

Project Profile

DC Water - Northeast Boundary Tunnel

Maxwell GeoSystems provides high level data management for several key aspects to DC Water's largest component of the Clean Rivers Project in Washington DC, USA.

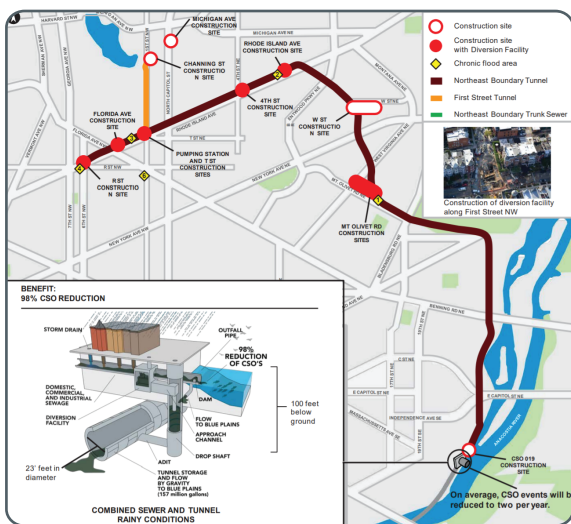


Image Courtesy of TunnelingOnline.com

The Northeast Boundary Tunnel (NEBT) is a reinforced concrete sewer tunnel (7m diameter, 15-48m deep), that will increase the capacity of the existing sewer system in Washington DC's North East District.

Maxwell GeoSystems is providing its industry leading **MissionOS** cloud-data platform, to meet the client's needs for real-time feedback of ground deformation in conjunction with shaft construction & key TBM operation parameters.

Due to the sensitivity of surrounding infrastructure, the client relies on **MissionOS's** real-time alarm notification system to alert key parties of potential unwanted settlements.

Additional key features implemented on this job include proximity functions to relate ground deformation to TBM operations, prediction models to estimate final settlement, and TBM parameter alarms.

The NEBT is the largest component of the Clean Rivers Project in Washington DC (USA) and will be built using the TBM "Chris" (92m in length).

The tunnel project faces a number of challenges including heavy clay and water bearing clayey sands at water pressures up to 3bar, a challenging alignment with 15 curves, and a complex work environment for shaft construction with small shaft sites combined with urban residential neighbourhoods and a high traffic corridor.

Parties Affiliated with the Project: Designer: **Brierley Associates**; TBM Supplier: **Herrenknecht**; Slurry Walls, Jet Grout, Secant Piles, Solider Piles: **Trevicos**; Segmental Tunnel Liner Supplier: **ConSeg JV**; Muck Hauling: **Bulldog**; Construction; Instrumentation: **Entech**; Traffic Engineering & Instrumentation Installation: **EBA**; Construction Manager: **EPC Consultants**; DC Clean Rivers Program Manager: **McMillan Jacobs and Greeley & Hansen**.



Image Courtesy of TunnelingOnline.com

Sector	Tunnels	Location	Washington, DC USA
Client	DC Water	Budget	USD\$580 Million
Technical Summary	Instruments	408~ Installed & Operating	463 TBM Sensors 13 Types
	TBM Drives	1	
	Deep Shafts	7	
	Instrument Records	10,000 per day	
	Users	69	
Status	Ongoing (Tunnelling started)		