Mat-Su Basin Salmon Habitat Partnership – Some Highlights and Progress in 2021 **Communications** 120 people attended the 14th annual, and 2nd virtual, Mat-Su Salmon & Science and Conservation Symposium. The Symposium is an annual forum to share information about salmon and their habitat in the Mat-Outreach Su Basin, and this year featured a keynote presentation by John McMillan of Trout Unlimited about salmonid recovery following removal of Washington's Elwha Dam. The Partnership sponsored a free, Communicating Science to nonscientists training to more effectively communicate presentation messaging with broader-lay audiences. This free, 90-minute training was attended by 32 people. 6th annual Summer Site Tour for community leaders. 40 people visited 4 project locations, exploring the freshwater habitat needs of salmon and what the Little Susitna River provides. This tour educates decision makers and facilitates new and strengthened relationships. Eklutna River was a 2021 National Water to Watch. It was approved and added to the list of 10 waters across the country that exemplify partnership inworking together toward achieving aquatic habitat conservation success. In spring 2021, \$258,333 in National Fish Habitat Partnership program funds were awarded to six projects that conserve, restore, educate and provide the science to inform strategic salmon habitat conservation in the Mat-Su Basin (2 science, 1 operations/coordination and outreach, 2 conservation, 1 restoration. The Partnership began a pilot effort to facilitate moving scientific data **Science** partners are filling in, to conservation outcomes. In November, 21 land managers, practitioners and scientists attended a facilitated conversation to learn about and explore taking climate change data that identifies cold water refugia for fish in the Deshka and Big Lake watersheds, and identify potential tools and pathways to conserve these key habitats. Cook Inletkeeper, University of Alaska and U.S. Fish and Wildlife Service continue to gain information about stream temperature, flow, and fish distribution on the Little Susitna and Deshka 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.

Over 1,500sq. miles of aerial imagery was acquired west of the Parks Highway from Petersville to the confluence of the Yentna and Susitna Rivers. Mat-Su Borough's recurring imagery program continues to increase our understanding of, and track changes to salmon habitat in the Mat-Su.

Restoration

&

Conservation

- Restoration of the Eklutna River began in 2018 with the <u>successful removal of the abandoned lower Eklutna Dam</u>. Most excitingly in 2021, <u>water was temporarily released from the diversion dam at Eklutna Lake</u>, for the first time in 66 years, to support an ongoing instream flow study. 2021 was also the first year of field studies to collect the data on the existing fisheries, habitat availability and more.
- In 2021 partners replaced one priority barrier to fish passage, opening access to Cloudy Lake, an important overwintering area for juvenile salmon. Since 2005, partners have improved fish passage at over 100 sites.
- The Palmer Soil and Water Conservation District and USFWS began
 work to identify previously undocumented barriers to salmon on trails
 and private roads in the Mat-Su. As part of the effort to address
 overlooked salmon barriers, in 2021, the USFWS completed a design
 for the removal of one barrier on a private parcel in the O'Brien Creek
 watershed.
- In 2021, 268 acres of estuaries, wetlands, riparian areas, and uplands important for salmon were conserved in perpetuity by Great Land Trust (GLT).
- Two applications for instream flow protection are in progress with data collection occurring on over 20 streams to acquire the 5 years of data needed to receive water rights. This continues substantial progress to secure state water reservations on important salmon streams vulnerable to development.
- Partners continued to add stream miles to the Anadromous Waters Catalogue, improving salmon distribution information and affording these streams greater protection under state law.
- The 3 known locations with aquatic invasive plant Elodea infestations in the Mat-Su: Alexander, Sucker, and Big Lakes, continued to receive herbicide treatments with the goal of eradication. Partners additionally continued annual surveys on highest risk waterbodies, and other steps to prevent further AIS introductions and spread of existing species.

*Note: This list does not include all the good work of our partners.