



# Dos Rios WRC Re-rating Phase II: Primary Settling Tank Improvements

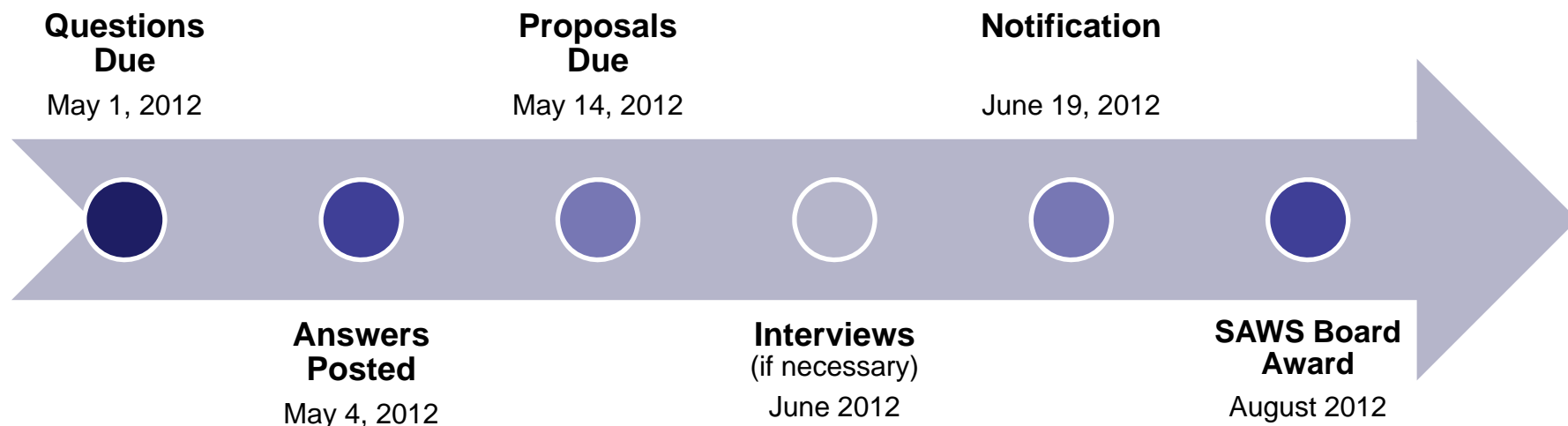
April 25, 2012

Pre-submittal Conference

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Project Engineer – Treatment & Recycle Engineering

# Re-rating Phase II RFQ Schedule



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# Point of Contact for Questions

Maria Franco

Contract Administration

[mfranco@saws.org](mailto:mfranco@saws.org)

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# Scoring Criteria

## Project Approach – 35 Points

- Work plan
  - Tasks / Durations
  - Resources
  - Special considerations
- Project schedule
  - 360 days, inclusive of SAWS review time
- Discuss measures for schedule and budget (design and construction) adherence
- QA / QC procedures (project specific)

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# Scoring Criteria

## Project Team and Resumes – 30 points

- Organizational Chart
- Project Manager's record of experience
- Resumes
  - Not more than 1 page per team member
  - Not more than ½ page per sub-consultant team member
- Sub-consultants
- Availability to perform the work and meet the schedule

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# Scoring Criteria

## Team Experience – 20 points

- List at least four (4) similar projects in the past five (5) years over \$10 million
- Specify respondent's / team member's roles on each project
- Include current references



# Scoring Criteria

## SMWB Participation – 15 points

- Design may be TWDB funded
- Adhere to requirements listed in Addendum 1
- For assistance or clarifications, contact Mr. Rene Gonzalez, DBE & Policy Coordinator with TWDB at (512) 463-2634

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# Background

## Changes Since 2005 Re-rating Master Plan

### Reduction in Projected Wastewater Flows

- Slow down in population growth
- Maintain Leon Creek WRC at 46 mgd AADF
- Conservation

### Change in Influent Wastewater Quality

- Conservation (higher strength)
- Ferrous sulfate (collection system odor control)

### Future Effluent Nutrient Criteria

- Next permit renewal in 2015
- TP limits may be imposed
- TN limits on the horizon

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# Flow Projections Summary

## Previous vs. Proposed

	Previous 2027 Flows (mgd) <sup>1</sup>	Proposed 2030 Flows (mgd) <sup>2</sup>
Annual Average Daily Flow (AADF)	217	137
Maximum Month Flow (MMF)	240	165
Peak 2-hour Flow (P2HF)	439	343

<sup>1</sup> Re-rating Report (CDM, 2005)

<sup>2</sup> Capacity Evaluation of Dos Rios WRC Secondary Treatment Facilities (SAWS, 2012); peaking factor increased from 2.0 to 2.5 to include diverted flows from Leon Creek WRC and SBSP (MRSO)

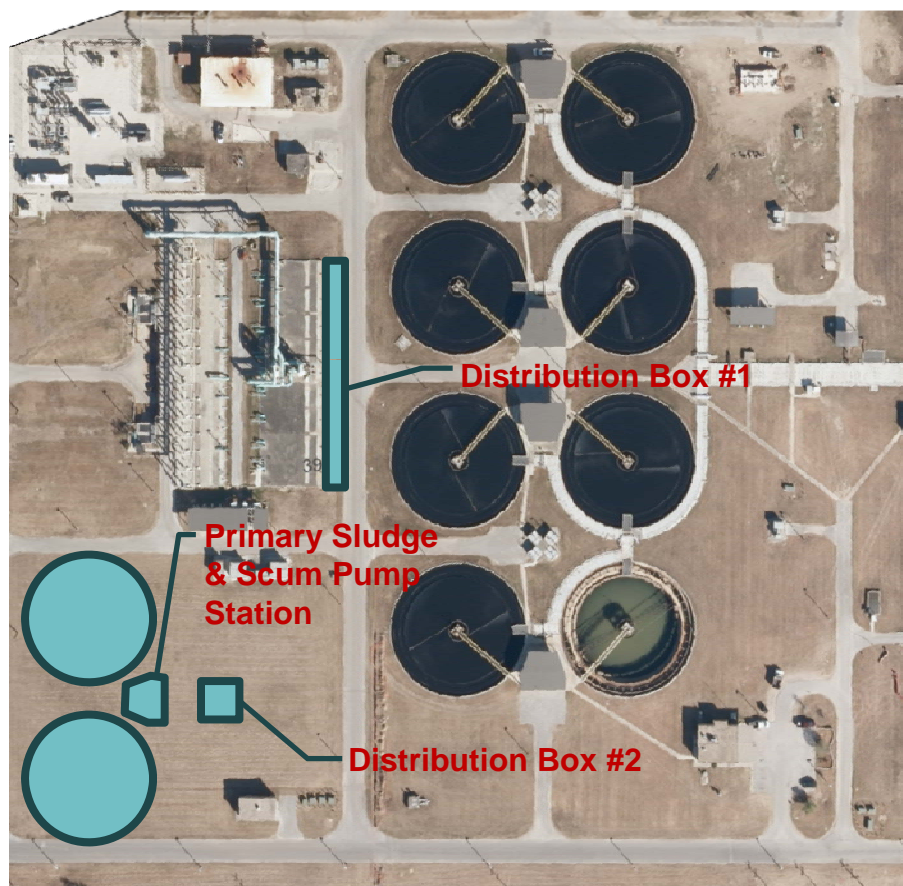
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# Proposed Facilities

## Overview



**SCHEMATIC OF PROPOSED FACILITIES**

- Primary Settling Tank(s)
- Primary Sludge and Scum Pump Station
- Distribution Box(es)

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# Proposed Facilities

## Considerations

- Determine optimal method for flow splitting
- Size primary settling tank(s) for future flow
- Evaluate optimal location for primary settling tank(s)
- Conduct technology evaluation for primary sludge and skimmings pumps
- New electrical buildings for existing primary settling tank electrical equipment / controls

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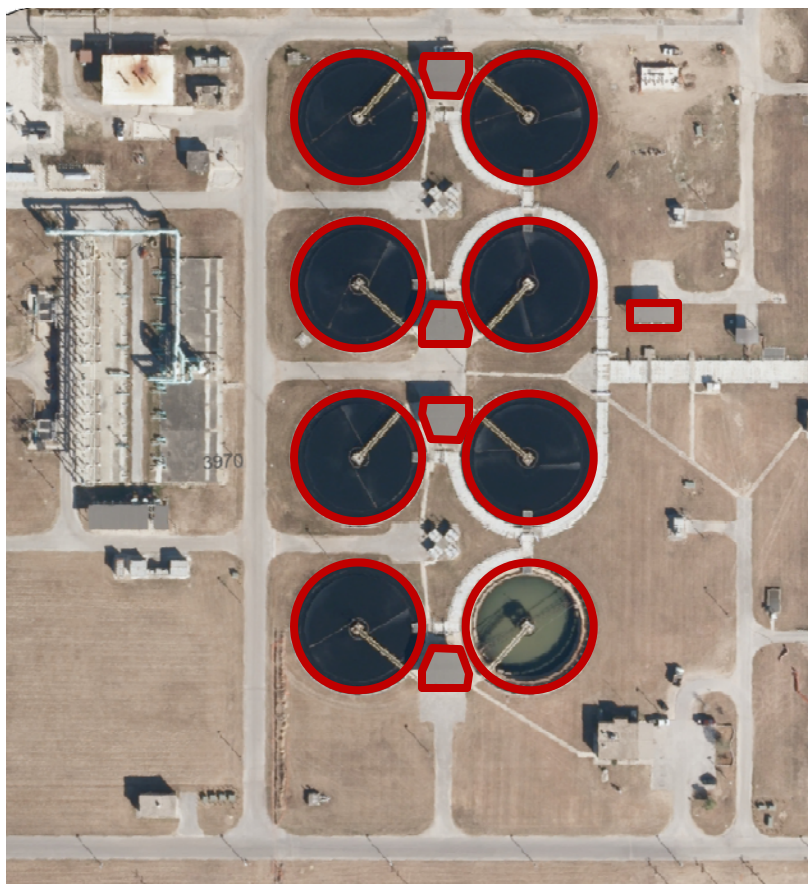
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# Existing Facilities Rehabilitation

## Overview



- Primary Settling Tanks
- Primary Sludge and Skimmings Pump Stations
- Primary Effluent Channel Blower Station

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# Existing Facilities

## Primary Settling Tanks

Number of Tanks	8
Tank Diameter	140.0 ft
Side Water Depth	12.0 ft
Surface Overflow Rate at Rated Flow (125 mgd)	1,015 gpd/sf
Surface Overflow Rate at Peak 2-hr Flow (250 mgd)	2,030 gpd/sf
Detention Time At Rated Flow (125 mgd)	127 min

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# Existing Facilities

## Primary Sludge and Skimmings Pump Stations

Number of Stations	4
Type of Primary Sludge Pumps	Plunger (triplex)
Number of Primary Sludge Pumps per Station	3
Capacity / TDH of Primary Sludge Pumps	220 gpm / 125 ft
Type of Primary Skimmings Pumps	Progressive Cavity
Number of Primary Skimmings Pumps per Station	2
Capacity / TDH of Primary Skimmings Pumps	150 gpm / 90 ft

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# Existing Facilities

## Scope Items

- Replace clarifier drives, scraper arm, skimmings arm, skimmings box, etc.
- Addition of sludge withdrawal ring and other clarifier optimization package features
- Rehabilitate primary sludge and skimmings pump stations (including mixers, valves, piping, etc.)
- Rehabilitate Primary Effluent Channel Blower Station and Diffuser System

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# Questions



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March 20, 2012

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