Notes from Breakout Group 2:

Assumptions: ** We are focusing on the ~24 unserved communities, most of which are in YK, TCC and Norton Sound
Residential unit, self-haul/rainwater collection system, social acceptance, economic viability, technically sound and high level of complexity, internet connectivity to monitor performance, funded by federal and state agencies (ANTHC/ADEC installations)

Types of capacity:
Monitoring, O&M, repair, billing/management

Household:
Important to determine if the state requires an above-homeowner level of training to operate the system (otherwise, a co-op or collaborative approach needed to run/maintain).

What responsibility does the homeowner have? **Low level** (maybe changing cartridge filter, unclogging drain, minor monitoring but not much more in-depth than that). O will have to maintain a wifi system in their home. Homeowner responsibility will be proportionate to level of service they are going to pay for.
Risk of failure in terms of public health is too great to put the onus on the homeowner (=bathing children, washing vegetables, showering all could result in exposure). Liability. Need to consider this when deciding the level the homeowner engages.

Maintenance service would HAVE to consist of regular maintenance/service, as well as repairs = coop or alternative approach will be needed, and remote online monitoring. Homeowner may need to do some verifying that data are correct. Possibly consider vo-tech options via school district to create resources to monitor systems (esp. wrt the internet monitoring). STILL USER FEE BASED.
Example: lower Kusk School District: resources in communities may not be approved operators, but can call a certified operators in Bethel (= telemedicine model)

How much is the homeowner willing to pay for the maintenance service/coop fee? Assume anywhere from 60$/month to 120/140$ month

Driver is likely honeybucket—health want to be able to flush waste. Health is unlikely to be the driver.

Manual labor with a flush tank and haul system is the biggest cost

***__REGIONAL__: likely needs to be at a regional basis (at the least) to work
Need to have a local connection to carry out certain activities
Regional center building the units, creating work. Train people locally to do the maintenance. Funding would be based on user fees. “The Culligan Model” This will need outside funding/subsidization to get this off the ground.

Does the cooperative own the units/hardware? Unsure. Liability here. $$ catastrophic failure and/or health issues related to performance failure. May be best for homeowner to own equipment, educate them and require them to pay for maintenance. May also depend of what the cooperative body ends up being (ANTHC might want to own it b/c public health is in their mandate). Financial and risk assessment analysis will drive this.

Funding could also come from the AN for-profit corporations to kick in
Could the PCE approach be applied here?
Need to perform an economic analysis to figure out if this could be self-sustainable under the PCE model

Is a statewide cooperative viable? Probably not – discussed RMW program as a model—is statewide, but acts more like a regional coop, as resources used tend to be in the region (and the RMW reports back to the State).

*** If only 24 communities, likely need to have a centrally managed coop to service all following the ARUC or RMW model (in order to take advantage of economy of scale)

TCC region: could you privatize the coop to run it? (i.e., Lifewater, Northern Utilities)—then there will be incentive to make it profitable (where there is none in the other options)

State could also apply revenue sharing specifically to graywater systems

Challenges:
Similar challenges to W&S but more technical and tech is changing faster

- Many types of systems instead of one or few
- Homeowner needs to be able to identify when there is a problem (*emphasize the need for remote monitoring)
- Subsidy is likely needed to at least get things off the ground (or perhaps privatization will be needed) ARUC model? ANTHC? AN Corporations? Maniilaq model?

How do you fund the coop when only a handful of units are online initially
New partnerships and funders need to be found—not all villages belong to CVRF, NSEDC, etc. – needs to be flexible and have multiple support inputs

Medical funding source may be applied to if a proven connection between water quantity and health economics

IHS has authorization for maintenance, but not funded for this