

Perry, City

Wastewater Capital Facilities Plan

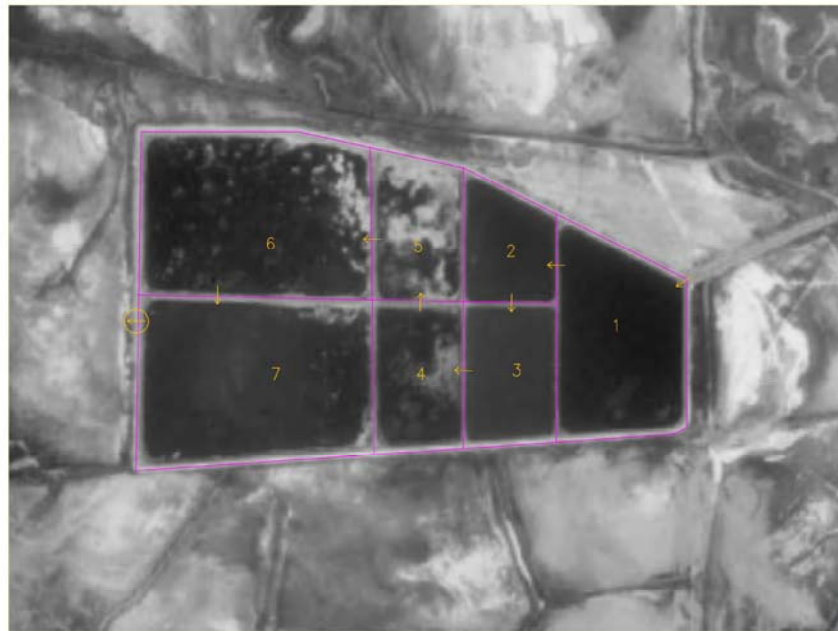
July 18, 2007

Purpose of Tonight's Meeting

- Review Existing Treatment System & Discharge Requirements
- Provide Overview of Studied Alternatives
- Review Alternatives Analyzed
- Review Selected Alternative
- Review Engineers Opinion of Probable Costs
- Review Final Costs to End Users

Existing Lagoon System

- 7 Total Cells
 - Total Volume is 64.03 MG
 - Primary Cell has a surface area of ± 9 acres
 - Sludge continues to accumulate in cell



Existing Discharge Permit

	Permit Requirement Limit
BOD, mg/l	25 mg/l
TSS, mg/l	25 mg/l
Ammonia, (as N) mg/l	
Winter (Dec-Feb)	1.43 mg/l
Summer (Jun-Aug)	0.83 mg/l
Fall (Sept-Nov)	1.06 mg/l
Spring (Mar-May)	1.06 mg/l

Existing Lagoon System Capacities

- Hydraulic Capacity
 - DWQ calculated it at 70% (Capita 2,916)
 - We calculate it at 96% (Equiv. Capita 4,110)
- Organic Capacity
 - DWQ estimated it at 157% (Capita 2,916)
 - We calculate it at 222% (Equiv. Capita 4,110)
- Cannot meet ammonia limit in future

Wastewater Treatment Alternatives Considered

- Status Quo or Do Nothing
- Expand Lagoons
- Expand Lagoons & Add Aeration
- Regionalize by Pumping to Brigham City
- Build Mechanical Treatment Plant
- Regionalize by Joining w/ Willard to Build Mechanical Treatment Plant

Does Alternative Meet Discharge Requirements?

Status Quo – Do Nothing	No
Expand Lagoons	No
Expand Lagoons Add Aeration	No
Pump to Brigham City	Yes
Build Mechanical Plant	Yes
Join w/ Willard – Build Plant	Yes

Overview of Studied Alternatives

Treatment System

Alternative 1 – Pump to Brigham City

Alternative 2 – Build STM – Aerotor Plant

Alternative 3 – Build SBR - Plant

Alternative 4 – Join with Willard & Build
STM Aerotor Plant

Note: Each Alternative will Include Collection System Upgrades

Capital Costs Overview

	Alt # 1	Alt # 2	Alt # 3	Alt # 4
	Pump to Brigham City	Build STM-Aerotor Plant	Build SBR Plant	Join w/Willard Build STM – Aerotor
Collection Upgrades	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000
Treatment Plant/ Lift Station Etc	\$2,832,000	\$12,000,000	\$13,300,000	\$10,145,000
Total Capital Cost	\$4,332,000	\$13,500,000	\$14,800,000	\$11,645,000

Net Present Value

	Alt # 1	Alt # 2	Alt # 3	Alt # 4
	Pump to Brigham City	Build STM-Aerotor Plant	Build SBR Plant	Join w/Willard Build STM – Aerotor
Capital Costs	\$4,332,000	\$13,500,000	\$14,802,000	\$11,645,000
TAC	\$2,406,702			
Lift Station O&M	\$648,892			
Treatment/Collection O&M	\$7,238,199	\$2,356,783	\$4,129,405	\$1,976,951
Net Present Value	\$14,625,792	\$15,856,783	\$18,931,405	\$13,621,951

Perry/ Willard Split of Alternative #4

- Perry City
 - 2/3 Capacity of Plant
 - 2/3 O&M Costs
- Collection Upgrades
 - \$1,500,000
- Plant Costs
 - \$8,000,000
- Trunk Line
 - \$2,145,000
- Total Capital Cost
 - \$11,645,000
- Willard City
 - 1/3 Capacity of Plant
 - 1/3 O&M Costs
- Collection Upgrades
 - \$13,636,000
- Plant Costs
 - \$4,000,000
- Total Capital Cost
 - \$17,636,000

Estimated Impact Fee for New Connections

Expense Category	Alt. # 1 Pump to Brigham City	Alt. # 2 STM Aerotor in Perry City	Alt. #3 SBR Plant in Perry City	Alt. #4 STM Aerotor in Willard
TOTAL	\$2,700	\$5,200	\$5,600	\$4,600

Estimated Monthly End User Rates

Expense Category	Alt. # 1 Pump to Brigham City	Alt. # 2 STM Aerotor in Perry City	Alt. #3 SBR Plant in Perry City	Alt. #4 STM Aerotor in Willard
Brigham City O&M and TAC	\$19.91	-	-	-
New Debt Service, O&M	\$10.00	\$36.69	\$44.06	\$26.50
Existing Debt Service, O&M	\$11.50	\$11.50	\$11.50	\$11.50
TOTAL	\$41.41	\$48.19	\$55.56	\$38.00

The UDWQ Board authorized funding to proceed with Alternative #4

DWQ Board Loan	\$11,350,000
<u>Perry City Contribution</u>	<u>\$ 295,000</u>
Total	\$11,645,000

Loan Terms are 3.0% interest 20 years