Fort Smith Regional Water Supply Project Update

Winter 2002

Highlights:

- Construction to begin with relocation of Shepherd Springs Road and demolition of Lake Fort Smith Park.
- Contract 1 includes construction of the outlet works, preparation of the dam foundation, road relocation and stockpiling of fill material.
- Contract 2 includes construction of the dam and spillways.
- Test quarry and test fill to determine construction methods.
- Project completion expected in 2005.

Dam and Spillway Construction to Begin

Construction on Lake Fort Smith Enlargement Begins

Area residents may have already noticed that construction activities have started on the Fort Smith Regional Water Supply Project. These activities are in preparation of major construction efforts under Contracts 1 and 2 for the dam and reservoir.

Initial work will include a new connection from Shepherd Springs Road to Highway 71 to provide new access around construction areas and to serve the new Lake Fort Smith State Park. Access to local residences will be maintained during construction.

On January 1st, the existing state park was officially closed. Demolition of the park's facilities will begin by mid-year. Construction of new park facilities will begin this year with the addition of a maintenance building and two residences for park personnel. The bulk of new park facilities will be constructed in 2003 and 2004. The park is expected to be open in 2005.

Contract 1

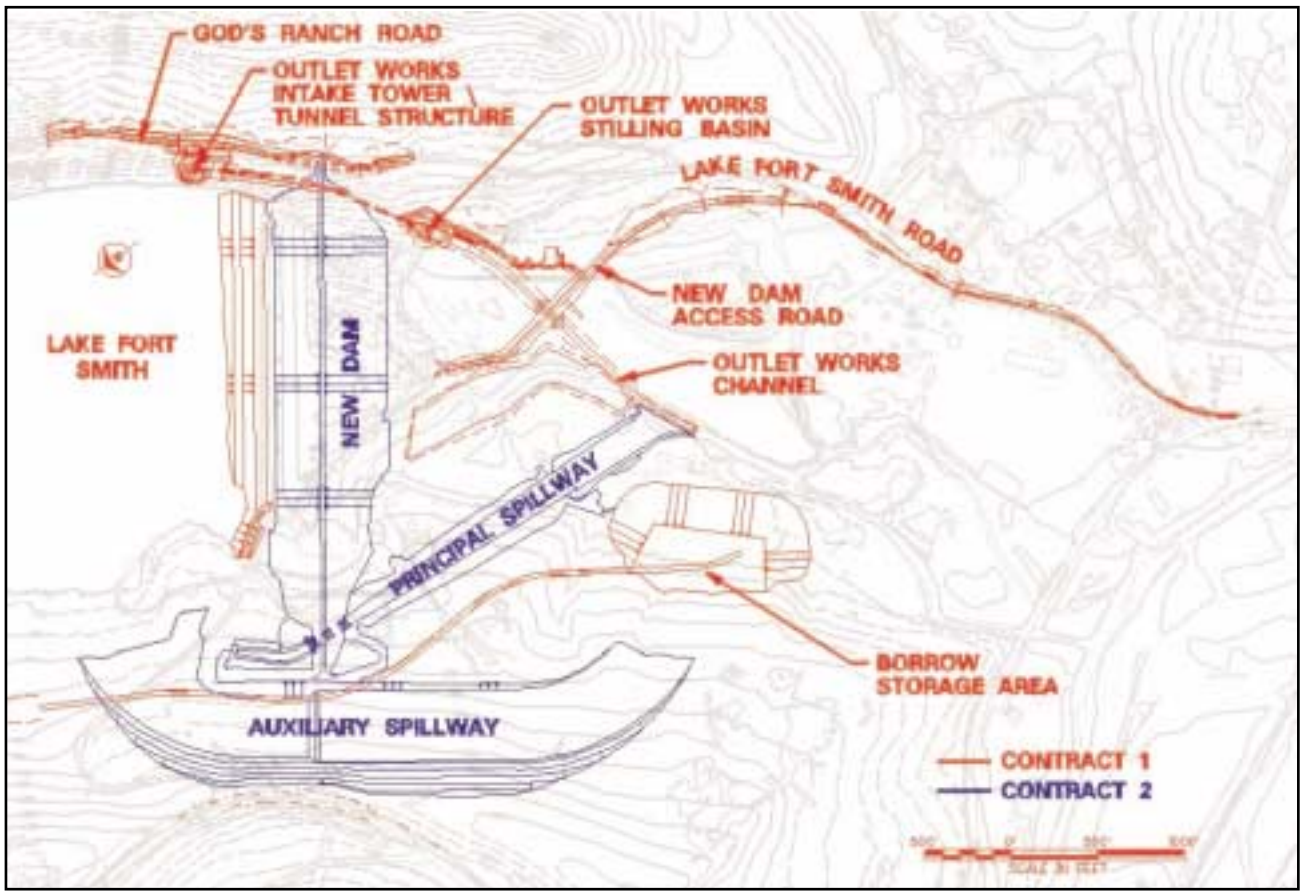
Work under Contract 1, titled the "Outlet Works, Dam Foundation and Site Preparation," will begin this summer. Work includes the construction of the intake tower, the outlet works (tunnel, raw water supply lines, stilling basin and outlet channel), dam foundation preparation, impervious borrow development and stockpiling, and road construction. Contract 1 was advertised for bids on January 16, 2002. Bids will be received March 27, the contract will be awarded in April and construction should begin by mid-year.

Borrow areas for impervious fill will be developed between Lake Shepherd Springs and Lake Fort Smith and at other areas including the west side of Lake Fort Smith, where two cemeteries have been removed and relocated. Material from these borrow areas (high-clay content soils) will be used to construct the core of the dam.

To prepare the dam foundation, grout (a cement and water mixture) will be injected into the bedrock under the dam for its full length. This wall of grout is called the "grout curtain." The grout is injected to identify and fill any large cavities or joints in the foundation.

The intake tower, tunnel structure and outlet works will be constructed as part of Contract 1. The tunnel, located at the east abutment of the dam, will contain two 48-inch diameter pipelines that will transport raw water directly to the nearby Mountainburg Water Treatment Plant.

The tunnel will also contain a 16-inch diameter minimum flow release line. The minimum flow release will restore the perennial flow of Frog Bayou that was lost when Lake Fort Smith was originally constructed. The City of Fort Smith plans to meet part of the minimum flow release



Plan view - Lake Fort Smith dam and reservoir enlargement.

requirement of 1.2 cubic feet per second with filter backwash water from the water treatment plant and intentional releases of water from the lake if needed.

Access to the construction site and the new dam will be obtained by upgrading Lake Fort Smith Road. In addition, a new dam access road will be built and a section of God's Ranch Road will be relocated on the east abutment of the dam.

Contract 2

Bids for Contract 2, titled the "Dam Embankment and Spillways," will be advertised in June 2002, and the notice to proceed will be issued in the third quarter. The chosen contractor will be on the site in the fall of 2002. Construction of the principal and auxiliary spillways and the dam embankment will take place under Contract 2. The core of the new dam will be built from high–clay content soils excavated from the borrow areas below Lake Shepherd Springs and from the lake's west side. The outer zones of the embankment will be rock fill excavated from the new auxiliary spillway.

In the later stages of construction, Lake Shepherd Springs will be drained into the newly raised portion of Lake Fort Smith so the Lake Shepherd Springs Dam can be removed. Some material from Lake Shepherd Springs Dam will be used in the construction of the new dam.

Demolition of the existing intake towers at Lake Fort Smith and Lake Shepherd Springs and the bridges at both dams will take place under Contract 2.

The entire project is expected to be finished in 2005.

Test Quarry and Test Fill

This February 2002, separately from either Contract 1 or 2, construction of a test quarry and fill will be conducted to determine how the fill material for the dam breaks down and how it performs when compacted. Test blasting will take place between the hours of 6 a.m. and 10 p.m. Monday through Saturday.

Fill materials will be tested by constructing a small-scale fill version of the dam embankment. The testing will enable engineers to confirm the stability of the excavations of the bedrock and the processing requirements and performance specifications for the rock fill. The compaction and density requirements for the rock fill zones of the new dam will also be determined.

The City of Fort Smith ARKANSAS

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