

Alaska

Sanitation Planning Guide for Small Communities

Technical Appendices

**State of Alaska
Department of Community and
Economic Development**

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APPENDIX A
Training/Meeting Overheads

Planning Step

S t e p	Task Checklist	What does it mean?
1. Getting Ready to Plan	<ul style="list-style-type: none"> ▫ Keys to success. ▫ Form a work group. ▫ Generating interest in the plan. 	<ul style="list-style-type: none"> ◆ Do people want to plan for this? ◆ Who is leading? ◆ Figuring out if we are ready to begin our plan.
2. Collecting Information	<ul style="list-style-type: none"> ▫ Problems, goals, and objectives. ▫ Collecting background information. ▫ Forecast community growth. 	<ul style="list-style-type: none"> ◆ What needs fixing? ◆ What do we like? ◆ What is here? ◆ Where are we headed? ◆ Where do we want to go?
3. Identifying Choices (Alternatives)	<ul style="list-style-type: none"> ▫ Develop water and wastewater alternatives. ▫ Evaluate alternatives. 	<ul style="list-style-type: none"> ◆ What kinds of water or sewer systems would work or not work for us'? ◆ Getting the information to help us decide which is best for us.

step	Task Checklist	What does it mean?
4.Choosing the Best Alternative	<ul style="list-style-type: none"> ▫ Select a preferred alternative. ▫ Refine the preferred alternative. ▫ Develop a draft & final master plan document. 	<ul style="list-style-type: none"> ◆ Choosing the system that we want. ◆ Put our decisions in writing so everyone else will know what we want.
5.Putting the Plan Into Action	<ul style="list-style-type: none"> ▫ Designing and building your system. ▫ Operating and maintaining the utility. 	<ul style="list-style-type: none"> ◆ Finding money. ◆ Getting permits. ◆ Putting engineering details to our plan. ◆ Building our improvements ◆ Keeping our system running.

Getting Ready to Plan Checklist

- Are leaders and residents solidly behind the project?
- I Have you considered the timing of starting a plan now'? Are water and sewer issues the most important?
- Have you identified a plan coordinator?
- I Are residents aware of the plan and interested in it?
- Will groups be able to work together and agree on important decisions'?
- Have you formed a work group?

If so, you're ready to move on to Step 2 and begin planning your community's water and sewer system.

Problems, Goals, and Objectives Checklist

- Has an engineer looked at your water and sewer system and written down its problems?
- I Has the community written down its planning, community development, and water/sewer problems?
- Has the community written down its needs specific to water and sewer'!
- Has your community written down its goals and objectives? Vision?
- Have you looked at the community's ability to operate and maintain a water and sewer system?

If so, you are ready to move on to collecting background information.

Assessing Community Capacity

- ***Are there people in the community that could do the work?*** In some places, there are too few people to administer a project. A community should determine whether there are people in the community that could do the kind of work it will take to operate and maintain your system (See Step 5).
- ***Do people have the training/expertise/skills to do the work?*** In some communities, there may be people available to do the work. However, they may need special training or education to do the job effectively.
- ***Can the community support people to do the work?*** A community should determine whether it has the money for training and wages, room, and time to supervise potential workers.
- *Depending on the project, other questions should be considered to determine community capacity.*

Social & Economic Information*

- Community Description
 - Location
 - History and Culture
- Population Profile
 - Population (ages, race, sex, etc.)
 - Immigration Rates
- Local Government Organization Roles and Responsibilities
 - Tribal Council
 - City Government
 - Village & Regional Corporations
 - Relationships Between Governments
- Health and Social Services Systems
 - Past Current Health Risks Problems
 - (information from clinic, school officials, regional local sanitarian, etc.)
 - Health Workers (amount, function, etc.)
 - Regional Health Corporation
- Local Economy
 - Local Businesses (type of businesses), successfulness, employment etc.) level)
 - Current future hg demand

* Depending on your project, more or less information may be required

Physical Environment & Natural Resources Information*

- Climate
 - Temperature
 - Rain Snowfall, Winds
- Surface Hydrology and Ground Water
 - Rivers Streams
 - Groundwater Level
 - Groundwater Flow
 - Availability of Year-round Water Supply
 - Flooding
 - (how often, when, recorded depths, etc.)
- Fish and Wildlife Habitat
 - Species of fish and wildlife
 - Current and Historical Locations of Breeding Rearing Feeding Habitat
- Important Land Features
 - Lakes
 - Rivers
 - Hills
 - Coastline
- Geology and Soils
 - Soil Types and Locations
 - Permafrost, Poor Soils
 - (type, depth, engineering issues, etc.)
 - Earthquake Susceptibility
 - Erosion
- Vegetation and Wetlands
 - Plant Types and Locations
 - Wetland Type and Location
 - Land Disturbances or Impacts

Community Information*

- Land Ownership and Availability
 - Allotment Locations
 - Village or City Land
 - Village Corporation Lands
 - Regional Corporation Lands
 - Other Land Ownership
- Existing and Future Locations For:
 - Residential Development
 - (houses, apartments, duplexes, etc.)
 - Commercial Development
 - (store, hatchery)
 - Institutional Development
 - (schools, government offices, churches, clinic, community center, Headstart, etc.)
 - Industrial Development
 - (water and sewer infrastructure, landfill, power plant, phone cable lines, fire department, police department, etc.)
 - Transportation Infrastructures
 - (airport, roads, docks, trails, boardwalks, harbors, etc.)
- Land Areas of Community Importance
 - Hunting & Fishing Areas
 - Berry Picking and Plant Gathering Areas, fish racks etc.
 - Spiritual Places, cemeteries, old village sites, etc.

Background Information Checklist

- Have you collected *all* the existing background information you need (community; social and economic; and physical and natural resources)?
- Have you completed new studies to get the information you need'!
- Have you organized the information in a way you can understand and use as you plan?

If so, you're ready to move on to the forecasting phase of planning your community's sanitation system upgrades.

Forecasting Checklist

- Have you used your social and economic information to estimate your future population?
- CI Have you converted your population information into demand estimates for water and sewer services?)
- Have you figured out if your current water and sewer system can handle the future water and sewer demand?

If so, you're ready to move on to the next step of planning your community's sanitation system upgrades.

Water Systems*

Systems	Advantages	Disadvantages
Individual Wells Water is pumped from the ground into the house.	<ul style="list-style-type: none"> • Inexpensive to operate. • Requires little community organization. 	<ul style="list-style-type: none"> • Poor water quality in some locations. • Well owner is responsible for operating and maintaining. • Can become contaminated if not properly maintained.
Self Haul/Community Watering Point Residents haul water from a treated watering point to their homes.	<ul style="list-style-type: none"> • Costs are comparatively inexpensive. • Extended watering points can provide additional convenience. • Washeteria can provide facilities to wash clothes and shower. • System is not limited by soil conditions or topography. • System can be used year round. • No additional infrastructure improvements are needed. 	<ul style="list-style-type: none"> • Residents must haul their own water to their homes. • Potential risk of contamination during hauling or storage. • Operation and maintenance costs may be expensive in communities with low washereta demand. • Extended summer or winter watering points require additional operation and maintenance.
Community Haul An operator delivers water transported by vehicle to a holding tank at each resident's home.	<ul style="list-style-type: none"> • Provides adequate water supply to operate toilets, sinks and showers. • Promotes good personal hygiene. • Less potential for contamination than the self-haul systems. • Reduced maintenance requirements by individual residents. • Less restricted by soil conditions and topography. 	<ul style="list-style-type: none"> • Higher operating costs to community and households. • System is dependent on utility organization and operation and maintenance. • Water use must be conserved to keep user rates affordable (households pay for each haul). • System requires some infrastructure improvements (trails, boardwalks, etc.)
Community Piped Water Water is distributed to each home through a series of pipes.	<ul style="list-style-type: none"> • Residents can fully plumb homes. • Requires the least amount of individual operation and maintenance by users. • Allows more water use. • Convenient and reliable service for users. 	<ul style="list-style-type: none"> • High level of operator training is required. • High operating cost to community and household. • System can freeze and repairs can be difficult and expensive. • Difficult to serve widely separated residences. • Initial construction costs can be high. • Distribution lines cannot be buried in some soils. • Above ground pipes can limit access and act as barriers to walking and vehicles. • Maintenance is required to keep pipes protected from vehicles and snowmachines. • Freeze protection costs are increased with above ground pipes. • Needs a high rate water source.

Wastewater Systems*

Systems	Advantages	Disadvantages
<p>Self Haul—Honeybuckets, Bunkers, and Privies Individuals are responsible for carrying their own wastes to a disposal site.</p>	<ul style="list-style-type: none"> • Requires little community organization • No user fees for hauling • Initial construction is also inexpensive. 	<ul style="list-style-type: none"> • Inconvenient - Individuals must carry their own waste to a disposal facility. May have spills causing unsanitary conditions. • Sick or disabled people have difficulty in carrying waste. • Permafrost and poor soils exclude the use of privies. • Privies can fill up quickly if used for trash disposal. • Privies must be relocated to a new spot when full. • Overflow can create a public health hazard • Multiple privy installations can become unsightly and unsanitary • Residents must haul waste to the collection center • Spills still occur and may result in public health hazard • Operator must be employed, well-trained and reliable for this method to work effectively
<p>Community Haul and Disposal Residents carry their waste to centrally located containers. A paid worker drives the containers to a disposal site.</p>	<ul style="list-style-type: none"> • Distance residents must travel to dispose of wastes is reduced • Waste is disposed at a central collection site and a lagoon • User fees can be affordable 	<ul style="list-style-type: none"> • Requires high level of community organization. • Requires reliable operator. • Higher level of operation and maintenance. • User costs may be comparatively high. • Relatively new technology that may have associated problems. • Occasionally odors can back up into the house.
<p>Community Flush and Haul Houses have plumbing. Waste is stored in a tank. A paid worker pumps the wastes to a portable tank and drives to a disposal site.</p>	<ul style="list-style-type: none"> • Residents no longer have to haul waste • Residents can plumb their homes with a toilet and sink. • Sanitary conditions improve greatly. • Less chance of water contamination. • More convenient for residents. 	<ul style="list-style-type: none"> • Soil conditions, permafrost, and flood hazards may limit use. • Drainfield will typically need replacement (approximately 20 year life). • Backed-up or nonfunctioning systems can create a public health hazard. • Pumping out tanks is required every so often. • Where feasible it can be relatively cheap.
<p>Septic Tank/Drainfield Systems Wastes flow from the home to a buried tank. Solids are periodically pumped out of the tank for disposal.</p>	<ul style="list-style-type: none"> • Allows home to be fully plumbed. • Fewer responsibilities to the homeowner, to • High level of convenience and service. • Improved sanitary conditions compared to other systems. 	<ul style="list-style-type: none"> • Soil, permafrost, and hilly conditions may result in high construction costs. • Requires a high level of operator training. • Can be expensive to operate and maintain. • Pressure systems require the homeowner to maintain individual lifts. • Above ground pipes create barriers and have high heating demands.
<p>Community Piped Sewer Sewer pipes transport wastes from homes to a disposal site.</p>	<ul style="list-style-type: none"> • Provides sanitary method of sewage collection, treatment and disposal • High level of convenience and service to residents. • Promotes good personal hygiene. • Can be used in a variety of topographic and soil conditions 	

Identifying Your Choices (Alternatives) Checklist

- Did the work group consult the community to come up with a wide range of water and sewer alternatives?
- Did you figure out whether each alternative meets community goals, fits well in the community vision, and can serve the forecast number of people without disrupting land uses?
- Did the work group consult with an engineer about each alternative and how well it would work in your location?
- Do you have a short list of water and sewer system alternatives that you have described in detail?
- Are you sure the residents understand the alternatives?
- Is the community ready to choose a preferred sanitation system alternative?

If so, you're ready to move on to choosing the best alternatives for your community's water and sewer system.

Choosing the Best Alternative Checklist

- Have community wants and needs been reflected in the preliminary engineering of the preferred alternative?
- Has your engineer explained the design plans and any engineering changes to the preferred alternative‘?
- Have you designed a Capital Improvements Program?
- Has all the information collected and drafted been incorporated into a draft “Sanitation Master Plan”‘?
- Have the community and agencies examined and commented on the draft plan?
- Have you changed the draft, based on the comments, and crafted the final “Sanitation Master Plan”‘?
- Has the Tribal or City Council signed a resolution approving the final “Sanitation Master Plan”‘?

If so, *Congratulations!* You have a plan. You’re ready to move on to building your water and sewer upgrades.

Putting the Plan into Action Checklist

- Is the final design completed?
- Has funding been secured for construction of the project, and are you planning future phase funding?
- Has the community decided whether they would like to force account or contract the construction project?
- Have the proper permits been submitted and approved?
- During construction, have you kept the community informed and involved?
- Have the operators been trained?
- Have you looked at organizing a utility management team?
- Is the system up and operational?

If so, congratulations!
Your system is up and running.

Who Should be Involved? (Potential Stakeholders)

Community Members

- *Interested Folks*
- *Allotment Owners*
- *Tribal Council*
- *Village Corporation*
- *Tribal Administrator*
- *Elders*
- *School*
- *Community Groups*
- *Store*
- *Other Businesses*
- *Health Clinic*
- *Utilities*
- *Village Environmental Health Workers*

Regional Representatives

- *Regional Corporation*
- *Regional Non-profit Corporation*
- *Housing Authority*

Agency Representatives

- *Alaska Native Tribal Health Consortium*
- *Alaska Department of Environmental Conservation, Village Safe Water Program*
- *Army Corps of Engineers*
- *Environmental Protection Agency*
- *US Fish & Wildlife Service*
- *Alaska Department of Fish & Game*

Sample “Vision” Questions

- What is the best part of our community?
- What do you like most about our community“?
- What do you miss when you leave?
- What do you like least about our community?
- What is bad about our community?
- What would you like to change about our community?
- “Wouldn’t our community be wonderful if we _____”

Brainstorming Sessions Rules

- **No** CRITICISM.
- WILD IDEAS ARE WELCOME.
- THE GREATER THE NUMBER OF IDEAS THE BETTER.
- COMBINATIONS AND IMPROVEMENTS TO IDEAS ARE EXCELLENT.
- **EVERYONE IS** ENCOURAGED TO CONTRIBUTE. LISTEN AND CONTRIBUTE.

Problem Solving Meeting

Step 1: Define problem or issues to be resolved.

Step 2: Analyze problem and alternative solutions.

Step 3: Interpret issues in small groups.

Step 4: Develop proposals to respond to issues.

Step 5: Develop alternative solutions.

Step 6: Present and analyze final proposal(s) to the larger group.

Step 7: Agree upon approach to be taken.

The Survey Process:

- Stage 1:** Determine what information is needed and whether a survey is the best way to get the information.
- Stage 2:** Make a survey time line and budget.
- Stage 3:** Determine what is already known.
- Stage 4:** Determine how many people to question to get an accurate representation of the community.
- Stage 5:** Design the survey by writing well-thought-out questions.
- Stage 6:** Test the survey to determine whether it is easily understood.
- Stage 7:** Select and train interviewers if the survey is done face to face or over the phone.
- Stage 8:** Complete the survey.
- Stage 9:** Tally the survey results.
- Stage 10:** Analyze the data and report the findings.

SAMPLE OPEN-ENDED INTERVIEW QUESTIONS:

- ◆ *What do you think of this idea (explain idea/plan/alternative)?*
- ◆ *Do you know if this idea was tried in the past?*
- ◆ *Do you think that this plan (explain idea/plan/alternative) will affect the fish or wildlife? Why?*
- ◆ *Do you remember anything here (floods/ buried tanks/anything that could affect the project (show map of community).*
- ◆ *What ideas do you have for solving (explain problem) ?*

Sample Questions for Large Group Response Exercises for Sanitation Planning:

- What is our community's biggest sanitation problem?
- What should the work group consider when planning sanitation upgrades?
- Who should be involved in planning our sanitation system?
- How do you see our sanitation system in the future?
- What is the most important aspect of our community that we should consider when planning our sanitation system?

Alternatives Matrix

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Capital Cost				
Operating Cost				
Community Preference				
Technical Considerations				
Environmental Considerations				
Meets Goals and Objectives				
(other)				
(other)				
(other)				
(other)				
"Score"				

APPENDIX B
Sanitation Master Plan
Model Table of Contents

Sanitation Master Plan
Model Table of Contents

Topic	Description	Section of Guidebook
<p>i. Executive Summary Plan summary and recommendations</p>		
<p>1.0 Introduction</p>		
<ul style="list-style-type: none"> • Purpose of the plan (What?) • Background leading up to and through the plan preparation (Why and How?) • Study Area (Where?) • Public Involvement Process (Who?) • Community Issues and Goals 	<p><i>The community should gather this information when planning for the sanitation system upgrades</i></p>	<ul style="list-style-type: none"> • <i>Public Involvement</i> • <i>Identifying Community Issues, Needs, Goals, and needs</i> • <i>Forecasting</i>
<p>2.0 Community Information</p>		
<p>2.1 Community Description</p> <ul style="list-style-type: none"> • Historical Setting • Community and Regional Setting • Culture, Heritage, and Lifestyle 	<p><i>Community information can be acquired through collecting traditional knowledge from local residents and by gathering State and federal agency reports.</i></p>	<ul style="list-style-type: none"> • <i>Public Involvement</i> • <i>Collecting Background Information</i>
<p>2.2 Physical Description</p> <ul style="list-style-type: none"> • Topography • Surface Hydrology • Ground Water • Geology and Soils • Vegetation and Wetlands • Geophysical hazards including flooding potential, erosion, landslides, etc. • Climate and Weather 	<p><i>Agency studies are a good first place to look for information on the physical environment. Community members may have important traditional knowledge on the environment. If information is limited, the community may need to complete additionally primary research.</i></p>	<ul style="list-style-type: none"> • <i>Public Involvement</i> • <i>Collecting Background Information</i>

Topic	Description	Section of Guidebook
<p>2.3 Socioeconomic Inventory</p> <ul style="list-style-type: none"> • Economy and Financial Profile • Local Government Structures and Institutions • Demographic Profile (Population, income, etc.) 	<p><i>Community residents, local government, corporations, and State and federal agencies may have valuable socioeconomic information.</i></p>	<ul style="list-style-type: none"> • Public Involvement • Collecting Background Information • Forecasting
<p>2.4 The Built Environment including</p> <ul style="list-style-type: none"> • Land Use • Public Facilities and Services • Housing • Transportation Facilities • Land Ownership and Status 	<p><i>Community residents, local government, corporations, local housing authority and State and federal agencies may have valuable "built environment" information</i></p>	<ul style="list-style-type: none"> • Public Involvement • Identifying Community Issues, Needs, Goals, and needs • Collecting Background Information
<p>3.0 Existing Community Sanitation Facilities</p>		
<p>3.1 Existing Water System</p> <ul style="list-style-type: none"> • Water Supply • Water Treatment • Water Storage • Water Distribution 	<p><i>Community residents, especially utility operators, and FWS or ANTHC may have information on the existing water supply and wastewater system</i></p>	<ul style="list-style-type: none"> • Public Involvement • Identifying Community Issues, Needs, Goals, and needs • Collecting Background Information
<p>3.2 Existing Wastewater System</p> <ul style="list-style-type: none"> • Wastewater Collection • Wastewater Treatment • Wastewater Disposal 		
<p>4.0 Forecasting</p>		
<ul style="list-style-type: none"> • Population Projection, • Future Housing Needs • Future Land Uses 	<p><i>Valuable information on the community's future population, housing needs, and land use can be gained through consulting local residents. Additionally, State and federal agencies, the housing authority, and the village and regional corporations may have gathered information on community future of the</i></p>	<ul style="list-style-type: none"> • Public Involvement • Identifying Community Issues, Needs, Goals, and needs • Collecting Background Information

Topic	Description	Section of Guidebook
5.0 Design Criteria and Analysis		
<ul style="list-style-type: none"> • Current and proposed regulatory requirements and standards • Water Design Criteria (e.g. supply, storage, treatment requirements, distribution flows) • Wastewater Design Criteria (e.g. collection flows, treatment requirements, disposal) 	<p><i>Usually an engineer provides information on design criteria and analysis based on what the community has identified as sanitation system issues, needs, and wants</i></p>	<ul style="list-style-type: none"> • <i>Identifying Sanitation Alternatives</i> • <i>Selecting and Refining a Preferred Alternative</i>
6.0 Facility Improvements		
<ul style="list-style-type: none"> • Improvements needed to existing facilities • Improvements needed to meet future demands 	<p><i>The community provides information regarding what sanitation system upgrades are needed and wanted</i></p> <p><i>Forecasting provides information on what the community will need in the future</i></p>	<ul style="list-style-type: none"> • <i>Public Involvement</i> • <i>Identifying Community Issues Needs, Goals, and needs</i> • <i>Collecting Background Information</i>
7.0 Alternatives		
<ul style="list-style-type: none"> • Identification and Description of Alternatives • Alternatives Evaluation 	<p><i>The community, working with an engineer, can develop and evaluate sanitation system alternatives.</i></p>	<ul style="list-style-type: none"> • <i>Identifying Sanitation Alternatives</i> • <i>Selecting and Refining a Preferred Alternative</i>
8.0 Conclusions and Recommendations		
<ul style="list-style-type: none"> • Conclusions leading to selection of a preferred alternative • Preferred Alternative Description • Capital Improvement Program (CIP) • Funding • Permit Requirements 	<p><i>The community, working with an engineer, can select a preferred sanitation system alternative. Additionally, the engineer can assist in the development of a CIP and determining permitting requirements. A community, or the community engineer, can use information regarding what will be needed for designing and constructing the sanitation system, along with funding agency information, to draft a CIP.</i></p>	<ul style="list-style-type: none"> • <i>Identifying Sanitation Alternatives</i> • <i>Selecting and Refining a Preferred Alternative</i> • <i>Final Design and Construction</i>

Topic	Description	Section of Guidebook
Appendices		
<ul style="list-style-type: none"> Water Quality Data 	<p><i>Water quality data may have been gathered previously by State of federal agencies or may need to be gathered for this work</i></p>	<ul style="list-style-type: none"> <i>Gathering Background Information</i>
<ul style="list-style-type: none"> Well Logs Flow Data 	<p><i>Well logs flow data may have been gathered previously by State of federal agencies or may need to be gathered for this work</i></p>	<ul style="list-style-type: none"> <i>Gathering Background Information</i>
<ul style="list-style-type: none"> Soil Survey Geotechnical report 	<p><i>Soil Survey Geotechnical report may have been completed previously by State of federal agencies or may need to be gathered for this work</i></p>	<ul style="list-style-type: none"> <i>Gathering Background Information</i>
<ul style="list-style-type: none"> Mapping topographic, land status, etc. 	<p><i>Mapping may have been completed previously by State of federal agencies or may need to be gathered for this work</i></p>	<ul style="list-style-type: none"> <i>Public Information</i> <i>Gathering Background Information</i>
<ul style="list-style-type: none"> Cost Estimate Details 	<p><i>An engineer should provide cost estimate details based on expressed community wants and needs and future forecasting.</i></p>	<ul style="list-style-type: none"> <i>Final Design and Construction</i>
<ul style="list-style-type: none"> Existing Utility Financial Data, Budgets 	<p><i>The community should have this readily available.</i></p>	<ul style="list-style-type: none"> <i>Public Information</i> <i>Gathering Background Information</i>
<ul style="list-style-type: none"> Community Resolutions 	<p><i>The community should draft and sign any resolutions required for planning, designing and constructing sanitation upgrades.</i></p>	<ul style="list-style-type: none"> <i>Public Involvement</i> <i>Identifying Community Issues; Needs, Goals, and needs</i> <i>Identifying Sanitation Alternatives</i> <i>Selecting and Refining a Preferred Alternative</i> <i>Final Design and Construction</i>
<ul style="list-style-type: none"> Community Survey Results 	<p><i>The community should have the results tallied for making decisions about the sanitation system upgrades.</i></p>	<ul style="list-style-type: none"> <i>Public Involvement</i> <i>Identifying Community Issues, Needs, Goals, and needs</i>

Topic	Description	Section of Guidebook
<ul style="list-style-type: none"> • Community Contacts 	<p><i>A list of community contacts should come as a result of public involvement techniques.</i></p>	<ul style="list-style-type: none"> • <i>Public Involvement</i> • <i>Identifying Community Issues, Needs, Goals, and needs</i>
<ul style="list-style-type: none"> • Field Notes and Meeting Minutes 	<p><i>The community should keep and provide meeting minutes. The engineer or consultants should provide field notes for completed studies.</i></p>	<ul style="list-style-type: none"> • <i>Public Involvement</i> • <i>Identifying Community Issues, Needs, Goals, and needs</i> • <i>Gathering Background Information</i>
<ul style="list-style-type: none"> • O & M Agreements • Existing Operating Permits • Sample Agreements/Ordinances 	<p><i>The community utility may have agreements with other organizations and groups in the agreeing to fees paid for operation and maintenance of the sanitation system.</i></p> <p><i>The community should have operating permits on file.</i></p> <p><i>The community and engineer may want to gather sample agreements/ordinances related to sanitation systems.</i></p>	<ul style="list-style-type: none"> • <i>Operating and Maintaining your Sanitation System</i> • <i>Final Design and Construction</i> • <i>Operating and Maintaining your Sanitation System</i>
<ul style="list-style-type: none"> • Photographs 	<p><i>The community, corporations, housing authority, or State and federal agencies should have photographs of the community.</i></p>	<ul style="list-style-type: none"> • <i>Public Involvement</i> • <i>Gathering Background Information</i>
<ul style="list-style-type: none"> • References 	<p><i>A reference list should be maintained throughout the planning, design and construction process.</i></p>	

APPENDIX C
Permitting Information

TYPE OF PERMIT	DESCRIPTION	REGULATORY AGENCY
Solid Waste Disposal Permit	Permit needed for disposal of solid waste or hazardous material.	DEC
Wastewater Disposal Permit	Permit needed for the disposal of wastewater on land or in waters.	DEC
Plan Review and Approval of Sewerage or Sewage Treatment Works	Plans for the construction, installation, modification, or operation of sewerage or sewage treatment works must be approved prior to construction	DEC
Plan Review and Approval of Public Water Systems	Engineering plans for the construction, installation, modification or operation of a public water supply system must be approved prior to construction,	DEC
Plan Review and Health Inspections of Public Establishments	Pre-operation inspection is required to insure compliance with health and sanitation standards for food service establishments, schools, daycare and pre-elementary schools, hotels and motels, swimming and bathing areas, and public toilets.	DEC
Anadromous Fish Protection Permits	Approval for any work in anadromous rivers, lakes, or streams.	ADF&G
Resident Fish Protection Permits	Approval for any work that might block passage of fish in a river, lake or stream containing resident fish.	ADF&G
Special Area Permit	Approval for any work or development in a State-designated critical habitat area or game refuge.	ADF&G

TYPE OF PERMIT	DESCRIPTION	REGULATORY AGENCY
Rights-of-Way, Easement, Land Use Permit, Tideland Permit or Lease, or Material Sale Contract	Authorization required for activities, construction, improvements, or use of materials on State lands, including tidelands and State-designated navigable waterways.	DNR
Water Rights or Temporary Water Use Permit	Must obtain permit for short- or long-term use of water in Alaska.	DNR
Alaska Coastal Management Program Consistency Determination	Ensures consistency with coastal policies. If no local program approved, State standards will apply for projects in the coastal zone.	Office of the Governor
Life/Fire Safety Plan Check for Construction/Occupancy of Buildings	Approval of the plans of buildings is required for fire protection and safety. This applies to commercial, industrial business, institutional, or other public buildings, or residential buildings containing four or more dwelling units.	Dept. of Public Safety
Unemployment Insurance	Individuals, companies, and organizations that have one or more workers in covered employment for any part of a day must register with the Department.	Dept. of Labor
Workers' Compensation Insurance	Any employer with one or more employees working within the State must buy a workers' compensation insurance policy and submit proof of insurance to the Department.	Any licensed insurance broker, or Dept. of Labor Workers' Compensation Division
Discharge of Dredged or Fill Material into U.S. Waters	Permit required for the discharge of any dredged or fill material in U.S. waters, including wetlands.	U.S. Army COE

TYPE OF PERMIT	DESCRIPTION	REGULATORY AGENCY
Structures or Work in/or Affecting Navigable Waters	Permit required for any work or placement of structures in navigable waters.	U.S. Army COE
National Wildlife Refuge Land Special Use Permit	Permit required for easements, roads, and utilities, in wildlife refuge lands.	DOI, USF&WS
Oil Storage Facilities-Spill Prevention Control Counter-measures Plans	Agency approval required for onshore and offshore oil storage facilities.	U.S. EPA
Special Use Permit	Permit required for activities or construction on national forest land.	U.S. Forest Service
Special Use Permit	Permit required for activities or construction on BLM lands.	BLM
Clean Water Act Section 401 Water Quality Certificate	Certification needed for placement of fill in wetlands or waterways.	DEC
Utility/Right-of-Way Permit	Permit to construct a utility within a State-owned right-of-way.	DOT&PF
Dam Construction Permit	Authority needed to build or modify a dam.	DNR

TYPE OF PERMIT	DESCRIPTION	REGULATORY AGENCY
Park Use Permit	For activities or construction within State parks.	DNR
National Pollutant Discharge Elimination System (NPDES) Permit	For discharge into water of the United States.	EPA

Source: Alaska Department of Community and Regional Affairs, 1985, Capital Improvements Planning: A Guidebook for Rural Alaskan Communities

APPENDIX D
Grant/Funding Information
(including Village Safe Water Grant Application)

FEDERAL PROGRAMS

Public Health Service

Healthy American Indian and Alaska Native communities are at the center of the circle of the Director's vision for the Indian Health Service (IHS). Contributing to the health of communities is a safe and adequate water supply and waste disposal system. The Director's initiative for sanitation facilities focuses on expanding services to existing Indian homes, then to communities and new and renovated homes.

Prevention of disease and preservation of public health are significantly improved when there are sanitation systems in place in the home. Families with satisfactory environmental conditions in their home, which include safe water and sewerage systems, require approximately 75 percent fewer medical services and therefore place fewer demands on the IHS, tribal and the Indian health primary health care delivery system. Tribal governments have worked in partnership with the IHS Sanitation Facilities Construction (SFC) Program to construct essential sanitation facilities for American Indian and Alaska Native homes and communities since the passage of the Indian Sanitation Facilities Act (Public Law 86-121) in 1959. The SFC Program is an essential component of the overall disease prevention efforts of the Indian health system.

Additional support for the IHS sanitation goals and programs was provided by The Indian Health Care Amendments of 1988 (P.L. 100-713 Section 302). In accordance with requirements of the Amendments, the IHS developed a 10-year funding plan to meet a goal of providing safe and adequate sanitation facilities for all American Indian and Alaska Native homes and communities. Since 1990, the tribes and IHS have provided an annual estimate of the sanitation facilities required and the total funding needed to meet those requirements. Funding, in recent years, to reduce the sanitation deficiency backlog, has been at approximately 30 percent of the needed annual appropriation level to achieve the goal set in 1990 by the year 2000.

Facilities construction and maintenance. Since 1960, more than 198,000 Indian homes have benefited by IHS funding of water and sewerage facilities, solid waste disposal systems, and technical assistance for operation and maintenance organizations. The age-adjusted death rate from gastrointestinal disease for American Indians and Alaska Natives has decreased by 91 percent since the sanitation facilities construction program began. Approximately 85 percent of American Indian and Alaska Native homes have been provided sanitation facilities since the program's inception. The IHS also funds construction of new and replacement hospitals and ambulatory care facilities and staff quarters.

Initiative Accomplishments: The annual sanitation facilities estimate information submitted for fiscal year 1997 included approximately 28,700 American Indian and Alaska Native homes lack a safe water supply or adequate sewage disposal system in the home, or both. IHS has identified a total backlog of 2,400 needed sanitation facilities construction projects costing \$1.53 billion to provide all American Indians and Alaska Natives with safe drinking water and adequate sewage disposal in the home.

Future Plans: Beginning in fiscal year 1997, the President's budget proposal includes an additional \$29 million to help reduce the backlog of sanitation deficiencies. This initiative will boost funding to approximately 53 percent of needed appropriation level and will allow an additional 1,000 first service homes and 4,040 previously served homes to be served with essential new and/or upgraded sanitation facilities. The existing Sanitation Deficiency System will be used to determine project priorities.

As part of the Sanitation Facilities Initiative, the IHS is seeking supplemental funds from non-IHS sources to meet the backlog of identified needs.

Source: <http://www.tucson.ihs.gov>

Community Facility Loans

Administrative Agency: Federal U S. Department of Agriculture. Rural Development

Program Goals: Loans are **available** for public **entities** such as municipalities, boroughs, and special purpose **districts** in rural areas or **cities** under 50,000 population. Indian **tribes** and nonprofit corporations may also receive **loans**. **Priority will be given** to public **entities** in areas smaller than 5,500 people.

Resource Provided: Loans **may** be used to construct, repair, improve or expand community facilities for health care, public **safety** and **public services**. These can include hospitals, dental and medical clinics, fire trucks, ambulances, fire and rescue **multi-service** centers, police stations, **jails**, streets or industrial parks. **Other community** facilities are also **eligible**.

Eligibility: Applicants must be unable to **obtain** needed funds from other sources at reasonable rates and terms; have legal **capacity** to borrow **and** repay loans; be **financially** sound and able to manage the facility **effectively**.

Alaska Program Status: Alaska's annual allotment in **FY 97 was \$750,000** for direct loans and \$750,000 in loan guarantees. **Additional** funds can be obtained from a national reserve.

Comments: Loans have a **maximum** term of 40 years, or the **useful life** of the facility. Interest rates are set **periodically** and are based on **current market yields** for municipal obligations. Certain loans may have a lower interest **rate**. All loans will be **adequately** secured.

Contact:

Frank Muncy or Dave Winter

USDA Rural Development

800 W Evergreen, Suite 201 (Atrium Building)

Palmer, Alaska 99645

Phone: (907) 745-2176, Fax (907) 745-5398

Source: http://www.comregal.state.ak.us/edrg_int.htm

Water and Waste Disposal Loans and Grants

Administrative Agency: Federal U.S. Department of Agriculture, Rural Development

Program Goals: To assist public entities such as municipalities, boroughs, special purpose districts, Indian tribes, and corporations, not operated for profit, in rural areas or cities under 10,000 in population, with priority given to entities with population under 5,500

Resource Provided: Loan and grant funds to construct, repair, improve or expand water or sewer systems, storm sewer facilities, sanitary landfills, incinerators, and necessary equipment

Eligibility: Public entities such as cities, boroughs, federally recognized Alaska Native Village entities and non-profit corporations

Comments: Loans have a maximum term of 40 years. Interest rates are set periodically and are based on **current market yields** for municipal obligations. Grants may be made for up to 75% of eligible facility development costs

Contact:

Frank Muncy or Dave Winter

USDA Rural Development

800 W Evergreen, Suite 201 (Atrium Building)

Palmer, Alaska 99645

Phone: (907) 745-2176, Fax: (907) 745-5398

Source: http://www.comregal.state.ak.us/edrg_int.htm

Emergency Community Water Assistance Grants

Administrative Agency: Federal U S Department of Agriculture, Rural Development

Program Goals: (Note: This program was not funded in **FY 97**) To assist residents of rural areas that have **experienced** a decline in the **quantity** or quality of drinking water to obtain adequate quantities of water that meet **standards** set by the Safe Drinking Water Act (SDWA).

Resource Provided: Grant funds can be used to extend water lines, construct new water lines, repairs or significant maintenance to an **existing** system, or construction of new wells, reservoirs, treatment plants, and other water sources, **equipment replacement**, and eligible costs incurred within six months of date of application filing. This **program** was not funded in FY 97.

Eligibility: Applicants must be **public** bodies, federally recognized Alaska Native Village **entities**, or non-profit corporations **servicing rural areas** or cities of less than 5,000 population.

Comments: Projects compete for **funding** on a nationwide basis, and are scored according to criteria in the grant regulations. For grants made to remedy a significant decline in water quality or **quantity**, the **applicant** must demonstrate that the **decline** took place within two years of the date of application. Failure of a water system to meet **changes in requirements** of the SDWA is not an eligible purpose.

Contact:

Frank Muncy or Dean Stewart
USDA Rural Development
800 W Evergreen, Suite 201 (Atrium Building)
Palmer, Alaska 99615
Phone: (907) 745-2176, Fax (907) 745-5398

Source: http://www.comregal.state.ak.us/edrg_int.htm

Community Facilities Guaranteed Loans

Administrative Agency: Federal U S Department of Agriculture, Rural Development

Program Goals: Rural Development is authorized to guarantee loans made by eligible lenders to borrowers in rural areas and in towns of up to 10,000 population for water and waste disposal facilities, or up to 50,000 population for other community facilities essential for public safety, health care or public service

Resource Provided: A loan guarantee to enable other lenders to make loan funds available for worthy projects which would otherwise not be able to secure assistance. Guarantees may be up to 90 percent, but will usually not exceed 80 percent

Eligibility: Loans may be guaranteed for public entities, non-profit corporations or federally-recognized Alaska Native Village entities. There are some restrictions on the use of funds. Alaska's annual allotment for FY 97 is \$750,000

Contact:

Frank Muncy or Dave Winter
USDA Rural Development
800 W Evergreen, Suite 201 (Atrium Building)
Palmer, Alaska 99645
Phone (907) 745-2176, Fax (907) 745-5398

Source: http://www.comregal.state.ak.us/edrg_int.htm

Rural Alaskan Village Water and Waste Disposal Grants

Administrative Agency: Federal, U. S. Department of Agriculture, Rural Development

Program Goals: To assist rural Alaskan villages remedy dire sanitation conditions using funds made available specifically for this purpose.

Resource Provided: Grant funds to construct, repair, improve or expand water or sewer systems, sanitary landfills, treatment plants, and necessary equipment.

Eligibility: A community must meet the definition of a village which is "an unincorporated community that has between 25 and 600 people residing within a two-mile radius, a second class city, or a first class city with not more than 600 residents"

Comments: This is a new program as of FY 97. This funding requires a 50% match with funds from state or local sources.

Contact:

Frank Muncy or Dave Winter

USDA Rural Development

800 W Evergreen, Suite 201 (Atrium Building)

Palmer, Alaska 99645

Phone: (907) 745-2176, Fax (907) 745-5398

Source: http://www.comrceaf.state.ak.us.edrg_int.htm

Grants for Public Works and Development Facilities

Administrative Agency: Federal Department of Commerce, Economic Development Administration (EDA)

Program Goals: To assist in the creation of public facilities needed to initiate and encourage the creation of permanent jobs in the private sector in areas where economic growth is lagging behind the rest of the country.

Resource Provided: Project grants

Eligibility: Applicants may be states, municipalities, Indian Reorganization Act or Traditional Village Councils, and nonprofit organizations. Entity must have an approved Overall Economic Development Plan (OEDP).

Alaska Program Status: There have been several major projects recently. For example: dock projects in Atka, Egegik and Nelson Lagoon hatchery improvements in Kake; industrial park improvements in Palmer; supply and distribution improvements in Petersburg. Grants ranged from \$500,000 to \$1,150,000.

Comments: Project proposals are submitted to the Anchorage EDA office for review, then to the EDA Regional Office (combined Regions IS & X) for recommendation to Central Office for approval. There is a preference for high local match and low costs per job. Alaska does not have a set allocation. The regional office annual allocation has been about \$20 million. Alaska's share has been about \$2-4 million per year. Grant requests should normally be no smaller than \$250,000, and should have as high a percentage of non-federal match as possible, usually 50% or more.

Contact:

Berney Richert

Economic Development Administration

Old Federal Building, 605 W 4th Avenue, Room G-80

Anchorage, AK 99501

Phone: 271-2272, Fax: 271-2274

Source: http://www.comregal.state.ak.us.edrg_int.htm

Public Works Impact Projects

Administrative Agency: Federal Department of Commerce, Economic Development Administration (EDA)

Program Goals: To provide immediate useful work to unemployed and under-employed persons in designated project areas, as well as longer range jobs.

Resource Provided: Project grants (matching).

Eligibility: Areas of high unemployment. Projects must start and be completed quickly. Most projects could be accomplished through EDA's regular Public Works Program.

Alaska Program Status: Recent projects have included airport, sewer and water improvements at Homer.

Contact:

Berney Richert

Economic Development Administration

Old Federal Building

605 W. Fourth Avenue, Room G-80

Anchorage, AK 99501

Phone: (907) 271-2272 Fax 271-2274

Source: http://www.comregal.state.ak.us/edrg_int.htm

Community Development Block Grant Program

Administrative Agency: Federal Department of Housing and Urban Development (HUD) Office of Native American Programs (ONAP)

Program Goals: To provide assistance to Indian tribes and Alaska Native villages in the development of viable communities, including decent housing, a suitable living environment, and expanding economic opportunities, principally for persons of low and moderate income.

Resource Provided: Primarily Construction grants, except for economic development projects where there is added flexibility. The maximum grant amount is \$500,000. There are grant categories for housing, community facilities, economic development, and imminent threat to health and safety.

Eligibility: Eligible applicants are any Indian tribe, band, group, or nation, including Alaska Indians, Aleuts, and Eskimos, and any Alaska Native village which is considered an eligible recipient under Title I of the Indian Self-Determination and Education Assistance Act or under the State and Local Fiscal Assistance Act of 1972.

Alaska Program Status: Alaska 1997 appropriation level is \$5.53 million. Availability of funds announced in April with application deadline of July 23, 1997. Some 40 to 60 applications a year compete for these funds.

Contact:

Donna Hartley, Director or Barry Bruninga, Tribal Relations Specialist

U. S. Dept. of Housing and Urban Development

Anchorage Office of Native American Programs

949 E. 36th Ave Suite 401

Anchorage, AK 99508-4309

Phone: (907) 271-4673 or 271-4628 Fax: (907) 271-3667

Source: http://www.comregal.state.ak.us/edrg_int.htm

STATE-PROGRAMS

Village Safe Water

Program Mission: To provide adequate water, sewerage, and solid waste facilities to rural residents to fulfill statutory requirements of AS 46 07

The program provides grants of up to 100% of project costs. Unincorporated villages with populations of 25-600, second class cities, and first class cities with a population under 600 are eligible. These grants provide sanitation facilities including piped utilities, haul systems, a safe water source at a central location, a place to dispose of human wastes, and in some cases, laundry, sauna and shower facilities. The VSW engineer assists the community by acting as the "city engineer." This program also develops proposals and secures federal funding for planning, design, and construction of wastewater treatment facilities in Alaska rural and Native villages.

Primary services:

- Assist villages with planning, design, construction, operation and maintenance of water, sewer and solid waste facilities. *Provides technical assistance Including:

- *Management of capital project funds

- Engineering studies to determine the technical and economic feasibility of projects and alternatives

- *Emergency response in the event of an emergency

- Purchasing and specification of equipment

- Help design cold climate utility systems compatible with extreme environmental conditions. *Assist in troubleshooting engineering problems associated with water and sewer service delivery in cold climates.

- Offer a partnership in providing the community with systems they can support and afford. This ensures community acceptance and continued operation and maintenance. • Coordinate federal funds from the U.S. Environmental Protection Agency, the federal Rural Development Administration, the Alaska Department of Transportation and Public Facilities, the U S Indian Health Service, and housing authorities to build projects

Contact:

Greg Capito, Program Chief

Village Safe Water

ADEC Division of Facility Construction and Operation

410 Willoughby Avenue, Suite 105

Juneau, AK 99801-1795

Telephone (907) 465-5137

Fax Number (907) 465-5177

Source: http://www.state.ak.us/local.akpages/ENV_CONSERV/dfco/dec_dfco.htm#Village

Municipal Grants and Loans

Program Mission: To provide water, sewerage, and solid waste facilities to urban residents fulfilling statutory requirements of AS 46 03 30 and AS 46 03 32.

In urban areas, the Municipal Matching Grants Program funds 50%-85% of the costs for water, wastewater, and solid waste improvements. These grants are made to incorporated municipalities for engineering, construction, legal, administrative and equipment costs. This program also administers federal funds for construction of these same types of facilities. Administration of these funds is governed

by the Clean Water Act, the Safe **Drinking Water Act**, and regulations of the U.S. **Environmental Protection Agency (EPA)**. The state has been delegated **authority** from EPA to administer the federal **funds**. The Alaska Clean Water and **Drinking Water funds** offers communities **low-interest loans** for **planning, design, and construction** costs **associated** with **drinking water, wastewater, nonpoint source and solid waste management projects**

Primary Services:

Municipal Matching Grants: **Survey communities each** fall for **needed facility improvements, then compile an annual capital budget request for review by the state Office of Management and Budget. The Governor submits a funding request to lawmakers in January. •Award grants and begin construction after legislative appropriation.**

Clean water and drinking water loan funds: Loan money for **drinking water, wastewater, nonpoint source and solid waste projects** • **Provide loans according** to the severity of pollution problems, public health needs, available money, readiness to proceed, and each community's ability to repay. ***Make loans for 20 years** with interest rates of **up to 75% of the current Municipal Bond Index rate**. Loans can be awarded for 100% of eligible costs, including **planning, design, and construction**. Lower interest rates for shorter terms are available • **Ensure that loans meet federal and state requirements.**

Contact:

David "Mike" Burns, Program Manager
Municipal Grants and Loans
ADEC Division of Facility Construction and Operation
410 Willoughby Avenue, Suite 105
Juneau, AK 99801-1795
Telephone (907) 465-5136
Fax Number- (907) 465-5177

Source: http://www.state.ak.us/local.akpages/ENV/CONSERV/dfco/dec_dfco.htm#Municipal

Operations Assistance

Program Mission: To ensure that operators and managers of water treatment, water distribution, wastewater treatment and wastewater collection systems have the necessary education, experience, and training to competently operate and maintain the utility systems in their communities

The Operations Assistance Unit has provided essential training of water and wastewater system operators since 1976. As more sanitation projects were built in rural areas, it became clear that the state would need to provide a system to train rural operators in order to protect its investment in expensive facilities. In 1981, the Remote Maintenance Worker Program was started with a single employee in St. Mary's. There are now twelve RMWs working for six regional non-profit health corporations and two state-employed RMWs in Anchorage.

Primary Services:

- Administer three separate but related programs
 - Water and Wastewater Operator Certification and Training
 - Remote Maintenance Worker Program
 - Federal 104(G)(1) Operator Training Program
- Provide training, technical assistance and emergency response to rural operators through a circuit rider program
- Provide classroom and on-site training and technical assistance to urban and rural operators.
- Maintain a library of training videos, textbooks and reference materials.
- Provide correspondence courses

for operator advancement. *Develop and offer certification exams in numerous locations statewide. •Work with private trainers and other agencies to plan, coordinate and develop statewide training. *Publish and distribute a training calendar

Contact:

Kerry Lindley, Program Manager
Operations Assistance Unit
ADEC Division of Facility Construction and Operation
410 Willoughby Avenue, Suite 105
Juneau, AK 99801-1795
Telephone: (907) 465-5143
Fax Number: (907) 465-5177

Source: http://www.state.ak.us/local/akpages/ENVCONSERV/dfco/dec_dfco.htm#Municipal

Capital Project Matching Grants

Administrative Agency: Department of Administration, Division of Administrative Services

Program Goals: Provide a capital project funding system that is equitable to all incorporated municipalities; enhance the role of communities in initiating and prioritizing capital projects; and encourage a sense of local ownership by requiring local participation in the funding of projects.

Resource Provided: Annual lump-sum appropriations are made by the Legislature to the Municipal Capital Project Matching Grant Fund. Allocations based on population are made to individual grant accounts created for eligible municipalities.

Eligibility: An incorporated municipality is eligible to apply if incorporated on or before July 1 of the previous fiscal year, or if it received state municipal assistance during the previous fiscal year.

Alaska Program Status: A capital project for purposes of this program is a project with a cost exceeding \$10,000 to acquire or improve an asset with an anticipated life exceeding one year. Projects may be for land acquisition, construction, repair or structural improvement of a facility, engineering and design for a facility, and acquisition or repair of equipment.

Contact:

Lena Stinson
Division of Administrative Services
Department of Administration
P O Box 110208
Juneau, AK 99811-0208
Phone (907) 465-5647 FAX (907) 465-2194

Community Development Block Grant Program (CDBG)

Administrative Agency: State of Alaska Department of Community and Regional Affairs (DCRA) Municipal and Regional Assistance Division

Program Goals: Goals of the Community Development Block Grant Program (CDBG) are to provide financial resources to communities for public facilities and planning activities which address issues detrimental to the health and safety of local residents, and to reduce the costs of essential community services. The program may also fund special economic development activities which result in the creation of jobs for persons of low and moderate income.

Resource Provided: Single purpose project competitive grants up to a maximum of \$200,000 per community. Grants may be used for community development, planning, or special economic development activities. Community development and planning activities which address health and safety needs are the priority for funding.

Eligibility: **Municipal governments** as defined by Title 29 of the Alaska Statutes (i.e., home rule, **first**, second and third class boroughs, **unified municipalities**, and first and second class **cities**) which exercise powers consistent with the proposed **project**, except the Municipality of Anchorage.

Alaska Program Status: During federal fiscal year 1996 approximately \$3.2 M was available for distribution. Competitive grant **applications** are generally distributed to eligible applicants **once** each year, usually in September or October, with completed applications due to the Department by December or **January**.

Comments: Federal **regulations dictate** that at least **51%** of the persons who benefit from **funded** projects be low and moderate **income** persons as defined by the U. S. Department of Housing and Urban Development (HUD) through US **census** data.

Contact:

Jo E. Cooper, Block Grant Administrator
Department of **Community and Regional Affairs**
Municipal and **Regional Assistance Division**
209 Forty Mile Ave
Fairbanks AK 99701-3100
Phone: (907) 452-4468, Fax (907) 451-7251

Source: http://www.comregal.state.ak.us/edrg_int.htm

Rural Development Assistance (RDA) Grants

Administrative Agency: State Alaska Department of Community and Regional Affairs (DCRA)
Municipal and Regional Assistance Division

Program Goals: Principal objectives are to promote development of rural areas of the state by broadening and diversifying the economic base; improving health, welfare, and economic security; and providing employment and income in rural areas. The focus will be on projects which contribute to the economic development of the community, develop basic community facilities or infrastructure, or are for planning and feasibility studies.

Resources Provided: Competitive grants with a maximum of \$50,000 per community. State general funds, subject to annual appropriation. In FY 97 approximately \$700,000 was available.

Eligibility: Eligible applicants are municipalities, Native village councils, and regional or local nonprofit corporations serving communities which have a population of 900 or less; or lack a centralized water and sewer system serving the majority of residents, or lack organized police and fire protection; or lack resident medical and dental services other than those provided by the Indian Health Service. With Department approval, a community may submit an application with a public or private for-profit entity if the community will receive a specified benefit.

Alaska Program Status: Next program announcement will be in September 1997, with applications due January 1998.

Contact:

Gerry McDonagh
Municipal and Regional Assistance Division
Department of Community and Regional Affairs
P. O. Box 112100
Juneau AK 99811-2100
Phone (907) 465-5539, Fax (907) 465-3212

Source: http://www.comregal.state.ak.us/edrg_int.htm

Alaska Municipal Bond Bank Authority

Administrative Agency: State: Department of Revenue

Program Goals: To **assist communities with financing** for capital projects.

Resource Provided: Direct loans. No **set limits**. Interest rates depend on the national market for tax exempt bond issues.

Eligibility Any **organized local** government in need of **capital** project financing should contact the Bond Bank.

Alaska Program Status: The Alaska Municipal Bond Bank Authority is a public corporation created by state law (AS 44.85). The Bond Bank was created to address disadvantages which small **communities** often experience in **financial** markets. Small **communities** may have low bond ratings or lack familiarity among investors. **Generally, the** Bond Bank sells bonds on the national money market and then uses the **proceeds** to purchase the bonds of Alaska **municipalities**, thereby providing the **municipalities** with funds for their **capital projects**. The Bond Bank is **A rating** from both **Moody's** and Standard and Poor enables it to borrow money at low rates. As **municipalities** pay principal and interest to the Bond Bank to liquidate **their** debt, the Bond Bank **utilizes** these **payments** to liquidate its debt to its bond holders. The bank is self-supporting. It does not **use** general fund **monies**, and, in fact, returns about **\$1 million in** earned interest to the general fund **each year**. The bank has an excellent loan record, **with** no defaults. The bank has **five directors** including the Commissioners of the Departments of Revenue and Community and Regional Affairs and three **public members**.

Contact:

Tom Freeman, **Executive Director**
Alaska **Municipal Bond Bank Authority**
550 West **7th** Avenue, **Suite 1325**
Anchorage, Alaska, 99501
Phone (907)274-7366; Fax 276-1691

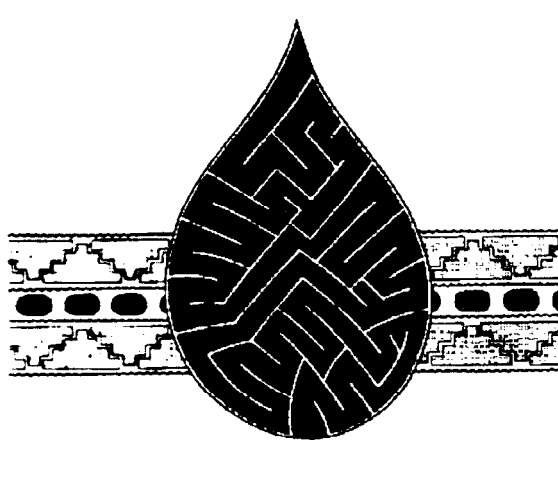
Source: http://www.comregaf.state.ak.us/edrg_int.htm

United States
Environmental Protection
Agency

November 1997
832-F-97-006

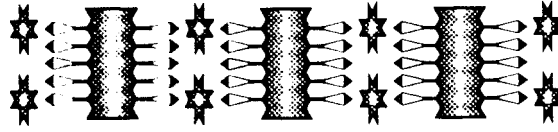
Office of Water (4204)

**EPA The Environmental
Protection Agency's
Clean Water Act
Indian Set-Aside
Grant Program**



This we know. The Earth does not belong to man; man belongs to the Earth. All things are connected like the blood that unites one family. Whatever befalls the Earth, befalls the sons of the Earth. Man did not weave the web of life; he is merely a strand in it. Whatever he does to the web, he does to himself: All things are connected.

Attributed to Chief Seattle. 1854



What Is the EPA CWA Indian Set-Aside Grant Program?

The Environmental Protection Agency (EPA) manages a grant program for the construction of **wastewater** facilities for Indian tribes and Alaska **Native Villages (ANVs)** called the Clean Water Act (CWA) **Indian Set-Aside (ISA)** Grant Program. The 1987 Amendments to the CWA established the program and authorized EPA to administer these grants. The program is administered in **cooperation** with the Indian Health Service (IHS). **This partnership** maximizes the technical resources **available** through both agencies to address **tribal sanitation** needs. To date, the EPA ISA Program has **disbursed** more **than** \$72 million in funding for **150** projects.

Who is Eligible?

All federally recognized tribes, **ANVs**, and tribes **on former reservations in** Oklahoma are eligible for ISA grant funds.

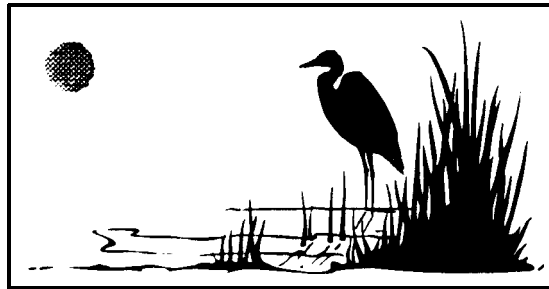
What Types of Projects are Eligible?

The ISA program provides grants for planning **design**, and **construction** of wastewater treatment **facilities**. No matching funds **are** required. **Up to 100%** of **eligible** project costs can be funded. **Typical projects** funded **are** for:

- . **Interceptor** sewers
- **Wastewater treatment** facilities (conventional or **alternative**)
- **Infiltration/inflow** correction
- . **Collector** **sewers**
- . **Major sewer** rehabilitation
- . **On-site** **systems** (e.g., **septics**)

How Does the ISA Program Work?

The ISA Program uses IHS's Sanitation Deficiency System (SDS) to Identify high priority wastewater projects for funding. To be eligible to receive an ISA Program grant, tribes must first identify their needs to the SDS. Both agencies work together to determine the projects to be funded, based on the ranking of projects in SDS and available EPA funding. EPA will notify the tribe when a project is selected for funding. Procedures for applying for an EPA grant are outlined in EPA's *Guidelines and Requirements for Applying for Grants from the Indian Set-Aside Program* (April 1989). A copy of this document can be obtained from the Regional ISA Coordinators listed on the back of this brochure



What Is the SDS?

The Indian Sanitation Facilities Act, passed in 1959, required the IHS to provide water supply, sewage, and solid waste disposal facilities for American Indian and Alaskan Native homes and communities. IHS created the Sanitation Facilities Construction Program to provide these services.

Congress then passed the Indian Health Care Improvement Act Amendments in 1988. These Amendments required IHS to address Indian water and wastewater needs and report them to Congress annually. To fulfill this requirement, the SDS was created to help IHS's 12 Area offices assess tribal sanitation deficiencies and report

them to Congress.

The SDS has five deficiency levels, ranging from **communities** that need only routine maintenance to **communities** that lack adequate wastewater **facilities**.

When Are the Data Collected for SDS?

Information about tribal sanitation needs is collected through the SDS by the 12 IHS Area offices. Tribes should contact their MS Area offices directly to discuss the data collection process; however, some key dates are as follows:

- **April to May** Identify sanitation needs to IHS Area offices
- **June:** deadline for submission of needs (Check with your Area office to determine the exact date)
- **September to November:** review of SDS submissions
- **December:** final SDS priority lists available

Where To Get More Information

The EPA Regional ISA Coordinators can provide information on resources available to the tribes for developing wastewater projects. One of these resources is the National Small Flows Clearinghouse (NSFC). Funded by EPA, the NSFC provides information and technical assistance services for small flows wastewater treatment systems. They offer materials to help plan, design, construct, and operate facilities to meet community environmental needs. Emphasis is placed on finding practical and affordable solutions for "small flows" wastewater problems.

For more information on the NSFC, telephone 1 800 624-8301. To find out about other available resources, please call your EPA Regional ISA Coordinator.



EPA Regional CWA ISA Coordinators:

Debbie Kerr

EPA Region I (CT ME MA NH, RI, VT)
JFK Federal Bldg One Congress St, Boston, MA 02203
Tel 617 565-4886

Muhammad Hatim

EPA Region II (NJ NY)
290 Broadway New York NY 10007-1866
Tel 212 637-3855

Walter Hunter

EPA Region IV (AL GA FL, MS, NC, SC, TN, KY)
51 Forsyth Street Atlanta, GA 30303-3104
Tel 404 562 9477

Charles Pycha

EPA Region V (IL IN OH MI MN, WI)
77 W Jackson Blvd Chicago IL 60604
Tel 312 886-0259

Gene Wossum

EPA Region VI (AR LA OK TX, NM)
445 Ross Ave Suite 1200 Dallas, TX 75202-2733
Tel 214 665-7173

Gerald Gutekunst

EPA Region VII (IA KS MO NE)
726 Minnesota Ave Kansas City, KS 66101
Tel 913 551-7484

Terry Griffith

EPA Region VIII (CO UT WY MT, ND, SD)
999 18th St Suite 500 Denver CO 80202-2466
Tel 303 312 6153

Loretta Vanegas

EPA Region IX (AZ CA NV)
75 Hawthorne Street San Francisco, CA 94105
Tel 415 7461946

Judy Fev

EPA Region X (AK ID OR WA)
1200 South Ave Seattle, WA 98101
Tel 206 553-1302

Sylvia Bell

EPA Headquarters
401 M Street SW (4204)
Washington DC 20460
Tel 202 260-7255

Indian Health Service Program Directors:

Curt Bossert
(NE IA ND SD)
Aberdeen Area Office
115 4th Street SE
Aberdeen SD 57401
Tel 605 226-7451

Ken Evans
(AK)
Anchorage Area Office
3925 Tudor Centre Dr
Anchorage AK 99508-5997
Tel 907 729-3500

Sam Bradshaw
(CO NM except Navajo)
Albuquerque Area Office
5338 Montgomery Blvd NE,
Room 123
Albuquerque NM 87109-1311
Tel 505 248-4596

Mike Yavarow
(MN MI WI)
Bemidji Area Office
305 Federal Building
Bemidji MN 56601-3060
Tel 218 759-3372

Richard Cksness
(MT WY)
Billings Area Office
P O Box 2143
Billings MT 59103
Tel 406 247-7096

Ernie Leporini
(CA)
California Area Office
1825 Bell Street Suite 200
Sacramento CA 958251097
Tel 916 566-7001

Crag Larson
(NY, ME, NC, MS, FL, AL, CT, LA)
Nashville Area Office
122 E Seneca St
Manlius NY 13104
Tel 315 682-3167

C Lewis Fox
(Navajo)
Navajo Area Office
P O Box 9020
Window Rock, AZ 86515
Tel 520 871-5852

Greg Haase
(OK, TX, KS)
Oklahoma City Area Office
Five Corporate Plaza
3625 NW 56th St
Oklahoma City, OK 73112
Tel 405 951-3744

John Hamilton
(UT, NV, AZ - All tribes except
Navajo and Tucson Area)
Phoenix Area Office
Two Renaissance Square
40 N Central Ave Suite 600
Phoenix, AZ 85004
Tel 602 364-5068

Kelly Titensor
(WA OR, ID)
Portland Area Office
Federal Bldg Room 476
1220 SW 3rd Avenue
Portland, OR 97204-2892
Tel 503 326-2001

Martin McCarthy
(Tucson Area Tohono O'odham
Pasqua-Yaqui)
Tucson Area Office
7900 South J Stock Road
Tucson, AZ 85746-9352
Tel 520 295-2580

Indian Programs

Section 518(c) of the Clean Water Act authorized EPA to create a grants program to help pay for the planning, design and construction of wastewater treatment systems to serve Indian Tribes and Alaska Native Villages.

Tribes and Native Alaskan Villages face significant human health, water quality and environmental problems because of the lack of adequate wastewater treatment. These problems--and the corresponding lack of existing environmental structure--exist because of many factors, including local economic conditions, dispersed populations, political and cultural barriers, and the lack of significant environmental investment by federal and state agencies.

The Indian Set-Aside program seeks to help alleviate these problems and to focus attention on the needs of Native populations. Millions of dollars in grants funds have been made available for wastewater projects on Indian lands and in Alaska Native Villages. EPA will continue to work with Tribes, Alaska Native Villages and other federal agencies to achieve adequate wastewater systems.

The Indian Set-Aside (ISA) Program is administered by EPA through a cooperative effort with the Indian Health Service (IHS). Applicants can obtain a copy of the guidance document entitled "Guidelines and Requirements for Applying for Grants from the Indian Set-Aside Program" dated, April 1988, to determine how to apply for these grants. An Addendum to the guidance document was issued in March 1995. The guidance document can be obtained by contacting EPA's Regional Indian Set-Aside Coordinator for the area in which you are located:

Regional Office Indian Set-Aside Coordinators

Region 1

Debbie Kerr
Environmental Protection Agency
Water Management Division
JFK Federal Building
One Congress Street
Boston, MA 02203-0001
(617) 565-4886
(CT, ME, MA, NH, RI, VT)

Region 6

Gene Wossum
Environmental Protection Agency
Water Management Division
Fountain Place 12th Floor Suite 1200
1445 Ross Avenue
Dallas, TX 75202-2733
(214) 665-7173
(AR, LA, NM, OK, TX)

Region 2

Muhammad Hatim
Environmental Protection Agency
Water Management Division
290 Broadway

Region 7

Gerald Gutekunst
Environmental Protection
Water Management Division
726 Minnesota Avenue

New York, New York 10007-1866 Kansas City, KS 66 10 1
(212) 637-3855 (913) 551-7484
(NJ,NY,PR,VI) (IA,KS,MO,NB)

Region 4

Fred Hunter

Environmental Protection Agency
Water Management Division
61 Forsyth Street
Atlanta, GA 30303-3 104
(404) 562-9477
(AL,FL,GA,KY,MS,NC,SC,TN)

Region 8

Terry Griffith

Environmental Protection Agency
Water Management Division
999 18th Street, Suite 500
Denver, CO 80203-2466
(303) 312-6153
(CO,MT,ND,SD,UT,WY)

Region 5

Charles Pycha

Environmental Protection Agency
77 West Jackson Boulevard
Chicago, IL 60604-3 507
(3 12) 886-0259
(IL,IN,MI,MN,OH,WI)

Region 9

Loretta Vanegas

Environmental Protection Agency
Water Management Division
75 Hawthorne Street
San Francisco, CA
(4 15) 744- 1946
(AZ,CA,HI,NV,TT)

Region 10

Judy Fey

Environmental Protection Agency
Water Management Division
1200 Sixth Avenue
Seattle, WA 98 10 1
(206) 553-1 302
(AK, ID, OR. WA)

Publications

[Brochure on EPA's Clean Water Act Indian Set-Aside Grant Program](#)

[Answers To Frequently Asked Questions About The Clean Water Indian Set-Aside Grant Program](#)

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This page last updated on March 13, 1998

<http://www.epa.gov/owm/itgen.htm>

The Hardship Grants Program for Rural Communities

- **Fact Sheet: The Hardship Grants Program for Rural Communities**
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- **Federal Register: Hardship Grants Program for Rural Communities *Guidelines***
 - PDF Format (60 KB)

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The Hardship Grants Program for Rural Communities

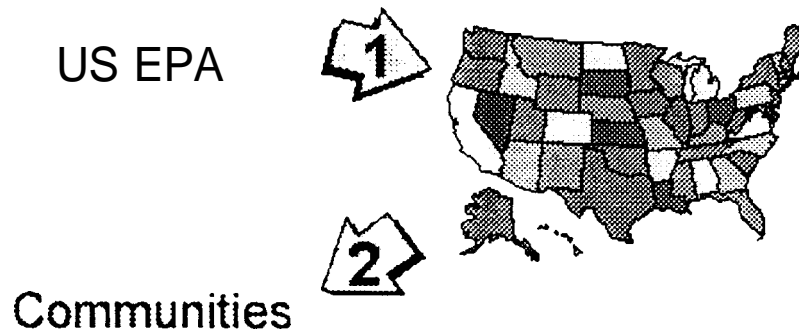
The U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) has developed guidelines for a new grant program to help small, disadvantaged rural Communities address their wastewater treatment needs. The 1996 Congressional Appropriations Act reserved \$50 million from Clean Water State Revolving Fund appropriations to start the new

Hardship Grants Program for Rural Communities.

Many rural Communities lack the resources to afford the full cost of Clean Water State Revolving Fund loans to improve their outdated or failing wastewater treatment services. The Hardship Grants Program is designed to complement the Clean Water State Revolving Fund Program, which allows states to make loans to Communities and individuals for high-priority water-quality projects, States are provided a high degree of flexibility in how they manage the new Hardship Grants Program, and are responsible for selecting projects.

How the program works...

The U.S. Environmental Protection Agency makes grants to each State, plus Puerto Rico and U.S. Territories (Step 1), and then States provide assistance to eligible rural communities. (Step 2).



Under the new program, EPA will award grants to the states, Puerto Rico, and U.S. Territories, which in turn will provide hardship assistance to small Communities (see diagram at left). EPA's guidelines encourage the states to assist rural Communities by supplementing Clean Water State Revolving Fund loans with hardship grant assistance.

States may award hardship assistance to qualifying Communities for the planning, design, and construction of publicly owned treatment works or alternative wastewater services, such as on-site treatment systems (including septic). States may also use hardship assistance to provide training, technical assistance and educational programs on the operation and maintenance of wastewater treatment systems. Under the Hardship Grants Program, any rural community with fewer than 3,000 residents can qualify for hardship assistance from its state program if it meets the following criteria:

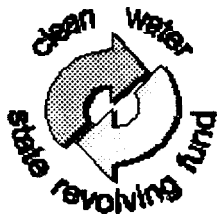
- The community lacks access to centralized wastewater treatment or collection systems, or needs improvements to on-site wastewater treatment systems;
- The proposed project will improve public health or reduce environmental risk;
- The community's per capita income rate is less than 50 per cent of the national average, and
- Its unemployment rate exceeds the national average by one percentage point or more

Copies of the new national **Hardship Grants Program for Rural Communities** guidelines, as well as contact information for your state program representative, are available by contacting EPA (see below).

For more information...

For a copy of the national Hardship Grants Program for Rural Communities

guidelines or for your state's Hardship Grants Program representative, please contact:



Clean Water State Revolving Fund Program, Mailcode
4204

U.S. Environmental Protection Agency

Washington, DC 20460

Telephone: (202) 260-2268

Fax: (202) 260- 1827

Internet web site: <http://www.epa.gov/OW-OWM.html>

*For additional copies of this fact sheet, or to receive other information about EPA, please call the **National Center for Environmental Publications and Information** toll-free at (800) 490-9198.*

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federal register

Thursday
March 20, 1997

Part X

Environmental Protection Agency

Rural Communities Hardship Grants
Program Implementation Guidelines;
Notice

**ENVIRONMENTAL PROTECTION
AGENCY**
[FRL-5711-8]
**Guidelines for implementing the
Hardship Grants Program for Rural
Communities**
ACTION: Notice of Availability of the
Hardship Grants Program for Rural
Communities.

SUMMARY: The Environmental Protection
Agency is publishing the final
Guidelines for Implementing the
Hardship Grants Program for Rural
Communities, including the funding
allotment. (Catalogue of Domestic
Federal Assistance #66.470)

ADDRESSES: Write to Stephanie vonFeck
(4204). Environmental Protection
Agency, 401 M Street SW, Washington,
DC 20460. or via Internet at
vonfeck.stephanie@epamail.epa.gov for
copies of the final Guidelines.

FOR FURTHER INFORMATION CONTACT:

 Stephanie vonFeck (4204).
Environmental Protection Agency, 401
M Street SW, Washington, DC 20460.
(202)260-2268.

SUPPLEMENTARY INFORMATION: These
Guidelines implement a \$50 million
grant program contained in the
Omnibus Consolidated Rescissions and
Appropriations Act of 1996 (Pub.L. 104-
134). The Agency will make grants to
States, which in turn can provide
assistance to improve wastewater
treatment services in poor, rural
communities with populations of 3,000
or fewer where such services are
currently inadequate. The Hardship
Grants Program for Rural Communities
will be coordinated with the Clean
Water State Revolving Fund (SRF)
program and in accordance with the
SRF program regulations at 40 CFR part
35, subpart K and existing Agency grant
regulations and procedures, including
40 CFR part 31.

 The Hardship Grants Program for
Rural Communities may be subject to
your State's intergovernmental review
process under Executive Order 12372,
and/or the consultation requirements of
Section 204, Demonstration Cities and
Metropolitan Development Act of 1966,
42 U.S.C. 3334 (the Act). Applicants
must contact their State's Single Point of
Contact (SPOC) for intergovernmental
review as early as possible to find out
whether Hardship grant applications
(CFDA #66.470) are subject to the State's
Executive Order 12372 review process
and, if so, what material must be
submitted to the SPOC for review. If the
application is for a community within a
"metropolitan area" as that term is

 defined at 42 U.S.C. 3338(4), then the
requirements of the Act are applicable.
You must notify area-wide metropolitan
or regional planning agencies and or
general government units authorized to
govern planning for the locale of your
project of your intended application.
SPOCs and other reviewers should send
their comments concerning Hardship
Grant applications to the appropriate
Regional State Revolving Fund
Coordinator no later than 60 days after
receipt of an application and other
required material for review. In
accordance with 40 C.F.R. 29.8(c) a 60
day review is mandatory for projects
subject to the Act.

 Under 5 U.S.C. 801(a)(1)(A) as added
by the Small Business Regulatory
Enforcement Fairness Act of 1996, EPA
submitted a report containing this
document and other required
information to the U.S. Senate, the U.S.
House of Representatives and the
Comptroller General of the General
Accounting Office prior to publication
of this document in today's Federal
Register. This document is not a "major
rule" as defined by 5 U.S.C. 804(2).

Dated: March 17, 1997.

Dana Minerva.

Acting Assistant Administrator.

**Appendix—Hardship Grants Program
for Rural Communities**
Background

 On May 16, 1995, the House passed
the Clean Water Amendments of 1995
(H.R. 961), a bill to reauthorize the
Clean Water Act. Section 102(d) of this
bill authorizes \$50 million for each of
Fiscal Years 1996 through 2000 for
grants to States, which the States in turn
ran use to provide assistance for the
wastewater needs of poor, rural
communities. Although no further
action was taken on H.R. 961, the
Omnibus Consolidated Rescissions and
Appropriations Act of 1996 (Pub. L.
104-134), which the President signed
into law on April 26, 1996, provided
\$50 million for these grants in FY 1996,
stating that they are to be used in
accordance with section 102(d) of H.R.
961. This sum is to be taken from the
\$ 1.3485 billion reserved for
capitalization grants to State Revolving
Funds (SRF) under title VI of the Clean
Water Act.

 Section 102(d) of the House Clean
Water Act reauthorization bill (H.R. 961)
reads, in pertinent part:

 (T)he Administrator may make grants to
States to provide assistance for planning,
design, and construction of publicly owned
treatment works and alternative wastewater
treatment systems to provide wastewater
services to rural communities of 3,000 or less

 that are not currently sewed by any sewage
collection or wastewater treatment system
and are severely economically
disadvantaged, as determined by the
Administrator.

 The relevant clause in the "State and
Tribal Assistance Grants" language of
the Omnibus Appropriations Act reads:

 Provided Further, That of the funds made
available under this heading for
capitalization grants for State Revolving
Funds under title VI of the Federal Water
Pollution Control Act, as amended,
\$50,000,000 shall be for wastewater
treatment in impoverished communities
pursuant to section 102(d) of H.R. 961 as
approved by the United States House of
Representatives on May 16, 1995

 Although the legislative history to
H.R. 961 does offer some instruction on
how to define a "severely economically
disadvantaged" community, additional
documented direction from Congress
about this new program is scant
(Attachment A contains excerpts from
both the legislative history to section
102 and the Omnibus Appropriations
Act provision). In the absence of
detailed guidance from Congress, the
Agency plans to administer this
program in concert with existing
programs and procedures to the
maximum extent possible.

**Basic Principles for Administering
Rural Community Hardship Grants**

 EPA Regions will be responsible for
awarding grants to the States, pursuant
to a delegation of authority signed by
the Administrator (Attachment B).
States will make grant awards to
individual communities or projects or
will provide technical assistance to
qualifying communities. The award of
grants or the provision of technical
assistance by a State to benefit
qualifying communities will be referred
to in these guidelines as hardship
assistance. The definition of technical
assistance is provided under the
heading "Eligible Projects".

 Except as described in the following
section, the Agency will administer the
rural community hardship grants in
conjunction with the Clean Water State
Revolving Fund program (CW SRF),
because the CW SRF capitalization grant
appropriation is the source for these
funds and because the program provides
an established funding mechanism in
each State. By combining CW SRF loans
and grants, more qualifying
communities will benefit from the
limited funding that is available. The
communities would also continue to
have a stake in their projects, and
thereby an incentive to keep project
costs low.

In addition to the CW SRF capitalization grant. States will be awarded a separate grant consisting of funds which can be awarded as hardship assistance to qualifying communities. These funds are in addition to the CW SRF capitalization grant awarded to the State.

Communities that apply for CW SRF loans and that qualify according to the criteria established in these guidelines and any additional State guidelines would then be able to receive hardship assistance in an amount that would make that CW SRF loan affordable.

The loan amount must account for at least 15 percent of the CW SRF-eligible cost of the project before the Agency will consider it an SRF project.

Otherwise, the project will be governed by the guidelines described under the following heading below: "Projects receiving less than 15 percent in SRF funding or hardship assistance only" All communities seeking hardship assistance must apply for an SRF loan. The State will then determine the appropriate mix of hardship grant and SRF loan funds.

Administering this program in conjunction with the CW SRF program has a number of other advantages. The approach will encourage communities to move forward with needed project construction, rather than wait to receive grant funding for the entire cost of those projects. Projects in communities that receive hardship assistance will receive public review and approval because they will be listed on the State's CW SRF Intended Use Plan (IUP). These projects will also undergo an environmental review, under State Environmental Review Procedures (SERP) established for the CW SRF program, and will comply with other SRF requirements which are more streamlined than the requirements that apply to projects funded with direct Federal grants. For example, compliance with cross-cutting Federal environmental authorities can be accomplished in conjunction with the SERP. A listing of crosscutting Federal authorities currently applicable in the CW SRF program is attached (Attachment C).

EPA's general grant regulations at 40 CFR part 31 and other Agency regulations that apply to grant recipients (e.g., 40 CFR part 32, debarment, suspension, and drug-free workplace requirements), will apply to the State as the grant recipient, in the same manner as they apply to the State as the recipient of CW SRF capitalization grants. Because projects receiving hardship assistance will be projects listed on the State's CW SRF IUP and

will also be receiving SRF loans, the States must follow the Agency's SRF regulations at 40 CFR part 35, subpart K, with respect to the recipients of that assistance. The CW SRF regulations prescribe rules for drawing cash and for the specific types of assistance CW SRF can provide. The rules for drawing cash for hardship assistance are described under the heading "Allocation of grant funds" below.

In addition to hardship assistance for rural communities described in these guidelines, there are a number of other Federal programs that provide loan and grant assistance for the wastewater needs of rural communities. The water and wastewater loan and grant program administered by USDA's Rural Utility Service and the Department of Housing and Urban Development's Community Development Block Grants are just two examples. Often, these other Federal programs can provide assistance for costs that would be ineligible under the statutory provisions being implemented in these guidelines (e.g., indoor plumbing may be funded by CDBG funds in limited circumstances). The Agency expects that State officials will take these other programs' benefits into account in devising the most effective assistance package for a rural community.

Projects Receiving Less Than 15 Percent in SRF Funding or Hardship Assistance Only

If a qualifying community cannot afford a loan for at least 15 percent of a project's CW SRF-eligible cost, the State may elect to provide less than a 15 percent CW SRF loan or hardship assistance alone. In these cases, provisions in the general grant regulations at 40 CFR part 31 and other rules that apply to subrecipients of grants, but not to SRF loan recipients (e.g., 40 CFR part 32, debarment, suspension, and drug-free workplace requirements), will apply to the recipient of the hardship assistance. In addition to the general grant regulations, which prescribe rules on financial management, procurement and record keeping practices of subgrantees, projects receiving hardship assistance alone or less than 15 percent SRF funding must comply with Federal cross-cutting authorities and with Agency regulations implementing the National Environmental Policy Act at 40 CFR part 6. The State will be responsible for ensuring that communities receiving hardship assistance alone or less than 15 percent SRF funding are aware of requirements imposed upon them by Federal statute and regulation. As part of the Hardship

Grant agreement, the State and EPA will negotiate their respective roles for ensuring that these projects comply with 40 CFR part 31 and Federal cross-cutting authorities.

Grants to States

The Agency will make hardship rural community program grants to the States separately from CW SRF capitalization grants. Before receiving a grant and no later than one year from the date of publication of funding allotment in the Federal Register, the Governor of the State must submit a Notice of Intent to use the grant for the purposes of the program. If the Governor elects not to submit a Notice, grant funds available to that State will then be allocated among those States that have furnished a Notice. Grant funds will be available for obligation to the State for two years from the date of publication of funding allotment in the Federal Register. Funds not obligated during that period will be reallocated and awarded to States that have received an obligation of all such funds during that period. All reallocated funds will be available for obligation within two years of the date of reallocation.

The State must specify which department of government will receive and administer the grant funds. The department or agency that receives the hardship assistance grant does not need to be the same department that administers the State Revolving Fund. However, close coordination between these programs is necessary to meet the requirements of these guidelines. If an agency other than that which administers the State Revolving Fund will administer the Hardship Grant program, a memorandum of understanding (MOU) or similar agreements between the agencies will be required in the Hardship Grant application to EPA. MOUs should clearly delineate the division of management responsibilities among agencies.

The Hardship Grants Program for Rural Communities may be subject to your State's intergovernmental review process under Executive Order 12372, and/or the consultation requirements of Section 204, Demonstration Cities and Metropolitan Development Act of 1966, 42 U.S.C. 3334 (the Act). Applicants must contact their State's Single Point of Contact (SPOC) for intergovernmental review as early as possible to find out whether Hardship grant applications (CFDA #66.470) are subject to the State's Executive Order 12372 review process and, if so, what material must be submitted to the SPOC for review. If the application is for a community within a

"metropolitan area" as that term is defined at 42 U.S.C. 3338(4), then the requirements of the Act are applicable. You must notify area-wide metropolitan or regional planning agencies and/or general government units authorized to govern planning for the locale of your project of your intended application. SPOCs and other reviewers should send their comments concerning Hardship Grant applications to the appropriate Regional State Revolving Fund Coordinator no later than 60 days after receipt of an application and other required material for review. In accordance with 40 CFR 29.8(c) a 60 day review is mandatory for projects subject to the Act.

The costs of administering the program shall not be deducted from the hardship assistance grant. Administration funds must not be from any fees or other charges imposed on the communities likely to be served by the grant. Administering the program does not include the costs of providing technical assistance to benefit qualifying communities.

Allocation of Grant Funds

The \$50 million dollars appropriated by the Consolidated Omnibus Appropriations and Rescissions Act of Fiscal Year 1996 (P.L. 104-134) for hardship grants are allotted among the 50 States, Puerto Rico, and the territories as of the date of this Federal Register notice. Attachment D provides the funding allotment. The District of Columbia and the former trust territory of Palau will not receive hardship grant funds. The District of Columbia has no qualifying communities. Palau no longer receives new Federal assistance for infrastructure needs (Pub. L. 99-239: Compact of Free Association Act).

Comments from both Congress and States indicate that the CW SRF formula would not sufficiently target the hardship funds to areas of the country with the most potential need. Two program requirements are included in the formula for allocation. Lack of access to centralized wastewater collection and treatment systems and per capita income are the indicators of hardship need that will help target the funds to areas of the country with the greatest need. The first of these factors is weighted 75 percent and the second 25 percent. More weight is given to households without access to wastewater treatment systems because it represents a stronger indicator of environmental problems.

National data regarding these indicators was obtained from the 1990 Census of Housing and the 1990 Census of Population published by the U.S.

Bureau of the Census. The 1990 Census provides the most up-to-date data for rural areas nationwide. The Bureau of the Census provides a data threshold for rural populations of 2,500 or fewer. This population threshold is the closest available from the Bureau of the Census to the 3,000 person population limit of the hardship grants program. Because communities must be rural, both indicators of need used in the allotment formula are narrowed to rural populations within States. For instance, data for households without access to centralized wastewater treatment in each State relates only to households in rural areas of 2,500 or fewer people that do not have access to centralized treatment. Per capita income data in each State is related to rural areas of 2,500 or fewer people where the per capita income is not greater than 80% of national per capita income. Due to lack of consistent household and income data for the Territories, the Territories are allotted funds based on their CW SRF allotment formula. More details on the allotment methodology are available in Attachment E.

The Territory of Guam, Territory of American Samoa, the Commonwealth of the Northern Mariana Islands, and the Virgin Islands do not operate CW SRF programs and instead receive their SRF allotments for use as construction grants under title II of the Clean Water Act (Pub. L. 101-144, as amended by Pub. L. 101-302). These jurisdictions may receive hardship assistance for the entire cost of a project benefiting a qualifying community or to supplement a construction grant that is made for a project benefiting a qualifying community.

Indian tribes are not treated as States under the hardship grant program. Instead, Tribes receive one-half of one percent of the CW SRF appropriation for use as construction grants (Clean Water Act section 518(c), 33 U.S.C. 1377(c)). Nonetheless, data for Indian Tribe communities that qualify under the criteria described in these guidelines are included in the Census data used to develop the State allocation formula. Indian Tribes may receive hardship assistance from the State, either for the entire cost of a project, to supplement a construction grant, or to supplement a CW SRF loan. States are encouraged to provide due consideration to all qualified applicants, including Indian Tribes, when developing their IUPs and apportioning hardship assistance among qualifying communities.

When the grant is awarded to the State, the Agency will make funds available for cash draws through the Automated Clearinghouse (ACH)

process established in each State for EPA grants. The State may then draw cash through the ACH for the expenses involved in providing technical assistance and to reimburse communities as construction proceeds.

Within one year of the end of the period of availability, the State must enter into commitments to provide hardship assistance to benefit qualifying communities in an amount equaling 105 percent of the amount of the grant.

State Match

In order to increase the amount of funds available for the purpose of this program, each State will provide a 5 percent match for the grant. The source of the match must be identified on or before the date the Federal award of the grant is made, with actual cash being required at the time of cash draw from the ACH. Matching funds must not be from any fees or other charges imposed on the communities likely to be served by the grant. The State cannot use SRF assets to acquire the match.

Funding from other Federal assistance programs may be used for matching funds if specifically allowed by the laws and procedures of those programs. Funding from the Environmental Protection Agency may not be used as match for this program.

Obligations of the States as a Grantee

The State must comply with the Agency's general grant regulations at 40 CFR part 31 to the extent that they involve matters that are not addressed by these guidelines for administering the particular requirements of section 102(d) of H.R. 961 and the Omnibus Appropriations Act. The part 31 regulations contain requirements on applying for the grants, maintaining finances in accordance with State rules, and auditing the grants.

Other matters related to the State's operation of the program should be negotiated between the State and the Regional office, and should be specified in the State's CW SRF Operating Agreement (OA) or in the hardship grant agreement itself. The State must also furnish a statement signed by the State's Attorney General certifying that the State has the legal authority to receive and administer the grant in accordance with these guidelines and that the State can legally bind itself to the terms of the grant agreement. This Attorney General's certification can be done in conjunction with the Attorney General's certification required for CW SRF capitalization grants under 40 CFR 35.3110(d)(2).

All projects that the State intends to provide hardship assistance must

appear in the CW SRF IUP, including individual projects and the provision of technical assistance. The State agency that is receiving the grant should consult State community development or rural assistance departments for assistance in identifying qualifying communities. Progress on hardship assistance projects must be described in the State's CW SRF Annual Report. A database being developed for the hardship grants program in conjunction with the SRF Information Management System States are required to provide data to EPA Regional offices for inclusion in the information system.

Qualifying Communities

In consultation with the Regional office, the State may provide hardship assistance, including technical assistance, to benefit any community of more than a single household but no more than 3,000 inhabitants that is identified by the State as a rural community, is not a remote area within the corporate boundaries of a larger city, and satisfies the criteria described below. In cases where the entire State is divided into incorporated areas, the State should propose, as part of its application for Regional approval, a method for delineating rural communities.

In the legislative history to the Clean Water Amendments of 1995, national per capita income and unemployment rates are the criteria recommended by the sponsors of section 102(d) for determining whether a community is "severely economically disadvantaged" (House debate, remarks of Mr. Shuster, Cong. Rec. H5008, May 16, 1995). Consequently, a community may qualify for hardship assistance if, on the date the community applies for assistance:

- The community lacks centralized wastewater treatment or collection systems or needs improvements to onsite wastewater treatment systems and the State determines that assistance will improve public health or reduce an environmental risk; and

- Per capita annual income of residents served by the project does not exceed 80 percent of national per capita income, based on data available as indicated in the following paragraphs; and

- On the date the community applies for assistance, the local unemployment rate exceeds by one percentage point or more the most recently reported, average yearly national unemployment rate.

Due to the shortage of up-to-date income and unemployment information for hardship communities, States will have the flexibility to determine the

source of the data and the methodology used to compare communities to these standards. This information should be included in the State's hardship grant application and is subject to Regional approval.

Per Capita Income Data

There are two sources of national per capita income data—the Bureau of the Census and the Bureau of Economic Analysis (BEA). The most recent, comprehensive nationwide survey of per capita income was provided by the Bureau of the Census in 1990. This income data is periodically updated. The Bureau of the Census measures per capita income by cash equivalents. In 1994, the updated national per capita income reported by the Bureau of the Census was \$16,555.80 percent of which is 513.244.

The Bureau of Economic Analysis also measures per capita income. However, their measure includes cash income as well as other income, such as benefits, food stamps, etc. BEA's 1994 national per capita income was \$21,696.80 percent of which is \$17,357.

Local level data is also available to varying degrees from the Bureau of the Census and the Bureau of Economic Analysis. The 1990 Census has the most recent comprehensive local level data available. In 1994 the Bureau of the Census updated per capita income data for the nation, States, and metropolitan statistical areas. BEA updates their per capita income yearly to the county level. The latest county level BEA data is for 1994. States and communities may also choose to generate local level data by performing a survey of the community. Income survey tools are used for the U.S. Department of Housing and Urban Development's Community Development Block Grant program that can be modified for use in this program.

Options for comparing local data to national data include, but are not limited to:

- Comparing a community's 1990 Census data to national data from the 1990 Census;
- Adjusting 1990 Census data for a community to a more recent year, using State multipliers, so that it is comparable to the latest national Census data;
- Surveying a community to gather up-to-date local data for comparison to either Census or BEA data as appropriate; or
- Using county BEA data to qualify the county as a whole for the income requirement. Small communities within that county that meet the other criteria of size, rural, lack of access to

wastewater systems, and unemployment would then qualify for funding.

Unemployment Data

Unemployment data is available from the Bureau of Labor Statistics (BLS). The unemployment rates are updated monthly for the national, State, and county level. Average yearly unemployment is computed by adding the last 12 monthly unemployment rates and dividing by 12 for both the national and county level. States are free to use county BLS data to qualify the county as a whole for the unemployment requirement. Small communities within that county that meet the other criteria of size, rural, lack of access to wastewater systems, and per capita income would then qualify for funding. States and communities may also choose to generate community level unemployment data by performing a survey of the community.

Eligible Projects

A State can provide assistance from the grant for the planning, design and construction of publicly owned treatment works and alternative wastewater systems. Publicly owned treatment works and alternative treatment systems include those defined in section 212 of the Clean Water Act which are commonly funded under the CW SRF program and with construction grants under Title II of the Act. States should consider how projects receiving hardship assistance will best meet the objectives of their watershed plans or the Intended Use Plan, where watershed plans are not available, when selecting projects for funding. Recipients of hardship assistance should consider the cost-effectiveness of alternative means for addressing its wastewater treatment needs.

The sponsors of H.R. 961 viewed the assistance options under section 102(d) broadly, stating in the Committee Report that they include "training, technical assistance and educational programs relating to the operation and maintenance of such sanitation services." (H. Rept. 104-112, p. 101). The decision on the level of funding to provide for planning, design and construction versus training, technical assistance and education programs is at the State's discretion. However, onsite technical assistance may only be provided to qualified communities and the primary purpose of technical seminars and other training must be to train qualified communities.

Obtaining Hardship Rural Community Assistance

Before the State may offer hardship assistance, it must ensure that projects in qualifying communities appear in the CW SRF Intended Use Plan (IUP). The State should explain in its IUP the level of SRF loan and hardship grant assistance that may be available for these communities. Hardship grants should be available only to the extent that an SRF loan is not affordable. In the State's CW SRF Annual Report (section 606(d) of the Clean Water Act), which contains information relating to the goals, objectives, and accomplishments set out in its IUP, the State must also report on the progress of its hardship grant assistance efforts.

Qualifying communities should apply for hardship assistance when applying for CW SRF loans under procedures established for the State's CW SRF program. The State and the community can then decide on the appropriate mix of SRF loan funds and hardship assistance. If a community cannot afford a 15% SRF loan, it may receive more than an 85% grant or hardship assistance only and proceed under the general grant regulations at 40 CFR part 31, as described previously.

Attachment A-Hardship Grants for Rural Communities

From the Omnibus Consolidated Rescissions and Appropriations Act of 1996 (Pub. L. 104-134):

State and Tribal Assistance Grants

For environmental programs and infrastructure assistance provided further, that of the funds made available under this heading for capitalization grants to State Revolving Funds under title VI of the Federal Water Pollution Control Act, as amended, \$50,000,000 shall be for wastewater treatment in impoverished communities pursuant to section 102(d) of H.R. 961 as approved by the United States House of Representatives on May 16, 1995.

From H. Rept. 104-384 (Conference Report to accompany H.R. 3019, which would be enacted as the Omnibus Consolidated Rescissions and Appropriations Act of 1996):

Fmm within the amount appropriated for wastewater capitalization grants, \$50,000,000 is to be made available for wastewater grants to impoverished communities pursuant to section 102(d) of H.R. 961 as approved by the House of Representatives on May 16, 1995. The conferees expect the Agency to closely monitor state compliance with this provision to assure that funds are obligated appropriately and in a timely manner. Unused funds allocated for this purpose are to be made available for other wastewater capitalization grants

From section 102(d) of H.R. 961, the Clean Water Amendments of 1995, adding subsection (5) to section 104(q) of the Federal Water Pollution Control Act:

(5) **Small Impoverished Communities-**
(A) **Grants.**—The Administrator may make grants to States to provide assistance for planning, design, and construction of publicly owned treatment works and alternative wastewater treatment systems to provide wastewater services to rural communities of 3,000 or less that are not currently served by any sewage collection or wastewater treatment system and are severely economically disadvantaged, as determined by the Administrator.

(B) **Authorization.**—There is authorized to be appropriated to carry out this paragraph \$50,000,000 per fiscal year for fiscal years 1996 through 2000.

Fmm H. Rept. 104-112, to accompany H.R. 961, the Clean Water Amendments of 1995:

Wastewater Treatment in Impoverished Communities. Section 102(d) authorizes \$50 million per year for fiscal years 1996 through 2000 for EPA to award grants to States for funding the planning, design and construction of POTWs in small, impoverished communities of 3,000 people or less that lack sewage treatment systems and are severely economically disadvantaged.

In communities with these circumstances, the committee believes the award of federal grant monies is justified for the protection of human health and the environment, and as further insurance for the government's investment, grant monies may be used for training, technical assistance and education programs relating to the operations and maintenance of such sanitation services.

Despite enactment of the Federal Water Pollution Control Act of 1972 and the expenditure of billions in federal funds for the construction of POTWs (sic), thousands of small communities still are not served by central wastewater treatment facilities today. Many small impoverished communities lack the resources even to repay low or zero-interest loans under the current SRF structure without financial assistance. untreated human sewage will continue to flow from pipes and seep from poorly functioning septic systems and privies, posing human health and environmental risks.

The Committee anticipates working closely with the Administrator to develop appropriate criteria regarding "severely economically disadvantaged."

Fmm House debate on H.R. 961 (Congr. Rec. H5008, 104th Congress, 1st session); Remarks of Mr. Shuster, Chairman, Transportation and Infrastructure Committee:

Administration of the funding provisions need additional clarification. Section 102(d) of H.R. 961 authorizes the Administrator of EPA to make grants to the States for planning, design, and construction of publicly owned treatment works in rural

communities of 3,000 people or less which are severely economically disadvantaged. The committee report states the committee's intention to work closely with the Administrator to develop appropriate criteria regarding severely economically disadvantaged. I wish to clarify that the committee considers eligible communities as those having a per capita income of no more than 80 percent of the national average and an unemployment rate of 1 percent or more above the national average.

Attachment B-Memorandum

SUBJECT: Proposed Delegation of Authority to Approve Grants and Cooperative Agreements for Water Infrastructure Projects for Fiscal Year 1996 and Subsequent Years to the State and Tribal Assistance Grants Account and any Successor Accounts-DECISION
MEMORANDUM

FROM:

Robert Thortakson, Director/s/
Office of Water/Office of Research and Development Human Resources Staff

David R. Alexander, Director /s/
Organization and Management Consulting Services

TO: The Administrator

THRU: AX

Issue: The Office of Water (OW) proposes delegating to Regional Administrators (RAs) the authority to approve grants and cooperative agreements for water infrastructure projects and grants to States for providing assistance to "severely economically disadvantaged rural communities" from funds appropriated in Fiscal Year 1996 and subsequent years to the State and Tribal Assistance Grants Account and any successor accounts.

Background

The Fiscal Year 1995 Appropriations Act for VA, HUD, and Independent Agencies (P.L. 103-327) authorized the award of grants for 50 water infrastructure projects identified in the Conference Report (H.R. Report No. 715, 103d Congress, 2d Sess. at 39-43 (1994)). The authority to award these grants was delegated to Regional Administrators by Delegation No. 1-92, 1200 TN 373, dated 10/31/94). All funds available for the 50 projects under this appropriation have been awarded.

The EPA section of the Omnibus Consolidated Rescissions and Appropriations Act of 1996 (P.L. 104-134) authorizes \$306.5 million in grant funding for 22 water infrastructure projects including some for which funds have been provided by P.L. 103-327 and for which additional grants have been awarded from funds provided by

Continuing Resolutions (CRs) enacted prior to the enactment of P.L. 103-134. Close coordination with State and local agencies requires award and administration of these grants and cooperative agreements at the regional level.

Analysis and Review

A new delegation is needed to allow Regional Administrators to award the remaining funds authorized by P.L. 104-134 for Congressionally designated water infrastructure projects and grants to States for providing assistance to "severely economically disadvantaged rural communities" because these grants will be subject to different terms and conditions—for example those concerning local cost-share arrangements—than those awarded with funds provided by P.L. 103-327 and the FY 1996 CRs. Further, the FY 1996 Appropriations Act (P.L. 104-134) is the only statutory authority to award grants to many of the projects, so delegations already issued for other statutes (such as the Clean Water Act) are insufficient to allow Regional Administrators to award the grants. The new delegation of authority has been written so it will cover grants for similar water infrastructure projects authorized by future appropriations to the State and Tribal Assistance Grants Account or successor accounts.

The delegation proposal was distributed under the Directives Clearance Record review process to IS offices. Three offices and three regions submitted comments. The Office of Grants and Debarment (OGD) and Region 8 submitted comments relating to the appropriate level for redelegation authority. The OGD also proposed adding an additional reference and deleting another reference. The Office of General Counsel had editorial comments and reviewed language changes proposed by other reviewers. Region 2 comments suggested that this delegation provide authority to award grants to States for providing assistance to "severely economically disadvantaged rural communities." No issue resolution was requested by any office or regions and editorial comments submitted were incorporated into the final delegation.

Recommendation

This delegation is needed immediately to respond to the numerous requests from grantee agencies who have already developed applications. We recommend that you approve the proposed delegation by signing below.

Approved: Carol M. Browner.

Dated: June 21, 1996.
Attachment

Delegation of Authority-Grants and Cooperative Agreements for Water Infrastructure Projects from Funds Appropriated for FY 1996 and Subsequent Years to the State and Tribal Assistance Grants Account and Any Successor Accounts.

Delegations Manual

1200 TN 425]

June 21, 1996

General, Administrative, and Miscellaneous

1-102. Grants and cooperative agreements for water infrastructure projects from funds appropriated for fiscal year 1996* and subsequent years to the State and Tribal Assistance Grants Account and any successor accounts.

I. Authority: To approve grants and cooperative agreements for water infrastructure projects and grants to States for providing assistance to "severely economically disadvantaged rural communities" from funds appropriated for Fiscal Year 1996* and subsequent years to the State and Tribal Assistance Grants Account and any successor accounts and to perform other activities necessary for the effective administration of those grants and cooperative agreements.

2. To Whom Delegated: Regional Administrators.

3. Redelegation Authority: This authority may be redelegated to the Division Director or equivalent level and may not be redelegated further.

4. Limitations: a. This delegation applies only to those grants and cooperative agreements for which there is no authority other than the statute making appropriations to the State and Tribal Assistance Grants Account and any successor accounts in Fiscal Year 1996* and subsequent years.

b. Awards are subject to guidance issued by Office of Wastewater Management and Office of Comptroller.

5. Additional References: a. Authority to execute (sign) these financial assistance agreements is delegated to the Regional Administrators under Delegation 1-14. "Assistance Agreements":

- b. 40 CFR Part 31,
- c. 40 CFR Part 40 for Demonstration grants.
- d. 40 CFR Part 35, Subpart K, and
- e. EPA Assistance Administration Manual.

* The Omnibus Consolidated Rescissions and Appropriations Act of 1996 (P.L. 104-134).

Attachment C-Cross-Cutting Federal Authorities Applicable as of June 1996

(Note: This list is **subject to change**. For further information about the applicability of specific requirements, please contact the appropriate Regional Office of EPA.)

Environmental

Archeological and Historic Preservation Act of 1974, PL 93-291
Clean Air Act, 42 USC 7506(c)
Coastal Barrier Resources Act, 16 USC 3501, et seq.
Coastal Zone Management Act of 1972, PL 92-583, as amended
Endangered Species Act, 16 USC 1531, et seq.
Executive Order 11593, Protection and Enhancement of the Cultural Environment
Executive Order 11988, Floodplain Management
Executive Order 11990, Protection of Wetlands
Farmland Protection Policy Act, 7 USC 4201, et seq.
Fish and Wildlife Coordination Act, PL 85-624, as amended
National Historic Preservation Act of 1966, PL 89-665, as amended
Safe Drinking Water Act, section 1424(e), PL 92-523, as amended
Wild and Scenic Rivers Act, PL 90-542, as amended

Economic

Demonstration Cities and Metropolitan Development Act of 1966, PL 89-754, as amended
Section 306 of the Clean Air Act and Section 508 of the Clean Water Act, including
Executive Order 11738, Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans

Social

Age Discrimination Act, PL 94-135
Civil Rights Act of 1964, PL 88-352
Section 13 of PL 92-500; Prohibition against sex discrimination under the Federal Water Pollution Control Act
Executive Order 11246, Equal Employment Opportunity
Executive Orders 11625 and 12138, Women's and Minority Business Enterprise
Rehabilitation Act of 1973, PL 93-112 (including Executive Orders 11914 and 11250)

Miscellaneous

Uniform Relocation and Real Property Acquisition Policies Act of 1970, PL 91-646
Executive Order 12549, Debarment and Suspension

Attachment D-Fiscal Year 1996
Allotment of Hardship Grant
 Assistance

State	Households w/ 0 access allo- cation @ \$37.5M (75% of \$50 M)	Income based allocation @ \$12.5M (25% of \$50 M)	State alloca- tion @ \$50M
ALABAMA	\$1,107,300	\$348,500	\$1,455,800
ALASKA	132,500	61,600	194,100
ARIZONA	316,200	128,300	444,500
ARKANSAS	670,300	362,000	1,032,300
CALIFORNIA	1,232,500	194,700	1,427,200
COLORADO	310,000	168,400	478,400
CONNECTICUT	448,400	4,200	452,600
DELAWARE	133,200	22,700	155,900
DIST. OF COLUMBIA	0	0	0
FLORIDA	1,303,300	207,400	1,510,700
GEORGIA	1,514,800	378,300	1,893,100
HAWAII	57,400	52,000	109,400
IDAHO	230,600	138,100	368,700
ILLINOIS	784,300	532,900	1,317,200
INDIANA	1,052,400	345,700	1,398,100
IOWA	325,600	511,500	837,100
KANSAS	266,000	385,400	651,400
KENTUCKY	1,051,300	313,100	1,364,400
LOUISIANA	770,900	296,900	1,067,800
MAINE	569,800	74,000	643,800
MARYLAND	513,100	44,900	558,000
MASSACHUSETTS	651,600	10,600	662,200
MICHIGAN	1,879,100	401,600	2,280,700
MINNESOTA	746,200	504,900	1,251,100
MISSISSIPPI	758,500	286,500	1,045,000
MISSOURI	914,400	547,500	1,461,900
MONTANA	214,000	127,200	341,200
NEBRASKA	156,200	316,200	472,400
NEVADA	67,600	27,100	94,700
NEW HAMPSHIRE	425,500	22,800	448,300
NEW JERSEY	396,700	19,200	415,900
NEW MEXICO	258,600	131,100	389,700
NEW YORK	1,894,800	257,200	2,152,000
NORTH CAROLINA	2,326,300	365,800	2,692,100
NORTH DAKOTA	101,800	182,800	284,600
OHIO	1,462,500	522,900	1,985,400
OKLAHOMA	568,100	421,500	989,600
OREGON	506,800	174,500	681,300
PENNSYLVANIA	2,166,900	610,900	2,777,800
RHODE ISLAND	104,200	0	104,200
SOUTH CAROLINA	954,000	210,900	1,164,900
SOUTH DAKOTA	111,500	210,800	322,300
TENNESSEE	1,246,600	309,400	1,556,000
TEXAS	2,050,500	892,100	2,942,600
UTAH	104,200	186,500	290,700
VERMONT	290,500	42,500	333,000
VIRGINIA	1,220,700	155,600	1,376,300
WASHINGTON	774,700	161,800	936,500
WEST VIRGINIA	657,400	260,200	917,600
WISCONSIN	1,034,500	321,300	1,355,800
WYOMING	85,400	54,600	140,000
AMERICAN SAMOA	33,600	11,200	44,800
GUAM	24,300	8,100	32,400
N. MARIANAS	15,600	5,200	20,800
PUERTO RICO	487,300	162,400	649,700
TT OF PALAU	0	0	0
VIRGIN ISLANDS	19,500	6,500	26,000
TOTAL	37,500,000	12,500,000	50,000,000

Attachment E-Allotment Methodology
for the Hardship Grants Program

The 1990 Census of Housing provides information on the structural characteristics of homes, including the type of sewage disposal. Specifically, Table 13 of the Census of Housing provides the number of housing units in rural areas that are served by public sewers, septic tanks and cesspools, and other means. The State allotment for the households portion of the funding is computed by taking the total number of rural households served by septic tanks and cesspools and other means (excluding **sewered** households and farms) within each State divided by the national number of rural households served by septic tanks and cesspools and other means. This percentage is

multiplied by **\$37,500,000**, which is 75 percent of \$50,000,000 appropriated for the program, to provide the dollar amount for the households without access portion of the allotment for each State. Some administrative adjustments were then made to the final States' allocation to accommodate the use of CW SRF allotment percentages for the Territories.

The 1990 Census of Population provides per capita income (**PCI**) data. A computer file was generated by the Bureau of the Census to provide the number of communities in each State that have rural populations of 2,500 or less and had a per capita income less than 80 percent of the National per capita income. The per capita allotment percentage was computed by dividing the number of people in each State in

communities less than 2,500 that meet the 80 percent **PCI** criteria by the national population in communities of less than 2,500 that meet the 80 percent **PCI** criteria. This percentage is multiplied by **\$12,500,000**, which is 25 percent of **\$50,000,000**, to provide the dollar amount for the income portion of the allotment for each State. As with the household formula, CW SRF percentages were **used** for the Territories and administrative adjustments were made to the final States' allocation.

The funding level from both parts of the formula are added together to provide the total funding allotment for each State.

{FRDoc. 97-7070 Filed 3-19-97; 8:45 am}
BILLING CODE 6666-60-P



Fact Sheet

Rural Community Assistance Program (RCAP) Help for Small Community Wastewater Projects

What is RCAP?

RCAP is a National network of nonprofit organizations that provide technical assistance to communities to help them attain adequate wastewater treatment services. Technical assistance is carried out through RCAP's six regional organizations and their service areas at no cost to the participating communities or systems. A significant amount of RCAP's work is done in small, rural areas in minority communities, underserved rural areas, or rural areas with a high percentage of low-income individuals who display a commitment to addressing their wastewater problems. RCAP's focus is to help communities meet Clean Water Act (CWA) requirements and to empower the communities to operate and maintain the systems they develop. RCAP receives a grant from the Environmental Protection Agency (EPA) to support small community wastewater system improvements.

EPA's Small Community Wastewater Project

Small Communities and tribes often experience difficulties in attaining their wastewater treatment needs to comply with CWA requirements. They often lack adequate financing, management skills and training to construct, operate, manage and maintain wastewater treatment facilities or systems. Institutional capacity to implement facility improvements is non-existent. In a partnership agreement with EPA, RCXP provides the appropriate financing, management, operations and maintenance, and other technical assistance through the Small Community Wastewater Project.

The Project provides on-site technical assistance and information transfer to address community-specific wastewater treatment or compliance problems in small, rural communities. RCAP targets:

- unsewered communities under administrative order
- small systems with operations and maintenance problems
- small, rural communities with individual permits and flows <1 MGD that violate discharge permits
- small, rural communities that need to upgrade wastewater collection, treatment, and/or distribution facilities
- small, rural communities with other management, financing, construction, operations and technical needs, such as a history of non-compliance and watershed pollution threats
- communities eligible for EPA's new Hardship Grants.

RCAP's technical assistance activities are coordinated and selected with state and local governments or tribal pollution control agencies, EPA's regional Small Community Outreach and Education (SCORE) coordinators and other organizations. The Small Community Wastewater

Project is administered in EPA's Office of Wastewater Management, Municipal Support Division. The Project is a component of the Small Underserved Communities team in MSD's Municipal Assistance Branch. The team's goal is to administer programs through which small underserved communities can access information, financial resources and technical assistance to achieve adequate and cost effective wastewater systems. Nine additional technical assistance programs are managed by members of this team.

Funding for Small Communities

For FY 1998, EPA is targeting \$52,100 to the Small Community Wastewater Project. Additionally, RCAP is contributing \$27,420 to the Project from in-kind contributions. RCAP's technical assistance efforts are being provided to 62 projects in 27 states, including nine states without previous technical assistance for wastewater projects: Colorado, Delaware, Georgia, Illinois, Idaho, Iowa, Kansas, South Carolina, and South Dakota. RCAP's technical assistance projects are obtained in response to requests from state or tribal pollution control agencies, rural wastewater treatment facility owners and operators, and rural community residents.

In FY 1997 the Project was funded by EPA's congressional add-on grant of \$307,000 and \$15,923 of in-kind contributions. During 1997, RCAP's project activities provided community-specific on-site technical assistance to 57 projects in 20 states. The Midwestern and Southeastern Regional RCAPs provided assistance to small communities without community-wide wastewater treatment facilities, had failing on-site systems, and were uncertain of wastewater treatment and collection options available to them. The Southern and Great Lakes Regional RCAPs targeted assistance to communities with systems that had flows less than 1 MGD and violated their discharge permits. Assistance to communities with pollution prevention issues continued in the Northeastern RCAP. On-site technical assistance to the Navajo Nation was a special target in the Western Regional RCAP, and assistance is provided to the tribal systems.

During the 1996 project year, RCAP provided technical assistance to 49 community projects in 17 states: Arizona, Arkansas, Florida, Louisiana, Minnesota, Maryland, Missouri, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Texas, Virginia, Washington, and Wisconsin. RCAP managed 22 facilities development projects, 10 management and finance projects, 13 operations and maintenance projects, and 4 projects for program planning and other types of technical assistance. A population of 38,000 benefitted from these types of technical assistance.

For More Information Contact:

Municipal Assistance Branch
U.S. Environmental Protection Agency
Maria Campbell
401 M. Street, SW (Mail Code 4204)

Washington, D.C. 20460

(202) 260-5815

Internet: <http://www.epa.gov>

or

National RCAP

602 South King Street, Suite 402

Leesburg, Virginia 22075

(703) 771-8636

Internet: <http://www.rcap.org>

RCAP Highlights

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This page last updated on May 6, 1998

<http://www.epa.gov/owm/rcap.htm>

RESOLUTION #98

A RESOLUTION OF THE **YOUR VILLAGE** CITY COUNCIL TO SUPPORT, ASSUME MAINTENANCE RESPONSIBILITY, PROVIDE RIGHT OF WAY AND PROVIDE GRAVEL FOR A LANDFILL ROAD PROJECT TO BE FUNDED BY THE ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES.

WHEREAS, the Alaska Department of Transportation & Public Facilities (DOT&PF) has a program to construct roads funded under their current Federal Highway Program.

WHEREAS, the City of *Your Village* supports construction of a road to the proposed landfill,

And WHEREAS, the Your **Village** City Council is willing to assume responsibility for maintenance of the landfill road.

And WHEREAS, the Your *Village* City Council is willing to provide right of way for the landfill road.

And WHEREAS, the Your *Village* City Council is willing to provide gravel for the landfill road.

NOW THEREFORE, BE IT RESOLVED THAT:

1. **The Your Village** City Council supports construction of a landfill access road by the Department of Transportation and Public Facilities.
2. The **Your Village** City Council hereby agrees to assume maintenance responsibility of the landfill road after completion.
3. The **Your Village** City Council hereby agrees to provide right of way for the landfill road.
3. The **Your Village** City Council hereby agrees to provide gravel for the landfill road.

PASSED AND APPROVED BY THE MEMBERS OF THE **YOUR VILLAGE** COUNCIL on this day of _____, 1999.

SIGNED: _____

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

TONY KNOWLES, GOVERNOR

410 Willoughby Ave., Ste 105

Juneau, AK 99801-1795

PHONE: (907) 465-5180

FAX: (907) 465-5177

<http://www.state.ak.us/dec/home.htm>

FACILITY CONSTRUCTION & OPERATION

July 31, 1998

((Honorific)) «Fname» «Lname», «Title»

«City_of»

«Mailing_Address»

«City», «ST» «Zip»

Dear «Salutation»:

Enclosed is a SFY2000 Capital Budget Questionnaire for the Village Safe Water (VSW) program. If you wish your water, sewer or solid waste project to be considered for funding, fill out the form and return it to me by **October 1, 1998**. **Complete a separate questionnaire for each project.** Only owners and/or operators of community water, sewer and solid waste facilities should fill out and send in this form. If different government entities from a community submit separate questionnaires for the same project, the questionnaires will be returned, so a consensus can be worked out.

If you need technical advice, contact the following VSW engineers.

> Highway Villages	Doug Pogue or Debra Addie	269-76 12 269-3085
> Interior Villages	Tina Altstatt	269-76 13
> Northwest Arctic	Bob Lundell	269-76 10
> Southeast Alaska	Kurt Egelhofer or Jon Menough	269-760 1 269-7604
> Norton Sound	Roger Burleigh	269-7606
> Bristol Bay and	Bernie Gajewski or	269-7607
> Alaska Peninsula	Lynn Marino	269-7602
> Yukon-Kuskokwim	Jim Patterson or Paul Gabbert	269-76 11 269-7608
> Kenai Peninsula	Mike Wolski	269-7603

If a Public Health Service (PHS) project is planned or in progress and an engineer is already assisting you, call them at 729-3500 for help in filling out this form. The Regional Health Corporations and Legislative staff may also help. Please remember that each project is scored on the basis of information you provide. The number of possible points is indicated in parenthesis next to each question. In the event of a tie between scored projects, the questionnaire received earliest is the higher priority.

Sincerely,

Greg Capito
Village Safe Water

Enclosures: SFY 2000 Capital Budget Questionnaire (VSW)
Scoring Criteria
Sample Resolution

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
VILLAGE SAFE WATER PROGRAM
SFY2000 Capital Budget Questionnaire

DEADLINE – OCTOBER 1, 1998

3 FAX Number is (907) 4655177 or (907) 465-1836.

- If FAXing so you can meet the deadline. please fax just the four pages of the questionnaire and the 1-page resolution, then mail all back-up materials and the originals to:

Greg Capito
Dept. Environmental Conservation/FC&O
Village Safe Water Program
410 Willoughby Avenue, Suite 105
Juneau, AK 99801-1 795

- Questionnaires submitted by mail or fax will be logged in by the date and time of receipt in Juneau.

\\DEC-HQ1\GROUPS\FCO\FCO\CLERICAL\PREVETTE\VSMP\00\ADDRESS\instructions.doc

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
VILLAGE SAFE WATER PROGRAM

SFY 2000 CAPITAL BUDGET QUESTIONNAIRE

GENERAL INFORMATION

1. Date: _____
2. Your Name: _____
3. Phone Number: _____
4. Community Contact: _____
5. Title: _____
6. Municipality Represented: _____
Election District _____
7. Address: _____

- a. City: _____ 9. Zip: _____

GENERAL PROJECT INFORMATION

10. Project Title _____
11. Project Type: Water Sewer Solid Waste
12. Description of Project: Specify exactly what this project will build.
DO NOT INDICATE "SEE ATTACHMENT."
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

13. Why project is needed: If a health and/or pollution hazard exists that the project will correct, describe it, and **include a letter or report from a health authority confirming the pollution or health hazard does exist.** What would be the consequences of not doing this project? **Please DO NOT just write "SEE ATTACHMENT"**
 (300 Points-Public Health and 200 Points-Pollution)

SPECIFIC PROJECT INFORMATION

14. Please estimate the existing population that will benefit from this project. _____

15. Please describe the planning status of this project by checking one of the following statements:

- Y N A. Engineering plans and specifications have been prepared. (100 Points)
- Y N B. A Feasibility study which addresses the need for this project has been prepared. (50 points)
- Y N C. Comprehensive study or master plan which addresses the need for this project has been prepared. (25 points)

16. Federal Funds. Y N (100 points)

Other than past funds received through Village Safe Water

List the source and amount of confirmed FEDERAL funding available for project:

Source _____ Amount \$ _____ Year _____

Source _____ Amount \$ _____ Year _____

17. How much do you estimate the total project costs will be? _____

18. Considering other available funds, how much will your grant request to ADEC be for this project? \$ _____

19. Does your community have a:

a. Trained Water, Wastewater Operator, or Utility Manager (75 Points) Y N

Name of Operator _____
Date of Training _____
Location of Training _____
Training Sponsor _____

b. 1. State Certified Water or Wastewater PRIMARY Operator (150 points)

Name of Primary Operator _____
Certification number and year received: _____

2. State Certified Water or Wastewater Backup Operator (100 points)

Name of Backup Operator _____
Certification number and year received: _____

c. Rules, Fee Schedules or Utility Ordinances (50 Points) Y N

Date Adopted: (Attach) _____

d. Please check the item that best describes the effect this project will have on annual operation and maintenance (O & M) costs.

The annual operation and maintenance costs have not been estimated

The annual costs have been estimated as \$ _____
and the source of funding will be _____
(50 points)

e. Are monthly bacteria and turbidity monitoring samples submitted to the State? (75 points) Y NCI

f. Resolution signed by council quorum **attached** identifying project as number one community priority. (50 points) Y N

Please attach a CLEAN copy of Resolution on WHITE paper!

20. Your project may be composed of more than one segment or phase. If so, please complete the following statements and explain:

a. At least one phase of the project has already been constructed and this phase is needed to make the project functional. Explain the relationship of this phase to the whole project. (150 points)

b. Excluding temporary construction jobs, describe how this project will promote economic development, or fit into your long range utility plan. BE SPECIFIC. (100 points)

c. Explain the benefits of constructing this project in conjunction with other projects and funding sources such as ISTEA roads and power generators. (50 points)

d. Will this request result in facilities which will serve both the village and school.

N

(150 Points)

21. Project Costs Funded by THIS Grant Request are:

Administration	3 _____
Engineering and Inspection	_____
Construction	_____
Equipment	_____
Other	_____
Total	\$ _____

22. Cost Estimated by:

Name	_____
Agency	_____
Telephone Number	_____
Date of Estimate	_____

**CRITERIA SYSTEM
ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CAPITAL BUDGET
SFY 2000**

VILLAGE SAFE WATER PROGRAM

I. Problem Addressed

A. Public Health

- | | | |
|----|---|------------|
| 1. | An existing human disease event exists (documented by a recognized public health organization and reviewed by ADEC). Construction of the requested capital project <u>will correct</u> the existing problem. | 300 |
| 2. | Current conditions are sufficiently severe that a disease event could occur but it has not been reported. | 200 |
| 3. | Conditions are not probable for a disease event to take place. The capital project is required to prevent or minimize the possibility of future public health problems. | 100 |

B. Environmental

- | | | |
|----|---|-----|
| 1. | A documented pollution event has taken place and construction of this facility will correct the existing problem. | 200 |
| 2. | Current conditions are sufficiently severe that a pollution event could occur but it has not been reported. | 100 |
| 3. | Conditions are not probable for a pollution event to take place. The capital project is required to prevent or minimize the possibility of future pollution events. | 50 |

II. Project Development Status

- | | | |
|----|--|-----|
| A. | Engineering plans and specifications have been prepared. | 100 |
| B. | Feasibility study or facility plan has been prepared. | 50 |
| C. | Comprehensive study or master plan has been prepared which compares the need for the project with other community needs. | 25 |
| D. | No documentation has been prepared. | 0 |

III.	Other Funds	
A.	Confirmed federal funding available to match or complete project.	100
IV.	Operation and Maintenance Capabilities	
A.	Trained operator or utility manager employed: Name and training. and/or	75
B.	1. State certified <u>Normal</u> operator employed: a n d certification number.	150
	2. State certified <u>backup</u> operator employed: Name and certification number.	100
C.	Rules, Fee Schedules or User fee ordinance adopted: Copy submitted.	50
D.	O&M costs and funding identified.	50
E.	Compliance with State Drinking Water program turbidity and bacti sample submittal requirements for at least 9 of 12 months.	75
V.	Relationship to Other Project Phases	
A.	This project is needed to make the initial project phase functional.	150
B.	This project is needed to promote economic development and local employment opportunities. <u>Specific</u> economic development potential must be identified or explanation of how project fits into long range utility plan.	100
C.	Project construction coordinated with other projects and funding sources to promote cost efficiencies. Projects/funding such as ISTE and AEA should be identified.	50
D.	Village and school facility consolidation.	150
VI.	Resolution signed by council quorum submitted identifying project as the number one community priority.	50

CITY OF _____

RESOLUTION # _____

A Resolution requesting Capital Funding through the State of Alaska, Village Safe Water Program.

WHEREAS: The City or Traditional Council, hereinafter called the Council, is governing the body of _____, Alaska, and

WHEREAS: The Council desires to provide adequate sanitation facilities for the residents of _____ Alaska and has determined the _____ project to be a number one priority for the community, and

WHEREAS: The Department of Environmental Conservation/Village Safe Water Program, hereinafter called VSW, can provide the technical assistance necessary to improve the _____ problem,

NOW THEREFORE BE IT RESOLVED; that the Council hereby requests the Governor and Legislature appropriate \$ _____ through the VSW Program to design and build the _____ project.

BE IT FURTHER RESOLVED; that the Council hereby authorizes VSW or its representatives to enter upon or cross community land for the purposes of assisting the Council in carrying out this _____ project.

BE IT FURTHER RESOLVED; that the Council will cooperate with the provisions of needed agreements entered into between the Council and VSW, and that said provisions will be duly carried out.

I, the undersigned, hereby certify that the Council is composed of _____ members, of who _____ constituting a **QUORUM** were present and that the foregoing resolution was **PASSED AND APPROVED** by the Council of _____, Alaska, this _____ day of _____, 19_____.

Vote: Y e a s - - - N a y s

Signed _____
Mayor, Chief, Manager
Administrator or President

ATTEST: City Clerk

Council Member

APPENDIX E
Participating Rural Appraisal



The World Bank Participation Sourcebook

Appendix I: Methods and Tools

Participatory Rural Appraisal

Collaborative Decisionmaking: Community-Based Method

Contents of this section:

- Key Tenets of PRA
 - PRA Tools
 - Organizing PRA
 - Sequence of Techniques
 - References
 - Natural Resource Management in Burkina Faso (Box A1.4)
-

Participatory rural appraisal (PRA) is a label given to a growing family of participatory approaches and methods that emphasize local knowledge and enable local people to make their own appraisal, analysis, and plans. PRA uses group animation and exercises to facilitate information sharing, analysis, and action among stakeholders. Although originally developed for use in rural areas, PRA has been employed successfully in a variety of settings. The purpose of PRA is to enable development practitioners, government officials, and local people to work together to plan contextappropriate programs.

Participatory rural appraisal evolved from rapid rural appraisal—a set of informal techniques used by development practitioners in rural areas to collect and analyze data. Rapid rural appraisal developed in the 1970s and 1980s in response to the perceived problems of outsiders missing or miscommunicating with local people in the context of development work. In PRA, data collection and analysis are undertaken by local people, with outsiders facilitating rather than controlling. PRA is an approach for shared learning between local people and outsiders, but the term is somewhat misleading. PRA techniques are equally applicable in urban settings and are not limited to assessment only. The same approach can be employed at every stage of the project cycle and in country economic and sector work.

[Return to top](#)

Key Tenets of PRA

- *Participation.* Local people's input into PRA activities is essential to its value as a research and planning method and as a means for diffusing the participatory approach to development.
- *Teamwork.* To the extent that the validity of PRA data relies on informal interaction and brainstorming among those involved, it is best done by a team that

Utility Management Assessment

Finances

Does the community have a current year budget? Yes No

Is utility budget separated in some way? Yes No

(Attach a copy of the current year budget)

Is the budget referred to when authorizing purchases & planning finances? Yes No

Are fees reviewed periodically and adjusted for changes in costs? Yes No

Last time fees were set _____

What are the current fees?

_____	\$ _____	_____	\$ _____
_____	\$ _____	_____	\$ _____
_____	\$ _____	_____	\$ _____

Does the community save money in an equipment fund for replacing major utility components in the water/sewer service? Yes No

Do you think the revenues collected from users covers the cost of providing this service? Don't Know Yes No

If no, how much do you think the City or Village government subsidizes the service per year? \$ _____

If Yes, has the Utility ever shut off a user's water/sewer for unpaid bills? Yes No

Has the City or Village ever shut down the Washeteria due to financial or management problems? Yes No

How many customers are behind in their payments? _____

How far behind are they? _____ days? _____ months? _____ years?

What is the total past due for each utility? _____
\$ _____
\$ _____

Banking System

Does the community have one bank account more than one account.

For each account examine the following:

Name of bank account. _____ Savings Checking

Number of signers on account? _____

Frequency that account is balanced: biweekly monthly quarterly other _____

Latest balance after reconciliation: \$ _____ a t e _____

Latest bank statement balance: \$ _____ Date _____

Name of bank account. _____ Savings Checking

Number of signers on account? _____

Frequency that account is balanced: biweekly monthly quarterly other _____

Latest balance after reconciliation: \$ _____ a t e _____

Latest bank statement balance: \$ _____ a t e _____

Name of bank account. _____ Savings Checking

Number of signers on account? _____

Frequency that account is balanced: biweekly monthly quarterly other _____

Latest balance after reconciliation: \$ _____ Date _____

Latest bank statement balance: \$ _____ a t e _____

Utility Management Assessment

Tax Problems

Taxes:

Has community received IRS or DOL letters concerning unpaid taxes? Yes No

Describe: _____

Has the IRS or DOL informed community of amount owed? Yes No

How much in taxes, interest and penalties?

	IRS	Dept. of Labor
Taxes	\$ _____	\$ _____
Interest	\$ _____	\$ _____
Penalties	\$\$ _____	_____
Total	\$\$ _____	_____

The Council is willing to approve the IRS Information Release Form? Yes No

Personnel System

Does the community have an Personnel Policy and Procedures Ordinance or formal procedures and policies governing personnel? (Request a copy for Review)

Yes No Some

Are the policies followed in day-to-day management of personnel? Yes No Some

Utility Manager

Does the utility have a manager? Yes No

If yes, does the manager do the books for the utilities? Yes No

Does the utility manager have any other job duties? Yes No

If yes, describe _____

Is this position full-time or part-time? Full-time Part-time

How much is the manager paid per month? \$ _____

How many people have held this position in the last three years? _____

Describe the current manager's education and experience:

Utility Management Assessment

Utility Bookkeeper

Does the community have a bookkeeper? Yes No

Does the bookkeeper do the books for the all the utilities that the city operates? Yes No

Does the bookkeeper have any other job duties? Yes No

If yes, describe _____

Is this position full-time or part-time? Full-time Part-time

How much is the bookkeeper paid per month? \$ _____

How many people have held this position in the last three years? _____

Describe the current Bookkeepers education and experience:

Utility Operator

Does the community have a utility operator who is responsible for these utilities?

Utility	Utility Operator? Yes or No	Full-time or Part Time	How much are they paid?
One Operator for all Utilities	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> FT <input type="checkbox"/> PT	\$ _____
or, Different Operators for:			
Water/Sewer	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> FT <input type="checkbox"/> PT	\$ _____
Water	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> FT <input type="checkbox"/> PT	\$ _____
Sewer	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> FT <input type="checkbox"/> PT	\$ _____
Washeteria	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> FT <input type="checkbox"/> PT	\$ _____
Electric	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> FT <input type="checkbox"/> PT	\$ _____
Landfill/Dump	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> FT <input type="checkbox"/> PT	\$ _____
Cable TV	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> FT <input type="checkbox"/> PT	\$ _____
Other	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> FT <input type="checkbox"/> PT	\$ _____

Does utility operator have the following certifications?

Type of Certification	Yes or No	If yes, what level of certification? (OIT, Level 1, 2, 3 or 4)
Water Treatment	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> don't know	
Water Distribution	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> don't know	
Wastewater Collection	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> don't know	
Wastewater Treatment	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> don't know	
Other Certifications?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> don't know	

How many people have held this position in the last three years? _____

Utility Management Assessment

Organizational Management

Who is responsible for supervising the manager?

- Mayor
 City Administrator
 City Clerk
 Other _____

Who is responsible for supervising the bookkeeper?

- Mayor
 City Administrator
 City Clerk
 Other _____

Who is responsible for supervising the utility operator? (check the boxes below that apply)

Utility	Mayor	City Administrator	City Clerk	Other (describe)
One Operator for all Utilities				
Different Operators for:				
Water/Sewer				
Water				
Sewer				
Washeteria				
Electric				
Landfill/Dump				
Other				

Use the space below to draw an organizational chart if you wish.

Utility Management Assessment

Leadership/Governance

Does the community have an ordinance or formal procedures and policies authorizing the utility services and establishing procedures for operation? Yes No Some

Does the ordinance authorize:

Late charges for delinquent payment? Yes No

Disconnects? 0 Yes 0 No

Discounts for early payment? 0 Yes 0 No

Other means of collections? _____

Does the community have a signed agreement to provide service to each customer? If yes, attach a copy of both the commercial agreement and homeowners agreement. **0** Yes **0** No

Does the community have an established collections policy? **0** Yes **0** No

Is collection of past due accounts enforced? **0** Yes **0** No

Council

Council Members	Term Expires	Years on Council
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Is there high turnover on the city/village council? Yes No

At this time how many council members are appointed? _____

Do they meet regularly? 0 Yes 0 No

Do they pass ordinances? 0 Yes No

Do they provide for the enforcement of ordinances? Yes No

Are council members paid stipends for attending meetings? Yes 0 No

Is the council interested in the utility fees, rates & the collection of passed due accounts? 0 Not much 0 Some A lot

How long has the Mayor been in office? _____

Is the mayor paid a salary in addition to a stipend for attending meetings? 0 Yes 0 No

Is the mayor full time or part time? Full time Part time

How many mayors have you had in the last 10 years? _____

How involved is the mayor in fees, rates & collections? Not much Some A lot

Utility Management Assessment

What, in your opinion, is the community's ability to operate, maintain and manage its utilities?

What does the community need to do to improve its management of the utilities?

Any recommendations for RUBA activities?

Other Comments

RUBA Assistance Agreement

This Agreement is made between the _____ and the State of Alaska, Department of Community and Regional Affairs, Rural Utility Business Advisor (RUBA) Program.

WHEREAS, the Council has a capital improvement project to upgrade sanitation facilities; and

WHEREAS, the Council wishes to improve their management skills, and abilities to enable it to run the upgraded utility as **efficiently** as possible; and

WHEREAS, the RUBA program provides technical assistance and training in utility management; and

WHEREAS, the Council would like take advantage of the assistance provided by the RUBA program.

Now Therefore Both Parties Agree As Follows:

The _____ Council Agrees:

1. To assure Council staff are available when RUBA staff travels to the community.
2. The Council will submit to the RUBA program:
 - On a **monthly** basis, a copy of the current monthly financial report, copies of completed payroll tax coupons, and photocopies of tax payments (check).
 - At the end of each tax quarter. copies of their Federal and State quarterly payroll tax report (941 and ESC Quarterly report).
 - Prior to the end of February, copies of their Federal and State annual payroll tax reports (W-3, W-2's, ESC annual report).
3. To allow RUBA staff **access** to all of the Council's non-confidential records and files including ordinances, policies and procedures, financial records (including monthly financial reports, tax reports, payroll journals, cash receipt journals, cash disbursement journals, and bank statements), and correspondence files.
4. To meet with the RUBA staff to develop a work plan based upon the RUBA's written assessment of the Council's management practices. The work plan will identify:
 - What actions the Council should take to amend the current yearly budget to reflect revenues. and expenditures levels **after** the tax liabilities are reserved.
 - What actions the Council should take to improve management.

- What assistance, and training will be provided by the RUBA. Assistance could include: Preparing rate studies, organizational charts, drafting/revising utility ordinances, amending financial record keeping systems, providing computer training, and amending or updating personnel policies.
- Time frames for actions to be taken.

The RUBA Program Agrees:

1. To review the Council's ordinances, policies, and management procedures to determine where improvements could be made. The RUBA will provide to the Council a written assessment of the councils management practices. The written assessment will identify practices, and problem areas that need to be improved, changed, or implemented.
2. To meet with the Council staff to develop a work plan based upon the RUBA's written assessment of the Council's management practices. The work plan will identify:
 - What actions the Council should take to improve management.
 - What assistance, and training will be provided by the RUBA. Assistance could include: Preparing rate studies, organizational charts, drafting/revising utility ordinances, amending financial record keeping systems, providing computer training, and amending or updating personnel policies.
 - Time frames for actions to be taken.
3. To dedicate staff time, and travel as identified in the work plan.
4. To provide written progress reports (reporting periods identified in the work plan) to the Mayor (or President) and _____ Council.

Signatures:

 Mayor or President
 _____ Council

 Patrick K. Poland, Director
 Municipal and Regional Assistance Division

 Administrator
 _____ Council

 John Fischer, RUBA
 Municipal and Regional Assistance Division

Utility Management Assessment

City of Shaktoolik

Utility Management Observations Rural Utility Business Advisor Program

The following categories are important to the proper management of Water & Sewer Utilities. Each category is rated according to a scale of “Not Able” to manage a utility system at this time, “Able”, and “Very Able” to manage a utility at this time. Observations gathered during the assessment process are included for each category.

Category	Not Able (-)	Able (0)	Very Able (+)
Operation of Utility		X	
Accounting Systems	X		
Finances	X		
Tax Problems	X		
Personnel System		X	
Organizational Management		X	
Leadership/Governance	X		

Observations

Operation of Utility -No major problems noted. The Operator will be working with the Remote Maintenance Worker to draft a Preventative Maintenance Plan. He is trying to track down an as-built survey to make the process of servicing water lines easier.

Accounting Systems -This area along with the next two need a lot of work. The staff need more training and more time to complete the accounting tasks properly. The Council needs to make sure that monthly financial reports are done consistently.

Finances -The council had not received any financial reports for the current fiscal year. Without financial reports it is impossible for the Council, Mayor or staff to make appropriate financial decisions. This continues to get them into situations of bounced checks and over due bills. The Water & Sewer revenues do not cover expenses and they have a very low rate of payment from their customers.

Tax Problems -They continue to have problems with back taxes, due to not depositing taxes. They don't make tax deposits because they don't know how much money they have in the bank. They don't know how much money they have in the bank because the accounting system is not kept up to date.

Personnel System — No major problems, Council is working on updating the Ordinances.

Organizational Management — No major problems at this time.

Leadership/Governance -Council Members are aware that involvement with the daily operations is lacking and needs to be increased. They need to communicate more with the public and need to model and encourage a sense of ownership and responsibility for the system with in the community.

Utility Management Assessment

City of Shaktoolik Utility Management Observations Rural Utility Business Advisor Program

The following categories are important to the proper management of Water & Sewer Utilities. Each category is rated according to a scale of “Not Able” to manage a utility system at this time, “Able”, and “Very Able” to manage a utility at this time. Observations gathered during the assessment process are included for each category.

Category	Not Able (-)	Able (0)	Very Able (+)
Operation of Utility		X	
Accounting Systems	X		
Finances	X		
Tax Problems	X		
Personnel System		X	
Organizational Management		X	
Leadership/Governance	X		

Observations

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Finances -The council had not received any financial reports for the current fiscal year. Without financial reports it is impossible for the Council, Mayor or staff to make appropriate financial decisions. This continues to get them into situations of bounced checks and over due bills. The Water & Sewer revenues do not cover expenses and they have a very low rate of payment from their customers.

Tax Problems -They continue to have problems with back taxes, due to not depositing taxes. They don't make tax deposits because they don't know how much money they have in the bank. They don't know how much money they have in the bank because the accounting system is not kept up to date.

Personnel System — No major problems, Council is working on updating the Ordinances.

Organizational Management — No major problems at this time.

Leadership/Governance -Council Members are aware that involvement with the daily operations is lacking and needs to be increased. They need to communicate more with the public and need to model and encourage a sense of ownership and responsibility for the system with in the community.

Utility Management Assessment

COMMUNITY: Shaktoolik RUBA Staff: Athena Logan Date: May 1997

Operation of Utility

Services provided:

• Water & Sewer Water to the school EI Landfill Washeteria

Which services are metered? School

Do you have a Preventative Maintenance Plan? Yes No

Is the plan followed by the Operators? Yes EI No

If not, why not? **The Preventative Maintenance plan was not in the O&M Manual, the Operator uses his own knowledge of the system to fix any problem that come up.**

Does the water/sewer system have shut off valves for each household? Yes No

There are turnoff valves inside the residences. This makes it difficult to gain access to turnoff for non-payment. The operator currently located the service connection to the main line, digs it out, breaks up the insulation and closes the valve. This takes about 4 hours due to having no as-built survey. He estimates that it would take only one hour if they knew where the line are.

Computer Use:

Does the community keep financial records by hand or computer?

Accounting Systems

Does the community use a billing system for utility fees? Yes No

Are bills sent to customers for each utility separately or combined into one bill? separately EI combined

Are customers billed regularly? Yes No

The bills are typed on billing forms and sent on a monthly basis. No Accounts Receivable Journal is available to show past due accounts

Journals and Records: Does community keep?

Payroll Journals - Type Handwritten sheets

Pay Records - Type Handwritten sheets

Cash Receipts Journal - Type NEBS Pegboard

• Cash Disbursement Journal - Type Economic Check Register

None of the accounting records were current. The MFRS elements that were in place were not used consistently and/or in some cases correctly. The NEB entries were not consistently spread and balanced, no entries had been made in the check register since January 97: information was not consistently spread to the budget detail sheets, no monthly financial reports had been done since September: and the bank statements had not been reconciled since July of '96.

Financial Reporting:

Are community financial reports provided to the city/village council monthly? Yes No

Are the utilities' finances reported separately from general accounts? Yes EI No

Are financial reports provided for community grants? Yes No

Utility Management Assessment

During this visit the City Clerk, Roxanne and I worked on the accounting system to net the Clerk caught up and to net some sense of the financial situation. We completed the following tasks:

1. check register to the end of April 1997.
2. bank reconciliation through end of April 1997.
3. budget detail sheets for expenses through February 1997.
4. budget detail sheets for revenues through April 1997.
5. financial reports through February of 1997.

Finances

- Does the community have a current year budget? Yes No
(a copy of the current year budget is attached)
- Is utility budget separated in some way? Yes No
- Is the budget referred to when authorizing purchases & planning finances? Yes No
- Are fees reviewed periodically and adjusted for changes in costs? Yes No
- Last time fees were set: **January 1995**
- What are the current fees? **Households \$50 a month** **School \$.75 a gallon**
- Does the community save money in an equipment fund for replacing major utility components in the water/sewer service? Yes No
- Do you think the revenues collected from users covers the cost of providing this service? Don't Know Yes No
- If no, how much do you think the City or Village government subsidizes the service per year? **In fact, the budget for the utility shows a deficit of \$2,380**
- Has the Utility ever shut off a user's water/sewer for unpaid bills? Yes No
- Has the City or Village ever shut down the Washeteria due to financial or management problems? Yes No
The hours were decreased due to Financial. problems
- How many customers are behind in their payments? **35 of 46 customers**
- How far behind are they? **Mostly 6 months?**
- What is the total past due for each utility? **Water & Sewer Payments \$7.000**

Banking System

- Does the community have one bank account more than one account.
- Name of bank account. **General Fund** Savings Checking
- Number of signers on account? **Four**
- Frequency that account is balanced: **Has not been reconciled since July 1996**

Tax Problems

Taxes:

- Has community received IRS or DOL letters concerning unpaid taxes? Yes No
They are working with Charles Brown and Roxanne Auge' to correct back taxes. They have not deposited any taxes for the last three quarters.
- Has the IRS or DOL informed community of amount owed? Yes No
- How much in taxes, interest and penalties? **Approximately \$2,000 in each of the quarters.**

Utility Management Assessment

Personnel System

Does the **community have an Personnel** Policy and Procedures Ordinance or formal procedures and policies governing personnel? Yes No Some

Roxanne is working with the Council to update the Ordinances

Are the policies followed in day-today management of personnel? Yes No Some

Does the utility have a manager? Yes No Some

Does the community have a bookkeeper? Yes No

Does the bookkeeper do the books for the all the utilities that the city operates? Yes No

Does the bookkeeper have any other job duties? Yes No

The City Clerk serves as the bookkeeper and is the only administrative staff at this time. They may be hiring a Utility Clerk soon.

Is this position full-time or part-time? Full-time Part-time **Five hours a day**

How much is the bookkeeper paid per month? **\$1,280**

How many people have held this position in the last three years? **One**

Describe the current Bookkeeper's education and experience: **Accounting class in High School, Sales Clerk for Corporation using the cash register and closing out each day, USPO Clerk. Attended training on IRS taxes requirements and Utility Management.**

Does the community **have a** utility operator? Yes No

Does utility operator have the following certifications?

Type of Certification	Yes or No	If yes, what level of certification? (OIT, Level 1, 2, 3 or 4)
Water Treatment	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> don't know All	certificates have been allowed to lapse due to nonpayment of renewal fees.
Water Distribution	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> don't know	
Wastewater Collection	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> don't know	
Wastewater Treatment	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> don't know	
Other Certifications?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> don't know	

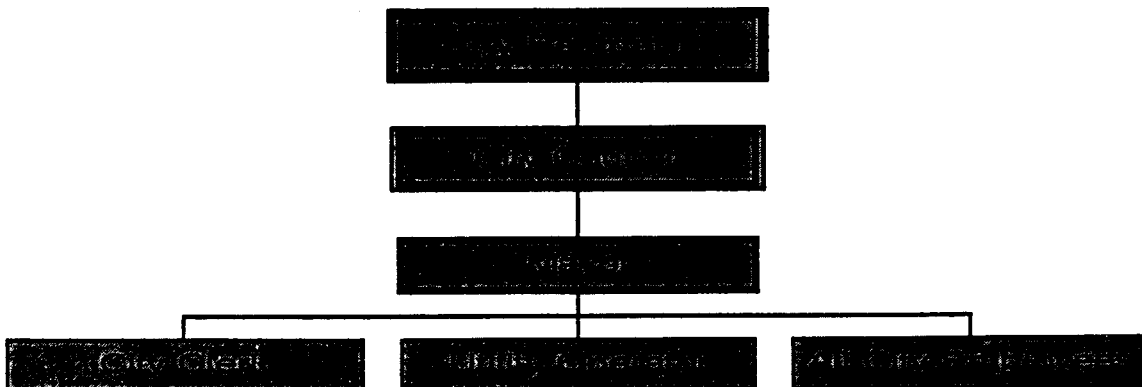
How many people have held this position in the last three years? **One**

Organizational Management

Who is responsible for supervising the bookkeeper? Mayor

Who is responsible for supervising the utility operator? Mayor

City of Shaktoolik Organization Chart



Utility Management Assessment

Leadership/Governance

Does the community have an ordinance or formal procedures and policies authorizing the utility services and establishing procedures for operation?

Yes No Some

Roxanne is working with the Council to update the Ordinances

Does the community have a signed service agreement with each customer?

Yes No

Does the community have an established collections policy?

Yes No

Is collection of past due accounts enforced?

Yes No

Council

All Council Member's terms expire in 1997

Axel Jackson, Mavor Paul Asicksik, Sr., Vice-Mavor Fena Saqoonik, Secretary

Rhoda Asicksik Edgar Jackson, Sr. Gena Nakarak Edna Savetilik

SEAT	CURRENT LENGTH OF TERM	LAST ELECTED IN YEAR	CORRECT LENGTH OF TERM	SHOULD BE ELECTED NEXT IN YEAR
A	One Year	1996	Three Years	1999
B	Three Years	1994	Three Years	1997
C	Two years	1995	Three Years	1998
D	One Year	1996	Three Years	1999
E	One Year	1996	Three Years	1999
F	Two Years	1995	Three Years	1998
G	Three Years	1994	Three Years	1997

Is there high turnover on the city/village council?

Yes 0 No

At this time how many council members are appointed?

None

Do they meet regularly?

Yes •1 No

Do they pass ordinances?

Yes 0 No

Are council members paid stipends for attending meetings?

Yes No

\$35 -Council; \$50 Mavor; Stipends are doubled if meetings last over two hours.

Is the council interested in the utility fees, rates & the collection of passed due accounts?

0 Not much Some 0 A lot

How long has the Mayor been in office?

Since Oct 961 he was Vice Mavor last year.

Is the mayor paid a salary in addition to a stipend for attending meetings?

Yes •1 No

Is the mayor full time or part time?

0 Full time Part time

How many mayors have you had in the last 10 years?

Five

How involved is the mayor in fees, rates & collections?

0 Not much Some 0 A lot

Completed RUBA Work Plan

COMPLETED TASKS	ACCOUNTS RESPONSIBLE	PERSONNEL	DATE	STATUS	COMMENTS
Operations					
Accounting					
Review & revise the manual billing system for the Water & Sewer Utility.	City Clerk, Utility Clerk	RUBA Staff	Aug-97	YES	The billing cards are set up and the Utility Clerk is using them. Minor corrections to be made. Clerk is using a Customer Balances spreadsheet to track balances.
Train new Utility Clerk on the accounting sys.	Utility Clerk	LGS-Nome, RUBA Staff	Oct-97	YES	New Clerk has experience with the System, only refresher training will be necessary.
Begin using purchasing system as described in the MFRS	City Council, City Clerk, Utility Clerk	LGS-Nome, RUBA Staff	Nov-97	YES	Problems with tracking expenses requires that a purchase order system be started.
Finance					
Train new Utility Clerk to prepare current financial reports for the Council	Utility Clerk	RUBA Staff	Oct-97	YES	Design a monthly report for the Utility Clerk to use for Council Reports.
Information Systems					
Personnel					
Legal/Supplies/Contracting					

APPENDIX F

Alaska Dept. of Environmental Conservation Water & Wastewater Plan Review Checklists

**CLASS "C"
PUBLIC WATER SYSTEM
CHECKLIST**



GROUNDWATER SOURCE

Project Name: _____

I. CERTIFICATE TO CONSTRUCT:

Note: Engineering plans submitted for approval under 18 AAC 80.300 must be signed and sealed by a registered engineer. The department will, in its discretion, waive this requirement for Class C systems and allow the use of diagrams and descriptions not signed and sealed by a registered engineer.

Indicate status of each item:

(S) Indicates submitted

(NS) Indicates not submitted (an explanation must be attached)

- _____ 1. Appropriate plan approval fee submitted, as required by 18 AAC **80.355.**
- _____ 2. Number of service connections - population served.
- _____ 3. Detailed plans of the water system. Design calculations and analysis computations such as water demands, storage tank sizing, mains, hydraulic analysis, pump sizing, and worksheets should be attached to the submittal to allow evaluation.
 - _____ a. A lot diagram showing well and protective radii and proposed water lines, keyboxes, and storage tanks, or contamination sources.
 - _____ b. The minimum separation distances identified in 18 AAC 80.030 have been checked and are complied with.
 - _____ c. lead free pipe, flux and solder specified.

- _____ 4. Details of well construction shown (18 AAC 80.015) on plans including:
 - _____ a. Sanitary seal
 - _____ b. Terminates one (1) foot above ground level
 - _____ c. Surface sloped away from well
 - _____ d. At least 10 feet of upper 20 feet of well casing grouted
- _____ 5. A Water Rights Application has been sent to the Alaska Department of Natural Resources (the submitted plans will not be rejected by ADEC if this item is not completed).

Note: Unless waived by the department, the following must be completed and signed by an engineer registered in the State of Alaska.

ENGINEER'S NAME: _____ SIGNATURE: _____

ENGINEER'S REGISTRATION NO: _____

ADDRESS: _____ PHONE: _____

Project Name: _____

II. CERTIFICATE TO OPERATE:

- _____ 1. Well log enclosed
- _____ 2. Water sample results for total coliform bacteria and nitrate. (Other raw water analyses for potential contaminants may be requested by the department).
- _____ 3. Pump yield and well yield test results.
- _____ 4. As-built plans and specifications detailing water system (include storage tank if needed).
- _____ 5. Identification of system ownership and the individual or organization responsible for system operation, maintenance, and repair.
- _____ 6. Verification that only lead-free pipe, flux, and solder was used to construct in construction of the system.

AS-BUILT PLANS AND SPECIFICATIONS

As-built plans and specifications means the original plans and specifications prepared for construction and approved by the department, corrected to reflect how a facility was actually constructed or installed. At the request of the owner's representative, ADEC may accept, in lieu of corrections made by the engineer to the original plans and specifications, either daily field notes from the submitting owner's representative, Or contractor's notes and measurements which are confirmed or verified by daily field notes from the submitting owner's representative. The original plans and specifications must be annotated to reflect contractor's field measurements. The submitting party retains responsibility for the accuracy of the attached notes.

If the department accepts as-built plans from the owner, this statement shall Se filled Out.

"I certify that these submitted plans and specifications, represent how the water system was actually constructed or installed."

Signature of Owner's Representative

Date

**Class C Public Water System
Plan Approval Checklist
18 AAC 80.300-310**

1 /9/97

I. Certificate to Construct

Indicate status of response for each item:

Minimum response is as follows:

(S) - Indicates information is included

(NS) - Indicates information is not included but an explanation why the information was not included is attached

- _____ 1. Appropriate plan approval fee submitted as required by 18 AAC 80.355
- _____ 2. Number of service connections
- _____ 3. Population served
- _____ 4. The name, mailing address, telephone number, and fax number of the person responsible to keep the proposed Public Water System in compliance with the State Drinking Water Regulations (18 AAC 80)
- _____ 5. A location diagram, showing the location of each proposed or existing wastewater treatment and disposal system, sewage pump station, sewer line manhole and clean out, petroleum storage tank and line, or any other potential or actual source of pollution or contamination, including the sources in Table A in 18 AAC 80.030(a), within 200 feet of the proposes water source, regardless of property lines or ownership, drawn on a site or vicinity map. 18 AAC 80.310(5)
- _____ 6. Detailed plans of the source, storage, and treatment and related structures, plan and profiles of water mains and standard details and specifications should be included.
- _____ 7. Data showing the capability of the water system source to meet minimum water consumption needs, criteria of water demand calculations, and the production capability of the water plant(treatment system). The following is an example of the information that should be submitted in sufficient detail to allow evaluation.
 - A. Design according to Alaska Design Manual, Alaska Drinking Water Procedures Manual and References adopted in 18 AAC 80.340.

- B. Minimum water consumption needs established and reference source if not found in 18 AAC 80.340.
- C. Design criteria for water demand and calculations for a minimum 20 psi service pressure at highest service elevation under design conditions.
- D. Design calculations and flow analysis computations, such as water demands, storage tank sizing, mains, hydraulic analysis, and pump sizing (pump curves). Worksheets will need to be included in the submittal to allow evaluation.
- E. Production capability of the water plant (water treatment system).
- F. Freeze protection for the different components of the proposed public water system such as water storage tanks, mains, and services.
- G. Backflow/Cross Connection Prevention per 18 AAC 80.050.

_____ 8. Specification that only lead-free pipe, flux, and solder will be used during the installation of the public water system, as required by 18 AAC 80.800 and 18 AAC 80.31 O(9).

_____ 9. The location of the surface water intake as available from existing sources (longitude and latitude within one second is desirable).

This information may not become available until the intake is installed. As a result, the location, in longitude and latitude, can be included in the submittal to obtain Final Operation Approval.

_____ 10. The overall treatment scheme, including calculations for disinfection and how **Giardia** and viruses will be removed or inactivated or a combination of both. The following is an example of the information that should be submitted in sufficient detail to allow evaluation.

- A. A design report that should address watershed source/characteristics for contaminants/ Water Quality parameters: Giardia concentration potential, raw water analysis for turbidity and range of values for temperature and pH.
- B. Giardia Reduction Target (3, 4, or 5 log) overall for the filtration/disinfection process.
- C. Identify filtration type and credit for Giardia removal;

Conventional Filtration _____

- Direct Filtration _____
- Alternative Filtration: Cartridge or Membranes _____
- Slow Sand Filtration _____
- Natural Filtration _____

D. Turbidity
 Waiver Requested for turbidity performance level
 Turbidity level used for design proposes
 1 NTU or 0.5 NTU

E Identify disinfection process parameters. Design assumptions for CT should be included but not limited to pH, Temperature, Cl residual, peak hourly flow of disinfection method, hydraulic efficiency factor "T". It is recommended that a range of values be identified.
 CT disinfection, log reduction
 Peak hourly Flow in g.p.m. during disinfection "CT"
 Disinfection Contact "T", in minutes
 CT Time, mg Cl/min.

- _____ 11. Water Analysis Required
 - A. Raw water analysis (prior to treatment)
 - _____ Turbidity
 - _____ Coliform Bacteria
 - _____ Nitrate (as nitrogen)

_____ 12. Per 18 AAC 80.080 Chemical Additives: Direct additives for water treatment must be approved for that use by the National Sanitation Foundation (NSF) or by an equivalent organization. This includes equipment which has direct water contact. All materials in contact with potable water must be approved for that use by this Department.

_____ 13. For all public water systems, raw water analysis for any potential contaminant that the department, in its discretion, identifies.

_____ 15. Other information that the department, in its discretion, requires in order to assess compliance with this chapter.

II Final Operation Approval

- _____ 1. Copies of the operations and maintenance manuals for all water treatment equipment specified.

- _____ 2. Water Analysis Required
 - A. Treated water analysis (after treatment and prior to the first user)
 - _____ Turbidity
 - _____ Coliform Bacteria
 - _____ Disinfection residual
 - _____ Nitrate (as nitrogen) if there is a need to treat for it.
- _____ 3. As-built or record drawings - stamped by a Professional Engineer registered in the state of Alaska, to reflect that construction was in accordance with the originally approved plans and specifications.
- _____ 4. Results of pressure tests and verification that water treatment system is operating.
- _____ 5. Resolve any stipulation placed in the construction approval issued by the Department.
- _____ 6. A copy of an approved Water Rights Certificate or submitted Water Rights Application to the Alaska Department of Natural Resources.
- _____ 7. The location of the surface water intake as available from existing sources (longitude and latitude within one second is desirable).

This information may not become available until the intake is installed. As a result, the location, in longitude and latitude, can be included in the submittal to obtain Final Operation Approval.

Please note that any discharge of the water to pressure test and disinfect any part of a public water system may need to be permitted through this Department and the Department of Fish and Game to minimize water quality concerns.

III. Existing Public Water Systems

An existing public water system means a public water system in existence on **June 14, 1991**, but without a previously approved plan, must meet the design criteria of 18 AAC 80.340 in effect on June 6, 1991. If such a system does not meet that design criteria, a person may seek department approval for an alternative design for the system by submitting a report that justifies the alternate design. The report must include the following:

- _____ 1. Be signed and sealed by a Registered Engineer;
- _____ 2. Include consideration of soil, groundwater, surface topography,

geologic conditions, and any other conditions of importance in establishing the adequacy of the system to reliably protect public health:

- _____ 3. Include a set of engineering plans with an accurate description and location of potential sources of contamination, water bodies, and water sources in the area;
- _____ 4. A capability assessment of the water system to meet minimum water consumption needs. The items that should be covered in the capability assessment are the same as the ones found under Section I, Item 7.
- 5. The location of the surface water intake as available from existing sources (longitude and latitude within one second is desirable).

CLASS 'A' OR 'B'
PUBLIC WATER SYSTEM
CHECKLIST

GENERAL

The plan review and approval process consists of two parts: I. Approval to Construct, and II. Approval to Operate. Plan approval to construct requires submittal of engineering construction plans and specification to the Department for review. Upon Department approval of plans and specifications for a proposed project and receipt of final stamped and signed plans and specifications, a letter of approval and a "Certificate to Construct" may be issued. The approval is valid up to two years after date of issuance. Upon completion of the project, a temporary 90 day operation certificate for the system may be issued by the Department if the following criteria is met: all required water quality testing has been performed, all test show satisfactory results and, testing information has been submitted to the Department for review. Prior to the end of the 90 day temporary approval certification, as-builts must be submitted to the Department for review. Upon satisfactory review of the 'as-built plans and specifications' a letter of approval and an "Operation Certificate" may be issued.

Following initial approval of the source location details, the following items should be submitted when requesting plan review and approval.

For multi-phased developments, discussion of full development should be included in the initial submittal. If an approved master plan is on file, the requirement for an engineering report may be waived if the planned activity is consistent with the master plan.

I. CERTIFICATE TO CONSTRUCT:

<u>SUB-</u> <u>MITTED/</u> <u>YES</u>	<u>NOT SUBMITTED/NO</u> <u>AN EXPLANATION IS</u> <u>ATTACHED</u>	<u>CHECKLIST ITEMS:</u>
_____	_____	1. Engineering report - applicable portions of section 1.1 of the "Recommended Standards for Water Works" ¹ should be followed.
_____	_____	2. Site and vicinity map - indication of protective radius for the well, all sources of potential contamination under 18 AAC 80.310(5).

¹ Policies for the Review and approval of Plans and Specifications for Public Water Supplies, Great Lakes-Upper Mississippi River Board of State Sanitary Engineers, 1987 Edition.

GLASS "A" OR "B" PUBLIC WATER SYSTEM CHECKLIST

SUB-MITTED/YES NOT SUBMITTED/NO AN EXPLANATION IS ATTACHED CHECKLIST ITEMS:

- 10. The name and phone number of the person responsible for compliance with this chapter.
11. Plans and Specifications state that only lead-free pipe, flux, and solder is to be used, as required by 18 AAC 80.800.

II. CERTIFICATE TO OPERATE:

SUB-MITTED/YES NOT SUBMITTED/NO AN EXPLANATION IS ATTACHED CHECKLIST ITEMS:

- 1. As required under sections 350(d)(e) and (f) as-built plans and specifications that reflect that construction was in accordance with Department approved plans and specifications. As-built plan and specification submission may be waived if on-site inspections are performed by ADEC staff.

2 As-built plans and specifications means the original plans and specifications prepared for construction and approved by the department, corrected to reflect how a facility was actually constructed or built. The use of contractor's notes and measurements may be acceptable subject to the district engineer's approval and if confirmed or verified through the engineer's representative and daily field notes. The source of as-built information should be indicated on each sheet as well as items or points verified by the engineer.

For projects not funded by ADEC grant monies the ADEC/Engineering Community Work Group came to the consensus that, for ADEC purposes, review of "as-built" plans should be limited to the construction of items related to public health and the environment. These items should be the same items field inspected by ADEC when it waives submittal of as-built plans. It is recommended that ADEC define what these items are and limit as-built requirements to qualified as-built plans that reflect how those items were constructed.

CLASS "A" OR "B" PL IC WATER SYSTEM CHECKLIST.

I verify that all of the above listed items have been addressed in my submittal.

ENGINEER'S

NAME: _____ SIGNATURE: _____

ADDRESS: _____ PHONE: _____

SAMPLE SITING PLAN REVIEW AND APPROVAL

REGULATORY AUTHORITY: 18 AAC 80.601 and 18 AAC 80.605(a)

OBJECTIVE

Assure that sampling is done at sites that are representative of water throughout the distribution system.

BACKGROUND

The TCR requires all routine monitoring for Class A and Class B public water systems to be done according to a **written** sample siting plan. These plans are subject to department review and revision. The plan should be designed so that any contamination in the distribution system will be detected through routine monitoring. The department is required to have procedures for determining whether sample siting plans are acceptable and to perform **periodic** reviews of these plans.

ELEMENTS REQUIRED FOR AN ACCEPTABLE SAMPLE SITING PLAN

The following items are required to appear in all sample siting plans:

1. public water system identification number;
2. name of public water system;
3. address and phone number;
4. contact person;
5. number of routine samples required per month/quarter;
6. number of service connections;
7. population served each month;
8. a list of sites where samples will be taken during each monitoring period; and
9. rationale for choosing sampling sites.

The plan is also required to have a map of the water system showing the location of:

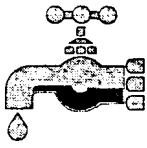
1. source waters and types;
2. water treatment facilities;
3. water storage facilities;
4. distribution lines;
5. pressure zones;
6. first service connection;
7. pressure reducing stations;
8. booster stations;
9. dead ends (including last service connection);
10. major commercial and industrial areas; and
11. areas, zones, or actual sites for routine sampling.

PLAN REVIEW AND REVISION

The owner or operator shall keep this plan in the water system files. The department will review the plans initially during routine sanitary surveys or during inspections triggered by total coliform positive results. At that time, the inspector should make note of any deficiencies in the plan and make suggestions on changes needed. If the plan has major deficiencies, a report of these deficiencies will be forwarded to the owner or operator within 30 calendar days of the plan review. The owner or operator must submit the improved plan to the department within 30 calendar days of receipt of a report of plan deficiencies, unless the department and the owner or operator agree in writing to an alternative due date. The improved plan will be kept in the water system files and in the department's file for that public water system.

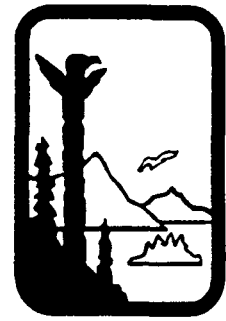
Before the department inspects a water system, a review of the bacteriological data should be done by the department to determine if the owner or operator is sampling in more than one location in the water system. If it appears that the owner or operator does not have a sampling plan or is not using a plan, the inspector should take additional time to help the owner or operator develop a plan.

The department or an agent approved by the department will review sample siting plans during routine sanitary surveys (see procedure on "Approval of Inspectors for Sanitary Surveys" on page 58). Changes in sampling locations, monthly spacing of samples, or frequency of monitoring will be considered in the review process. Operators may revise the sample siting plan without prior approval from the department. However, the operator must document the rationale for revising the plan and make these records available during sanitary surveys.



State of Alaska

Drinking Water Program Fact Sheet, No. 2 - 8/96



Dept. of Environmental Conservation
Division of Environmental Health

Sanitary Surveys

What Public Water System Owners and Operators Should Know About This Important Public Health Protection Tool

What is a sanitary survey?

A sanitary survey is defined as "an onsite review of the water source, and the facilities, equipment, operation, and maintenance of a public water system." (18 AAC 80)

What does a sanitary survey accomplish?

A sanitary survey is meant to identify problems which may affect the safety of the water. The survey is based on a physical inspection of the water system and how the system is operated and maintained. Sanitary surveys, routine monitoring of water quality, and review of construction plans are important tools for assuring that drinking water is made safe.

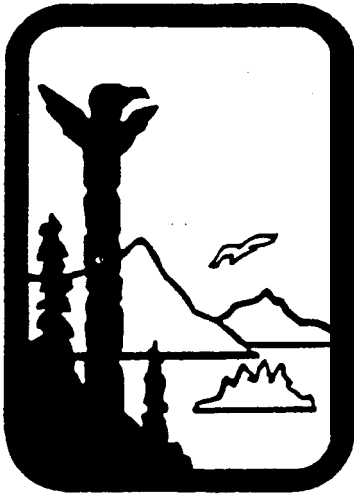
- During a sanitary survey, a trained inspector, accompanied by a water system owner/operator, performs a field inspection of the water system.
- The inspector will review water quality test data with the system owner/operator to discuss sample results.
- The inspector will review how and where water samples are taken to be sure the test results are representative and accurate. The inspector will ask for a coliform sample plan, which identifies where coliform samples are taken, and how the public water system (PWS) will respond to coliform positive results.
- The current names of the water system **owner(s)/operator(s)**, addresses, phone numbers, population served, and other information is recorded. This information is used to update the Alaska Department of Environmental Conservation (ADEC) public drinking water system database.
- The inspector will ask the operator to perform routine tests of the water for chlorine or turbidity to assure that proper test methods are being used.
- The inspector will examine and document hazardous conditions which can make the water unsafe. All findings are discussed with the PWS owner/operator.
- The inspector completes the ADEC Sanitary Survey forms. One copy is given to the water system owner or operator; the other copies are sent to ADEC. Deficiencies discovered during the site visit are reviewed with the owner/operator and possible solutions discussed.

Some history behind the sanitary survey requirement.

Sanitary Surveys have been conducted on Public Water Systems in Alaska since 1978. Many of these surveys were conducted by ADEC and Federal agencies such as the Indian Health Service.

In 1987, the U.S. EPA proposed the Total Coliform Rule. This rule, as proposed, raised the minimum number of total coliform samples from one to five per month for small PWS. Public health experts estimated that five (5) water samples was the minimum number needed to assure safe water. State agencies and public water suppliers pointed out the high costs and difficulties involved with a five fold increase in the number of water samples required. After negotiation, EPA agreed to not increase the number of routine samples if a sanitary survey were performed regularly.

In 1993 ADEC adopted the Total Coliform Rule.



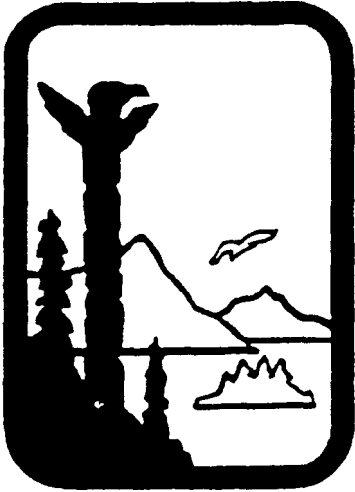
ADEC/Northern Public Service Office

WASTEWATER SYSTEM PLAN REVIEW CHECKLIST COLLECTION AND PUMPING SYSTEMS

February 1996

SUBMITTAL REQUIREMENTS FOR CONSTRUCTION APPROVAL:

- Data Sheet
- Owner's Statement
- Completed Coastal Project Questionnaire, if the project is located in or discharging to, areas in the coastal zone.
- Copies of any permits, or applications for permits, required by ADEC *Wastewater Regulations*, including permits for the construction of the project (for example Dewatering Permits).
- Documentation of the existence or formation of an entity to operate and maintain the system.
- Description of measures to protect nearby surface water from runoff, siltation or other contamination resulting from construction or operation of the facility.
- Description of the provisions to maintain operation of any existing processes during project construction.
- Construction Plans and Details; If engineering plans are required by Table E (18 AAC 72.210 of the *Wastewater Regulations*) the plans must be properly signed and sealed by an engineer registered in Alaska. The plans must show but are not limited to the following:
 - 0 Wells, water lines, surface water bodies, drainage structures, roads, sewers, manholes, manhole elevations, permafrost/ice, high water table elevations, maximum elevations of wastewater in the collection system upon occasion of power failure, and any additional buried utility lines are shown in the design submittal. Profile views should have a scale of not more than 100 feet to the inch and a vertical scale of not more than 10 feet to the inch. Plan views should be drawn to a corresponding horizontal scale and must be shown on the same sheet.



ADEC/Northern Public Service Office

WASTEWATER SYSTEM PLAN REVIEW CHECKLIST WASTEWATER HOLDING TANKS

March 1996

PLEASE NOTE THAT SEWAGE HOLDING TANKS ARE ONLY ALLOWED BY REGULATION 18 AAC 72.020 IF THE DEPARTMENT FINDS THAT SUBSURFACE CONDITIONS PRECLUDE THE USE OF A WASTEWATER DISPOSAL SYSTEM. THEREFORE, ADEC PLAN REVIEW AND APPROVAL ARE REQUIRED PRIOR TO ANY SEWAGE HOLDING TANK CONSTRUCTION OR OPERATION.

SUBMITTAL REQUIREMENTS FOR CONSTRUCTION APPROVAL:

- Data Sheet
- cl Owner's Statement
- Completed Coastal Zone Project Questionnaire, if the project is located in or discharging to, areas in the coastal zone.
- Copies of any permits, or applications for permits, required by ADEC wastewater and/or solid waste regulations, including permits necessary for the construction of the project (for example Dewatering Permits).
- Documentation of the existence or formation of an entity to operate and maintain the system.
 - 0 If the sewage holding tank is located in a community that has sewer power authority under AS 29, the owner shall demonstrate to the department that the local service district has;
 - 1) Agreed in writing to routinely pump the sewage tank; or
 - 2) Entered into a renewable two-year written contract with a licensed sewage holding tank pumper to routinely pump the holding tank.
 - 0 If the sewage holding tank is not located in a community that has sewage power authority under AS 29, the owner shall demonstrate to the department that the owner has entered into a binding contract with a licensed sewage holding tank pumper to routinely pump the holding tank and to dispose of the tank waste at a sewage treatment facility authorized by the department to receive sewage holding tank waste.
- Description of measures to protect nearby surface water from runoff, siltation or other contamination resulting from construction or operation of the facility.
- Construction Drawings; the plans must be properly signed and sealed by an engineer registered in Alaska. The plans must show but are not limited to the following:
 - 0 Site Plan;
 - 0 Siting with respect to potential for health hazards, flooding, nuisances, and effect on surface water and/or groundwater;



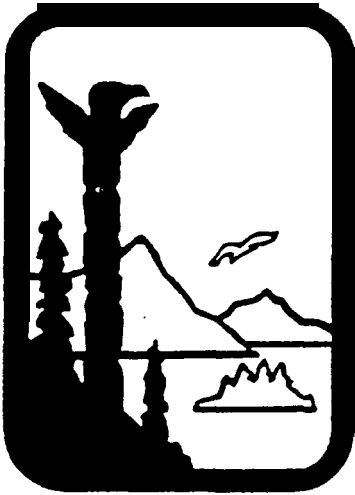
ADEC/Northern Public Service Office

WASTEWATER SYSTEM PLAN REVIEW CHECKLIST STABILIZATION PONDS (LAGOONS)

June 1997

SUBMITTAL REQUIREMENTS FOR CONSTRUCTION APPROVAL:

- Data Sheet
- Owner's Statement
- Completed Coastal Project Questionnaire, if the project is located in or discharging to, areas in the coastal zone.
- Copies of any permits, or applications for permits, required by *ADEC Wastewater* and/or *Solid Waste Regulations*, including permits for the construction of the project (for example Dewatering Permits).
- Documentation of the existence or formation of an entity to operate and maintain the lagoon.
- Description of measures to protect nearby surface water from siltation or other contamination resulting from construction or operation of the facility.
- Description of the provisions to maintain operation of any existing processes during project construction.
- If there will be a discharge to an existing collection or disposal system, documentation showing adequate capacity of the receiving system and permission of receiving system owner
- For percolating lagoons, hydrologic data and mixing zone calculations, sealed by a registered engineer, which demonstrate compliance with permit conditions
- Mixing zone calculations which demonstrate compliance with permit conditions
- A soil report bearing the signature and seal, or signature and registration number, of a professional engineer registered to practice in Alaska. The soils report must contain, but is not limited to the following:
 - 0 The number of test holes and percolation tests must be sufficient to adequately evaluate subsurface characteristics of the area planned for the lagoon.
 - 0 Soil borings and analysis must show the vertical separations between the lowest part of the lagoon and both the seasonal high water table is at least 4 feet and the vertical separation distance between the lowest part of the lagoon and the impermeable strata is at least 6 feet.



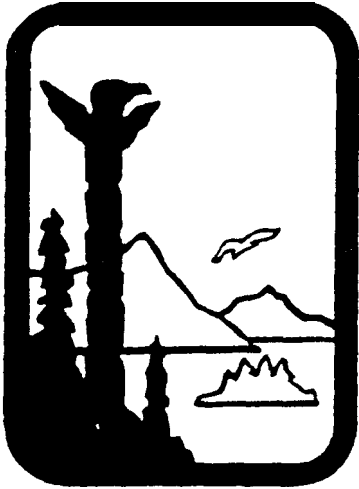
ADEC/Northern Public Service Office

WASTEWATER SYSTEM PLAN REVIEW CHECKLIST TREATMENT PLANTS

February 1996

SUBMITTAL REQUIREMENTS FOR CONSTRUCTION APPROVAL:

- Data Sheet
- Owner's Statement
- EPA 501 Notification for sludge generation facilities
- Completed Coastal Zone Project Questionnaire, if the project is located in or discharging to, areas in the coastal zone.
- Operator Certification, if required
- Copies of any permits, or applications for permits, required by ADEC wastewater and/or solid waste regulations, including permits necessary for the construction of the project (for example Dewatering Permits).
- Documentation of the existence or formation of an entity to operate and maintain the system.
- Copies of operation and maintenance procedures which are sufficient to maintain optimal operations of the treatment facility.
- Description of measures to protect nearby surface water from runoff, siltation or other contamination resulting from construction or operation of the facility.
- Description of the provisions to maintain operation of existing processes such that permit limits will be met during project construction.
- Construction Drawings; If engineering plans are required by Table E (18 AAC 72.210 of the *Wastewater* Regulations) the plans must be properly signed and sealed by an engineer registered in Alaska. The plans must show but are not limited to the following:
 - 0 Site Plan
 - 0 Process Schematic - including all pretreatment, flow equalization and final treatment processes.
 - 0 Siting with respect to potential for health hazards, nuisances, and effect on surface water and/or groundwater.



ADEC/Northern Public Service Office

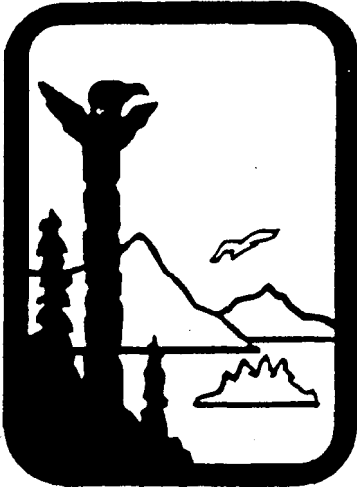
PUBLIC DRINKING WATER SYSTEM PLAN REVIEW CHECKLIST WATER HOLDING TANKS

March 1996

18 AAC 80.310 Requires the submittal of engineering plans for all public drinking water systems. The construction drawings and design plans must be sealed by an engineer registered in Alaska. The department will, in its discretion, waive this requirement for Class C systems. If you would like to apply for this waiver you must contact the department PRIOR to construction.

SUBMITTAL REQUIREMENTS FOR CONSTRUCTION APPROVAL:

- c) Data Sheet identifying the name, address and contact phone number of the owner/operator and the address or legal description of the site with the holding tank installation.
- Documentation of the proposed operation and maintenance provisions for the system:
 - 0 If the water holding tank is to be served by an ADEC approved water delivery, identification of the water delivery service(s) which will be used.
 - 0 If the water holding tank is to be served by an owner operated water delivery service, identification of the ADEC approved water source AND documentation of ADEC plan approval of the truck/tanker which will be used for the haul service.
- *1 Construction Drawings; The drawings must show but are not limited to the following:
 - 0 Site Plan;
 - 0 Siting with respect to potential for health hazards, flooding, nuisances. and effect on surface water and/or groundwater;
 - 0 Separation distance requirements are in compliance with 18 AAC 72.015 of the *Wastewater Regulations* and 18 AAC 80.030 of the *Drinking Water Regulations*.
- Design Plans and Details; Plans must include, but are not limited to the following:
 - 0 Identification of population served, type of water use, number of days per year of use;
 - 0 Design calculations and analysis computations such as water demand, storage tank sizing, mains, hydraulic analysis, pump type and sizing, and worksheets;
 - 0 Manufacturing specifications for materials used (storage tank, pumps, plumbing) documenting NSF approval as per 18 AAC 80.080;
 - 0 Verification that the builder/contractor used only lead-free pipe, flux and solder as per 18 AAC 8G.800: and
 - 0 Thermal protection considerations which take into account any seasonal use



ADEC/Northern Public Service Office

WASTEWATER SYSTEM PLAN REVIEW CHECKLIST SOIL ABSORPTION SYSTEMS

February 1996

SUBMITTAL REQUIREMENTS FOR CONSTRUCTION APPROVAL:

- Data Sheet
- Owner's Statement
- EPA 501 Notification for sludge generation facilities
- Completed Coastal Zone Project Questionnaire, if the project is located in, or discharging to, areas in the coastal zone.
- Copies of any permits, or applications for permits, required by ADEC wastewater and/or solid waste regulations, including permits necessary for the construction of the project (for example Dewatering Permits).
- Documentation of existence or formation of an entity to operate and maintain the system.
- Description of measures to protect nearby surface water from runoff, siltation or other contamination resulting from construction or operation of the facility.
- Description of the provisions to maintain operation of any necessary existing processes affected by the project during construction.
- Construction Drawings: If engineering plans are required by Table E (18 AAC 72.210 of the *Wastewater Regulations*) the plans must be properly signed and sealed by an engineer registered in Alaska. The plans must show but are not limited to the following:
 - 0 Delineation of the usable wastewater disposal area for both an initial and replacement soil absorption area.
 - 0 Siting with respect to potential for health hazards, nuisances, and effect on surface water and/or groundwater.
 - 0 Separation distance requirements are in compliance with the applicable minimum 18 AAC 72.015 of the *Wastewater Regulations*.
- Design Plans and Details: If engineering plans are required by Table E (18 AAC 72.210 of the *Wastewater Regulations*) plans must be properly signed and sealed by an engineer registered in Alaska. Plans must include! but are not limited to the following:
 - 0 Design flows, waste loads, and design population.
 - 0 Methods to control operational variables.

APPENDIX G
Utility Management Assessment

**Alaska Sanitation Planning Guide
for
Small Communities**

**Utility Management:
Benchmarks for Success**

Prepared for:
**HDR Alaska, Inc.
2525 C Street, Suite 305
Anchorage, Alaska 99503**

Prepared by:
**Mary Spellens
14800 Loc Loman
Anchorage, Alaska 99516**

How ready is your village?

Many villages in Alaska have already gone through the process of taking responsibility for operating and maintaining water and sewer systems. From their experience, much has been learned about **benchmarks for success** that other villages preparing for W&S infrastructure can use to check their own readiness. Villages without experience in handling large projects like W&S systems are unlikely to have developed the organizational capacity to handle such operations, just as a recreational snow machine user is not likely to be ready to run the Iron Dog. Shortages of experience and skills are not necessarily barriers to moving forward, but they should be viewed as strong stimulants to development!

How to use this questionnaire for initial planning: Part I

A good way to work through the first part of this checklist is with a group of village leaders and tribal/city employees. As you all read through the different items, think about your village's readiness in relation to each item. Get agreement on level of readiness, relying on the opinion of the people most knowledgeable in each area.

As you work, ignore questions that are not issues for your village, whether they are solved or irrelevant. Don't rate them--just cross out these questions to get a better picture of the work remaining. On the other hand, if your rating group finds significant work to be done in categories A and/or B, you may postpone the rest of the items in order to make a priority list of issues that need to be tackled on the public, legal, and organizational levels.

To respond to questions where village preparation is not complete, circle a number from 0 to 5, where 5 indicates that the problem is almost solved, 0 means that discussion hasn't even begun, and 1 means that no practical action has yet been taken. The lower the number, the more useful you might find technical assistance relating to the issues involved.

Some questions ask for assessments of effectiveness. Example: "Over the past 3 years, have villagers experienced consistent, goal-oriented leadership and service from those elected to run the organization?" [referring to the organization that would be running the utility]. For the extreme scores, 5 means that leaders have consistently delivered top-quality service to the community, whereas 0 means that the organization has no track record or that their record is very poor indeed. Low numeric scores for this type of question indicate raters' lack of confidence in the ability of the organization, pointing to a need to prioritize corrective action--either to improve organizational capacity or to consider alternative ways of managing utility services.

As you look at the list, you will see that question groupings are letter-coded as:

- A. First Priority: Issues concerning **village consensus** and consumer education on **ownership responsibilities** and **financial support** take precedence over all others. Unless the community understands what is at stake and is solidly committed, serious problems are likely to crop up along the way.
- B. Second Priority: Questions of who will manage the system are the next highest priority, because issues of **ownership and organizational responsibilities** need to be settled before effective work with government agencies becomes possible.
- C. Third Priority: These questions focus on the quality of the organization that will manage the utility, particularly its **management and leadership** and its **preparedness** to provide good service.
- D. Fourth Priority: Financial management issues come next because some organizations need 3 to 4 years of work to achieve competence in **budgeting** and **rate-setting** operations. Training for business employees should be included in this priority level.

The above four priorities, **A** through **D** in the questionnaire, should be answered and scored in order, as explained after each group of questions. Villages at the beginning of the sewer & water decision-making process will probably find several issues to prioritize and deal with. For many villages in the initial stages of the process, there will be no need to go beyond this part until the fundamental issues are prioritized and addressed.

An important way to get accurate ratings is to make sure that the village's rating (and project) team includes people with different competencies who can be assigned to work on particular issues. For example:

- **A issues** are political and thus fall within the scope of elected representatives like Council members. They also require a public process, usually including surveys and open meetings for consumer education. In order to provide residents with information needed to make realistic decisions, information needs to be obtained concerning (a) approximate monthly fees for different utility options and (b) how much village households can pay (and are willing to pay) for utility services. To get this information, leaders can: (1) request fee and cost information from nearby villages with new utilities, (2) ask VSW or PHS for assistance with estimating operations and maintenance costs. (3) decide how much village schools and other government/commercial organizations should fairly pay, and (4) work with residents on their cash budgeting realities.
- **B issues** involve both elected officials and top-level managers/employees of one or more village organizations. Although general public approval may be required, there are more issues relating to legal and managerial competency.

- **C issues** deal with organizational competency on the managerial level, and therefore should be dealt with organizational Board members and employees. Many or all of these issues cannot be dealt with on a public level, but when the utility does come on line, there will be substantial public issues that the organization must be prepared for.
- **D issues** deal with the financial capacity of the designated utility management organization, and therefore need to be tackled by employees responsible for financial reporting *and* by those community members most knowledgeable about technical business issues. For example, if your W&S project is going to be handled by the IRA, and the most competent accountant in the village works for the corporation, it is important to get that accountant on the planning team at the start.

Prioritizing Part I: You can combine the priority letters (A through D) with your numeric ratings (0 through 5) to prioritize individual questions/issues. For example, a question coded B-3 reflects a more fundamental need for action than another coded C-1, and therefore might be tackled first. A question coded B-O would usually be a higher priority than one coded B-3. But these priorities are not meant to be rigid. The group of knowledgeable villagers working as raters should look at the codes and change priorities as appropriate. The real value of prioritizing is to organize a big job so that actions can be handled most efficiently in the short term. In other words, the purpose of the priority list is to focus attention on the most critical priorities *at the time the checklist is completed*. Once the priority list gets old, it's time to work through the checklist again, to refocus the effort.

An important note: To keep your water and sewer project on track, you need to develop a working partnership with people from the government agencies assigned to work with you. They must account for the public funds that will be spent in your village, and therefore they must have confidence in your organizational ability and integrity. To build confidence, keep agency people informed and involved in your efforts, and remember that your VSW or PHS contact person is your first resource for accessing project assistance.

Part I. Fundamental Planning Issues

- A (1) Is there consensus in the community that getting W&S infrastructure should be the top village project priority? 0 1 2 3 4 5
- (2) Has a public, community-wide planning process been conducted in the past two years to clarify the village's vision, values, and priorities over the coming 10 years? 0 1 2 3 4 5
- (3) Do residents understand the complexity of the process to get W&S infrastructure, the facts concerning infrastructure ownership, and the requirement to pay for operations

and maintenance'? Have they been provided with information about monthly costs of different utility options? 0 1 2 3 4 5

(4) Has a complete survey been made of community members, to determine residents' most wanted services and how much they can afford to pay? 0 1 2 3 4 5

Scoring A: *Add scores for all 4 questions. **If** total is 15 or more, you are well on your way to the 20 you really need. **If** total is 8 or above, you're on track: keep it up. **If** total is 7 or below, concentrate on these Issues. postponing other considerations till your planning foundation is firm.*

B (1) **Is there consensus in the village on what organization should become the W&S owner/manager? Or, is there support for forming a new organization linked to two or more existing organizations?** 0 1 2 3 4 5

(2) Are ownership and management issues for all utilities clearly understood and documented? That is, do village and organization leaders fully understand what an organization has to be able to do to accomplish the management task? (Read Part II of this checklist for more detailed information.) 0 1 2 3 4 5

(3) Is the organization committed to taking the lead and managing the completed project? 0 1 2 3 4 5

(4) Is the organization recognized as appropriate by local government entities? 0 1 2 3 4 5

(5) Have other organizations expressed their support? 0 1 2 3 4 5

(6) **Does the organization have legal standing?** 0 1 2 3 4 5

(7) If tribal. is it the recognized tribal organization? 0 1 2 3 4 5

(8) If municipal. is it a chartered municipality? 0 1 2 3 4 5

(9) If private. is it a recognized corporate entity in good standing with the State? 0 1 2 3 4 5

(10) If newly formed as an entity bridging municipal and tribal powers, has the necessary legal foundation been established to permit its operation? 0 1 2 3 4 5

Scoring B: *Questions (1) and (6) are most important. Consensus and legality should be completely or almost completely established before proceeding. The other questions are intended to help you make sure there are no unexpected barriers. Any unresolved issues in these areas are serious and should be addressed before proceeding.*

C	Are the organization’s existing procedures and position in the community compatible with operating a utility ?	0 1 2 3 4 5
(1)	Does the municipal organization have ordinances for complete management of all utilities, including enforcement?	0 1 2 3 4 5
(2)	Does the tribal organization have complete management resolutions. including enforcement?	0 1 2 3 4 5
(3)	If ownership will be municipal or tribal, with private management. is there a complete contract for operation, including provision for enforcement?	0 1 2 3 4 5
(4)	In each case. are ordinances, resolutions, and/or contracts actually in operation. including enforcement and service to customers’?	0 1 2 3 4 5
(5)	Will the organization manage all village utilities, taking advantage of saving money through single billing, fewer employees. etc.’?	0 1 2 3 4 5
(6)	Does the organization conduct open, advertised for public elections’?	0 1 2 3 4 5
(7)	Over the past 3 years. have villagers experienced consistent, goal-oriented leadership and service from those elected to run the organization’?	0 1 2 3 4 5
(8)	In the past 3 years. has the organization been seriously sidetracked from serving its members due to factionalism and/or political in- tighting? (0 means the organization has been seriously sidetracked: 5 means that this has never happened)	0 1 2 3 4 5
(9)	Do organizational leaders and employees demonstrate commitment to working with other organizations in the	

community, supporting their goals and in turn receiving their support'? 0 1 2 3 4 5

- (10) Does the organization maintain/support an on-going consumer education effort aimed at increasing residents' commitment to public health goals and knowledge of utility issues? 0 1 2 3 4 5

Scoring C: *Start by crossing out the questions that don 't apply (there are 3 possibilities for organization affiliation; only one will be found in any one village, leaving 7 questions to answer). Add all scores together. Totals of 25 or above indicate a strong organizational basis for your utility, but any scores below 3 within individual questions should be addressed as priorities. Totals below 25 indicate that your organization has some weaknesses, or perhaps lack of experience, which is also a weakness. In either case it's important to set priorities for strengthening the organization.*

D Is the organization's financial and legal standing compatible with operating a utility? Within the past 3 years,

- (1) Has the organization been burdened by a large ratio of debt payments to revenues? (0 means severely burdened, 5 means not at all) 0 1 2 3 4 5

- (2) Has it experienced on-going problems with payments to the IRS and DOL? (0 means severe problems; 5 means none at all) 0 1 2 3 4 5

- (3) Have liens been filed against organization assets or bank accounts'? (0 means severe problems: 5 means none at all) 0 1 2 3 4 5

- (4) Has it had to deal with collections and/or legal actions in areas of personnel, finance, etc.? (0 means that such problems have been frequent; 5 means that none has occurred) 0 1 2 3 4 5

- (5) Has it experienced significant cash flow problems related to problems with debt'? (0 means that such problems have been frequent: 5 means that none has occurred) 0 1 2 3 4 5

- (6) Has it failed to resolve financial and legal problems promptly, through appropriate refinancing, restructuring, and/or agreed-upon action plans negotiated with relevant

agencies, financial institutions, etc.? (0 means that problems have dragged on; 5 means no delays at all) 0 1 2 3 4 5

Scoring D: If the total of all answers is below 25, you should prioritize the task of improving the financial functioning of the organization. Any individual questions with scores below 3 are automatic priorities within the financial area. Usually, training is required to improve organizational functioning. Be sure to cross-train and train more people than are immediate & required in order to have back-up personnel as needed to compensate for turnover.

How to use this questionnaire in later planning stages: Part II

Villages that have progressed beyond the initial planning stage, whose public and organizational decisions have been made, will probably find Part II of the questionnaire more relevant than Part I. These sections of the questionnaire are more detailed, and may well require more training and technical assistance inputs.

The assumption in this part is that the organization designated to operate the utilities is in fact the correct choice—that issue was settled in Part I. In this part, groups of questions relate to the strength of the organization and its capacity to manage efficiently. How well the organization works has some critical consequences:

- a well-managed utility keeps costs down for consumers
- a sound operations plan preserves the utility infrastructure for the future
- a responsive, responsible utility gains public support and customer commitment to paying fees promptly

Prioritizing Part II: Unlike Part I, issues are not grouped by priorities but by type. Each group focuses on issues related to particular management and technical areas within the organization. Therefore, all planning should be led by (and usually be the responsibility of) the Board and employees charged with the particular duties. To prioritize, add up the scores of all questions within each group and divide by the number of questions in the group. The group with the lowest overall score is the one needing most work. The more work your organization needs in a particular area, the more important it is to start as soon as possible. Therefore, the group with the lowest score has the highest priority (subject to group agreement, of course).

Although the organization’s Board and employees may lead the planning, they should report regularly—usually monthly—to the Council. The prioritized list created by scoring the following questionnaire could well be used by the Council to ensure that preparation

stays on track. If necessary, repeat the questionnaire every 6 months or so to keep priorities current by removing activities already completed and focusing on new ones.

There is one exception to preparing early: the operators who will take charge of new utility infrastructure, who will have the responsibility to carry out the operations plan, should usually be the last to be trained. Not because their jobs are less important (of course they are absolutely essential!), but because they need to learn on the system as it is constructed. Almost always, they should be part of the construction crew itself and used to working with the contractor in charge of building the infrastructure.

Again, training is a major focus. Operators should be certified, and there should be more certified operators than needed for day-to-day operations, to allow for sickness, subsistence activities, turnover, etc. Be sure to allow for study time in your planning for operators who need to take the appropriate certification exam. Office personnel should be trained on new software *before* the new utility operation starts up, and deficiencies in record keeping should be corrected well before the start-up date. If managers need training to cope with an additional utility function (say water & sewer being added to electric), all organizational changes needed to accomplish the new duties should be in place well before start up.

It is a good idea to request a management audit from objective outsiders to help you “think outside the box” about how things have traditionally been accomplished in the village, and how they might change to gain efficiency. Your regional nonprofit, regular accounting firm, or PHS/VSW contact can provide or help you find the technical assistance you need.

The following headings explain the focus for each group of questions in Part II:

Human Resource Strength: How able is the organization to hire and retain qualified employees? If turnover is a problem, if loss of a key employee has shut down a particular function for weeks or months, the organization should problem solve with the Council. A utility requires steady, competent operation if infrastructure is not to break or customers become angry. For many villages, people problems are the most serious barrier to good organizational control. If your village has serious problems with its human resource, you may have to settle for infrastructure that is less vulnerable to damage: better a sewage haul system that works than a flush system that freezes and breaks due to inconsistent maintenance.

Capacity of the Organization to Manage More Functions: Adding or enlarging utility operations will involve significant impacts on many village organizations. The Board (or Council) and employees will need to consider their responses to questions in this section in light of their capacity to manage more work functions. If the organization is already operating at its limits, or even beyond, one or more additional employees is probably not going to meet the new needs. Significant reorganization may be called for.

Adequacy of the Record-Keeping and Accounting Systems: If your new water and sewer infrastructure is an add-on to an existing system, you may want to take the opportunity to review your current financial control system to assess its adequacy. If the new infrastructure will require your first organizational venture into utility management, you will certainly need to add appropriate systems, whether paper- or computer-based, and the trained personnel to operate them. Every such system is supported by policies, rules, and procedures that must be written, enforced, and reviewed periodically.

Ability to Oversee Operations and Maintenance on the New System: Fulfilling the requirements of the Operations & Maintenance program should not be the sole responsibility of the operators. any more than financial personnel should be left to their own devices. Boards and Councils have the fiduciary responsibility to learn how to manage all essential functions of the organizations they oversee, to ensure adequate and effective operation. At a minimum, managers and Board/Council members should learn what reports and maintenance procedures are required and require feedback to ensure that they are being performed properly.

What if you have other issues? If you find yourselves adding issues not on the checklist, please let us know so we can add them in! Since this list is based on the experience of many villages, we would appreciate your contributing your experience as well, so that up-dates of this checklist will better help those starting projects after yours.

STRENGTH OF THE VILLAGE’S HUMAN RESOURCE

◆ How skilled are the organization’s current office employees? What human resources can the local community provide to meet the challenges of W&S management?

- (1) The organization has competent, fully trained employees in most positions of its current office job structure. 0 1 2 3 4 5
- (2) The organization does not need to depend on one or a few long-time employees to run everything. 0 1 2 3 4 5
- (3) Most employees have been cross-trained to ensure against disruption by turnover, long-term illness, etc. 0 1 2 3 4 5
- (4) The organization can expect that competent, reliable villagers will be available for hire as needed, people who can come in and start to do a good job without much training. 0 1 2 3 4 5

◆ **How skilled are the organization’s current technical employees? What human resources can the local community provide to meet the challenges of W&S management?**

- (1) The village currently has certified, dependable technical personnel providing utility services such as water testing. 0 1 2 3 4 5
- (2) Other village residents who have had relevant technical experience are willing to back up utility operators as assistants and substitutes. 0 1 2 3 4 5
- (3) Competent, reliable villagers are available for operator positions as needed. 0 1 2 3 4 5
- (4) When technical training is offered, people attend in order to prepare for future jobs and current substitute positions. 0 1 2 3 4 5

RECORD-KEEPING AND ACCOUNTING

◆ **Are the record-keeping and accounting systems of the organization adequate for tracking and reporting utility and other functions?**

- (1) The organization’s chart of accounts supports financial statements that detail all sources of income and expense, report all departments and subsidiaries on a stand-alone basis, track assets and liabilities. and provide consolidated statements. 0 1 2 3 4 5
- (2) All levels of the organization operate with adequate cash control and other internal control procedures. 0 1 2 3 4 5
- (3) The accounting system compiles records of costs by function. so that the Board can base decision making on actual costs of providing clean water, hauling sewage, etc. 0 1 2 3 4 5
- (4) Records are compiled so that “time and charges” information is available for costing preventive maintenance and repair functions. 0 1 2 3 4 5
- (5) Asset accounts and accounting procedures include provision for a critical parts inventory. 0 1 2 3 4 5

(6) There is a yearly oversight function for the organization’s accounting/bookkeeping (e.g., CPA audit or review, monitoring by regional nonprofits). 0 1 2 3 4 5

◆ Does the organization have effective budgeting, rate setting, and collections procedures?

(7) Management prepares a yearly operating budget based on prior year figures and on forecasts of likely events in the coming year. 0 1 2 3 4 5

(8) Management and Board/Council examine monthly reports showing budget versus actual figures and correct course to stay within budgeted expense levels. 0 1 2 3 4 5

(9) The budget process is accurate enough to give Board members confidence in their oversight duties. (That is, variances usually reflect real changes in the operating environment, not errors / lack of accurate prior year information in the budgeting process itself). 0 1 2 3 4 5

(10) From the financial and operations reports it receives, the Board gets enough information about operations to guide decision making in a timely fashion. 0 1 2 3 4 5

(11) Board and management have experience in setting rates (that is, fees for service). 0 1 2 3 4 5

(12) Board and management base rate-setting decisions on real costs of providing service. 0 1 2 3 4 5

(13) The organization sends out timely, easily understood bills with past-due and penalty fees clearly shown. 0 1 2 3 4 5

(14) If there is more than one billed service, all are combined in one statement. 0 1 2 3 4 5

(15) The utility has a complete set of service cut-off policies, which are enforced evenhandedly. 0 1 2 3 4 5

(16) Accounts receivable are tracked with aging and are reviewed for action by the Board on a monthly basis. 0 1 2 3 4 5

(17) Collections policies include customer service goals, including helping people get reinstated. 0 1 2 3 4 5

ORGANIZATIONAL CAPACITY

◆ **At the Board (or Council) and management levels, how capable is the organization of taking on more-possibly significantly more-responsibility?**

(1) Does the organization use (or participate with others in) a public planning process to develop new projects and organizational goals? 0 1 2 3 4 5

(2) Does the organization’s Board meet on a regular monthly basis, post its agendas in advance, and keep the public informed about its decision-making activities and progress toward goals (through public meetings, posted minutes, newsletters, etc.)? 0 1 2 3 4 5

(3) Does the Board routinely provide training for inexperienced new members, especially in the areas of fiduciary responsibility and knowing how to read financial reports? 0 1 2 3 4 5

(4) Does the organization have in place an established and legal set of personnel policies? 0 1 2 3 4 5

(5) Does the organization actually follow those policies? 0 1 2 3 4 5

(6) Is there a multi-year record of success in taking on and successfully completing major projects using funds from DCRA, HUD, ANA, etc.? 0 1 2 3 4 5

(7) Does the organization successfully operate one or more ventures having both income and expenses, such as a Washeteria, electric utility, or store? (“Successfully” means that the venture is able to (a) satisfy most of its users most of the time, (b) maintain its equipment in continuous operation, and (c) operate at a profitable—or at least break-even-level.) 0 1 3 3 4 5

◆ **How adequate is the organizational structure for its current work load, and how capable is it of taking on more functions?**

(8) Meaningful job descriptions reflect actual duties. 0 1 2 3 4 5

(9) Rates of pay correspond to actual responsibilities. 0 1 2 3 4 5

(10) Across the organization, wages for different kinds of jobs are fair in terms of duties and responsibilities. 0 1 2 3 4 5

- (11) The organization has a clear chain of command. 0 1 2 3 4 5
- (12) Managers and supervisors have a compact, workable span of command. 0 1 2 3 4 5
- (13) In the past, the organization has responded to change (in scope of services. number of employees, etc.) by adapting its structure (adding new departments, changing reporting relationships, etc.. as opposed to adding duties to current job descriptions or more bodies to existing work groups). 0 1 2 3 4 5
- (14) At this time, the organization handles its work load smoothly and efficiently. 0 1 2 3 4 5
- (15) Employee morale couldn't be better. 0 1 2 3 4 5

OPERATIONS AND MAINTENANCE

◆ **Does the lead organization have the operational skills to manage more complex W&S infrastructure given its current workload and level of experience?** *Cross out questions that do not apply to your situation.*

- (1) Our upcoming utility infrastructure will not add significant new work to our current utility effort-we're just adding some more households to an existing system. 0 1 2 3 4 5
- (2) Our organization has years of successful experience in handling utility services in the village. 0 1 2 3 4 5
- (3) Our water & sewer utility has an excellent record for maintaining service and satisfying customers. 0 1 2 3 4 5
- (4) The O&M plan we follow has kept our old infrastructure in excellent shape. 0 1 2 3 4 5
- (5) Our current operator(s) have met the record-keeping requirements for water testing and purification to the satisfaction of State and tribal organizations (like DCRA and regional health corporations). 0 1 2 3 4 5
- (6) Our O&M plan has been effective in minimizing breakdowns and system downtime. 0 1 2 3 4 5

Utility Management Assessment

COMMUNITY: _____ Date: _____

Contact: _____ MRAD Staff: _____

Operation of Utility

Services provided:

- | | | |
|--|--|--|
| <input type="checkbox"/> Water & Sewer | <input type="checkbox"/> Water to the school | <input type="checkbox"/> Garbage haul |
| <input type="checkbox"/> CI Water Only | <input type="checkbox"/> Electricity | <input type="checkbox"/> Landfill |
| <input type="checkbox"/> CI Sewer Only | <input type="checkbox"/> CI Cable TV | <input type="checkbox"/> Fuel Distribution/Sales |
| <input type="checkbox"/> Washeteria | <input type="checkbox"/> Harbor/Dock | CI Other (describe) _____ |

Which services are metered? _____

Do you have a Preventative Maintenance Plan (Get a copy if possible) Yes No

Is the plan followed by the Operators? Yes No

If not, why not? _____

Does the water/sewer system have shut off valves for each household? Yes No

Computer Use:

Does the community keep financial records by hand or CI computer?

(If all or part of the record keeping is done by computer complete the following):

Type of Computer	<input type="checkbox"/> Macintosh	<input type="checkbox"/> DOS	<input type="checkbox"/> Windows
	<input type="checkbox"/> Other	_____	_____
Other Hardware	<input type="checkbox"/> Modem	_____	_____
	<input type="checkbox"/> Printer	_____	_____
	<input type="checkbox"/> Other	_____	_____

What software programs does the utility use? _____

Who is trained to use them? _____

Accountinca Svstems

Does the community use a billing system for utility fees? Yes No

Are bills sent to customers for each utility separately or combined into one bill? separately combined

Are customers billed regularly? Yes No

Journals and Records: Does community keep?

Payroll Journals - Describe type _____

Pay Records - Describe type _____

Cash Receipts Journal - Describe type _____

Cash Disbursement Journal - Describe type _____

Financial Reporting:

Are community financial reports provided to the city/village council monthly? Yes No

Are the utilities' finances reported separately from general accounts? Yes No

Are financial reports provided for community grants? Yes No

APPENDIX H
The 6 C's of Operations and Accounting

The 6 C S of Operations and Accounting

By the time your water & sewer project is completed, you must be prepared to operate and maintain it. Remember: **the pipes, buildings, and equipment will belong to the village, not to the state or the contractor who built it. To keep your water & sewer infrastructure, YOU will have to collect enough user fees to support your utility operation.**

For a successful operation, you need to have-already functioning-a management plan, including an operations manual and accounting system, that can handle the job. You must mobilize six critical system strengths before your new infrastructure comes on line. Gearing up the system should begin early in the W&S process because time-three years or more in many cases-is required to become truly competent. The good news is that you will not have to invent the system from scratch, because there are standard procedures and rules for all six Cs, and many technical resources for learning how to implement them.

1 CONTROL means to protect assets and funds, and requires:

- An “owner’s manual” from the contractor that clearly spells out continuous cycles of preventive maintenance, along with established procedures for ensuring health & safety
- Bill-approval procedures to ensure that different people share the responsibility of approving bills and payroll records, as well as preparing/signing checks
- Revenues, accounts receivable, debts scheduled by source, interest rate, and due dates
- Inventories of critical parts and operating supplies recorded, stored securely, and replaced as consumed
- Outside monitors and auditors invited to examine records and assets on a yearly basis to provide independent assurance that control systems are working well

Controlling cash presents special problems because coins and bills can be handled without leaving any record on paper. In many villages strict cash control could save enough money to cover most maintenance expenses! Control procedures for cash include:

- Using cash registers with locking drawers that code sales by type and print reports.
- Physical verification of token and pull-tab sales by using scales to verify inventory
- Temporary cash storage in a locked, secure safe after final count and before deposit
- Procedures that protect employees by providing for complete verification of their work

2 CLASSIFY means to create structure that gives meaning to records

By themselves, receipts, check registers, and completed operations checklists are just pieces of paper. In our personal lives, at tax time, many of us have felt a sense of doom just looking at a shoe box full of receipts and notes all mixed up together.

Even if every preventive check has been done accurately and every penny of cash has been handled with utmost care and responsibility (the 1st C), we still have to put records together so as to make sense of what we are doing. If one person's affairs can be a dreadful tangle, just imagine how bad a whole utility's could be! Three important defenses against mess are:

- a **chart of accounts**, defined as a numbered list of all the utility's kinds of business
- **time cards** that track employees' work purposes
- an **operations manual** that organizes as well as specifies actions

Every time the organization deals with a revenue, expense, new asset, or loan, entries are made in the chart of accounts to classify the transaction in relation to the whole organization. Every time an employee time card is processed, data is recorded about the duties s/he performed. Every time a piece of equipment is serviced, the cost of the supplies used is added to the record of upkeep expenses. Transactions of similar kinds are classified and stored together. With good classification, we can determine, any time we need to know:

- who owes money for past utility bills, individually and in total
- how much money was collected from machines in the Washeteria last month
- how much has been spent on Washeteria pop and candy inventory already this year
- what repair bills had to be paid in the first quarter to fix machines in the Washeteria, and, of the total, how much was spend on labor and how much on parts

Although at the beginning we may have no way of foreseeing what problems we will have to deal with, a good classification system can be made to answer hundreds of questions.

Classifying transactions as they are recognized (which means "taken into the system") is done by operators and bookkeepers. Knowing how to classify transactions correctly requires expertise, gained either from training or from assisting someone who already knows the ropes.

One of the big decisions a utility must make in starting a new system or updating an old one is whether to use a computerized system or one based on hand-written paper records. Nowadays, most organizations choose to go with a computer-based system backed up by filed records. Either way, training is needed to ensure competence.

Matching is another criterion for good classification. We not only need to compile *kinds* of transactions, we need to be able to match them to specific time periods, usually months, quarters, and fiscal years (which means 12 months beginning with any month chosen by the organization, as opposed to the calendar year, which always starts in January).

3 COMPARE

means to use current and past records to create reports

If transactions have been controlled and classified properly for at least two years, so that past and current data are accurate, accessible, and properly matched in time, the accounting system can become a powerful decision-making tool for managers, who can use it to:

- answer **questions** about problems and changes from past experience. (Example: Why are this year's Washeteria repair expenses so high compared to last year's? Is the problem just temporary, or is immediate action required to correct this bad trend?) Without power to compare, we can't know that these questions need to be asked!
- initiate a **budget** process for future operations based on estimations of revenues and expenses derived from past experience and current knowledge of likely changes in the future operating environment. The budgeting process is fundamental to successful utility operations because it is the primary tool for allowing the organization's policy makers to monitor the success of the utility's efforts
- compute **unit costs** of providing products or services. (Example: how much does it cost to produce one gallon of clean water, perform one sewage haul, or run a dryer for the 10-minute period paid for by one token?) Unit costs are important because they are the basic information required for setting rates, which is covered in the 5th C, below
- keep employee **job descriptions** up to date in order to ensure that wages are spent efficiently—that the organization gets its money's worth. (Example: This year, the Washeteria Operator has spent less time spent on preventive maintenance than last year. Investigation by the supervisor shows that the Operator has learned to do this work more efficiently. Should additional job duties be added? If so, the position description will have to be changed. If the additional duties justify a raise, budgets will have to be revised.) Note the system intersection with personnel management, operations procedures, costing, etc.

It should be clear from the above examples that a competent manager can get many kinds of useful reports from system classifications, assuming accurate input. Managers are responsible for monitoring (minimally on a monthly basis) by using a set of reports produced automatically. If analysis reveals problems, additional reports may be designed and produced on the system to obtain more information. Input errors may produce numbers that look very bad, too good, or just weird. After management monitoring and correction, the reports will reflect the true state of utility affairs.

Problems revealed in reports may be up to management to correct, if they can be resolved within the utility's current policy framework. If, however, the problems involve policy considerations, relevant reports should be added to the agenda of the monthly Council meeting for consideration, along with the budget variance report (also known as "actual versus budget") which is one of the standing reports to the Council. More information on the Council's role follows in the next C.

4 COUNCIL OVERSIGHT based on system reports

is critical to successful policy direction of the utility. While reports are very important to managers' efforts to keep the utility operating efficiently, they are nothing short of essential to the Council (or Board) responsible for policy direction.

In fact, *it is not possible for Council members to fulfill their legal oversight responsibilities without adequate reporting from the system.* Unless transactions within the system itself are both properly controlled and classified, so that comparisons are meaningful, the Council cannot oversee the utility responsibly, no matter how high the quality of the system itself.

Council members owe a duty of **fiduciary responsibility**, a term referring to their obligation to ensure that the organization operates on a sound financial basis and benefits its users.

Although the primary employee (City Manager, Village Administrator, Utility CEO, etc.) is responsible for providing information to the Council for its deliberations, his/her failure to do so properly does not diminish the Council's ultimate responsibility—after all, members have the power to replace any employee.

To prepare to fulfill their responsibilities, new Council members need training in how to read and understand financial reporting, particularly the two primary reports they review, analyze, and approve both month-by-month and on a yearly basis:

- **budget variance report** (also called "actual versus budget"). This report is important because it shows how the organization stands in its effort to stay within its budget. During regular monthly meetings, Council members will review each line in the complete report. If there are significant differences between a projected (budget) number and the actual expense incurred, either in the month being reviewed or in the cumulative, year-to-date figures, the manager must explain the difference. The Council has the responsibility to use its judgment in accepting the explanation or requesting further clarification.

The Council not only reviews the budget but carries primary responsibility for its accuracy. Although the manager usually prepares the budget draft, which forms the agenda of one or more budgeting meetings, the Council is responsible for adopting the final version as the basis for operations in the coming year.

- **financial statements** should also be read monthly and yearly. The income statement is usually of first interest: it is familiar and its bottom line provides quick comfort if it's positive. Remember, however, that a positive net of revenues over expenses is only meaningful after setting aside sufficient funds for equipment repair and replacement.

In effect, the utility must produce a strong excess of revenues over expenses (that is, profits) in order to survive. *Long-term utility success is impossible unless funding for future needs is adequate!* Using a balance sheet helps clarify this truth. If organizational

finances are rocky, a cash flow statement is very useful. In fact, all three statements should be used and understood by Council members.

A useful Council exercise in fiduciary responsibility is authorizing yearly review/audit by independent outsiders, whether CPAs or representatives of regional non-profits.

5 COSTING means determine costs of user services and set rates

As every village leader knows from residents' complaints, local store prices and utility fees are always too high. While elected Council members want to satisfy consumers' demands for low fees, they also have the (contrary) responsibility for long-term, efficient utility operation. Since fees must cover both operating costs and saving accounts for future repairs and replacements, accurate costing is critical to long-term successful maintenance.

At the beginning of work on the W&S project, costing serves another critical need:

- The Council has the responsibility for determining what level of utility fees village residents can actually afford, because different types of infrastructure have different maintenance costs. Unless a village can afford to maintain their favored system, residents have to settle for a lower-priced system that they can afford to maintain.

How can well-controlled and well-classified transactions, stored within a high-quality accounting system, help satisfy these conflicting demands? *Only* such a system can produce accurate cost estimates that people can rely on to make correct decisions.

If we have accurate records relating expenses to operations, and accurate counts of units produced (gallons of clean water, numbers of haul trips and dryer loads), we can figure out how much products or services actually cost, and then work to use consumers' fees as efficiently as possible, thus holding fees to a minimum. At the same time, the more data we have on repair and maintenance costs, the more precise we can be about how much money will be needed for long-term funding.

Even before new infrastructure is committed, we will be able to combine data from other sources (such as project engineers and other villages) with our own information to zero in on actual costs.

Village residents need accurate costs in order to make decisions about their ability and willingness to pay fees. Explaining costing procedures in public meetings casts light on issues and helps residents make informed choices. Greater understanding leads to less divisive and more consensual decision making, which benefits everyone.

6 CONSULTING

means to introduce resident input into planning

Like any other village institution, no utility can operate without the support of its users. The best way to get that support, and to build on it, is to interact with residents on utility issues through consumer education.

The previous section discussed costing in the context of informed consumer decision making. In fact, there are even more critical considerations involved in W&S projects, involving public health and personal commitment to community welfare. The Alaska Native Health Board can offer assistance in adding this critical component to enrich the management and accounting system.

In the short run and the long run, public consultation closes the circle of accountability.

APPENDIX I
Guidebook Bibliography

Bibliography

- Alaska Department of Community and Regional Affairs. 1985. Capital Improvements Planning; A Guidebook for Rural Alaskan Communities.
- Alaska Department of Community and Regional Affairs. 1998. CDBG Grantee Introductory Handbook.
- Alaska Libraries & Information Links
<http://www.wln.com/lkalaska.htm>
- Alaska Statewide Library Electric Doorway (SLED)
<http://sled.alaska.edu/>
- Alaska State Library
P. O. Box 110571
- Reference Desk: (907) 465-2921, Fax
 - Alaska Newspaper Project: (800) 440-2919
 - Interlibrary Loan and Document Delivery: (907) 465-2988 •
 - Circulation/Periodicals Desk: (907) 465-2920 •
 - Government Publications: (907) 465-2927
- Ashton, W. 1996. Co-Operative Webs: Ways of improving the Environmental Health of Alaskan Villages. Coordinator Manual. The Delta Institute.
- Bauer, Leonard and Peter K. Watt. 1990. Dipute Resolution: A Handbook for Land Use Planners and Resource Managers. Prepared for the Oregon Department of Land Conservation and Development.
- Collaborative Decisionmaking: Community-Based Method . The World Bank Participation Sourcebook
<http://www.worldbank.org/html/edi/sourcebook/sbal04.htm>
- DuPraw, M.E. and M. Axner. 1997. Working on Common Cross-cultural Communication Challenges.
<http://www.wgcd.org/action/ampu/crosscult.html>. Topsofield Foundation.
- Environmental Systems Research Institute, Inc. 1994. Understanding GIS; Self Study Workbook
- Group Facilitation Web Site
<http://www.ee.ed.ac.uk/~gerard/MENG/MECD/topics.html>
- Hobson, G. Traditional Knowledge is Science.
<http://www.carc.org/pubs/v20no1/science.htm>
- Municipality of Anchorage Department of Community Planning and Development. 1998. Group Visioning Packet for the Anchorage Bowl Comprehensive Plan.

Oregon Visions Project. 1993. A Guide To Community Visioning; Hands-on Information for Local Communities. Oregon Visions Project. Oregon Chapter, American Planning Association

Rea, L.M. and R. A. Parker. 1997. Designing and Conducting Survey Research; A Comprehensive Guide. Jossey-Bass, Inc. San Francisco, CA.

Richardson, J., Taking Charge Sanitation Strategies for Rural Communities. Rural Sanitation Information Project.

Salleneve, J. Giving Traditional Ecological Knowledge Its Rightful Place in Environmental Impact Assessments. <http://www.carc.org/pubs/v22no1/know.htm>

Social Science Research Methods and Statistics: Resources for Teachers: <http://www.siu.edu/~hawkes/methods.html>.

US Army Corp of Engineers. Institute for Water Resources. Large Group Response Exercise.

Ken Orth, Institute for Water Resources. USACE (703) 428-6054 email: kenneth.orth@inet.hq.usace.army.mil

US Department of Transportation. 1994. Innovations in Public Involvement for Transportation Planning.

Washington State Department of Transportation. What is a Charrette? <http://www.wsdot.wa.gov/TA/T2/charrette.html>



The World Bank Participation Sourcebook

Appendix I: Methods and Tools

Participatory Rural Appraisal

Collaborative Decisionmaking: Community-Based Method

Contents of this section:

- Key Tenets of PRA
 - PRA Tools
 - Organizing PRA
 - Sequence of Techniques
 - References
 - Natural Resource Management in Burkina Faso (Box A1.4)
-

Participatory rural appraisal (PRA) is a label given to a growing family of participatory approaches and methods that emphasize local knowledge and enable local people to make their own appraisal, analysis, and plans. PRA uses group animation and exercises to facilitate information sharing, analysis, and action among stakeholders. Although originally developed for use in rural areas, PRA has been employed successfully in a variety of settings. The purpose of PRA is to enable development practitioners, government officials, and local people to work together to plan contextappropriate programs

Participatory rural appraisal evolved from rapid rural appraisal—a set of informal techniques used by development practitioners in rural areas to collect and analyze data. Rapid rural appraisal developed in the 1970s and 1980s in response to the perceived problems of outsiders missing or miscommunicating with local people in the context of development work. In PRA, data collection and analysis are undertaken by local people, with outsiders facilitating rather than controlling. PRA is an approach for shared learning between local people and outsiders, but the term is somewhat misleading. PRA techniques are equally applicable in urban settings and are not limited to assessment only. The same approach can be employed at every stage of the project cycle and in country economic and sector work.

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Key Tenets of PRA

- *Participation* Local people's input into PRA activities is essential to its value as a research and planning method and as a means for diffusing the participatory approach to development.
- *Teamwork*. To the extent that the validity of PRA data relies on informal interaction and brainstorming among those involved, it is best done by a team that

includes local people with perspective and knowledge of the area's conditions, traditions, and social structure and either nationals or expatriates with a complementary mix of disciplinary backgrounds and experience. A wellbalanced team will represent the diversity of socioeconomic, cultural, gender, and generational perspectives.

- *Flexibility.* PRA does not provide blueprints for its practitioners. The combination of techniques that is appropriate in a particular development context will be determined by such variables as the size and skill mix of the PRA team, the time and resources available, and the topic and location of the work.
- *Optimal ignorance.* To be efficient in terms of both time and money, PRA work intends to gather just enough information to make the necessary recommendations and decisions.
- *Triangulation.* PRA works with qualitative data. To ensure that information is valid and reliable, PRA teams follow the rule of thumb that at least three sources must be consulted or techniques must be used to investigate the same topics.

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PRA Tools

PRA is an exercise in communication and transfer of knowledge. Regardless of whether it is carried out as part of project identification or appraisal or as part of country economic and sector work, the learningbydoing and teamwork spirit of PRA requires transparent procedures. For that reason, a series of open meetings (an initial open meeting, final meeting, and followup meeting) generally frame the sequence of PRA activities. Other tools common in PRA are:

- Semistructured interviewing
- Focus group discussions
- Preference ranking
- Mapping and modeling
- Seasonal and historical diagramming.

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Organizing PRA

A typical PRA activity involves a team of people working for two to three weeks on workshop discussions, analyses, and fieldwork. Several organizational aspects should be considered:

- Logistical arrangements should consider nearby accommodations, arrangements for lunch for fieldwork days, sufficient vehicles, portable computers, funds to purchase refreshments for community meetings during the PRA, and supplies such as flip chart paper and markers.
- Training of team members may be required, particularly if the PRA has the second objective of training in addition to data collection.
- PRA results are influenced by the length of time allowed to conduct the exercise, scheduling and assignment of report writing, and critical analysis of all data,

conclusions, and recommendations.

- A PRA covering relatively few topics in a small area (perhaps two to four communities) should take between ten days and four weeks, but a PRA with a wider scope over a larger area can take several months. Allow five days for an introductory workshop if training is involved.
- Reports are best written immediately after the fieldwork period, based on notes from PRA team members. A preliminary report should be available within a week or so of the fieldwork, and the final report should be made available to all participants and the local institutions that were involved.

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Sequence of Techniques

PRA techniques can be combined in a number of different ways, depending on the topic under investigation. Some general rules of thumb, however, are useful. Mapping and modeling are good techniques to start with because they involve several people, stimulate much discussion and enthusiasm, provide the PRA team with an overview of the area, and deal with noncontroversial information. Maps and models may lead to transect walks, perhaps accompanied by some of the people who have constructed the map. Wealth ranking is best done later in a PRA, once a degree of rapport has been established, given the relative sensitivity of this information.

The current situation can be shown using maps and models, but subsequent seasonal and historical diagramming exercises can reveal changes and trends, throughout a single year or over several years. Preference ranking is a good icebreaker at the beginning of a group interview and helps focus the discussion. Later, individual interviews can follow up on the different preferences among the group members and the reasons for these differences.

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References

Chambers, R. 1992. *Rural Appraisal: Rapid, Relaxed, and Participatory*. Institute of Development Studies Discussion Paper 311. Sussex: HELP.

International Institute for Environment and Development, Sustainable Agriculture Program. 1991-present. *RRA Notes* (now titled *PLA Notes*). United Kingdom.

McCracken, Jennifer A., Jules N. Pretty, and Gordon R. Conway. 1988. *An Introduction to Rapid Rural Appraisal for Agricultural Development*. London: International Institute for Environment and Development.

Theis, J. and H. Grady. 1991. *Participatory Rapid Appraisal for Community Development*. London: Save the Children Fund.

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Natural Resource Management in Burkina Faso

Prior to appraisal of this environmental management project, twenty pilot operations tested the PRA approach to determine which techniques suited the project's resources, topic, and location. Best practices were distilled without blueprint designs.

The result is a project based on a multitiered process in which communities design management plans with the help of multidisciplinary teams of technicians. This approach starts with awareness raising and trust building and proceeds to collaborative diagnosis, community organization, and plan design. Local government agreement, implementation, and participatory monitoring and evaluation follow.

Central and regional governments have come on board with this approach, endorsing administrative decentralization and reorganization and working for revisions of ambiguous land tenure laws. Both of these steps encourage local solutions to local problems and work for empowering people to manage natural resources in a sustainable way.

Source: The World Bank, Agriculture Technology and Services Division (AGRTN). October 1994. Agriculture Technology Notes. No. 6. Washington, D.C

(Box A1.4)

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APPENDIX J
Sanitation Terms Glossary

Chronic Health Effect

The possible result of exposure over many years to a drinking water contaminant at levels above its MCL.

Cleanout

Places in wastewater systems that allow operators to 'clean-out' blockages and sludge.

Coliform

A group of related bacteria whose presence in drinking water may indicate contamination by disease-causing microorganisms. (*E. Coli* and *Fecal Coliform*)

Community Water System

A water system which supplies drinking water to 25 or more of the same people year-round in their residences.

Community Watering Point

A distribution station that services a whole community. Usually in conjunction with a water treatment plant and/or washeteria.

Community Haul

An operator delivers water to and removes wastewater from individual residences or disposal points using a tank mounted on a trailer or truck.

Community Piped Sewer

Wastewater is collected and disposed of via a piped system that typically serves the majority of the community. Residents don't not haul wastewater and have little responsibility other than paying a user fee.

Community Piped Water

Water is distributed via a piped system that typically serves the majority of the community. Residents do not haul water and have little responsibility other than paying a user fee.

Compliance

The act of meeting all state and federal drinking water regulations.

Glossary

Action Level

The level of lead or copper which, if exceeded, triggers treatment or other requirements that a water system must follow.

Acute Health Effect

An immediate (i.e., within hours or days) effect that may result from exposure to certain drinking water contaminants (e.g., pathogens).

Aquifer

A natural underground layer, often of sand or gravel, that contains water.

Backflow

Water flowing from a potential contamination source into a potable water system.

Bacteria

Microbiological contaminants found in drinking water.

Beaver Fever

Giardiasis caused by the parasite *Giardia Lamblia* which if left untreated can cause diarrhea, fatigue, and cramping.

Best Available Technology

The water treatment(s) that EPA certifies to be the most effective for removing a contaminant.

Biosolids

Solid waste removed from domestic wastewater, also called sludge.

Bunker

A no longer permitted method of wastewater disposal. Essentially large pit privies that rely on percolation for treatment and disposal of wastes. Bunkers created a greater public health hazard.

Contaminant

Anything found in water (including microorganisms, minerals, chemicals, radionuclides, etc.) which may be harmful to human health.

Cryptosporidium

A microorganism commonly found in lakes and rivers which is highly resistant to disinfection. *Cryptosporidium* has caused several large outbreaks of gastrointestinal illness, with symptoms that include diarrhea, nausea, and/or stomach cramps. People with severely weakened immune systems (that is, severely immuno-compromised) are likely to have more severe and more persistent symptoms than healthy individuals.

Disinfectant

A chemical (commonly chlorine, chloramine, or ozone) or physical process (e.g., ultraviolet light) that kills microorganisms such as bacteria, viruses, and protozoa.

Disinfection

A chemical treatment process used to kill or inactivate microbiological contamination in drinking water supplies.

Distribution System

A network of pipes leading from a treatment plant to customers' plumbing systems.

E. Coli

Bacteria that can cause serious health problems if consumed with drinking water.

Exemption

State or EPA permission for a water system not to meet a certain drinking water standard. An exemption allows a system additional time to obtain financial assistance or make improvements in order to come into compliance with the standard.

Fecal Coliform

Bacteria that can cause serious health problems if consumed with drinking water.

Filtration

A treatment process used to remove particles, including microorganisms, from water and wastewater.

Finished Water

Water that has been treated and is ready to be delivered to customers.

Giardia lamblia

A microorganism frequently found in rivers and lakes, which, if not treated properly, may cause diarrhea, fatigue, and cramps after ingestion.

Ground Water

The water that systems pump and treat from aquifers (natural reservoirs below the earth's surface).

Health Advisory

An EPA document that provides guidance and information on contaminants that can affect human health and that may occur in drinking water, but which EPA does not currently regulate in drinking water.

Honey Bucket

Plastic pail used for in-home sewage collection.

Individual Well

A hole or shaft drilled into the underground water table. Water is pumped up from a submersible electric pump.

Inorganic Contaminants

Mineral-based compounds such as metals, nitrates, and asbestos. These contaminants are naturally occurring in some water, but can also get into water through farming, chemical manufacturing, and other human activities. EPA has set legal limits on 15 inorganic contaminants.

Maximum Contaminant Level (MCL)

The highest level of a contaminant that EPA allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. EPA sets MCLs at levels that are economically and technologically feasible. Some states set MCLs that are more strict than EPA's.

Maximum Contaminant Level Goal (MCLG)

The level of a contaminant at which there would be no risk to human health. This goal is not always economically or technologically feasible, and the goal is not legally enforceable.

Methemoglobinemia

A condition that robs oxygen from the blood stream when consumed with water high in nitrate concentrations.

Microorganisms

Tiny living organisms that can be seen only with the aid of a microscope. Some microorganisms can cause acute health problems when consumed in drinking water. Also known as microbes.

Monitoring

Testing that water systems must perform to detect and measure contaminants. A water system that does not follow EPA's monitoring methodology or schedule is in violation, and may be subject to legal action.

Organic Contaminants

Carbon-based chemicals, such as solvents and pesticides, which can get into water through runoff from cropland or discharge from factories. EPA has set legal limits on 56 organic contaminants.

Outfall

The location where wastewater leaves a piping system. The end of a pipe that release treated wastewater to a river, lake, or ocean.

Pathogen

A disease-causing organism.

Percolating Sewage Lagoon

Wastewater treatment system that treats wastewater through organic and biological processes.

Pit Privy

A method of disposal for individual wastewater. Disposal pit on resident's property usually covered with an 'outhouse' style building.

Potable Water

Drinking quality water.

Primacy State

A State that has the responsibility and authority to administer EPA's drinking water regulations within its borders. The State must have rules at least as stringent as EPA's.

Protozoa

Single celled microorganisms that can cause several waterborne diseases such as amoebic dysentery, giardiasis, and cryptosporidiosis.

Public Notification

An advisory that EPA requires a water system to distribute to affected consumers when the system has violated MCLs or other regulations. The notice advises consumers what precautions, if any, they should take to protect their health.

Public Water System (PWS)

Any water system which provides water to at least 25 people for at least 60 days annually. There are more than 170,000 PWSs providing water from wells, rivers and other sources to about 250 million Americans. The others drink water from private wells. There are differing standards for PWSs of different sizes and types.

Radionuclides

Any man-made or natural element that emits radiation and that may cause cancer after many years of exposure through drinking water.

Raw Water

Water in its natural state, prior to any treatment for drinking.

Sample

The water that is analyzed for the presence of EPA-regulated drinking water contaminants. Depending on the regulation, EPA requires water systems and states to take samples from source water, from water leaving the treatment facility, or from the taps of selected consumers.

Sanitary Survey

An on-site review of the water sources, facilities, equipment, operation, and maintenance of a public water systems for the purpose of evaluating the adequacy of the facilities for producing and distributing safe drinking water.

Secondary Drinking Water Standards

Non-enforceable federal guidelines regarding cosmetic effects (such as tooth or skin discoloration) or aesthetic effects (such as taste, odor, or color) of drinking water.

Self Haul

Individuals are responsible for hauling water and wastewater to and from their residence.

Separation Distances

Minimum recommended distances to ensure wastewater systems do not contaminate potable water sources.

Septic Tank/Drainfield

A wastewater treatment system that consist of a holding tank for solids and a leech field for liquid waste.

Surface Water

A water source such as a lake, stream, river, or pond that is open to the atmosphere and subject to surface water runoff.

Sole Source Aquifer

An aquifer that supplies 50 percent or more of the drinking water of an area.

Source Water

Water in its natural state, prior to any treatment for drinking.

Transient, Non-Community Water System

A water system which provides water in a place such as a gas station or campground where people do not remain for long periods of time. These systems do not have to test or treat their water for contaminants that pose long-term health risks because fewer than 25 people drink the water over a long period. They still must test their water for microbes and several chemicals.

Treatment Technique

A required process intended to reduce the level of a contaminant in drinking water.

Tundra Pond

Sewage Lagoon.

Turbidity

The cloudy appearance of water caused by the presence of tiny particles. High levels of turbidity may interfere with proper water treatment and monitoring.

Utilidor

A corridor, usually constructed above ground which thermally insulates water and wastewater pipes.

Variance

State or EPA permission not to meet a certain drinking water standard.

Violation

A failure to meet any state or federal drinking water regulation.

Vulnerability Assessment

An evaluation of drinking water source quality and its vulnerability to contamination by pathogens and toxic chemicals.

Washeteria

A community building common to rural Alaska where showers, laundry facilities, drinking water, and sometimes saunas are available.

Watershed

The land area from which water drains into a stream, river, or reservoir.

Wellhead Protection Area

The area surrounding a drinking water well or well field which is protected to prevent contamination of the well(s).