



YK Comprehensive Economic Development Strategy (CEDS) 2020/2021 Annual Update

Appendix – Table of Contents

(Click on a name to jump to the relevant section)

1. Business Development and Entrepreneurship Work Session Discussion Results, 10-22-21
2. Climate Adaptation Work Session Discussion Results, 10-21-21
3. Climate Adaptation Supplement – Summary from Joel Niemeyer, 10-27-21
4. Communications Work Session Discussion Results, 10-22-21
5. Communications Supplement – Broadband Project Presentation from Calista and ACS
6. Education and Workforce Development Work Session Discussion Results, 10-21-21
7. Education and Workforce Development Supplement – KYUK Article on Nursing Program
8. Energy Work Session Discussion Results, 10-21-21
9. Energy Supplement – Alaska Public Media Article on Kwethluk Wind Turbines
10. Housing and Water-Sewer Infrastructure Work Session Discussion Results, 10-22-21
11. Housing and Water-Sewer Infrastructure Supplement – ANTHC and CCHRC Construction Health and Safety Considerations
12. Housing and Water-Sewer Infrastructure Supplement – Innovative Readiness Training
13. Housing and Water-Sewer Infrastructure Supplement – Communities Summary from YKHC
14. Subsistence and Food Security Work Session Discussion Results, 10-21-21
15. Transportation Work Session Discussion Results, 10-22-21



Business Development and Entrepreneurship Focus Area Action Planning Results

Friday, October 22, 2021 | 1:30-3:30pm

Link to recording: <https://www.avcp.org/tribal-resources/community-development/regional-comprehensive-economic-development-strategy/>

Facilitator: Clarence Daniel, Association of Village Council Presidents (AVCP)

Team Support: Heather Stewart, Agnew::Beck Consulting

Participants:

First Name	Last Name	Organization
Fannie	Black	Yuut Elitnaurviat
Alba	Brice	Calista Corporation
John	Charlie	Association of Village Council Presidents (AVCP), Network Infrastructure Director
Anny	Cochrane	Alaska Department of Labor and Workforce Development (DOL/WD) Workforce Development Manager
Clarence	Daniel	Association of Village Council Presidents (AVCP), Community Development Division
Jackie	Garcia	Calista Corporation
Julie	Gardella	University of Alaska Anchorage, Center for Economic Development (UA CED) and Best in the West
Andrea	Gusty	The Kuskokwim Corporation
Natalie	Hanson	Nuvista Light and Electric Coop, Inc.
Shirley	Kelly	U.S. Economic Development Administration (EDA)
Colleen	Laroux	Donlin Gold
Deanna	Latham	Yukon-Kuskokwim Health Corporation (YKHC)
Brenda	Pacarro	Calista Corporation
Russell	Pollock	Yukon-Kuskokwim Health Corporation (YKHC)
Leila	Smith Johnson	Calista Corporation
Miranda	Strong	Calista Corporation
Michael	Williams Sr	Chief of Akiak Native Community, Chair Kuskokwim Inter-Tribal Fish Commission and Akiak resident

Objective: Review progress on priority CEDS actions, define next steps for implementation, and track progress toward key indicators.

Agenda:

- A. Welcome, Logistics, Roll Call, Breakout Purpose and Agenda Review
- B. Strategy/Action Introduction and Knowledge Sharing

Q#1: What are we focusing on?	
CEDS Strategy #2 (modified):	Build interest, investment in, and capacity for locally owned, operated, and innovative businesses.

<i>CEDS Actions:</i>	<ul style="list-style-type: none"> • Continue the Small Business Development “Best in the West” competitions to encourage entrepreneurship in the YK region. • Support micro-lending opportunities for start-ups, entrepreneurs, commercial fishers and small business owners. • Develop “how to” manuals or resource guides that detail success stories, resources and links for where to find information and assistance for a person/entity interested in starting a local produce business. • Develop training program(s) related to all facets of business (e.g., business development, accounting, payroll and labor laws, how to research laws and regulations, growing/harvesting/processing the product, how to add value, market/advertise, customer service, how to sell and transport goods). • See more from 2018-2023 CEDS at end of this document.
----------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Q#2: Why is this topic important? What is happening now that we should consider, want to support and/or change?

- The Kuskokwim Corporation is working on a regional training and development center in Aniak to bring training to the region. They want to connect with existing programs and increase resident capacity to develop and run their own businesses. The center focuses on small, targeted projects, working with *Yuut Elitnaurviat*, Northern Industrial Training (based in the Mat-Su Valley), and AVCP as partners. The program focuses on “micro-credentialing” helping to get the credentials that go with the ideas people have. We believe it is important to bring training to the region, support local life balance, and strengthen our communities from the inside out.
- There is or was a UA/AVCP program to attend a crash course in Fairbanks focused on people interested in starting a business. The course focused on writing a business plan, which is required by lending agencies. It was a great experience. The business plan helped to get financing to start a business. Marketing classes used to be offered in Bethel. It might be beneficial to recruit for and advertise those classes.
- We have a catcher-seller program for people harvesting and selling produce. People are doing these things in our region, anyway. There are startup programs for these particular small businesses.
- The CEDS Communications Working Group talked about how, with increased internet access, we can expand the potential customer base for goods and services that can be marketed and sold online. Are local Y-K businesses ready to utilize increased internet speed and delivery?
- The Kuskokwim Corporation has (for large projects like runway construction) waived land access fees for projects that commit to local/shareholder hire. The Kuskokwim Corporation works with the workers to ensure they are ready and qualified for the jobs.

Regional challenges were discussed:

- As an employer, The Kuskokwim Corporation (also Northstar Distributing): Transportation became a barrier during the pandemic. Airline service slowed for many communities. Even if you had a business in the communities, you couldn’t get the inventory out to the village. Transportation is heavily subsidized by the bypass mail program. How can we address this issue? Advocacy? Work with service carriers?
- Finding willing people to work. What is the solution? This has become a nationwide challenge with the pandemic. Everyone is short-handed. In a small community, we have a small employment pool of people willing to report to work on a regular basis. Businesses cannot compete with tribes when the tribes are getting Federal and other money coming in. The tribes can offer inflated wages with the government funding.
- Another challenge is finding qualified workers and substance abuse (linked issues). Jobs require a person to be clean of drug use to avoid accidents and incidents. How can we ensure more/better wraparound services to help individuals and families to allow them to work toward healthy living?
- Education about business administration. People start running their businesses, don’t realize the tax reporting and other requirements to run the business. Should this kind of education be included in school (early)? The UAA/AVCP partnership class in business planning also included these topics. If still available, this class would be helpful. Include school districts in future.

- In addition to supporting Best in the West, the Center for Economic Development (at UAA) also offers a course called Upstart Alpha, which includes finding customers, writing a business plan, financials. It is free and offered statewide.

C. Action Planning

Q#3: To make measurable progress on this strategy/action, what tasks must happen over the next 1 to 2 years? Who will lead that task? Who will partner with the lead to take action?

Task	Lead and Partners
<p>Task A. Continue the Small Business Development “Best in the West” competitions to encourage entrepreneurship in the Y-K region.</p>	<p>Lead: Center for Economic Development (at UAA)</p> <p>Partners: UAF Kuskokwim Campus, Bethel Community Services Foundation, Cultural Center, Alaska Growth Capital, AVCP</p>
<p>Task B. Develop training program(s) in partnership with school districts (LYSD, LKSD, etc.) related to all facets of business (e.g., business development, accounting, payroll and labor laws, how to research laws and regulations, service or product development, how to add value, market/advertise, customer service, how to sell and transport goods).</p>	<p>Lead: TBD</p> <p>Partners: TBD</p> <p>Maybe through existing LKSD READY Programs. One started right before the pandemic, open to students from Bethel and LKSD villages. Alaska EXCEL program also does job readiness, financial literacy, etc. LKSD does something similar. Maybe bring a business development component into these existing curricula.</p> <p>The Kuskokwim Corporation provides “Lunch and Learns” through Facebook Live to help people with being a good employer and might bring some EDA programs and trainings to people who want to start their own businesses. One limitation with this is a stable internet connection. TKC’s regional training center is looking to broadcast from the training center in Aniak with receiving stations in communities. TKC is also talking with school districts to bring trainings to schools.</p> <p>EDA’s Office of Innovation and Entrepreneurship can help individuals commercialize an idea, provide help with research and development to bring the product to market.</p> <p>Yuut Elitnaurviat could make some changes to accommodate accreditation requirements; there is interest in exploring it.</p>
<p>Task C. Develop “how to” manuals or resource guides that detail success stories, resources and links for where to find information and assistance for a person or organization interested in starting a local business. Post existing resources to CEDS website as appendices or resources.</p>	<p>Lead: Center for Economic Development (at UAA)</p> <p>EDA funded the Center for Economic Development to create some of these, e.g., how to run a fish plant or lodge.¹</p> <p>The manuals are located at: https://ua-ced.org/reports (scroll to the bottom).</p> <p>Partners: TBD</p> <p>https://www.eda.gov/ceds/</p> <p>Maybe a business incubator could be started, too, e.g., https://ahin.org/.</p>
<p>Task D. Make a list of local/regional businesses to showcase.</p>	<p>Lead: Calista Corporation</p> <p>Partners: TBD</p>

¹ <https://static1.squarespace.com/static/59f6b60bcf81e02892fd0261/t/5b7b61db2b6a2817e12ba2f9/1534812638258/FINAL+Business+Plan+Handbook.pdf>

<p>Task E. Facebook group to share job postings or possible work opportunities (e.g., if a construction project is slated).</p>	<p>Lead: Calista Corporation</p> <p>Calista Human Resources is the Facebook Group to share YK Region job opportunities and future job opportunities https://www.facebook.com/calista.hr</p> <p>Partners: TBD</p>
<p>Task F. Research re-establishing a regional Chamber of Commerce or Y-K Business Alliance. Having a Chamber of Commerce would give the region access to a national Chamber of Commerce network to support local businesses.</p>	<p>Lead: Calista Corporation</p> <p>Calista can lead the research whether this is something that would be supported in the region.</p> <ul style="list-style-type: none"> • Bonnie Bradbury was the person who most recently coordinated the Chamber of Commerce. • Other state Chambers have developed visitor guides for their regions. EDA Planning Grant process has helped fund printing of regional visitor guides. <p>Partners: TBD</p>
<p>Task G. Explore organizing a regional business conference.</p> <p><i>For example, one mid-Kuskokwim tribe has a number of businesses and others are always looking to them for guidance. There may be some value to sharing best practices, and just as valuable, what has failed. Also to talk about indicators and developing realistic and motivating targets for them.</i></p>	<p>Lead: TBD</p> <p>Partners: Center for Economic Development (at UAA) /Best in the West</p> <p>Could this be included as part of the Best in the West competition? Could it include a youth component?</p> <p>https://www.1millioncups.com/anchorage/ https://www.1millioncups.com/organize (streamed to Facebook Live. Yvonne Jackson just presented. Yvonne's recording on Facebook: https://www.facebook.com/1MillionCupsAnchorage/videos/1518023188597501) It says "1 Million Cups Anchorage" but we also serve statewide. It is part of a nationwide organization and they will not let us be "1 Million Cups Alaska"</p>
<p>Task H. Support micro-lending opportunities for start-ups, entrepreneurs, commercial fishers, and small business owners.</p>	<p>Lead: TBD</p> <p>Partners: TBD</p> <p>AK Growth Capital? https://www.alaskagrowth.com/about-us/ Alaska Growth Capital is actively looking to increase their lending in the region</p> <p>EDA's Office of Innovation and Entrepreneurship to assist eligible organizations interested in offering a microlending program. EDA provides funding to start the program but not for lending itself. There are other revolving loan funds in Alaska that can provide the funding for the loans. EDA Loan Specialists can also help advise on how to set up the program.</p> <p>A CDFI could offer micro-lending for business as well as loans for home ownership: https://www.cdfifund.gov/</p>

D. Indicators of Success

<p>Q#4: How will we measure our success on the actions above? What data will tell us we're making a difference? A year or two from now, what SPECIFIC positive change do we want to make? Is this data available? Where can we find it? Who will collect it?</p>	
<p>Indicator of Success/Positive Change</p>	<p>2-Year Target</p>
<p>1. Tasks A-H. Number of Jobs created and/or retained by a business startup.</p>	<p>TKC also sends out a regional e-newsletter listing each job at all businesses in our communities. It is a low-cost effort that has been fairly effective in raising awareness of opportunities. It would be easily duplicated in other communities or sub regions.</p>

	<p>Best in the West has a good system to track new business startups and how much money was awarded.</p> <p>An indicator of success for #1 is contacting the State of Alaska, Research and Analysis Division, to capture the employment data based on job opportunities.</p>
2. Tasks A-H. Amount of private sector investment generated by a business startup/how much private funding is invested in the startup.	Best in the West has a good system to track new business startups and how much money was awarded.
3. Tasks A-H. Amount of public sector investment to the region. For example, Donlin Gold is a private business that benefits from a number of public supports. If the infrastructure bill is passed, it will generate a lot of private investment, businesses and jobs.	
4. Tasks A-H. Number of New businesses started.	Chamber of Commerce could collect information on businesses started. If businesses are getting State of Alaska business licenses, anyone can look that up on the State (DCRA) website by community.
5. Task F. Number of Visitors to the Region and visitor spending?	Chamber of Commerce would collect information on visitor statistics.
6. Tasks B-C. Number of trainings held, students who attended trainings.	Whoever is offering the trainings would report on this indicator.

Q#5: What funding opportunities and/or other resources can support our action plan? (see below for “Potential Funding Sources”)

- EDA’s Office of Innovation and Entrepreneurship can assist eligible organizations interested in offering a microlending program. EDA provides funding to start the program but not for the lending itself. There are other revolving loan funds in Alaska that can provide the funding for the loans. EDA Loan Specialists can also help advise on how to set up the program.
- EDA’s Office of Innovation and Entrepreneurship can help individuals commercialize an idea, provide help with research and development to bring the product to market.

E. Summarize, Closing Comments and Adjourn

What final comments, questions or concerns do we have as individuals/as a group?

- Donlin Gold will create a lot of small local/regional business development opportunity.
- Regarding Item G below:
 - EDA’s Office of Innovation and Entrepreneurship can assist eligible organizations interested in offering a microlending program. EDA provides funding to start the program but not for the lending itself. There are other revolving loan funds in Alaska that can provide the funding for the loans. EDA Loan Specialists can also help advise on how to set up the program.
- Regarding Item I below:
 - EDA’s Office of Innovation and Entrepreneurship can help individuals commercialize an idea, provide help with research and development to bring the product to market.

- What are the needs that villages have? As villages are now leaning toward efficient commodities (e.g., 4-stroke engines, 4-wheers, trucks), maybe a recycling center for used oil?
- Regarding Item O below:
 - Best in the West/CED did a revamp of their curriculum to add a mentorship component. They pair all participants with a mentor and are always looking for people to serve as mentors and provide business advice to participants. Many are based out of Anchorage; there are not as many in the region. They are always looking for local business owners/operators to help provide mentorship. The status of the vacated Y-K regional position is unknown.

When should we meet again?

- Meet quarterly.
- Miranda and Brenda volunteered to lead the quarterly meeting in **January and suggested January 25, afternoon 2pm.**

From 2018 – 2023 YK CEDS

Goal C – Support and Grow Local Business Development and Entrepreneurship

- A. Conduct finance, business basics, and life management skills education in communities to help residents understand credit, loans, insurance and banking opportunities, starting with youth in junior and senior high schools and including young and older adults. **(Priority Strategy #11)**
- B. Collectively invest in regional community and economic development. **(Priority Strategy #12)**
- C. Promote farm-to-table and seafood-to-table commercial and export opportunities for locally grown and harvested goods, including value-added processing. **(Priority Strategy #13)**
- D. Establish a tanning operations company or factory in the region to process harvested furs for export, local use and arts/crafts. **(Priority Strategy #14)**
- E. Support Donlin Gold’s efforts to open a mine near Donlin Creek.
- F. Support ‘cottage industries’, such as knitting cooperatives and traditional crafts; and ‘pocket industries’ such as bed bug eradication and casket making.
- G. Create micro-lending opportunities to support start-ups, entrepreneurs, and commercial fishers.
- H. Expand tourism offerings such as ecotourism packages, birding trips and guided scenic tours.
- I. Encourage local innovation.
- J. Establish work banks to encourage residents to take on income-earning roles in the community, such as cleaning, childcare and chopping wood.
- K. Grow and support local guides and outfitters.
- L. Expand distribution of AVCP’s Yukon-Kuskokwim Business Start-up guide.
- M. Support and increase the retail sector in the region.
- N. Establish a visitor center at the Bethel airport.
- O. Expand promotion and incentives to encourage increased awareness of and participation in the Best in the West business competition – for example, add additional services for winners such as mentorship, assistance/advice with business management, taxes, etc.
- P. Encourage village corporations to expand and invest outside of their communities.
- Q. Establish a subsistence processing plant in the Lower Kuskokwim sub-region.
- R. Explore viability of creating a bottled water business/facility in the region.



Climate Adaptation Focus Area Action Planning Results

Thursday, October 21, 2021 | 1:30-3:30pm

Link to recording: <https://www.avcp.org/tribal-resources/community-development/regional-comprehensive-economic-development-strategy/>

Facilitator: Joel Neimeyer, Neimeyer Consulting

Team Support: Heather Stewart, Agnew::Beck Consulting

Participants:

First Name	Last Name	Organization
Samantha	Angaiak	Donlin Gold
Mike	Brubaker	Alaska Native Tribal Health Consortium (ANTHC)
Vernon	Chimegalrea	Donlin Gold
Clarence	Daniel	Association of Village Council Presidents (AVCP), Community Development Division
Jocelyn	Fenton	Denali Commission Village Infrastructure Protection Program Contact
Krista	Heeringa	Alaska Climate Adaptation Science Center (AK CASC)
Adelheid	Herrmann	Alaska Center for Climate Assessment and Policy (ACCAP)
Corbyn	Jahn	Alaska Native Tribal Health Consortium (ANTHC), Department of Environmental Health and Engineering (DEHE)
Nicholai	Joekay	The Tundra Women's Coalition (TWC)
Florence	Kargi	Coastal Villages Region Fund (CVRF)
Tisha	Kuhns	Calista Corporation
Erin	Leaders	State of Alaska Department of Military and Veterans Affairs, Division of Homeland Security & Emergency Management (DHS&EM), Hazard Mitigation
Deanna	Latham	Yukon-Kuskokwim Health Corporation (YKHC)
Terry	Murphy	State of Alaska Department of Military and Veterans Affairs, Division of Homeland Security & Emergency Management (DHS&EM), Hazard Mitigation
Max	Neale	Alaska Native Tribal Health Consortium (ANTHC)
Joel	Neimeyer	Neimeyer Consulting
Seth	O'Brien	Association of Village Council Presidents (AVCP), Community Development Division
Jaci	Overbeck	State of Alaska, Division of Geological & Geophysical Surveys (DGGS)
Sally	Russell Cox	State of Alaska, Division Community and Regional Affairs (DCRA)
Jennifer	Schmetzer	DOWL Engineering
Mark	Springer	City of Bethel
Bill	Stamm	Alaska Village Electric Cooperative (AVEC)
Miranda	Strong	Calista Corporation, Government Relations
Bessie Lea	Weston	Merkoryuk resident
Michael	Williams Sr	Chief of Akiak Native Community, Chair Kuskokwim Inter-Tribal Fish Commission and Akiak resident

Objective: Review progress on priority CEDS actions, define next steps for implementation, and track progress toward key indicators.

Agenda:

A. Welcome, Logistics, Roll Call, Breakout Purpose and Agenda Review

B. Strategy/Action Introduction and Knowledge Sharing

CEDS Action(s): Ensure all YK communities have active hazard mitigation plans and climate adaptation plans.

C. Action Planning

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task A. Complete risk assessments, FEMA Hazard Mitigation Plans, and associated reports (e.g., Preliminary Engineering Report) for communities to address near-term and long-term threats.</p> <ul style="list-style-type: none"> Encourage universities and research institutions to better collaborate and share relevant data with communities who are conducting assessments. Encourage universities and research institutions to build tools that are relevant and accessible to communities. Incorporate local knowledge of and prioritization of threats. Provide technical assistance/guidance to communities to evaluate their needs because the needs vary by community (Task C). 	<p>Lead: Communities</p> <p>Partners: ANTHC, Calista, CETC, academic institutions, FEMA, DHSEM</p>	<p>Existing funding:</p> <ul style="list-style-type: none"> BIA Tribal Resilience FEMA Alaska Village Erosion Technical Assistance Program Economic Development Administration National Coastal Resilience Fund (NCRF). This NOAA funding is administered by the National Fish and Wildlife Foundation (NFWF). <p>Possible funding to explore:</p> <ul style="list-style-type: none"> academic institutions (e.g., UAA) Transportation Research Board National Science Foundation <p>Other Implementation Resources:</p> <p>American Planning Association PAS on integrating FEMA Hazard Mitigation planning into local government planning.¹</p> <p>Alaska RiskMap Program.²</p> <p>Communities may be unaware that they already have some of these plans. The State of Alaska DCRA website includes a Community Plans and Infrastructure Library, which communities can use to</p>	<p>Tribes: apply for BIA Tribal Resilience funding to develop or update FEMA Hazard Mitigation Plans.</p> <p>Working group: Explore additional potential funding sources. At a future meeting, determine whether they should stay on the list or be removed.</p> <p>Working group: In future years, check on the status of addressing FEMA HMP 5-year expiration.</p>

¹ www.fema.gov/sites/default/files/2020-10/fema_integrating-hazard-mitigation_case-studies_tools-community-officials.pdf

² www.commerce.alaska.gov/web/dcra/PlanningLandManagement/RiskMAP.aspx

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
		inventory their existing plans. ³	
<p>Task A. Progress Update: The Working Group updated the Action Plan Task to strategically work through FEMA Hazard Mitigation Plans. These plans allow the community to make annual updates to incorporate new elements, which may include other plans and reports. For example, a community can bring its Long-Range Transportation Plan (LRTP), which includes prioritization, into the FEMA HMP. FEMA also allows Tribes to directly seek a Federal Disaster Declaration, without having to go through the State.</p> <p>The Alaska Division of Homeland Security and Emergency Management (DHSEM) is working on and discussing a regional approach to Hazard Mitigation Planning with FEMA.</p> <p>Terry Murphy (DMVA, DHS&EM) explained that the FEMA HMPs have a 5-year expiration, which has been a limitation some. The annual FEMA HMP updates are a requirement. Though few plan owners do annual updates, it does not change the requirement for the 5-year expiration. That said, there might be a way coming in the next few years to address this issue. Checking on the status of this in future years.</p> <p>BIA Tribal Resilience Grants are much simpler than FEMA grant applications. Tribes should apply for \$60,000 BIA Tribal Resilience Grants for funding to update their FEMA HMPs.</p> <p>As of 2019, 28 Y-K communities are in the highest risk category per the Statewide Threat Assessment. At least 3 likely already have completed needs assessments, with 25 still needed. CETC is currently identifying assessment status across communities.</p>			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task B. Develop map-based climate adaptation community profiles that describe threat assessment status, relevant plans, and links to other agency data. Include</p> <ul style="list-style-type: none"> • an interactive map, • an identification of threat assessment status (continuously updated), • links to available data, • status of planning efforts, and • integration with other agency (e.g., CETC) data collection efforts. 	<p>Lead: Communities</p> <p>Partners: DCCED, CETC, Alaska Division of Geological and Geophysical Surveys (DGGS)</p>		<p>Sally, Jaci and Max: Review and update this action plan task. Bring back to Working Group for approval.</p> <p>Working group: At a future meeting, review and approve revised Action Plan Task.</p>
<p>Task B. Progress Update: ANTHC's Center for Environmentally Threatened Communities (CETC) created a tool to map the status assessment of current assessments in the Y-K in partnership with the State of Alaska Division of Geological & Geophysical Surveys (DGGS).⁴</p> <p>Community-status tracking data sheet.⁵</p> <p>This task may be related to ongoing work by DGGS to map hazards. New publications could be added:</p> <ul style="list-style-type: none"> • https://dggs.alaska.gov/pubs/id/30672 • https://dggs.alaska.gov/pubs/id/30573 			

³ www.commerce.alaska.gov/web/dcra/PlanningLandManagement/CommunityPlansAndInfrastructure.aspx

⁴ <https://storymaps.arcgis.com/stories/2a0d221e55ca48dd8092427b50a98804>

⁵ <https://soa-dnr.maps.arcgis.com/apps/opsdashboard/index.html#/ba8ebf93adec4b6d9f601e2d59179fdd>

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task C. Provide technical assistance and training to communities to obtain federal funding, conduct assessments and manage ongoing communications around climate change response.</p> <ul style="list-style-type: none"> Encourage communities to partner to complete assessments collaboratively and spread funding across years. Educate communities and leadership on the anticipated timing of funding opportunities and position them to respond before funding is released. Encourage communities to build local employment opportunities and/or internships into BIA Tribal Resilience applications. Convene representatives who have successfully built climate change response capacity in their own communities to share recommendations and act as technical advisors for other communities in the region. 	<p>Lead: AVCP Community Resilience Division, Alaska Climate Adaptation Science Center</p> <p>Partners:</p> <p>CETC (<i>help identify funding for AVCP</i>)</p> <p>Tribal liaisons</p> <p>DCCED (<i>help with technical assistance</i>)</p> <p>Raychelle, Pew Charitable Trusts (<i>may be able to assist with identifying funding for the convening component</i>)</p> <p>BIA Tribal Resilience Program</p>	<p>BIA Tribal Resilience Program</p> <p>Sustainable funding will have to be researched by working group members and/or task leads.</p>	<p>Task Lead(s) and Working Group: Think about how this resource could be structured, implemented and sustainably funded.</p> <p>Working Group: Attend December BIA listening session(s) and make a recommendation.⁶</p> <p>Working Group: At a future meeting, confirm whether Lead and Partners need to be updated.</p>

Task C. Progress Update: Individual Tribes could apply for BIA-TRP funds to do individual projects, and AVCP's Resilience Division (anticipated to be fully developed by the end of 2022) may be able to act as a convening organization. However, it is unclear how to sustainably fund a more region-wide technical assistance and training program.

Working Group members suggested:

- The fundamentals of emergency management planning and response could be taught at UAF-Kuskokwim Campus and through distance-learning.
- FEMA has an education program, though it is unclear how applicable it is to Alaska at this point.⁷
- Mike Williams, Sr. is on the National Congress of American Indians (NCAI) Board. NCAI is doing a lot of good work on climate and workforce development issues. Multiple agencies must work together, especially HUD, BIA and IHS to provide technical assistance collaboratively. Many communities are stuck without the capacity to move forward.
- Can we develop multi-disciplinary technical assistance teams and build local capacity?

The BIA is hosting a series of listening sessions, there will be one specifically focused on Relocation, Managed Retreat, Protect-in-Place in Alaska (likely December 1 or 2, 2021). These listening sessions will inform Department of Interior-wide initiatives.

⁶ <https://www.bia.gov/guide/tribal-climate-listening-sessions>

⁷ FEMA Emergency Manager Training: <https://www.fema.gov/emergency-managers/national-preparedness/training>

FEMA higher education program: <https://training.fema.gov/hiedu/>

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task D. Strengthen links among traditional knowledge, technical models and data collected throughout the region. Better tie these to state and global bodies of knowledge.</p> <ul style="list-style-type: none"> • Integrate with LEO network. • Ensure that community, traditional knowledge, and local monitoring are incorporated into community profiles, the HMP process, threat assessments and other planning efforts such as the statewide threat assessment. • Track outcomes and recommendations from the Sustaining Arctic Observation Network. 	<p>Lead: Varies.</p> <p>Partners: Western Alaska Partnership (<i>help with state/global linkages</i>)</p> <p>Raychelle, Pew Charitable Trusts (<i>can help refine focus of this overall action</i>)</p>	<p>To be identified.</p>	<p>Working Group: At a future meeting, confirm whether Lead and Partners need to be updated, and clarify roles and responsibilities for carrying out this task. (Is this more of an overarching strategy than a task with clear and manageable beginning-middle-end, assignable roles and responsibilities?)</p>
<p>Task D. Progress Update: None provided during meeting.</p>			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task E. Build capacity among communities and tribes to advocate for more flexible FEMA regulations and among other agency programs to meet the immediate needs of communities and make programs more accessible. Examples include:</p> <ul style="list-style-type: none"> • Reduce cost-sharing requirements • Create less cumbersome application and reporting requirements • Eliminate or increase caps for BIA assessment funds. 	<p>Lead: AVCP</p> <p>Partners: ANTHC, Climate Adaptation Science Center, CETC</p> <p>Alaska Center for Climate Assessment and Policy (trying to build local capacity through educational institutions and projects).</p>	<p>BIA Tribal Climate Resilience and Community Relocation Appropriations.</p> <p>FEMA Disaster Relief Fund</p> <p>Congress funds HUD CDBG Disaster Resilience Fund, which allows a portion for mitigation. This is not formula funding; it is awarded at Congressional discretion.</p> <p>Innovative Readiness Training is another military opportunity gaining increased funds and can include relocation projects.</p>	<p>Working Group: Attend December BIA listening session(s) and make a recommendation.⁸</p> <p>Working Group: At a future meeting, confirm whether Lead and Partners need to be updated, and clarify roles and responsibilities for carrying out this task.</p>

⁸ <https://www.bia.gov/guide/tribal-climate-listening-sessions>

Task E. Progress Update: AVCP submitted AFN Resolution 20-20, which passed at the AVCP Annual Convention in September, then at AFN last year. People are finding that it takes more people to advocate for this level of change than 1-2 regional agencies.

This is an equity issue, and the Biden Administration is committed to increasing equity right now, so it should be a **top priority**.

Lack of broadband is one of the biggest social injustices in rural Alaska.

BIA Tribal Climate Resilience and Community Relocation Appropriations provides \$216M from FY2022 to FY2026 for tribal climate resilience, adaptation, and community relocation planning, design, and implementation of projects. Of that, \$130M will be allocated towards community relocation and \$86M will be allocated for climate resilience and adaptation projects, with \$43.2M to be expended each year. Deadline to expend funds: end of FY2026.

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task F. Implementation task to be developed.	TBD	TBD	<p>Miranda, Joie and Clarence: invite school districts, others to develop this task. Bring back to Working Group for approval.</p> <p>Working group: At a future meeting, review and approve revised Action Plan Task.</p>
Task F. Progress Update: TBD			

D. Indicators of Success

Indicator of Success/Positive Change	2-Year Target	Priority Indicator?	Next Steps
Task A. Number of FEMA Hazard Mitigation Plans completed for Y-K communities.	In 2 years, every Y-K community has an up-to-date FEMA Hazard Mitigation Plan.	(yes/no) Confirm at future Working Group meeting.	<p>Where to find the data: Alaska Homeland Security tracks which communities have assessments and can report back to the Climate Working Group.⁹</p> <p>Who will collect it: TBD at future Working Group meeting</p>
<p>Tasks A-F. Jobs or internships created or retained (e.g., in community planning, research, hazard mitigation activities or environmental remediation).</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information that is not readily available. Identify which <i>jobs</i> to track. 	In 2 years, hire 6 new Community Coordinator positions (Who will hire these positions? Tribes or a regional organization?). These positions can be built into funding opportunities like the BIA Tribal Resilience Program .	(yes/no) Confirm at future Working Group meeting.	<p>Where to find the data: TBD at future Working Group meeting. (Employers of new Community Coordinator positions report to Working Group? Would this be tracked by the Workforce Development or Business Development Working Groups, a regional organization?)</p> <p>Who will collect it: TBD at future Working Group meeting</p>

⁹ **Note:** BIA has an online map that shows the number of awards and gives a synopsis of the funded project, but it might not list whether an assessment has taken place.

Indicator of Success/Positive Change	2-Year Target	Priority Indicator?	Next Steps
<p>Task C. The AVCP Community Development Division has sustainable funding to provide technical assistance for disaster resilience.</p>	<p>Sustainable funding has been secured by AVCP to provide services.</p>	<p>(yes/no) Confirm at future Working Group meeting.</p>	<p>Where to find the data: AVCP Who will collect it: AVCP</p>
<p>Tasks A-F. Amount of public and private funding invested in Y-K climate adaption projects (e.g., foundation grants awarded, investments in a local/regional environmental remediation business).</p> <ul style="list-style-type: none"> • Creating a meaningful target for this indicator requires baseline information that is not readily available. Agencies are currently assessing estimated costs of mitigation planning and implementation. 	<p>In 2 years, \$# in public funding is invested in Y-K climate adaptation projects.</p> <p>In 2 years, \$# in private funding is invested in Y-K climate adaptation projects.</p> <p>In 2 years, \$# in total funding is invested in Y-K climate adaptation projects.</p>	<p>(yes/no) Confirm at future Working Group meeting.</p>	<p>Where to find the data: Agencies funding and/or recipients of funding for Y-K climate adaption projects. Who will collect it: TBD at future Working Group meeting</p>

E. Summarize, Closing Comments and Adjourn

<p>What final comments, questions or concerns do we have as individuals/as a group?</p>
<ul style="list-style-type: none"> • Could mentorships also be added? The young men speaking in the plenary highlighted how important mentorships were to them. • Explore VISTA Corps Volunteers for capacity building/internship-type workforce. • Facilitator’s Note: Education, mentorship and job placement in climate-related careers is the focus of several Subsistence and Food Security Focus Area Tasks.
<p>When should we meet again?</p>
<ul style="list-style-type: none"> • Quarterly: Dec/Jan next meeting

Focus of YK-Delta CEDS Adaptation Discussion, 10/21/2021, amended on 10-27-2021

1. Discussion on mitigation and preparedness for disasters caused by, exacerbated by, or not impacted by climate change.
2. “Mitigation” is often referred to in the media and in government policy as addressing greenhouse gases. We will not be discussing this type of mitigation. Rather we will be discussing disaster resilience at the community and regional level.
3. Two types of Federal approaches to mitigation - conventional funders of built infrastructure (USDA, IHS, HUD, Transportation, etc.) and disaster funders (Alaska Homeland Security [as an agent of FEMA], FEMA, HUD, EDA, SBA, etc.). The conventional funders may or may not consider pending disasters in their grant rubric scoring, and the disaster funders may or may not consider community development growth in funding recovery projects.
4. Focus is on Federal funding, as the Disaster Relief Fund and one-off Congressional appropriations (i.e. HUD CDBG-DR program) are the primary funding sources for disaster mitigation, presently, in the United State.

The Disaster Cycle

Mitigation: preventing or reducing the damage or chance of an emergency; may take place before or after an event.

Preparedness: Activities undertaken in advance of an emergency to better respond to the event.

Response: Activities taken during and immediately after an event.

Recovery: Longer term activities taken after an event to bring life back to normal or in a safer position.

Mixed Emergency Events

1. While the disaster cycle is a simple concept – in practice it can be made complex by overlapping emergency events that maybe dissimilar - some events driven or exacerbated by climate change and some unrelated, but concurrent in time.
2. See Akiak Timeline, as an example.

National Congress of American Indian Resolutions on Tribal Disaster and Climate Change

Adaptation: These recently approved resolutions are pertinent to any tribe or tribal organization that is addressing climate change and other environmental threats.

[SAC-21-036 FINAL - NCAI 2021 Amending Resolution](#)

[SAC-21-037 FINAL - NCAI New Resolution](#)

Remaining Topic Not Yet Covered During 10/21/2021 Adaptation Discussion

How do tribes, cities, and stakeholder groups in the YK-Delta implement disaster resilience projects and activities.

		July-19	Oct-19	Jan-20	Apr-20	Jul-20	Oct-20	Jan-21	Apr-21	Jul-21	Oct-21
Event: 5/19/19 riverine erosion											
	Response: (Days) remove boats from the riverbank and keep children from the rivers edge	Completed									
	Recovery: (Months) complete tribal hazard mitigation plan, seek grant funding for relocating six homes at threat		Completed								
	Mitigation: (Years) Relocate 6 homes, expand subdivision for future relocations, abandon existing solid waste site and build a new solid waste site					6 homes relocated	utilities to 6 homes underway			Start housing subdivision expansion	
	Preparedness: (Years) continued grant financing and development of mitigation projects for managed retreat goals										
Event: COVID-19 in the YK Delta (Spring 2020 Response starts)											
	Response: (Months) Limit travel in and out of the village, COVID testing, and quarantining of residents who return from the outside				Limit travel						
	Recovery: (Years) continued maintenance of testing, social distancing				Testing begins						
	Mitigation: (Months) Build four quarantine homes						Construction starts	Construction starts up again			
	Preparedness: (Years) continued monitoring of the virus										
Event: COVID-19 Akiak Community Spread (November 2020 Response starts)											
	Response: (Months) 60% of residents get COVID in 3 weeks time. House by house quarantine. Shut down all construction.						November 2020 - shut down construction				
	Recovery: (Years) continued maintenance of testing, social										
	Mitigation: (Years) With reduced number of COVID cases start construction back up										
	Preparedness: (Years) continued monitoring of the virus										



Communications Focus Area Action Planning Results

Friday, October 22, 2021 | 10:00AM-12:00PM

Link to recording: <https://www.avcp.org/tribal-resources/community-development/regional-comprehensive-economic-development-strategy/>

Facilitator: Mark Springer, Mayor of the City of Bethel

Team Support: Freddie Olin, Agnew::Beck Consulting

Participants:

First Name	Last Name	Organization
Adelheid	Herrmann	Alaska Center for Climate Assessment and Policy (ACCAP) at UAF
Alba	Brice	Calista Corporation
Anna	Sattler	Alaska Village Electric Cooperative (AVEC)
Anny	Cochrane	Alaska Department of Labor and Workforce Development (DOL/WD)
Clarence	Daniel	Association of Village Council Presidents (AVCP)
Erik	O'Brien	Denali Commission
Fatima	Ochante	Alaska Department of Environmental Conservation (ADEC)
Heather	Handyside	GCI, Inc.
Heather	Cavanaugh	Alaska Communications
Jenifer	Nelson	GCI, Inc.
Jennifer	Hooper	Association of Village Council Presidents (AVCP)
Jocelyn	Fenton	Denali Commission
John	Charlie	Association of Village Council Presidents (AVCP)
Jonathan	Samuelson	The Kuskokwim Corporation
Mike	Williams, Sr.	Native Village of Akiak
Miranda	Strong	Calista Corporation
Natalie	Hanson	Nuvista Electric Cooperative
Terrance	Pearson	Calista Corporation

Objective: Review progress on priority CEDS actions, define next steps for implementation, and track progress toward key indicators.

Agenda:

- A. Welcome, Logistics, Roll Call, Breakout Purpose and Agenda Review**
- B. Strategy/Action Introduction and Knowledge Sharing**

Q#1: What are we focusing on?

<i>CEDS Strategy #15:</i>	Prioritize and implement regional communications projects.
<i>CEDS Actions:</i>	<ul style="list-style-type: none">• Connect Bethel to other parts of the state via a fiber optic telecommunications cable; this project will increase connectivity in the region. (proposed focus for the Communications Working Group)• Support Tribal efforts to develop Tribal broadband spectrum.

Q#2: Why is this topic important? What is happening now that we should consider, want to support and/or change?

- Increasing and rolling out broadband connectivity is highly important for the whole region, which has historically been underserved for communications infrastructure, whether by fiber optic, satellite, or other connectivity methods.
- Individual Tribal governments and Tribal cooperatives/consortia have new opportunities for funding, i.e., FCC 2.5GHz Rural Tribal Window or “Tribal spectrum,” and private businesses are also building partnerships. There are organizational 8(a) ownership structures for Tribes and Tribal coops/consortia, which is important for exercising sovereignty and self-determination, through Tribally-owned businesses. OneWeb has recently partnered with the Native Village of Akiak to provide internet service delivery through the FCC 2.5GHz Tribal spectrum program.
- Alaska Native Corporations and other businesses (i.e., GCI TERRA, ACS FiberOptic Project, OneWeb, etc.) through partnerships are capturing opportunities through the National Telecommunications and Information Administration (NTIA), and the specific Tribal Broadband Connectivity Program.
- Fiber optic proposals navigate complex rights-of-way and permitting, whether federal, state, federal Indian trust lands, or private lands.
- A big goal is affordability for village residents, in or around the range of urban monthly service prices.
- There are opportunities to train and build a local-hire workforce.
- There could be two different customer tracks: residential and commercial. Identifying priorities for each customer type is important, and then using the right proposal/rollout tools for the best service delivery. Case example: ensure equity in service delivery, prices, and fees. Rural rollout has an imbalanced cost-benefit analysis, but there should be equity regardless.
- FCC broadband spectrum licenses are competitive, and have limitations and time constraints for construction, rollout, and service delivery, which is important to consider.
- The Denali Commission has a specific Broadband Program, which is flexible by design for helping communities most in need. The Commission has also built a plan for the FCC 2.5GHz Tribal spectrum program opportunity, and the pandemic has impacted consistency in the plan. There is an estimated number of ten licenses around the state under this opportunity. The Alaska Tribal Spectrum has worked to simplify and streamline the application process to better meet the needs for all Tribes in the state. Recently there has been an estimated 185 Tribal applications for the opportunity. The US Treasury has recently opened a funding opportunity for Tribes to secure seed or basic operating funding up to \$167,000. Telecommunications cooperatives/businesses like PushTel are important partners to bring into the application and proposal process.
- The recently enacted \$1.3 trillion Infrastructure Investment and Jobs Act has millions proposed for meeting Tribal and rural broadband connectivity and capacity needs across the nation, and Alaska is well placed to receive appropriate amounts of funding.
- The Bethel area had an historical wireless service, circa late 1990s – early 2000s.

C. Action Planning

Q#3: To make measurable progress on this strategy/action, what tasks must happen over the next 1 to 2 years? Who will lead that task? Who will partner with the lead to take action?

Task	Lead and Partners
a. Organize a YK Broadband Conference for regional entities and communications businesses that would be involved in expanding broadband within the YK region to organize and prepare for funding or other support opportunities.	AVCP, YK Delta Tribal Broadband, Alaska Tribal Spectrum, GCI, ACS, Denali Commission, etc. Seek and secure sponsorship funding. EDA is a potential source.
b. Build a cohort of innovators or specialists to assist potential Tribal applicants for the funding opportunities described in Q#5. This will help ensure NOFOs, applications, and proposal processes are accessible, easily understood, and without harsh requirements/ stipulations/ restrictions.	Tribal consortia/cooperatives help alleviate capacity concerns/issues. There is some current outreach and coordination by the Alaska Federation of Natives, and there could be involvement and support by philanthropic organizations.
c. Establish YK Delta Tribal Broadband as a Tribally owned business with full asset ownership, for at least the next three years.	Awaiting pending applications/proposals expected to be determined by November 2021. Initiatives, activities, and strategies have application for the whole region and other Tribes. Fiberoptic and satellite service delivery are goals, to deliver high speed internet for everyone, especially considering telehealth and public/higher education distance delivery.

D. Indicators of Success

Q#4: How will we measure our success on the actions above? What data will tell us we're making a difference? A year or two from now, what SPECIFIC positive change do we want to make? Is this data available? Where can we find it? Who will collect it?

Indicator of Success/Positive Change	2-Year Target
Tasks A-C. Amount of reduction in cost to federally subsidized users (i.e., YKHC, School Districts).	TBD at future Working Group meeting.
Tasks A-C. Increase in service quality, as measured by amount of increase in upload and download speeds, decrease in latency and costs. Possible data source(s): <ul style="list-style-type: none"> State of Alaska DCCED Division of Community and Regional Affairs community and consumer pricing data. Broadband mapping data is a source of information and initial analysis (i.e., NTIA and FCC clearinghouses). 	TBD at future Working Group meeting.
Tasks A-C. Number of local-hire workforce and local, small business development, and other economic opportunities created.	TBD at future Working Group meeting.
Tasks A-C. Increase in the number of education/training opportunities in the region.	TBD at future Working Group meeting.
Tasks A-B. Increase in the number of users who are utilizing the internet to apply for new or improved services vs. paper-based applications (i.e., grant funding applications from state and federal agencies).	TBD at future Working Group meeting.

Q#5: What funding opportunities and/or other resources can support our action plan? (see below for “Potential Funding Sources”)

- US Treasury seed or basic funding up to \$167,000 for Tribes. Erik O’Brien noted Treasury has requested consultation with Tribes across the nation. The deadline for the program is June 2022. Access and affordability needs are important to address during the application and proposal process, as well as local-hire and training.
- A US Economic Development Administration American Rescue Plan Act of 2021 opportunity has recently passed, with a general applicant deadline passed on October 19, 2021. Around ten Alaska Tribes have applied. Related and possibly upcoming Tribal set-aside application opportunities under the same program could have a deadline of March 2022.

E. Summarize, Closing Comments and Adjourn

What final comments, questions or concerns do we have as individuals/as a group?

- Not discussed.

When should we meet again?

- Not discussed.

Alaska Communications

EXPANDING HIGH SPEED INTERNET IN ALASKA



CALISTA CORPORATION
www.calistacorp.com



OUR AGENDA

Purpose

Goal

Project Overview

Technology

Affordability

Funding

Timeline

Next Steps

Questions & Feedback



CALISTA CORPORATION
www.calistacorp.com



OUR PURPOSE

Support Alaska communities with the technology needed to deliver healthcare, education and support economic development.



CALISTA CORPORATION
www.calistacorp.com



OUR GOAL

Provide high-speed internet in 23 underserved communities

- Fort Yukon
- Beaver
- Stevens Village
- Rampart
- Tanana
- Ruby
- Galena
- Koyukuk
- Nulato
- Kaltag
- Grayling
- Anvik
- Holy Cross
- Lower Kalskag
- Upper Kalskag
- Tuluksak
- Akiak
- Akiachak
- Kwethluk
- Bethel
- Oscarville
- Napaskiak
- Napaskiak



CALISTA CORPORATION
www.calistacorp.com



PROJECT OVERVIEW

- 11,688 rural Alaskans served in 23 communities
- 78% population Alaska Native
- Most communities unserved



CALISTA CORPORATION
www.calistacorp.com



ALASKA YUKON/KUSKOKWIM RIVERS FIBER OPTIC NETWORK PROJECT PHASES

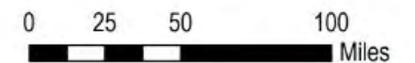
- Potential Spur Community
 - Other Communities
 - Highway
 - Yukon and Kuskokwim Rivers
 - ANCSA Regional Corporation Boundary
 - Parks, Preserves and Refuges
- Network Project Phase**
- Phase 1
 - Phase 2
 - Phase 3
 - Community Spur

NETWORK LENGTH INFORMATION

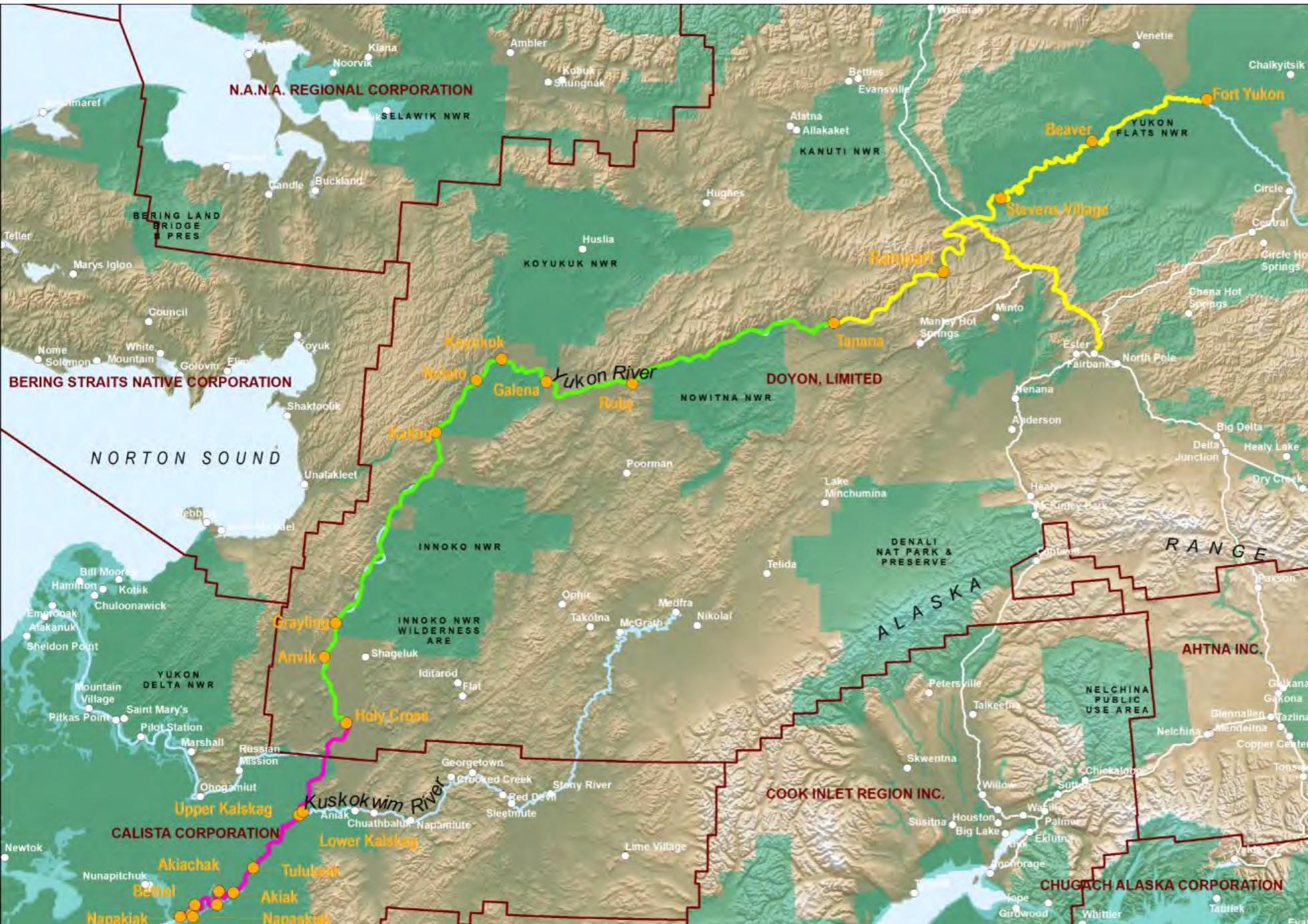
Total Length: 1062.5 Miles

Terrestrial Length: 186.3 Miles

Underwater Length: 876.1 Miles



MAP LOCATION



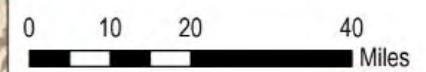
ALASKA YUKON/KUSKOKWIM RIVERS FIBER OPTIC NETWORK: PHASE 1



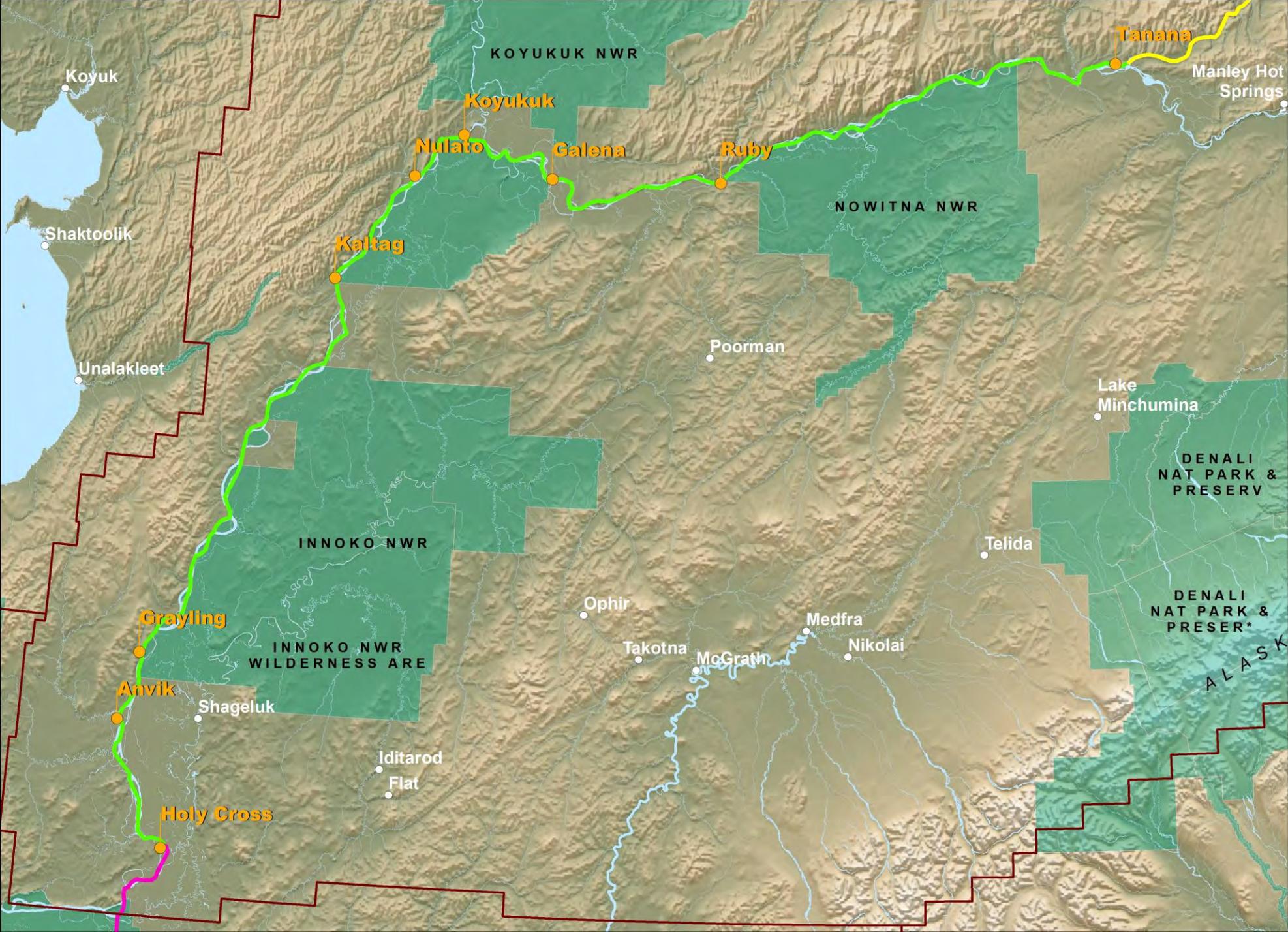
- Potential Spur Community
 - Other Communities
 - Highway
 - Yukon and Kuskokwim Rivers
 - ⊕ ANCSA Regional Corporation Boundary
 - ⊕ Parks, Preserves and Refuges
- Network Project Phase**
- Phase 1
 - Phase 2
 - Phase 3
 - - - Community Spur

PHASE 1 LENGTH INFORMATION

Total Length: 445.6 Miles
 Terrestrial Length: 135.0 Miles
 Underwater Length: 310.7 Miles



ALASKA YUKON/KUSKOKWIM RIVERS FIBER OPTIC NETWORK: PHASE 2



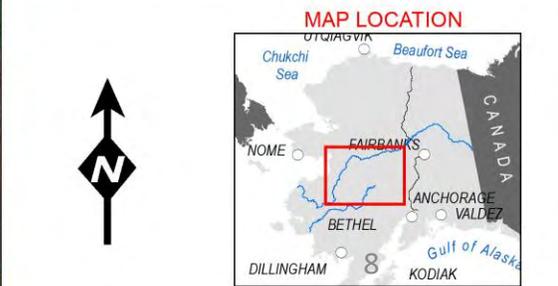
- Potential Spur Community
 - Other Communities
 - Highway
 - Yukon and Kuskokwim Rivers
 - ANCSA Regional Corporation Boundary
 - Parks, Preserves and Refuges
- Network Project Phase**
- Phase 1
 - Phase 2
 - Phase 3
 - Community Spur

PHASE 2 LENGTH INFORMATION

Total Length: 436.4 Miles

Terrestrial Length: NA

Underwater Length: 436.4 Miles



ALASKA YUKON/KUSKOKWIM RIVERS FIBER OPTIC NETWORK: PHASE 3

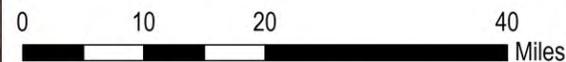
- Potential Spur Community
 - Other Communities
 - Highway
 - Yukon and Kuskokwim Rivers
 - ANCSA Regional Corporation Boundary
 - Parks, Preserves and Refuges
- Network Project Phase**
- Phase 1
 - Phase 2
 - Phase 3
 - Community Spur

PHASE 3 LENGTH INFORMATION

Total Length: 180.3 Miles

Terrestrial Length: 51.3 Miles

Underwater Length: 129.0 Miles





HDD BOREHOLE LANDING SITE

Technical Challenges

- Migrating river channels and erosion
- Ice in river and ice jams
- Access to cable during shoulder seasons for repairs
- Redundancy for uninterrupted service

TECHNOLOGY

Fiber optic cable, delivering up to Gigabit speeds



CALISTA CORPORATION
www.calistacorp.com



AFFORDABILITY

Comparable to urban rates

Example:

Anchorage price is \$89.99/month
for up to 50 Mbps and unlimited data

Rates for healthcare clinics, schools and
tribal offices will also be lower than
current rates



CALISTA CORPORATION
www.calistacorp.com



FUNDING

U.S. Dept. of Commerce

National Telecommunications & Information Administration (NTIA)

- Tribal Broadband Connectivity Program



CALISTA CORPORATION
www.calistacorp.com



OUR TIMELINE

2022 Grant Awarded, Permit Process

2024 Goal to Complete Construction



CALISTA CORPORATION
www.calistacorp.com





NEXT STEPS

Community Feedback and Expertise
Resolutions and Letters of Support
Complementary Projects Have Been Proposed
Tribes Can Consent to More Than One Project



CALISTA CORPORATION
www.calistacorp.com



QUESTIONS & **FEEDBACK**



CALISTA CORPORATION
www.calistacorp.com



THANK YOU



CALISTA CORPORATION
www.calistacorp.com





Education and Workforce Development Focus Area Action Planning Results

Thursday, October 21, 2021 | 10am – 12pm

Link to recording: <https://www.avcp.org/tribal-resources/community-development/regional-comprehensive-economic-development-strategy/>

Facilitator(s): Yvonne Jackson, Rural Alaska Professional Development

Support: Shelly Wade and Freddie Olin, Agnew::Beck Consulting

Participants:

First Name	Last Name	Organization
Audrey	Alstrom	Alaska Native Science and Engineering Program (ANSEP)
Rahnia	Boyer	Yukon Kuskokwim Health Corporation (YKHC)
Christopher	Bryant	Alaska Rural Professional Development, LLC
John	Charlie	Association of Village Council Presidents (AVCP)
Vernon	Chimalagrea	Donlin Gold
Blanche	D.	--
Clarence	Daniel	Association of Village Council Presidents (AVCP)
Eric	Evon	Association of Village Council Presidents (AVCP)
Oscar	Evon	Coastal Villages Region Fund (CVRF)
Jackie	Garcia	Calista Corporation
Greta	Goto	Bristol Bay Native Corporation (BBNC) Education Foundation
Andrea	Gusty	The Kuskokwim Corporation
Kimberly	Hankins	Lower Kuskokwim School District (LKSD)
Natalie	Hanson	Nuvista Light and Electric Cooperative
Adelheid	Herrmann	Alaska Center for Climate Assessment and Policy (ACCAP)
Nicholai	Joekay	The Tundra Women's Coalition (TWC)
Florence	Kargi	Coastal Villages Region Fund (CVRF)
Colleen	Laroux	Donlin Gold
Paul	Larson	Alaska Native Science and Engineering Program (ANSEP) Student
Cathy	LeCompte	Alaska Vocational Technical Center (AVTEC)
Tracy	Lewis	Native Village of Kongiginak
Azara	Mohammadi	Alaska Department of Military and Veterans' Affairs / Alaska National Guard
Erik	O'Brien	Denali Commission
Brenda	Pacarro	Calista Corporation
Leila	Smith	Calista Corporation
Meg	Smith	Donlin Gold
Bill	Stamm	Alaska Village Electric Cooperative (AVEC)
Michael	Ulroan	Alaska Native Science and Engineering Program (ANSEP)
Bessie Lea	Weston	Merkoyruk Resident
Kira	Wilkinson	Coastal Villages Region Fund (CVRF)

Objective: Review progress on priority CEDS actions, define next steps for implementation, and track progress toward key indicators.

Agenda:

A. Welcome, Logistics, Roll Call, Breakout Purpose and Agenda Review

B. Strategy/Action Introduction and Knowledge Sharing

CEDS Strategy: Prepare regional residents for work in emerging economic sectors, including aviation, energy, housing construction and rehabilitation, infrastructure, planning, transportation and resource development.

C. Action Planning

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task A. Collectively develop and implement a regional vocational training workforce development plan focused on adults. <i>Components/process might include identifying:</i></p> <ul style="list-style-type: none"> • Specific employer/sector gaps and needs • Existing opportunities and challenges <ul style="list-style-type: none"> ○ Policy barriers limiting success and proposed policy changes • Strategies to address gaps and needs <ul style="list-style-type: none"> ○ Estimated costs, funding sources for implementation 	<p>Lead: Yuut Elitnaurviat (YE)</p> <p>Key Partner: AVCP Workforce Development</p> <p>Other Partners: State of Alaska Dept. of Labor and Workforce Development (YK Delta Job Center), HR representatives from all major employers</p>		<p>ANSEP: Bethel Acceleration Academy has kicked off for 2021-2022 school year and plans to continue in the future.</p> <p>Calista: Has begun updating the YK Workforce Development Plan for 2022.</p> <p>Yuut: LPN training program has begun for 2021-2022. Nurse Aide training is also offered for 2021-2022.</p> <p>Working group: Representatives attend the YK Delta Workforce Development meeting (Feb 2021)</p>
<p>Task A. Progress Update: Calista holds an annual YK Delta Workforce Development meeting (Feb 2021). Brings together partners to share projects, resources. Brenda can include everyone on the invite.</p> <p>ANSEP has been working in the YK region through a partnership with AVCP. They are introducing a new Regional Director position based in Bethel, with soon-to-be-established Acceleration Academy. Participants are not adults yet, but they will be in a few years. The Acceleration Academy allows students to earn college credit while in high school without leaving the region. ANSEP, LKSD and KUC are in the planning phases.¹</p> <p>Yuut Elitnaurviat has started a Licensed Practical Nurse (LPN) training program based in Bethel. It is the only program of its kind in Alaska. There is also a 9.00 credit Nurse Aide program offered through KUC. Yuut helps facilitate DOL/WD sponsored, employer-based apprenticeships.</p>			

Detailed Notes and Outline of Preliminary Gaps and Solutions on Priority Task a: collectively develop and implement a regional vocational training workforce development plan focused on adults. **Highlighted** industries in the table were the focus of the 12/17 working group discussion. **Green text is 2021 Work Session update.**

¹ 8-19-2021: <https://www.ansep.net/lksd-students-can-earn-high-school-and-college-credits-in-new-ansep-program/>

Industry	Program Providers	Gaps	Solutions (2-year timeline)
Aviation	AVCP, AVTEC, EXCEL, YE	<ul style="list-style-type: none"> Highest wage jobs (pilots, mechanics, administration) are not filled by residents Residents must meet prerequisites to participate in the program; many recent HS graduates struggle on qualifying performance tests A flight school is needed; current AVCP flight school facility is closed Yuut recently lost a full-time aviation mechanics instructor. There have been no instructors from the region to date. 	<ul style="list-style-type: none"> Reopen flight school Encourage potential participants to work with ANSEP, AVTEC on prerequisites and test readiness Flight school instructors teaching ground school courses in partnership with regional high schools
<p>Summary of Existing Aviation Programs</p> <ul style="list-style-type: none"> ANSEP: most programs begin in middle school, with a focus on STEM. Upcoming Bethel-based high school acceleration academy supports all career paths. Helps students meet prerequisites, eliminating the need for remediation. YE Air Frame and Power Plant School: graduating cohort one in mid-January 2021. Signing up students for cohort two, expected to begin January 2022. EXCEL Alaska: has Flight School and Ground School class at Summer XL; graduated private pilots who are progressing to get licensed. LKSD had an aviation career path for students, but the lack of a flight school made it challenging – nowhere for graduates to go. Also need ground school instructors in region; LKSD could share an instructor with the flight school. 			
Communications	Donlin, GCI, Denali Commission, Tribal governments	<ul style="list-style-type: none"> Broadband and cell service connectivity has historically been inconsistent and spotty throughout the region. 	<ul style="list-style-type: none"> The US Department of Treasury has recently opened up a Tribal Capital project fund for local infrastructure needs, particularly for high bandwidth distance delivery education and training programs.
Energy	AEA, AVTEC, Kusilvak Academy, LKSD, REAP, RUBA (EPA), UAF Bristol Bay (Sustainability and Tribal Governance program partnership), YE	<ul style="list-style-type: none"> Turnover; major driver of turnover is pay. Operators are not properly compensated or valued in many rural communities given complexity of the job and more competitive paying jobs elsewhere Lack of understanding in small communities of appropriate costs, investment in utility operations and maintenance More skills needed as renewables and technology needs expand in YK communities; need dual-skill operators who can oversee both traditional and renewable systems Financial constraints of training, investment Facilities maintenance; budget cuts are driving cuts to maintenance at schools, Tribal buildings; efficiency can reduce costs but requires more sophisticated skills (“not just janitors anymore”); 	<ul style="list-style-type: none"> Training for power plant operations, building maintenance, bookkeeping – emphasize these as interesting, secure, well-paying jobs Educate municipal and Tribal governments on importance of proper investment in utilities; need for energy literacy in local government More renewable energy “hub” operators or strike teams who can service multiple communities Connecting students with existing prerequisite courses for program such as occupational endorsement Encourage entrepreneurship – lots of opportunity in this industry, and does not require a degree School-based internships/ apprenticeships: students paired with facilities maintenance staff

Industry	Program Providers	Gaps	Solutions (2-year timeline)
		building systems/controls are increasingly complex and computerized	<ul style="list-style-type: none"> • Big opportunity for homes and weatherization, including constructing homes that are better weatherized, and/or retrofitting existing homes. (RurAL CAP, CCHRC) • AVTEC has been offering a bulk fuels handling training in Seward, with a flexible or blended format so students are not required to spend two months total away from home.
Health Care	EXCEL, Hooper Bay charter school, LKSD, YE, YKHC, KuC, Yuut, ANSEP	<ul style="list-style-type: none"> • Regional organizations can better assist residents to prepare for and successfully pass the standardized Test for Adult Basic Education (TABE), which would help meet basic education requirements for many job opportunities. 	<ul style="list-style-type: none"> • The Kuskokwim Campus works closely with the UAA Recruitment and Retention of Alaska Natives into Nursing (RRANN) and the Alaska Area Health Education Centers (AHEC) network to recruit and retain local residents into CMA/CNA and RN professions. • YKHC has also been cooperating with AHEC for recruitment of both Mental Health Aide and Dental Health Aides in the region. YKHC is working to recruit more students for CMA/CNA and CHAP in the region. Also working with Yuut to recruit for a six-week Dental Assistant program.
Housing Construction & Rehab	AVCP, EXCEL, Hooper Bay charter school, LYSD, YE, TKC	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • TKC has recently been working closely with ANTHC about weatherization and water and sewer projects for the sub-region.
Planning	UAF Kuskokwim Campus	<ul style="list-style-type: none"> • Low local-hire and workforce capacity involved with climate change adaptation planning. 	<ul style="list-style-type: none"> • The current BIA Tribal Climate Resilience Program has funding available until FY2026 to secure young Alaska Native/Native American employment and placement opportunities with professional engineering firms involved with climate change adaptation planning.
Public Safety	EXCEL, YE	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> •

Industry	Program Providers	Gaps	Solutions (2-year timeline)
Transportation	AVCP, EXCEL, YE	<ul style="list-style-type: none"> • Aging road systems and lack of materials (e.g., gravel) • Potential future need for trained operators for gravel extraction 	<ul style="list-style-type: none"> •
Resource Development	ANSEP, Calista, Donlin, EXCEL Alaska, Hooper Bay charter school, TKC	<ul style="list-style-type: none"> • Resource assessment, planning and feasibility – spans many resource topics (e.g., biomass harvesting) • Broad need for biotechnicians and biologists for guiding, preservation and conservation • More residents in fisheries + wildlife manager roles, participation with advisory groups (also focus of Subsistence Working Group) • GIS – mapping skills for lands department, recording sites. Challenging to find residents trained with those skills; lots of competition for that skill set • In-region mining-related training 	<ul style="list-style-type: none"> • TKC has been evaluating biomass potential in the sub-region, which would help build local workforce and lower heating costs for public facilities and residential homes. The residential home option includes specially designed homes from the Cold Climate Housing Research Center for biomass heat connections, which would be transformative.
General	ANSEP, AVTEC, YK job center, TKC, Yuut, Alaska Rural Professional Development, Calista, Donlin, LKSD, Kuspuk SD	<ul style="list-style-type: none"> • Baseline math and reading skills; starts in 3rd-4th grade, students that start to fall behind do not catchup. This has a cascading impact that negatively impacts testing, reading comprehension, etc. Statewide challenge. • Transportation to training, jobs • Regional residents, employers, and education/training institutions are all actively working to build, retain, and enhance the regional workforce, but there could be more focused efforts on coordination, cooperation, and collaboration. • Job and training opportunities appear to be Bethel-centric. There needs to be more coordination between regional organizations to level the playing field so there are equitable job and training opportunities in villages and communities besides Bethel. 	<ul style="list-style-type: none"> • Encourage successful HS graduates to pursue in-region opportunities in trades such as aviation – not just college. Too much emphasis on college. • TKC is working on “micro-credentialing,” or targeted training and workforce development strategies for shareholders in the sub-region. • Yuut has been working to recruit and fill DOL/WD sponsored, employer-based apprenticeship programs. • Alaska Rural Professional Development has helped fill a need for “soft skills” or business/employer setting training, as well as Calista, TKC, Donlin, etc. • Calista has recently started the Associate Teacher Apprentice Program as a local hire initiative with a focus on culturally appropriate curriculum and teaching methods. • LKSD and Kuspuk School Districts have been fully involved in a “Grow Your Own” professional education training and development program, so village residents would not have to leave the region for formal education programs and training opportunities.

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task B. Conduct quarterly meetings between education and workforce development agencies and the HR departments of major employers.	Lead: Yuut Elitnaurviat Partners: Bethel Job Center, AVCP, HR representatives from major employers		Working group: Schedule December 2021 work group meeting planned. Exact date TBD.
Task B. Progress Update: None provided during meeting.			

D. Indicators of Success

Facilitator’s Note: The 12/17/20 and the 10/21/21 meetings did not include discussion of “indicators of success”, but should be a focus of future meetings, especially as priority strategies and actions are refined.

Indicator of Success/ Positive Change	2-Year Target	Priority Indicator?	Next Steps
<p>Tasks A-B. Employment for YK residents.</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information that is not readily available. To set a meaningful target will require communicating with major employers in the region to document their upcoming employment needs/opportunities, a key step in the workforce development plan listed in task A above. 	In 2 years, X number of jobs are created for regional residents in emerging economic sectors (e.g., aviation, energy, housing construction and rehabilitation, infrastructure, planning, transportation, resource development, public safety, etc.).	(yes/no)	<p>Where to find the data: TBD at future Working Group meeting.</p> <p>Who will collect it: TBD at future Working Group meeting.</p>
<p>Tasks A-B. Decrease average amount of time between graduating with a training/certification and getting a job.</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires collecting baseline information from training partners in the region. 	In 2 years, X percent reduction in the average amount of time (in weeks) between graduating with a training/certification and getting a job.	(yes/no)	<p>Where to find the data: TBD at future Working Group meeting.</p> <p>Who will collect it: TBD at future Working Group meeting.</p>
<p>Tasks A-B. Amount of private funding invested in YK education and workforce development programs (e.g., foundation grants awarded, donations to YE for programs, investments in a project or business because the training is available).</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information from task A above. 	In 2 years, \$\$ in private funding invested in YK education and workforce development programs.	(yes/no)	<p>Where to find the data: TBD at future Working Group meeting.</p> <p>Who will collect it: TBD at future Working Group meeting.</p>
<p>Tasks A-B. Average number of weeks employed for training graduates.</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator will require baseline data 	In 2 years, the average total number of weeks training graduates are employed out of 52 weeks will increase from X to X.	(yes/no)	<p>Where to find the data: TBD at future Working Group meeting.</p>

Indicator of Success/ Positive Change	2-Year Target	Priority Indicator?	Next Steps
be collected from graduating students.			Who will collect it: TBD at future Working Group meeting.
<p>Tasks A-B. Number and percentage of YK jobs, apprenticeships and internships filled by YK residents.</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator will require baseline data be collected from the State of Alaska (for the estimated percentage of resident employment in jobs) and from training partners (for the estimate of residents enrolled in apprenticeships and internships). 	In 2 years, X jobs will be filled by YK residents (X percent of all jobs), X internships will be filled by YK residents (X percent of all internships), and X apprenticeships will be filled by YK residents (X percent of all apprenticeships).	(yes/no)	<p>Where to find the data: TBD at future Working Group meeting.</p> <p>Who will collect it: TBD at future Working Group meeting.</p>
Task A. Future indicator: Number of YK residents achieving renewable energy occupational endorsement (program is all online, funding available).			

E. Summarize, Closing Comments and Adjourn

What final comments, questions or concerns do we have as individuals/as a group?
<ul style="list-style-type: none"> We should develop a K-12 curriculum that would teach math and reading using the existing infrastructure and environment that students see every day or what they personally are able to relate to in their daily lives. Set academic benchmarks at 9-12 level that are measurable. What percent of students are achieving those?
When should we meet again?
<ul style="list-style-type: none"> Meet in December.



Donate

Bethel will host Alaska's only licensed practical nursing certificate program

KYUK | By [Anna Rose MacArthur](#)

Published October 29, 2021 at 9:03 AM AKDT





Dean Swope / KYUK

Yuut Elitnaurviat and Alaska Pacific University are partnering to offer Alaska's only licensed practical nursing certificate program in Bethel.

A new nursing program is coming to Bethel and it's the only one in Alaska. The program

KYUK
Shop Rock

for the inaugural class.

Alaska Pacific University (APU) has teamed up with Yuut Elitnaurviat, the workforce development center in Bethel, to start the program. APU is providing the faculty and curriculum. Yuut Elitnaurviat is providing the facilities.

There are many tiers in the nursing field. A licensed practical nurse, or LPN, certificate is a step above a certified nursing assistant and below an associate's degree in nursing.

"So you're going to see them usually taking vital signs, administering medications and giving injections, and also just getting patients ready for their medical exams and surgeries and recording a lot of medical information and medical records. So they really work in all areas of health care," APU Director of Admissions Toni Riley said, explaining the role of an LPN.

The COVID-19 pandemic has highlighted the need for health care workers in rural areas. A quick search on the Yukon-Kuskokwim Health Corporation website shows 25 job openings for LPNs in Bethel alone.

"The average salary for an LPN right now in Bethel is starting a little over \$30 an hour," Riley said.

APU has been expanding its nursing program in recent years, and it saw a potential partnership in Bethel. Yuut Elitnaurviat operates a six-week certified nursing assistant program. That program can act as a prerequisite for the clinical training required for the new LPN program. Other occupations can also provide that required clinical background.

“Anyone that's a medical assistant or a health aide, paramedic, EMT, or even, like, a dental health aide, all of those kind of count as that proof of clinical experience,” Riley said.

Other application requirements include an online application form, passing an anatomy and physiology class, a high school or GED transcript, a background check, and an interview with nursing faculty.

“Just to learn more about them, know more about them, and definitely connect with them to see, you know, what their background is and what their experiences are, and really why they want to get involved in in health care,” Riley said, expanding on the interview requirement.

The LPN program will run two semesters over the course of one year. Lectures will be delivered online, and students will have in-person classes to practice clinical skills every other week on Tuesdays and Wednesdays.

Applications for the inaugural class are being accepted until Nov. 30. Classes start on Jan. 10.

“We're just really excited. We know that it's a new program and there are lots of questions. So I think the biggest thing is just to feel free to reach out to us,” Riley said.

You can apply online for this new nursing qualification program on the [Alaska Pacific University website](#).

Education

KYUK
Shop Rock



Anna Rose MacArthur

Anna Rose MacArthur is the KYUK News Director. She has worked at KYUK since 2015 and previously worked at KNOM in Nome, Alaska.

[See stories by Anna Rose MacArthur](#)

Related Content



Health
Cases in the Y-K Delta drop, but continue to be significantly higher than state and national averages

Elyssa Loughlin, October 27, 2021

COVID-19 cases in the Yukon-Kuskokwim Delta have decreased over the past week, but remain higher than state and national

KYUK
Shop Rock



Health

A 46 year-old former community health aide from Kasigluk died from COVID-19

Olivia Ebertz, October 22, 2021

KYUK
Shop Rock

they plummeted, she checked herself into the Alaska Native Medical Center.

LISTEN • 4:56



Politics

KYUK
Shop Rock

attendance at meetings and places additional rules on council members

Olivia Ebertz, October 27, 2021

During their Oct. 26 meeting, Bethel City Council voted to adopt new rules that bar the public from attending meetings in person. They also laid out stipulations for council members. Once the rules went into effect, a council member was newly out of compliance and had to leave the meeting midway through.

LISTEN • 2:46

[Load More](#)



© 2021

[Opportunities](#)

[Media Sharing Policy](#)

[Contact Us](#)

[Reports](#)

KYUK
Shop Rock



Energy Focus Area Action Planning Results

Thursday, October 21, 2021 | 1:30PM-3:30PM

Link to recording: <https://www.avcp.org/tribal-resources/community-development/regional-comprehensive-economic-development-strategy/>

Facilitator(s): Natalie Hanson (Executive Director, Nuvista **Electric** Cooperative)

Support: Freddie Olin, Agnew::Beck Consulting

Participants:

First Name	Last Name	Organization
Audrey	Alstrom	Alaska Native Science and Engineering Program (ANSEP)
Mike	Black	Alaska Native Tribal Health Consortium (ANTHC), Division of Environmental Health and Engineering (DEHE)
Fannie	Black	Yuut Elitnaurviat
Alba	Brice	Calista Corporation
John	Charlie	Association of Village Council Presidents (AVCP)
Anny	Cochrane	Alaska Department of Labor and Workforce Development (DOL/WD)
Eric	Evon	Association of Village Council Presidents (AVCP)
Andrea	Gusty	The Kuskokwim Corporation
Brent	Hove	Alaska Native Tribal Health Consortium (ANTHC), Division of Environmental Health and Engineering (DEHE)
Katya	Karankevich	Alaska Native Tribal Health Consortium (ANTHC), Division of Environmental Health and Engineering (DEHE)
Florence	Kargi	Coastal Villages Region Fund (CVRF)
Brenda	Pacarro	Calista Corporation
Jonathan	Samuelson	The Kuskokwim Corporation
Anna	Sattler	Alaska Village Electric Cooperative (AVEC)
Leila	Smith	Calista Corporation
Bill	Stamm	Alaska Village Electric Cooperative (AVEC)
Rebecca	Wilmarth	Donlin Gold
Kristina	Woolston	Donlin Gold

Objective: Review progress on priority CEDS actions, define next steps for implementation, and track progress toward key indicators.

Agenda:

A. Welcome, Logistics, Roll Call, Breakout Purpose and Agenda Review

B. Strategy/Action Introduction and Knowledge Sharing

CEDS Action(s): Build renewable energy infrastructure. Address barriers to building more renewable energy infrastructure in the YK Delta.

C. Action Planning

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task A. Update the inventory of potential renewable energy projects in the YK region (“Community Energy Profiles” from 2016 YK Energy Plan) to give a baseline to work from.</p>	<p>Lead: Nuvista, CEMAI program</p> <p>Partners: ANTHC to contribute information for ANTHC projects; VSW to contribute information for VSW projects</p>		<p>Working Group: Review PCE Data and identify which communities need the most technical assistance with PCE. Nuvista/CEMAI has helped provide technical assistance with PCE.</p>
<p>Task A. Progress Update:</p> <p>Nuvista: The Community Energy Profiles were determined to be ineffective. TKC has helped gather PCE data for the region, especially the TKC sub-region.</p> <p>TKC: created an energy action plan for each 10-member community. DOE Office of Indian Energy/ANTHC were partners. Each community made goals involving immediate actionable items. Biomass was a strong priority. Household LED lighting also helped lower energy costs.</p> <p>Donlin: Natural gas line is a continued proposal and could bring gas heat/energy potential to the region. [p.32 May 2020 YK CEDS Update]</p> <p>ANTHC: is working on further rolling out remote monitoring systems to stop any catastrophic failure potential, as well as collect data on energy expenditure in real time. Renewable energy sources are a new calculus to work through for live and remote monitoring.</p>			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task B. Gather energy audits that have been completed but not actioned; if possible, bundle those projects for implementation.</p>	<p>Lead: Nuvista, REAP</p> <p>Partners: ANTHC has energy audits for water treatment plants and community facilities; AHFC audits.</p>		<p>Working Group: At a future meeting, review task, lead and partners. Are more updates needed? Is this more of an ongoing task or a task with a clear completion?</p>
<p>Task B. Progress Update:</p> <p>Nuvista: has conducted numerous community audits in cooperation with AVEC and has also helped worked through a heat recovery database. There are opportunities to seek funding for completing audits.</p> <p>ANTHC: Compare old audits with the current status and grid operation. Heat re-capture and wind turbines have changed grids. Water tanks have helped re-capture heat (i.e., in the Naknek Tribal office, the biggest energy sink was the coffee pot). Village water and sewer take a lot of energy. Audits capture usage data to help communities calibrate needs vs. funding.</p>			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task C. Develop a renewable energy readiness self-assessment that allows a community or utility to rate itself on things like whether energy conservation measures are in place, energy audits have been done, preventative maintenance is being done, financials are in order, O&M training assessment (Are people paid well? Have they received quality training?), etc.</p>	<p>Lead: The Denali Commission already developed an energy report card/checklist (based on the RUBA water-sewer best management practices model) that is available</p>		<p>Working Group: At a future meeting, review task: has this been completed? If so, should it remain as an ongoing task/program or be removed from the plan?</p>

Task C. Progress Update:

Denali Commission: This task may possibly be already completed? ANTHC DEHE staff have compiled two lists: one Excel spreadsheet, and one PDF for all or most YK villages.

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task D. Create and update an inventory of existing and needed feasibility studies for renewable energy projects. Use this inventory to seek funding for future feasibility studies. Feasibility includes: financial (is it cost effective?) and resource (is wind, water, etc. consistent enough?). Identify opportunities to “bundle” projects to lower the per-project costs and expand capacity for these projects. What are the complete energy needs of a community, and how best can those be met?</p>	<p>Lead: Nuvista Partners: REAP (Chris McConnell has been doing this type of research on studies that have been done around the state.)</p>	<p>Tribe/federal funding diversity is something to capture. CARES and ARPA are helpful to an extent. Community/public facilities could have dedicated funding opportunities, i.e., EPA, Denali Commission, BIA, USDA, DOE, etc.</p>	<p>Nuvista: Create/update inventory? Working Group: Help ensure feasibility studies focus on practical solutions, sustainable energy, and sustainable funding streams.</p>

Task D. Progress Update:

Nuvista: “Regional Utility Facility Support Collaborative”. The board has identified a preferred list of members for the collaborative and are working through business plan proposals. (This could be an entire action item.)

TKC: One member community had been without central power generation for six years. There could be an advocacy system in place to ensure underrepresented and underserved communities do not fall in the cracks. Communities and the region should work toward long-term value and sustainability. Biomass and linked housing designs in TKC villages could be long-term, sustainable, and transformative. Local and TEK is highly valuable for finding new energy efficiencies and projects.

AVEC: Co-ops helps lower rates and other costs and increases customer service capacity.

Nuvista: Flexible co-op membership helps communities which independently operate power.

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task E. Provide energy literacy education, training and workforce development (online and in-person classes).	Lead: UAF Partners: UAF works with AK Energy Smart to prepare students for UAF-level classes. REAP has 3 dedicated energy educators and can connect communities with culturally and energy-specific learning	Grants are available to help with tuition assistance for UAF BB Campus Sustainable Energy Occupational Endorsement Program (Spring 2022).	Mark Mastellar: will send a flyer on the program for the record. Working Group: Share information about the program with interested groups/individuals, who can also check in with Mark Mastellar at UAF Bristol Bay Campus.
Task E. Progress Update: Mark Mastellar at UAF Bristol Bay Campus: Sustainable Energy Occupational Endorsement Program courses will be available via distance learning in Spring of 2022. There are opportunities for faculty to travel out to villages and provide course training. Calista: The proposed Donlin gas line could serve as a regional energy/economic catalyst. Projects and initiatives that are practical and sustainable are likely the most effective for the region.			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task F. Implement new energy infrastructure projects that result in increased efficiency and decreased costs. Heat recovery is considered a renewable energy project/source.	Partners: ANTHC heat recovery initiatives. Data gathered about diesel displacement will show progress.		Working Group: At a future meeting, review task, lead and partners. Are more updates needed?
Task F. Progress Update: No update.			

D. Indicators of Success

Indicator of Success/Positive Change	2-Year Target	Priority Indicator?	Next Steps
Tasks E-F. Number of jobs or internships created or retained for regional residents in the energy sector (e.g., in studying, planning for, building/maintaining operating traditional utilities, and new renewable energy infrastructure). <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information that is not readily available. An input-output model may have to be done to estimate current energy-related jobs and set a meaningful target. 	In 2 years, # jobs or internships are created or retained for regional residents in the energy sector. Train operators and back-up operators in the villages and the region. NuVista works toward local hire for operators and techs.	(yes/no)	Where to find the data: TBD at future Working Group meeting. Who will collect it: TBD at future Working Group meeting.
Tasks A, B, D, F. Amount of public and/or private funding invested in YK energy projects (e.g., state/federal, foundation grants awarded,	In 2 years, \$\$ in private funding invested in YK energy projects.	(yes/no)	Where to find the data: TBD at future Working Group meeting.

Indicator of Success/Positive Change	2-Year Target	Priority Indicator?	Next Steps
<p>investments in a utility or renewable energy development project).</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information that is not readily available. An input-output model may have to be done to estimate current energy-related investment and set a meaningful target. 			<p>Who will collect it: TBD at future Working Group meeting.</p>
<p>Task E. Number of people who complete the Alaska Center for Energy and Power (ACEP) Rural Electric Utility Operation Training and Internship Program (as an education metric for utilities).</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information from the UAF-Bristol Bay partners. <i>UAF Bristol Bay Occupational Endorsement in Sustainable Energy, i.e. enrollment, student success, post-graduation recruitment</i> 	<p>In 2 years, # people complete the ACEP Rural Electric Utility Operation Training and Internship Program.</p>	<p>(yes/no)</p>	<p>Where to find the data: UAF-Bristol Bay partners</p> <p>Who will collect it: TBD at future Working Group meeting.</p>
<p>Task E. Number of people who receive facilities maintenance training.</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information from the facilities directors at YK region school districts, who would know what the training needs are, who is getting them and who needs what. 	<p>In 2 years, # people receive facilities maintenance training. Local hire and improved operations/ maintenance/ service delivery? Perhaps include in audits?</p>	<p>(yes/no)</p>	<p>Where to find the data: facilities directors at YK region schools</p> <p>Who will collect it: TBD at future Working Group meeting.</p>
<p>Tasks A, B, D, F. Number of new energy projects/ upgrades/ improvements in planning or development.</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information from the tasks above. 	<p>In 2 years, # new energy projects are in planning or development: renewables, upgrades, improvements. For example, TKC helped residents of its ten member villages upgrade individual home energy sources, improve energy efficiency, and reduce household costs.</p>	<p>(yes/no)</p>	<p>Where to find the data: TBD at future Working Group meeting.</p> <p>Who will collect it: TBD at future Working Group meeting.</p>
<p>Tasks A, B, D, F. Number of new renewable energy projects in operation.</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information from the tasks above. 	<p>In 4 years, # new renewable energy projects in operation. For example, a Nuvista wind project in Kwethluk resulted in new position to help monitor the project.</p>	<p>(yes/no)</p>	<p>Where to find the data: TBD at future Working Group meeting.</p> <p>Who will collect it: TBD at future Working Group meeting.</p>

Indicator of Success/Positive Change	2-Year Target	Priority Indicator?	Next Steps
<p>Tasks A-F. Number of new local or regional energy-related businesses.</p> <ul style="list-style-type: none"> • Creating a meaningful target for this indicator requires baseline information that was not readily available during discussion. Participants noted that at a regional scale, Donlin may be the major private energy-related business, and that small businesses development (e.g., diesel mechanic, trainer) will require more small business finance education. • Seeking effective, sustainable, and long term CARES and ARPA funding opportunities 	<p>In 2 years, # new local or regional energy-related businesses are operating in the YK region. Current and potential Donlin operations could increase backhaul opportunities in the region.</p>	<p>(yes/no)</p>	<p>Where to find the data: TBD at future Working Group meeting.</p> <p>Who will collect it: TBD at future Working Group meeting.</p>

E. Summarize, Closing Comments and Adjourn

What final comments, questions or concerns do we have as individuals/as a group?
<ul style="list-style-type: none"> • Katya/ANTHC: Akiachak will meet its energy efficiency needs for water treatment. Kongiginak determined that heat recovery was not feasible due to too much contained heat loss by wind; wind-to-heat is being explored. Pilot Station completed a heat recovery feasibility study, and it was determined to be effective. Energy efficiency funding has recently been secured from the Denali Commission. Mike Black noted that heat recovery is not a state/federally funded program, but from private philanthropy (Helmsley Charitable Trust). • John Charlie: The Tuntutiak wind power generation project may have resulted in reduced heating costs for family homes. Natalie noted that Kongiginak has a successful similar project, at about 10 cents/KwH. Kwethluk has a similar project; studies and data gathering are ongoing. Heat waste capture opportunities could help displace diesel costs for community/public facilities. Water and sewer systems have recently been utilizing heat recapture. • Bill Stamm: Noted that all of the discussed systems are interrelated and interconnected. Carbon reduction could be a new driving energy use/waste factor. Reducing carbon emissions is a goal and a success in the energy sector, generally. Diesel consumption per community is an indicator for showing status quo or reducing diesel generation, waste, and air pollution or CO₂ tonnage. Andrea Gusty brought up biomass as an effective, sustainable, and affordable alternative heat source vs. diesel. John Charlie noted that new motorized vehicles are highly efficient compared to older models, and waste oil could be utilized as a recycled product for other uses. Brent Hove brought up oil recycle project funding opportunities in the state, but none have been funded to date. Bill replied that there is a used-oil, reinjection blender design that could be used in the region. • Brent Hove: commented on geothermal and solar projects. Seldovia explored geothermal opportunity and use, which eventually paid off over seven years. Maybe a drill rig could be brought to the YK region for light exploration around a set of pilot villages? Natalie and Katya recalled that geothermal is likely a poor energy source for the YK region, mostly due to geothermal heat sources not being located near enough to villages. Mike Black noted that ground- and air-source heat pumps have been used in CCHRC designs around the state. Katya replied that air-source is more cost effective for villages, and could be further explored in the YK region.
When should we meet again?
<ul style="list-style-type: none"> • Not discussed.

A Western Alaska village is installing wind turbines that will power half the community

By **Greg Kim, KYUK - Bethel** - October 24, 2021



Blades for wind turbines sit on shipping containers that hold other supplies for the project. (Katie Basile/KYUK)

Many communities in rural Alaska rely on diesel generators to keep the lights on. Kwethluk, a Yukon-Kuskokwim Delta village with about 800 residents, will be burning much less diesel next year by installing four wind turbines.

Kwethluk's wind turbines will power half of the community's electricity needs. By turning to wind energy, Kwethluk will burn 50% less diesel and reduce residents' electric bills by up to half.

"We're getting everything ready for the next generation," said George Guy, general manager of Kwethluk Inc., which manages the community's electrical utility. "And by the time we're gone, they'll have a well established infrastructure to keep the lights on in the 21st century."

Kwethluk had planned to install the wind turbines a year ago. But beginning in October 2020, Guy said that workers for the project were unable to enter the community due to COVID-19 restrictions.

"Everything was shut down and had a very big impact on our village," Guy said.

Even though there are still active cases of COVID-19 in the community, the project is back underway.

Kwethluk Inc. is partnering with Nuvista Light and Energy Cooperative to build and operate its wind turbines. Nuvista is a non-profit organization that helps Western Alaska communities move to renewable energy sources. Nuvista Executive Director Natalie Hanson grew up in Bethel, and she was in Kwethluk in September to oversee the start of construction.

“You see big wind turbine blades and they’re just kind of on top of some shipping containers, parts and pieces of the foundation are there,” Hanson described what the project looks like at this point.

Once upright, Kwethluk’s four wind turbines will stand over 150 feet tall, where there’s plenty of wind to turn the giant blades. Hanson expects them to start providing power to the community early next year, and they are expected to last 20-25 years. Hanson estimates that the wind turbines will replace 50,000 gallons of diesel fuel burned by Kwethluk’s generators each year.

“That’s roughly half of Kwethluk’s load. They’re not going to be 100% renewable, but it will cover half of their load,” Hanson said.

The impact on the environment will be equivalent to taking 122 cars off the road according to the Environmental Protection Agency’s [estimates on average car emissions](#).

Residents will be saving a lot of money too. Households in Kwethluk pay on average around \$250 per month for electricity. Kwethluk utility manager George Guy said that many families struggle to pay that bill. He said that by burning less diesel, Kwethluk’s wind turbines could save residents between 30% and 50% on their electricity bill.

Despite these benefits to wind turbines, it’s difficult for communities to build them. Nuvista’s Hanson said that the reason why Western Alaska, an area known to be windy, doesn’t have more wind turbines is because of challenges in obtaining funding.

“It makes it nearly impossible,” Hanson said.

The Kwethluk wind turbine project cost \$6.5 million. Hanson said that it took Nuvista years to cobble together grants from three separate agencies: the State of Alaska, the U.S. Department of Energy, and the U.S. Department of Agriculture. Some grants required hundreds of thousands of dollars in matching funds.

The project has overcome those challenges, and Kwethluk’s wind turbines are scheduled to begin turning early next year. Later, Hanson said that Nuvista plans to add solar panels in Kwethluk, which she says make sense, even with Western

Alaska's cloudy weather.

"Solar is absolutely viable. The price of solar has come down so substantially too in the last five years or so," Hanson said.

Hanson said that solar panels are much cheaper to add than wind turbines, and they're another way to make communities more sustainable and resilient. If any community wants assistance with a renewable energy project, she said that they can reach out to Nuvista.

[Sign up for Alaska Public Media's daily newsletter to get our top stories delivered to your inbox.]

Greg Kim, KYUK - Bethel

No posts to display

Select Language ▼



Housing and Water-Sewer Infrastructure Focus Area Action Planning Results

Friday, October 22, 2021 | 10:00am -12:00pm

Link to recording: <https://www.avcp.org/tribal-resources/community-development/regional-comprehensive-economic-development-strategy/>

Facilitator: Michael Black, Alaska Native Tribal Health Consortium (ANTHC)

Team Support: Heather Stewart, Agnew::Beck Consulting

Participants:

First Name	Last Name	Organization
Steven	Alexie	Donlin Gold
Michael	Black	Alaska Native Tribal Health Consortium (ANTHC), Department of Environmental Health and Engineering (DEHE)
Cathie	Clements	Rural Alaska Community Action Program (RurAL CAP)
Calvin	Cockroft	Orutsararmiut Native Council (ONC)
Eric	Evon	Association of Village Council Presidents (AVCP), Community Development
Mi'shell	French	Rural Alaska Community Action Program (RurAL CAP)
Stacey	Fritz	Cold Climate Housing Research Center (CCHRC)
Jackie	Garcia	Calista Workforce and Shareholder Development
Andrea	Gusty	The Kuskokwim Corporation
Brent	Hove	Alaska Native Tribal Health Consortium (ANTHC), Department of Environmental Health and Engineering (DEHE)
George	Jacko	
Corbyn	Jahn	Alaska Native Tribal Health Consortium (ANTHC), Department of Environmental Health and Engineering (DEHE)
Florence	Kargi	Coastal Villages Region Fund
Shirley	Kelly	US Economic Development Administration (EDA)
Tisha	Kuhns	Calista Corporation
Deanna	Latham	Yukon-Kuskokwim Health Corporation (YKHC)
Bob	Marquez	Coastal Villages Region Fund (CVRF)
Dora	Matthew	Chefornak resident
Azara	Mohammadi	State of Alaska Department of Military and Veterans Affairs, Division of Homeland Security & Emergency Management (DHS&EM)
Haley	Nelson	Cold Climate Housing Research Center (CCHRC)
Seth	O'Brien	Association of Village Council Presidents (AVCP), Community Development
Fatima	Ochante	Alaska Department of Environmental Conservation (ADEC), Village Safe Water Program
Brenda	Pacarro	Calista Corporation
Russell	Pollock	Yukon-Kuskokwim Health Corporation (YKHC)
Jonathan	Samuelson	The Kuskokwim Corporation
Jennifer	Schmetzer	DOWL Engineering
Leila	Smith	Calista Corporation
Mike	Ulroan	Alaska Native Science and Engineering Program (ANSEP)
Bessie Lea	Weston	Merkoryuk resident

First Name	Last Name	Organization
Kira	Wilkinson	Coastal Villages Region Fund (CVRF)
Michael	Williams Sr	Chief of Akiak Native Community, Chair Kuskokwim Inter-Tribal Fish Commission and Akiak resident
Charissa	Williar	Alaska Native Tribal Health Consortium (ANTHC), Department of Environmental Health and Engineering (DEHE)
Rebecca	Wilmarth	Donlin Gold
Kimberly	Amraham	Chefornak IGAP Coordinator

Objective: Review progress on priority CEDS actions, define next steps for implementation, and track progress toward key indicators.

Agenda:

A. Welcome, Logistics, Roll Call, Breakout Purpose and Agenda Review

B. Strategy/Action Introduction and Knowledge Sharing

CEDS Action(s): Increase residential access to clean water through piped or hauled water systems and increase regional housing authority access to funding or partnerships for water and sewer infrastructure to help offset construction/installation costs for new homes.

C. Action Planning

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task A. Expand onsite water and/or sanitation projects from Village Safe Water and ANTHC into more YK communities.	Leads: Alaska Village Water Sewer (Fatima Ochante), AVCP (Seth O'Brien), ANTHC (Michael Black)	CARES Act funds USDA Housing allows funding for in-home water sewer systems ICDBG funds ANTHC IHS (depending on eligibility) EPA If the currently proposed infrastructure bill is passed, the Federal funding coming to Alaska should be able to fund sanitation systems.	Communities: Contact ANTHC and/or VSW if interested in onsite water and sanitation. ANTHC: is gearing up with Preliminary Engineering Reports to apply for funding to implement centralized and/or onsite systems. VSW: is preparing for potential influx of funding and implementation of centralized and/or onsite systems. Working Group: At a future meeting, review task, lead and partners. Are more updates needed?

Task A. Progress Update:

ANTHC: The PASS has been successfully delivered to some Y-K communities; see [video](#)¹ sharing variations of the PASS system, which also improves air quality, ventilation.

- ANTHC available to work with Tribes, housing authorities to apply technology to new housing projects.
- IHS is not funding flush tank and haul systems right now. The agency is not sure if the technology is worth continuing to fund, and is looking at onsite systems (e.g., PASS type) as an alternative.

VSW: The Alaska Simplett Pilot system has been installed in test homes and community buildings in Kongiganak and Arctic Village.

¹ https://youtu.be/m-BIFX_rYiY

- VSW still has units available for people who want to have one installed. The Simplett is suitable for communities where soils do not allow for seepage pits.
- Homeowners pay for the electricity to operate the system's fan (est. \$1.50/month).
- Biodegradable liner bags are provided for free for the pilot period, or other locally-sourced alternative.
- VSW's onsite water reuse prototype will be tested this winter on the UAA campus with a professor and students testing interactions with the system.
- It took three years to get approval from the US EPA to test it with human subjects.

In 2023, VSW will know about additional test sites.

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task B. Convene a collaborator meeting to discuss how to create a partnership funding model that better leverages funds to construct homes with appropriate water-sewer systems.</p>	<p>Lead: AVCP RHA (<i>Peter Evon</i>), AVCP</p> <p>Partners: BIA (<i>Dewayne Cooper</i>), HUD (<i>Greg Stuckey</i>), ANTHC (<i>Michael Black</i>), USDA (<i>Robert Chambers</i>), Denali Commission (<i>Erik O'Brien</i>), CVRF (<i>Bob Marquez</i>)</p>	<p>BIA Housing Improvement Program (HIP)</p> <p>HUD's Office of Native American Programs (ONAP)</p> <p>IHS funds (through ANTHC)</p> <p>USDA</p> <p>Denali Commission may be able to help cover IHS match</p>	<p>AVCP Community Development Division: Help convene this meeting? (Seth to discuss with Clarence)</p> <p>Working Group: At a future meeting, review task, lead and partners. Are more updates needed?</p>

Task B. Progress Update:

Bristol Bay Housing Authority: has been doing this successfully with the BIA, ANTHC, others. Their model could apply for the Y-K.

CVRF: has a tiny house program for residents in its member communities including down payment assistance, leveraging different funding.

- Tribal members apply using Category D BIA application. The Tribe packages applications to BIA. Based on confirmation of eligibility, BIA can help buy down mortgages. This approach generates immediate return for Tribes and RHAs.
- Tiny Home concept: The original home size was 16x20 sf. They had to modify the design to be energy efficient, affordable with sufficient capacity. They have Studio, 2-Bedroom and 4-Bedroom concepts. Aim for payments of \$400/month.
- CVRF is helping member communities prepare for and make the best use of funding for village improvements. Can this model be replicated by other organization(s)?

ONC: is trying to build more homes to generate program income, which can be reinvested.

- Working with NeighborWorks and Cook Inlet Housing Authority to provide market value housing to the public that can generate program income, help subsidize lower income housing needs. Example: 4-Plex housing essential families in Bethel.
- Coordination with the City is essential for water/sewer utilities

TKC: has received a USFS Wood Innovations grant to come up with a new design for homes in the Middle Kuskokwim area using traditional and modern technologies and local wood/timber resources.

TKC partnered with Cold Climate Housing Research Center (CCHRC) on the project.

Innovative Readiness Training (IRT) (irt.defense.gov) – Potential Labor Source

- Relatively new opportunity and very underutilized in Alaska. Military units must conduct annual trainings. They have a military essential training list of specific skills they need to get training on annually. If a community submits a proposal for a community project that can fulfill one of those training requirements, they can receive free DoD assistance. It takes about 2 years to go through the process.
- Alaska National Guardsmen conducted their 2-week training on Cherokee Nation building homes for veterans; after coming back, they recognized the program would have a lot of benefit if applied to Alaska. By building in Alaska, guardsmen also get additional training in Arctic environments.

- Examples of how IRT is being used in Alaska communities today:
 - DoD providers brings health care, vision, dental care and veterinary services to Kodiak and the surrounding islands every year through IRT.
 - CVRF is exploring this as a model for bringing in free labor to construct some of the homes they are building.

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task C. Provide home ownership financial education and home maintenance education to position Y-K residents to apply for a mortgage, purchase and maintain homes.	Lead: AVCP RHA		<p>AVCP RHA: is hiring for a home ownership financial education lead.</p> <p>Working Group: Discuss with the YK CEDS Education and Workforce Development Working Group, as well as Y-K schools as a potential element of grade school curricula.</p> <p>Working Group: At a future meeting, consider adding a task to the housing priority task list of creating a bed bug program.</p>

Task C. Progress Update:

CVRF: has an education program for those interested in home ownership. People Propel offers financial education to help participants understand lender requirements and can meet their household match; one-on-one assistance has been essential.

CVRF recommends using existing resources, e.g., the Alaska Housing online financial education program, which is a requirement for rural home loans.

AVCP RHA: offers standard orientation once a homeowner has been selected. Looking at expanding and implementing the education program as part of the application process; seeking partners to assist with education (e.g., help with credit).

What are the existing gaps to connect residents with home ownership education?

- AVCP RHA moving from rental (RHA responsible for maintenance) to ownership (homeowner responsible for maintenance) model. Roles are unclear and not clearly assigned.
- CVRF has started to play the role of facilitator, helping with aligning home plans/parcels, funding and construction, as well as education.
- Denali Commission put out funding to write a guide for homeownership.

Working group members suggested that this is broader than home ownership and that the group should consider engaging Y-K school districts in the conversation, start young and create a generation who is more financially literate and can pass along that knowledge.

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task D. Support individuals and communities in securing equipment and training needed to level homes.	Lead: need to identify	USDA 504 loan/grant for eligible individuals (62+), can be used for home repairs. \$7,500 can be forgiven, and an additional \$20,000 is available via a low interest loan.	Working Group: Discuss these ideas with the YK CEDS Education and Workforce Development Working Group and the Business Development and Entrepreneurship Working Group as a potential entrepreneurship or

			workforce development opportunity.
<p>Task D. Progress Update: Working group members pointed out that for home construction and leveling homes, issues come from choosing the right site and dealing with permafrost thaw, as well as construction methods.</p> <p>ANTHC: Water-sewer hookups can be a challenge when leveling homes. The Alaska Rural Utility Collaborative developed a new hookup design that allows for some flexibility as houses shift and leveling occurs. Encourage aging homes that are being leveled to implement this type of design.</p> <p>CVRF: has done two of these USDA grants with their communities to level homes in their region, using local skilled hire. It is very doable and could expand with an on-the-job training type of program for youth.</p> <p>Working group members suggested a there could be training program at <i>Yuut Elitnaurviat</i> targeting home leveling. AVCP might be able to help host a training like this via partnerships between different divisions. Graduates could seek out grants to help purchase equipment.</p>			

D. Indicators of Success

NOTE: The 12/17/20 or 10/22/2021 meeting did not include discussion of “indicators of success”, but should be a focus of future meetings, especially as priority strategies and actions are refined.

Indicator of Success/Positive Change	2-Year Target	Priority Indicator?	Next Steps
<p>Tasks A-D. Jobs or internships created or retained.</p> <ul style="list-style-type: none"> Estimate based on the number of new homes that will be constructed and current/anticipated water-sewer projects in the region. Known projects include: <ul style="list-style-type: none"> CVRF: 7 homes (Toksook Bay) Donlin: 3 homes (Sleetmute) AVCP, AVCP RHA, USDA, ONC: <i>need to identify</i> 	In 2 years, 250 additional jobs will be created to study, plan for and construct additional homes and install/maintain water-sewer infrastructure in homes throughout the region.	(yes/no) Confirm at future Working Group meeting.	<p>Where to find the data: Agencies could report their new construction in the region which could be used to estimate new jobs. TBD at future Working Group meeting.</p> <p>Who will collect it: TBD at future Working Group meeting.</p>
<p>Tasks A-B. Number of homes with water-sewer infrastructure.</p> <ul style="list-style-type: none"> Need to identify current construction numbers and quantify the estimated need. The YK CEDS Annual Update includes an objective to construct and/or rehabilitate 1,800 housing units toward the region’s goal of 3,000 affordable, quality homes by 2022. 	In 2 years, # number of newly constructed, affordable, quality houses with appropriate water-sewer infrastructure.	(yes/no) Confirm at future Working Group meeting.	<p>Where to find the data: TBD at future Working Group meeting.</p> <p>Who will collect it: VSW and partners looking at how to better conduct a house count; Fatima can report on updates.</p>
<p>Task C. Number of residents who own homes.</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information that needs to be collected. 	In 2 years, X number of new homeowners who own homes in the YK region.	(yes/no) Confirm at future Working Group meeting.	<p>Where to find the data: U.S. Census, American Community Survey</p> <p>Who will collect it: TBD at future Working Group meeting.</p>

Indicator of Success/Positive Change	2-Year Target	Priority Indicator?	Next Steps
<p>Tasks A-B. Decline in wash water-related hospital visits.</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information that needs to be collected. Demonstrating above-average hospital visits due to wash water diseases may also be helpful to advocate for water sewer projects in the region. 	<p>In 2 years, a 10% decline in the number of hospital visits related to wash water diseases due to lack of water.</p>	<p>(yes/no) Confirm at future Working Group meeting.</p>	<p>Where to find the data: TBD at future Working Group meeting. Who will collect it: TBD at future Working Group meeting.</p>

E. Summarize, Closing Comments and Adjourn

What final comments, questions or concerns do we have as individuals/as a group?

- Indoor air quality is a continuing problem in village homes. Uneven heating causes moisture to accumulate in cooler areas of the home; mold grows in these areas. Wood stoves that are leaky or not properly ventilated can cause indoor air problems.
- CCHRC is preparing advisory guidelines for Arctic home design/construction.
- AVCP RHA brought up the need for considering land suitability. Homes are sometimes built in very wet, marshy areas. Some of these systems that were built by AVCP RHA and getting complaints from Villages, how are they being taken care of? Are some damaged due to poor quality of how they were built? For future buildings, I am hoping AVCP RHA has better plans for these homes in Villages, not just one community in the region.
- We should not be testing technologies on our communities; use appropriate building technology that homeowners can maintain as well as training. People want simple solutions, not complex technology. Using local building materials and techniques that have stood the test of time.
- Water-sewer infrastructure is often built with expensive parts that are difficult to replace. Sometimes housing projects did not budget enough money to connect homes properly or design appropriately for the site. Warming permafrost in the Y-K is also challenging: water-sewer lines must have the flexibility to shift with the home foundation and movement of pipes on the land as it changes.
- Has anyone looked at housing in places like Upper Michigan or other countries such as Norway, Sweden and Greenland? How do they manage air quality issues?
- CCHRC's Breathe system combines ventilation and heating systems. Fresh air is used to heat the home, like forced air. CCHRC can share information about it. CCHRC has some videos on YouTube about these and other systems. If in Fairbanks, people can reach out to CCHRC's administration to set up an in-person visit.
- Financial literacy is the foundation of success for housing programs and home ownership in the Y-K.
- In Chevak, CVRF discovered residents had the skills for home construction. They just needed the official training/endorsement. This year, Chevak was able to successfully construct a home without any external guidance. Those skills carry forward beyond the project.
- Michael Black (ANTHC) provided an update on recent projects in the Y-K:
 - Relocating 100 homes in Akiachak to get them into the ROW for future hook up to water and sewer
 - In Eek, convert the old washeteria into a maintenance building for equipment
 - Connecting 40 homes in 11 communities around the region
 - Buying water treatment chemicals using CARES Act funds in 36 communities
 - Doing energy efficiency projects for water and sewer in Hooper Bay, Pitkas Point, Holy Cross, St Marys, and Kwethluk
 - Install water points in Kong and Chefnak

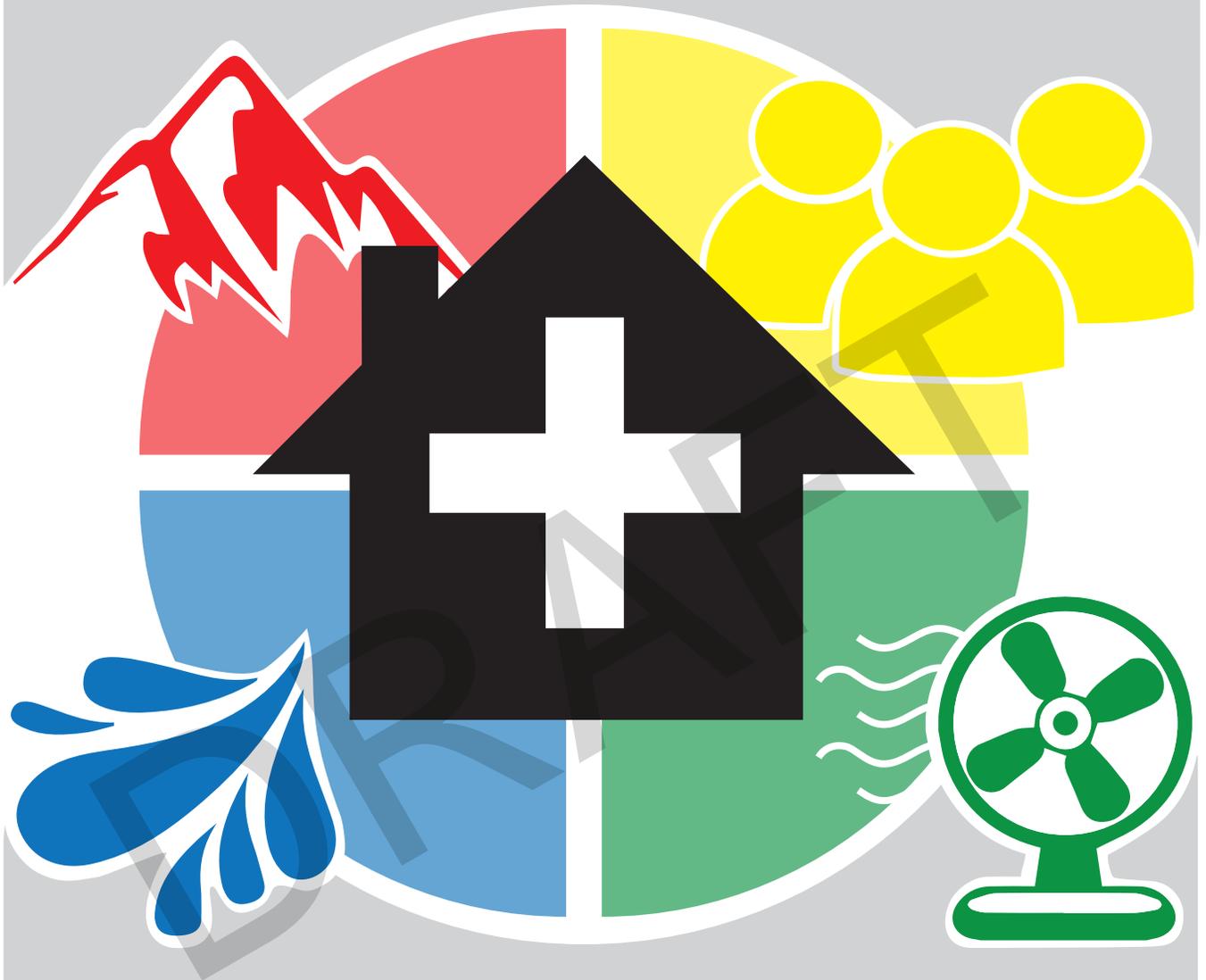
What final comments, questions or concerns do we have as individuals/as a group?

- Newtok washeteria remodel and upgrade
- Replacing sewer discharge in Kotlik
- Changing home plumbing in Russian Mission from copper to plastic in home faucet
- Heat Recovery in Chevak, Russian Mission, Anvik, Grayling, Toksook Bay
- Put PASS into Kotlik's unserved homes
- Lime Village new wells and septic tanks to 16 homes
- Preliminary engineering for Tuluksak and Tununak projects for unserved homes communities
- Water Treatment Plant in Lower Kalskag
- Dora Mathew asked for Chefnak:
 - 1) What are the plans for water-sewer for a new subdivision project and current residential housing?
 - Fatima Ochante (VSW) connected with the VSW engineer for Chefnak: VSW is working on a permanent lift station for the washeteria. IPF project for fixing/replacing water junction boxes. An IHS grant is in the process for closing their existing honey bucket lagoon and building a new one. Corey Swisher, VSW engineer for Chefnak: corey.swisher@alaska.gov +1 9072697554
 - 2) Can anyone provide help understanding how the Corporation can give land besides the City?
 - Andrea Gusty (TKC): TKC has a homesite program that we use to give land directly to our tribes for lots for their tribal members. It is related to the 14c3 process, but outside of ANCSA regulations. The most recent agreement we did included 151 1-1.5 acre lots to Kalskag tribal members. We (as a village corporation) also facilitated one of our cities giving land to the tribe for homes.
- Michael Williams Sr shared that: We are going forward 100% Tribally owned. We are going after fiber optic as phase 2. We met with everyone involved in this discussion with our study and looked at every opportunity. All of our villages are unserved and no infrastructure.
- The Infrastructure Bill may change all of this.

When should we meet again?

- Quarterly meetings?
- Next meeting in December to look at indicators, specifically?

HEALTH & SAFETY CONSIDERATIONS



IN NEW CONSTRUCTION

Prepared Oct. 2020 by:



**ALASKA NATIVE
TRIBAL HEALTH
CONSORTIUM**

4000 Ambassador Drive
Anchorage, AK 99508
(907) 563-2662
anthc.org



**COLD CLIMATE
HOUSING RESEARCH CENTER**

955 Draanjik Drive
Fairbanks, AK 99775
(907) 457-3454
cchrc.org



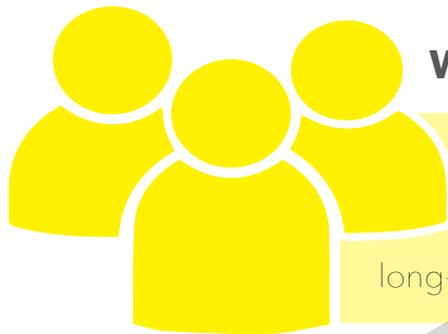
HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION



SITE AND MATERIAL SPECIFICS

healthy homes. Alaska's environment can thrash otherwise durable structures, create hazardous living conditions, and introduce harmful substances into the living environment. It is important to integrate the many environmental factors, limitations, and assets of the site into the design and construction of the home to ensure that it will be safe and healthy over its lifetime."

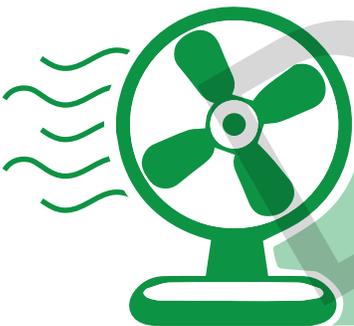
The harsh environmental conditions of Alaska can make it extremely difficult to build safe and



WORKING WITH COMMUNITIES

subjected to housing designs that do not adequately support unique local cultures and lifestyles. Collaborating with communities and homeowners during the design and construction processes improves the likelihood that resulting homes can support the long-term health, safety, comfort, and contentment of occupants.

Over its colonized history, rural Alaska communities have been



INDOOR AIR QUALITY

respiratory syncytial virus account for approximately two-thirds of child hospitalizations in rural Alaska. In one region about 1 in 4 infants are hospitalized ever year for these diseases. Early results from an ANTHC study of eight participating villages in southwest Alaska suggest that these diseases can be prevented through simple home modifications.

Acute respiratory disease is arguably the leading health challenge for Alaska Native children. Diseases such as pneumonia and



WATER & SEWER SYSTEMS

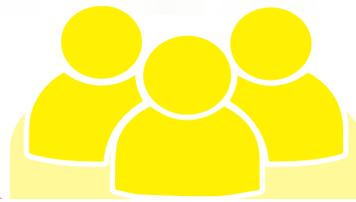
washing and healthy hygiene practices easier, which have been shown to reduce illness. Infants in villages with limited water service have five times more hospitalizations for respiratory infection and 11 times more hospitalizations for pneumonia than the overall U.S. population.

Access to clean water and sanitation supports health and well-being. Having in-home water and sewer makes hand





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION



WHO TO ENGAGE IN THE DESIGN PROCESS

 Community Representatives  Structural Engineer  Specification Writer	 Community Representatives  Certified Aging In Place Specialist (CAPS)	 Community Representatives  Mechanical Engineer  Specification Writer	 Community Representatives  Plumbing Specialist  Alaska Native Tribal Health Consortium (ANTHC)
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

TESTS / INSPECTIONS / REPORTS TO REQUEST

 Geotechnical Site Survey  Radon Testing On-Site	 Inventory of Community & Elder Design Preferences and Needs	 Combustion Safety Test AHFC PUR-101 & AHFC PUR-102  Ventilation System Balancing	 Inventory of Community Water/Sewer Infrastructure
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------



HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION



HEALTH & SAFETY TOPICS

Radon Gas

pg 5

Permafrost and Unstable Ground Movement

pg 7

Material Choice

pg 9

Inclement Weather and Natural Disasters

pg 11

Rural Conditions Awareness

pg 13

Cultural Conditions Awareness

pg 15

Aging In Place

pg 17

Ventilation

pg 19

Back-Drafting

pg 21

Carbon Monoxide

pg 23

Mold

pg 25

Volatile Organic Compounds (VOCs)

pg 27

Overcrowding

pg 29

Water & Sewer Systems

pg 31

Honeybuckets

pg 33





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

RADON GAS



RELEVANCE TO ALASKAN CONSTRUCTION

Radon is a cancer-causing radioactive gas that occurs naturally in certain types of soils and rock formations. Because it is tasteless, colorless, and odorless, it is virtually impossible to detect without testing for it directly.

HEALTH & SAFETY IMPACTS

Occupants living in homes built over radon-containing soils are at risk of prolonged radon exposure, which poses serious risks to occupant health. After smoking, radon is #2 cause of lung cancer in US, and the #1 cause of lung cancer among non-smokers.

DRAFT





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

RADON GAS

BEST PRACTICES FOR...



HOUSING AUTHORITIES

- ✔ Conduct pre-emptive radon testing on proposed sites, and provide reports to designers and contractors.
- ✔ If radon is detected, require specific mitigation interventions be implemented into new housing design and during construction.

DESIGNERS

- ✔ Incorporate radon-mitigation interventions into foundation design. This may include choosing a raised foundation design, air-sealing of crawlspaces and basements, active radon-specific ventilation designed for crawlspaces, slabs, and basements.

CONTRACTORS

- ✔ Pay close attention to air sealing details in crawlspaces and basements.
- ✔ Work with ventilation professionals if necessary to ensure the radon mitigation system can be installed to function effectively.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

PERMAFROST AND UNSTABLE GROUND MOVEMENT



RELEVANCE TO ALASKAN CONSTRUCTION

Permafrost is defined as ground that has been continuously frozen for 2 or more years. Permafrost can occur in any type of soil: gravel, sand, clay, silt, etc. Clay- and silt-rich permafrost types hold the highest amounts of water, and are most at risk of collapsing if the permafrost thaws and the stored water drains away. Water released from thawing permafrost can also pool underground, which can lead to frost heaves at the surface as the pooling water freezes seasonally (this process is referred to as ice lensing). If the soils remain frozen, ice-rich permafrost is generally considered stable enough to build upon. However, if ice-rich permafrost thaws or heaves, it can cause significant damage to structures built upon it.

Permafrost thaw, frost heaves, coastal erosion, and soil saturation/flooding all can create unstable ground conditions, and cause significant ground movement. The frequency and intensity of these events are projected to increase as climate change progresses, which will create worsening unstable ground conditions in affected areas.

HEALTH & SAFETY IMPACTS

Differential settling caused by permafrost thaw, frost heaves, coastal erosion, and other ground-destabilizing conditions can cause structural separations within the house, or cause plumbing and electrical connections to shift, sever, or otherwise fail. Home damage caused by permafrost may lead to lost access to water/wastewater, electrical hazards, gas leaks, heating system combustion safety problems, or dangerous structural failures.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

PERMAFROST AND UNSTABLE GROUND MOVEMENT



BEST PRACTICES FOR...

HOUSING AUTHORITIES

- ✓ Conduct geotechnical surveys and/or core drilling samples of proposed sites, and provide reports to designers and contractors.
- ✓ If permafrost exists on site and/or where substantial ground movement is expected over the lifetime of the building, request that adjustable and/or relocate-able foundations, ground stabilization techniques, flexible service connections, water diversion and management techniques, and appropriate site grading be explored and incorporated.
- ✓ Require that a structural engineer with a license to practice in Alaska be contracted during the design process to develop a stamped set of structural foundation plans.

DESIGNERS

- ✓ Consult geotechnical reports for the proposed site during the pre-design process.
- ✓ Work with a structural engineer to develop an appropriate foundation design.
- ✓ Specify that entry stairways be fastened to the structure using a hinged connection to accommodate differential settling.
- ✓ Specify that flexible service connections be used to connect interior systems to exterior systems (septic tank connections, electrical conduit, fuel lines, etc.).

- ✓ Where substantial ground movement is expected over the lifetime of the building, choose a foundation type that can accommodate differential settling over the lifetime of the structure. This may include adjustable leveling features, or the ability to move the structure entirely (or both).
- ✓ In the foundation design, minimize the number of load-bearing pads and carrying beams (2 is ideal for homes) to minimize stresses imparted on the structure should differential settling occur.
- ✓ Design floor assemblies to be as rigid as possible to resist damage due to differential settling. Incorporate water management strategies to divert water away from the structure, such as gutters, downspouts and kickouts, and site grading.

CONTRACTORS

- ✓ Consult geotechnical reports for the proposed site during the construction process.
- ✓ Ensure that flexible service connections are used to connect interior systems to exterior systems (septic tank connections, electrical conduit, fuel lines, etc.).
- ✓ Observe how water moves on site, and re-grade as necessary to divert water away from structure.
- ✓ Ensure that gutters, downspouts, and kickouts are installed correctly and discharge water approximately 10ft away from the structure.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

MATERIAL CHOICE



RELEVANCE TO ALASKAN CONSTRUCTION

Choosing the right materials for the project can be one of the most important considerations when building in Alaska. Often times, material "appropriateness" differs dramatically depending on where the home will be built. Climate, shipping logistics, affordability, material availability, indoor air quality, and local interest should all be factored into material choice.

HEALTH & SAFETY IMPACTS

Climate-inappropriate material choices most often affect the durability of a structure, but in severe cases can lead to structural failures, mold growth, and introduce VOCs into the living environment.

DRAFT





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

MATERIAL CHOICE

BEST PRACTICES FOR...



HOUSING AUTHORITIES

- ✔ Require that a specification writer be contracted with during the design process.
- ✔ Provide the specification writers and designers with a description of the health and safety material considerations to be included. Examples of health and safety-related material specifications include: "mold-resistant", "VOC-free", plywood instead of Oriented Strand Board (OSB) for long-term moisture durability, etc.

DESIGNERS

- ✔ Work with a specification writer to develop material specifications that support occupant health and building durability.
- ✔ Consult manufacturer data sheets, UL, Greenguard, Living Building Challenge (LBC), Living Future Institute (LFI) Red List, etc. during the design process to ensure that desired materials do not include material additives or properties that may be harmful to human health.

CONTRACTORS

- ✔ If submitting a material substitution during procurement, ensure that substituted options offer equivalent or better health and safety-related specifications.
- ✔ During construction, ensure that materials are stored properly to avoid water damage or weather exposure.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

INCLEMENT WEATHER AND NATURAL DISASTERS



RELEVANCE TO ALASKAN CONSTRUCTION

Floods, earthquakes, erosion, fires, storms, and other extreme events occur frequently within Alaska, and have the potential to severely damage or destroy housing.

HEALTH & SAFETY IMPACTS

Increased snow and wind loading during storm events can cause severe damage to a homes exterior and possibly lead to structural failures. Floods and wind driven rain can cause bulk water intrusion, creating ideal conditions for mold growth. Earthquakes and erosion can cause severe structural damage to homes. Wildfire smoke negatively impacts indoor air quality. In extreme cases, any of these events can result in total housing losses.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

INCLEMENT WEATHER AND NATURAL DISASTERS



BEST PRACTICES FOR...

HOUSING AUTHORITIES

- ✔ Work with community liaisons to collect natural disaster information for the local area.
- ✔ Provide designers and contractors with any and all relevant natural disaster data for the proposed site. This may include historic flood lines, wildfire maps, earthquake history, annual precipitation projections, design wind speeds, climate change projections for the area (ie: increased landslides, erosion, wildfire susceptibility, etc.).

DESIGNERS

- ✔ Consult relevant natural disaster data for the proposed site.
 - ✔ Follow relevant code requirements outlined by the Alaska Housing Finance Corporation (AHFC) New Construction Guidelines, the International Residential Code, and the International Building Code (IBC).
 - ✔ Work with members of the community to design homes for the local climate conditions. Most communities can provide design best practice information regarding home orientation, raised vs. pad foundation options, snow load and precipitation, etc.
- Example design interventions include: snow stops for roofs, entryways that do not face the prevailing wind direction, raised and adjustable foundations (or foundations that can be moved), increasing exterior wall fire ratings, water management features (such as gutters, downspouts, and kickouts), and increasing safety factors on structural connections.

CONTRACTORS

- ✔ Consult relevant natural disaster data for the proposed site.
- ✔ Follow relevant code requirements outlined by the Alaska Housing Finance Corporation (AHFC) New Construction Guidelines, the International Residential Code, and the International Building Code (IBC).





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

RURAL CONDITIONS AWARENESS



RELEVANCE TO ALASKAN CONSTRUCTION

A majority of Alaska communities are unconnected to the contiguous road system, and have populations less than 2,500 people. Economic opportunities available in such communities are considerably different and typically more limited compared to more urban areas. Generally, the availability of advanced technologies and associated specialists is limited.

HEALTH & SAFETY IMPACTS

In smaller rural communities, it can be uncommon to find specialized tradesworkers that are employed year-round. Furthermore, it can be prohibitively expensive and logistically challenging to hire a specialist temporarily. This often means that any specialized technologies introduced into these communities will be difficult to maintain, repair, or replace if issues arise. If these technologies are designed to support occupant health and safety, their loss can have severe consequences if failures occur.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

RURAL CONDITIONS AWARENESS



BEST PRACTICES FOR...

HOUSING AUTHORITIES

- ✔ Provide designers and contractors with any and all relevant logistical data for the proposed site.
- ✔ Advocate for the use of local labor when possible. If direct project funding is unavailable for this purpose, assist contractors and designers in identifying alternative funding streams that can provide compensation for local labor.

- ✔ Work with community liaisons to catalogue any and all relevant site logistical data.

This may include cataloguing all available heavy construction equipment, developing a list of local contacts and resources, gathering renewable energy resource data, recording seasonal subsistence schedules, evaluating local labor capacity (availability of specialists, tradesmen, technicians, installers, laborers, etc.), cataloguing freight, cargo, and transportation service providers, identifying all local governing bodies, etc.

DESIGNERS

- ✔ To the extent possible, seek to employ and work with members of the community to ensure that designed homes can be constructed economically and effectively under the local logistical parameters.
- ✔ Consult relevant site logistical data.
- ✔ Most communities can provide best practice information regarding ideal construction schedules, shipping methods to and from site, appliance brands that are well-known to community members and easy to source parts for, local labor capacities, etc.

CONTRACTORS

- ✔ To the extent possible, seek to employ local laborers, technicians, specialists, consultants, and tradesmen during construction.
- ✔ Work with community liaisons to ensure that the construction of the home is conducted with a consciousness of local logistical constraints.
- ✔ Look for partnership opportunities with communities to provide labor force on-the-job trainings.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

CULTURAL CONDITIONS AWARENESS



RELEVANCE TO ALASKAN CONSTRUCTION

Alaska is home to 11 distinct Alaska Native indigenous cultures. Inupiaq and St. Lawrence Island Yupik groups live in North and Northwest Alaska. Athabascan peoples live in Interior Alaska. Yup'ik and Cup'ik groups live in Southwest Alaska. Alutiig and Unangax groups live on the Aleutian Chain and in Southcentral Alaska. Eyak, Tlingit, Haida, and Tsimshian groups live in Southeast Alaska. Languages, histories, subsistence activities, artwork, lifestyles, and cultures between these groups are diverse and distinct.

HEALTH & SAFETY IMPACTS

It is critical that the unique community cultures be meaningfully integrated during all stages of housing design and construction. Not doing so can impact the effectiveness of the home in supporting occupant quality of life, health, and safety.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

CULTURAL CONDITIONS AWARENESS



BEST PRACTICES FOR...

HOUSING AUTHORITIES

- ✔ Advocate for a community charrette process to be conducted during the design phase, and require that community consultants be hired to participate in the design process. If direct project funding is unavailable for this purpose, assist contractors and designers in identifying alternative funding streams that can provide compensation for community consultants.
- ✔ Work with community liaisons to identify the variety of cultural conditions and lifestyles within the community, and how such information intersects with housing design and construction.

DESIGNERS

- ✔ Conduct a design charrette with members of the community to determine the locally specific set of housing needs, desires, preferences, and dislikes.
- ✔ Collaborate and consult with community consultants consistently throughout the design development process.
- ✔ Consult local cultural and lifestyle information early and often during the design process.

CONTRACTORS

- ✔ Work with community liaisons to ensure that the construction of the home is conducted with a consciousness of local cultural and lifestyle constraints. Emphasis on local hires wherever possible.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

AGING IN PLACE



RELEVANCE TO ALASKAN CONSTRUCTION

Alaska's population of elders is set to double by 2030, at which time elders are expected to comprise 17% of the total population. There currently exists a major shortage in Alaska of affordable housing facilities that can accommodate elder needs. This housing need is especially felt in rural Alaskan communities, where elders are frequently required to either live in unsafe and unhealthy environments, or else relocate to an urban hub away from their communities and families in order to access specialized care and appropriate facilities.

HEALTH & SAFETY IMPACTS

Inadequate sanitation, fall hazards, difficult-to-control indoor climate conditions, and otherwise antagonistic features of a home make it difficult to impossible for elders to "Age in Place" safely. Moving elders away from their families and homes and into assisted living facilities can be culturally and emotionally damaging, which can negatively impact mental health.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

AGING IN PLACE

BEST PRACTICES FOR...



HOUSING AUTHORITIES

- ✓ Request that designs be developed under Universal Design Guidelines. Universal Design refers to the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability. It is considered to be a highly equitable design framework that can adequately accommodate Aging in Place.



Consider requiring that a Certified Aging in Place Specialist (CAPs) be consulted with during the design process.



Depending on the funding source and project type, it may also be necessary to require compliance with accessibility requirements as outlined by the Americans with Disabilities Act (ADA) Standards for Accessible Design (SAD), International Code Council (ICC) / American National Standards Institute (ANSI) (Section A117.1: "Accessible and Usable"), and/or the Fair Housing Accessibility Guidelines (FHAG).

DESIGNERS

- ✓ In many cases it may be beneficial to all parties to bring the client, the designer, and builder to the table during the design stage to ensure the best possible project outcome. Both the client and the builder may be able to provide valuable design and construction information that will help make the project a success and within budget.



Integrate principles of Universal Design at all stages of the design development process.



Work with a Certified Aging in Place Specialist (CAPs) and community liaisons during the design process to ensure that designs can accommodate elder needs.



Where applicable, consult and comply with the Uniform Federal Accessibility Standards (UFAS), the Americans with Disabilities Act (ADA) Standards for Accessible Design (SAD), International Code Council (ICC) / American National Standards Institute (ANSI) (Section A117.1: "Accessible and Usable"), and/or the Fair Housing Accessibility Guidelines (FHAG).

CONTRACTORS

- ✓ Consult with a Certified Aging in Place Specialist (CAPs) to ensure that Universal Design features are properly detailed, prepared for, installed correctly, and inspected.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

VENTILATION



RELEVANCE TO ALASKAN CONSTRUCTION

Proper ventilation is a critical component of a healthy home, especially in Alaska. Ventilation systems may be categorized as mechanical or passive, and balanced or unbalanced.

MECHANICAL forms of ventilation are those that consume energy during operation. Common forms of mechanical ventilation include HRVs/ERVs, range hood exhaust fans, bathroom exhaust fans, and fresh air supply fans. **PASSIVE** forms of ventilation are those that do not require energy input to function. In Alaska, common forms of passive ventilation include Fresh 80s/100s, makeup air vents, or the simple opening of doors and windows. A **BALANCED** ventilation system is designed to intake fresh air at the same rate that stale air is being exhausted. HRVs/ERVs and Fresh 80s/100s are examples of balanced systems. An **UNBALANCED** ventilation system either intakes more air than it exhausts, or exhausts more air than it intakes. A home with a bathroom exhaust fan only is an example of an unbalanced system.

Heat Recovery Ventilators (HRVs) are balanced mechanical ventilation appliances that deliver fresh air to the indoors while exhausting stale air to the outdoors. Before stale air is exhausted, the HRV extracts some of its heat and applies it to the incoming fresh air stream. In addition to transferring heat energy between air streams, an Energy Recovery Ventilator (ERV) also removes some moisture from exhaust air and applies it to the incoming fresh air stream. HRVs and ERVs are currently considered to be one of the most effective methods of ensuring healthy indoor air, but can be rendered ineffective if not properly designed for, installed, or maintained.

HEALTH & SAFETY IMPACTS

Proper ventilation is a critical component of a healthy home. Without proper ventilation, moisture and pollutants can accumulate in the indoor air, and create health and safety hazards for occupants. Alaska's high rates of respiratory illness, especially in rural areas, can be attributed to poor indoor air quality due to a lack of adequate ventilation in homes in buildings.

Severe winter temperatures, power outages, high energy costs, and lack of technical specialists in rural communities can all contribute to the loss or disabling of ventilation systems (especially mechanical ventilation systems such as HRVs and ERVs). When ventilation systems break or are intentionally disabled, indoor air quality suffers and can negatively affect occupant health. Occupant education is important to acceptance and proper use of ventilation equipment.

Unbalanced ventilation systems can create undesirable positive or negative indoor pressure conditions. Under positive pressure conditions, indoor air (which carries moisture) can be forced into floor, wall, and roof cavities, where it may condense and cause mold growth. Under negative pressure conditions, outdoor air can be forced inside via heating appliance exhaust flues, which can bring harmful pollutants and deadly carbon monoxide into the living environment. Indoor air quality and occupant safety can suffer as a result of either positive or negative pressure conditions.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

VENTILATION



BEST PRACTICES FOR...

HOUSING AUTHORITIES

- ✓ Require that a mechanical engineer with a license to practice in Alaska be contracted with during the design process to develop a stamped set of mechanical plans.
- ✓ Require that a specification writer be contracted with during the design process.
- ✓ Require that woodstoves chosen for design include a dedicated outdoor air duct (sometimes referred to as an outdoor air kit).
- ✓ Require a combustion safety test to ensure that the heating systems will operate safely.
- ✓ Require pass/fail testing of the systems at commissioning to help ensure that the systems are installed correctly during instruction.
- ✓ Consider ways to increase occupant awareness, education, and 'buy in' into the operation and maintenance of the mechanical systems.
- ✓ Advocate for the inclusion of a community-appropriate HRV/ERV-based ventilation system that is balanced with an appropriately sized passive make-up air system (to accommodate the bathroom exhaust fan, range hood, and dryer).
- ✓ Consider requiring that the home be designed to meet or exceed a 5-Star rating, as outlined by the AHFC Building Energy Efficiency Standard (BEES). This would include the commissioning of PUR-101 and PUR-102 inspections of the home.

DESIGNERS

- ✓ Work with a mechanical engineer and the community to design a mechanical ventilation system that is balanced with an appropriately sized passive make-up air system (to accommodate the bathroom exhaust fan, range hood, and dryer).
- ✓ Avoid designing ventilation system designs that are exhaust-only, or otherwise unbalanced.
- ✓ Work with a specification writer to ensure that woodstoves chosen include a dedicated outdoor air duct (sometimes referred to as an outdoor air kit).
- ✓ Design homes to meet or exceed a 5-Star rating, as outlined by the AHFC Building Energy Efficiency Standard (BEES).
- ✓ Follow relevant code provided by the Alaska Housing Finance Corporation (AHFC) New Construction Guidelines, the International Residential Code, and the International Building Code (IBC).

CONTRACTORS

- ✓ Work with a mechanical engineer during the construction process to ensure that systems are properly prepared for, installed correctly, and inspected.
- ✓ Pay close attention to air-sealing details in the mechanical room, kitchen, bathroom, or other areas of the home that contain an appliance with high volume air flow.
- ✓ Work with a ventilation installer to ensure that the chosen ventilation appliances are sized and balanced appropriately.
- ✓ Label all main components, including the fan, controls, and ducts.
- ✓ Provide building owner an operation and maintenance manual with a brief description of the system that explains the principles of operation, control strategy, and maintenance. This manual should include the installer's name and phone number, product literature for all components, ventilation system model and serial number, ventilation airflows, and the operation and maintenance schedule. If possible, show the occupants the location of each component and how to operate the system.
- ✓ Follow relevant code provided by the Alaska Housing Finance Corporation (AHFC) New Construction Guidelines, the International Residential Code, and the International Building Code (IBC).





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

BACK-DRAFTING



RELEVANCE TO ALASKAN CONSTRUCTION

Combustion/burning heating appliances of any type produce harmful byproducts during use. Under optimal conditions, these heating appliances will exhaust their combustion byproducts directly to the outdoors. If indoor air pressures are highly negative, however, the heating appliance may "back-draft". When back-drafting occurs, the dangerous combustion byproducts are pulled into the living environment.

HEALTH & SAFETY IMPACTS

Homes that are more air-tight can be at significant risk for back-drafting, especially those with mechanical forms of ventilation (bathroom exhaust fans, range hood fans, etc.). Under high negative pressure conditions, back-drafting can occur and introduce dangerous combustion byproducts such as carbon monoxide, PM2.5, and nitrogen dioxide into the living environment. These byproducts are harmful to human health, and can be fatal in extreme cases.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

BACK-DRAFTING



BEST PRACTICES FOR...

HOUSING AUTHORITIES

- ✓ Require that a mechanical engineer with a license to practice in Alaska be contracted with during the design process to develop a stamped set of mechanical plans.
- ✓ Require that a Combustion Safety Test be conducted prior to Certificate of Occupancy issuance. This test should specifically detect the presence of carbon monoxide (if any), spillage for combustion appliances, and the worst-case depressurization pressure.
- ✓ Require that sealed combustion appliances be specified where applicable and feasible.

DESIGNERS

- ✓ Work with a mechanical engineer and the community to design the heating system.
- ✓ Require that sealed combustion appliances be chosen for heating system design, and work with a specification writer to develop associated specifications.
- ✓ Ensure that a carbon monoxide and smoke detectors are included in the design and material specification list.

CONTRACTORS

- ✓ Work with a mechanical engineer and heating installer during the construction process to ensure that systems are properly prepared for, installed correctly, and inspected.
- ✓ Pay close attention to air-sealing details in the mechanical room, kitchen, bathroom, or other areas of the home that contain an appliance with high volume air flow.
- ✓ Work with a ventilation installer to ensure that the chosen ventilation appliances are sized and balanced appropriately.
- ✓ Label all main components, including the flues, controls, and delivery systems.
- ✓ Provide building owner an operation and maintenance manual with a brief description of the system that explains the principles of operation, control strategy, and maintenance. This manual should include the installer's name and phone number, product literature for all components, heating system model and serial number and the operation and maintenance schedule. If possible, show the occupants the location of each component and how to operate the system.
- ✓ Follow relevant code provided by the Alaska Housing Finance Corporation (AHFC) New Construction Guidelines, the International Residential Code, and the International Building Code (IBC).





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

CARBON MONOXIDE



RELEVANCE TO ALASKAN CONSTRUCTION

Carbon monoxide is a colorless, odorless gas that is hazardous to human health. Carbon monoxide is produced as a byproduct of combustion. Heating appliances, stoves, cars, and other engines all produce carbon monoxide during use.

HEALTH & SAFETY IMPACTS

Carbon monoxide can cause a range of health issues, and is fatal in high enough concentrations. In low and medium dose exposures, carbon monoxide can cause flu-like symptoms. Higher doses can result in a loss of consciousness or fatalities. Alaska ranks #2 in the nation for number of fatal carbon monoxide poisonings.

DRAFT





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

CARBON MONOXIDE



BEST PRACTICES FOR...

HOUSING AUTHORITIES

- ✔ Require that a mechanical engineer with a license to practice in Alaska be contracted with during the design process to develop a stamped set of mechanical plans.
- ✔ Require that a Combustion Safety Test be conducted prior to Certificate of Occupancy issuance. Require that sealed combustion heating appliances be specified.

DESIGNERS

- ✔ Work with a mechanical engineer and the community to design the heating system.
- ✔ Require that sealed combustion appliances be chosen for heating system design, and work with a specification writer to develop associated specifications.
- ✔ Ensure that a carbon monoxide detector is included in the design and material specification list.

CONTRACTORS

- ✔ Work with a mechanical engineer and heating installer during the construction process to ensure that systems are properly prepared for, installed correctly, and inspected.
- ✔ Pay close attention to air-sealing details throughout the home. Work with a ventilation installer to ensure that the chosen ventilation appliances are sized and balanced appropriately.
- ✔ Ensure that a smoke detector and CO monitor is installed in multiple locations in the house and has both grid and battery power.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

MOLD



RELEVANCE TO ALASKAN CONSTRUCTION

Mold is a type of fungi that grows and thrives on warm, moist surfaces. Some types of mold are harmless, while others can cause mild to severe health reactions. In homes with high humidity levels, or in areas where water leaks persist for long periods of time, mold can flourish.

HEALTH & SAFETY IMPACTS

Mold can be harmful to human health, especially to those with pre-existing respiratory issues. Infants and children, elders, immunocompromised people, and those with respiratory illnesses are all at increased risk of reacting to mold spores. In Alaska, mold is one of the most common culprits responsible for poor indoor air quality.

DRAFT





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

MOLD



BEST PRACTICES FOR...

HOUSING AUTHORITIES

- ✓ Require that a mechanical engineer with a license to practice in Alaska be contracted with during the design process to develop a stamped set of mechanical plans.
- ✓ In addition to an active mechanical ventilation system, advocate for the inclusion of a redundant passive ventilation system in the design.
- ✓ Require that a specification writer be contracted with during the design process. Request that mold-resistant materials be specified where applicable and feasible.
- ✓ At minimum, require that a blower door test be conducted post-construction to ensure that air leakage is reduced to a desired minimum rate (2.0 ACH or lower, for example).

DESIGNERS

- ✓ Work with a mechanical engineer to design the ventilation system.
- ✓ Preference mold-resistant materials, and work with a specification writer to develop associated specifications.
- ✓ Avoid specifying materials that foster mold growth (gypsum drywall, OSB, etc.).
- ✓ Rural Alaskan homes tend to have much higher occupancy than urban homes, so it is important to ensure that the ventilation system is designed to accommodate higher occupancy.

CONTRACTORS

- ✓ During construction, ensure that materials are stored properly to avoid water saturation.
- ✓ Pay close attention to air sealing details in the bathroom, kitchen, and other high moisture environments.
- ✓ Ensure homeowners are educated in how to operate the ventilation system.
- ✓ Work with a mechanical engineer and HVAC installer during the construction process to ensure that systems are properly prepared for, installed correctly, and inspected.
- ✓ If submitting a material substitution during procurement, ensure that substituted options offer equivalent or better mold-resistant properties.
- ✓ Work with a ventilation installer to ensure that the chosen ventilation appliances are sized and balanced appropriately.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

VOLATILE ORGANIC COMPOUNDS (VOCs)



RELEVANCE TO ALASKAN CONSTRUCTION

Volatile Organic Compounds (VOCs) are harmful chemicals that are produced from off-gassing of materials. VOCs are commonly found in paints, solvents, wood preservatives, aerosols, pesticides, household cleaners, furniture, and various building materials. VOCs are also produced as a byproduct of cooking.

HEALTH & SAFETY IMPACTS

Both acute and prolonged exposure to VOCs can cause a range of health effects, including minor irritations, temporary but severe reactions, or in extreme cases exposure can lead to organ failure, and cancer. The type and intensity of health impacts depend on the specific chemical and the duration of exposure.

DRAFT





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

VOLATILE ORGANIC COMPOUNDS (VOCs)



BEST PRACTICES FOR...

HOUSING AUTHORITIES

- ✓ Require that a specification writer be contracted with during the design process.
- ✓ Request that VOC-free materials be preferenced.
- ✓ Require a range hood that is ducted to the outside.

DESIGNERS

- ✓ Consult manufacturer data sheets, UL Greenguard, Living Building Challenge (LBC), Living Future Institute (LFI) Red List, etc. during the design process to ensure that desired materials do not include VOCs.
- ✓ Preference VOC-free materials in design, and work with a specification writer to develop associated specifications.

CONTRACTORS

- ✓ If submitting a material substitution request during procurement, ensure that substituted options do not contain VOCs.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

OVERCROWDING



RELEVANCE TO ALASKAN CONSTRUCTION

When the amount of people living in a home exceeds its design capacity, the home is considered to be "overcrowded". Overcrowding is especially common in rural Alaska, where housing is often in short supply. The amount of people living in a home influences indoor moisture production. Common moisture-producing activities include bathing/showering, dish washing, clothes washing, cooking, hand washing, and breathing. Carbon dioxide, a byproduct of breathing, also increases in overcrowded environments.

HEALTH & SAFETY IMPACTS

Increased moisture production in overcrowded environments can aggravate certain respiratory and physical conditions and lead to mold growth, which can negatively impact indoor air quality.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

OVERCROWDING



BEST PRACTICES FOR...

HOUSING AUTHORITIES

- ✓ Advocate for moderately oversized mechanical and plumbing systems in designs in order to accommodate higher occupant loads during the lifespan of the building.
- ✓ Require that a mechanical engineer with a license to practice in Alaska be contracted with during the design process to develop a stamped set of mechanical plans.
- ✓ Advocate for a plumber, with a license to practice in Alaska, to be consulted during the design and construction processes.
- ✓ Request formally that overcrowding be considered in the design of all MEP systems.

DESIGNERS

- ✓ Work with a mechanical engineer and plumber to design MEP systems that are sized appropriately to handle overcrowded conditions.
- ✓ Choose ventilation and plumbing appliances and fixtures that are extra durable in order to accommodate high intensity usage.
- ✓ Choose materials for the bathroom and kitchen that can withstand high humidity conditions and occasional bulk water intrusion.

CONTRACTORS

- ✓ Pay close attention to air sealing details in the bathroom, kitchen, and other high moisture environments.
- ✓ Work with a ventilation installer to ensure that the chosen ventilation appliances are sized and balanced appropriately for overcrowded conditions.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

WATER - SEWER SYSTEMS



RELEVANCE TO ALASKAN CONSTRUCTION

No Alaska community is the same when it comes to their water and wastewater infrastructure. Commonly available potable water options may include piped public utility water treatment plants, washeteria facilities, packaged imported water, hauled water from a treated public source, and hauled water from an untreated natural source. Available wastewater options may include, in order of most to least hazardous, piped community sewer systems, individual residential sewage treatment plants (STPs), individual residential septic systems and leech fields, Portable Alternative Sanitation Systems (PASS), flush-and-haul sewage tank systems, outhouses, and honeybuckets.

HEALTH & SAFETY IMPACTS

Better quality sanitation in homes leads to healthier occupants. Choosing water and wastewater options that are both high-quality and community-compatible is necessary. Some water/wastewater options are simply not viable in some communities, either logistically or economically.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

WATER - SEWER SYSTEMS



BEST PRACTICES FOR...

HOUSING AUTHORITIES

- ✔ Work with ANTHC and the community of the proposed site to provide designers and contractors with a list of both existing and preferred water/wastewater options. If one option is desired over the rest, advocate for its inclusion in the design, and submit relevant background information to designers.

DESIGNERS

- ✔ Work with members of the community and plumbing specialists to design the water/wastewater systems, and work to accommodate the option that optimizes for health, safety, and preference.
- ✔ Follow relevant code requirements outlined by the Alaska Housing Finance Corporation (AHFC) New Construction Guidelines, the International Residential Code, and the International Building Code (IBC).

CONTRACTORS

- ✔ Use flexible connections when connecting interior to exterior water and wastewater lines to avoid any potential damage due to differential settling of the structure. Work with plumbing specialists to ensure that water and wastewater systems are properly prepared for and installed correctly.
- ✔ Follow relevant code requirements outlined by the Alaska Housing Finance Corporation (AHFC) New Construction Guidelines, the International Residential Code, and the International Building Code (IBC).





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

HONEYBUCKETS



RELEVANCE TO ALASKAN CONSTRUCTION

A honeybucket is a common toilet substitute in rural locations without access to public water utilities or other forms of running water. Honeybuckets usually consists of a toilet seat situated on top of a 5-gallon bucket, and may or may not be lined with a plastic bag for collecting human waste. Honeybuckets are used to collect solid and liquid human waste.

HEALTH & SAFETY IMPACTS

Over 3,300 homes in rural Alaska lack access to running water, and instead rely on honeybuckets. To mask the smell produced by honeybuckets, it is common for occupants to pour bleach or PineSol into the honeybucket intermittently. The introduction or mixing of smell-covering chemicals can produce noxious gases (chlorine gas), and introduce harmful chemicals such as toluene into the indoor air. Emptying honeybuckets into local sewage lagoons or dump sites can be considered a biologically hazardous activity to the transferer. Sewage-related diseases, such as Hepatitis A, bronchitis, and viral meningitis, are spread through contact with fecal matter.





HEALTH & SAFETY CONSIDERATIONS IN NEW CONSTRUCTION

HONEYBUCKETS



BEST PRACTICES FOR...

HOUSING AUTHORITIES

- ✓ If honeybucket usage is predominant in a community, and other forms of sewer systems do not seem feasible for new construction, consider advocating for the implementation of PASS systems.
- ✓ Work with ANTHC to collect and submit relevant PASS system information to designers.
- ✓ If PASS systems are to be included, require that ANTHC be consulted during design and construction for quality assurance.

DESIGNERS

- ✓ Work with ANTHC to incorporate PASS systems into new home designs.
- ✓ Make sure your mechanical engineer is aware of the exhaust fan that is used in the PASS system.

CONTRACTORS

- ✓ If PASS systems are to be included, work with ANTHC during construction to ensure that the PASS system is properly prepared for and installed correctly.

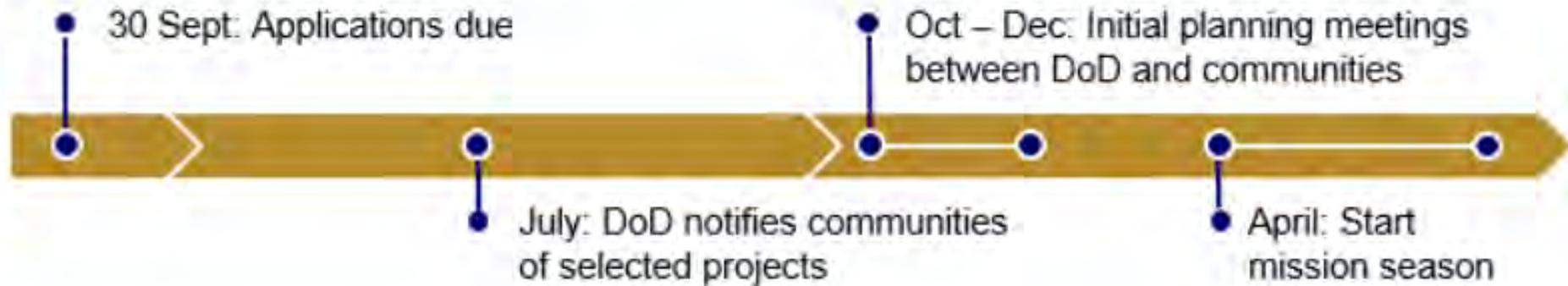




INNOVATIVE READINESS TRAINING

BENEFITING DOD & AMERICAN COMMUNITIES

24-Month Community Timeline



irt.defense.gov



INNOVATIVE READINESS TRAINING BENEFITING DOD & AMERICAN COMMUNITIES

Alaska Air Guardsmen build homes for Cherokee veterans

Alaska Air National Guardsmen with the 176th Civil Engineer Squadron stand alongside Brig. Gen. Anthony Stratton, 176th Wing commander, as they near the end of their participation in the Cherokee Veterans Housing Initiative in Tahlequah, Okla., May 27, 2021. The initiative is a collaboration between the Defense Department's Innovative Readiness Training program and the Cherokee Nation to build new single-family homes and supporting infrastructure for eligible Cherokee Nation veterans and their families. (U.S. Air National Guard photo)





INNOVATIVE READINESS TRAINING

BENEFITING DOD & AMERICAN COMMUNITIES

Arctic Care 2021

Kodiak Area Native Association > Arctic Care 2021





INNOVATIVE READINESS TRAINING

BENEFITING DOD & AMERICAN COMMUNITIES



IRT Old Harbor, Alaska

August 16, 2018 · 🌐



Marine Aircraft Group 41

August 9, 2018 · 🌐

After six years of hard work by sailors, soldiers, airmen and National Guard led by Marines the runway extension in Old Harbor, Alaska, was completed.

Col Moses, LtCol Barborka, Sgt Lin and Cpl Abbenhaus completed the first mission on this new runway. They delivered a CODEL to cut the ribbon on the transfer to Alaska Transportation office who will maintain it. 2600 Marines participated and the change made for both the village and the Marines will never be forgotten.

YKHC 2021 Community Summaries

	Program/Agency	Representative	Status as of JULY 2021
Akiachak	ANTHC Project Engineer	Charissa Williar	Piped water and sewer project to provide first service to 100 east side homes is underway; schedule is to connect ~40 homes this fall and connect the remaining 60 homes in 2022. Crew will also rehab two west side lift stations and connect 9 west side homes to piped water and sewer (after east side is complete). Will likely need funding to address leaks in WTP and issues at the wastewater lagoon/honeybucket cell.
	ANTHC Energy/TUS/ARUC		Will begin operator/homeowner training this fall for the new service connections. Lift station and WTP training to follow.
	DEC-DW-Compliance	Doug Zellmer	PWSID 272747 - Overdue for a sanitary survey (due in 2020). A targeted faucet replacement project was completed May of 2021 to address lead and copper exceedance issues. A set of 20 samples were collected after the replacement project, and the 90th percentile was below the Pb/Cu action levels. Another set of 20 samples needs to be collected between July and December 2021, and if those samples are satisfactory, the system can reduce to annual Pb/Cu monitoring. We have not yet received an SOC Waiver Renewal application which is due by 9/30/21, but we were advised on 9/14/21 that the application is being submitted with payment. An annual
	DEC-DW-Engineering	T.W. Brannan	
	DEC - SW	Melinna Faw	SW3A104-22, expires 04/06/2022; Inspection 2016 - 69% ISSUES: access (fencing purchased but had not yet been installed? Signs recently purchased through RCAC project
	DEC - WW - Compliance		
	DEC - WW - ESPR		
	DEC - DOW - WDAP		
	Operator Certification	Dan DeSloover	WT2, WWTSP Henry Pasitnak (primary): WT1 (12/31/23) and WWSP (12/31/24). Needs to retake WT2 exam. Matthew Wassilie: no certifications.
	RUBA	Michael White	Working on resolving an audit requested by insurance company to restore workers comp coverage. Score can be increased with Workers Comp, reporting sufficient income to cover water plant costs, and participation in Utility Management Trainings.
	RMW	Shane McIntyre 48, PM-15	BP- The water distribution loops inside the water plant need to be repiped in PVC pipe to stop the velocity flow corrosion they are having.
	OEH	Michael Vicente	
Notes:			

Akiak

ANTHC Project Engineer	Brent Hove	6 Existing Homes Sewer and Water: CE2 is under contract to manage the construction for connecting 6 homes to sewer and water. The current schedule has the 6 homes being connected this year with final hydroseeding being completed in summer of 2022. Service Lines for 2 Homes Sewer and Water: We had leftover funding from a previous project and the community used the funds to purchase materials for connecting several homes that were relocated due to erosion. SDS 6 Homes Relocated due to Erosion: We have a project in SDS for connecting 6 homes that were relocated due to erosion that is tier 1, priority 16 and likely to be funded. Akiak placed an RFP out in spring of 2021 for managed retreat planning, design and construction. Joel Neimeyer is serving as consultant. CE2, CRW and LCG are under contract to provide IDIQ services for the managed retreat project.
ANTHC Energy/TUS/ARUC		
DEC-DW-Compliance	Leslie Morrison	Nitrate needed in 2021 (not overdue)
DEC-DW-Engineering -	T.W. Brannan	
DEC - SW	Melinna Faw	SW3A179-22; 6/19/2022. Inspection 8/18/2016; 78%. Still working on erosion/hazard mitigation. Planning to close existing landfill, construct new landfill and build new road.
DEC – WW – Compliance		
DEC - WW - ESPR		
DEC - DOW - WDAP		
Operator Certification	Dan DeSloover	WT2 Nelson Owen (primary): WT1 (12/31/24) and WDP (12/31/24). Last took WT2 exam on 1/24/2020, needs to retest. Calvin Charles (backup): WDP (12/31/23) and Small Treated (12/31/21). Will need CEUs for WDP. Passed WTP exam on 11/8/2019, needs to apply for certification and take WT2 exam.
RUBA	Michael White	Providing a budget for the current fiscal period will increase score.
RMW	Bob White 58, PM-25	BP- The village complete hook ups for houses that were moved do to errossion they reconected them to water and sewer including a sewer main extension. The main need in this village is to continue to move infrastructure as the river encroaches on the village.
OEH	Michael Vicente	
Notes:		

Alakanuk

VSW Project Engineer	Susan Randlett	They have an Indian Health Service landfill grant that Solid Waste requested. They received The community has a new Tok burn unit, and a new dozer funded by Indian Health Service. A replacement section of fence at the entry way will be ordered and installed the winter. The Denali Commission study ranked Alakanuk #6 ad a village with high for vulnerability to erosion and flooding. If anyone has observations or photos on climate change I'd like to know. \$10M for "ALAKANUK - Service for Homes Across River" ● Greatly desired; will need adequate best practice. It's 45 points now ● \$800K for "ALAKANUK - Surface Water Intake" – This grant could not have been requested without the support of YKHC (Billy and Bob) who assisted with describing the freezing problems. If anyone finds information to support Upgrade Junction Boxes or a Honeybucket Disposal Site yet.
ANTHC Energy/TUS/ARUC		
DEC-DW-Compliance	Kalah Statz	270362 (C, SW): on ETT. No complete Monthly Operator Reports (MORs) submitted so far in '21. Two entry point chlorine residual measurements above 0.2 ppm required per day (40/mo). One turbidity measurement below 0.3 NTU required every four hours while filtering. One unresolved sanitary defect from 2/21 - will be resolved with complete, on-time MOR submittal. Four unresolved corrective actions required from 2019 Sanitary Survey (SS). Overdue TTHM OEL (Operational Evaluation Level) Report (2015). SS due by the end of '21.
DEC-DW-Engineering	T.W. Brannan	
DEC - SW	Stephen Price	Permit SW3A164-25, expires 7/23/2025. Inspected 7/20/21 (46%) Minimal site control. Limited heavy equipment. Discuss any project disposal plans with the Solid Waste Program before beginning work.
DEC – WW – Compliance		
DEC - WW - ESPR		
DEC - DOW - WDAP		
Operator Certification	Dan DeSloover	WT 2, WD 2, WWT Lagoon, WWC 1 Cyprian Augline (primary): Small Treated (12/31/21). Needs 1.0 by 12/31/2021 to renew. Has failed WT 1, WT 2, WD 1, WD 2 exams several times. Last time WT 1/WD 1 - 5/23/14. Sent WTP and WDP exams to Alakanuk in 2018, but he didn't take them. Needs to take WT 1/2, WD 1/2, WWSP, WWC 1 exams. Jacob Lee (backup): no certifications, no exam attempts.
RUBA	Fred Broerman	The city needs to improve on its financial reporting and documenting revenues and expenses for their water and sewer utility. Had a small balance due on 2020 payroll taxes this round of scoring.
RMW	Billy Westlock 45_PM-15	BP.
OEH	Jenny Pak	
Notes:		

Aniak	VSW Project Engineer	Katie Winter	No active VSW projects in Aniak at this time.
	ANTHC Energy/TUS/ARUC		
	DEC-DW-Compliance	Leslie Morrison	N/A -- No PWS
	DEC-DW-Engineering	Brannan / Pletnikoff	
	DEC - SW	Sarah Durand	
	DEC – WW – Compliance		
	DEC - WW - ESPR		
	DEC - DOW - WDAP		
	Operator Certification	Dan DeSloover	WWC 1, WWT Lagoon Greg Hager (primary): WWC1 (12/31/2021), WWTSP (12/31/23). Needs 0.45 more CEU before 12/31/2021. Charles Lang (primary): No certs. Failed WWC 1 exam 4/19/2019. Needs to retest
	RUBA	Fred Broerman	The city had some minor tax problems this scoring period. IRS thinks the city still gaming, and the city has not held a gaming event for several years. The city is working with the IRS to close out gaming tax filing requirements. However it has been a been an uphill battle communicating with the IRS. The city is very well squared away otherwise consistently having high Best Practices score and has a significant R&R fund. I visited the community May 3-6, 2021
	RMW	Bruce Werba 100, PM-25	BP- Lagoon cell transfer Valve is stuck and can't be moved but lagoon working well. Concerned with the power situation when they bring the new school on on the south side of airport it will hurt the current bad situation with the limited power available south of the airport.
OEH	Christine Richman		
Notes:			

Anvik

VSW Project Engineer	Katie Winter	VSW has funds waiting on community signature to drill a new community well near the washeteria and properly protect it from freezing. City has worked to insulate current well on their own. The scope of this grant includes finding a better water source (less difficult to treat). Need to connect with the community so that VSW can proceed with project with City's approval.
ANTHC Energy/TUS/ARUC	Chris Cronick	Upgraded heat recovery system in Anvik to be operational later this winter. AVEC is replacing a generator and will commission this fall. Operator training to follow.
DEC-DW-Compliance	Leslie Morrison	PWSID 280171. This system is on the ETT List. System is overdue for monthly total coliform testing (last sample 10/2020), lead and copper (2 x 6M sets needed, as well as sampling plan), annual nitrate (last sample 2017), old and new inorganics (last sample 2010). Due for a Sanitary Survey in 2021. Needs corrective action from previous Sanitary Survey. Needs to apply for 2020-2022 SOC Waiver.
DEC-DW-Engineering	T.W. Brannan	
DEC - SW	Sarah Durand	
DEC – WW – Compliance		
DEC - WW - ESPR		
DEC - DOW - WDAP		
Operator Certification	Dan DeSloover	Small Treated Clifford Jurue (primary): ST (12/31/21), has CEUs, just needs to pay renewal fee by 12/31/2021. <u>System needs backup operator</u>
RUBA	Michael White	A majority of the documentation requested for best practices was not recieved. The utility had one instance of non-compliance for payroll liability within the evaluation period.
RMW	Bruce Werba BP-35.PM-15	The system is old but the operators have kept up on running it but it is over do to be replaced.
OEH	Michael Vicente	
Notes:		

Atmautluak

ANTHC Project Engineer	Corbyn Jahn	SDS - CPS, Burn Unit/Collection Trailer, Sewage Lagoon, Solid Waste Engineering Designs - Washeteria Renovation Construction - None PER's - Sewage Lagoon (Complete Spring 2022) Community notes - New school slated to open in 2022, wastewater treatment plant from old school abandoned.
ANTHC Energy/TUS/ARUC	Chris Cronick	IPF project for replacing pressure tanks- working with DEC and RMW to design system. RMW will install this fall.
DEC-DW-Compliance	Doug Zellmer	PWSID 271033 - ETT List for GWR and CCR. A sanitary survey is overdue (due in 2020). There have been multiple lead and copper exceedances and corrosion control steps have been required. Corrosion control is currently on-hold due to the upcoming completion of construction of the new LKSD school. The new school will be a consecutive connection, with its own corrosion control system, which will change the monitoring requirements and expected monitoring outcomes for the community water system. Lead and copper samples are currently due. There are multiple open sanitary survey corrections that we do not have a record of having been addressed yet (watering point backflow prevention, a treatment plant cross-connection issue, and a community sewer line separation distance issue. A 2020 CCR was received from YKHC personnel, but we have not received a signed 2020 CCR Certification form yet.
DEC-DW-Engineering - T.W.	Brannan	
DEC - SW	Melinna Faw	SW3A201-24; 3/27/2024. Inspection 5/21/2019; 41%. Need burn units, no existing/functional units. Issues with water, lack of cover, litter
DEC – WW – Compliance		
DEC - WW - ESPR		
DEC - DOW - WDAP		
Operator Certification	Dan DeSloover	WT1 John Mojin (primary): No certifications. Needs to take exams. Henry Alexie (backup): No certifications. Needs to take exams.
RUBA	Eli Jacobson	The tribe did not provide requested Best Practice information and online information did not support awarding any points. Management/financial total score 0 points.
RMW	Shane McIntyre BP-20_PM-15	The new dryers the village installed have inadequate ducting and are competing for airflow, they should be reduced properly. We are still waiting on IPF grant parts to replace the water pressure tank system.
OEH	Christine Richman	
Notes:		

Chefornak	VSW Project Engineer	Corey Swisher	Wastewater lagoon project ran into permitting issues so we are still looking for a path forward on that project. Working on a more permanent lift station for the washateria. A grant for closing the honeybucket lagoon and building a new one is out for signatures in the community. Also, working on improving/replacing the water junction boxes. There is a Tier 1 project in SDS for fencing and signs around the landfill
	ANTHC Energy/TUS/ARUC	Chris Cronick	Will complete watering point upgrades October 2021.
	DEC-DW-Compliance	Leslie Morrison	PWSID 270338. This system is overdue for a Sanitary Survey. System is overdue for nitrate testing (last test 2019). Did not turn in CCR Certification Form in 2018, 2020 or 2021. System needs to apply for 2020-2022 SOC Waiver. 5 lead and copper samples are due this year.
	DEC-DW-Engineering	T.W. Brannan	
	DEC - SW	Melinna Faw	SW3A075-25; 3/11/2025. Inspection; 9/17/2018; 67%. No burn unit, recommend #10 Summit style, have equipment. Need fencing and signs.
	DEC - WW - Compliance		
	DEC - WW - ESPR		
	DEC - DOW - WDAP		
	Operator Certification	Dan DeSloover	Small Untreated Kasey Panruk (primary): ST (12/31/23). Robert Jimmy (backup): ST (12/31/23). Byron Lincoln (backup): no certifications
	RUBA	Michael White	Chefornak has two EIN's for which they are responsible, with one specifically targetting the Water/Sewer utility having Payroll and ESC noncompliances. Other possible actions that would benefit the community include balancing their budget and balancing their actual income and expenses
	RMW	Allan Paukan BP- 50, PM-15	Pressure pump 1 B has a tripping issue. Water system is susceptible to freezing do to small size of storage system.
	OEH	Jenny Pak	
	Notes:		

Chevak

ANTHC Project Engineer	Cody Uhlig	ANTHC completed a heat recovery project and service line project in Chevak in this fiscal year. We continued a vacuum valve replacement project, but naturally this project requires entry to homes and many homeowners are still not comfortable with that, so project has been slowly moving forward. A PER for the sewage lagoon and a project to replace the backup generator in the vac plant kicked off this summer and are moving forward.
ANTHC Energy/TUS/ARUC	Brian Menghini	
DEC-DW-Compliance	Doug Zellmer	PWSID 270320 - Sanitary Survey overdue (due in 2020). TTHM/HAA5 due 3rd qtr 2021 (by 9/30/21). Nitrate due by 12/31/21.
DEC-DW-Engineering - T.W.	T.W. Brannan	
DEC - SW	Stephen Price	Permit SW3A139-25 expires 02/24/2025. Inspected 6/23/2021 (49%) Minimal site control. US Ecology currently onsite cleaning up the debris from the old school fire. Discuss any project disposal plans with the Solid Waste Program before beginning work.
DEC - WW - Compliance		
DEC - WW - ESPR		
DEC - DOW - WDAP		
Operator Certification	Dan DeSloover	WT 1, WD 2, WWT Lagoon, WWC 1 John Atchak (primary): WT 1 (12/31/23), WWSP, WWC 1, WD 2 (12/31/22). Will need CEUs to renew next year. Patrick Patrick (backup): WT 1 (12/31/23), WWSP (12/31/22). Needs to retake WD and WWC exams. Andrew Cholak (backup): ST (12/31/22). Will need CEUs to renew next year. Needs to retake WD P, WWC P exams.
RUBA	Fred Broerman	The city continues to have significant problems with federal taxes. Meeting minutes or city financials have not been provided for several years.
RMW	Allan Paukan BP-70, PM-15	The water plant main electrical disconnect lug has had issues due to corrosion replacements are ordered but have not arrived yet. Vacuum sewage tank drains very slowly possibly do to partially closed force main.
OEH	Christine Richman	
Notes:		

Chuathbaluk

VSW Project Engineer	Oscar Menendez	One project to purchase and install a gate and fencing on those sides of the landfill that are not already fenced.
ANTHC Energy/TUS/ARUC		
DEC-DW-Compliance	Leslie Morrison	PWSID 272012. This system is due for a Sanitary Survey in 2021. An open corrective action from a previous Sanitary Survey requires that the system consult DEC Engineering regarding a new chlorine injection point on loop 2. Lead and copper sampling is overdue, along with DBPs. 2020-2022 SOC Waiver is currently under review.
DEC-DW-Engineering	T.W. Brannan	
DEC - SW	Sarah Durand	
DEC – WW – Compliance		
DEC - WW - ESPR		
DEC - DOW - WDAP		
Operator Certification	Dan DeSloover	Small Treated William Nesbit (primary): ST (12/31/22), has CEUs to renew next year. He had WDP, WWTP, and WWCP certifications that expired in 2020 but they were not necessary for compliance. Robert Galley (primary): ST (12/31/23)
RUBA	Michael White	Chuathbaluk failed to submit much of the documentation necessitated for Best Practices. Tensions within the city council have lead to at least one resignation between the staff and the council with a couple others having been brought up in discussion with the community.
RMW	Bruce Werba BP- 45. PM-15	Great running plant because of the quality of the water but City politics have created more problems in the last year.
OEH	Jenny Pak	
Notes:		

**Crooked
Creek**

ANTHC Project Engineer	Corbyn Jahn	SDS - Washeteria Construction Designs - Washeteria Renovation Construction - 36 Home well and septic, Landfill fencing PER's - None at this time
ANTHC Energy/TUS/ARUC	Brian Menghini	
DEC-DW-Compliance	Doug Zellmer	PWSID 280302 - ETT list for GWR, RTCR, DBP's, and CCR. A Sanitary Survey is due this year and YKHC personnel have requested survey files for completion of the survey. Total coliform monitoring very overdue, with the last sample being 2/27/20. TTHM/HAA5 samples due by 9/30/21. Lead and copper and Nitrate samples due by 12/31/21. An SOC Waiver Renewal application is due by 9/30/21. Corrosion control steps are overdue. Multiple sanitary survey corrective actions are overdue. A 2020 CCR was received from YKHC personnel, but the DEC has not received a signed 2020 CCR certification form. Water operator Tyler Pepperling has expressed interest in training.
DEC-DW-Engineering	T.W. Brannan	
DEC - SW	Sarah Durand	
DEC - WW - Compliance		
DEC - WW - ESPR		
DEC - DOW - WDAP		
Operator Certification	Dan DeSloover	WT 1 Albert Willis (primary): No certifications. Needs to retake WT 1 exam. Dominick Zacar (backup): No certs. Needs to take WT 1 exam. George Sakar (backup): No certs. Needs to take WT 1 exam.
RUBA	Michael White	Crooked Creek submitted no documentation for the July 2021 best practices. Kuksokwim Corporation has expressed interest in initiating a development project (Water Hauling) in the community.
RMW	Bruce Werba 30. PM-15	BP- Operator turn over has caused problems with the plant maintenance and compliance. Phone service hampers help from off site.
OEH	Michael Vicente	
Notes:		

Eek	ANTHC Project Engineer	Ryan Beckett	WTP foundation repair AN 19-U15 PER complete and approved by SOA. New WST project entered into SDS and is a tier 2 project.
	ANTHC Energy/TUS/ARUC	Chris Cronick	Operator training completed spring 2021 for E-one maintenance and boiler operation.
	DEC-DW-Compliance	Leslie Morrison	PWSID 270281. This system is on the ETT List but has made recent progress. Sanitary Survey is overdue, along with lead and copper testing (2 x 6M sets needed) and nitrate. Corrective action required from the most recent Sanitary Survey.
	DEC-DW-Engineering	T.W. Brannan	
	DEC - SW	Melinna Faw	SW3A105-24; 4/29/2024. Inspection 9/26/2016; 82%. Need additional signage. Some water/drainage issues. Limited cover.
	DEC – WW – Compliance		
	DEC - WW - ESPR		
	DEC - DOW - WDAP		
	Operator Certification	Dan DeSloover	WT 2 Adolph Carter (primary): WT1, WDP (12/31/22). Will need CEUs to renew next year. Needs to retake WT 2 exam. John Wharton (backup): No certs. Needs to take WT 1 exam
	RUBA	Eli Jacobson	Meetings- The city provided a copy of its Meeting minutes for December 2020 through April 2021. Water Operator reports were in four of them- 5 points, Budget- An adopted FY21 budget was provided, but financial reports were not provided- 10 points, The city has a current Workers Compensation Policy as of 6/30/21 according to the DOLWD website, and has had coverage the last two years according to email from AM/UA- 5 points. Management/Financial total score 20 points
	RMW	Bob White 38, PM-15	BP- Things are stable at the water plant after some issues with the new boilers and waste heat, that seems to be operating well now. The main concern is the foundation at the water plant. The village uses a high amount of water to keep the eone units from freezing in the winter but the plant can still provide a sufficient amount of Water
OEH	Christine Richman		
Notes:			
Emmonak	VSW Project Engineer	Aaron Wheatall	5 AVCP homes project: Superintendent recently hired, construction will begin soon once he arrives in Emmonak. 5 homes and main extension project: RFP for design being drafted and will be put out to bid soon. New Water Treatment plant: RFP for design being drafted. New water intake project: Project is on hold. SDS projects: new water storage tank project
	ANTHC Energy/TUS/ARUC		
	DEC-DW-Compliance	Leslie Morrison	PWSID 270299. This system is on the ETT list. TTHM LRAA is over the MCL of 80 ug/L and the system continues to have issues with high TTHM levels. Certification of Public Notice related to the TTHM exceedance in 3rd and 4th quarter 2020 is overdue. CCR Certification Page from 2020 is overdue. VOCs and lead and copper samples are due in 2021. A Sanitary Survey is due in 2021.
	DEC-DW-Engineering -	T.W. Brannan	
	DEC - SW	Stephen Price	Permit SW3A097-23 expires 3/12/2023. No updates. Review YKHC 2020 description for more information. Discuss any project disposal plans with the Solid Waste Program before beginning work.
	DEC – WW – Compliance		
	DEC - WW - ESPR		
	DEC - DOW - WDAP		
	Operator Certification	Dan DeSloover	WT 2, WD 2, WWT Lagoon, WWC 1 Jamie Agwiak (primary): ST (12/31/21). Has CEUs to renew and needs to pay renewal fee by 12/31/2021. Has failed WT 1, WD 1, WWC 1 exams several times, most recently 11/8/2019. Needs to retake WWSP, WT1, WD1, WWC1 exams. Emmanuel Mike (backup): No certs. Failed WTP, WDP exams on 3/9/18. Needs to retake WTP, WDP exams and take WWSP and WWC exams. Fred Hootch (backup): no certifications. Archie Andrews (backup): no certifications.
	RUBA	Fred Broerman	Best Practices minutes and budget categories significantly improved this scoring period, going from 0 to 5 points. However cash basis financials show the utility operating at a loss from July 2020 to April 2021 which brought down their revenue score. Several gaming related 2020 tax reports not filed giving them a zero (0) for tax compliance
	RMW	Billy Westlock 53, PM-15	BP- Older test equipment Turbidity and SCD are needing upgraded as maintenance is becoming harder to get. Vacuum sewer pump 2 VFD needs replacement.
OEH	Christine Richman		
Notes:			

Goodnews Bay	ANTHC Project Engineer	Kalen Ramey	
	ANTHC Energy/TUS/ARUC		
	DEC-DW-Compliance	Doug Zellmer	PWSID 270257 - Nitrate, VOC, and Lead and Copper samples due by 12/31/21. TTHM/HAA5 samples were due for August 2021, but results have not yet been received.
	DEC-DW-Engineering	T.W. Brannan	
	DEC - SW	Melinna Faw	SW3A156-21; 12/22/2021. Inspection 5/22/2019; 53%. Need fencing for access control, signage and additional Tok style burn unit for size of community and amount of waste generated.
	DEC - WW - Compliance		
	DEC - WW - ESPR		
	DEC - DOW - WDAP		
	Operator Certification	Dan DeSloover	WT 2 Larry Small (primary): WT 1 (12/31/22). Will need CEUs to renew next year. Failed WT 2 exam three times (last time 8/14/18) Needs to retake WT 2 exam. Lester Gailila (backup): ST (12/31/23). Needs to take WT 1 exam. Homer Gailila (backup): No cert. Needs to take WT 1 exam.
	RUBA	Melody Nibeck	Intermittent response when request documents for Best Practices scoring, and working hard to correct workers' compensation and payroll liability issues but taking time due to staff turn over. They are attending RUBA training opportunities.
	RMW	Bob White 70, PM-25	BP- Great operators that are very capable of meeting all the requirements of the system. Goodnews Bay could use a scattered site project to hook up some houses that were previously unable to hook up because of condition but have since had improvements done.
	OEH		
Notes:			

Grayling

ANTHC Project Engineer	Ryan Beckett	Significant progress was made on the WTP upgrade project in the past fiscal year. Project scheduled to be substantially complete later this fall. The lift station project is scheduled for completion next Spring/Early Summer. Four (4) tier 1 projects are in SDS. WTP Backup generator, SW Burn Unit, Loop 2 Water Distribution Replacement, and Loop 2 Circulation Pump and Controls.
ANTHC Energy/TUS/ARUC	Chris Cronick	Sanitary survey not completed as system is operating off temporary system. Recommend waiting until new system is operational. Heat recovery system will be complete by end of this year. TUS to complete training Winter 2022.
DEC-DW-Compliance	Kalah Statz	280066 (C, SW): on ETT. On long-term BWN (2010). System does not consistently submit complete, on-time MORs. One entry point chlorine residual measurement above 0.3 ppm required per day (20/mo). One turbidity measurement below 0.3 NTU required per day (20/mo). The following samples are overdue: total coliform (required monthly), HAA5 (required annually, in August), TTHM (required annually, in July), Lead & Copper (10 samples required biannually), and E. coli (LT2) (required monthly). Sampling for Arsenic, Nitrate, and VOC (all required annually) due by the end of '21. Two sanitary defects from 8/21 and six deficiencies from 2010 SS - may have been resolved by recent upgrades. If so, photo documentation required. Overdue for SS (due in 2019).
DEC-DW-Engineering	T.W. Brannan	
DEC - SW	Sarah Durand	
DEC – WW – Compliance		
DEC - WW - ESPR		
DEC - DOW - WDAP		
Operator Certification	Dan DeSloover	Small Treated (upgraded plant will be WT1) Brandon Sanbei (primary): ST (12/31/21). Has CEUs to renew, needs to pay renewal fee by 12/31/2021. Paul Howard (primary): No certs. Needs to take ST exam. Joshua Koyukuk (backup): WT P (12/31/21). Needs 3.0 CEUs by 12/31/2021. Should apply to upgrade to WT1 if eligible. Ryan Painter (backup): No cert. Failed ST exam 4/20/17. Needs to retake ST exam. Kyle Anthony (backup): No cert. Failed ST exam 4/16/14. Needs to retake ST exam.
RUBA	Michael White	Grayling failed to submit the requested documents for best practices. The budget provided was not balanced. Community was compliant with Worker's Comp and Tax requirements.
RMW	Bruce Werba BP-40, PM-15	The village has been doing a much better job at operating the plant and doing maintenance on the system. What is the current status of the waste heat and water treatment upgrade? The village has purchased new boilers for the water treatment plant as well.
OEH	Christine Richman	
Notes:		

Holy Cross

ANTHC Project Engineer	Ryan Beckett	There are two Tier 1 projects in SDS. A new WTP backup generator and a SW improvement project. ANTHC is currently pursuing a DEC waiver for their primary well which is in violation. If the waiver is denied, a new well project will be pursued.
ANTHC Energy/TUS/ARUC		
DEC-DW-Compliance	Leslie Morrison	PWSID 280074. This system is in compliance. Working with ANTHC to pursue a separation distance waiver for a community sewer line located less than 150 feet from the well head.
DEC-DW-Engineering	T.W. Brannan	
DEC - SW	Sarah Durand	
DEC – WW – Compliance		
DEC - WW - ESPR		
DEC - DOW - WDAP		
Operator Certification	Dan DeSloover	Small Treated David Walker (primary): ST (12/31/23). Bernard Edwards (primary): ST (12/31/22). Will need CEUs to renew next year.
RUBA	Fred Broerman	Did not file a 2020 payroll tax report on time. Only three months of meeting minutes provided, thereby lowering their minutes and budget score for this period. An ARUC managed utility.
RMW	Bruce Werba BP-82, PM-15	Water storage tank level indicator is still not working. North lift station needs to be rebuilt this will take a project is anything in the works yet for this?
OEH	Christine Richman	
Notes:		

Hooper Bay

VSW Project Engineer	Corey Swisher	New wastewater lagoon and forcemain project is at the 65% design phase. Will be starting design for first time water and sewer service to the old town. There is a Tier 1 project in SDS for a new burn cage at the landfill.
ANTHC Energy/TUS/ARUC	Chris Cronick	Energy upgrades completed in WTP this summer. Heat recovery system troubleshooting trip completed Aug 2021.
DEC-DW-Compliance	Doug Zellmer	PWSID 270312 - Lead/copper and Nitrate samples are due by 12/31/21. TTHM/HAA5 samples are due in the 4th qtr of 2021. Multiple sanitary survey corrective actions are overdue. A 2020 CCR has been received from YKHC personnel, but the DEC has not yet received a signed 2020 CCR certification form yet, which is due by 9/30/21.
DEC-DW-Engineering	T.W. Brannan	
DEC - SW	Stephen Price	SW3A174-26 expires 03/24/2026. No updates. Review YKHC 2020 description for more information. Discuss any project disposal plans with the Solid Waste Program before beginning work.
DEC – WW – Compliance		
DEC - WW - ESPR		
DEC - DOW - WDAP		
Operator Certification	Dan DeSloover	WT 2, WD 2, WWT Lagoon, WWC 1 Patrick Condello (primary): WD2 (12/31/22). Will need CEUs to renew next year. WT2, WWTSP, WWC1 (12/31/23). Aloysius Olson (backup): No certs. Needs to take WT, WD, WWSP, WWC exams. Dennis Hoster (backup): No certs. Needs to take WT, WD, WWSP, WWC exams.
RUBA	Fred Broerman	Gaming related tax forms not submitted to IRS in 2020 and 2021. Only two points for Workers Compensation, but that should be changing to (5) next scoring period. Otherwise they have good scores for the RUBA scored Managerial and Financial categories. Last visited the community April 19-22, 2021.
RMW	Allan Paukan BP- 62, PM-15	Sewage lagoon south wall has eroded again the community is sandbagging it again for the third time this year. Well pumps 2 & 3 are delivering worse water than normal will need to be pulled and inspected.
OEH	Christine Richman	
Notes:		

**Kalskag
(Upper)**

VSW Project Engineer	Aaron Wheatall	Drinking water wells improvements project in SDS
ANTHC Energy/TUS/ARUC		
DEC-DW-Compliance	Leslie Morrison	
DEC-DW-Engineering	T.W. Brannan	
DEC - SW	Sarah Durand	
DEC – WW – Compliance		
DEC - WW - ESPR		
DEC - DOW - WDAP		
Operator Certification	Dan DeSloover	No certified operator required.
RUBA	Michael White	Consistently reporting the review of financial reports and water operator reports will increase scores considerably. There are back taxes owed.
RMW	Bruce Werba BP-77, PM-15	Lagoon pump installed by ANTHC had problems and was leaking, did this get resolved by the project. I believe this was done through ARUC.
OEH	Christine Richman	
Notes:		

Kasigluk	ANTHC Project Engineer	Ryan Beckett	There are three Tier 3 projects in SDS. The highest priority one is a new solid waste site that needs a PER.
	ANTHC Energy/TUS/ARUC	Chris Cronick	Sanitary survey and energy audit completed spring 2021. Energy upgrades will be completed fall 2021. Flex connections on 6 homes will not be completed this fall due to material delays and freezing ground.
	DEC-DW-Compliance	Leslie Morrison	PWSID 272016 (New Kasigluk) and 272752 (Old Kasigluk - Akiuk). New Kasigluk: CCR Certification Form from 2020 is overdue. Needs to apply for 2020-2022 SOC Waiver. Lead and Copper samples due in 2021. Old Kasigluk: On ETT List. This system has not taken a total coliform sample since May of 2020. Needs to apply for 2020-2022 SOC waiver. Corrective actions are due from 2021 Sanitary Survey. EPS is coordinating with David Brink to address corrective actions.
	DEC-DW-Engineering	T.W. Brannan	
	DEC - SW	Melinna Faw	Unpermittable, tundra pond landfill. Inspection 2016; 24%.
	DEC - WW - Compliance		
	DEC - WW - ESPR		
	DEC - DOW - WDAP		
	Operator Certification	Dan DeStoover	WT 2 (272016), WT 1 (272752), WWT Lagoon Nickefer Nicholas (primary): ST (12/31/23). Failed WT exam 11/8/2019, but close to passing. Needs to retake. Irvin Brink (primary): ST (12/31/2021). Has CEUs to renew and needs to pay renewal fee by 12/31/2021. Needs to take WT and WWSP exams. David Brink (primary): ST (12/31/2021).
	RUBA	Michael White	Necessary financial documentation was not provided to RUBA. Several tax filings and payments were non-compliant as well. Receipt of financial reports can increase scores.
	RMW	Bob White BP-30, PM-15	Highly capable operators at running there system. Some internal communication issues between water plants and village office, that has caused some testing to go uncompleted. I have concerns about possible water plant improvements I heard rumors of.
	OEH	Jenny Pak	
	Notes:		

Kipnuk	ANTHC Project Engineer	Corbyn Jahn	SDS - Water Storage Tank Replacement, Reservoir Recharge, Solid Waste Improvements, CPS Designs - None at this time Construction - None at this time PER's - Comprehensive Piped
	ANTHC Energy/TUS/ARUC		
	DEC-DW-Compliance	Leslie Morrison	PWSID 270736. This system is in compliance.
	DEC-DW-Engineering	T.W. Brannan	
	DEC - SW	Melinna Faw	SW3A084-22; 3/19/2022. Inspection 2019, 41%. Have made great steps to improve landfill site.
	DEC – WW – Compliance		
	DEC - WW - ESPR		
	DEC - DOW - WDAP		
	Operator Certification	Dan DeSloover	WT 2, WWT Lagoon Tyrone Aliralria (primary): No certs. Needs to take WTP and WWSP exams. Phillip Anaver (backup): ST (12/31/20). Has CEUs for renewal and can renew now. Also passed WTP exam in 2019 and can apply for certification.
	RUBA	Michael White	Kipnuk failed to provide a majority of the financial documents requested for Best Practices. Budget provided failed to include projected revenue. <u>Council meeting minutes did not consistently include Operator or Manager reports.</u>
	RMW	Shane McIntyre 42. PM-25	BP- They had to manually drain the third cell of the wate water lagoon with a pump as the gravity drain line is plugged.
	OEH	Michael Vicente	
Notes:			

Kongiganak

VSW Project Engineer	Susan Randlett	<p>to the water plant, which will house treatment equipment. Last month Bristol submitted the final structural evaluation of an old foundation, and the project is at 35% design. Indian Health Service and EPA are the funders, providing 100% federal money, so K . . Numerous delays with the SWTR project. The superintendent who worked in early 2020 will direct contrition by local workers of the water plant annex project.</p> <p>Kongiganak's low best practice score (of 38) won't delay construction.</p> <p>Kongiganak is also the site for VSW test of separating toilets. Many have been installed and people are trying it.</p> <p>Requested for next year: \$300K - Landfill Burn Unit" • \$2.5M "KONGIGANAK - Water Source Improvement" • \$79M for a "Comprehensive Piped System" •</p> <p>They were not selected for a water source study, but we are aware of the need. I have some old reports on water source if anyone is interested.</p>
ANTHC Energy/TUS/ARUC	Chris Cronick	Watering point upgrades completed August 2021.
DEC-DW-Compliance	Kalah Statz	They were not selected for a water source study, but we are aware of the need. I have some old reports on water source if anyone is interested.
DEC-DW-Engineering	T.W. Brannan	
DEC - SW	Melinna Faw	SW3A192-24; 1/29/2024. Inspection 2019; 51%. Been working hard to make improvements at landfill site. Still need burn unit.
DEC – WW – Compliance		
DEC - WW - ESPR		
DEC - DOW - WDAP		
Operator Certification	Dan DeSloover	<p>WT 2, WWT Lagoon</p> <p>John Phillip (primary): ST (12/31/22). Will need CEUs for renewal next year. Last took WT1 exam in 2014. Needs to retake WT 1 exam and take WWSP exam.</p> <p>Paul Paul (primary): ST (12/31/2021). Has CEUs to renew and needs to pay renewal fee by 12/31/2021.</p> <p>John Phillip (back): Needs to take WT and WWSP exams.</p>
RUBA	Michael White	No response to requests for Best Practice documents. Community failed to submit an 8821 for Payroll Tax compliance.
RMW	Allan Paukan BP-38_PM-25	Boiler #3 is still having problems it will need some repairs to restore proper operation. Pressure pump is leaking at the seals new seals will need to be installed.
OEH	Christine Richman	
Notes:	Fatima Ochante (VSW)	DEC's Research & Development program 'The Alaska Water & Sewer Challenge' has installed separating toilets with ventilation and biodegradable bags in 33 homes plus the quarantine building/old store. A container is storing installation materials and toilet components for an additional 44 installations. These components are available for free and there are funds to pay for install labor via a local crew that is already trained for this specific install. If you know of other Kongiganak households or other villages that may want to receive a separating toilet station for free, please contact Fatima.Ochante@alaska.gov
	Other:	



Subsistence and Food Security Focus Area Action Planning Results

Thursday, October 21, 2021 | 10:00am -12:00pm

Link to recording: <https://www.avcp.org/tribal-resources/community-development/regional-comprehensive-economic-development-strategy/>

Facilitator: Jackie Qatalina Schaeffer, Alaska Native Tribal Health Consortium (ANTHC)

Team Support: Heather Stewart, Agnew::Beck Consulting

Participants:

First Name	Last Name	Organization
Steven	Alexie	Donlin Gold
George	Anderson	Chignik Intertribal Coalition, Ivanoff Bay Tribe Environmental
Samantha	Angaiak	Donlin Gold
Rahnia	Boyer	Yukon-Kuskokwim Health Corporation (YKHC)
Clarence	Daniel	Association of Village Council Presidents (AVCP), Community Development Division
Randall	Friendly	University of Alaska Fairbanks (UAF), Graduate Student
Jack	Hebert	Cold Climate Housing Research Center (CCHRC)
Krista	Heeringa	Alaska Climate Adaptation Science Center (AK CASC)
Jennifer	Hooper	Association of Village Council Presidents (AVCP), Natural Resources Division
Brent	Hove	Alaska Native Tribal Health Consortium (ANTHC), Department of Environmental Health and Engineering (DEHE)
Paige	Jones	Association of Village Council Presidents (AVCP), Natural Resources Division
Tisha	Kuhns	Calista Corporation, Vice President Land Natural Resources (from Bethel)
Paul	Larson	University of Alaska Fairbanks, wildlife biology/conservation student (from Napaskiak)
Joie	Millet	Rural Alaska Community Action Program (RurAL CAP)
Jackie	Qatalina Schaeffer	Alaska Native Tribal Health Consortium (ANTHC) Community Development Manager
Jonathan	Samuelson	The Kuskokwim Corporation
Meg	Smith	Donlin Gold, Human Resources
Miranda	Strong	Calista Corporation, Government Relations
Kira	Wilkinson	Coastal Villages Region Fund (CVRF)
Michael	Williams Sr	Chief of Akiak Native Community, Chair Kuskokwim Inter-Tribal Fish Commission and Akiak resident
Rebecca	Wilmarth	Donlin Gold
Kristina	Woolston	Donlin Gold

Objective: Review progress on priority CEDS actions, define next steps for implementation, and track progress toward key indicators.

Agenda:

- A. Welcome, Logistics, Roll Call, Breakout Purpose and Agenda Review
- B. Strategy/Action Introduction and Knowledge Sharing

CEDS Action(s):

- Mentor younger generations to take larger roles in stewardship and resource management.
- Better incorporate local, traditional and indigenous knowledge and concerns in fish and wildlife management.
- Prioritize community-based participatory research.

C. Action Planning

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task A. Include youth seat on this Subsistence CEDS working group.	Lead: AVCP	n/a?	Working Group: At a future meeting, confirm youth representation on CEDS Subsistence Working Group.
Task A. Progress Update: Success! At the last CEDS Committee meeting, the Committee committed to having youth keynote speaker(s), and invited Randall, Jaden and Paul to join this group.			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task B. Participate in resource-management meetings, including: RACs, in-season management teleconferences, Native Corporation meetings, North Pacific Fisheries Management Council, etc.</p> <ul style="list-style-type: none"> • Include youth seats on Tribal Councils, fishery boards/committees, other subsistence related committees/boards • Participate in North Pacific Fisheries Management Council • Native Corporation meetings 	<p>Lead: Communities</p> <p>Contacts: North Pacific Fisheries Management Council: Mellisa Johnson is on the Advisory Panel. Another Indigenous woman from Nome, Rose Fosdick, is on the Ecosystem Committee.</p>	n/a?	<p>Tribes and local advisory bodies: Invite more youth participation.</p> <ul style="list-style-type: none"> • Hold discussions with Elders to walk youth through what happens at the meeting, how to participate. • Prepare youth for participation with mock meetings, e.g., at schools. <p>CEDS Committee: Encourage community organizations and Tribes to form focus groups with Elders and youth (Akiak model).</p> <ul style="list-style-type: none"> • Bring the youth seat on these boards to AFN as an objective for AFN to oversee since they have contacts with all villages. <p>Working Group: At a future meeting, review task, lead and contacts. Are more updates needed?</p>
<p>Task B. Progress Update: AVCP Natural Resources regularly interacts with these councils. 33 tribes organized into the Kuskokwim River Inter-Tribal Fish Commission (KRITFC). KRITFC has been successful in getting villages engaged to help manage fisheries on Kuskokwim. KRITFC worked with the Yukon River Inter-Tribal Fish Commission (YRITFC). KRITFC has an agreement (MOU) with USFWS to co-manage Chinook salmon and other species of concern on Kuskokwim River.</p> <p>In Akiak, regular focus groups involve students in discussing the status and data on Chinook and other species and include youth recommendations along with Elders' recommendations. A Kuskokwim management group is advising on the State side on the river and with USFWS where the river is Federalized. Youth are involved in openers, putting up fish, and the fisheries program.</p>			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task C. Create a video guide covering topics such as running to be on Council, what it is like to have an internship and/or participating in / presenting to Councils. This could be an internship project.	Lead: Western Alaska Partnership Partners: KYUK (Katie Basile katie@kyuk.org)		Working Group: At a future meeting, review task, lead and partners. Are more updates needed?
<p>Task C. Progress Update: No updates given on the video guide.</p> <p>Working group members suggested discussing this idea with school districts as a possible high school class project. LKSD has a READY program for tribal management certification, adding Robert's Rules and a session like "So you want to be on your tribal council, what do you do next."</p> <p>Working group members also suggested utilizing phone apps in council meetings.</p> <p>UAF/TCC has been working on developing trainings that help prepare people to engage at the state and federal regulatory process.</p>			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task D. Document the opportunities offered by existing internship and youth leadership programs (e.g., supporting partners, types of projects, exchanges, etc.). Identify any regions that are under-represented by existing programs. Establish a talent bank for YK Delta job seekers in natural resource careers.	Kuskokwim Leads: ONC (Janessa Esquible) and Napaimute Yukon Leads: YRDFA Coastal Leads: CVRF and USFWS could do more to involve youth, hire interns, etc. in coastal areas. Partners: School districts, Alaska EXCEL program		Working Group: At a future meeting, review task, lead and partners. Are more updates needed?
<p>Task D. Progress Update: Working group members discussed the 2021 CEDS Work Session keynote, which featured regional student technicians hired by the Yukon Delta NWR. Brian Daniels (USFWS): hiring local technicians in biology is a priority of the Refuge's waterfowl program. Interested people are encouraged to contact the Refuge or join ANSEP and access these jobs through ANSEP.</p>			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task E. Create a Lower River and Upper River youth exchange so the future users of the resource will understand why we need to conserve and have escapement for the upper river users.	Lead: TBD Partners: EXCEL Alaska		Working Group: At a future meeting, review task, lead and partners. Are more updates needed?
<p>Task E. Progress Update: No updates given.</p>			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task F. Create an exchange among Arctic, Yukon and Kuskokwim River fisheries programs.</p>	<p>Lead: TBD</p> <p>Partners: YRDFA, ONC, Yukon Intertribal Fish Commission, Calista, ONC, Excel Alaska</p>		<p>Working Group: At a future meeting, review task, lead and partners. Are more updates needed?</p> <p>Organizations involved in these collaborations: share information about the work that is happening, e.g., at ATCEM (https://www.atcemak.com/)</p>
<p>Task F. Progress Update: Jonathan Samuelson (Kuskokwim Corp, KRITFC) talked about collaborative work between our work on the Kuskokwim, the Yukon Intertribal Fish Commission and Norton Sound. We have plans and ideas to continue this collaboration, share stories, knowledge, and meeting processes.</p> <ul style="list-style-type: none"> George Anderson would like to attend any upcoming exchange meetings. He believes BB and YK have a lot of issues in common. g.anderson@chignikcoalition.org <p>Jennifer Hooper shared that the salmon crisis has been a catalyst for building partnerships and collaboration between the two river systems, starting with the most recent salmon bycatch efforts at the last NPFMC meeting. Arctic-Yukon-Kuskokwim regions have been experiencing salmon disasters for ~30 years, bringing local and indigenous perspectives to North Pacific Fisheries Management Council.</p> <p>Proposed changes to the MSA¹ include two tribal seats on the North Pacific Fisheries Management Council (NPFMC). ICC is developing a Co-Management Action Plan among North Slope, Northwest Arctic, Bering Straits, Kuskokwim, and Yukon.²</p>			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task G. Develop a career pathway for subsistence and natural resource management.</p> <ul style="list-style-type: none"> Expand on USFWS Native Relations Training Program to improve the dialogues and collaborations to make it more equitable and welcoming. This includes trainings and possible coordination with Alaska Pacific University (APU). 	<p>Lead: TBD</p> <p>Partners: Tanana Chiefs Conference, UAF/APU BIA Pathways Program</p>		<p>Working Group: At a future meeting, identify a lead or platform to share information on these programs. Miranda Strong will ask First Alaskans and report back.</p>
<p>Task G. Progress Update: Working group members discussed the 2021 CEDS Work Session keynote, which featured regional student technicians hired by the Yukon Delta NWR. Brian Daniels (USFWS): hiring local technicians in biology is a priority of the Refuge's waterfowl program. Interested people are encouraged to contact the Refuge or join ANSEP and access these jobs through ANSEP.</p>			

¹ MSA = Magnuson-Stevens Fishery Conservation and Management Act. "October 26, 2021 — The following was released by the Pacific Fishery Management Council: Leaders of the nation's eight Regional Fishery Management Councils concluded their second biannual meeting in 2021 last week by videoconference. The Council Coordination Committee meeting provides the Councils and heads of the National Marine Fisheries Service an opportunity to discuss issues relevant to all of the Councils. The three-day meeting was open to the public and hosted by the Pacific Fishery Management Council. Among the issues discussed were proposed changes to the Magnuson-Stevens Fishery Conservation and Management Act and the need to more fully address environmental justice for underserved fishing communities. Please view the full press release and a comprehensive summary of the meeting by visiting the U.S. Regional Fishery Management Councils website at: <http://www.fisherycouncils.org/ccm-meetings/october-2021/>."

² Inuit Circumpolar Council – Alaska: <https://iccalaska.org/our-work/alaskan-inuit-fsi/>

Working group members also mentioned:

The Navigating the New Arctic Community Office (NNA-CO), which builds capacity in early career researchers (<https://nna-co.org/>).

Study of Environmental Arctic Change (SEARCH), which is looking for people to participate on advisory committees (<https://searcharcticsscience.org/>).

UAF Fisheries Management Program (<https://www.uaf.edu/cfos/academics/departments/fisheries/>)

Tamamta is another UAF program working on this (<https://www.tamamta.org/>).

UAF Tribal Governance program (<https://www.uaf.edu/tribal/>).

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task H. Develop an apprenticeship program to guide younger people into high-level positions in resource management. Create a path to guide local people into those positions and a “Mapping Alaska’s Partnerships” website that identifies federal, state, university, non-profit, tribal, and corporation groups that are working in similar fields and regions and putting the list in one place to help students and newcomers to the field find opportunities.</p>	<p>Lead: TBD</p> <p>Partners: Calista, ANSEP, Bering Sea Fishermen’s Association</p>	<p>USFWS offers a grant to pay for an intern that is available every 2 years.</p>	<p>Working Group: At a future meeting, review task (exact language may need to be revised; maybe this is happening/has happened now?) and identify a lead or platform to share information on these resources.</p> <p>Communities: Talk to USFWS people early and often about opportunities for youth, subsistence, how to overcome trust issues.</p>
<p>Task H. Progress Update: USFWS is hiring youth within the Fisheries Resource Management Program to bridge this gap and distrust between local and other entities.</p> <p>ANSEP is doing this successfully. ANSEP has is also partnering with the Lower Kuskokwim Schools (LKSD) and the UAF Kuskokwim Campus to open an accelerated high school in Bethel for LKSD students. Students are taking dual credit classes and are on track to get their bachelor’s degrees a year after they graduate from high school. LKSD and ANSEP are funding it.</p> <p>The Native Youth Climate Adaptation Leadership Congress is an annual national mentorship program for youth that is a collaboration among the U.S. Fish and Wildlife Service, National Park Service, Bureau of Indian Affairs (BIA), and U.S. Forest Service. (https://www.nycalc.org/).</p> <p>Tisha Kuhns shared that Calista awarded 362 CECl natural resource scholarships over the last five years (http://www.calistaeducation.org/about-us.html).</p>			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task I. Establish a Collective Impact Initiative: Set a goal to develop a certain number of resource managers or scientists from the YK region to work in the region. Name that number and pull all entities together to align their efforts to achieve the goal by linking and leveraging educational opportunities, internships, employment opportunities, etc.</p>	<p>Lead: TBD (a coordinator and communications person would be needed)</p> <p>Partners: School districts should be involved from the beginning to encourage youth to pursue fisheries/ wildlife careers by knowing what is available.</p>		<p>Working Group: At a future meeting, identify a lead or platform to share information on these resources.</p>
<p>Task I. Progress Update: A concept paper has been drafted to explore this idea, connecting learners and students in the University of Alaska system to build capacity among upcoming youth leaders, state programs, and regional tribal programs. This concept paper could continue to be developed into a program.</p> <p>Pursuing climate change careers could also better incorporate indigenous knowledge into western science (Climate Adaptation Working Group Task D).</p>			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task J. Establish a small cohort of youth who can be mentored and introduced to educational and career pathways in natural resources. Aligning opportunities can be along the Traditional Knowledge, advocacy (Bering Sea Management issues) and what a young person would need to know from an Indigenous perspective/livelihood along with the management issues.</p>	<p>Lead: TBD</p> <p>Partners: ANSEP, First Alaskans Institute, ICC, ANTHC</p>		<p>Working Group: At a future meeting, identify a lead or platform to share information on these resources. Include the many programs that allow for mentorship and internships.</p>
<p>Task J. Progress Update: Working group members clarified that Youth includes people in high school through early 20s who are eager to get involved. They also discussed:</p> <p>The Kuskokwim Corporation hasn't been able to host its normal internship program recently (due to COVID-19), but we are working an overview of/learning about subsistence advocacy into our internship program. This could also be built into the internships that other organizations have already.</p> <p>Four of the current Tamamta cohort members have ties to the Y-K.</p>			

D. Indicators of Success

Indicator of Success/Positive Change	2-Year Target	Priority Indicator?	Next Steps
<p>Tasks D, G, H, I, J. Number of local part-time and full-time positions in the subsistence/natural resource fields.</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information that is not readily available. Identify which jobs to track. 	<p>In 2 years, # of local (based completely in the Kuskokwim or Yukon) part-time and # of local full-time positions are in the subsistence/natural resource fields.</p>	<p>(yes/no) Confirm at future Working Group meeting.</p>	<p>Where to find the data: TBD at future Working Group meeting.</p> <p>Who will collect it: TBD at future Working Group meeting.</p>
<p>Tasks D, G, H, I, J. Number of subsistence/natural resource internships available in the region.</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information that is not readily available. Identify which internships to track. 	<p>In 2 years, there are # internships in the subsistence/natural resource fields.</p>	<p>(yes/no) Confirm at future Working Group meeting.</p>	<p>Where to find the data: TBD at future Working Group meeting.</p> <p>Who will collect it: TBD at future Working Group meeting.</p>
<p>Tasks A-B. Number of leadership or membership positions on natural resource boards/commissions held by YK Delta residents.</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information that is not readily available. Identify which positions and natural resource boards/commissions to track. 	<p>In 2 years, # leadership or membership positions on natural resource boards/commissions are held by people from the YK Delta.</p>	<p>(yes/no) Confirm at future Working Group meeting.</p>	<p>Where to find the data: TBD at future Working Group meeting.</p> <p>Who will collect it: TBD at future Working Group meeting.</p>
<p>Tasks A-B. Number of YK Delta youth who attend natural resource management meetings.</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information that is not readily available. Identify which resource management meetings to track and how to track youth attendance. 	<p>In 2 years, # YK Delta youth attend natural resource management meetings.</p>	<p>(yes/no) Confirm at future Working Group meeting.</p>	<p>Where to find the data: TBD at future Working Group meeting.</p> <p>Who will collect it: TBD at future Working Group meeting.</p>
<p>Tasks D, G, H, I, J. Number of YK Delta students enrolled in college, technical school and training for natural resource subjects.</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information that is not readily available. Identify which institutions and programs to track (e.g., UAF, APU, online degrees). Tisha Kuhns can check with CECI to get our baseline numbers and suggested asking Title VI Indian Education if they have a survey 	<p>In 2 years, # YK Delta students are enrolled in college, technical school and training for natural resources subjects.</p>	<p>(yes/no) Confirm at future Working Group meeting.</p>	<p>Where to find the data: TBD at future Working Group meeting.</p> <p>Who will collect it: TBD at future Working Group meeting.</p>

Indicator of Success/Positive Change	2-Year Target	Priority Indicator?	Next Steps
from ASD. Maybe ANSEP tracks this for their students?			
<p>Tasks D, G, H, I, J. Number of YK Delta graduates with degrees in natural resource subjects.</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information that is not readily available. Identify which institutions and programs to track (e.g., UAF, APU, online degrees). Tisha Kuhns can check with CECI to get our baseline numbers and suggested asking Title VI Indian Education if they have a survey from ASD. Maybe ANSEP tracks this for their students? 	In 2 years, # YK Delta graduates have degrees in natural resources subjects.	(yes/no) Confirm at future Working Group meeting.	<p>Where to find the data: TBD at future Working Group meeting.</p> <p>Who will collect it: TBD at future Working Group meeting.</p>
Future indicator: If we could determine the number of salmon leaving our rivers, we would have the data to develop targets like 95% survival rate, etc. Then impose these targets on bycatch. We would need to have the error terms calculated.	In 2 years, KRITFC and YRITFC have at least one year of data estimating the number of salmon leaving the Kuskokwim and Yukon rivers.	(yes/no) Confirm at future Working Group meeting.	<p>Where to find the data: TBD at future Working Group meeting.</p> <p>Who will collect it: TBD at future Working Group meeting.</p>

E. Summarize, Closing Comments and Adjourn

What final comments, questions or concerns do we have as individuals/as a group?
<ul style="list-style-type: none"> Chums were hit hard this year, and Area M commercial fishermen are taking nearly 2.2 million chums. Chum is a big part of elders' diet because it is easier on their bodies and stomach compared to other salmon. We were fortunate to have gathered enough reds this year, despite a low chum return. Yukon people are hurting this year and need conservation efforts to ensure escapement for rebuilding fish populations. The Tribes need to work together, beyond the Y-K region. In Bristol Bay, we reached out to regional organizations to address run failures and food security. We chose to not fish to help rebuild stocks and increase escapement, although the State still allowed fishing. Regional organizations donated sockeye so that people could process the fish the way they wanted. The fish was dispersed to communities in Bristol Bay and at the BBNC parking lot in Anchorage. We should consider different ways to think about harvest targets than the previous year returns or population numbers alone. The resources (e.g., birds, fish) are reproduced here. If we can harness data to calculate what our region is producing, we can tie what we produce with other effects to determine the mass of what is being produced here, then impose stricter targets outside the region. There has been a disconnect between data monitoring and subsistence, and local observation data versus outside monitoring efforts. Kuskokwim communities are not meeting their needs but are involving youth yearly at the local level. Climate change and other factors are affecting runs on the Kuskokwim River. There should be advocating strategies for zero bycatch in the Bering Sea Pollock fishery. It is necessary to do it because we are experiencing lack of food security. Yukon Fisheries Disaster Declaration efforts: There are two pending disaster declaration requests on the NOAA website, signed by a number of regional entities. Miranda Strong (Calista) can assist; she has been talking with the State

What final comments, questions or concerns do we have as individuals/as a group?

and the Alaska Congressional Delegation to try to get support for declaration and funding to include subsistence users, not just commercial fishers.

- AFN should pass a resolution to help all Alaska tribes with the process of requesting disaster declarations. More areas of Alaska will face this process with climate change and other things going on. The process is slow. AFN wrote a letter with AVCP. There's a bill pending in the House right now to improve the process.
- Documents from 1990s, when previous leaders have dealt with fish intercepted by Area M commercial fishermen, advise to allow at least 500,000 fish to pass before opening to commercial fishing.
- Tribes can work directly with FEMA and not go through the State for disaster declaration (government to government). The FEMA Tribal Liaison for Alaska is Ramona Van Cleve 907.271.4302 or ramona.vancleve@fema.dhs.gov
- We have a Yup'ik climate worker in the White House.
- Rebecca Wilmarth sits on the RAC, which is open to communication about subsistence and food security. We are also putting together a Subsistence Advisory Committee for Donlin Gold with TKC and Calista.
<https://letstalkdonlin.com/donlin-project-community-advisory-committees/>

When should we meet again?

- Use Survey monkey to ask Committee members when they would meet next. Maybe December/January?
- Next meeting focus on indicators and identifying leads for strategies that don't have leads.



Transportation Focus Area Action Planning Results

Friday, October 22, 2021 | 1:30PM-3:30PM

Link to recording: <https://www.avcp.org/tribal-resources/community-development/regional-comprehensive-economic-development-strategy/>

Facilitator: Eric Evon, Community Development Manager, Association of Village Council Presidents (AVCP) Transportation

Team Support: Freddie Olin, Agnew::Beck Consulting

Participants:

First Name	Last Name	Organization
Steven	Alexie	Donlin Gold
Samantha	Angiak	Donlin Gold
Mike	Black	Alaska Native Tribal Health Consortium (ANTHC), Division of Environmental Health and Engineering (DEHE)
Judy	Chapman	State of Alaska Department of Transportation and Public Facilities (DOT/PF)
Billy	Connor	University of Alaska, Fairbanks (UAF) Arctic Infrastructure Development Center
Amber	Ebarb	Deputy Director, US Senate Committee on Indian Affairs
Oscar	Evon	Coastal Villages Region Fund (CVRF)
Jocelyn	Fenton	Denali Commission
Jennifer	Keller	State of Alaska Department of Transportation and Public Facilities (DOT/PF)
Cordelia	Kellie	Rural Affairs Advisor, Office of US Senator Lisa Murkowski
Tisha	Kuhns	Calista Corporation
Bob	Marquez	Coastal Villages Region Fund (CVRF)
Carolyn	Morehouse	State of Alaska Department of Transportation and Public Facilities (DOT/PF)
Jonathan	Samuelson	The Kuskokwim Corporation
Miranda	Strong	Calista Corporation
Gerri	Sumpter	Regional Special Assistant, Office of US Senator Lisa Murkowski
Bessie Lea	Weston	Merkoryuk resident
Martha	Whitman	Association of Village Council Presidents (AVCP)
Rebecca	Wilmarth	Donlin Gold
Kristina	Woolston	Donlin Gold

Objective: Review progress on priority CEDS actions, define next steps for implementation, and track progress toward key indicators.

Agenda:

A. Welcome, Logistics, Roll Call, Breakout Purpose and Agenda Review

B. Strategy/Action Introduction and Knowledge Sharing

CEDS Strategy: Prioritize and implement regional transportation projects (e.g., Kuskokwim River ice road, winter trails, Y-K Freight Corridor, Lower Yukon River Regional Port, Bethel City Dock upgrades).

C. Action Planning

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task A. Secure funding for ongoing Kuskokwim Ice Road construction and maintenance.</p> <p>Estimated costs: \$250,000 for annual maintenance to be split between local search and rescue groups and \$100,000 for training and education.</p>	<p>Lead: Native Village of Napaimute (<i>Mark Leary</i>)</p> <p>Partners: Tribes who use the road, DOT+PF/Northern Region, Calista (<i>advocacy</i>), Donlin Gold, AVCP, FHWA, TTP</p> <p>Alaska federal delegation</p> <p>TKC is assisting member villages with ice road activities</p> <p>Donlin assisted with some funding needs from Napaimute to Sleetmute.</p>	<p>ADOT+PF winter trail marking program.</p> <p>FHWA's TTP funds can cover ice road maintenance.</p> <p>AK Dept. of Public Safety indicated they will provide \$20,000 in maintenance.</p> <p>State of Alaska FY22 Operating Budget: an opportunity for funding.</p> <p>U.S. Department of Transportation's BUILD grants can be set up as force account and also can use TERO to establish Indian Hire Preference.</p> <p>BIA grants can be used for marking and maintenance.</p>	<p>Working Group: Attend the Ice Road Symposium in Planning, February 8-9, 2022 in Bethel.¹</p> <p>Working Group: Advocate for funding in future federal highway bills.</p>
<p>Task A. Progress Update: Federal Highway Administration (FHWA)/ University of Alaska, Fairbanks (UAF) is producing an Alaska Ice Road Manual (2021-2022).</p> <p>ADOT+PF Northern Region has a winter trail marking program. Judy Chapman (Alaska DOT/PF) noted that it is a statewide program, not just for the YK region.</p> <p>AVCP plans to host a symposium related to the BIA Tribal Transportation Program in 2022. The symposium will include programming for AVCP member Tribes, a BIA TTP/FHWA consultation, and more. Please monitor AVCP Transportation Department notices for information.</p>			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
<p>Task B. Ensure ice roads are on the BIA Tribal Transportation Plan inventory, which increases eligibility for certain types of funding.</p>	<p>Lead: Tribes, via requests to BIA</p>	<p>The Infrastructure Investment and Jobs Act of 2021 has funding for maintenance.</p>	<p>Working Group: Attend BIA Tribal Transportation Program meeting in Bethel, March 2022 and make a recommendation.</p>
<p>Task B. Progress Update: No update.</p>			

¹ <https://aidc.uaf.edu/news-archive/ice-roads-symposium-in-planning/>

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task C. Construct trails as identified in winter trails plan (estimated cost: \$3 million for construction of winter trail markings, and \$250K for annual construction and maintenance)	Lead: AVCP Transportation Partners: Tribes, USFWS, DNR, BIA TTP; Village Search and Rescue Groups	BIA TTP can fund winter trail maintenance. Alaska DNR has a trail marking program for overland trails and maintenance. ² USFWS funding is available for trails on USFWS land (once established).	Ashely (new AVCP Transportation Planner): share brief report and current project status with Transportation Working Group.

Task C. Progress Update: AVCP just hired a Transportation Planner.

Pitka's Point alone has approximately 300 miles of trails to maintain.

Platinum and Nunam Iqua has historically been a dangerous trail, and residents are hoping this season will be safer with new and more markers, as well as shelters or safety shacks.

Bethel to Oscarville is a new project proposal, potentially with a year-round bridge over a slough.

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task D. Adopt winter trail design standards and universal color coding for trail marking and educate regional residents on the color system. Establish agreement about funding the maintenance of trails staked between villages, as well as about consistent color coding of signs and flags. Visible and consistent color codes of signs and flags are a major safety concern.	Lead: AVCP Partners: BIA (for design, info distribution to non-AVCP tribes); DOT+PF; UAF; USFWS (engineers can help design), FHWA Title 23; TKC assisting member villages with trail staking	FHWA Title 23 has block funding opportunity for trail staking in Alaska.	Working Group: At a future meeting, review task, lead and partners. Are more updates needed?

Task D. Progress Update: No updates.

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task E. Design a smart phone application with GPS coordinates for all winter trail tripods, with the ability to support/collect trail maintenance live time updates.	Lead: AVCP		Working Group: At a future meeting, review task, lead and partners. Are more updates needed?

Task E. Progress Update: No updates.

² <http://dnr.alaska.gov/parks/grants/trails.htm>

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task F. Conduct and input real-time trail condition reporting; use AVCP's winter trail reporting app if/when available.	Lead: local search and rescue groups		Working Group: At a future meeting, review task, lead and partners. Are more updates needed?
Task F. Progress Update: No updates.			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task G. Learn more about the approval process for constructing emergency shelters on USFWS lands. There is a waiver process to work through Federal guidelines.	Lead: USFWS Partners: AVCP		Working Group: At a future meeting, review task, lead and partners. Are more updates needed?
Task G. Progress Update: No updates.			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task H. Ensure winter trails are included in the BIA and USFWS trail inventories; streamline this data sharing/updating between agencies.	Leads: Tribes (<i>via requests to BIA</i>), USFWS Partners: Tribes		Working Group: At a future meeting, review task, lead and partners. Are more updates needed?
Task H. Progress Update: No updates.			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task I. Establish a Western Alaska Emergency Response Center in Bethel. A Bethel Search and Rescue Response Center (or any other facilities, if any) can potentially be used to help alleviate pandemic impacts and public health needs.	Partners: Bethel Search and Rescue (<i>Charles Guest</i>), Alaska State Troopers, Alaska National Guard	Diversify or expand funding from donations. Alaska DSH&EM? EDA?	Working Group: Invite Search and Rescue groups to attend BIA Tribal Transportation Program meeting in Bethel, March 2022 and make a recommendation.
Task I. Progress Update: No updates.			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task J. Develop the Yukon-Kuskokwim Freight Corridor. Next steps: Complete Stage IV of the Corridor Plan.	Partners: Russian Mission, Kalskag, AVCP, Yukon Delta NWR		Working Group: Attend BIA Tribal Transportation Program meeting in Bethel, March 2022 and make a recommendation.
Task J. Progress Update: Eric Evon met with YK Tribes during the 2021 BIA Tribal Transportation Program annual meeting. Some residents have a desire to protect and conserve some lands, trails, and subsistence uses along the proposed corridor.			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task K. Develop a Lower Yukon River Regional Port in Emmonak.	Lead: need to identify		Working Group: At a future meeting, review task, lead and partners. Are more updates needed?
Task K. Progress Update: No updates.			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task L. Develop a gravel pit at Pilcher Mountain with a road and port for exporting the gravel.	Partners: ADOT/PF, City of Marshall, and Calista (landowner/right-of-way access landowner)		<p>Kristina Woolston: update the Transportation Work Group</p> <p>Judy Chapman: provide plan updates for upcoming DOT/PF 2023 STIP opportunity re: Marshall Airport Improvement</p> <p>Working Group: At a future meeting, review task, lead and partners. Are more updates needed?</p>
Task L. Progress Update: Marshall, Russian Mission, and Pilot Station requested that Donlin/Calista submit a letter of support for Pilcher development. Calista, Donlin, Marshall village leadership advocated in Washington, DC several years ago.			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task M. Complete upgrades to the Bethel City dock. Needed upgrades include better lighting, running water, height increases and other changes.	Lead: need to identify		Working Group: At a future meeting, review task, lead and partners. Are more updates needed?
Task M. Progress Update: No updates.			

Action Plan Task	Lead and Partners	Funding Sources	Next Steps
Task N. Develop a new Petroleum Port/Cargo Dock in Bethel.	Lead: need to identify		Working Group: At a future meeting, review task, lead and partners. Are more updates needed?
Task N. Progress Update: No updates.			

D. Indicators of Success

Indicator of Success/Positive Change	2-Year Target	Priority Indicator?	Next Steps
Tasks A-N. Jobs or internships created or retained.	In 2 years, there will be an additional 200 annual winter trail maintenance jobs and 12 annual ice road maintenance jobs. In addition, 100 workers will be able to commute and work in Bethel who previously did not have the access/opportunity to do so.	(yes/no) Confirm at future Working Group meeting.	Where to find the data: TBD at future Working Group meeting. Who will collect it: TBD at future Working Group meeting.
Tasks A-I. Reduction in annual winter travel fatalities.	In 2 years, there will be a 10% reduction in annual winter travel fatalities over the 10-year average.	(yes/no) Confirm at future Working Group meeting.	Where to find the data: TBD at future Working Group meeting. Who will collect it: TBD at future Working Group meeting.
Tasks A-I. Reduction in annual search and rescue missions.	In 2 years, there will be a 10% reduction in the number of annual search and rescue missions over 10-year average.	(yes/no) Confirm at future Working Group meeting.	Where to find the data: TBD at future Working Group meeting. Who will collect it: TBD at future Working Group meeting.

Indicator of Success/Positive Change	2-Year Target	Priority Indicator?	Next Steps
<p>Tasks C-I. Private funding invested in ice road and winter trail projects (e.g., foundation grants awarded, investments in a winter trail marking or trail condition monitoring project).</p> <ul style="list-style-type: none"> Creating a meaningful target for this indicator requires baseline information that is not readily available. An input-output model may have to be done to estimate current transportation-related investment and set a target. 	<p>In 2 years, \$\$ in private funding invested in ice road and winter trail projects.</p>	<p>(yes/no) Confirm at future Working Group meeting.</p>	<p>Where to find the data: TBD at future Working Group meeting. Who will collect it: TBD at future Working Group meeting.</p>

E. Summarize, Closing Comments and Adjourn

What final comments, questions or concerns do we have as individuals/as a group?
<ul style="list-style-type: none"> \$1.3trn Infrastructure Investment and Jobs Act of 2021 has been signed into law; it will have large volumes and opportunities for funding infrastructure and transportation projects in the region. Jocelyn Fenton shared that the Denali Commission intends to do a competitive funding opportunity in January for FY22 transportation projects. Funding is expected to be between \$1million-\$13million and cover planning, design, and construction. Keep an eye on www.denali.gov or contact Joceyln at jfenton@denali.gov. There are opportunities to leverage or diversify funding (i.e., coordinating between transportation and housing and prevent “silo” work portfolios by multiple organizations and departments). NAHASDA “Mutual Hub and Occupancy” is a former program to informally emulate.
When should we meet again?
<ul style="list-style-type: none"> This work group should reconvene soon to discuss indicators and next steps.