

District of Columbia Water and Sewer Authority



**Presentation to
Loudoun County Board of Supervisors**

**Potomac Interceptor Odor Abatement
June 7, 2010**

Agenda - Project Briefing

- **Potomac Interceptor History**
- **Odor Abatement**
 - ✓ **Design**
 - ✓ **Schedule**
 - ✓ **Site Access**
- **Construction Estimates**
- **Summary**

Potomac Interceptor Facts

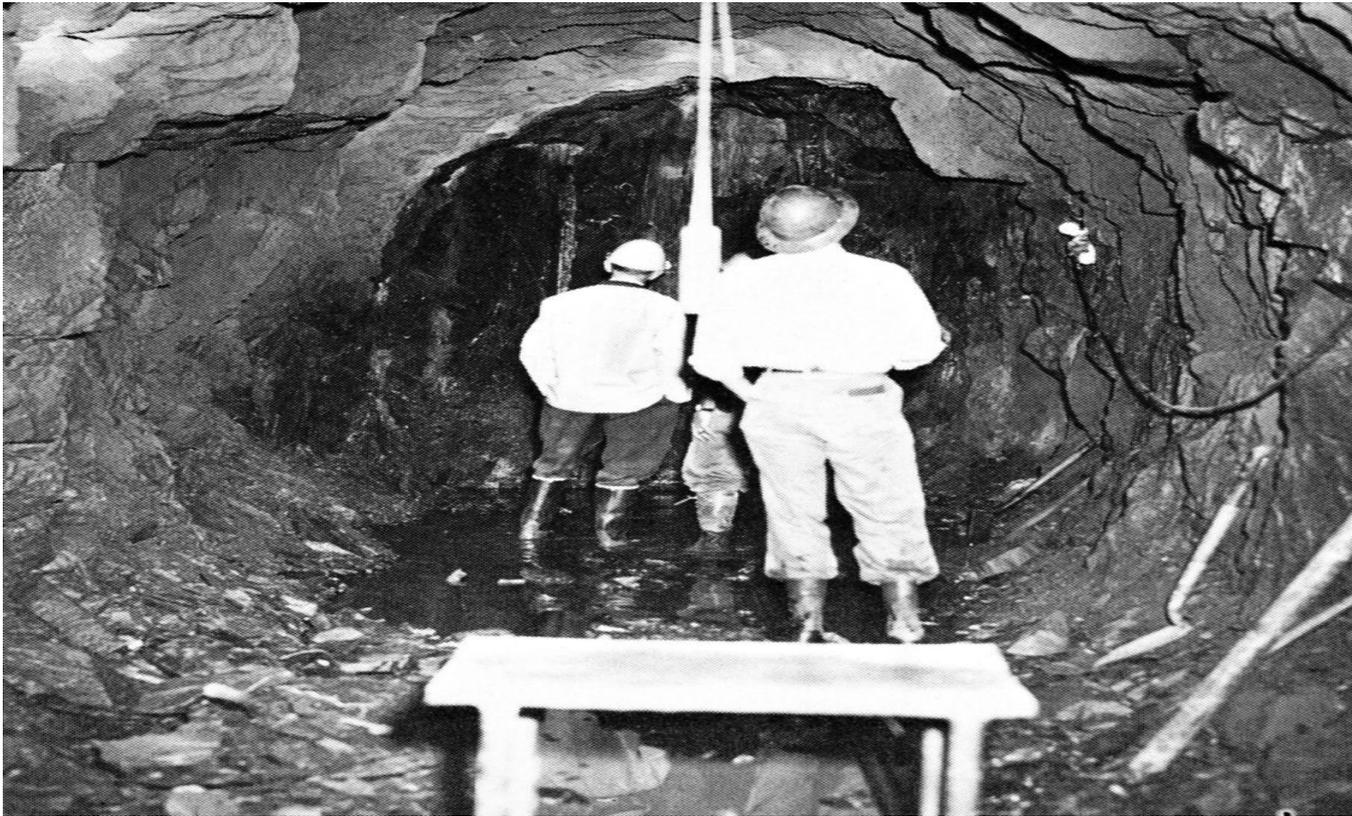
- **Conveys wastewater from Fairfax, Loudoun & Montgomery Counties via gravity to the Potomac Pumping Station in DC.**
- **Constructed in the early 60's**
- **~ 50 miles long**
- **Conveys about 60 million gallons per day (MGD)**
- **Maximum capacity at DC line is about 127 MGD**
- **Reinforced concrete pipe with steel joints & rubber gaskets**

PI Construction



PI Construction in the C&O Canal near Fletcher's Boat House
(Man Standing in a 84" Pipe)

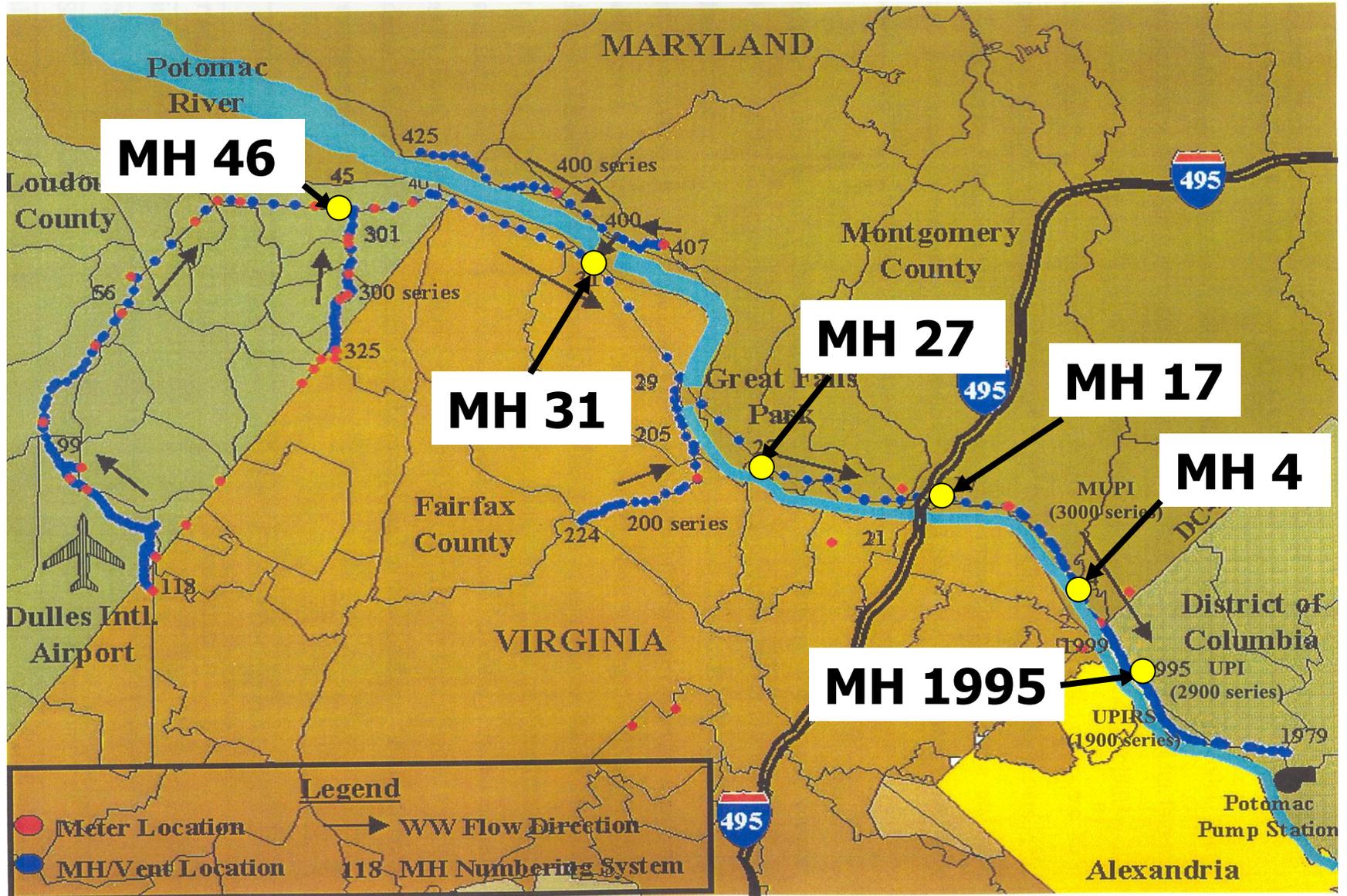
Digging Tunnel Section (circa 1961)



Background- Odor Control

- **1999 PI odor study recommended carbon treatment of vented gases**
- **Treatment locations:
MH 1995 (DC), MH 4, 17 & 27 (MD), MH 31 & 46 (VA)**
- **Optimization of the odor control system requires all treatment locations work in conjunction with each other. Sites can be put in service as they are completed but maximum odor control effectiveness will not be reached unless all treatment facilities are in operation.**
- **Technology & locations recommended by other studies**

Background - Treatment Locations



Site 46 - Loudoun County

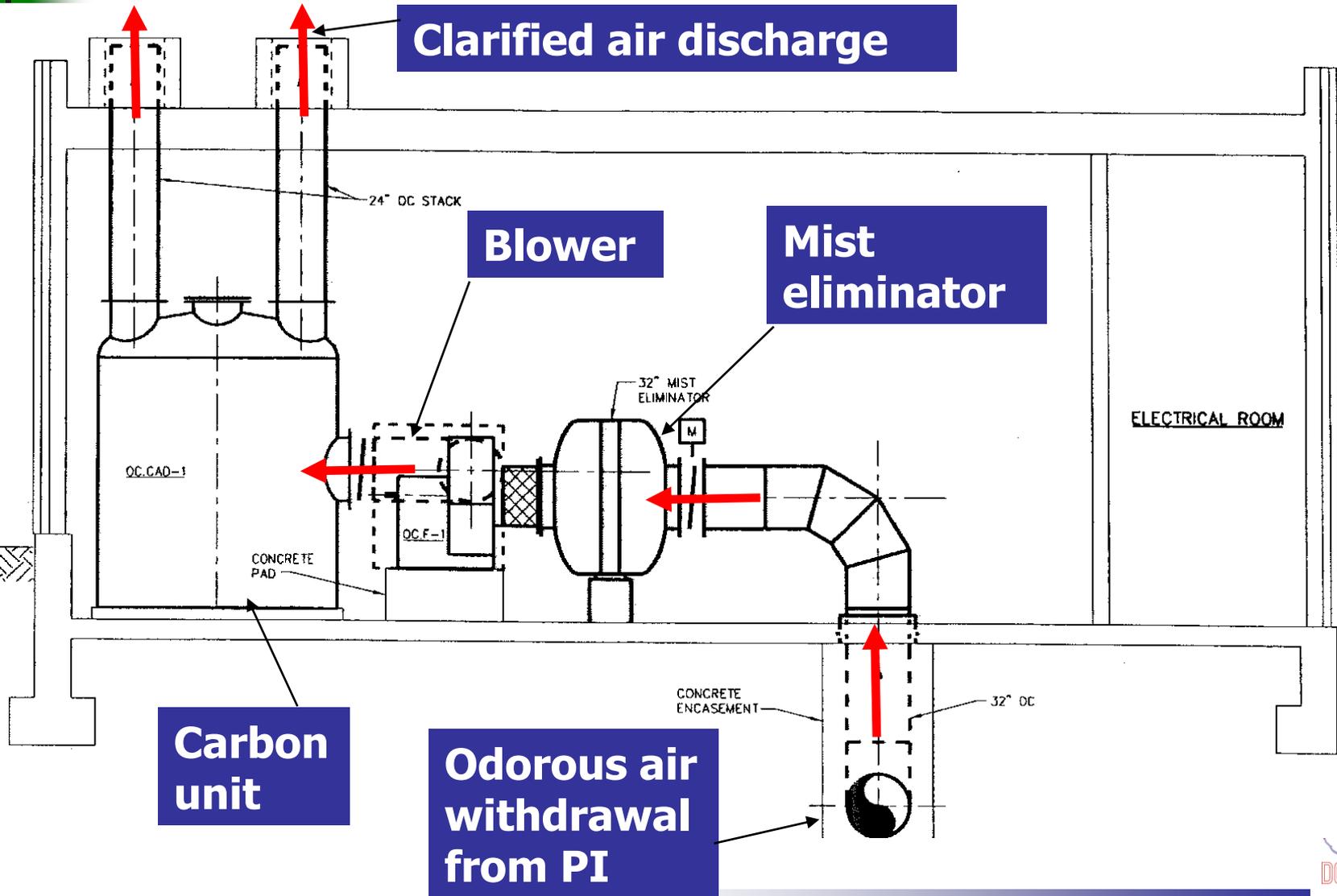
POTOMAC INTERCEPTOR LONG TERM ODOR ABATEMENT PROGRAM



Background - Odor Control

- **Activated carbon adsorption of vented sewer gases and closure of existing vents**
- **Housed in new above ground buildings**
- **Carbon requires periodic replacement**
- **Corrosive gases in sewer will be reduced and the life of the entire interceptor will be extended**

Typical Facility



Temporary Chemical Addition

- **Since 2007, DCWASA has been adding environmentally safe chemicals upstream in the PI during warm months to reduce odors**
 - ✓ **Will continue in 2010**

Chemical Addition Site



Schedule for Odor Abatement (Sites 31 and 46)

- **Bid Advertisement**
 - ✓ **July 18, 2010**
- **Contract Awarded**
 - ✓ **September 1, 2010**
- **Notice to Proceed for Contractors**
 - ✓ **November 1, 2010**
- **Construction Complete**
 - ✓ **March 2012**

Site 46 Access



- **DCWASA currently has access to Site 46 via:**
 - ✓ **Cascades Parkway onto gravel access road to Site 46**

Site 46 Access



Loudoun Water Connection to the Potomac Interceptor (East of Site 46)

Site 46 Access



Gravel road facing east towards site (Site 46 is on southside of gravel road).

PI Odor Construction Schedules

- **Construction near Site 46 would begin in September 2010**
- **Total duration of the PI Odor project at Site 46 is ~1.5 years**

Construction Hours

- **Work would occur Monday to Friday from 9am to 5pm**
 - ✓ **Hours are flexible (i.e. 8am to 4pm)**
 - ✓ **NO weekend work**
- **Construction site would be secured with locking gate (pad lock)**
- **NVRPA would monitor the site as per their usual schedule**
- **Excavated areas will be protected with temporary chain linked fencing.**
- **Measures will be taken to reduce odors during construction.**

Construction Estimates

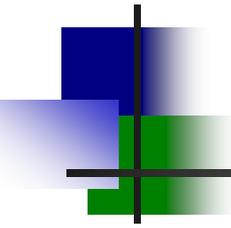
- **Trucks and Equipment Large Track Excavator**
 - ✓ **Small Crane**
 - ✓ **Small Backhoe**
 - ✓ **Front End Loader**
 - ✓ **Bobcat**
 - ✓ **Standard Sized Dump Trucks (12-15 cubic yard capacity)**
 - ✓ **Crew cabs and pick up trucks**

Summary

- **PI conveys wastewater from Virginia to DC**
- **Odor Control building will remove H₂S gas from the sewer and the air**
- **Long Term Odor Abatement project will extend the life of sewer**

Protecting the Environment

- **As stewards of the environment it is DCWASA's responsibility to protect the Potomac River by properly maintaining the Potomac Interceptor Sewer. Failure to do this will result in serious environmental consequences to the river.**



Questions?