5th Annual Water and Sanitation Workshop: *Arctic Wastewater Treatment and Disposal: current status and research needs*

Friday, January 30th, 2015

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

Friday, January 30th, 8:30 AM - 5:00 PM – The Adventure Room, The Hotel Captain Cook, 939 W. 5th Avenue, Anchorage AK (907)276-6000

**Preceding session of interest:** ALPHA-sponsored Alaska Health Summit Meeting session of interest to be held January 28th from 10:15-11:45 A.M., **Session Number:** 204, **Track:** Social and Economic Determinants of Health. Session objective: to update the progress with provision of water and sanitation services in rural Alaska and to report on new data related to water/sanitation and health.

**Workshop objectives:**
- Characterize the status of wastewater treatment and disposal in the rural Arctic
- Identify opportunities and research needs to improve the delivery, management and performance of wastewater treatment and disposal systems in the rural Arctic.
- Development of a list of health-related wastewater research needs

8:30 A.M.  Meeting commences

8:30-10:00 A.M.  SESSION 1: Wastewater treatment overview

8:30-8:45  Welcome, Announcements and Introductions

8:45-9:15  Current state of wastewater treatment and disposal infrastructure in arctic and subarctic areas of Alaska (overview) (D. Antrobus, ANTHC)

9:15-9:30  Characterize the performance of existing rural Arctic wastewater treatment and disposal technologies, including practices: comparison between 1970 and today (D. White, UAF)

9:30-10:00  Challenges to sewage lagoon operation (R. White, YKHC)

10:00-10:30 A.M.  30 minute break

10:30-12:00 P.M.  SESSION 2: Regulatory matters

10:30-11:00  Engineering performance standards- the regulatory perspective: DESIGN (G. McCabe/C. Adler, ADEC)

11:00-11:30  Engineering performance standards- the regulatory perspective: OPERATION (B. Doyle/M. Solter, ADEC)

11:30-12:00  **Facilitated Discussion:** Have design standards changed lagoon performance?

noon-1:00 P.M.  **Lunch on site, short videos**
1:00-1:45 P.M. SESSION 3: Operational considerations

1:00-1:30 Sludge removal presentation (B. Doyle/L. Aldrich, ADEC)
1:30-1:45 Honeybucket technology presentation (honeybucket hoppers) (B. Lefferts/B. Berube, YKHC)

1:45-3:30 P.M. SESSION 4: Health connections

1:45-2:15 Review of documented outbreaks/adverse health events related to sewage problems in Alaska/Arctic, highlighting health status changes after installation of in-home services in 4 villages (T. Hennessy, CDC)

2:15-2:30 P.M. 15 minute break

2:30-2:50 Microbial contamination studies around sewage lagoons (E. Mutter, Yukon River Inter-Tribal Watershed Council)
2:50-3:10 UAF research on microbial transport in rural Alaskan villages with honeybucket lagoons (D. White, UAF)
3:10-3:30 Local perspectives on wastewater disposal/impacts on subsistence? (S. Jones, ARUC Vice chair, M. Pete, USARC/UAF)

3:30-4:30 P.M. Breakout session: three groups will be tasked with coming up with a list of gaps/research needs/recommendations related to wastewater treatment and disposal practices.

4:30-5:00 P.M. Groups report out/Wrap up

5:00 P.M. Adjourn

Packet Contents:

- (Agenda)
- Specs on National Park Service SCAT System
- Comminuter information
- Li Erickson Climate Change and coastal impacts handout
- Water and Sewer Services in Rural Alaska Communities, Including Wastewater Treatment and Disposal
- Historical Sewage Lagoon Construction Costs
- Hooper Bay’s Declining Lagoon Treatment Capacity
- Lagoon Construction Guidelines (ADEC)
- Bibliography of circulated background reading (available at workshop)