

“Salinity” Network

◉ “Straw Man” Model

- Under the Umbrella of the FL. Water Resource Monitoring Council (FWRMC)

Goals

- 1. To Define Status, and Possibly Trends, of GW in Florida
 - Quantity, and Quality as constrained by salinity, for each aquifer system
 - Possibly Develop a GW Index
 - For Quantity, but possibly both

Goals

- **Trend** – Direction of Change in the “near past”
 - From Time A to Time B
- **Status** – The current State (an Index?)

Goals - Continued

- 2. To Exchange and Provide Data and Interpretations at a Variety of Scales
 - Statewide, District-wide, Countywide, Other
- 3. To Encourage GW Monitoring Programs in Florida to Participate in FWRMC Activities

Justification and Action Items

- FS 373.026(5): (paraphrased) Study those areas of the FL where saltwater **intrusion** is a threat to freshwater and report ...to the WMDs, counties, and the public.
- **AI 2: Improve coordination among monitoring entities**
 - AI2-4: Increase integration of Freshwater and Coastal Monitoring
 - AI 2-5: Create/Sustain collaboration among monitoring entities

Intrusion/Encroachment

◉ Intrusion

- The migration of saltwater into freshwater aquifers under the influence of GW development (Freeze and Cherry, 1979).

◉ Encroachment

- The displacement of fresh GW by the advance of saltwater due to its greater density (Neuendorf et al., 2005). **Note – could include intrusion.**

Data and Information Exchange

- ◉ Data Exchange
 - Data and metadata
- ◉ Information Exchange
 - “Information is the Interpretation of Data”
- ◉ Generate and Distribute Reports(?)

Audience

- ① 1. General Public
 - ② 2. Policy Makers
 - ③ 3. Scientists
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- ④ For the General Public but backed up by defensible science

What is Needed

- Mostly wells, but also springs
 - Existing trend sampling locations
 - Minimum frequency - annual
 - Can include surface water stations if needed
- A “Network of Existing Networks”
 - This is the concept of the National GW Mon. Net.

Desired Analytes

◉ Field

- WL, SC, Spring Flow, pH, Temp

◉ Laboratory

- Na, K, Cl, SO₄, TDS, Ca, Mg

◉ Additional Data (as needed)

- Rainfall (SE Reg. Climate Center)
- Air Temp (SE Reg. Climate Center)
- GW withdrawal (pumping) data (where available)
- Evaporation and ET data (where available)

What is not Required

- ◉ New Funding
- ◉ New Stations to be Installed
- ◉ Changes in Current Monitoring Activities

Management

- ◉ Management - Through FWRMC Guidance
- ◉ Cooperative effort of all participating entities
 - ◉ All partners are of equal status
- ◉ Statewide Efforts – Coordinated by FWRMC/FDEP/WMDs/USGS

Management

- **Regional** – Coordinated by FWMRC/WMDs/Counties/Other Entities
- **County and local** – Coordinated by FWRMC/Local Entities
- **Format of all reports to “Look the Same” to the public.**
 - Reports differ at scale and in specific issues

Projected Work Efforts

◉ Exchanging Data

- Note - Gets more complex as # of analytes increases

◉ Participate in Discussions

- Statistical and other analytical procedures
 - Each Partner – use their own experts
- Statewide and other scale reports

◉ Production of Non-Statewide Reports?

- FDEP - produce statewide reports (if necessary)

Future Discussions?

- ◉ Goal Refinement
- ◉ Analytical and Reporting Refinements
- ◉ Interaction with the FWRMC
- ◉ Framework Document,
 - Including decision making process

Next Steps

◉ Report back to FWRMC

- Feasibility of “Salinity” Network
- Support from today’s participants?
- What data and monitoring stations are available

◉ Development of Framework Document

- Mission Statement
- Organizational Structure
- Decision making process

◉ Adjourn