Overview

- MD Reforestation Law
- ICC Forest Impacts
- Forest Mitigation Project Goals
- Project-wide Forest Mitigation
- On-Site Planting
- Off-Site Forest Mitigation Implementation
- Off-Site Planting
MD Reforestation Law

- DNR Forest Service provides review and approval
- Clearing one acre or more of forest for state funded highway projects
- Plant on public land within same county and/or watershed
- 1:1 planting ratio within 1 year of project completion

Contract A between Shady Grove Road and Redland Road
ICC Forest Impacts

- ROD Impacts – 745.86 acres
- Total Forest Impacts – 696.2 acres
  - Contract A – 191.1 acres
  - Contract B – 198.3 acres
  - Contract C – 209.3 acres
  - Contract D/E – 97.5 acres*
    - *Figures based on RFP plans, actual design build numbers likely less
  - Impacts in Rock Creek, Anacostia, and Patuxent River Watersheds:
    - SPA impacts
      - Paint Branch – approx. 75 acres
      - Rock Creek – approx. 85 acres

Aerial view of Redland Road
Forest Mitigation Project Goals

• Quickly establish native forest for:
   Wildlife habitat
   Water quality improvement
   Erosion control
   Pollution reduction
   Carbon storage
   Aesthetics
   Recreation
   Thermal heating reduction
Project-wide Forest Mitigation

- On-Site total 235 acres planted by DB Contractors
- Required Off-Site total approximately 461 acres
  - Currently scheduled off-site total 576 acres (115 acre surplus)
  - Planting approx. 140 acres within SPAs
On-Site Planting

• Approximately 47,000 trees planted
  ▶ Contract A ~14,920 trees (74.6 acres)
  ▶ Contract B ~ 15,880 trees (79.4 acres)
  ▶ Contract C ~ 10,440 trees (52.2 acres)
  ▶ Contracts D/E ~ 5,780 trees (28.9 acres) – under development

• 2-year warranty period with maintenance & monitoring
On-Site Planting

• Zones: Reforestation, Forest Edge, Roadside Screening
• Common Species List
  ❖ Shade Trees - Red Maple, River Birch, Persimmon, Tulip Poplar, Black Gum, Sycamore, White Oak, Northern Red Oak, Pin Oak, American Basswood
  ❖ Flowering trees – Redbud, Flowering Dogwood, Black Cherry, Staghorn Sumac, Common Witchhazel
  ❖ Evergreen trees – American Holly, Eastern Red Cedar, Norway Spruce, Eastern White Pine, Leyland Cypress
  ❖ Shrubs – Red Chokeberry, Winterberry, Fragrant Sumac, Arrowwood Viburnum, Blackhaw Viburnum
Off-Site Forest Mitigation Implementation

• Site preparation and planting
  - Weed/invasive species control
  - Native tree installation
    ▶ Seedlings @ 350/acre
    ▶ 5’ Ht. CG @ 200/acre; 2.5” cal. B&B @ 20/acre
  - Deer protection installation

• Follow-up maintenance and site monitoring
  - 2-5 years of maintenance (90% year 1, 80% year 2, 75% year 5)
  - Bi-annual inspections (or as needed)

Follow-up weed control required

Maintenance Activities
Off-Site Species Selection

- Mimic native, adjacent forested areas
- Commercially available
- Common species selection
  - Upland – Red Oak, Tulip Poplar, Red Maple, White Oak, Redcedar, Persimmon, Black Locust, Staghorn Sumac
  - Floodplain – River Birch, Sycamore, Pin Oak, Musclewood, Willow Oak, Black Gum
MD DNR FM Sites

- REF-2-5 Seneca Creek State Park Sites (Seneca Creek Watershed)
  - REF-2 planted 10,080 seedlings in spring 2009 (28.8 acres)
  - REF-3-5 planting 23,100 seedlings in spring 2012 (66.5 acres)

- REF-20 Patuxent River State Park Sites (Patuxent River Watershed)
  - Planted 13,510 seedlings in fall 2010 (38.6 acres)
WSSC FM Sites

• REF-17 Santini Road Site (Rocky Gorge Dam Watershed)
  - SHA-owned site to be deeded to WSSC
  - Planted 3,535 seedlings in fall 2009 (10.1 acres)

• REF-19 Triadelphia Reservoir Sites (Brighton Dam Watershed)
  - Planted 11,980 seedlings in fall 2009 (34.2 acres)
M-NCCPPC FM Sites

• REF-7 Casey Property (Seneca Creek Watershed)
  ✓ SHA-owned site to be deeded to M-NCCPPC
  ✓ Planted 21,384 trees in fall 2010 (97.2 acres)
  ✓ Nominated for 2011 MDQI Award

• REF-8/12 Rock Creek Stream Valley/Ag History Farm Park (Rock Creek Watershed)
  ✓ Planting 17,160 trees in fall 2012 (78 acres)
  ✓ Upper Rock Creek SPA
M-NCPPC FM Sites (cont’d)

• REF-10/11 Reddy Branch/South Germantown Park (Rock Creek and Seneca Creek Watersheds)
  - Planted 3,344 trees in fall 2011 (15.2 acres)
• REF-15 Southern Asia/McNeil (Anacostia Watershed)
  - SHA-owned site to be deeded to M-NCPPC
  - Planted 3,564 trees in spring 2011 (16.2 acres)
  - Upper Paint Branch SPA
• REF-16 Peach Orchard/Allnut (Anacostia Watershed)
  - SHA-owned site to be deeded to M-NCPPC
  - Planting 9,922 trees in fall 2012 (45.1 acres)
  - Upper Paint Branch SPA
SHA ROW FM Sites

- REF-6 Right of Way (Rock Creek and Potomac River Watersheds)
  - I-270/I-495 interchanges
  - Planted 6,755 seedlings in spring 2010 (19.3 acres)

REF-6 Before

REF-6 After
City of Bowie Sites

- REF-21 Sites (Patuxent River Upper and Western Branch Watersheds)
  - Planted 7,805 seedlings and 4,246 trees in fall 2011 (41.6 acres)
USDA-BARC Sites

- REF-22 Sites (Anacostia Watershed)
  - Planting 14,560 trees in fall 2012 (41.6 acres)
Questions?

97.2 acre planting effort @ REF-7