



District of Columbia
Water and Sewer Authority

*Chesapeake Bay Commission Briefing
on*

Blue Plains Total Nitrogen Removal / Wet Weather Plan

presented by

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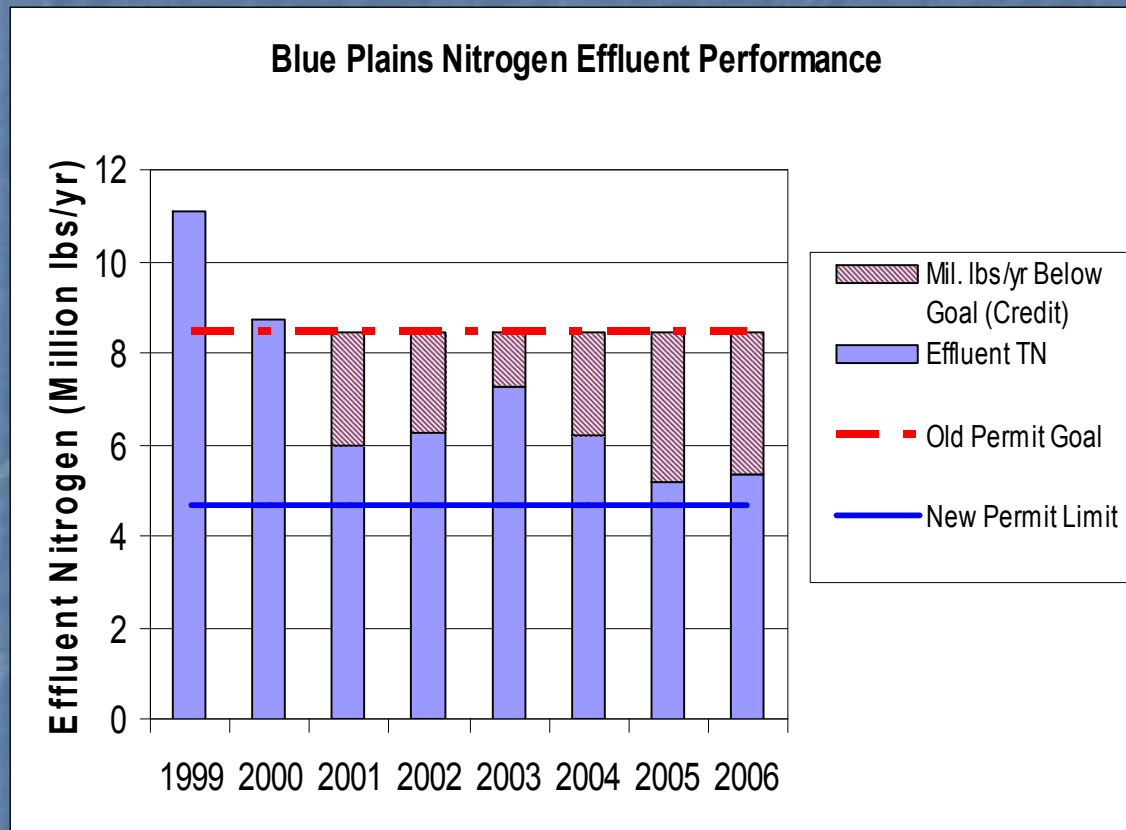
Blue Plains Wastewater Treatment Plant

- Serves over 2 million people in DC, MD, VA
- Largest advanced wastewater treatment plant *in the world*
- 370 million gallons per day capacity
- Services combined & separate sewer system



Blue Plains Wastewater Treatment Plant

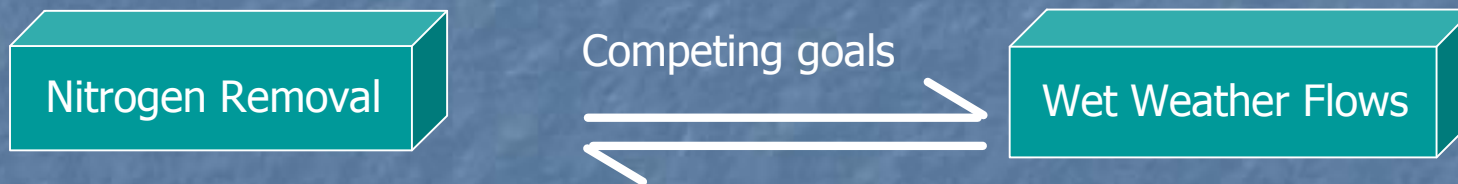
Blue Plains has Exceeded Chesapeake Bay 40% Nitrogen Reduction Goal



- 14.6 mil lbs below goal (7.5 mg/L) since 2001
- Equals 3 years of load at permit limit (4.2 mg/L)

Challenge of Meeting New Nitrogen Limit

- Massive size of Blue Plains
- Wet weather flows



- BPAWWTP improvements – \$2.3 B capital program over 10 years
 - Total nitrogen enhanced nutrient removal: \$950 M
 - Other BPAWWTP projects: \$1.4 B
- Large 10-yr CIP budget
 - CSO Long Term Control Plan: \$2.209 B
 - Wastewater collection & transmission: \$302 M
 - Water programs: \$1.016 B
 - Total: \$5.9 B



The Solution: Innovative Approach to Handling Wet Weather Flows

- Expand CSO tunnel storage to even out flow peaks
- Construct wet weather treatment system (new European technology)
- Run Blue Plains at steadier flow rates during storms – design nitrogen removal for these flows

Cost = \$800 Million
vs.
\$1.3 billion for
conventional approach

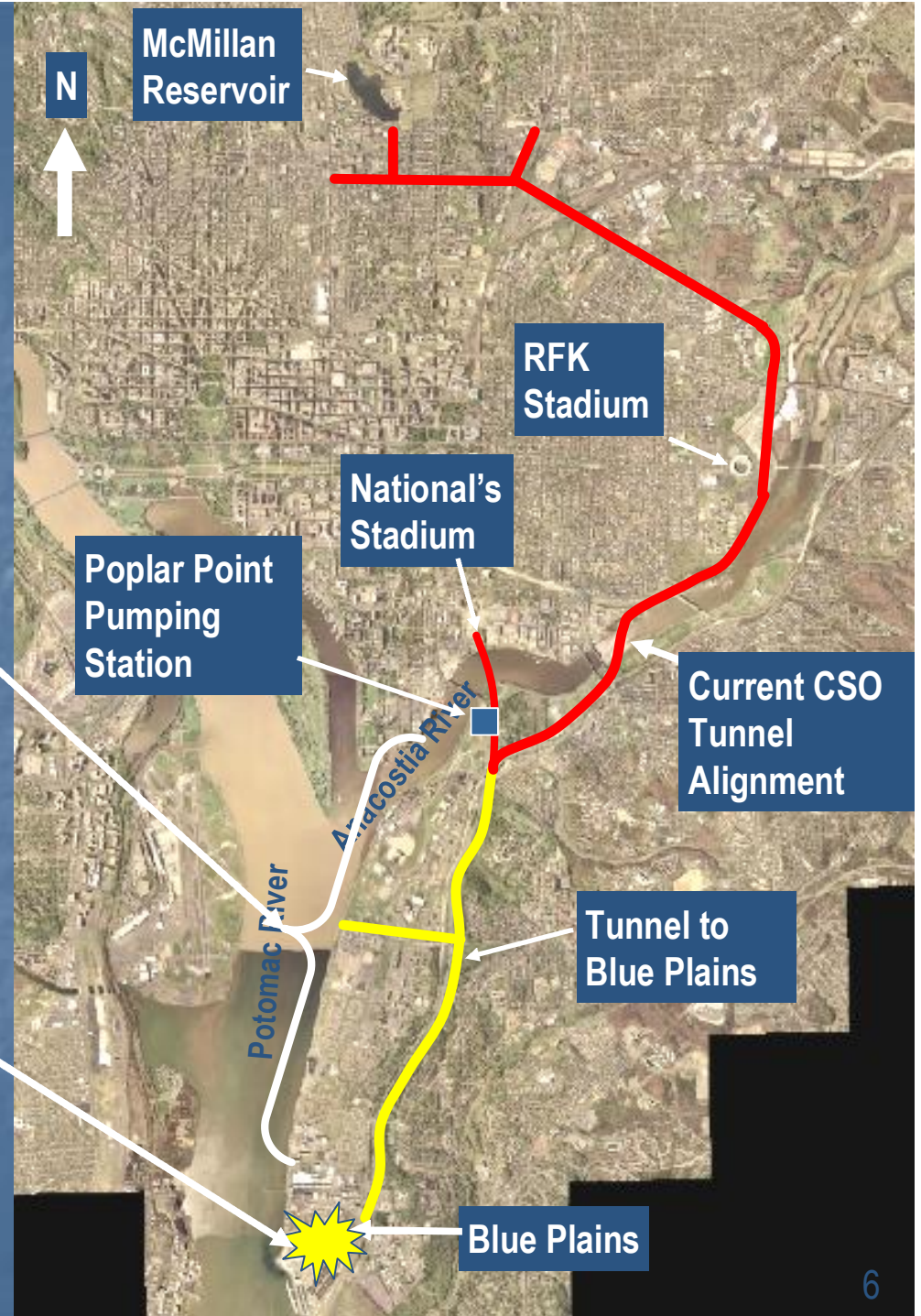


Total Nitrogen/Wet Weather Plan

Extend CSO Tunnel by 3.5 miles:

- 23 feet diameter
- "Metro-sized"

Construct nitrogen removal & innovative wet weather treatment system at Blue Plains



Summary

- Economically combines TN removal and wet weather treatment – innovative system
- Better water quality performance than LTCP
- Reduces Anacostia CSO overflows 7 years earlier than LTCP



Next Steps

