



September 2, 2005

MEMORANDUM

TO: Montgomery County Planning Board

VIA Jeff Zyontz, Chief
Countywide Planning DivisionJorge A Valladares, Chief
Environmental Planning/Countywide PlanningFROM: Nazir Baig, Planner Supervisor
Countywide Planning Division
301-495-4549SUBJECT: WSSC Potomac Bi-County Water Supply
Main, Project W-127.01

RECOMMENDATION: Support WSSC's selected alignment.

John Mitchell, Project Manager for this project has previously briefed the Board on February 10, 2005 and May 26, 2005. The Board was keenly aware of the possible negative impacts of various alignments on the park system. As per previous Board policies, WSSC is attempting to minimize the impacts in consultation with employees of the park system.

The Washington Suburban Sanitary Commission (WSSC) has conducted an alignment study to determine the best alignment and construction method to connect an existing 96" diameter water main from I-270 and Tuckerman Lane with their 96" diameter tunnel near the intersection of Beach and Stonebrook Drives. The proposed 5.5 miles of water main will be 84" in diameter. Both connection points for this new water main are within Maryland-National Capital Park and Planning property. At Tuckerman Lane, the connection point is within Cabin John Regional Park. At the other end, the existing tunnel WSSC will connect to is located within Rock Creek Park.

WSSC formed a Policy Review Group (PRG) for this project. The PRG includes staff from Montgomery and Prince George's Counties as well as M-NCPPC. The WSSC has worked with the PRG in evaluating alignment alternatives. At the May 26 Planning Board meeting, WSSC presented three possible tunnel alignments for construction of

the water main. In July, WSSC forwarded an alignment report to the PRG that recommends the design and construction of a deep rock tunnel following alignment T1. At the July 28, 2005 meeting with the PRG, PRG members unanimously concurred with this recommendation.

The alignment recommended by WSSC is a deep rock tunnel that will be constructed about 200 feet below the ground surface. The recommended alignment starts within Cabin John Regional Park, just east of I-270 and North of Tuckerman Lane. The alignment follows the I-270 spur and after crossing under Rockville Pike, follows the Beltway beneath Rock Creek Park. The tunnel ends within the park at Stonebrook drive.

By selecting a tunnel alignment, WSSC has minimized the park, community and environmental impacts that would normally be associated with construction of a large diameter water main. The primary impacts will occur at the shaft locations. Work at these locations is significant and described below.

The first shaft is located entirely on SHA property just north-east of the cloverleaf at Connecticut Avenue and the outer loop of the beltway. The working shaft is the location where most work activity will occur. The primary impact to the park at this location will be seen in the increased truck traffic to and from the site along Beach Drive. M-NCPPC staff support WSSC's recommendation to pursue permission from SHA to access the site from the Connecticut Avenue ramp to greatly reduce truck traffic through the park. Work at this shaft includes: excavation of the tunnel shaft through drilling and blasting, installation of the tunnel boring machine, removal of all tunneling spoils, installation of tunnel liner pipe, grouting of the space between the tunnel and pipeline walls, and the construction of field offices.

Another shaft is located within Rock Creek Park. The location of the shaft is within a wetland area that has been recently disturbed by SHA. M-NCPPC staff met with WSSC at the site and will work with WSSC to secure the needed permits to install the shaft in this previously disturbed area. Work at this shaft will include: construction of the shaft by drilling and blasting, removal of the tunnel boring machine, installation of the pipe for the vertical shaft, grouting of that shaft, and connection to the existing WSSC tunnel.

There is a retrieval shaft located within a section of Cabin John Regional Park that is isolated from the rest of the park by I-270. A mature forest surrounds the area, however the proposed area of disturbance is within a portion of the woods previously disturbed. Work at this shaft will include: construction of the shaft by drilling and blasting, removal of the tunnel boring machine, installation of the pipe for the vertical shaft, grouting of that shaft, and connection to the existing WSSC tunnel.

By construction of other water and sewer mains, WSSC can access the site from Old Club Court and follow their existing Right-of-Way to the construction site. Confining WSSC to this access route and location will minimize the extent of mature tree loss at this location. Work at this shaft will include: construction of the shaft by drilling and blasting, removal of the tunnel boring machine, possible installation of horizontal pipe, installation of pipe for the vertical shaft and connection to the existing 96" water main.

A riser shaft is located in Rock Creek Park where Beach Drive is connected at Rockville Pike. The purpose of this shaft is to allow for connection of the new water

main to an existing 30" water main in the area. Unlike the other shafts, WSSC does not anticipate that drilling and blasting will be necessary to construct this shaft. Instead, the shaft may be bored from the bottom during construction of the main tunnel. WSSC has relocated this shaft from the originally proposed location so that the shaft will be within an area with invasive rather than native trees. In order to place the shaft at this location, WSSC will construct a branch off the main tunnel to reduce park impacts. Work at this shaft will include: shaft construction using a tension pulled boring machine, installation of vertical liner, grouting access during construction, and connection to the existing 30" water main.

The estimated construction cost for this project is \$124.9 million. WSSC intends to forward the recommendation for alignment T1 as described above to the Montgomery and Prince George's County Councils at the end of September. The presentation to the Planning Board at this time affords the Board opportunity to provide its input to the Montgomery County Council. Once the final alignment is selected, WSSC will proceed with design. M-NCPPC staff will be intimately involved in the design process to minimize impacts and ensure WSSC performs this work in a manner that is sensitive to the environment, the parks and their users.

Staff recommends that the Board endorse the alignment.

JZ:JV:NB:ss