of Tiers 1-3

Per the Clean Water Act, Alaska's water quality antidegradation policy[1] creates three classifications, or "tiers," of waters.[2]

Tier 1 waters are waters for which not all water quality criteria are met. This can be due to naturally occurring constituents in the water, or can be due to pollutants introduced by humans.

> *Example of a naturally-occurring Tier 1 water:* Red Dog Creek runs through an area that contains natural ore bodies, resulting in naturally (pre-mining) high concentrations of cadmium, lead, zinc, aluminum, and other metals in the creek.
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> *Example of a human-caused Tier 1 water:* The Chester Creek watershed in the urban area of Anchorage is impaired by fecal coliform bacteria. Human activities in the area, such as dog walking and bird feeding, contribute to this pollution.
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> *Permitting in a Tier 1 water:* The Tier 1 permitting process is largely the same process as for Tier 2 (below) because water quality criteria are normally met for *some* constituents.

Tier 2 waters are "high-quality waters," which include the vast majority of waters in Alaska. In these waters, all water quality criteria are met.

> *Example of a Tier 2 water:* Gastineau Channel near Juneau is an example of a high quality water into which discharge from the Juneau-Douglas Wastewater Treatment Plant is permitted.
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> *Permitting in a Tier 2 water:* For a Tier 2 water, the water quality must be maintained or protected unless DEC authorizes a reduction in water quality following prescribed and rigorous permitting methods. In the permit, DEC must conclude and demonstrate that:
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> - Allowing the lowering of water quality is necessary to accommodate important economic or social development,
> - Water quality criteria will not be violated, except in an authorized mixing zone,
> - Existing uses of the water will be fully protected,
> - Effective and reasonable treatment methods will be used, and
> - Statutory and regulatory requirements are met.

Tier 3 waters are waters found by a State process to be of exceptional significance or unique.

> *Example of a Tier 3 water:* There are no Tier 3 waters in the State of Alaska. In California, one of two Tier 3 waters is Mono Lake. Mono Lake is 2-3 times saltier than the ocean and is an alkaline lake with a pH of 10 (designated for its uniqueness rather than water purity).

Permitting in a Tier 3 water: The quality of water in a Tier 3 water must be maintained and protected. Discharges that add any additional pollutants to a water can only be temporary or limited; for example, runoff from a construction project.

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[1] For more on Alaska's Antidegradation Policy, visit: http://dec.alaska.gov/water/wqsar/Antidegradation/index.html.

[2] 18 AAC 70.015