



# ON-SITE SYSTEMS TECHNICAL REVIEW BOARD

## SUMMARY OF ACTION



**13 February 08**

**Members Present:** Linda Kovac, Homeowner, Matt Edge PE, Scott Hattenburg PE, Tim Pampusch, PA, Lori Davey, Homeowner

**Advisory Members:**

**Staff Present:** Dan Roth Program Manager, Debbie Wockenfuss, Kathy Maricle Permit Clerk

**Guests:** Brett Jokela Assistant General Manger AWWU, David Black, Program Manger HDP, Alison Stirling AWWU, Kurt Vause AWWU, Jeff Garness PE, Garness Engineering Group, Dave Coolidge LARSA, Butch West Advisory Board AWWU, Tom Varney Anchorage Tank & Welding, Bill Rieth D.E.C., Bill Smyth D.E.C., Ken Hunt PE, Brian Baus AWWU

Meeting called to order at 1135.

January minutes were tabled and will be discussed at the 12 Mar 08 meeting.

Linda Kovac, acting chair, requested Brett Jokela, AWWU Assistant General Manager, to summarize the reasoning behind a Joint Resolution proposed by AWWU. The Joint Resolution recommended that neighborhood "Cluster" wastewater systems could be used for small groups of residences within the Municipality provided that the conditions listed in an accompanying document entitled "Prospective Conditions for Neighborhood Wastewater Systems" be implemented through legislation. The conditions were discussed in detail and the Tech Board made five amendments as shown in color on the following pages. The amended Joint Resolution was approved by the Tech Board. This Joint Resolution must now be approved by the AWWU Board of Directors.

**JOINT RESOLUTION of the ANCHORAGE WATER AND WASTEWATER UTILITY and  
MUNICIPALITY OF ANCHORAGE ON-SITE WASTEWATER TECHNICAL  
ADVISORY BOARD**

**Subject: Neighborhood Cluster Wastewater Systems**

WHEREAS, The State of Alaska Department of Environmental Conservation (ADEC) authorizes construction and operation of wastewater disposal systems in accordance with the Alaska Administrative Code at Title 18 Chapter 72, and

WHEREAS, ADEC has delegated authority for review and approval of such systems to Anchorage Water and Wastewater Utility (AWWU) where additions are connected to municipal sewer infrastructure, and

WHEREAS, ADEC has delegated authority for review and approval of such systems to the Municipality of Anchorage On-Site Wastewater Services Section for single family homes not connected to municipal sewer infrastructure, and

WHEREAS, "Neighborhood cluster wastewater systems (Neighborhood systems)" consist of wastewater collection from multiple sources on several properties, with treatment and disposal independent from municipal sewer infrastructure, and

WHEREAS, Neighborhood systems could potentially fulfill a need where on-site and conventional municipal systems are neither technically practical nor economically feasible, and

WHEREAS, Municipal code does not specifically address means and methods of ensuring long term sustainability of Neighborhood systems, nor identify an entity responsible for planning, design, construction oversight, operation and maintenance, and administration of such systems

**NOW, THEREFORE, THE AWWU BOARD OF DIRECTORS AND MUNICIPALITY OF ANCHORAGE ON-SITE WASTEWATER TECHNICAL ADVISORY BOARD NOW HEREBY JOINTLY RESOLVE:**

Neighborhood "cluster" wastewater systems are recommended as a potentially effective solution for wastewater disposal for small groups of residences for which neither on-site soil adsorption nor connection to existing municipal sewer infrastructure is technically practical or economically feasible, provided that the conditions established in the attached document entitled "Prospective Conditions for Neighborhood Wastewater Systems" are implemented through legislation.

**Passed and approved by the On-Site Wastewater Technical Advisory Board**

\_\_\_\_\_  
Linda Kovac  
Acting Chair, On-Site Wastewater Technical Advisory Board

\_\_\_\_\_  
Date

**Passed and approved by the Anchorage Water & Wastewater Utility Board of Directors.**

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Calvin E. West, P.E.  
Chair, AWWU Board of Directors

\_\_\_\_\_  
Date

Attachment: Prospective Conditions for Neighborhood Wastewater System

**Prospective Conditions for Implementation of  
Neighborhood “Cluster” Wastewater Systems**

**For consideration jointly by the AWWU Authority Board  
And the On-site Wastewater Technical Advisory Board**

Definition: Neighborhood “cluster” systems include collection, treatment, and disposal of wastewater from more than one dwelling unit, structure, or property. Such discharge is beyond the extent of existing service area and wastewater collection network of the Anchorage Water and Wastewater Utility.

To be successful in the long term, any such wastewater system must have appropriate controls built into its planning, design, construction, operation and maintenance, closure, and ownership / administration. The following conditions are, at a minimum, recommended for use by any entity, public or private, that assumes responsibility for any part of a neighborhood system.

Planning

- Criteria allowing use are well-defined and spelled out in State Regulations and/or Municipal Code, as appropriate.
- Surface discharge must meet NPDES requirements.
- Subsurface effluent discharge limits set to protect long-term public health and protection of the environment.
- Subsurface disposal only on land reserved through zoning and platting process for neighborhood wastewater discharge.
- Local hydrogeology adequately understood and documented – including identification, characterization, and evaluation of on-site and off-site aquifers.
- Prospective subsurface and surface flow paths identified – potential for seepage understood and avoided.
- Site selection is a public process, including release of determinations of susceptibility of water supplies to potential contamination from the wastewater discharge – comments from neighbors welcomed, documented, and considered.
- If subsurface disposal system is used a ‘contingent’ disposal area needs to be identified.
- Plan for management of residuals, including collection, transportation, and disposal of septage, sludge, and scum.
- Permitting for compliance with municipal code, state, and federal regulations is the responsibility of a unique administrative entity (see Ownership/Administration).
- [Consideration should be given to future expansion of the system.](#)
- [Consideration should be given to compatibility with zoning and the Comprehensive Plan](#)

Design

- Design Criteria developed through task force of experts and vetted in a public process.
- Design criteria adopted by jurisdiction having ‘governmental’ responsibility for design review.
- Design provides for emergency notification of collection or process failure, mechanical or otherwise.
- Design provides verification of assumptions regarding groundwater recharge – no confining layer or frost could force seepage of effluent to occur.
- Design provides for verification of the quality of effluent discharge and groundwater movement through permanent monitoring wells.
- Design stamped by registered professional engineer.
- Designs reviewed and approved by ownership entity.
- Design reviewed by a municipal or state entity with review jurisdiction.

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### Construction

- Construction by qualified, bonded, and insured contractor.
- **If a proprietary vendor system for collection, treatment, and/or disposal is installed, the contractor installs in accordance with vendor's written procedures.**
- Inspection and approval of the installation by both vendor and administering entity.

### Operation & Maintenance

- Professional staffing with certifiable credentials, including appropriate licenses.
- Staff dedicated to Neighborhood O&M function.
- Recordkeeping is thorough and can be used to document trends or step changes in operational characteristics.
- Trained staff and equipment available to provide for emergency service on a 24 x 7 basis.

### Replacement or Closure and Decommissioning

- Ownership / Administrative entity retains full responsibility for replacement and/or closure of infrastructure at the end of its useful life.
- Capital needs for closure and decommissioning are planned for and included in revenue requirements for rate-making in a dedicated account.

Owner(s) are responsible for continued wastewater service, to all existing customers without a disruption in service, should closure and decommissioning of a cluster system occur.

### Ownership / Administration

- The owner(s) are responsible for all facets of the system from planning, design, construction, operation & maintenance, and closure and decommissioning, including replacement service to affected properties should it be required.
- A permanent and professional management entity is established by the owners for administration of the system, structured with well-defined lines of authority, accountability and responsibility.
- Administering entity authority includes enforcing agreements or tariff requirements with customers.
- If greater than 10 customer accounts, entity is recognized by RCA through a Certificate of Public Convenience and Necessity.
- Costs for replacement or closure are identified.
- Long range financial plan in place, identifying future operating and capital expenses, and revenue requirements.
- Administering entity is empowered to collect fees and charges, and lien property, or discontinue service for failure to pay.
- Administering entity has authority for entry to all parts of the system through platted easements or rights-of-way.
- Administering entity promotes and practices education and training for system users, owners, and maintenance staff.
- Administering entity is responsible for compliance monitoring to ensure performance of system and reporting to municipal, state, and federal entities as required by law.

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- Administering entity develops and implements program reviews to identify knowledge gaps, implementation shortcomings, and necessary corrective actions.
- Administering entity follows Generally Accepted Accounting Practices to document expenses.
- Rates to participating discharges based on revenue requirements defined by standard accounting principles, including dedicated reserve account(s) for emergency repairs, and ongoing system-wide maintenance, repair, and replacement.
- Administering entity communicates regularly with owners, customers, regulators, and public, on costs and operational milestones, including standards of service quality.
- Administering entity is responsible for maintaining insurance for pollution liability.
- Clear processes for enforcement and appeal are in place.