

Water and Sanitation Innovations for the Arctic **January 13th, 2011**

**A Workshop Co-sponsored by:
U.S .Arctic Research Commission & the Centers for Disease Control and Prevention**

January 11th. (ALPHA-sponsored Alaska Health Summit Meeting, USARC-supported speaker: Dr. Michael Beach (CDC), Talk title: Giardiasis and Crystosporidium: Waterborne zoonotic disease and its implications for Alaska, Time: noon-1pm, Venue: The Hotel Captain Cook (room TBA), include link to larger agenda of the meeting)

January 12th. (include info on potential bush trip and arrival of other invited participants).

<p>Thursday, January 13 – XXX Room, The Hotel Captain Cook, 939 W. 5th Avenue, Anchorage AK, 9950, (907)276-6000</p>

8:30 A.M. **Meeting commences**

8:30- 10:00 **Workshop Presentations: *Setting the stage***

8:30-8:45 A.M. Welcome and Announcements

8:45-9:00 A.M. Speaker (CDC) (non- diarrheal disease-water/sanitation connection): (T. Hennessy, CDC)

9:00-9:15 A.M. Speaker: Past solutions/considerations: what worked, what didn't (J. Warren, ANTHC)

9:15-9:30 A.M. Speaker: Current state of affairs in water provision in Alaska/ Problems and issues in current system Speaker (B. Griffith, ADEC)

9:30-9:45 A.M. Practical aspects: Factors and research needed to inform decision making (D. Ondelacy, IHS)

9:45-10:00 A.M. Village Point of View (USARC Commissioner Mary Pete)

10:00-10:30 A.M. ***Break***

10:30-noon **Workshop Presentations: *Invited Speakers***

10:30-11:00 Speaker: (Dr. Michael Beach, CDC- waterborne diseases/health connection)

11:00-11: 15 A.M. Speaker: (Climate change and rural sanitation/water provision- Raj Chavan, ANTHC)

11:15-noon

Speaker: (Wastewater treatment in cold climate with a focus on small scale and onsite systems- Dr. Petter Jennsen, Professor, Norwegian Univ. of Life Sciences)

noon-1:00 P.M.

Working lunch on site(facilitated discussion: possible sources of funding for clean water provision/ funding (possible panel involving EPA and Denali Commission, UAF, APU)

1:00- 2:45 P.M.

Break out Groups

Questions that ALL GROUPS should address:

- a) What would success look like one year from today if we were to make some headway on this particular issue?
- b) How did we accomplish this?
- c) How did we organize ourselves to accomplish this?

Specific Group Questions/Charges:

1) Research Outreach/New technologies Group (Lead: Bill Griffith, ADEC):

Charge to Group:

Determine the best ways identify technologies that may have potential for use in rural Alaskan settings (this will encompass next steps in the implementation process, as well as how best to evaluate the success of these technologies when put in place)

2) Development/Categorization Group (Lead: D. Wagner, EPA):

Charge to Group:

Categorize pilot project sites. Each village has different needs. Of the villages in need, what is the best way to categorize their needs. (** Dennis, here it will be especially important to make sure that your group has resources it needs...not just as handout material, but perhaps in terms of more substantial reference material. Please let me know if I can assist in getting these things together).

3) Health Group (Lead: T. Hennessy, CDC):

Charge to Group:

Determine best plan of action to improve health in rural areas (as it relates to water and sanitation) and how best to effectively measure the differences made by implementing improvements in these systems (assessing efficacy of programs).

4) Sustainability Group (Lead: D.Ondelacy, IHS):

Charge to Group:

Determine how to make the technologies we presently have in place in Alaska more efficient/sustainable. This will encompass issues such as energy efficiency and alternative energy.

5) Global Climate Change Group (Lead: J. Warren, ANTHC):

Charge to Group:

How should GCC affect the current approach/need to renovate existing systems/new technologies.

- i. What type of existing sanitation infrastructure is most vulnerable to climate change?
- ii. What type of existing sanitation infrastructure is least vulnerable to climate change?
- iii. How will climate change affect the sustainability of existing infrastructure?
- iv. Are there sanitation solutions that we believe will be resistant to climate related impacts?

2:45-3:00 P.M. Break

3:00-5:00 P.M. SYNTHESIS AND PRESENTATION OF BREAK OUT GROUP REPORTS: What are the recommendations for charting a way forward?

5:00 P.M. Adjourn

Materials to be distributed:

- 1) Background materials from 95th Comm. Meeting binder

These include:

- a) Congressional Assessment – An Alaskan Challenge: Native Village Sanitation
- b) AJPH Article: Living in Utility Scarcity: Energy and Water Insecurity in NW AK
- c) First Alaskans Article: Water Works Healing Villages
- d) (handout DEC/VSW) Status of rural Alaska sanitation improvement efforts
- e) (handout DEC/VSW) Rural Alaska water and sewer costs

- 2) Cold Regions Utilities Monograph with the group, as an example of engineering approaches to this issue (Jeff Smith)** Excerpts or will have copy available/on thumb drive
- 3) Hennessy paper (The Relationship Between In-Home Water Service and the Risk of Respiratory Tract, Skin, and Gastrointestinal Tract Infections Among Rural Alaska Natives)
- 4) Wenger paper (Invasive Pneumococcal Disease in Alaskan Children: Impact of the Seven-Valent Pneumococcal Conjugate Vaccine and the Role of Water Supply)