

Mat-Su Basin Salmon Habitat Partnership – in the upper Cook Inlet Basin, Southcentral Alaska

Communications & Outreach

Communications and Outreach activities for 2022.

- Over 100 people attended the 15th annual [Mat-Su Salmon Science and Conservation Symposium](#) – a two day forum to promote information sharing, education and collaboration related to salmon and their habitat in the Mat-Su Basin. Included over 30 oral and poster presentations, salmon themed art display by 11 highschool students, panel discussion about emerging funding opportunities through the Bipartisan Infrastructure Act and international keynote speaker (virtual) Jonathan Moore, from Simon Fraser University in British Columbia, Canada who presented *Salmon Futures: Stewardship of Salmon Systems in an Era of Rapid Change*. [Presentations on Youtube](#) (96 views). [Article in Mat-Su Valley Frontiersman](#).
- Held first annual *Plants for Salmon: Community Riparian Planting Day* on June 4th in Big Lake. 34 people planted over 100 trees, shrubs and herbaceous plants along the shoreline of Fish Creek. Majority of attendees were from the Mat-Su and included 11 youth. Two education presentations from NRCS and USFWS connected riparian plants to soil and water quality and as well as to fish.
- Hosted 7th annual Summer Site Tour - [Salmon Habitat in a Warming Climate: Spotlight on the Deshka River](#). 39 community leaders, scientists and guides attended introductory presentation, 33 traveled upriver by boat to visit 3 additional sites to share collaborative science and provide community leaders with current information on stream temperature and potential impacts to salmon and their habitat in the Mat-Su. Partners have identified cold water refugia which could serve as critical habitat in maintaining the Deshka as a salmon stronghold in a warming future. Media: [Mat-Su salmon habitat partnership tours Deshka River](#)
- National Fish Habitat Partnership [2022 National Water to Watch](#) project selected – Deshka River. It was approved and added to the list of 10 waters across the country.
- Provided four presentations about the Mat-Su Salmon Partnership and partner science for Science to Conservation Outcomes initiative, Mat-Su regional fish passage meeting, Mat-Su Salmon Symposium, and with Cook Inletkeeper Scientist - [Mat-Su Borough Fish Wildlife Commission](#) to highlight the [science to conservation outcomes initiative](#) and inform their consideration to reclassify Deshka River waters as “watershed” lands to support key cold water refugia for salmon.
- Monthly email updates were sent to 450+ person list and communicated with social media followers weekly.

<p>Science</p>	<p>Science related activities for 2022</p> <ul style="list-style-type: none"> ● Cook Inletkeeper, University of Alaska Anchorage (UAA) and U.S. Fish and Wildlife Service (USFWS) continue to gain information about stream temperature, flow, and fish distribution on the Deshka and Little Susitna Rivers as they explore these areas as case studies to help understand and forecast what the Mat-Su’s broader salmon habitat may look like in a changing climate. Efforts included maintenance of 85 year-round temperature logging sites across the Deshka with sampling for juvenile salmon at each site twice in the summer, and sampling of 100 juvenile Chinook and coho to calculate daily growth and measure levels of heat stress. On the Little Susitna River, partners collected a third year of stream temperature data, monitored juvenile salmon and compared to Deshka findings. ● Continuing a pilot effort started in late 2021, the Partnership Cook Inletkeeper and USFWS hosted a series of 6 Science to Conservation Outcomes discussions to facilitate moving scientific data partners are filling in to conservation outcomes – specific to stream temp on the Deshka River and Big Lake Basin. From these conversations with land managers, subject matter experts and scientists, a prioritized workplan of tools and actions to conserve cold water refugia was developed. Read Cook Inletkeeper’s report. ● UAA scientists created a georeferenced online mapping tool that shows the expansion of off-highway vehicle (OHV) stream crossings over 15 years. The geodatabase has over 490 stream crossings identified in the Mat-Su Borough and includes information such as anadromous status and lifestage information. Data is summarized by watershed to best understand potential OHV impacts to salmon habitat. This information will help the Partnership prioritize sites that have the greatest impact on salmon habitat. ● 25 highest risk waterbodies for aquatic invasive plant Elodea in the Mat-Su were surveyed by Tyonek Tribal Conservation District, Alaska Department of Natural resources and other partners (8 remote) and (17 on the road system). No new infestations were found.
<p>Conservation Accomplishments</p>	<p>Conservation activities for 2022</p> <ul style="list-style-type: none"> ● Partners added 18 stream miles and 11 new waterbodies to the Anadromous Waters Catalogue, improving salmon distribution information and affording these streams greater protection under state law. ● Two applications for instream flow protection are in progress, 11 applications were submitted to DNR for instream flow reservations in the Mat-Su, with data collection occurring on over 20 streams to acquire the five years of data needed to receive water rights. This continues progress to secure state water reservations on important salmon streams vulnerable to development. 10 year reviews of existing reservations were conducted by DNR on two Mat-Su Creeks. Cottonwood Creek was approved with no change in reserved flow.

Talkeetna River was similarly approved, however is currently under appeal by Alaska Miners Association.

- Alaska Department of Fish and Game (ADF&G) completed an updated prioritization of culverts for removal or replacement within the Mat-Su Borough. This updated prioritization utilizes the available NHD (+) elevation data to help better estimate the potential upstream extent of pacific salmon habitat upstream of culvert barriers.
- Four projects by Mat-Su Borough and partners, removed barriers to fish passage (Caswell Creek at Hidden Hills, Cloudy Lake and two on O'Brien Creek), restoring access to 8.7 miles of upstream and 277.4 acres of lake habitat on priority waters. Since 2006, partners have improved fish passage at well over 100 sites.
- Hosted a regional Mat-Su fish passage meeting to promote collaboration, information sharing and increased collective success in applying for and receiving Bipartisan Infrastructure Law federal funding improving fish passage and infrastructure in the Mat-Su. Stay tuned for more in 2023.
- 2022 was the second and final year of field studies to collect data on the existing fisheries, habitat availability and more, to inform mitigation needs for restoration of the Eklutna River. Outreach efforts engaged over 100 in-person participants in 2022. Restoration of the Eklutna River began in 2018 with the [successful removal of the abandoned lower Eklutna Dam](#). In 2021, [water was temporarily released from the diversion dam at Eklutna Lake](#) for the first time in 66 years, to support an instream flow study. In 2023 utility operators will release field study results and a draft of proposed mitigation measures.
- Four projects restored 220 ft of streambank and 15 people attended streambank restoration workshops, improving the understanding and use of bioengineering techniques through the USFWS and ADF&G cost-share program. More than 700 people were directly provided with education on salmonid habitat conservation and rehabilitation through workshops, site visits, phone conversations with landowners, presentations at homeowner association meetings, mailers, and social media postings.
- Northern pike are invasive in Mat-Su and widespread. Full eradication is not considered feasible. Suppression occurred in Alexander Creek – a formerly premier Chinook salmon fishery and 15 other waterbodies (3,188 pike removed). Alexander Lake was also treated for aquatic invasive plant Elodea.