



CUAP Update

A newsletter of the Bering Strait Tribal Water and Sewer Community Utility Assistance Program



Representatives from Engineering Ministries International meet with Teller leaders and NSHC representatives to learn water and sewer needs in the community

ABOUT THE CUAP UPDATE

This is a quarterly newsletter that will keep our city governments, tribes, and Native Corporations informed about the Bering Strait Regional Tribal Water and Sewer CUAP.

Most articles included in this first edition were written by Sierra Anderson, a civil engineering intern at NSHC. Sierra is going to school at the University of Alaska Anchorage and will graduate in 2023. Her career goal is to return to help the region through a meaningful career in engineering.



CUAP Development Powered by Community Leaders and Desire for Change

The Bering Strait Tribal Water and Sewer Community Utility Assistance Program (CUAP) was created to help each city government in the Bering Strait region carry out a high-quality, DEC-compliant water and sewer program. This can be accomplished through effective local leadership and certified water plant operators by using sound fiscal management, strong partnerships, collaboration, and the leveraging of existing resources.

The concept of establishing a CUAP has been under consideration for quite some time, and the program was already underway by leaders in villages and through assistance from Kawerak and Norton Sound Health Corporation.

In June 2021, the Helmsley Charitable Trust awarded the region the majority of a grant of \$20 million, which will be managed through Engineering Ministries International (EMI). This generous gift was the catalyst for the formation of the CUAP.

In addition to this grant, the NSHC Board of Directors and Norton Sound Economic Development Corporation (NSED) Board of Directors both

pledged \$500,000 on an annual basis to support the ongoing efforts of the CUAP, with a goal that the funds will directly support each village participating in the CUAP.

In Spring of 2021, Kawerak and NSHC met with each city government by teleconference or in-person to brief them on the preliminary details of the CUAP and the benefits, but most importantly, to gauge feedback about how the program should be designed. The CUAP is a technical assistance and support model, which has been created to focus on all criteria necessary to achieve the highest best practice score possible. City governments will continue to own and maintain the water and sewer utility systems.

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The CUAP development team in Stebbins.

WASH PROJECT

What a charitable grant is doing to kickstart water & sewer project funding - Page 2

WHAT IS THE SCORE?

How the State prioritizes water & sewer capital projects - Page 6

MEET THE TEAM

Photos and bios of those who worked on pre-development of the CUAP - Page 7

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CUAP DEVELOPMENT

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The CUAP is committed to:

- ◆ Empowering water plant operators to attain the highest certification possible
- ◆ Retaining water plan operators for longevity service by paying a living wage and benefits
- ◆ Starting reserve accounts for city governments to make much needed repairs
- ◆ Ensuring taxes and back taxes are paid to maintain financial compliance
- ◆ Keeping water and sewer bills affordable for the homeowner
- ◆ Supporting preventive maintenance on existing water and sewer systems by conducting engineering assessments and developing preventive maintenance manuals
- ◆ Empowering youth to complete vocational training programs in the areas of plumbing, electricity and heavy equipment operating, maintenance and repair



Unalakleet leaders Paul Ivanoff and Tony Haugen show NSHC Sanitation and Engineering manager Sean Lee and EMI engineers their new well field for local drinking water.

WASH Project Aims to Improve Deficiencies

In an effort to tackle problematic water and sewer systems, regional organizations are teaming up with a pair of outside entities to find a path to solutions.

In the Bering Strait region, there are five communities that do not have a working water and sewer system. Approximately 370 homes do not have drinkable water. Roughly 450 homes lack water and sewer systems all together.

The 11 other communities in the region need repairs or upgrades to their water and sewer systems. City governments have struggled to maintain these systems for decades - mainly due to changes in permafrost, climate change, location, lack of funding, and availability of resources.

The WASH (Water, Sanitation, and Hygiene) Project was created to help improve the sanitation deficiencies in rural Alaska, specifically in the Bering Strait region. It was created by Engineering Ministries International (EMI), Norton Sound Health Corporation, and the Helmsley Charitable Trust. Other organizations involved with the project are Kawerak, Inc., Alaska Native Tribal Health Consortium, Village Safe Water, and leaders from each community.

EMI and Helmsley Charitable Trust have worked together on projects in Africa, but this is their first project they are working on together in the U.S. EMI has its own WASH projects that span across the U.S., but the WASH project in the Bering Strait

was specifically created for modernizing the water and sewer systems and meeting the unique needs of this region.

It would cost roughly \$277 million to repair all of the existing systems in the region and about \$1.8 billion throughout all of rural Alaska.

Walter Panzirer, a trustee with the Helmsley Charitable Trust, visited Shishmaref while on a tour of Alaska in 2019. It was in Shishmaref where he first encountered a honey bucket and multiple homes with no running water.

"I hope that this will bring awareness to these communities and what conditions they are in. I hope for this to be a catalyst for other companies to help out." - Walter Panzirer

The WASH project aims to be a first step in making communities healthier and giving them an opportunity to voice their struggles with water and sewer that have been overlooked for too long.

Once the WASH team learns the status of each community's water and sewer system and forms the starting plan, the task of modernizing and repairing those systems will be underway.

The project hopes to achieve three things: lower utility rates in the region, raise best practice scores, and upgrade equipment to include remote monitoring systems.

What's in a Grant? Helmsley Charitable Trust Awards \$20M to Alaska Water & Sewer Projects

On June 14, 2021, at a press conference in conjunction with ANTHC, Rasmuson Foundation, and NSHC, the Helmsley Charitable Trust announced a \$20,434,364 grant for improvements to water, sanitation, and hygiene in rural Alaska.

A large portion of the grant will help establish the CUAP, but it will also fund community and household water and sewer projects throughout the region. The remaining funding will go toward installing and improving remote monitoring equipment in 139 Alaska communities to improve operation and maintenance of water and sewer utilities.

EMI was chosen as grantee for the large sum and will work directly with regional organizations and governments to put the funding to its best use. EMI representatives traveled with NSHC and Kawerak staff to communities around the region to hear feedback about local water and sewer issues and how the CUAP should work.

"We want to see complete service to all these communities, and we know 20 million is not going to get there, but we hope it will be the catalyst to start something," said Jason Chandler, EMI WASH Program Manager.

TRUSTEE'S VISION EXTENDS TO ALASKA

Walter Panzirer is one of three trustees of the Helmsley Charitable Trust that his grandmother created upon her death. He grew up in California and currently lives in Nevada. Having been a first responder in both states, he is an advocate for telehealth and is committed to shortening the distance between medical emergencies and life-saving treatments.



In 2019, Rasmuson Foundation invited Panzirer to explore the many different economic, health, and cultural aspects of the state in its annual Grantmakers Tour. The group went all across the state - from the fisheries in Sitka, to the pipeline in Prudhoe Bay, to the Norton Sound Regional Hospital in Nome.

It was as part of this tour that Panzirer visited Shishmaref, where he was struck by the lack of running water and sewer system.

"This is all a health crisis, if you look at it. How can you wash your

hands when you don't have clean water," Panzirer said in an interview with NSHC.

The vision of the Helmsley Charitable Trust is "A world where everyone has the resources they need to thrive by increasing access to healthcare, advancing new research and ideas, and improving people's quality of life, no matter where they call home."

The trust's \$20 million grant is among the largest that it has ever awarded. The goal is to bring attention to communities around Alaska that are in the same situation as the one Panzirer saw.



Walter Panzirer visited the region with a grantmakers group in 2019. He is pictured at the Norton Sound Regional Hospital in the back row with sunglasses.

"I hope that this will bring awareness to these communities and what conditions they are in. I hope for this to be a catalyst for other companies to help out," he said.

“Kawerak has maintained a long-standing relationship with the Rasmuson Foundation and hosted a grant-making tour to our region, including to Shishmaref. The Helmsley Charitable Trust was on this trip, and this was the start of this partnership. The Kawerak Board has water and sewer advocacy as one of its top priorities, and we were happy to be part of relationship building between Helmsley and our region.”

- MELANIE BAHNKE, KAWERAK PRESIDENT/CEO



Who We Are: Engineering Ministries International

Article written by EMI team members

When considering health outcomes, people generally don't think about infrastructure. Let's face it, most people do not think about infrastructure at all, unless they have to. In the Norton Sound, however, things are different. Infrastructure projects are top of mind and there is a deep sense of connection between these critical projects and the health outcomes associated with them.

Engineering Ministries International (EMI) is a nonprofit, non-denominational Christian development organization made up of architects, engineers, surveyors, and construction managers that specializes in infrastructure projects, as well as struc-

tures and facilities, throughout the world. EMI works on water and waste water systems, electrical systems, and other infrastructure that helps our partners (communities, schools, hospitals, children's homes, and others) fulfill their dreams for the future. With offices in 10 different countries and nearly 40 years of experience, EMI is truly designing a world of hope.

Water Sanitation and Hygiene (WASH) is one area of critical importance to EMI. Nearly every project over the years has included some type of WASH component. More recently EMI has taken up a keen interest in solving critical problems for communities left with systems in dire need of restoration. These types of projects are typi-

cally large, complicated, and don't have many who are willing to get involved. Not so with EMI, and when the Helmsley Charitable Trust asked about partnering on work in Western Alaska, we jumped at the chance. The Helmsley Trust established a relationship with EMI while working in sub-Saharan Africa. Helmsley has a program in select countries in this region that helps provide funding for vulnerable children and families to gain access to critical needs like healthcare and clean drinking water. It was through mutual partnerships that Helmsley noticed EMI's ability to listen to their client's needs and develop successful projects. In 2019, the Helms-

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HOW PRACTICING SELF-GOVERNANCE LEADS TO MEANINGFUL CHANGE

Norton Sound Health Corporation, headquartered in Nome, is owned and managed by the 20 federally recognized tribes of the Bering Strait region. The tribal system includes a regional hospital and 15 village-based clinics, which is managed under an Indian Self-Determination and Education Assistance Act (ISDEAA) agreement with the Indian Health Service. NSHC utilizes self-governance in a way that combines modern politics and traditional Inuit values and uses them as a basis for all projects:

Cooperation and Teamwork - anticipate how to assist and serve one another in achieving results, serve one another selflessly

Knowledge of location-based languages and cultures in our region - Siberian Yupik, Inupiaq and Central Yupik

Sharing - share knowledge to empower teammates, and elected leadership; do things with kindness

Hard work - don't celebrate or boast until the job is done, don't complain about work, thank others for their hard work, give credit where credit is due

Avoidance of Conflict - be patient; continue to sharpen your listening, never talk back, don't interrupt

Respect for Nature - honor our Native ways of life and respect for a healthy environment in infrastructure planning and development

In addition, Kawerak and NSHC retained Megan Alvanna-Stimpfle in 2018 as a Self-Governance Liaison to advocate for critical unmet needs in the region, with water and sewer being a main priority. Alvanna-Stimpfle sits on the Water and Sewer Committee of the Alaska Native Health Board and the Sanitation Facilities Advisory Committee of the Alaska Native Tribal Health Consortium and has years of experience working on Capitol Hill with the region's Senators to support the needs of Alaska Native people.

Alvanna-Stimpfle has been instrumental with making sure the people making the decisions in Washington D.C. see the problems and challenges first hand in the region. She has advocated tirelessly and routinely participates in weekly meetings with the NSHC Sanitation team.

HIGHLIGHTS OF NSHC SELF-GOVERNANCE THROUGH THE YEARS

1970

Norton Sound Health Corporation was incorporated after being selected for development of a model for community-based health care services by the Alaska Federation of Natives

1975

NSHC became the first Native health corporation to become independent of AFN and contract directly with Indian Health Service

1978

NSHC builds and opens Norton Sound Regional Hospital in Nome, and the Unalakleet sub-regional clinic opens, staffed by a physician assistant and several community health aides

1981

Comprehensive alcohol program department founded. First Alaska Native executive director hired.

1985

Norton Sound Regional Hospital receives accreditation from the Joint Commission on Healthcare Accreditation

1988

Long-term care facility Quynna Care Center opens

1992

Telemedicine projects begin, linking health aides to Nome staff. Community Health Education Program founded.

Drinking Water Lab Now State Certified

Article written by NSHC Public Relations

The Office of Environmental Health has been working to open a state certified drinking water lab for the region. In February, the hard work paid off with full certification from the State of Alaska to analyze drinking water samples from the region's 16 public water systems. The drinking water lab is only certified to accept the bacteriological drinking water samples that water systems are required to take each month. This analysis detects the presence or absence of total coliform bacteria and E. Coli in drinking water. These regular monthly "bacti" samples are one of the most important ways to know water is safe to drink.

"Being able to provide this service in-region is expected to help reduce the number of drinking water violations communities get when their samples can't make it all the way to Anchorage/Fairbanks in time for labs to analyze them," said OEH Director Racheal

Lee. "Most importantly, being able to provide this service in Nome will help ensure safe drinking water throughout the region."



In March, Senora Ahmasuk, Environmental Health Specialist, can be seen analyzing an internal proficiency test of 10 samples.

1999

Health Aides are certified, allowing NSHC to bill Medicaid for some services. SAMHSA funds mental health and substance abuse services for adolescents and young adults.

2001

Capital projects office opens and works with staff and village leadership to develop a village clinic prototype design. Future site of new hospital purchased. Construction begins on new Unalakleet clinic. Telemedicine stations installed in 11 village clinics.

2005

Norton Sound Regional Hospital earns critical access hospital status. Tribal Healer Program re-established.

2006

Two Dental Health Aide Therapists integrated into dental team after completing training in New Zealand.

2012

Grand opening celebration marks completion of new \$150 million hospital. First cohort of students graduate from nursing program coordinated by NSHC & UAF Northwest Campus.

2019

MRI Suite opens. Day Shelter opens, providing recovery coaches for homeless individuals in Nome.

2021

NSHC teams up with CUAP team to modernize water and sewer systems in the region.

EMI EXPLAINED

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ley Trust was introduced by the Rasmuson Foundation to the critical need among communities that were challenged with a lack of access to clean water and sanitation in Western Alaska. EMI was invited into the discussion to listen, serve, and dig into the complexity of the project.

EMI understands that Alaska has many challenges, such as an extreme climate, degrading permafrost, and remoteness that make water and sewer access particularly difficult to establish and sustain. EMI knew it was necessary to add to their team people who understand these challenges first hand.

EMI hired Travis Hogins, a Civil Engineer from Fairbanks, Alaska. Travis was born and raised in Juneau, Alaska and went to school at the University of Alaska Fairbanks. Prior to working with EMI he worked in Fairbanks with DOWL, LLC, an engineering firm with experience throughout Alaska.

EMI also hired Judith Grunau as the manager of their Helmsley grant. Judith lives with her family in Fairbanks, Alaska. The majority of Judith's career has been working with the Cold Climate Housing Research Center (CCHRC) a non-profit research facility in Fairbanks. There, she helped design and develop sustainable, culturally appropriate, energy efficient, affordable housing for rural Alaskans.

She has collaborated with communities throughout Alaska including many in the Norton Sound region.

This team is led by Jason Chandler in EMI's Colorado Springs office. Jason has 17 years of experience in water resource engineering and 8 years of experience developing WASH projects internationally.

“EMI hopes to serve this region by strategically using funding to help communities gain access to state and federal funding for critical infrastructure improvements and maintenance.

Already, projects are being identified and funds are being allocated to not only develop new systems but to ensure the protection of these systems for years to come. Together we will discover how we can make a difference.”

- JASON CHANDLER, EMI ENGINEER



BIA FUNDS POTABLE WATER SERVICES



Teller is one of the region's unserved communities that uses a potable water delivery system.

As part of the American Rescue Plan, BIA will distribute \$20 million toward potable water delivery and purchase for communities with the most demonstrated need.

NSHC acknowledges its regional communities would rather put the funding toward running water, but this funding is intended for the purchase and transport of potable water, not infrastructure.

The NSHC Sanitation department is managing the requests for potable drinking water in the region. NSHC staff members will reach out to Tribes and city governments to coordinate the need statements and will send the request on their behalf. Villages should be prepared to store the water once it arrives.

For questions about this funding opportunity, contact Sean Lee with NSHC Sanitation at 434-0688.

What are Best Practice Scores?

A look at Alaska's water and sewer funding priority system

Best Practice Scores are the metric of the State of Alaska's criteria for assessing operations and maintenance capacity of rural water and wastewater utilities. It is a significant component of the competitive Capital Improvement Program (CIP) funding system, which funds a large part of public rural Alaska water and waste water infrastructure.

Who determines the scores?

The scores were developed in mid-2015 by the Alaska Department of Environmental Conservation's Village Safe Water and Remote Maintenance Worker (RMW) Programs and are used in collaboration with the Rural Utility Business Advisor (RUBA) Program and the Alaska Native Tribal Health Consortium and Village Safe Water to determine funding and prioritization of sanitation projects in rural communities.

What is the purpose of the scores?

The Best Practice scoring system attempts to put in place systems to help ensure:

- ◆ all of the water and sewer systems are being sustainability maintained
- ◆ regular accounting responsibilities are taking place
- ◆ there are regular utility operator and financial updates to city councils
- ◆ preventative maintenance routines are being followed
- ◆ the budget and revenue are reasonable



The Stebbins Washeteria's rehabilitation is among a long list of regional projects vying for funding.

How do these scores affect my community?

Best Practice Scores influence the prioritization of sanitation projects and the ability for a community to receive funding for those projects. Communities with higher best practices score have higher opportunities to get funding.

Is there a way to raise my community's Best Practice Score?

Yes. Follow the recommendations included in your community's Best Practice Score Sheet, in the column called "How to Improve Score." Contact your Remote Maintenance Worker or RUBA if you feel that any portion of your community's score is inaccurate.

The Best Practice Scores are meant to help communities, but due to the rural locations of our villages, lack of resources, and many other related struggles, the scoring is not always dependable and not a true representation of what our communities need or the community's administrative ability.



How Does the Scoring System Work?

The scores are based off the overall financial, managerial, and technical aspects of an operating system.

Financial scoring criteria: budget, revenue, worker's compensation insurance, and payroll liability compliance

Managerial scoring criteria: utility management training, meetings of governing body

Technical scoring criteria: operator certification, preventative maintenance plan, compliance

Of these criteria, two are especially critical: worker's compensation insurance and payroll liability compliance. If there are zero points in these categories, then a community is generally not eligible for design and construction funding; there are some exceptions for unserved communities.

✓ The operator certification category is completed by the State's Operator Certification Program

✓ The Preventative Maintenance is completed by the Remote Maintenance Worker Program

✓ The State's drinking water compliance program that completes the compliance score

✓ The State's DCRA/RUBA program completes all the financial and managerial scoring, including the workers compensation and payroll liability

NSHC Creates Sanitation & Engineering Dept.

For years, NSHC employed Remote Maintenance Workers who would travel to communities to help support water plant operators with local repairs. Around 2018, the NSHC Board self-funded an additional position because the demands were so great.

The newly formed Sanitation team now has two Remote Maintenance Worker Positions, Richard Kuzuguk

fills one of the two, with the other position being currently vacant. Luke Smith was promoted to the supervisory position.

In 2019, the NSHC Board of Directors self-funded a Sanitation Engineer Position and Sean Lean joined the team in 2020. Sean has experience working with the State program and was the perfect fit for the new role.

CUAP Pre-Development Team



Angie Gorn, NSHC President & CEO
Angie Gorn, has been working closely with the City Governments to establish new partnership agreements on behalf of NSHC for compliant, quality water and continues to keep the NSHC Board aware of critical resource needs.



Melanie Bahnke, President/CEO of Kawerak, Inc
Melanie Bahnke has been instrumental in the early stages as Kawerak was approached by the Rasmuson Foundation to consider the opportunity for the region.



Cheri McConnell, Tribal Affairs Program Director
In 2021, Cheri McConnell began site visits with JW Industries representatives to villages to meet with city governments and staff for the purpose of financial assessment and training in an effort to support Best Practice Score compliance.



Paul Ivanoff, NSEDC Community Benefits Director
Paul Ivanoff serves on the steering committee for NSEDC, which has partnered with the NSHC and Kawerak team as the CUAP has evolved.



Denise Michels, CUAP Project Manager
Denise Michels was born and raised in Nome and has over 30 years of working with Kawerak's Transportation program. Michels has worked closely with NSHC on several village-based projects.



Racheal Lee, NSHC Director of Office of Environmental Health
Racheal has been providing support and guidance in the area of waste management for the CUAP.



Jason Chandler, EMI Management
Jason is EMI's WASH program manager. He is a civil engineer who works in intelligent design from hospitals to ministry centers to water systems.



Richard Kuzuguk, Remote Maintenance Worker
Richard was born and raised in Shishmaref and has worked in maintenance for over 5 years. He now assists in the water plant operations.



Judith Gruneau, EMI Grant Manager
Judith lives in Fairbanks, Alaska and is the EMI Alaska Grant Manager. She has years of experience working collaboratively with rural Alaskan communities on innovative energy efficient housing projects.



Sean Lee, NSHC Sanitation Engineer
Sean joined the NSHC team in 2020 and has worked closely with all of the villages to provide technical assistance and support for water and sewer needs.



Luke Smith, NSHC Remote Maintenance Worker Supervisor
NSHC Remote Maintenance Worker Supervisor, Luke Smith has worked for NSHC for 2 years and was recently promoted to the RMW supervisor.



Sean McKnight, Kawerak Professional Engineer
Sean McKnight has worked with Kawerak since 2005 to promote and assist the development and operation of water, wastewater and solid waste in the villages of the region.



Matt Emrick, NSHC Director of Engineering and Capital Projects
Matt Emrick is a civil engineer who joined the NSHC team in April 2021, serves as one of the team engineers on the CUAP and is providing technical assistance and guidance for how to bid and coordinate projects as needed.



Travis Hogins, EMI Professional Engineer
Travis is a civil engineer originally from Juneau, Alaska. He's spent the last ten years in Fairbanks designing projects in Alaska's interior. He joined EMI's WASH program in May 2021.



Megan Alvanna Stimpfle, NSHC Self-Governance Liaison
Megan has been advocating for critical unmet needs in the region, with water and sewer being a main priority.



Ukallaysaaq T. Okleasik, Rasmuson Fellow
Ukallaysaaq has been assisting the CUAP team with resources and support. The Rasmuson Foundation connected NSHC with the Helmsley Charitable Trust and provided a \$25,000 pre-development grant award to advance the CUAP initiative.

Not Pictured: Eric Noet, Bering Strait Regional Housing Authority

CUAP PRE-DEVELOPMENT TEAM MEMBERS TRAVELED AROUND THE REGION IN JUNE TO MEET WITH TRI-ORGANIZATION MEMBERS IN REGIONAL COMMUNITIES AND TOUR THE WATER AND SEWER INFRASTRUCTURE. THE REGIONAL TOUR WILL HELP EMI DESIGNATE WHERE SOME OF ITS GRANT FUNDING WILL GO FIRST.



“Some of our systems are failing. Other systems are aging, and this is an opportunity for us to be proactive. Five of our communities lack a piped water system all together. And so we look forward to sitting down at the table and mapping out what the path to service looks like for those communities and really strategizing how we’re going to accomplish that goal.”
- ANGIE GORN, NSHC PRESIDENT/CEO

