

Protection of surface waters through the State of Alaska on Alaska Refuges

*Case study of Uganik River
Reservation of Water within
Kodiak NWR*

In this presentation we discuss the processing of the first water reservation adjudication between the state (DNR) and the USFSW.

We present

- details about each agency and our policies,
- details about the Uganik River and why it was selected for a water right and as the first adjudication,
- and then we will discuss the process and the outcome.

Statutory Mandates affecting Water Rights on Refuges

- Alaska National Interest Lands Conservation Act (ANILCA) (1980)
 - Primary purpose of each refuge in Alaska
 - Conserve habitats in natural diversity
 - Ensure “water quality and necessary water quantity”
- National Wildlife Refuge System Improvement Act (NWRSA) (1997)
 - Maintain biological integrity/diversity/health
 - Maintain adequate water quantity - quality
 - Acquire water rights under State law

Other Water & Law Factors on Alaska Refuges

- Prior appropriation state w/ abundant water in unique hydrological and ecological systems
- Progressive state water law
- Expressed but unquantified FRWR in Alaska refuges
- Sparse baseline hydrologic data
- Limited ecological / biological data for aquatic habitat
- Economic factors
 - oil/gas development, placer mining, water export, fisheries/wildlife, recreation, navigation, etc.
- Whole, intact, mostly pristine waters and watersheds, with water rights uncertainty

Assortment of thoughts in no particular order re Alaska and water rights.
Unique, odd, peculiar, different characteristics and considerations
related to instream water rights in Alaska

- It is apart; does not abut another state; no possibility of interstate water dispute or need for compact or negotiation. (Some international trans-boundary issues being discussed in SE)
- Lowest population density of any state (650,000 people) avg approx. 1 person/square mile vs lower 48 w/ 100 people/square mile
- In contrast to most western, prior appropriation states, Alaska is not water deprived or over appropriated.
- Relatively little out of stream appropriation

Agency Mission Statements: Conflicts & Similarities

- The U.S. Fish and Wildlife Service's (FWS) mission is working with others to **conserve**, *protect, and enhance* fish, wildlife, plants, and their habitats for the continuing benefit of the American people.
- The Alaska Department of Natural Resources' (DNR) mission is to *develop*, **conserve** and *maximize the use of* Alaska's natural resources consistent with the public interest.

Conserve for entities other than our agencies.

Mission Statements: Conflicts & Similarities cont...

FWS

- Conserve
- Protect and enhance fish, wildlife, plants, and their habitats
- for the benefit of the American people

DNR

- Conserve and maximize
- Develop the use of natural resource (lands and waters)
- for public interest

- FWS mission statement speaks to the fact that we are primarily a conservation agency.
- Our mission is to protect and enhance fish and wildlife and their habitats noting that water is essential to this mission.
- And it is all done for the benefit of the American people, including citizens of the State of Alaska

Mission Statements: Conflicts & Similarities cont...

A Reservation of Water is the best route to gain protection and provide conservation....it is an opportunity.

The FWS aims to meet its legal obligations to protect the natural diversity of populations and habitats under ANILCA by working through the state. It is the appropriate first step in ensuring water quality and quantity for refuges.

It is an opportunity because

- Of AK's progressive water
- And the fact that the waters aren't over appropriated.

Agency's Water Right Policy

FWS

- Obtain sufficient water and water rights
- Secure water rights under State law
- Assert and protect Federal interests in water, as necessary

DNR

- Assure state interests within water for the public
- Neutral in determination of a reservation decision

It is the Service's policy to comply with State laws, regulations, and procedures in obtaining and protecting water rights, both for Service facilities and for trust fish and wildlife resources on lands not owned by the United States, except where application of State statutes and regulations does not permit Federal purposes to be achieved. Federal reserved water rights will be quantified and asserted when necessary to accomplish the primary purpose of the reservation.

Obtain: Sufficient quantities of water and the legal right to use that water to develop, use, and manage refuge lands and facilities, protect endangered species, and maintain instream flows.

Secure: All water rights needed for Service facilities and programs should be secured under State laws and procedures when available.

Assert: Assert when necessary to protect federal interests in water.

Review: Review and comment on notices for water right applications filed by others on or near refuges.

Identify: Identify and evaluate water rights on lands proposed for acquisition or disposal.

Reservation of Water Purposes

AS 46.15.145 (a)(1)

- Protect fish and wildlife
 - Habitat, propagation, and migration
- Recreation
 - Swimming, fishing, hunting, natural values, etc.
- Navigation/Transportation
 - Sufficient quantity for boats, floatplanes, etc.
- Water quality
 - Sanitary and water quality reasons

Agency's Water Right Process

■ FWS:

- Conserve fish and wildlife populations and habitats in their natural diversity (ANILCA)
- Ensure water quality and necessary water quantity within the refuge (ANILCA)
- Maintain the natural flow regime (natural hydrograph: magnitude, frequency, duration, time and rate of change)
- Protect flows for important life stages and channel form and function

■ DNR

- Reserved to the people for common use and is subject to appropriation and beneficial use...
 - Adjudication process assures:
 - water is allocated in a reasonable and consistent manner based in part by public interest criteria
 - Determination of the validity and amounts of a water right.
 - Including conflicting claims among competing applications.

The natural flow paradigm notes that “modifications of the natural flow regime dramatically affects both aquatic and riparian species and their habitat in streams and rivers worldwide” (Poff et al 1997)

ANILCA

(i) to conserve fish and wildlife populations and habitats in their natural diversity;

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

(iii) to provide the opportunity for continued subsistence uses by local residents; and

(iv) to ensure water quality and necessary water quantity within the refuge.

Why the Uganik River?

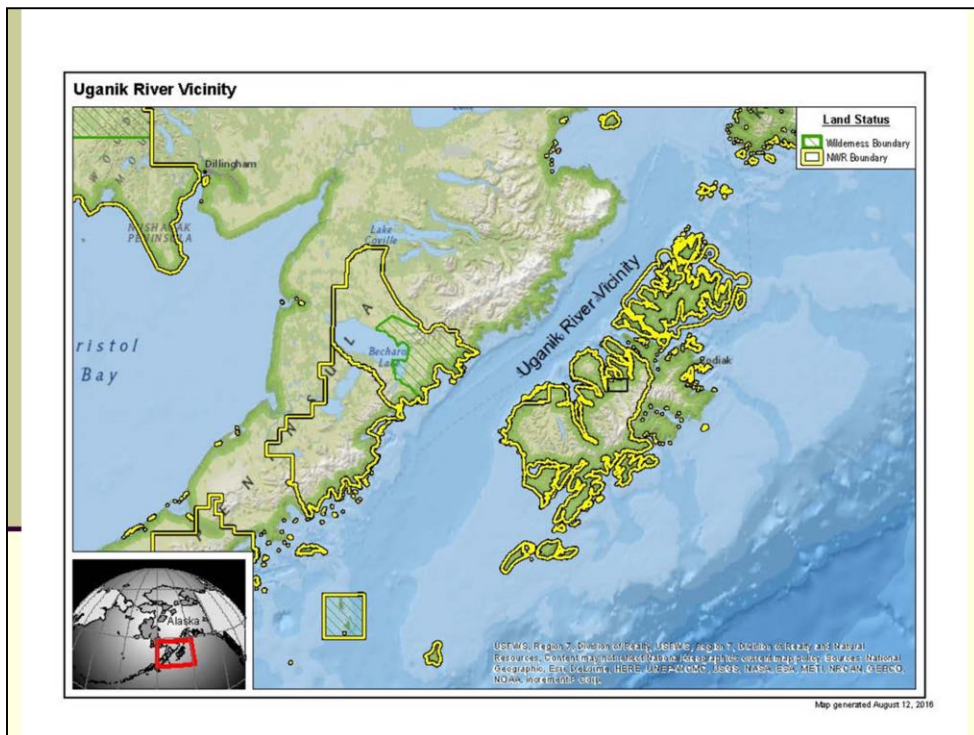
- First adjudication between DNR and FWS
- Data rich area (27 years of flow data)
- Strong fisheries component
- Low/No conflict issues that may arise in other FWS applications
- Straightforward
- An excellent start point

Uganik River has 27 years of data associated with the USGS gage station 1951-1978), fish periodicity, and biologic data associated with refuge work

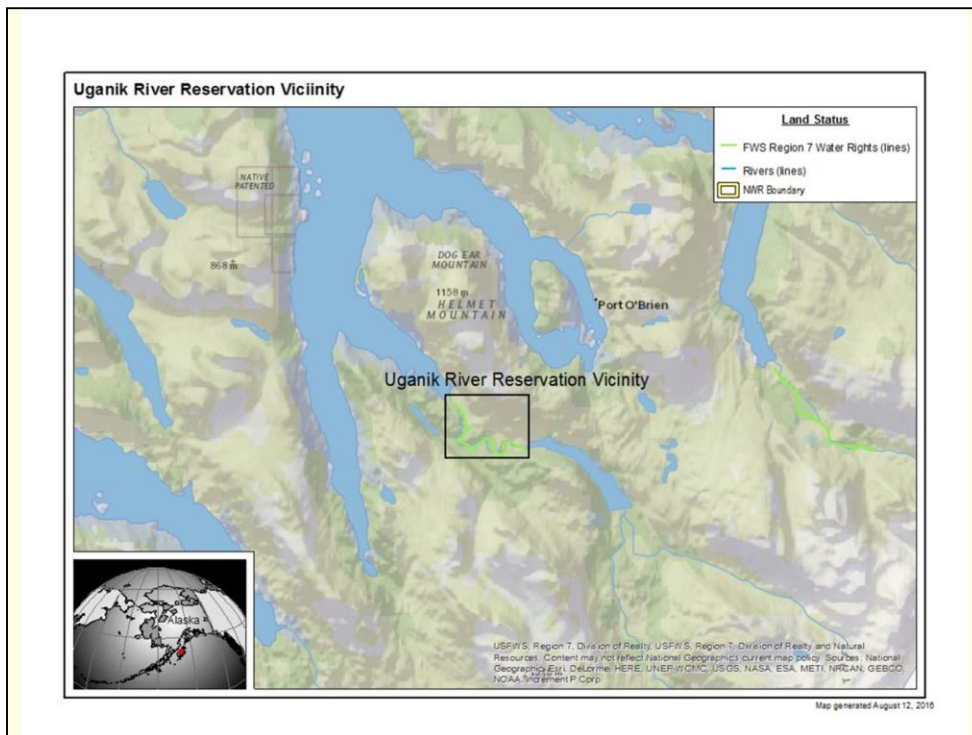
Uganik River History & Importance

- Provides migratory, spawning, and rearing habitat for sockeye, pink, chum, Coho and chinook salmon, steelhead, and Dolly Varden
- The Uganik River drainage basin is considered a major rainbow trout area
- The lower river is high use, key habitat for brown bear
- The East Arm of Uganik Bay, into which the Uganik River flows, provides prime wintering habitat for puddle ducks and maintains a high concentration of waterfowl.
- Subsistence hunting and trapping for residents of Port Lions and Ouzinkie

The Kodiak NWR was originally established to protect brown bear habitat, especially feeding and breeding habitat. Conservation of brown bear and their habitat is a purpose of Kodiak NWR under ANILCA.



Point to Uganik Bay and the River drainage



Note that there are no large tributaries entering the river in the reach that contribute at a point below the point of measurement.

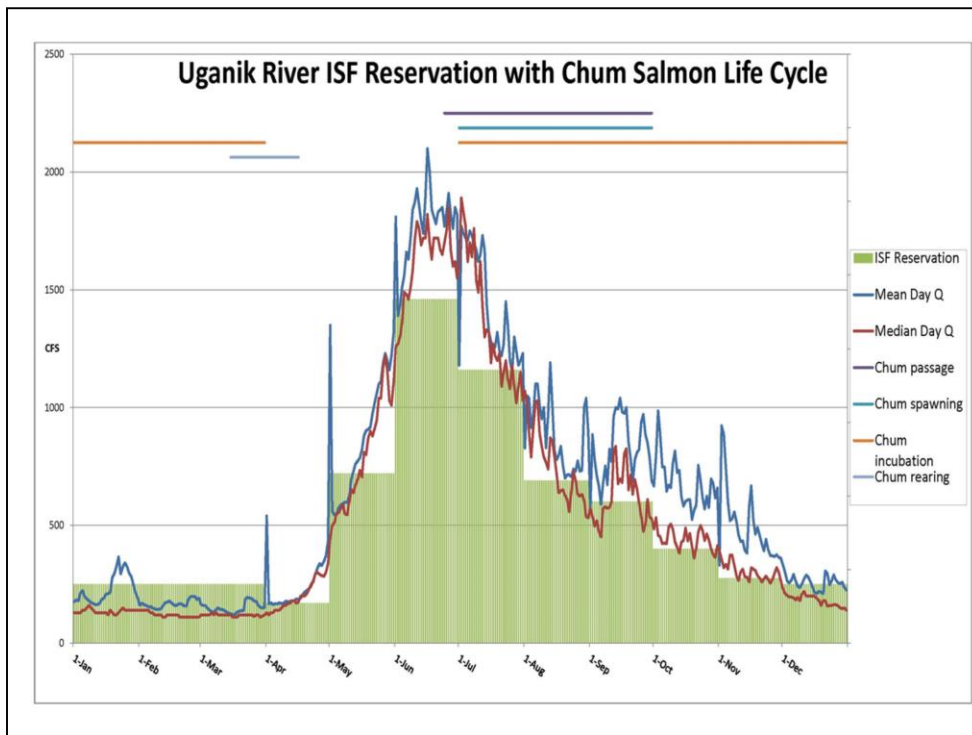


Looking upstream

Uganik River Reservation Process

- Review the annual hydrograph
- Include the biologic aspect of the system in the form of fish life stage events
- Consider periods of changing flow, duration of those events, and magnitude of those events
- Define reservation time periods
- Define volume of flow associated with each time period

- Include both mean and median flow as well as each year's hydrograph to show the variability of flow
- The skewed mean (of this non normal or non-parametric variable) is not representative of the true monthly "normal" flow.
- the median value for a period of flow gives a better representation of the central tendency or normal of the period
- The median value for a period of flow is equivalent to the fifty percent exceedance probability (Q50) which is a statistically valid representation of normal flow.



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Uganik River Reservation Timeline

- Applied for on 9/27/2001
- Adjudication process began January 31, 2012
- Email and in face correspondence between DNR and USFWS March 20, 2012 – June 12, 2014.
- Public/Agency notice published August 1, 2014
- Certificates signed September 19, 2014
- Recorded certificates received January 14, 2015

Considerations in Flow Discussions

■ USFWS

- Fisheries/biological purpose
- Critical habitat needs
- Timing of flow events
- Overwintering
- Channel form and function
- River continuum paradigm

■ DNR

- Fisheries/biological purpose
- Critical habitat needs
- Timing of flow events
- Competing uses (prior/future)
- Unappropriated Flows
- Laws
- Public Resource

Uganik Reservation Discussion

Time Period	Mean Time Discharge (cfs)	USFWS Requested Flow (cfs)	% Exceed	ADNR 1/2014 (cfs)	% Exceed	USFWS (cfs)	% Exceed	ADNR 4/3/2014 (cfs)	% Exceed	USFWS (cfs)	% Exceed	FWS alt 5/20/14	% Exceed
January*	232	250	18-20%	150	45%	230*	25%	150	45%	200	32%	200	32%
February*	167	250	18%	130	45%	180*	25%	130	45%	150	34%	170	27%
March*	150	250	10%	125	45%	150*	25%	125	45%	140	35%	147	28%
April 1-14	172	140	50%	119	70%	140	50%	140	50%	140	50%	140	50%
April 15-30	274	245	50%	175	70%	245	50%	245	50%	245	50%	245	50%
May 1-14	623	589	50%	355	70-75%	590	50%	590	50%	590	50%	590	50%
May 15-31	1049	958	50%	730	70-75%	960	50%	960	50%	960	50%	960	50%
June	1770	1460	64%	1280	75%	1460	60-65%	1460	60-65%	1460	60-65%	1460	60-65%
July	1460	1160	62-63%	990	75%	1160	60-65%	1160	60-65%	1160	60-65%	1160	60-65%
August	896	690	55-56%	559	70%	690	55-60%	690	55-60%	690	55-60%	690	55-60%
September	832	600	50%	416	70%	600	45-50%	600	45-50%	600	45-50%	600	45-50%
October	675	400	56%	318	70%	400	55-60%	400	55-60%	400	55-60%	400	55-60%
November	503	275	54-55%	198	70%	338	45%	338	45%	338	45%	338	45%
December	258	250	35-36%	120	70%	200	45%	200	45%	200	45%	200	45%
*Consents but acknowledges flows are insufficient to protect fish and wildlife habitat, migration, and propagation													

- Flow determination can only result with compromise and consideration of each agencies purposes and responsibilities to the public
- FWS can always top file with the state or work to settle FRWR under our policy if the adjudicated flows to do meet the purposes of the refuge

Certificated Flows

TIME PERIOD	Mean Time Period Discharge (cfs)	Original Flow Requests (cfs)	Granted Reservation Flows (cfs)	Reservation Flows (gpd)	Remaining Flows for Appropriation (cfs)	Remaining Flows for Appropriation (gpd)
January*	232	250	200	129,254,400	32	20,680,704
February*	167	250	150	96,940,800	17	10,986,624
March*	150	250	140	90,478,080	10	6,462,720
April	226	170				
April 1-14	172		140	90,478,080	32	20,680,704
April 15-30	274		245	158,336,640	29	18,741,888
May	859	720				
May 1-14	623		590	381,300,480	33	21,326,976
May 15-31	1049		960	620,421,120	89	57,518,208
June	1770	1460	1460	943,557,120	310	200,344,320
July	1460	1160	1160	749,675,520	300	193,881,600
August	896	690	690	445,927,680	206	133,132,032
September	832	600	600	387,763,200	232	149,935,104
October	675	400	400	258,508,800	275	177,724,800
November	503	275	338	218,439,936	165	106,634,880
December	258	250	200	129,254,400	58	37,483,776

*Consents but acknowledges flows are insufficient to protect fish and wildlife habitat, migration, and propagation

FWS can always top file with the state or work to settle FRWR under our policy if the adjudicated flows do meet the purposes of the refuge

DNR Criteria in Decision

- A certificate of reservation can only be issued if the four criteria are met:
 1. Prior appropriators rights aren't affected
 2. Need exists
 3. Unappropriated waters exist
 4. Public interest (AS 46.15.080 (b))

Changed Perspectives

■ FWS

- An understanding for DNRs mission
- Better understanding of the state adjudication process
- Willingness to compromise within the limits of our mission goals

■ DNR

- Better understanding of FWS mission
- Willing to assist in the application process and applying for a reservation of water – 11 AAC 93.142(c)

Changed Perspectives/Results

■ FWS

- Good working relationship with DNR
- Completion of Uganik adjudication
- Cooperative scheduling of future adjudications

■ DNR

- Working with the applicant
- Defendable decision document (legally/purpose based)
- **Certificate of Protection**

The Uganik River was fully within refuge lands with minimal chance of any development occurring, which gave DNR the opportunity to view this river slightly different than other rivers.

Adjudication Results – Goals met?

- Were there struggles between the two agencies? YES
 - Response delays
 - Unclear request/responses
 - Additional projects/other work
- Did the agencies come to an agreeable conclusion without elevation? YES
- Were there lessons learned for the next FWS file adjudicated? YES
 - Both agencies!

Lessons Learned

- Initiate a kick off meeting to discuss each parties concerns/desires and outline action plan-clear action plan will avoid future misunderstandings
- Each party should set goals for the process by clarifying what issues in the application are the most important
- Create a timeline associated with the action plan that is agreed to by both organizations-the timeline will provide an schedule and a projected date for finalization
- Create a forum for open and transparent communication
- While there is an understanding that certain documents need additional internal review, a quicker adjudication occurs when requested actions are carried out in a speedy manner
- One single point of contact familiar with the application

- Have monthly or bi-monthly meetings to keep the schedule and actions moving along;
- Each party should agree to provide justification for their flow requirements and support them scientifically;
- Use very clear language in all correspondence and in the application;
- When a difficult issue is causing excessive calls and emails, have a meeting and clarify the Service's and DNR's concerns and point of view;

The End!

Questions?

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