



YK Comprehensive Economic Development Strategy (CEDS) 2021 Work Session

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!](#) 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
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.	Lead: AVCP RHA (<i>Peter Evon</i>), AVCP 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>)	BIA Housing Improvement Program (HIP) HUD's Office of Native American Programs (ONAP) IHS funds (through ANTHC) USDA Denali Commission may be able to help cover IHS match	AVCP Community Development Division: Help convene this meeting? (Seth to discuss with Clarence) Working Group: At a future meeting, review task, lead and partners. Are more updates needed?

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.

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	Lead: AVCP RHA		AVCP RHA: is hiring for a home ownership financial education lead. Working Group: Discuss with the YK CEDS Education

mortgage, purchase and maintain homes.			<p>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>
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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
<p>Task D. Support individuals and communities in securing equipment and training needed to level homes.</p>	<p>Lead: need to identify</p>	<p>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.</p>	<p>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.

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.

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.

Working group members suggested a there could be training program at *Yuut Elitnaurviat* 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.

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: need to identify 	<p>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.</p>	<p>(yes/no)</p> <p>Confirm at future Working Group meeting.</p>	<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. 	<p>In 2 years, # number of newly constructed, affordable, quality houses with appropriate water-sewer infrastructure.</p>	<p>(yes/no)</p> <p>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: 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. 	<p>In 2 years, X number of new homeowners who own homes in the YK region.</p>	<p>(yes/no)</p> <p>Confirm at future Working Group meeting.</p>	<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>
<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)</p> <p>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>

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 Chefornek
 - 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 Chefornek:
 - 1) What are the plans for water-sewer for a new subdivision project and current residential housing?

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

- 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?