

# **Spring City Lagoon Cell #3 Remediation Project 2025**

## **February 5, 2025**

### **1. Status Update:**

- a. Geotechnical report has been completed (show map of test pits)
- b. Review findings:
  - i. Lean clay found in test pits 1, 2, and 3.
  - ii. Sandy fill and silty sand found in test pit 4 (south end of lagoon)
- c. The contract is set up in stages with decision points between proceeding with subsequent stages of work.
  - i. Next steps if the decision is made to move forward:
    - 1. Design survey
    - 2. DWQ coordination and preparation of plans, specs, and bidding documents.

### **2. Alternatives:**

- a. Do nothing, see if current condition holds water.
- b. Partial Remediation:
  - i. Option to add thin layer of bentonite to top of south end to see if that limits percolation enough to hold water.
    - 1. Atypical/non-conforming liner, but may be considered as "maintenance" and therefore may not be overseen by DWQ.
- c. Remediate the liner bottom only.
- d. Remediate the entire lagoon all the way up the sides (removal and replacement of rip-rap).

### **3. Proposed Approach:**

- a. Steps:
  - i. Exploratory work with Spring City/Cory to better define the "line of demarcation"
    - 1. Alternatively, this can be pushed to construction phase with contractor.
  - ii. Generate clay liner from inside the pond
  - iii. Strip 1 foot of cover material from entire lagoon bottom, surgically in two stages. Grub off top 6" of top soil and stockpile for cover material. Strip off the next 6" and keep clay and sand separate.
  - iv. North – scarify, moisture condition and recompact.
  - v. South - bring second 6" layer of clay from north to make up difference for 1 foot liner
  - vi. Install sandy soil from south over-ex over the entire bottom for cover layer. Import any additional cover soil needed.

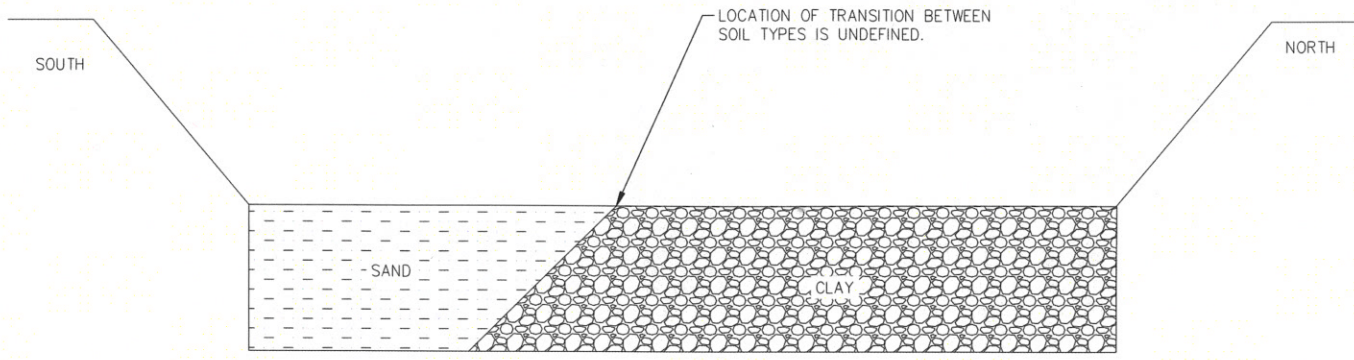
### **4. Unknowns:**

- a. Assumption of demarcation line.
  - i. Can mitigate by using backhoe/mini-ex for a day and dig a few trenches to better identify the line, or
  - ii. Make an assumption where the line is and have flexibility in construction quantities (and cost) based on what contractor encounters.
- b. Extents of available clay. With the 4 test pits, the assumption is being made that there may be adequate material onsite. If it's found to be otherwise when uncovered, import material may be required.

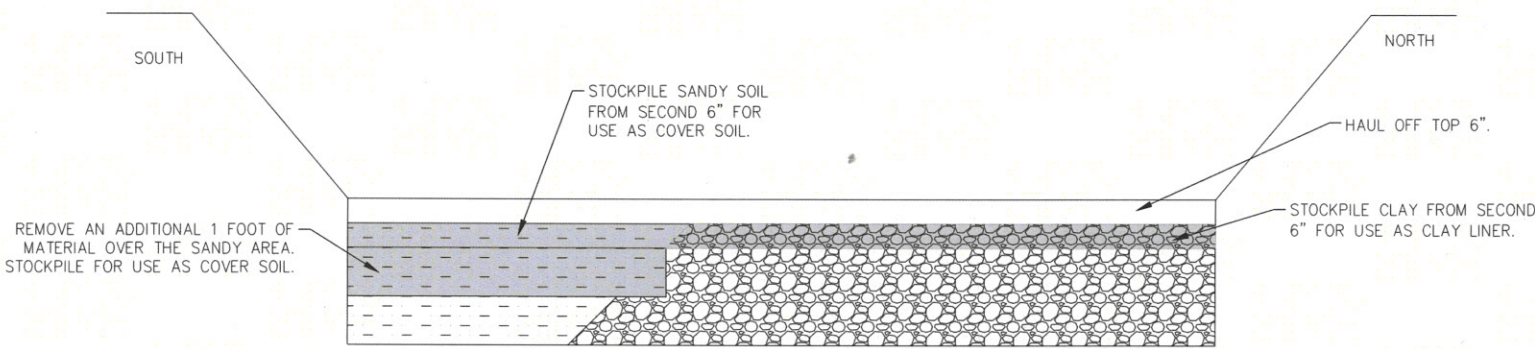
- c. DWQ involvement - DWQ feedback and involvement may influence the design approach and scope.
  - i. Plan on coordinating a pre-design collaboration with DWQ at the onset.
- d. Condition of dikes –
  - i. Possibility of loss of integrity from rodent activity or condition of dike soils
    - 1. Visible inspection can be performed, but construction methods and condition of materials are an unknown until lagoons are filled.
      - a. Preventative action vs reactive – primarily a question of budget at this point.
  - ii. Will go to DWQ for a predesign collaboration to make sure they are on board with our approach.



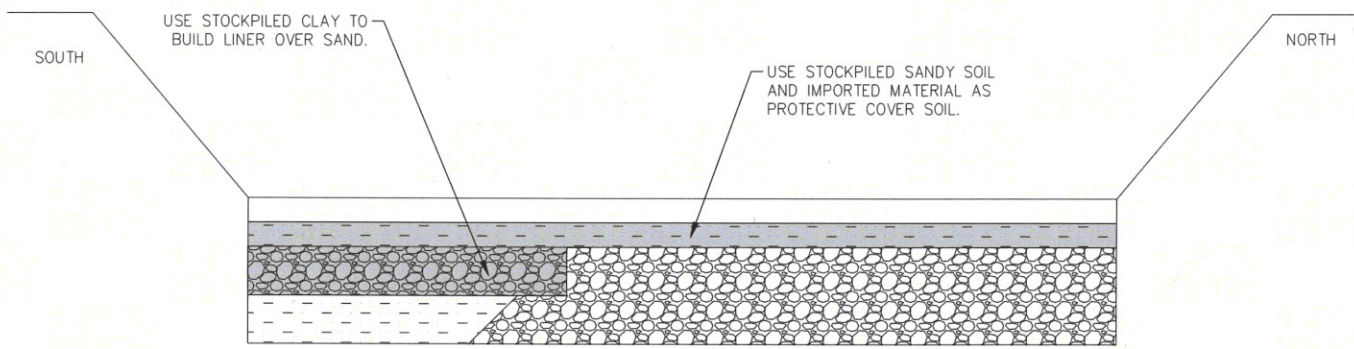
STEP ONE :



STEP TWO :



STEP THREE :



SPRING CITY

SECTION VIEWS - LAGOONS



635 NORTH MAIN, SUITE 675  
RICHFIELD, UTAH 84701  
TEL 435.896.8857  
www.sunrise-eng.com