MEMO

TO: Lisa Johnson, District Manager

FROM: Andrea Bollinger

RE: March 5, 2013 Meeting Agenda Items

DATE: February 25, 2013

PROJECT: 013-0055

<u>Item IV.A. – Evaporation Ponds:</u>

1. Third evaporation pond:
   - Based on discussions at the February board meeting, the third evaporation pond size was evaluated for the following blending ratios, see first attached exhibit.
     - Blend / Treat
     - 70 / 30,
     - 60 / 40,
     - 50 / 50, and
     - 0 / 100

   - Based on conversations with John Wyckoff and Rob Fleck on 2/15/2013, a pond sized for 50/50 blending was selected because of the minimal increase in overall pond size. However, it is important to reiterate operating at a continuous 50/50 blending ratio is not advised as it is not sustainable and would potentially produce more concentrate than could be evaporated.
     - The second attached exhibit shows a potential layout for a 50/50 blend evaporation pond and access road.

   - The third exhibit, attached, outlines the area of land to be requested for the evaporation pond and access road. The exhibit was sent to Lisa Johnson for her discussions with Dave Rye.

   - Attached is a preliminary schedule for a third evaporation pond. Design, permitting, and construction times are included. Funding timelines will be incorporated as additional funding options are identified.

   - Dave Krickbaum, with Olsson Associates, will be in attendance at the board meeting to discuss the CLOMR and LOMR process and to address any

questions the board may have on the subject. Below is a brief overview on CLOMR's and LOMR's:

- <u>CLOMR- Conditional Letter of Map revision</u>
  - CLOMRs are for proposed projects
  - CLOMR's are required for proposed projects that:
    - Encroach upon the floodway and cause an increase >0.00ft.
    - Encroach upon a floodplain when a floodway has not been established and causes an increase of >1ft.
    - An increase is defined as a comparison between pre-project (existing conditions) and post project (proposed conditions) model

- <u>LOMR- Letter of Map Revision</u>
  - Required- Any change (increase or decrease) in base flood elevation resulting from physical changes.
  - Revised the effective map to show changes in base flood elevation, floodplains, and floodways.

<u>Additional Engineering Items</u>

- Evaporation Pond EDOP:
  - Extension request sent to the State 2/1/2013.

- Reserve Analysis:
  - Work is in progress.

- Rules and Regulations- Standard Details:
  - Work is complete and copies will be brought to the Board meeting on 3/5/2013.

I will attend the March 5th, 2013 Board Meeting and will be prepared to address any of these items, as well as any additional items that may arise.

Attachments:

- Pond sizing for various blending ratios
- Pond layout for 50/50 blending
- Pond and access road layout for Dave Rye
- Preliminary Schedule for 3rd Pond

File Location:
G:\Office\Teams\WaterWastewater\Denver Team Folder\Greatrock North Water and Sanitation District\Board Meetings\2013\02-2013\2013-01-25_Engineering Report.docx

DWG: F:\Projects\013-0212 GNWSD 3rd Evap Pond_PBIN\Exhibits\3rd Evap Pond\30212_Optn6_access.dwg USER: abollinger
DATE: Feb 22, 2013 2:30pm XREFS: 30212_FLPL 30212_PLCTN 30212_TBLK22X34 Greatrock Ponds 30212_IMAGE _FADE

OLSSON ASSOCIATES
4690 Table Mountain Drive, Suite 200
Golden, CO 80403
TEL: 303.237.2072
FAX: 303.237.2659
www.oaconsulting.com

NOTE
THIS DOCUMENT HAS BEEN RELEASED BY OLSSON ASSOCIATES ONLY FOR REVIEW BY REGULATORY AGENCIES AND OTHER PROFESSIONALS, AND IS SUBJECT TO CHANGE. THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.

OLSSON ASSOCIATES ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS (HORIZONTAL OR VERTICAL). THE EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS HOWEVER THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.

REV. NO.	DATE	REVISIONS DESCRIPTION

REVISIONS

THIRD EVAPORATION POND LOCATIONS
VEHICLE ACCESS

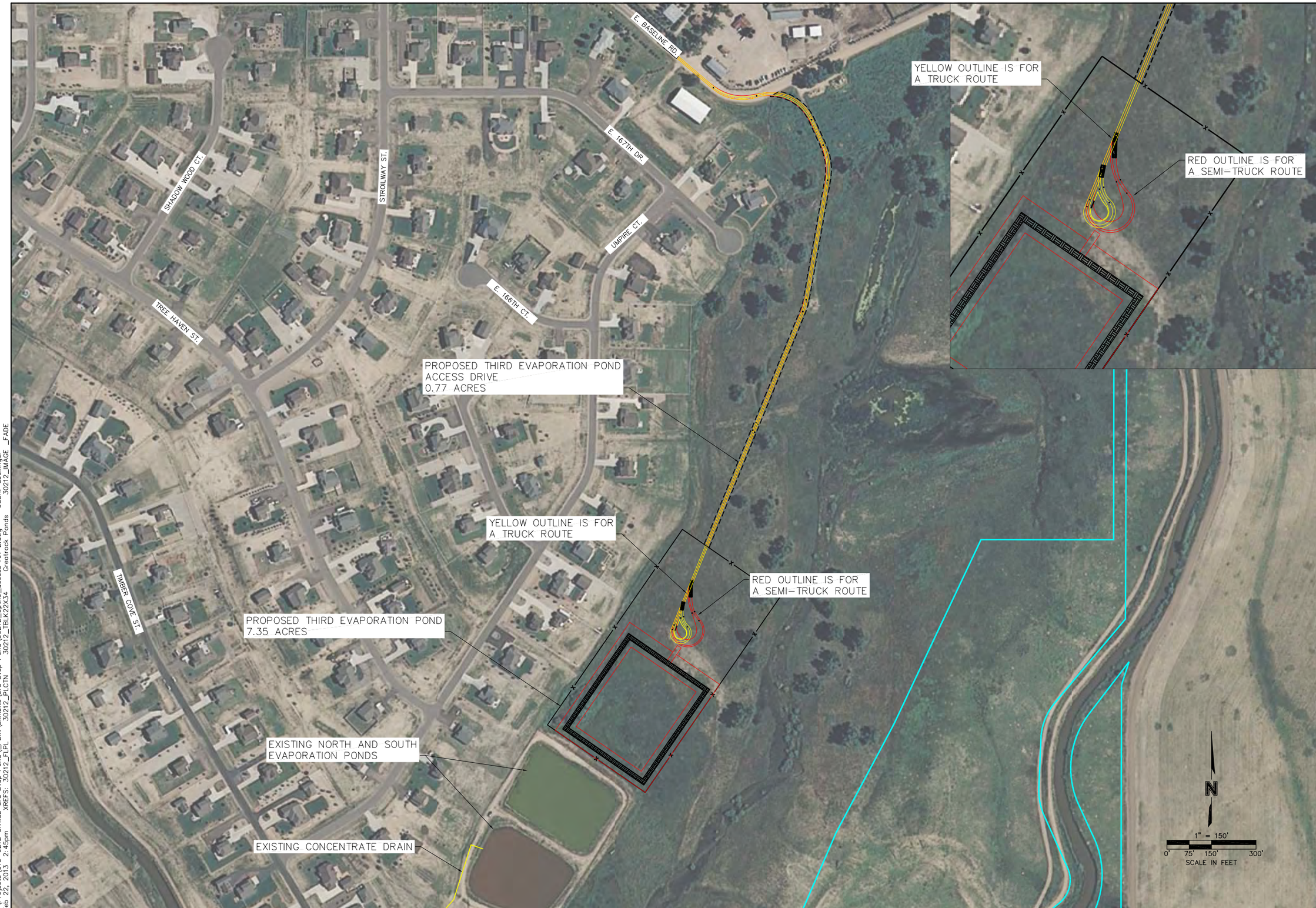
GREATROCK NORTH W&S DISTRICT
EVAPORATION POND

ADAMS COUNTY, COLORADO

2013

drawn by: ALB
checked by:
approved by:
QA/QC by:
project no.: 013-0212
drawing no.: OPTN6 access
date: 02.01.2013

SHEET
1



OLSSON ASSOCIATES
4690 Table Mountain Drive, Suite 200
Golden, CO 80403
TEL: 303.237.2072
FAX: 303.237.2659
www.oaconsulting.com

NOTE
THIS DOCUMENT HAS BEEN RELEASED BY OLSSON ASSOCIATES ONLY FOR REVIEW BY REGULATORY AGENCIES AND OTHER PROFESSIONALS, AND IS SUBJECT TO CHANGE. THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.

OLSSON ASSOCIATES ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS (HORIZONTAL OR VERTICAL). THE EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS HOWEVER THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.

REV. NO.	DATE	REVISIONS DESCRIPTION

REVISIONS

THIRD EVAPORATION POND LOCATIONS
VEHICLE ACCESS- 50/50 BLEND POND

GREATROCK NORTH W&S DISTRICT
EVAPORATION POND

ADAMS COUNTY, COLORADO

2013

drawn by: ALB
checked by:
approved by:
QA/QC by:
project no.: 013-0212
drawing no.: OPTN6_access
date: 02.01.2013

SHEET
1

DWG: F:\Projects\013-0212 GNWSD 3rd Evap Pond_PBIN\Exhibits\3rd Evap Pond\30212_Optn6_access rev 2.dwg USER: abollinger
DATE: Feb 22, 2013 2:45pm XREFS: 30212_FLPL 30212_PLCTN 30212_TBLK22X34 Greatrock Ponds 30212_IMAGE _FADE

OLSSON ASSOCIATES
4690 Table Mountain Drive, Suite 200
Golden, CO 80403
TEL 303.237.2072
FAX 303.237.2659
www.oacconsulting.com

NOTE
THIS DOCUMENT HAS BEEN RELEASED BY OLSSON ASSOCIATES ONLY FOR REVIEW BY REGULATORY AGENCIES AND OTHER PROFESSIONALS, AND IS SUBJECT TO CHANGE. THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.

OLSSON ASSOCIATES ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS (HORIZONTAL OR VERTICAL). THE EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS HOWEVER THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.

REV. NO.	DATE	REVISIONS DESCRIPTION

REVISIONS

THIRD EVAPORATION POND LOCATIONS
VEHICLE ACCESS

GREATROCK NORTH W&S DISTRICT
EVAPORATION POND

ADAMS COUNTY, COLORADO

2013

drawn by: ALB
checked by:
approved by:
QA/QC by:
project no.: 013-0212
drawing no.: OPTN6_access
date: 02.20.2013

SHEET
1

DWG: C:\Temp\AcPublish_6660\30212_Optn6_access_rev 2.dwg USER: abollinger
DATE: Feb 20, 2013 11:15am XREFS: 30212_FLPL 30212_PLCTN 30212_TBLK22X34 Greatrock Ponds 30212_IMAGE _FADE

GNWSD: Third Evaporation Pond- Preliminary Schedule

	Weeks																								
	1	2	3	4	5	6	7	8	9	10	11	12-19	20-36	37-45	46-49	50	51	52-71	72-75	76-83	84-90
	20-45																		Post Construction		
Planning																					
Survey	1 week																				
Geotechnical	4 weeks																				
Fill Sources	2 week																				
Design																					
Grading/Details			6 weeks																		
Model/CLOMR						6 weeks															
LOMR- post const.																			4 weeks		
Funding																					
DOLA- EMIA [1]																					
Intended Use Plan [2]																					
USDA- Rural Development																					
Permitting																					
County- CLOMR												Up to 8 weeks									
County- LOMR																				Up to 8 weeks	
State													6 months [3]								
FEMA- CLOMR													Up to 120 days								
FEMA- LOMR																					Up to 120 days
Bidding																					
Invitation To Bidders															4 weeks						
Pre-Bid Meeting															1 day						
Bid Opening																1 day					
Notice of Award																1 day					
Construction																					
Notice to Proceed																2 weeks					
Construction																		20 weeks			

DRAFT

Notes:

(1) Energy Mineral Impact Assistance Program: Apr 1, Aug 1, Dec 1 submittal deadlines- have 6 months (24 weeks) from award to begin construction

(2) State of Colorado Drinking Water Revolving Fund: Intended use Plan: Grants applications will be accepted between January 1 and January 31 of each year. Starting February 1, all applications will be prioritized according to the criteria set forth below and awards will be made in rank order until all grants have been expended. If there are more grants than applications, additional application deadlines will be solicited. If the entity does not seek funding through the DWRF, they may be requested to repay the grant or seek a waiver of the repayment requirement from the Authority Board.

(3) Based on conversations with the State, the regulations do not outline a specific timeline for review. However, the State strives to follow the timeline outlined for Certificate of Designation which allows for a 30 day completeness review and 150 days for a technical review. A Construction Quality Assurance (CQA) and Engineering Design and Operations Plan (EDOP) will need to be submitted and approved by the State.

Date Last Updated: February 25, 2013

F:\Projects\013-0212 GNWSD 3rd Evap Pond\Documents\Schedules\[Prelim Schedule.xlsx]2013-02-25 Schedule