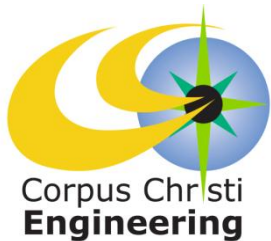




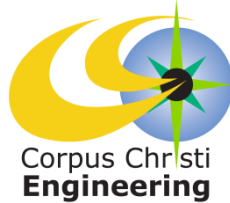
# Oso Water Reclamation Plant Nutrient Removal Phase 2



Council Presentation  
May 28, 2013



# Project Background

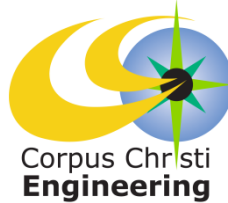


- Phase 1 – Breakpoint Chlorination & Step Feed
  - Near-term temporary solution – Removes ammonia chemically
  - Relatively cost effective capital investment with significant O&M costs and operational complexity
  - Achieves compliance within mandated time frame
  - Construction Completion – Fall 2013
- Phase 2 – Biological Nutrient Removal (BNR)
  - Long-term permanent solution – Removes ammonia biologically
  - Most cost effective based on life-cycle investment
  - Requires major facility upgrades





# Cost/Benefit Analysis



- Phase 2 Improvements

DESCRIPTION	COSTS
Project Cost	\$99,439,000
O&M Costs (20 yrs)	\$66,440,000
<b>Total Costs</b>	<b>\$165,879,000</b>

- Not Implementing Phase 2

DESCRIPTION	COSTS
Project Cost	\$128,990,000
O&M Costs (20 yrs)	\$143,160,000
<b>Total Costs</b>	<b>\$272,150,000</b>

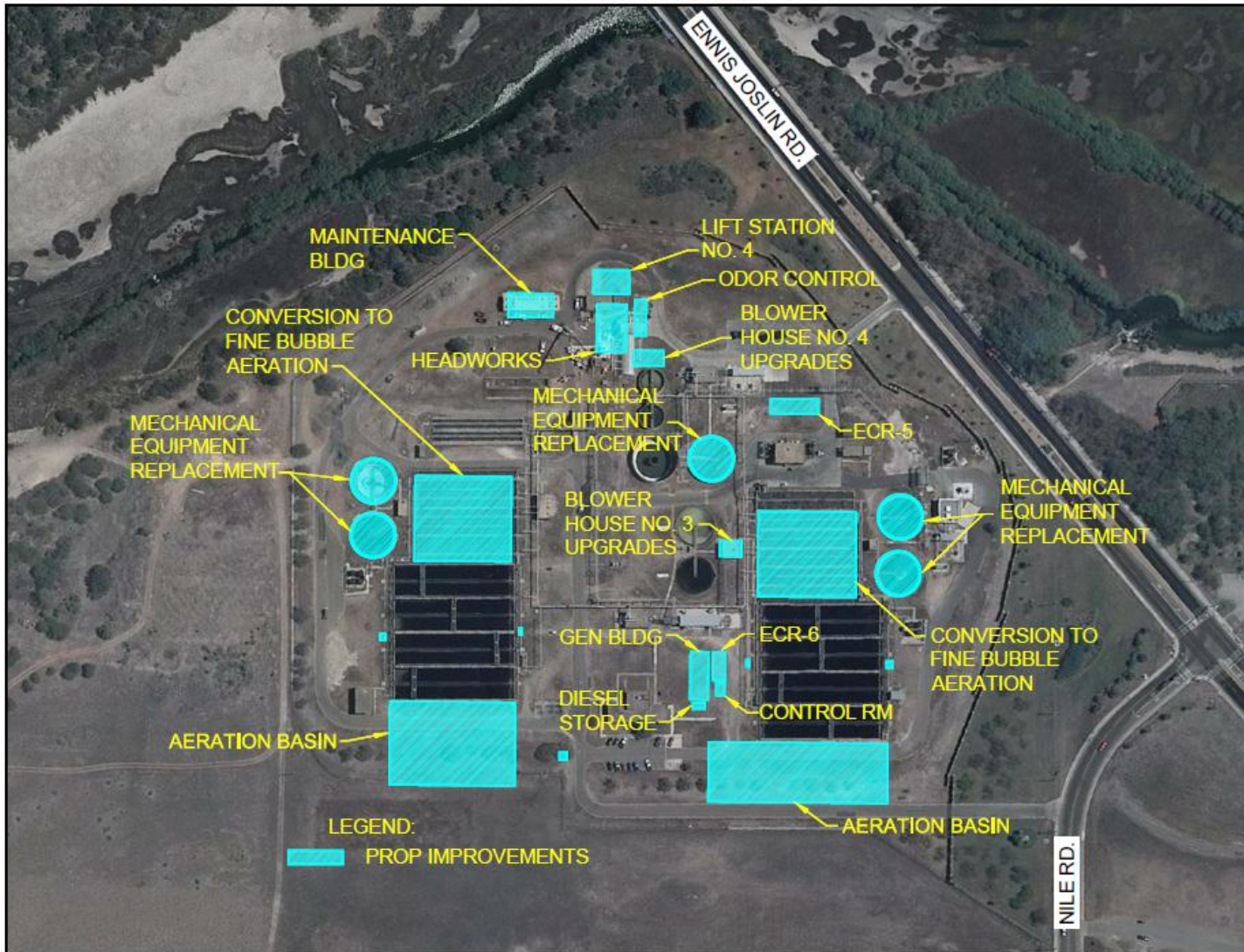
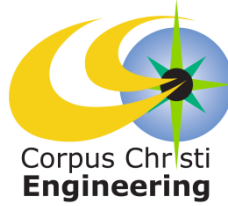
- Phase 2 Improvements result in an estimated \$106M in savings to the City over the next 20 yrs.**





# Project Scope

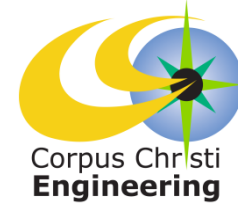
## Oso Water Reclamation Plant (WRP) Phase 2





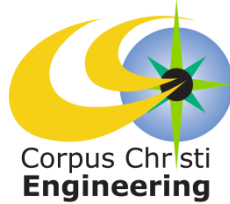
# Project Scope

## Laguna Madre Wastewater Treatment Plant (WWTP) Closure





# Project Schedule



CONTRACT A	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
<b>TASK / MONTH</b>							
<b>BASIC SERVICES</b>							
1. PRELIMINARY PHASE	12 MONTHS						
2. DESIGN PHASE			18 MONTHS				
3. BID PHASE							
4. CONSTRUCTION PHASE					36 MONTHS		
4.1 - TRAIN 3 - AERATION BASIN					20 MONTHS		
4.2 - HEADWORKS					18 MONTHS		
4.3 - INFLUENT PUMP STATION					18 MONTHS		
4.4 - TRAIN 4 - AERATION BASIN					20 MONTHS		
4.5 - TRAINS 1 & 2 RETROFIT						16 MONTHS	

CONTRACT B	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
<b>TASK / MONTH</b>							
<b>BASIC SERVICES</b>							
1. PRELIMINARY PHASE				8 MONTHS			
2. DESIGN PHASE				10 MONTHS			
3. BID PHASE							
4. CONSTRUCTION PHASE					26 MONTHS		
4.1 - LMWWTP DECOMM & TRANSFER					26 MONTHS		

## Project Schedule:

Oso WRP Phase 2: ≈ 72 Months

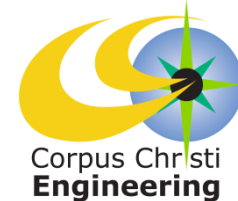
Laguna Madre WWTP: ≈ 49 Months

Projected Schedule reflects City Council award in June 2013 with anticipated construction completion of Oso WRP Phase 2 in April 2019 and Laguna Madre WWTP Closure in June 2019.





# Project Budget



## Oso Water Reclamation Plant Nutrient Removal Phase 2

### FUNDS AVAILABLE:

Wastewater CIP FY 2013.....	\$ 540,000
Wastewater CIP FY 2014.....	\$ 3,200,000
Future Wastewater CIP Request.....	<u>\$ 96,250,000</u>
<b>TOTAL AVAILABLE.....</b>	<b>\$ 99,990,000</b>

### FUNDS REQUIRED:

Construction Estimate with 30% contingencies.....	\$80,969,000
Design Engineer (LNV, Inc.).....	\$ 9,998,629
Testing (Estimate).....	\$ 811,000
Reimbursements:.....	<u>\$ 7,660,000</u>
<b>TOTAL.....</b>	<b><u>\$ 99,438,629</u></b>
<b>ESTIMATED PROJECT BUDGET BALANCE.....</b>	<b>\$ 551,371</b>

