

# Housing and Water-Sewer Infrastructure Summary: April 2024



Where We Are Today	What data indicators can we monitor to track progress? Where do we want to be in 5 years?	Where We Aim to Be in 2028
<b>8,358 housing units</b>	<b>Units:</b> Number of total housing units in the YK. <sup>1</sup>	<b>Need to identify</b>
<b>14 communities with completed analysis</b>	<b>Water-Sewer Analysis:</b> Number of unserved/underserved communities who have an in-progress or completed Preliminary Engineering Report (PER) for water and sewer systems. <sup>2</sup>	<b>All unserved/underserved communities have a completed analysis</b>
<b>26 communities with piped water and sewer</b>	<b>Piped Communities:</b> Number of communities who have piped water and sewer available in public facilities AND residents' homes. <sup>2</sup>	<b>All YK communities have piped water and sewer</b>
<b>Bethel Census Area: 59% Kusilvak Census Area: 70.9%</b>	<b>Homeownership Rate:</b> Number of residents who own their own home. <sup>3</sup>	<b>Need to identify</b>
<b>Bethel Census Area: 70.7% Kusilvak Census Area: 73.8%</b>	<b>Complete Plumbing Facilities Rate:</b> Percent of occupied units with water-sewer infrastructure. <sup>3</sup>	<b>Need to identify</b>
<b>44% of homes</b>	<b>Overcrowded Homes:</b> Percent of occupied units considered overcrowded. <sup>4</sup> Housing units with 1.01 to 1.50 occupants per room are considered <i>overcrowded</i> , and housing units with 1.51 or more occupants per room are considered <i>severely overcrowded</i> .	<b>Need to identify</b>

Sources: <sup>1</sup> [2022 United States Census Bureau](#) | <sup>2</sup> 2024 ANTHC Data | <sup>3</sup> [2022 American Community Survey 5-Year Average](#) | <sup>4</sup> [2024 AVCP RHA Housing Need Forecast](#)

*Other Potential Indicators (need baselines and targets): Catalogue existing or upcoming projects.*

## Housing and Water-Sewer Objectives *(adapted from 2018-2023 CEDS)*

1. Increase the number of affordable housing units in the YK region.
2. All YK homes have access to clean water through piped or hauled water systems.

### Housing and Water-Sewer Infrastructure Strategic Direction: Potential Strategies and Actions

#### **Proposed Strategy A: Construct new housing and rehabilitate aging housing.**

1. Evaluate housing models to determine what is working and how to improve.
2. Support local lumber, sawmill, and home manufacturing efforts (e.g., a truss manufacturing plant).
3. Explore regional corporation long-term lease solutions for accessing land for housing.
4. Update the Association of Village Council Presidents Regional Housing Authority (AVCP RHA) Housing Needs Assessment (last conducted in 2018).
5. Create community master plans to align water-sewer, energy, and road infrastructure planning. Combine this work with collaborative engagement alongside Native allottees.
6. Renew investment in securing equipment and training needed to level homes impacted by permafrost.
7. Develop more rehabilitation strategies to prevent current stock from falling into disrepair.
8. Invest in housing weatherization to reduce household costs by lowering power demand.

#### **Proposed Strategy B: Identify and invest in appropriate water-sewer technologies to meet the unique needs of communities and households.**

9. Install appropriate water-sewer infrastructure in underserved and unserved communities.
10. Install household-level systems in communities where piped water-sewer systems to homes are not feasible.
11. Conduct climate resiliency and disaster recovery planning for housing and water-sewer systems.
12. Proactively update equipment in water treatment plants.
13. Increase understanding of the Rural Utility Business Advisor (RUBA) and Environmental Protection Agency's (EPA) Operations and Maintenance Best Practices tool. Determine how to implement findings and how results impact eligibility and scoring for Village Safe Water capital improvement projects.

#### **Proposed Strategy C: Increase collaboration for housing and water-sewer projects to align infrastructure build-out and potentially reduce costs.**

14. Fund housing and water-sewer partnership coordinators at regional organizations.
15. Align housing and water-sewer pre-design survey work to co-occur (*Potential partner: Alaska Native Tribal Health Consortium*).
16. Strengthen regional partnerships and collaboration through quarterly coordination meetings.
17. Expand on the success of existing programs (e.g., *Coastal Villages Region Fund tiny house program, TKC's Harvest to Housing program, ONC/NeighborWorks/Cook Inlet Housing Authority projects*). Replicate strategies in other YK communities.
18. Advocate for regional housing authorities' eligibility for water-sewer infrastructure funds to offset installation costs for new homes.
19. Expand private and community-based financing options for housing projects.
20. Meet with the Bureau of Indian Affairs (BIA) about Category D funding to discuss how to move forward given the challenges of restricted lands in many villages.

#### **Proposed Strategy D: Build the local workforce capacity for housing and water-sewer infrastructure projects.**

21. Strengthen local community planning, grant writing, and grant management training.
22. Identify methods to retain the local worker population for infrastructure build-out and preventative maintenance work.
23. Develop continued education programming that keeps trade licensure active.

## Other Potential Actions

24. Provide home ownership financial education and home maintenance education to empower YK residents in applying for a mortgage, purchasing, renting to own, or maintaining homes.
25. Increase Tribal member access to land.
26. Develop emergency housing/shelter.
27. Develop policies and best practices for community relocation.
28. Determine best practices for when to condemn a house that is beyond rehabilitation.
29. Increase education about rural water-sewer infrastructure innovations in other parts of the state.
30. Invest in renewable energy generation to bring water-sewer fuel costs down.

## Other Relevant Resources and Potential Funding Sources

### Relevant Resources (sorted by date published)

- **The Unmet Needs of Environmentally Threatened Alaska Native Villages: Assessment and Recommendations.** Alaska Native Tribal Health Consortium. January 2024. [View here.](#)
- **Harvest to Home. The Kuskokwim Corporation, Fish Wheel.** 2023. [View here.](#)
- **From Lab to Tundra: Building a More Efficient Future with Rural Alaska.** National Renewable Energy Lab (NREL). September 2020. [View here.](#)
- **Alaska Housing Assessment: Statewide Housing Summary.** Alaska Housing Finance Corporation. January 2018. [View Part I Executive Summary here.](#) [View Part II Housing Characteristics here.](#)
- **Housing Needs Infographic: AVCP (Bethel Region).** Association of Village Council Presidents, Regional Housing Authority, and Cold Climate Housing Research Center. 2018. [View here.](#)

### Potential Funding Sources

- **Emergency Community Water Assistance Grants.** US Department of Agriculture, Rural Development- Alaska. [View here.](#)
- **Grants for Rural and Native Alaskan Villages.** US Department of Agriculture, Rural Development- Alaska. [View here.](#)
- **Single Family Housing Direct Home Loans.** US Department of Agriculture, Rural Development- Alaska. [View here.](#)
- **Capital Improvement Construction Grant.** Alaska Department of Environmental Conservation, Division of Water. [View here.](#)
- **Healthy Homes Program.** US Department of Housing and Urban Development. [View here.](#)

## Strengths and Opportunities

Internal and external factors that contribute to our success in this focus area (in alphabetical order)

### Overall

- Increased regional collaboration for housing and water-sewer projects.

### Housing

- Alaska Native Tribal Health Consortium (ANTHC) supports regional weatherization upgrades and reduces commercial and residential energy costs.
- Federal funding opportunities such as the Housing Preservation Grants and Mutual Self-Help Housing Technical Assistance Grants.
- Increased number of organizations (Orutsarmiut Native Council [ONC], NeighborWorks, Cook Inlet Housing Authority, the Rural Alaska Community Action Program [RurAL CAP], The Kuskokwim Corporation [TKC]) constructing housing.
- New grant writers hired at the Association of Village Council Presidents, Regional Housing Authority (AVCP RHA).
- Opportunity for an annual housing conference (*Potential partner: AVCP RHA*).
- Support for communities wanting to relocate existing infrastructure to a new site (*Potential partner: US Department of Agriculture*).

### Water-Sewer

- Addressed persistent issues of low Rural Utility Business Advisor (RUBA) scores impacting State of Alaska community fund procurement for water/wastewater sewer facilities.
- ANTHC and Indian Health Service (IHS) collaboration to expedite water-sewer projects alongside housing construction.
- ANTHC's support in planning efforts for major water-sewer projects.
- Capacity building through ANTHC's Alaska Rural Utility Collaborative program.
- Innovations in rural water-sewer technology.
- Potential decrease in water-sewer costs due to renewable energy.
- TKC addressing low RUBA scores in their communities.

## Weaknesses and Threats

Internal and external factors that are barriers to our success in this focus area (in alphabetical order)

### Overall

- High construction, shipping, and material costs.
- Lack of capacity, technical assistance, and training for ongoing maintenance, operations, and relevant data collection.
- Negative housing and water-sewer infrastructure impacts from permafrost thaw and shoreline erosion.

### Housing

- Existing housing stock needs repair, with some housing needing full replacement due to the extent of damage.
- Lack of available and affordable housing.
- Lack of sufficient land for new housing, including limitations of building within a wildlife refuge.
- Limited funding for new housing construction.

### Water-Sewer

- Federal agency requirements are not always appropriate or realistic when applied in rural Alaska.