



ADJUDICATION OF A RESERVATION OF WATER APPLICATION

The Process



Purpose

- ☒ Protection of fish and wildlife habitat, migration, & propagation;
- ☐ Recreation and park purposes;
- ☐ Navigation and transportation
- ☐ Sanitary and water quality purposes.



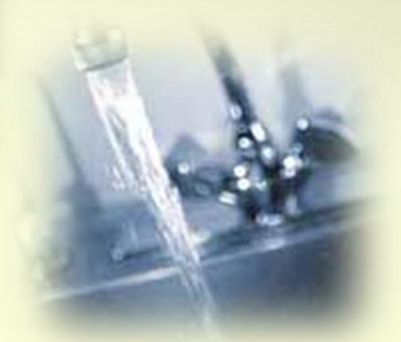
Robert Angell, AK Div. Of Tourism



(USGS 1996)



(USGS 1996)



THE 'NEED'



Example from ADF&G applications:

“The primary purpose of this proposed reservation is to protect fish habitat, migration, and propagation within XXXX Creek and its watershed. This reach of XXXX Creek has been specified as important to anadromous fish under Alaska state statute AS 16.05.871, as AWC stream number XXX-XX-XXXXX-XXXX by the Alaska Department of Fish and Game. Chinook salmon (Oncorhynchus tshawytscha), coho salmon (O. kisutch), chum salmon (O. keta), rainbow trout (O. mykiss), and Dolly Varden (Salvelinus malma) utilize these reaches of the XXXX Creek for a portion of, or all of their spawning, incubation, rearing, and passage life phases. These species contribute to sport and commercial fisheries in the area and provide recreational opportunities' and values as well.”



Additional ADF&G 'Need' Example:

Sufficient flows are needed to support seasonal uses of riverine habitats by fishes and to provide for fluvial processes that maintain these habitats. To maintain seasonal uses of habitats by each life history stage, we recommend maintaining a flow regime that mimics the magnitude and timing of the natural flow regime as discussed above. This approach is necessary to meet the needs of species' life history stages that have coevolved and exhibit biological adaptations to the river's flow regime.



FWS EXAMPLE FOR 'NEED':

On August 14, 1941, President Franklin D. Roosevelt established Kodiak National Wildlife Refuge (NWR) by Executive Order 8857, and on December 2, 1980, President Carter signed into law the Alaska National Interest Lands Conservation Act (ANILCA). Section 393 (5)(B) of ANILCA declared the following purposes for which Kodiak NWR is established and shall be managed:

“(i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, Kodiak brown bears, **salmonids**, sea otters, sea lions, and other marine mammals and migratory birds;

(ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;

(iii) to provide in a manner consistent with purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents; and

(iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in subparagraph (i), **water quality and necessary water quantity within the refuge.**”

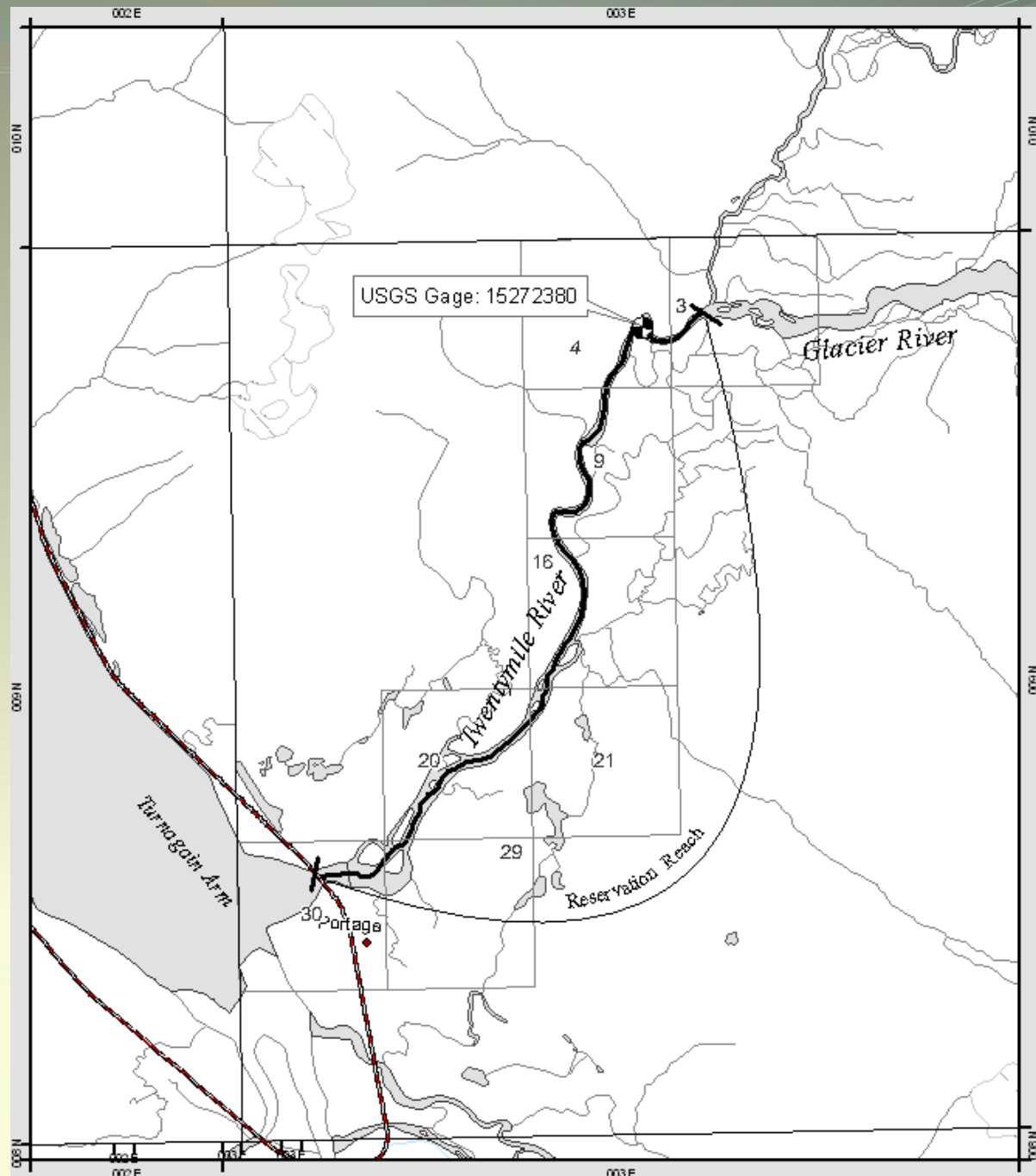
Additionally, the water reservation is needed to comply with the legal and management directives (as described previously). The Uganik River is within the external boundary of the Kodiak NWR, where the conservation of aquatic habitat and associated biota through the maintenance of water quantity is mandated by law.

In the judgment of USFWS, the proposed reservation is necessary to maintain the habitat that supports a rich and abundant biota within the Uganik River and will aid USFWS in carrying out its management objective to maintain the natural water quantity and quality at stream flows and water levels that will provide suitable habitat for brown bears, fish, migratory waterbirds, raptors, and other wildlife.

REACH EXAMPLES:

Example of an acceptable reach request:

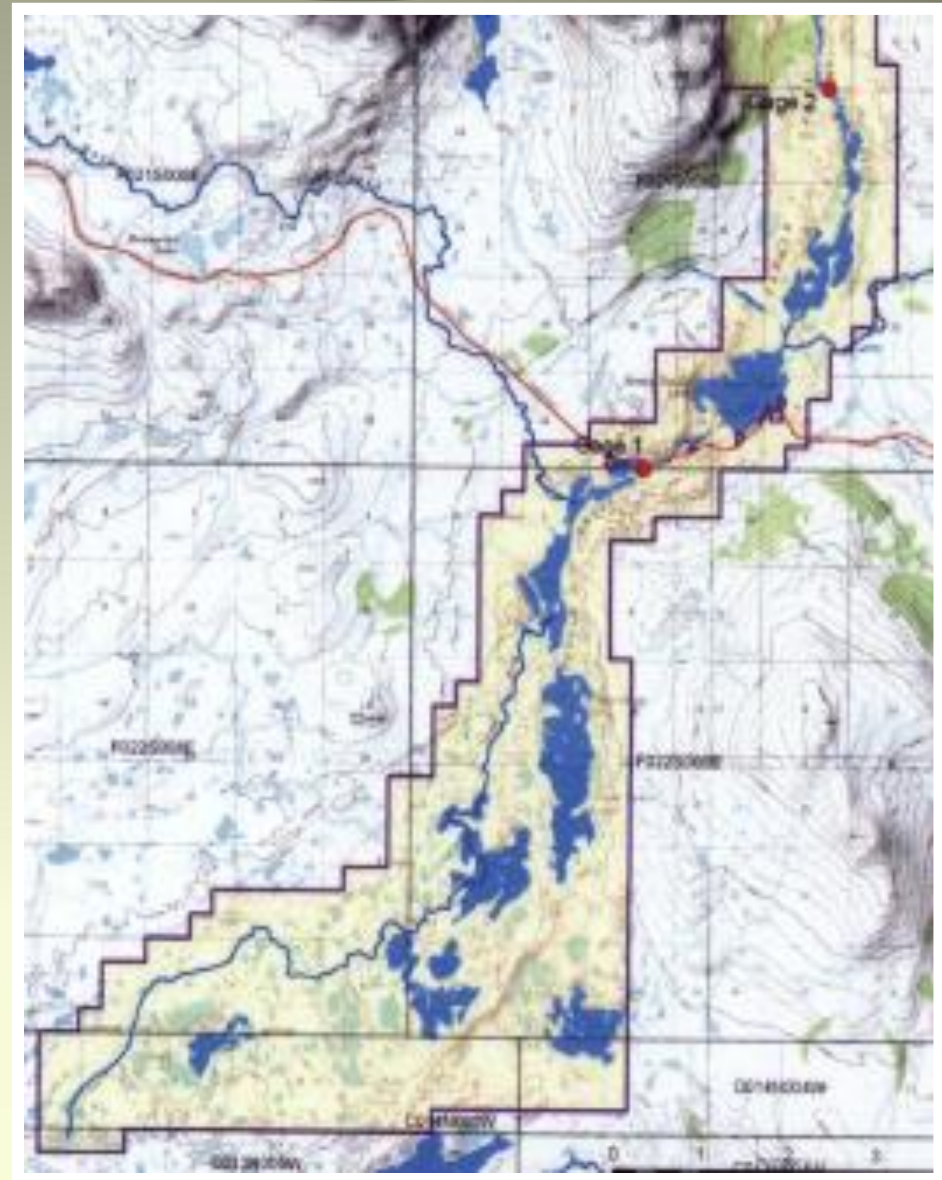
- Hydrologically distinct
- Gage is located above any contributing tributaries
- Does not include any lakes between the start and end point of a reach





EXAMPLE OF WHAT SHOULD NOT BE REQUESTED:

- Applicant asked for everything within the outlined box on one application
- Included lakes within & outside the river system
- Each lake and distinct reach would require separate applications.





Measuring Stream Discharge

- USGS stream gaging stations collect discharge (flow) data which are compiled and published.
 - USGS is the most widely used in applications because the data has already been collected.
- Other forms of discharge measurement allowable as well.
 - Examples: BLM, ADF&G, consultants
 - For data unavailable via online, the full data set/analysis will be required for DNR hydrologists to review.





Measuring Water Level

Example:

- X Lake is 10.2 miles long, has a surface elevation of approximately 75 feet above mean sea level, and surface area of approximately 1, 305 hectares.
- The lake is steep sided with a max depth of 752 feet
- Requested quantities are lake elevations relative to a reference mark
- A galvanized expansion bolt, secured into bedrock at the gage site serves as the primary reference mark that lake elevations are measured relative to.
- The reference mark is assigned an arbitrary elevation of 10 ft.
 - The difference between the reference mark and the vertical distance to the water surface is the lake elevation measured by the gage.





Examples of Acceptable Time Periods

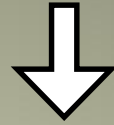
- Time periods can be set at seasonal, monthly, or broken out periods.
- Time periods are not generally acceptable in less than 7 day increments for water management purposes.
- Time periods should follow the hydrograph.

Time Periods
January
February
March
April
May
June
July
August
September
October
November
December

Time Periods
January 1-15
January 16-31
February
March
April
May 1-15
May 16-31
June 1-15
June 16-30
July etc...



Flow Requests

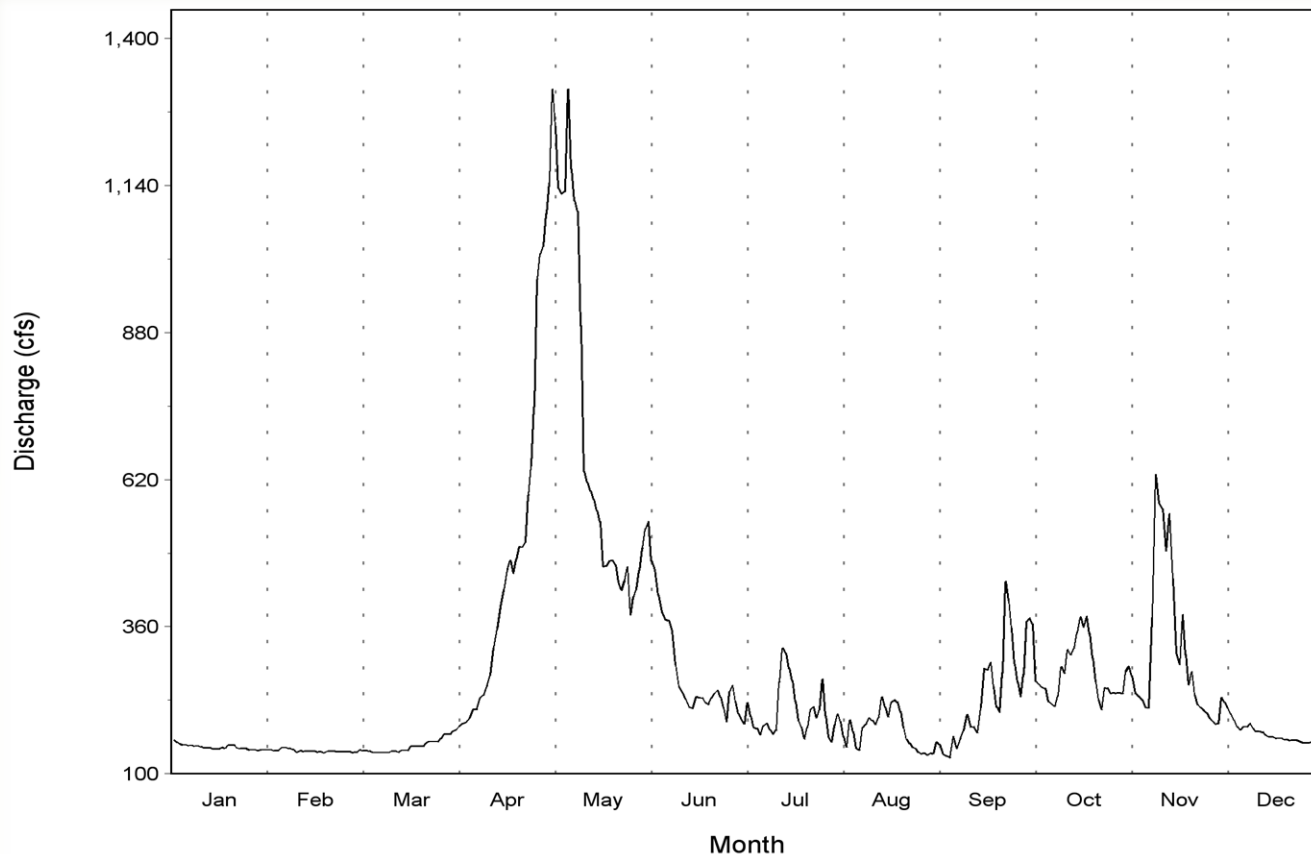


- Applicants can request what they deem is required flow for the purpose checked.
- The flows must be justified and backed up within the application.
- Requests are also dependent on prior appropriations, available amounts of unappropriated flows regardless of prior appropriators, and potential future uses.
- Flows may be adjusted down but will never be adjusted up.

Time Period	Requested Flow (cfs)
Jan	6
Feb	5
Mar	5
Apr	7
May	20
Jun	78
Jul	54
Aug	44
Sep	34
Oct	24
Nov	12
Dec	7

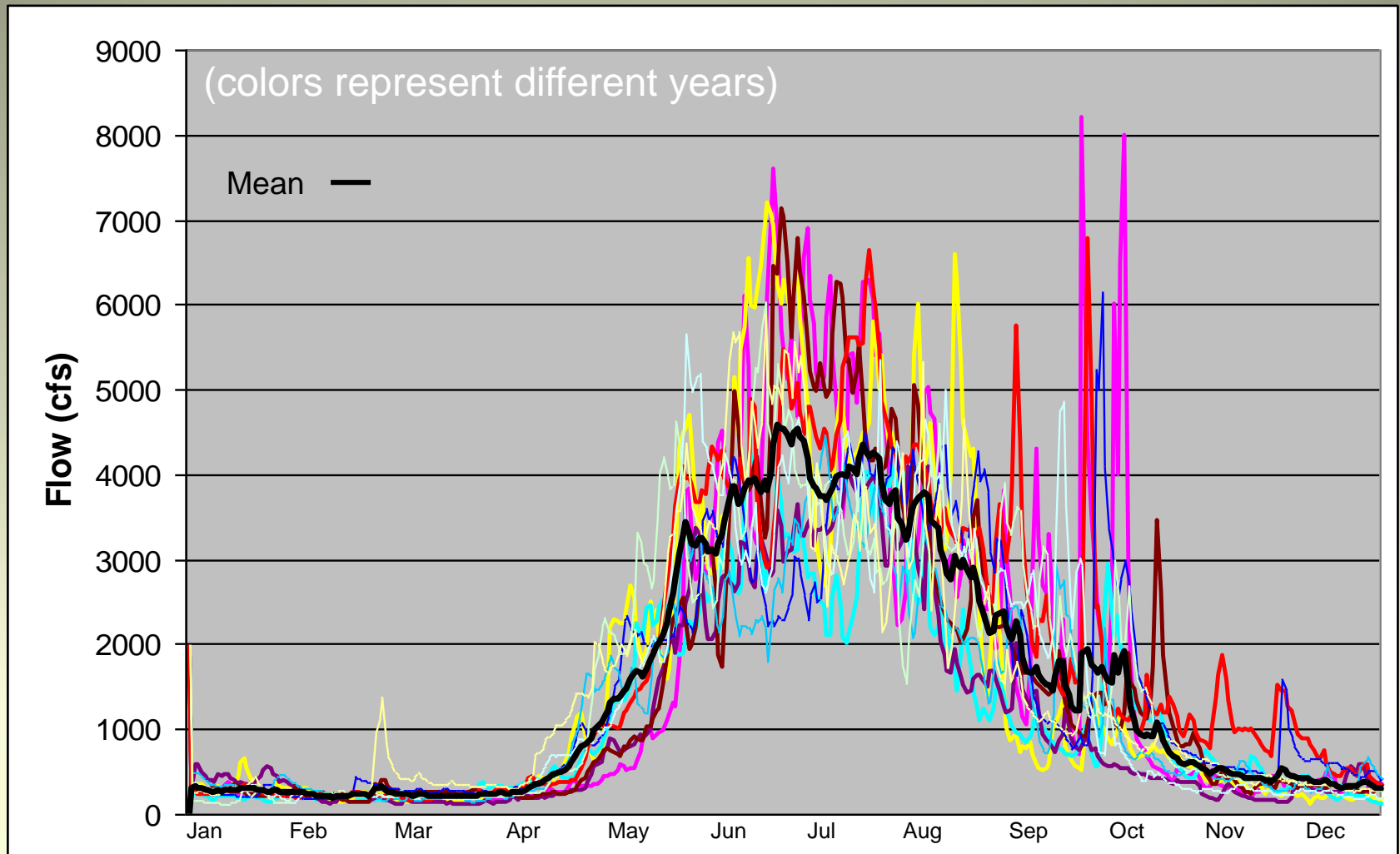
EXAMPLES OF REQUIRED INFORMATION

Aka: Physical, biological, water chemistry, and socio-economic aspects/data substantiating the need for and the quantity of water requested for the proposed reservation





Natural Flow Regime





Fish Species Information

Example of a Fish Periodicity Table

Coho Salmon

Smolt Passage

Adult Passage

Spawning

Incubation

Rearing

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Smolt Passage				XXXX	XXXX	XX						
Adult Passage							XXXX	XXXX	XXXX	XXXX		
Spawning								XXXX	XXXX	XXXX	X	
Incubation	XXXX	XXXX	XXXX	XXXX				XXXX	XXXX	XXXX	XXXX	XXXX
Rearing	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX

Pink Salmon

Smolt Passage

Adult Passage

Spawning

Incubation

Rearing

Smolt Passage				XXXX	XXXX	X						
Adult Passage							XX	XXXX	XXXX			
Spawning							X	XXXX	XXXX			
Incubation	XXXX	XXXX	XXXX	XXXX			X	XXXX	XXXX	XXXX	XXXX	XXXX
Rearing												





Methodology:

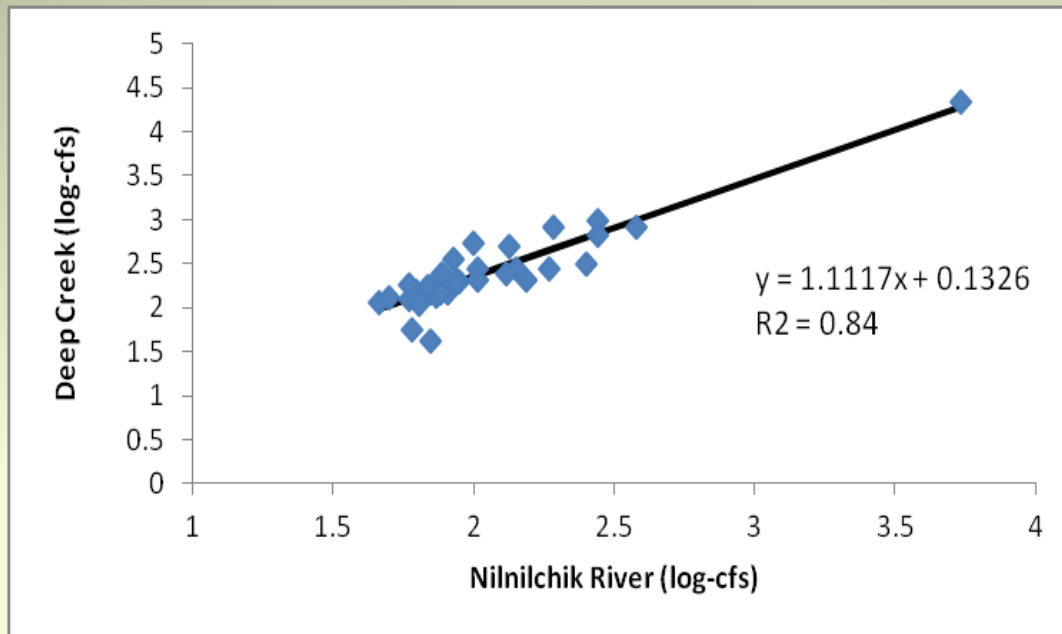
Many scientific method may be use and will be reviewed by DNR hydrologists for validity. It is up to the applicant to provide the necessary information. Some questions to ponder:

- What data is already out there?
- If you only have a few years of data collected, what is your plan for future data collection?
- How did you analyze the data?
- What method did you use?
- Did you go into a discussion about your method used?



Examples of justifying the chosen method of analysis

Month	# of Months	Minimum monthly flow (cfs)	Mean monthly flow (cfs)	Maximum monthly flow (cfs)
January	5	107	147	192
February	5	108	140	205
March	5	111	150	201
April	5	329	521	718
May	5	325	682	1,340
June	5	172	271	432
July	5	153	209	365
August	5	110	175	272
September	5	151	245	332
October	5	230	276	320
November	5	123	307	833
December	5	113	170	224



Stream systems with limited data or ungagged data can be used, but must be justified.



Review: Water Allocations and Flow Discussions

- Requested flows are reviewed
- Prior appropriators are reviewed
- Discharge data reviewed
- Notice is issued based on requested flows
- Flow discussions begin
- Flows are finalized

Example of Time Period Requests

Time Period	Flow Request (cfs)
January	13,000
February	11,000
March	10,712
April	10,712
May	11,000
June	13,500
July	17,900
August	17,900
September	17,900
October	17,900
November	17,900
December	15,000



Agency & Public Notice

11 AAC 93.080

Notice goes to:

1. Newspapers
2. Alaska Online Public Notice System
3. Certified mail to prior appropriators of the same source
4. Those formally requesting notice
5. Land owners
6. Local Governments
7. Post Offices

Within 15 days of publication/service of notice, any person may file written comments with ADNR (AS 46.15.133 (a))



Management Plans/Research Conducted

EXAMPLE (Klehini):

- Northern Southeast Area Plan (ADNR)
 - Chilkat Bald Eagle Preserve Management Plan
 - Hydrologic Reconnaissance of the Chilkat River Basin, SE Alaska
 - Haines State Forest Management Plan (ADOFF)
 - Haines Borough Comprehensive Plan
-
- “Special Use” designation?
 - “Management Area” designation?





Certificate Criteria

AS 46.15.145 (c)

The commissioner shall issue a certificate reserving the water applied for under this section if the commissioner finds that:

1. The rights of prior appropriators will not be affected by the reservation;
2. The applicant has demonstrated that a need exists for the reservation;
3. There is unappropriated water in the stream or body of water sufficient for the reservation; and
4. The proposed reservation is in the **public interest**.



Public Interest Criteria AS 46.15.080 (b)

In determining the public interest,
DNR considers*:



1. Benefit to the applicant
2. Effects to existing/future economic activity
3. Effect on fish & game resources/public recreational opportunities
4. Effect on public health (water quality)
5. Effect of loss of alternate water uses that might be made within a reasonable time if not precluded or hindered by the proposed appropriation.
6. Harm to other persons
7. Intent/ability of the applicant to complete the appropriation.
8. Effect upon access to navigable or public waters.

* These are the minimum 8 statutory criteria which must be considered. Other criteria, as appropriate, may be included.



Final Steps

- Findings of Fact, Conclusions of Law, & Decision is written and signed
- Appeal time – 20 days
- No appeal:
 - Certificate signed after the 31st day
 - Priority date: legally defensible
 - Applicant now holds the rights to the flows or levels reserved under the certificate.
 - Recording





10-Year Review

A review determines:

- ✓ The purpose/need still applies?
- ✓ Effects of the reservation to prior appropriators/public interest?
- ✓ Has a new beneficial use been proposed?
- ✓ Is new info available about the reservation?
- ✓ Is quantity/level of water reserved adequate?
- ✓ Do time periods still apply?
- ✓ Are additional research/data/analysis needed?



For Further Information

Kimberly Sager

Statewide Water Reservation Specialist

Department of Natural Resources
Water Resources Section
550 W. 7th Avenue, Suite 1020
Anchorage, Alaska 99501

(907) 269-2033

kimberly.sager@alaska.gov