# **Pine Lake Watershed Project**

**Red Lake Watershed District** July 12, 2016 Meeting; 6:30–8:30 p.m.

### Welcome!

The purpose of this meeting is to:

- Build public awareness and understanding of the project.
- Meet the project team.
- Ask questions.
- Provide opportunity for public input.

### Project Understanding & Goals

#### **Historical Context**

- A 45 square mile drainage area flows into Pine Lake.
- In 1981, a sheet pile dam with two adjustable stops bays was built to raise the lake level and provide a means to manage the level.

#### **Project Purpose**

The purpose of this project is to allow adaptive water level management of Pine Lake throughout the year.

#### **Today's Needs**

- Runoff causes rapid increases in lake levels.
- Flooding has occurred in 13 of the last 33 years.
- Lower lake levels in late summer, fall, and winter result in recreation issues and fish kills.

### **Goals for Tomorrow**

- · Contribute to regional goals of reducing peak flows along the Red River by 20% during flooding events.
- Construct a new outlet to improve operational flexibility and operator safety.
- Improve wildlife habitat and recreational activities.
- Construct upstream retention basins to reduce flood damages at Pine Lake and areas downstream from Pine Lake.

### **Major Considerations in the Human & Natural Environment**

- Human health & safety
- **Erosion & sedimentation** •
- Archeological & historical resources
- Fish & wildlife resources
- Stream lakes & wetlands
- Water quality
- Floodwater property damage

- Economic & social
- Threatened & endangered species
- Downstream peak flow rates and flow volumes
- Transportation
- Prime farmlands
- Land use & management •



## **Project Location**

There are several alternative retention basin improvements under consideration within the watershed upstream from Pine Lake. Three locations (C-1, D, and E) are being considered for construction of a new retention basin. The operating plan of one existing retention area (Site F) is being considered for modification to increase gated storage volume.









PLANNING & NEED ACTIVITIES FOR ACTION

ALTERNATIVES

CONSEQUENCES ALTERNATIVE

COORDINATION. AND PUBLIC PARTICIPATION

APPENDICES

WATERSHED WATERSHED PLAN

PLAN

ENVIRONMENT



### Lake Outlet Modifications

The control structure downstream from the outlet of the lake could provide the following benefits:

- A combination of stop logs and slide gate to allow for flexibility in operations.
- Stop logs could be adjusted periodically to adapt to changing seasonal or yearly conditions.
- A slide gate could allow draining of the lake to a lower level and provide supplemental outlet capacity.
- A slide gate could be operated with ease, allow draining of the lake to a lower level and provide supplemental outlet capacity.
- Additional lake level control that could help improve lake habitat.

A new structure could include a walkway that would allow for:

- Access to stop logs and gate during elevated water conditions.
- Increased normal pool elevations.
- Improved safety and convenience for operators.



### How to Stay Informed and Provide Input



You can stay informed about progress online by visiting the Project Page at: http://www.redlakewatershed.org/

Fill out a comment form today!

Contact Myron Jesme, District Administrator for more information.



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