



Reclamation of the Bradford Tract

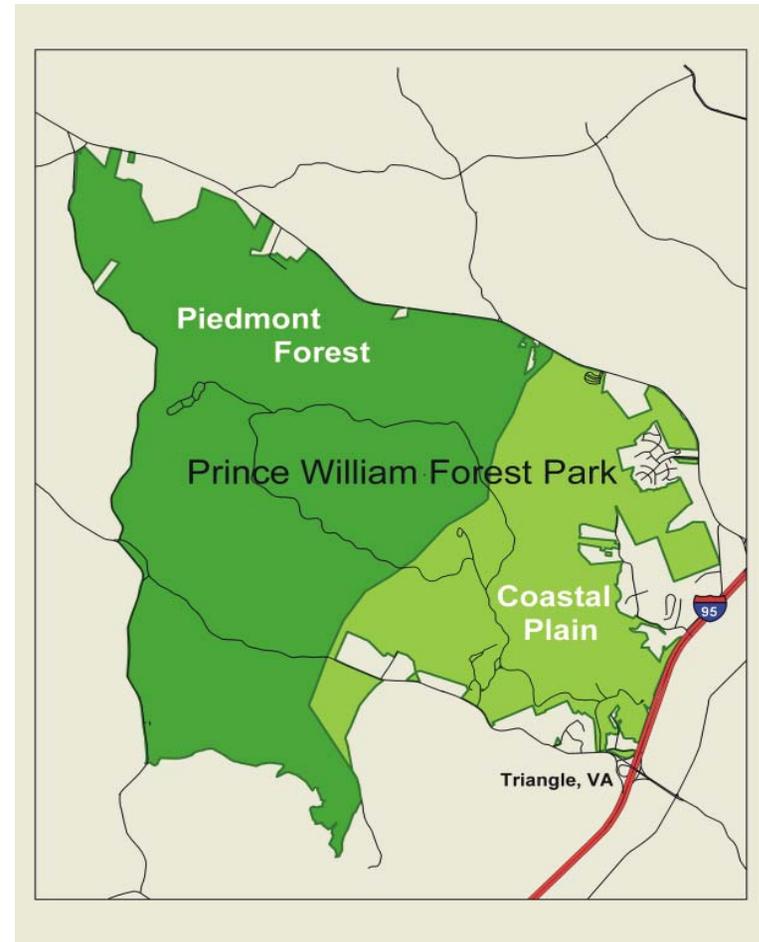


Presentation by *Paul Petersen*
& *Jim Pieper*



Prince William Forest Park (PRWI) Park History

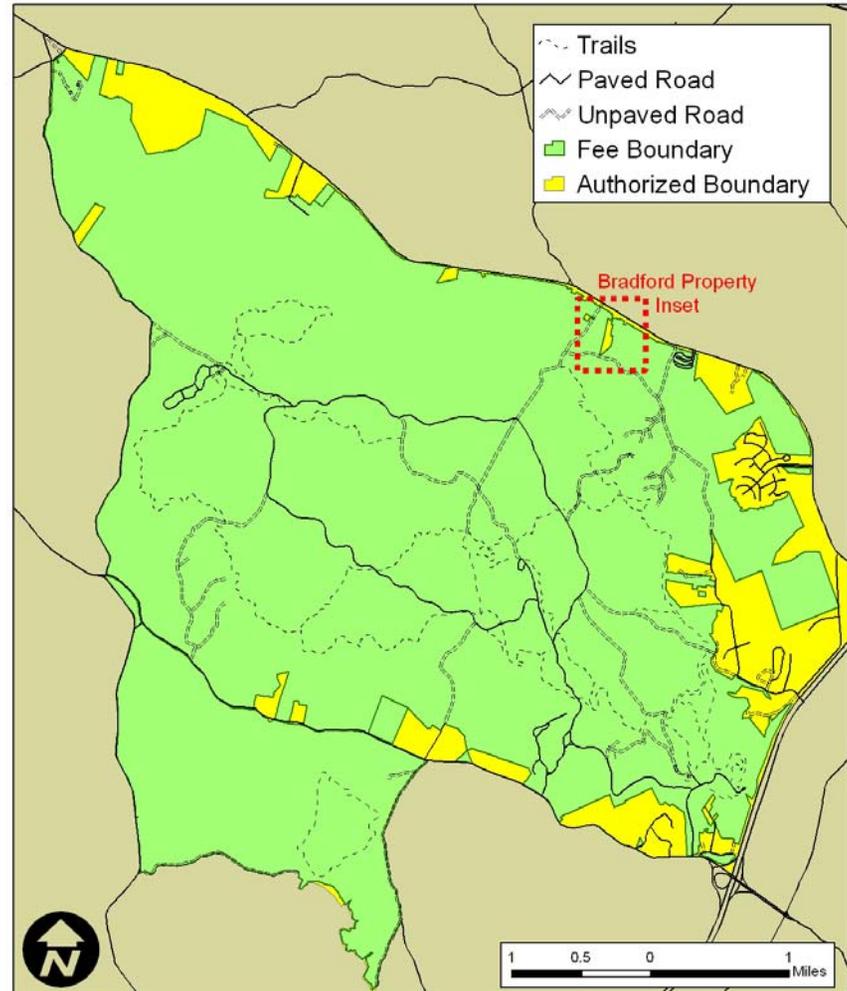
- PRWI established in 1934 by the Recreational Demonstrational Area (RDA) program as Chopawamsic RDA
- 1936 Became Prince William Forest Park
- 15,000 acres of woodland straddling the Piedmont and Coastal Plane
- Current Administrative Boundary is between US Rt. 619, Rt. 234, and Interstate 95.

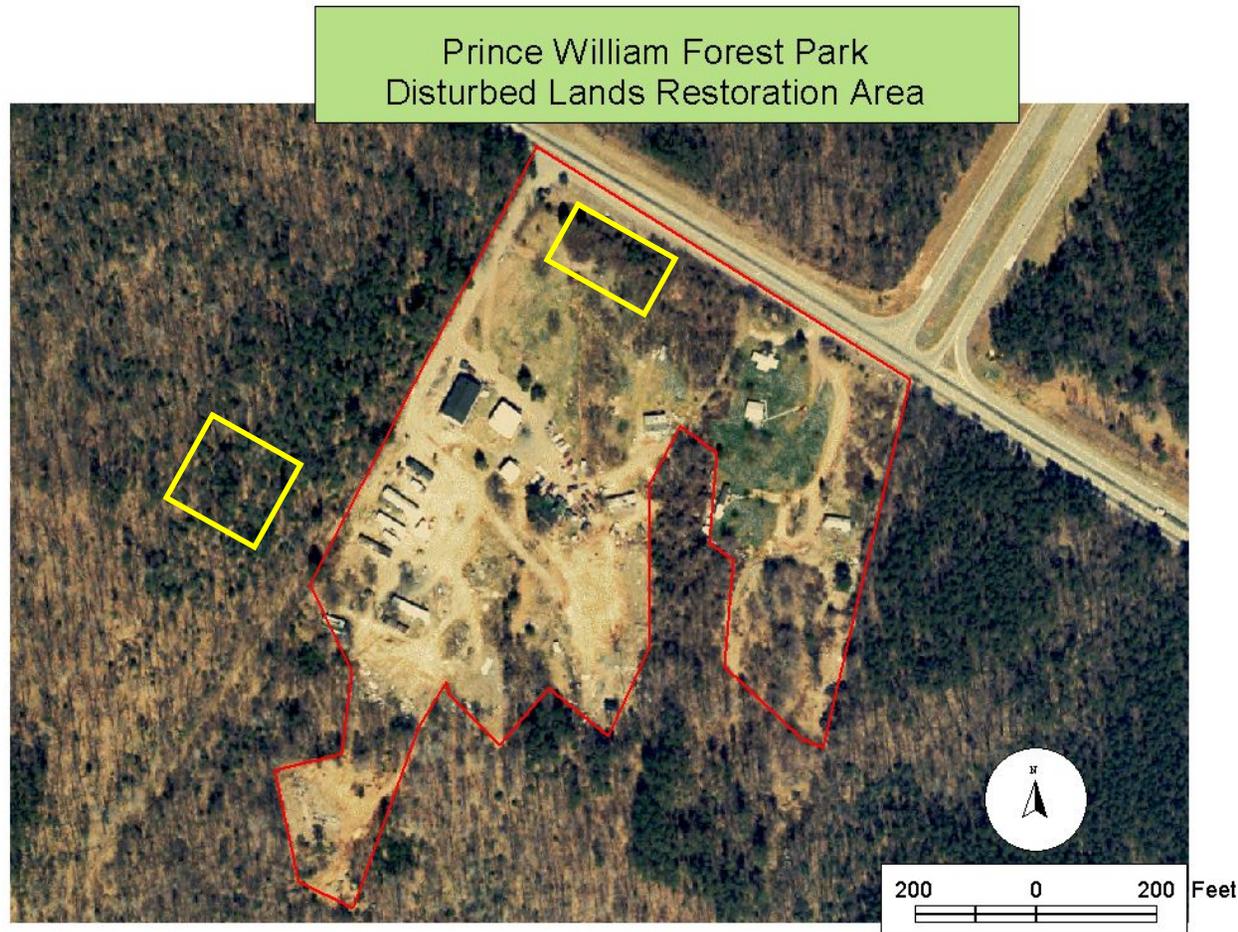




Lands Acquisition

- 2001 – PRWI purchased the Bradford Tract, a 40 acres lot on the northern border of the park.
- The site was previously condemned by Prince William County (PWC).





- Goal: To restore 14.2 acres of the 40 acres Bradford tract. Restoration would include removing concrete, asphalt, trash, and structures, re-grading the terrain, restoring historic drainages, and planting native vegetation.



Bradford Tract Site Condition



- 4400 tires illegally dumped on property
- Used as an unpermitted landfill for concrete and other materials
- Mobile Homes, an apartment building, single family dwellings, abandoned automobiles, storage tanks and drums, appliances, water tanks, and more...



Environmental Conditions



- Invasive Plants – An expansion of US Rt. 234 would increase the threat of invasive species.
- Erosion - PRWI's enabling legislation required the park to protect the Quantico Creek Watershed.
- *Isotria medeoloides* – Loyal Merhoff, Chief of BRMD, found that the Bradford tract was acceptable habitat.
- Visitor Safety – West Nile Virus! Jim Pieper, Biological Science Technician, found increased mosquito larvae populations at sample site located at the Freeman-Bradford property



Preliminary Site Assessment

- Two dilapidated structures
- Abandoned dwellings and mobile homes
- Abandoned automobiles
- Asphalt roller
- Discarded construction material
- Several ground storage tanks and drums
- Appliances
- clothing
- Level I & II pre-acquisition surveys
- Installed 5 groundwater monitoring wells (2 years)
- PWC removed all structures, 55-gallon drums, contaminated soils, and drained crushed and buried the septic tanks



Debris Removal

- PRWI staff, YCC, SCA, and volunteers removed 3900 tires, from 2001 - 2003

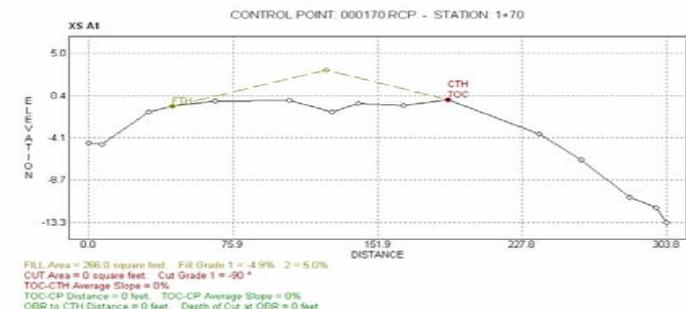
“Thank You, thank you,
thank you!”





Site Reclamation

- Dave Steensen, Geologist, Geologic Resources Division conducted site visits in 2003.
- Conducted cross-sectional volumetric surveys to map geometric shape of the site.





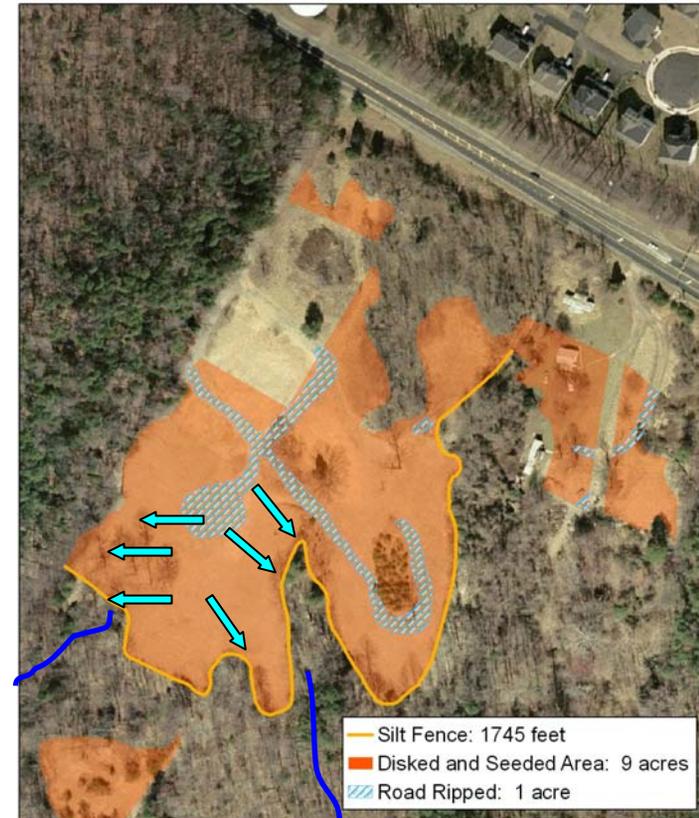
Reclamation Alternative

- 1. Removing all of the buried trash and debris and re-contouring the entire area
- 2. Moving soil from the site to restore natural drainage patterns
- 3. Conducting a complete restoration of the Site
- 4. Reclaiming the site and allowing succession to occur more slowly over time.



Reclamation

- Contract awarded to Metro Paving
- 1745 ft. of silt fence
- 1 acres of road ripped
- 100 cy of debris Removed
- Fill/grade road bed
- Decompact surface materials
- Re-contour
- Grass-seed
- Shrub/Tree planting





Costs

Task Description	Quantity	Unit	Unit Price Estimate	Total
Surface debris removal and disposal	100	cy	\$20	\$ 2,000
Tire removal and disposal	500		\$2	\$ 1,000
Utilities demolition, removal, and disposal				\$ 5,000
Cap surface wells	3		\$3000	\$ 9,000
Structure demolition	1		\$5000	\$ 5,000
Structure haul and disposal	2		\$2000	\$ 4,000
Installation of check dam and filter fabric	1		\$100	\$ 100
Ripping	0.926	acres	\$350	\$ 325
Excavation of asphalt and gravel	750	cy	\$5	\$ 3,750
Reconstruct topography	4848	cy	\$5	\$ 24,240
Fill/grade road bed	750	cy	\$5	\$ 3,750
Finish grade	4.93	acres	\$725	\$ 3,575
Decompact Surface Materials	7.98	acres	\$350	\$ 2,793
Plant Grass Seed	7.98	acres	\$500	\$ 3,990
Distribute Straw	7.98	acres	\$500	\$ 3,990
Outplant Nursery Stock (ball/burlap trees)	100		\$40	\$ 4,000
Outplant Nursery Stock (300 saplings)	300		\$10	\$ 3,000
Record Keeping				\$ 6,000
Gravel/asphalt testing	0.926	acres		\$ 5,000
Travel	1			\$ 1,431
Fill	5000	cy		\$ 2,000

\$ 93,944

Item	FY'04	FY'05	FY06
Personnel	0	7800	3400
Travel and Transportation	2862	0	0
Supplies and Equipment	0	1200	600
Contractor or Cooperator	94138	0	0
Overhead	0	0	0
Other	0	0	0
TOTAL	\$97000	\$9000	\$4000



Thanks!

- NRPP Disturbed Lands panel for funding the project
- NCR for \$10K for Level 1 and 2 site survey
- EPMT for site stabilization and exotics control
- PWC Fire Department for fire and demo of a structure, saving the park \$7K
- 700 volunteer hours @ WG3 = \$7,800
- Jim Pieper and Laura Lakeman for help with this presentation!

Principle Project Managers

- Dave Steensen, Geologist, GRD
- Brian Carlstrom, Benvenuto Fellow
- Jennifer Lee, Chief of RM PRWI
- George Liffert, Assistant Superintendent PRWI
- Daniel McClarren, Facility Manager GWMP
- Kirsten Talken-Spauling, Chief of Interp NACE
- Larry Nemerow, Administrative Coordinator of the Center for Environmental and Biological Science, Forest Park High School













Nick-nack,
paddy-wack...
Questions?