Mat-Su salmon PARTNERSHIP

Mat-Su Salmon Science & Conservation Symposium

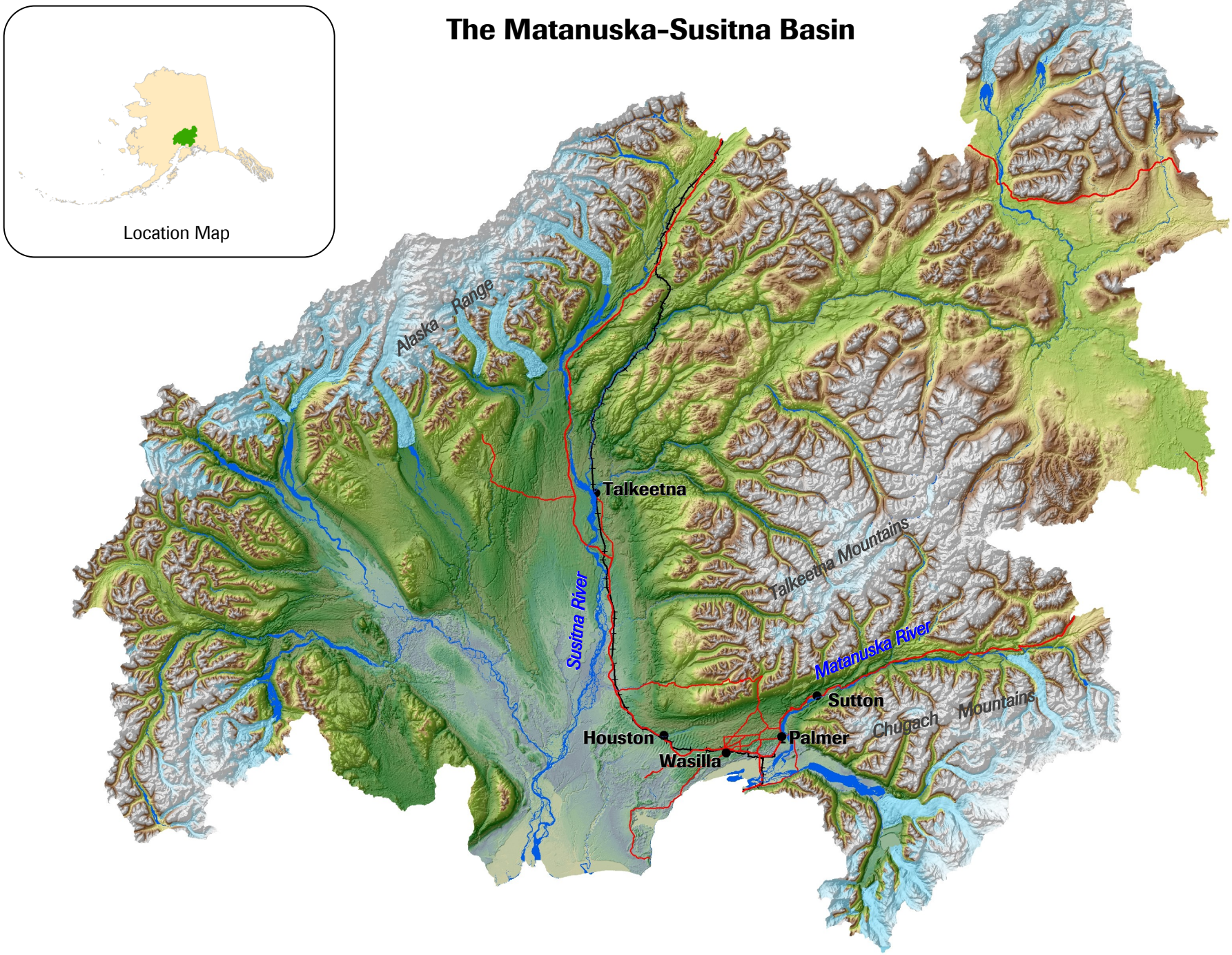
19th Annual

Nov. 19 & 20, 2026

Palmer, Alaska



The Matanuska-Susitna Basin



Welcome to the 19th annual Mat-Su Salmon Science & Conservation Symposium, hosted by the Mat-Su Basin Salmon Habitat Partnership. We are honored to open with a welcome from Wilson Justin of the Alaska Pacific University Alaska Native Elders Council, whose perspective is a reminder of the longstanding relationship between people and salmon.

Thursday morning's keynote provides a perspective on the emerging use of AI in salmon conservation. Dr. William Atlas of Wild Salmon Center will present "Co-Designing the Future of Tech: How Partnership, Co-development and AI are Scaling Salmon Conservation." Dr. Atlas will share his vision and goals for using Artificial Intelligence (AI) to help conservation practitioners access timely information, expand monitoring capacity, and support sustainable fisheries in a rapidly changing environment. Drawing on work with Indigenous Nations and local management agencies in Alaska and British Columbia, he'll share how these tools are being developed in partnership with the people who use them. With both the emerging use of AI and data center development being explored in the Mat-Su and Cook Inlet, this is a particularly relevant topic for our region.

On Friday, Amy Bushatz of the Mat-Su Sentinel will take us behind the story to show how reporters decide what reaches the public and what makes information land with reporters, decision makers, and the public. Her keynote will be followed by a hands-on workshop, "On the Spot", where ideas from the keynote will be put into practice with a lighthearted mock media interview with Amy playing the reporter.

For almost two decades, this two-day forum has enabled the fluid exchange of ideas about salmon science and conservation between peers and diverse stakeholders. The need is great to not only increase our scientific knowledge of salmon and their habitat, but to translate and share it by way of impactful and clear storytelling in order to reach those making decisions that impact our world. Together, our keynotes offer examples of efforts to provide timely information and the skills to communicate it effectively, so scientific knowledge can reach the people making decisions that impact Mat-Su salmon.

Between the keynotes, you'll find sessions on the Deshka River as a model for warming salmon streams, habitat mapping, water quality, community stewardship, and invasive species, plus a poster session and two "Tidbits" sessions where anyone can share a three-minute update. We are delighted to again host art from Palmer High School students. Please join us Thursday for an evening social, open to all, and a chance to visit with colleagues, old and new friends, and Dr. Atlas.

Across much of Alaska, including the Mat-Su, salmon runs are in decline, making our efforts and the need to work together more important than ever. Thank you to the Symposium Planning Committee, our sponsors, and supporters, and our volunteers and presenters. Together we can achieve what none of us could alone.

Enjoy, learn, and leave inspired to keep up your good work until we meet again. On behalf of the Steering Committee, thank you,



Jessica Speed
Coordinator, Mat-Su Basin Salmon Habitat Partnership

Mat-Su Basin Salmon Habitat Partnership Steering Committee

Mike Campfield · Matanuska-Susitna Borough
Melis Coady · Susitna River Coalition
Theo Garcia & Cody Beus · Knik Tribe
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Grace Fahrney · Alaska Department of Fish and Game
Trent Liebich · U.S. Fish and Wildlife Service
Andrea James · Chickaloon Village Traditional Council
Marykate Swenarton · Trout Unlimited

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Grace Fahrney · Alaska Department of Fish and Game
Jeff Fisher · Alaska Department of Environmental Conservation
Andrea James · Chickaloon Village Traditional Council
Dan Rinella · U.S. Fish and Wildlife Service
Vanessa von Biela · U.S. Geological Survey
Jessica Speed · Partnership Coordinator, Trout Unlimited

Thank you to Symposium Volunteers!

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Learn more about the Partnership and Symposium on the Mat-Su Salmon Partnership website at matsusalmon.org and follow us on Facebook!

Mat-Su Basin Salmon Habitat Partners

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U.S. Geological Survey
U.S. Forest Service, Chugach National Forest
Valley Community for Recycling Solutions
Wasilla Soil and Water Conservation District

Thursday November 19, 2026

Palmer Community Center (Depot), 610 S. Valley Way, Palmer

8:30 Registration

9:00 Welcome
Erin Larson (Member, Mat-Su Basin Salmon Habitat Partnership Steering Committee, Alaska Center for Conservation Science)
Wilson Justin (Member, Alaska Pacific University Alaska Native Elders Council)

9:30 Keynote Address: *Co-Designing the Future of Tech: How Partnership, Co-development and AI are Scaling Salmon Conservation* • Dr. William Atlas, Wild Salmon Center
Introduction: Vanessa von Biela (U.S. Geological Survey)

10:45 Networking Break

11:15 Salmon Habitat Mapping/Where Are the Salmon?
Moderator: Ben Americus
Here Be Dragons: At the Edge of Mapping Freshwater Fish Habitat in Alaska • Benjamin Meyer (Kenai Watershed Forum)

Insights on Local Salmon Spawning and Rearing Habitats • Robert Howard (Knik River Watershed Group)

11:45 Lunch

12:45 The Deshka River as a Model for Warming Salmon Streams: What Have We Learned?
This session will summarize some of the focused climate research occurring on the Deshka River, historically the Mat-Su's most productive Chinook Salmon stream. A range of short presentations will share insights into the cultural importance of the river and some key takeaways from the science.

Overview of the Deshka River and Why it was Selected as a Model System for Research • Dan Rinella (U.S. Fish and Wildlife Service)

Dena'ina History in the Deshka River • Kevin Toothaker (Knik Tribe)

Recollections of a Sportfishing Guide • Andy Couch (Fishtale River Guides)

Trends in Deshka River Salmon Abundance • Cole Weaver (Alaska Department of Fish and Game)

Pike Predation of Juvenile Salmon • Ben Rich (University of Alaska Fairbanks)

Juvenile Salmon Growth and the Importance of Cool-water Inputs • Dan Rinella (U.S. Fish and Wildlife Service)

How Hot Is Too Hot for Deshka River Salmon? • Vanessa von Biela (U.S. Geological Survey)

Is Heat Stress a Problem for Adult Chinook Salmon in the Warm Deshka River? • Ashley Stanek (U.S. Geological Survey)

Science to Conservation Outcomes: Building Habitat Resiliency • Erin Larson and Anjanette Steer (Alaska Center for Conservation Science)

2:00 Networking Break

Meet Palmer High School visual arts students during the break and learn more about their salmon-themed artwork on display at the Palmer Depot.

2:15 Tidbits

Sign up at the registration desk to present a 3-minute project summary or announcement. If you have a slide or two to project (maximum 2), please load them by the end of lunch.

2:45 Water Quality

Moderator: Kendra Zamzow (Chickaloon Village Traditional Council)

Alaska Clean Water Actions Program Overview, Projects in Action, and DEC Water Quality Online Resources • Jeff Fisher (Alaska Department of Environmental Conservation)

Rain Events and Snow Melt Contribute Lethal Pulses of 6PPD-Quinone to Anchorage Waterways • Brian DiMento (University of Alaska Anchorage)

3:15 Poster Session

Poster authors will be on hand to answer questions about their work.

Restoring Tsidek'etna, Reviving Chinook: Integrating Indigenous Knowledge and Modern Incubation Techniques • Gina Bodnar (Chickaloon Village Traditional Council)

Living Next to a Salmon Stream: Updating a Landowner Resource • Ryan Thomas (Great Land Trust)

Mobile Northern Pike Suppression in Whiskey, Hewitt, and Shell Lakes, Susitna River Basin (2024–2026) • Danny Tanis (Cook Inlet Aquaculture Associate)

Overview and Future of Cost Share Work in the Mat-Su Basin • Joe Lyon (U.S. Fish and Wildlife Service) and Grace Fahrney (Alaska Department of Fish and Game)

Prioritizing Salmon Habitat: Updating and Expanding a Science-Based Prioritization • Amanda Hults (Great Land Trust)

Preventing the Spread of Aquatic Invasive Species: Watercraft Inspection and Decontamination at the Alaska-Canada Border | May - September 2026 • Michael Foley, Kim Holzer, and Emma Parker (U.S. Fish and Wildlife Service)

3:45 Announcements and Adjourn

Andrea James (Chickaloon Village Traditional Council)

4:00 Evening social at Matanuska Brewing Company

513 S. Valley Way, Palmer

Join colleagues, Thursday's keynote speaker Will Atlas, and new and old friends for an evening of good conversation. The Mat-Su Salmon Partnership is providing appetizers, and a cash bar will be available until 7pm, when the social ends.

Friday November 20, 2026

Palmer Community Center (Depot), 610 S. Valley Way, Palmer

8:30 **Registration**

9:00 **Symposium Welcome**
Grace Fahrney (Member, Mat-Su Basin Salmon Habitat Partnership Steering Committee)

9:15 **Keynote Address: *Behind the Story: How Reporters Make News, and You Can, Too* • Amy Bushatz, Mat-Su Sentinel**
Introduction: Paul Clark (Mat-Su Borough)

10:00 **Comfort Break & Workshop Setup**

10:15 **Workshop: *On the Spot: Practicing How to Communicate with the Media* • Amy Bushatz, Mat-Su Sentinel**
Moderator: Paul Clark (Mat-Su Borough)

11:00 **Networking Break**

11:15 **Strategic Conservation & Community Stewardship**
Moderator: Mike Daigneault (U.S. Fish and Wildlife Service)
Working Together for Mat-Su Salmon: The Mat-Su Basin Salmon Habitat Partnership's Updated Priorities • Jessica Speed (Trout Unlimited)
From Advocacy to Action: The Mat-Su Borough Fish and Wildlife Commission's Salmon Conservation Priorities • Paul Clark (Mat-Su Borough)
Citizen Science in the Susitna River Watershed • Kendra Zamzow (ba kada')
From Awareness to Action: Engaging Mat-Su Communities in Riparian Stewardship • Kelsey Anderson (RESPEC)

12:15 **Lunch**

1:15 **Science for Proactive Conservation of Salmon Habitat**
Addressing Data Gaps in the West Susitna Region: Anadromous Waters Catalog Additions • Olivia Mueller (Tyonek Tribal Conservation District)

1:30 **Threats to Mat-Su Salmon: Northern Pike**
Moderator: Trent Liebich (U.S. Fish and Wildlife Service)

Out of Sight, Out of Mind? The Unrealized Devastation from Invasive Northern Pike • Parker Bradley (Alaska Department of Fish and Game)

Survey and Monitoring of Invasive Northern Pike • Brennan Watson (Alaska Department of Fish and Game)

Pedal to the Metal: Alexander Creek Suppression • Thomas Sitz (Alaska Department of Fish and Game)

Efforts to Prevent Pike Expansion While Maintaining Passage for Salmon and System Health • Mike Campfield (Mat-Su Borough)

2:30 Networking Break

2:45 Threats to Mat-Su Salmon: Invasive Northern Pike, Elodea & Horizon Species

Tag-Team Invaders, Tag-Team Response: Pike Derby & Elodea Showdown • Chennery Fife & Marykate Swenarton (Trout Unlimited)

Horizon Species: Keeping New Aquatic Invasive Species Out of the Mat-Su • Marcus Geist (Alaska Center for Conservation Science) and Nicole Swenson (Tyonek Tribal Conservation District)

3:15 Tidbits

Moderator: Anjanette Steer (Alaska Center for Conservation Science)

Sign up at the registration desk to present a 3-minute project summary or announcement. If you have a slide or two to project (maximum 2 slides), please load them by the end of lunch.

3:45 Conclusions

Vanessa von Biela (U.S. Geological Survey)

4:00 Adjourn

About the Keynote Speakers

Amy Bushatz



Amy Bushatz is the founder, editor and reporter for the Mat-Su Sentinel, a nonprofit and nonpartisan news website covering the Matanuska-Susitna Valley (Mat-Su). Amy and her family moved to Mat-Su in 2016 following her husband's active-duty Army service. A journalist with more than 20 years of news writing and editing experience, Amy launched the Mat-Su Sentinel in 2024 because she saw a gap in consistent news reporting in the region and wanted to be part of the solution. In June, the Sentinel acquired the Mat-Su Valley Frontiersman from its out-of-state owners. Amy holds a master's degree in public service from the University of San Francisco and is a 2019 graduate of the George W. Bush Institute's Stand-To Veteran Leadership Program.

Behind the Story: How Reporters Make News, and You Can, Too

How do reporters find stories, gather information and decide what the public needs to know? And how can you get your work in front of them? Amy Bushatz, founder, editor and reporter for the Mat-Su Sentinel, offers a behind-the-scenes look at how journalism works, from an initial interview to a published story. Drawing on more than 20 years of experience, Amy will explore how reporters identify stories, ask questions, evaluate information and decide what reaches the public. She'll also share what makes information land with reporters, decision-makers and the public: turning complex data into what it means for people's lives, and why polite persistence gets results.

On the Spot: Practicing How to Communicate with the Media

Knowing your subject is one thing. Explaining it clearly when a reporter puts you on the spot is another. In this hands-on session, Amy Bushatz of the Mat-Su Sentinel will put the ideas from her keynote into practice. Working in small groups, participants will take on a lighthearted but very Alaska scenario, identify their key messages and develop three clear talking points. Then they'll step up to the microphone for a mock interview with Amy playing the reporter. Along the way, participants will practice making complex information accessible, staying focused on what matters most and keeping their cool when the questions are unexpected or the topic is controversial. Because a reporter is a gateway to the public, these skills apply just as well to elected officials, community members and anyone else who needs to understand your work.

Amy Bushatz, Mat-Su Sentinel
545 S. Alaska St., Palmer, AK 99645
contact@matsusentinel.com · 907.795.7058

About the Keynote Speakers

Will Atlas



Dr. William Atlas has spent two decades working in partnership with local and Indigenous communities to develop salmon monitoring and conservation programs. He serves as Wild Salmon Center's director of Innovation and Sustainable Fisheries, and is co-founder of the Salmon Vision collaborative, a mission-driven AI company co-developing AI tools for salmon conservation and management alongside conservation practitioners from Alaska to California. He holds a PhD in Biological Sciences from Simon Fraser University. Currently he serves as the Central Coast First Nations representative on the Pacific Salmon Commission's Northern Panel, and is a member of the Central Coast Management Council's coho technical working group and population benchmarks subcommittee. He is lead or coauthor on more than 25 peer reviewed research papers spanning diverse topics including fisheries co-governance, salmon ecology and population dynamics, and the application of AI in salmon conservation.

Co-Designing the Future of Tech: How Partnership, Co-development and AI are Scaling Salmon Conservation

Wild salmon are foundational to ecosystems, cultures and economies around the Pacific Rim, supporting fisheries worth hundreds of millions of dollars annually, and fueling the ecological productivity of their watersheds. Around our region, there are thousands of genetically distinct, locally adapted populations of wild salmon. Yet the costs, personnel and logistical challenges of monitoring limits our understanding of status and trends for many of these populations. In an era of accelerating climate warming, and increasing uncertainty in annual returns of salmon, timely in-season monitoring data has never been more important for management of sustainable fisheries. These data allow managers to reduce harvest impacts during years of unexpectedly low returns and mobilize harvest opportunities when salmon populations exceed preseason expectations. Emerging artificial intelligence tools, such as computer-vision (CV) deep learning, create opportunities for near-real-time delivery of monitoring data to inform in-season management, while reducing the costs and staff time required to review data and produce counts. AI is already transforming our society, creating some benefits but also significant negative impacts. Decisions about the future of AI are being made every day and require advocacy, oversight, and leadership from all of us to shape the future of technology, who benefits and what capabilities are considered safe and beneficial. Our work is founded in the belief that creating AI tools that center human and environmental well-being, and co-developing these tools with practitioners, can set a different course for technology development. Since 2021, we have been developing and testing AI tools for automated video, sonar, and aerial drone counts, working with local management agencies, and Indigenous Nations to co-develop and test the technology in the field. Importantly, this effort is not about replacing the work of people but enabling management agencies and tribal governments to expand monitoring, deliver data in near-real time, and reduce data review burdens for stretched-thin staff. Presenting case studies from Indigenous and agency partners in BC and Alaska, we show how these tools, which use >100x less energy and GPU than even a simple AI-based search engine query, are enabling in-season management of salmon, and supporting semi-autonomous weir operation in remote watersheds. This work is empowering managers and local communities as they manage salmon populations through a period of unprecedented environmental change, supporting sustainable fishery opportunities, and providing real-time insights into the health of wild salmon around our region.

Will Atlas, Wild Salmon Center
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Presentation Abstracts

Presentation abstracts are ordered as listed in the agenda. * denotes poster.

Here Be Dragons: At the Edge of Mapping Freshwater Fish Habitat in Alaska

Benjamin Meyer and Alie Minium (Kenai Watershed Forum, Soldotna, AK), Bernard Romey (Romey Riverscape Sciences, Longview, WA), Kevin Andras (Terrainworks, Mt. Shasta, WA), Orca Jimmy Peniston (Kenai Peninsula College, University of Alaska Anchorage, Soldotna, AK), David Knight (Cook Inletkeeper, Soldotna, AK)

Each year agencies, tribal organizations, nonprofits, and community members throughout Alaska work to expand and corroborate the Alaska Department of Fish and Game's Anadromous Waters Catalog, an important mapping tool for stream habitat management statewide. The effort involves extensive fieldwork labor and GIS preparation. Yet it is estimated tens of thousands of miles of anadromous streams remain uncatalogued and thus unmanaged as salmon habitat. Accepting that it is unfeasible to visit in-person each and every location where salmon habitat exists, Kenai Watershed Forum in partnership with Terrainworks, Romey Riverscape Sciences, and Kenai Peninsula College is investigating the feasibility of using predictive maps to estimate the total extent of anadromous habitat. Field seasons in 2021-2026 identified over 25 miles of uncatalogued anadromous habitat in the central Kenai Peninsula and Turnagain Pass. Our work to locate and consistently define "end of anadromy" locations will culminate in a machine-learning driven mapping tool that we aim to make replicable and expandable to broader geographies throughout the region, following examples of ongoing work in Washington state and in Southeast Alaska. Our parallel outreach campaign in partnership with Cook Inletkeeper, "Backyard Salmonscapes," recruits the public into awareness and hands-on participation with field trips, public talks, and educational events. Together, we are working to drive science and public ownership around stewardship imperatives for freshwater fish habitat in Alaska.

Insights on Local Salmon Spawning and Rearing Habitats

Robert Howard (Knik River Watershed Group)

This presentation will focus primarily on the Knik River watershed's Jim Swan area and Wasilla Creek headwaters wetlands habitats. Both are important ecosystems within designated 'Public Use' areas. The Knik River Public Use Area (KRPUA) legislation was signed into law in 2006 and is the first time that DNR was granted enforcement powers.

The original Moose Range Plan was adopted in 1986. The new Matanuska Moose Range and Jonesville Plan Public Use Area built on the KRPUA model was adopted in 2024 and the Western Unit includes Wasilla Creek headwaters.

There are significant issues in both the KRPUA and Moose Range plans that are of concern for habitat sustainability and area management. This presentation will rely on visuals from decades

of advocacy and documentation. The intent is to invoke awareness through observations and insights garnered along the way. There is urgent need to repair systemic failing regarding in-river fish habitat management right in our backyards.

The Deshka River as a Model for Warming Salmon Streams: What Have We Learned?

Dan Rinella (U.S. Fish and Wildlife Service), Kevin Toothaker (Knik Tribe), Andy Couch (Fishtale River Guides), Cole Weaver (Alaska Department of Fish and Game), Ben Rich (University of Alaska Fairbanks), Vanessa von Biela (U.S. Geological Survey), Ashley Stanek (U.S. Geological Survey), Erin Larson and Anjanette Steer (Alaska Center for Conservation Science)

Chinook Salmon populations across Alaska are in a prolonged crash that has led to widespread fishery closures and disruptions to Alaskans' food security, economic activity, and cultural identity. While the causes are complex and poorly understood, it is likely that climatic warming and related changes have made marine and freshwater habitats less conducive to Chinook Salmon survival. Streams draining low-elevation landscapes have historically been among the region's biggest Chinook Salmon producers and these currently have the warmest summer temperatures and are expected to warm the most in coming decades. The Deshka River is one such stream; draining extensive lowlands in the Susitna Valley, it historically produced the largest Chinook Salmon runs in upper Cook Inlet plus sizeable runs of Coho Salmon. Recently, however, Chinook Salmon runs have dwindled, and fishery closures have become the norm. The U.S. Fish and Wildlife Service and partners have been working to understand changing thermal conditions across this historically productive Chinook Salmon stream, to document and predict the implications of warming to salmon and other fishes, and to explore fishery and landscape management actions to enhance the resilience of these populations. In this session, we will begin with context from traditional knowledge and local sport fishing about the significance of the Deshka River and its salmon runs and then briefly summarize recent research results in a speed talk format (~5 min per speaker).

Alaska Clean Water Actions Program Overview, Projects in Action, and DEC Water Quality Online Resources

Jeff Fisher (Alaska Department of Environmental Conservation)

This presentation will provide an overview of the Clean Water Actions (ACWA) grant program, which supports locally driven projects that protect and improve water quality across Alaska, and highlight successful examples of how grant funding has been used to address water quality concerns through monitoring, watershed planning, stormwater management and community outreach. These examples will highlight how partnerships among state agencies, local governments, Tribes and nonprofit organizations help address local water quality and habitat concerns through collaborative conservation efforts that protect and improve Alaska's water resources. Examples will emphasize work in the Mat-Su and highlight opportunities for future

work. The presentation will also provide information on some of DEC's online resources, including the newly released Water Quality Atlas.

Rain Events and Snow Melt Contribute Lethal Pulses of 6PPD-Quinone to Anchorage Waterways

Brian DiMento (University of Alaska Anchorage)

6PPD-quinone (6PPDQ), formed from the ubiquitous tire additive 6PPD, has recently been identified as one of the most toxic substances to aquatic life, in particular to coho salmon. It leaches from tire wear particles (TWPs) formed on roadways and is washed into storm drains and ultimately streams and rivers by rain and snowmelt, potentially resulting in pulses of 6PPDQ that are lethal to coho. This compound has been attributed to "urban runoff mortality syndrome" in the Pacific Northwest, but prior to 2025 little work had been done in Alaska to investigate its prevalence and potential role in declining salmon populations. Samples from Anchorage streams and storm drains were analyzed following established techniques using liquid chromatography tandem mass spectrometry (LC-MS/MS), leveraging the instrumentation available in the Analytical Sciences for Aquatic Toxicology (ASET) Lab at the University of Alaska Anchorage (UAA). Concentrations at base flow were near detection limits, but a rain event in July 2025 sparked concerns when concentrations in Chester Creek rose up to three times higher than the LC50 for coho salmon (the concentration capable of killing 50% of individuals after 24 hours of exposure). Far higher levels were observed in storm drains pouring into the streams, suggesting the potential for population-level consequences. Last spring, snowmelt on city streets was also identified to be a significant source of 6PPDQ to streams, with concentrations again surpassing the LC50 threshold. Future work will continue to expand the spatial and temporal coverage of 6PPDQ measurements, identifying storm drain outfalls and the hydrological conditions that drive peak concentrations. These efforts will ultimately inform future mitigation strategies until effective (and non-toxic) alternatives to current tire additives are discovered.

Restoring Tsidek'etna, Reviving Chinook: Integrating Indigenous Knowledge and Modern Incubation Techniques*

Gina Bodnar (Chickaloon Village Traditional Council)

Tsidek'etna (Moose Creek) is the cultural heart of Chickaloon Village Traditional Council (CVTC). Located in the Matanuska Watershed north of Palmer, Alaska, Tsidek'etna translates from Ahtna as "Grandmothers Place Creek," reflecting its long history of sustaining Tribal Elders, families, and communities through abundant salmon.

In the 1920s, coal mining and railroad development dramatically altered the creek and simultaneously laws prevented Tribal citizens from stewarding the site. Those stream

disturbances continue to impact stream function and salmon populations today. For more than 20 years, CVTC's Environmental Stewardship Department has documented a steady decline in Chinook salmon returning to Tsidek'etna, with the population now at critically low levels that may not recover without intervention.

CVTC has a long history of salmon enhancement. Between 2007 and 2013, the Tribe implemented moist-air incubation techniques to improve Chinook salmon survival. Building on that experience, CVTC received authorization this year to collect Chinook salmon gametes (eggs and milt) from Tsidek'etna and incubate offspring using a deep matrix incubation system. This is a pilot study designed to increase egg-to-fry survival and support population recovery.

This poster will share how CVTC is blending Traditional Ecological Knowledge with modern incubation technology to restore a culturally significant salmon population. We will discuss project design, implementation, challenges encountered, and early outcomes, while highlighting how salmon enhancement complements ongoing stream restoration efforts throughout Tsidek'etna. Our experiences can provide useful lessons to others working to restore and steward culturally important salmon populations.

Living Next to a Salmon Stream: Updating a Landowner Resource*

Ryan Thomas (Great Land Trust)

In 2012 Great Land Trust (GLT) developed the brochure, *Living Next to a Salmon Stream: How to Be a Salmon-Friendly Landowner*, to help landowners understand the importance of healthy streamside habitat and actions they can take to support salmon. In the years since, GLT and its partners have used this brochure for targeted landowner outreach and as an educational tool to promote salmon-friendly land stewardship in the Mat-Su Borough. Through a grant from the Alaska Sustainable Salmon Fund, GLT is updating the brochure, including incorporating climate and environmental resiliency information, as part of a broader effort to update and expand its science-based salmon habitat prioritization across Southcentral Alaska. We invite symposium participants to share comments, relevant research, data sources, and any other ideas for updating, improving and utilizing this landowner resource. GLT plans to make the updated brochure available in 2027 (in print and/or digital formats) so partners can continue using it in their outreach and education efforts. The original brochure can be found here: https://issuu.com/greatlandtrust/docs/glt-living-next-to-a-salmon-stream

Mobile Northern Pike Suppression in Whiskey, Hewitt, and Shell Lakes, Susitna River Basin (2024–2026)

Danny Tanis (Cook Inlet Aquaculture Association)

Invasive northern pike have been one of the drivers of steep declines in sockeye salmon in Susitna River basin lakes. Because eradication is not feasible across the basin's connected

waters, Cook Inlet Aquaculture Association has suppressed pike in Yentna River lakes since 2012. From 2024 to 2026, a mobile crew of two individuals rotated among Whiskey, Hewitt, and Shell lakes each open-water season (mid-May to early September). The crew removed pike with gillnets and hook and line, tracked catch-per-unit-effort, collected length, weight, sex, age, and stomach content data, and surveyed all three lakes for the invasive waterweed elodea. At Shell Lake, where sockeye were nearly lost, the crew counted out-migrating smolt at a fyke-net trap and returning adults at a video weir to track recovery. This poster presents three years of pike removal and catch-per-unit-effort trends at each lake, changes in pike size and age, Shell Lake smolt and adult sockeye counts, and elodea survey results.

Overview and Future of Cost Share Work in the Mat-Su Basin

Joe Lyon (U.S. Fish and Wildlife Service) and Grace Fahrney (Alaska Department of Fish and Game)

The Mat-Su Cost Share program, also known as the Streambank and Shoreline Rehabilitation and Protection Program, is a partnership between Alaska Department of Fish and Game, United States Fish and Wildlife Service, nonprofit organizations, private landowners, and local governments. The program provides financial incentives and educational outreach to private landowners to sustain and improve salmon habitat. To date, the program and its partners have constructed/completed over 900 streambank and shoreline rehabilitation projects, primarily using root wads, brush layers, cabled spruce trees, elevated light penetrating walkways, and native riparian vegetation planting. Since its 2007 inception, the Cost Share program has completed many of the highest priority and easy-to-do streambank and shoreline restoration projects in the Mat-Su. We propose to have a QR code on our poster linked to a poll to solicit audience input about the future of cost share work in the Mat-Su, how to improve it, and how to reach a wider audience.

Prioritizing Salmon Habitat: Updating and Expanding a Science-Based Prioritization*

Amanda Hults (Great Land Trust)

In 2012, Great Land Trust (GLT) completed a GIS-based prioritization of important salmon habitat in the Mat-Su Borough. Through meetings with agency partners, tribal and nonprofit organizations, local fishing guides, and community representatives, GLT identified 35 streams, lakes, and rivers containing the most important salmon habitat in the Mat-Su Borough. We then applied a number of filters, including water quality concerns, declining salmon populations, development density, wetland function, and sport fishing, to score more than 1,000 parcels along these 35 waterbodies. The resulting prioritization helped guide landowner outreach, education and conservation efforts by GLT and its partners, contributing to the permanent protection of approximately 8,500 acres of salmon habitat within the Mat-Su Borough.

Through a grant from the Alaska Sustainable Salmon Fund, GLT is now updating and expanding this prioritization to incorporate newly available data, including climate and environmental resiliency information. We invite symposium participants to share relevant research, data sources, local knowledge, and other ideas, particularly regarding the 35 priority waterbodies identified in the earlier prioritization. We welcome input on whether those priorities remain relevant and whether other waterbodies should be considered.

Preventing the Spread of Aquatic Invasive Species: Watercraft Inspection and Decontamination at the Alaska-Canada Border

Michael Foley (U.S. Fish and Wildlife Service), Kim Holzer (U.S. Fish and Wildlife Service), and Emma Parker (U.S. Fish and Wildlife Service)

In collaboration with state and federal partners, U.S. Fish and Wildlife Service operates the Alaska–Canada border (Alcan) Watercraft Inspection and Decontamination (WID) station. As Alaska's sole WID, this station serves as the state's first and only line of defense against invasive zebra and quagga mussels. Alaska is one of five western states without invasive mussel infestations. The station is the only federally operated roadside aquatic invasive species watercraft check station within the United States and is responsible for protecting federal, state, and tribal lands across Alaska. Many of the watercraft passing through the Alcan Land Port of Entry are destined for the Mat-Su Valley and Kenai Peninsula. Maintaining and strengthening the Alcan WID station is essential to ensure that Alaska's waters, fisheries, subsistence resources, and infrastructure remain safe from the irreversible impacts of invasive zebra and quagga mussels.

Working Together for Mat-Su Salmon: The Mat-Su Basin Salmon Habitat Partnership's Updated Priorities

Jessica Speed (Mat-Su Basin Salmon Habitat Partnership/Trout Unlimited)

The Mat-Su Basin Salmon Habitat Partnership has spent two decades bringing together agencies, Tribes, nonprofits, researchers, and community partners to advance the conservation of salmon and their habitat. This presentation will introduce the Partnership, its role as a collaborative, science-based coalition, and share highlights from the recently updated Strategic Action Plan for 2027–2031. Shaped by partner input, including that from the 2025 Mat-Su Salmon Symposium, the plan builds on the Partnership's longstanding conservation strategies while identifying five organizational priorities to strengthen collaboration, communication, participation, and long-term capacity alongside five conservation priorities to guide collective efforts across the Mat-Su Basin. The presentation will highlight how the updated plan will help focus the Partnership's work, track collective progress, and support partner-led efforts to sustain healthy salmon habitat and vibrant communities.

From Advocacy to Action: The Mat-Su Borough Fish and Wildlife Commission's Salmon Conservation Priorities

Paul Clark (Mat–Su Borough)

The Matanuska-Susitna Borough Fish and Wildlife Commission (FWC) was formed in 2007 to represent the interests of the Borough and residents in the conservation and allocation of fish, wildlife, and habitat. The presenter will highlight the FWC's support for fishery management and funding in 2026, including advocating for funding of salmon research and monitoring, updates on progress towards fully establishing a salmon Conservation Corridor through Cook Inlet to allow more salmon of all species to return to Mat-Su natal streams and rivers to spawn, and other highlights.

In 2027, the FWC will continue to focus on the full establishment of the Cook Inlet Conservation Corridor during the Alaska Board of Fisheries Upper Cook Inlet Finfish meeting and the North Pacific Fishery Management Council federal regulations process. The FWC is also increasingly focused on aquatic invasive species mitigation as a critical priority for protecting salmon habitat, including plans for a youth pike program, and we are seeking to expand our outreach to build more public awareness of, and support for, FWC priorities. The presenter will finish with an opportunity for Symposium participants to ask questions, learn how to get engaged in these topics, request support from the FWC, and help identify other priority issues.

Citizen Science in the Susitna River Watershed

Kendra Zamzow (ba kada')

Susitna River Coalition (SRC) is developing a science-based and community-informed plan to guide watershed conservation in the Susitna River region. One component of the watershed plan is Citizen Science and Community Monitoring. This is to increase baseline data and expand awareness of the watershed. Throughout the summer, citizens have been collecting water temperature and observing habitat using an app and volunteer training packet developed by SRC. An outline of the Citizen Science program and initial data from the project will be presented.

From Awareness to Action: Engaging Mat-Su Communities in Riparian Stewardship

Kelsey Anderson (RESPEC)

Healthy riparian areas play a critical role in protecting water quality, supporting salmon habitat, reducing erosion, and sustaining the ecological health of the Matanuska-Susitna Borough's (MSB) waterbodies. Through the Healthy Watershed Initiative, funded in part through an Alaska Clean Water Action Grant, the MSB implemented a community-based education and outreach program designed to increase public understanding of riparian functions and encourage stewardship actions that reduce nonpoint source pollution. The initiative seeks to connect

watershed science with practical actions that residents can take on their own properties and within their communities.

This presentation will describe the development and implementation of the outreach program, including creation of an outreach plan, educational website, public-facing materials, and presentations delivered to every active community council in the MSB. The project also developed educational materials to accompany MSB correspondence with owners of properties that may not meet waterbody setback requirements, connecting riparian science, individual stewardship actions, and pathways toward compliance. Particular emphasis will be placed on the project's community engagement strategy, which combines local partnerships, community meetings, digital outreach, and survey-based evaluation to understand resident knowledge, attitudes, and behaviors related to riparian areas and watershed health.

Presenters will share survey findings, discuss lessons learned from engaging diverse Mat-Su communities, and highlight opportunities and challenges associated with promoting voluntary stewardship and behavior change. The session will conclude with a discussion of how project findings will inform future outreach efforts, support long-term watershed stewardship, and contribute to the protection of salmon habitat and water resources across the Mat-Su region.

Addressing Data Gaps in the West Susitna Region: Anadromous Waters Catalog Additions

Olivia Mueller (Tyonek Tribal Conservation District)

Tyonek Tribal Conservation District (TTCD) serves 6.6 million acres, supporting tribally-led conservation and resource management projects. Much of this work focuses on identifying and filling data gaps within our district, particularly in areas where lack of data may result in insufficient protection of habitats that support salmon. TTCD has been conducting fish surveys in the West Susitna region for over a decade and adding miles to the Anadromous Waters Catalog (AWC) continues to be one of our primary goals. In the last few years, TTCD has added over 100 stream miles to the AWC, protecting important fish-bearing habitat in remote locations that are currently of interest to several overlapping development projects. In our district, data gaps and impending development projects threaten water quality and fish habitat. Identifying and nominating anadromous streams invoke statutory protections and are a proactive measure to ensure development projects proceed with consideration of fish habitat. The West Susitna region contains a patchwork of proposed development projects, several of which are gaining momentum through permitting processes. TTCD prioritizes surveying watersheds that may be vulnerable due to insufficient data and are within proximity to proposed development.

Out of Sight, Out of Mind? The Unrealized Devastation from Invasive Northern Pike
Parker Bradley (Alaska Department of Fish and Game)

Northern pike, a species not native to Southcentral Alaska, was initially introduced to this region in the 1950's. As one of the most popular sport fish in the U.S., this top-level predator is commonly and illegally moved around by people, often with dire consequences. In Southcentral, northern pike are now known to occupy over 150 waterbodies, and they are continuing to spread. Many of the waters northern pike have spread to are remote and difficult to access, making management actions difficult, expensive, or even impossible. As a result, many people don't realize the actual impacts northern pike have had on native resident and anadromous species. The degree of these impacts depends greatly on the habitat conditions of the waterbody and duration of infestation, ranging from minor to catastrophic. A catastrophically impacted waterbody means it historically supported anadromous fish, but the fish community is now northern pike dominated, and salmon production no longer exists. The amount of this destroyed habitat is beginning to be quantified, and unfortunately, this is painting a picture of a dire and continuously growing loss of anadromy from northern pike predation. In addition, the amount of moderately/severely impacted waters is significant and growing too. In some locations, these impacts have been reversed by eradication efforts, but that's not an option everywhere. While the situation is already precarious, there is still potential for it to get much worse, emphasizing the need for critical research focused on pathways and prevention.

Survey and Monitoring of Invasive Northern Pike
Brennan Watson (Alaska Department of Fish and Game)

Presentation of ADF&G's efforts to survey for and monitor northern pike populations in the Mat-Su. These efforts include netting various waterbodies and eDNA surveys. This presentation will focus on efforts in the Jim Creek Drainage, Little Susitna River Drainage, and Cottonwood Creek Drainage. Rapid response efforts in the Cottonwood Creek drainage and cooperation with partners saw the first use of a permanent pike barrier.

Pedal to the Metal: Alexander Creek Suppression
Thomas Sitz (Alaska Department of Fish and Game)

Invasive northern pike have wreaked havoc on the Alexander Creek drainage. This top-level predator has a drastic impact on the native fish that occupy this system. The last two decades have shown rapid declines in returning salmon stocks, most heavily affected are Chinook salmon. ADF&G's pike team has been conducting a northern pike suppression project for the better part of two decades. Suppression efforts are being ramped up on the system with the goal of increased salmon abundance and also other native fish species. Effort has been ramped up on Alexander Creek as well as the Sucker Creek drainage with increased netting effort and

targeted rotenone treatments. This presentation will talk about preliminary results and plans for the future.

Efforts to Prevent Pike Expansion While Maintaining Passage for Salmon and System Health
Mike Campfield (Mat-Su Borough)

This presentation will provide an overview of the Mat-Su Borough projects from the 2026 construction season, including the first of its kind pike barrier for Kings and Anderson Lakes and several fish passage improvement projects, including those at Neklason Lake, Cottonwood Creek at Fern Street and Birch Creek at Mastodon Road. We will also preview some of the upcoming projects that are in design and talk about partnerships that are developing as we look to the future of restoration and invasive species eradication projects.

Tag-Team Invaders, Tag-Team Response: Pike Derby & Elodea Showdown

Chennery Fife & Marykate Swenarton (Trout Unlimited)

This past July, Trout Unlimited (TU) and the Big Lake Chamber of Commerce hosted a pike derby to raise awareness of the presence of northern pike in Big Lake and recruit anglers to help combat the invasion. Anglers from the region came to fish for pike, compete for prizes, and learn more about the impact of pike on salmon populations. While the event was centered around pike, there is another invasive aquatic species in Big Lake, Elodea. An event centered around one invasive species could have potentially spread another one. Therefore, TU brought in the US Fish and Wildlife Service (USFWS) to address both invasive species in the span of one afternoon. Come learn about the impacts of northern pike and Elodea on Big Lake, how the event went, and how collaboration between many state, federal, local, and non-profit partners is key to stopping the spread of invasive species.

Horizon Species: Keeping New Aquatic Invasive Species Out of the Mat-Su
Marcus Geist (Alaska Center for Conservation Science) and Nicole Swenson (Tyonek Tribal Conservation District)

We will present an overview of current efforts monitoring and mitigating aquatic invasive species across the Mat-Su Basin coupled with a look toward ongoing and future surveillance of invasive species present in the lower 48 states and Canada.

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