

# Regulatory and Hydrologic Considerations for Water Right Applications

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- DNR must find that a proposed appropriation is in the public interest to issue a permit to appropriate water (AS 46. 080)
- The hydrologic study can be used to help us protect the public interest.
- There cannot be a “one size fits all” set of data needs and/or data quality for all applications exceeding 100,000 gpd.



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Tailings Pond, Kensington Mine

# **AS 46.15.080. Criteria for issuance of permit**

**(a) The commissioner shall issue a permit if the commissioner finds that**

- (1) rights of a prior appropriator will not be unduly affected;
- (2) the proposed means of diversion or construction are adequate;
- (3) the proposed use of water is beneficial; and
- (4) the proposed appropriation is in the public interest.

**(b) In determining the public interest, the commissioner shall consider**

- (1) the benefit to the applicant resulting from the proposed appropriation;
- (2) the effect of the economic activity resulting from the proposed appropriation;
- (3) the effect on fish and game resources and on public recreational opportunities;
- (4) the effect on public health;
- (5) the effect of loss of alternate uses of water that might be made within a reasonable time if not precluded or hindered by the proposed appropriation;
- (6) harm to other persons resulting from the proposed appropriation;
- (7) the intent and ability of the applicant to complete the appropriation; and
- (8) the effect upon access to navigable or public water.

**(1) rights of a prior appropriator will not be unduly affected**

**Alaska is a prior appropriation state**



DIPAC Hatchery

## **(2) the proposed means of diversion or construction are adequate;**

- Water Impoundment-contact DNR Dam Safety
- Other Considerations
  - Land access
  - Engineered designs



Nugget Creek Dam, completed 1915

**(3) the proposed use of water is beneficial**



**(4) the proposed appropriation is in the public interest.**

There are eight public interest factors





# How does it benefit the applicant?

(1) the benefit to the applicant resulting from the proposed appropriation;



Nugget Creek Powerhouse, circa 1920, Juneau

# Economic Considerations

(2) the effect of the economic activity resulting from the proposed appropriation;



Sockeye Salmon, Sweetheart Creek

# Recreation and Fish & Game Resources

(3) the effect on fish and game resources and on public recreational opportunities;



Grotto, Baranof Warm Springs

# Health

(4) the effect on public health;

Mixing Zone



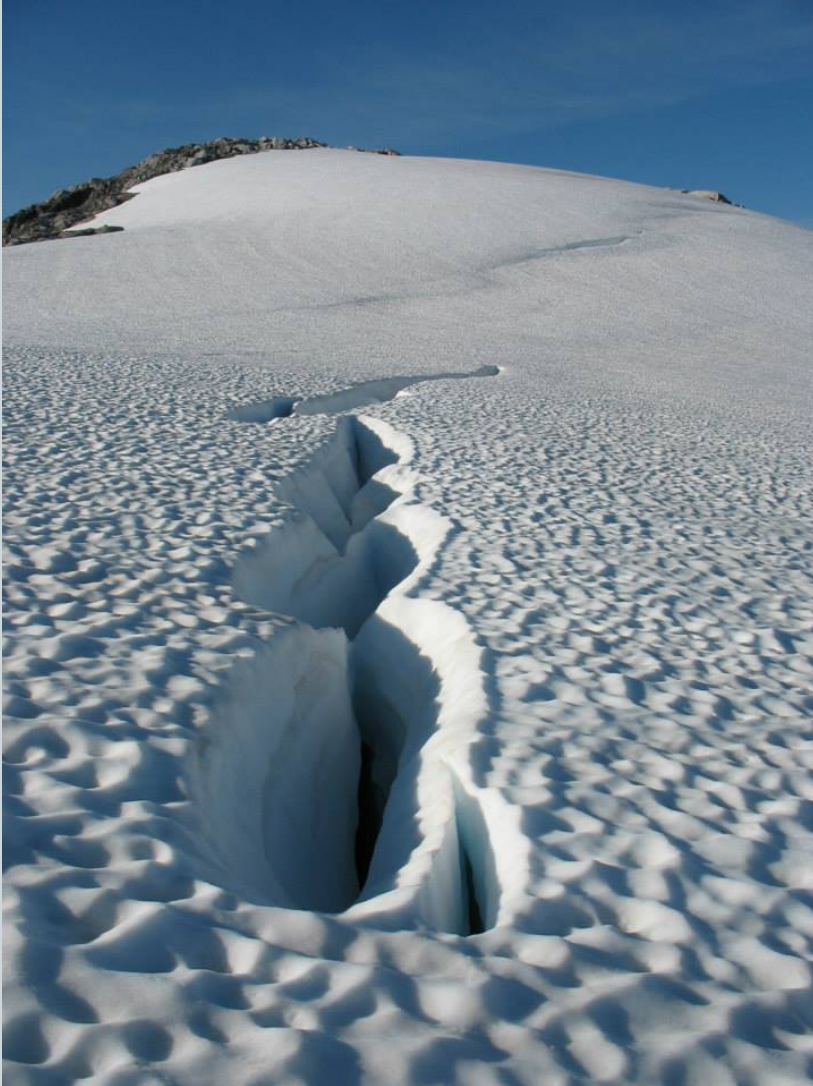
# Alternative Uses

(5) the effect of loss of alternate uses of water that might be made within a reasonable time if not precluded or hindered by the proposed appropriation;



# Harm to Other Persons

(6) harm to other persons resulting from the proposed appropriation;



Crevasse, Lemon Glacier, Juneau

# Can and will the project be completed by the applicant?



(7) the intent and ability of the applicant to complete the appropriation; and

# Access/Navigation

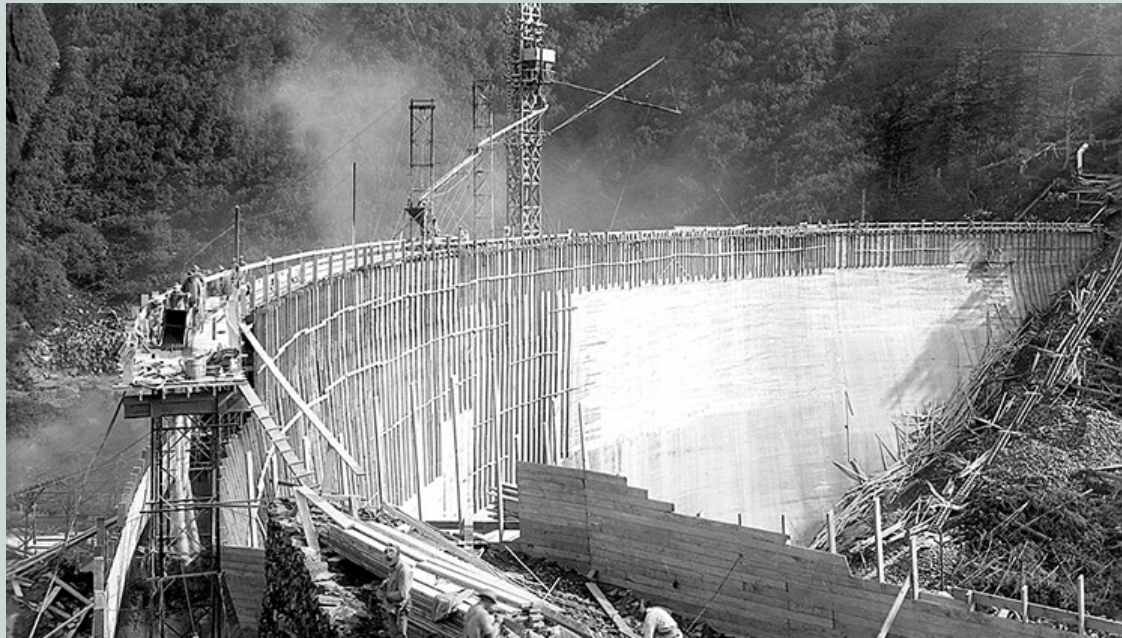
(8) the effect upon access to navigable or public water.





# FERC vs non FERC projects

- DNR must make a public interest determination for any project including a FERC project.
- The process is different for FERC projects however.



Salmon Creek Dam Under Construction ~ 1913. 1<sup>st</sup> constant angle variable radius dam in world.

# Overview

- DNR must make a public interest determination.
- Applicants should engage DNR early so we can discuss hydrologic needs.



5<sup>th</sup> Street Douglas Dam

# Questions

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Measuring the flow from a hot spring, bucket and watch method