In the older neighborhoods of Indianapolis, even light rain storm can cause raw sewage to overflow and pollute our waterways. Citizens Water is working to reduce raw sewage overflows to neighborhood streams. The backbone of Citizens’ plan is the Fall Creek-White River Deep Storage Tunnel.

Citizens will build a deep underground tunnel along Fall Creek and White River to capture combined sewer overflows and carry raw sewage and polluted stormwater to Citizens’ Southport Advanced Wastewater Treatment Plant in southern Marion County.

New sewers along White River, Fall Creek, Pogues Run, Pleasant Run, and Bean Creek will connect with the tunnel, enabling Indianapolis to substantially reduce sewage overflows in many neighborhoods.

At more than 200 feet below ground, the 18-foot diameter deep tunnel will store more than 200 million gallons of sewage during and after wet weather, then slowly release the sewage to the wastewater treatment plant when capacity becomes available.

The tunnel will be built in bedrock below the city using specialized equipment called a tunnel-boring machine. A tunnel boring machine (TBM) will be used to construct the tunnel. After the boring is complete a concrete liner will be installed in the tunnel. The lining will help keep groundwater out and keep sewage in the tunnel. By using the deep tunnel technology, disturbances to neighborhoods along the project route will be reduced.

The Fall Creek/White River deep tunnel will extend approximately 8.6 miles miles, beginning near the Indiana State Fairgrounds on the north, running parallel to Fall Creek and White River, and ending near the intersection of West Street and White River Parkway where it will join the Deep Rock Tunnel Connector Project. The exact route of the tunnel is being determined during the design of the project to ensure long-term environmental and economic benefits.

Continued on next page.

**Project Details**

**Estimated Project Cost:** $389 million (in 2011 dollars)

**Status:** Design 2011-2014

**Design Engineer:** Black & Veatch Corp.

**Construction Start Date:** 2016 (Projected)

**Anticipated Project Benefits:**

- Reduce raw sewage overflows to meet Citizens’ long-term control plan goals
- Capture raw sewage overflows from Fall Creek and White River
- Store sewage during and after rainfall and transport them to the Citizens’ Southport Advanced Wastewater Treatment Plant
- Improve water quality and protect public health
- Achieve long-term benefits with a more “green” approach
- Minimize inconvenience to local residents
The completed tunnel will extend about 8.6 miles, beginning near the Indiana State Fair Grounds on the north and ending on the south side of Indianapolis.

A companion project, the Deep Rock Tunnel Connector (a 7.6-mile connector tunnel from the Fall Creek-White River tunnel to the wastewater treatment plant), revealed the potential for dramatic cost savings. The redesign resulted in the connector tunnel being designed at a larger diameter than the original plan called for. Since there will be more capacity for sewage in the connector pipe, the storage tunnel can be downsized.

Improvements in the connector tunnel design will save approximately $100 million in project costs, and they also will allow Citizens to meet federal clean water standards about 3.5 years ahead of schedule.

Deep tunnels are a proven technology. A number of large cities have built or are planning deep tunnels to reduce sewage overflows, including Chicago, Milwaukee, Cleveland and Columbus, Ohio.

**Facility Planning**

Facility planning for the Fall Creek/White River tunnel concluded in November 2009. During this phase, additional geotechnical were conducted studies to evaluate the bedrock and determine the diameter of the pipe.

**Design**

The project design phase is underway using all the findings of the facility plan.

**Construction**

Construction of the deep tunnel is expected to begin in 2016 and take 9 years to complete.

For more information, visit our Web site at www.CitizensWater.com and click on the projects tab. A video about the tunnel and find other details about the project are available.