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DEC Launches Alaska Water and Sewer Challenge to Spur Research and Development of Non-Traditional Systems for Remote Villages

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(JUNEAU, AK) – The Alaska Department of Environmental Conservation's Village Safe Water Program is spearheading a research and development effort to find better and more affordable methods to deliver drinking water and sewage disposal services to rural Alaska. Called the Alaska Water and Sewer Challenge, the project begins with an international solicitation for teams that will compete to create innovative, cost-effective designs for water and sewer technologies that can be constructed and operated in an arctic climate.

"Traditional piped or truck haul systems are expensive to construct and many communities cannot afford their high operation costs," said Bill Griffith, DEC facility programs manager. "Our goal is to find decentralized systems that can deliver the same health benefits as traditional systems at a fraction of the cost."

DEC is looking for individuals from a variety of diverse fields – engineering, science and research, sociology, business - to organize as teams to develop proposals. Interested teams will submit a Statement of Qualifications during the solicitation period that begins August 15, 2013 and ends November 15, 2013. The most qualified teams will be funded to develop proposals for the water and sewer systems. Teams with the most promising proposals will be further funded to develop prototypes and conduct field testing.

Initial funding for the project comes from a special \$1 million appropriation by the Alaska Legislature.

"The State is committed to improving Alaskans' health and that is why we are launching this project," said Griffith. "We know that residents in homes without running water and flush toilets have a significantly higher incidence of acute respiratory infections and severe skin infections than persons with inhome running water. A 2010 study found higher rates of invasive pneumococcal disease (IPD) among Alaskan children who did not have access to piped water. IPD is a very serious bacterial infection that can affect the brain, blood, and lungs. Residents of Southwest Alaska suffer rates of IPD that are among the highest in the world. Running water provides the ability to wash hands frequently, which reduces the incidence of disease by interrupting person-to-person spread of the germs that cause these illnesses."

After 50 years of work, 75 percent of homes in small rural villages are now served with running water and sewage systems. However, there are still 6,000 homes that are not served and there is a \$300 million shortfall to bring traditional piped and sewer services to those homes.

Using decentralized water and sewer technology, homeowners would not have to hook into a community-wide utility. Each home would have its own standalone system, likely avoiding much of the labor, fuel, heating, and maintenance costs associated with piped and truck haul systems. Similarly, much of the capital cost associated with centralized systems, such as distribution and collection pipes, service lines, utilidors, lift stations, water treatment plants, boardwalks and/or roads, would be avoided.

To obtain a copy of the solicitation or more information, visit the project website at: <u>http://watersewerchallenge.alaska.gov/</u>

For more information on DEC's Village Safe Water Program, visit: <u>http://dec.alaska.gov/water/vsw/index.htm</u>.

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