

# Wetland Gems of America





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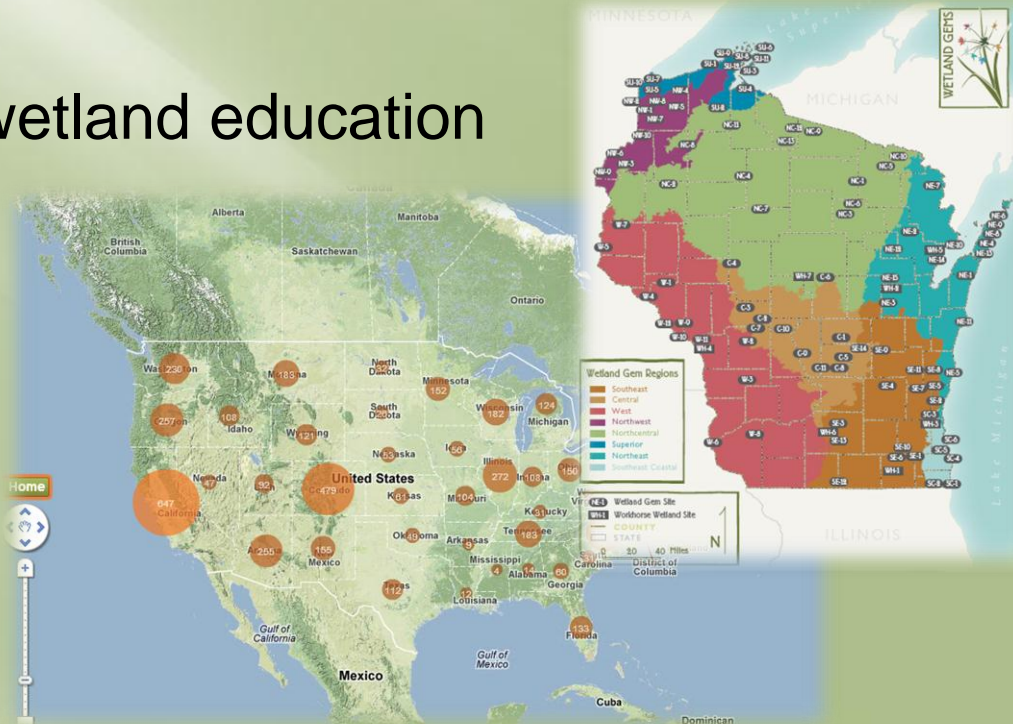
- Quick Summary
- Motivation
- Program Goals
- Example of State Implementation Process
- WGA Fact Sheet





# Wetland Gems of America: Initiative Description

- Assemble fact sheets for high-quality and criteria appropriate wetlands through-out the U.S., representing varied wetland community types
- Link to SWS website with an interactive interface and geospacial capability
- Provide resources for wetland education



# Wetland Gems of America: Motivation

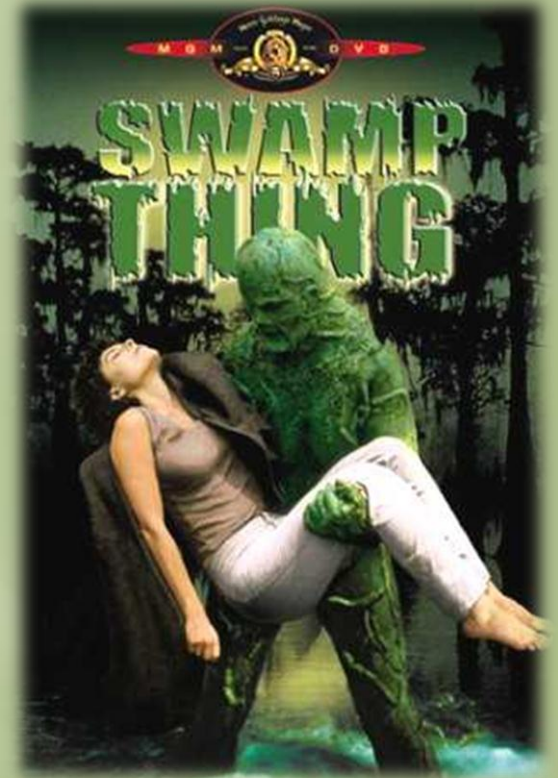
- Wisconsin Wetland Gems – rooted in state’s 19<sup>th</sup> century history protecting navigable waters and wetlands
- SWANCC (2001) and Rapanos (2006) decisions
  - State agency jurisdiction over protection of isolated wetlands
- Reverse wetland loss
  - More than one-half of originally estimated 225 million acres of U.S. wetlands lost
    - ✓ Since 1972 CWA - slowed to 80,000 acres/year
    - ✓ Estimate increase resulting from 2012 Farm Bill





# Wetland Gems of America: Motivation

- Public perception of wetlands
- Youth involvement critical for future of wetland science



# Wetland Gems of America: Goals

- Increase public awareness and appreciation of wetlands through the dissemination of WGA information
- Identify high-quality and criteria appropriate wetlands throughout U.S. for WGA inclusion; list examples of diverse wetland types across each state





# Wetland Gems of America: Goals

- Create a centralized database with an interactive interface and geospatial capability to map WGA sites
- Provide wetland educational teaching resources and links to academic research for WGA wetlands



# Wetland Gems of America: Goals

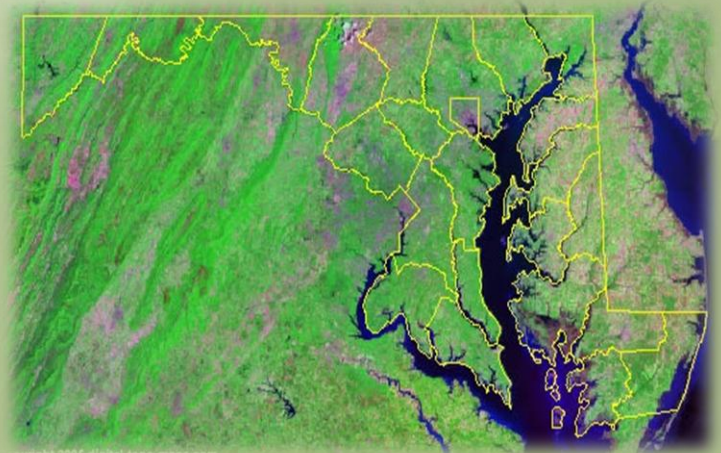
- Launch WGA database by December, 2012
- Complete preliminary databases by December, 2013
- Use U.S. Ramsar sites





# Wetland Gems of America: Implementation in Maryland

- Criteria for Selection: 100 high-quality wetlands representing all community types across MD
  - Community Types include open water, emergent, scrub-shrub, and forested wetlands
- Selection parameters:
  - Coordinate with partners and wetland experts
    - ✓ USACE, EPA and USFWS
    - ✓ MD Dept. of Env. & MD DNR (Wetlands of Special State Concern)
    - ✓ SWS Mid-Atlantic Chapter
    - ✓ Association of State Wetland Mgrs.
    - ✓ Chesapeake Bay Foundation
    - ✓ Universities - environmental science programs: UMD, Johns Hopkins & Towson
    - ✓ Environmental Concern



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# Wetland Gems of America: Implementation in Maryland

- Selection parameters (cont.):
  - Coordinate with County and State resource agencies
  - Youth involvement:
    - ✓ Involve CBF, EC and universities
    - ✓ County Schools
      - Middle/high school science curriculums
      - Develop program for representative County schools to select County gems





# Wetland Gems of America: Fact Sheet

## WETLAND GEMS OF AMERICA Sponsored by SWS



## BEAR BRANCH MAGNOLIA BOG



### ECOLOGY

Bear Branch Bog is a fairly large, mostly undisturbed example of a globally-rare Fall Line Terrace Gravel Magnolia Bog. This approximately four-acre bog is a rare type of seepage wetland, once more widespread in saturated, sandy-gravelly soils of the exposed Potomac Formation along the Fall Line in the Washington, D.C. area. The headwaters of Bear Branch begin as springs just north of the headwaters of Little Paint Branch and Indian Creek. All three streams emanate from the vast sand and gravel aquifers of the Konterra complex, however, Bear Branch flows into the Patuxent River while Little Paint Branch and Indian Creek flow to the Anacostia. The entire site comprises a mosaic of open bogs and surrounding acidic seeps in high-quality woodlands on a gently sloping, gravelly hillside. Gravel terrace springs and streams, and many distinctive bog plants characterize the site.

### FLORA & FAUNA

Dominant flora include sweetbay magnolia, swamp azalea, Canada mayflower, wintergreen, and extensive fern belts.

Flora observed in October, 2009 include:

Canopy: (maximum height 80') *Acer rubrum*, *Liriodendron tulipifera*, *Pinus rigida*, and *Quercus alba*.

Sub-canopy: *Magnolia virginiana* and *Nyssa sylvatica*.

Shrub layer: *Alnus serrulata*, *Aronia arbutifolia*, *Chionanthus virginicus*, *Gaylussacia frondosa*, *Ilex opaca*, *Ilex verticillata*, *Leucothoe racemosa*, *Lyonia ligustrina*, *Rhododendron viscosum*, *Smilax rotundifolia*, *Toxicodendron vernix*, and *Vaccinium* spp.

Herb layer: *Anemone canadensis*, *Aralia nudicaulis*, *Arisaema triphyllum*, *Callamagrostis coarctata*, *Carex folliculata*, *Carex intumescens*, *Carex leptalea* ssp. *harperi*, *Chasmanthium laxum*, *Chelone glabra*, *Cypripedium acaule*, *Dichantheium lucidum*, *Dioscorea villosa*, *Eupatorium pilosum*, *Lobelia puberula*, *Lycopodium obscurum*, *Lycopus virginicus*, *Maianthemum canadense*, *Medeola virginiana*, *Mitchella repens*, *Osmunda cinnamomen*, *Osmunda regalis*, *Pinus rigida* (seedlings), *Rubus hispida*, *Selaginella apoda*, *Smilax pseudochina*, *Solidago rugosa*, *Solidago uliginosa*, *Symplocarpus foetidus*, *Thalictrum pubescens*, *Thelypteris noveboracensis*, *Uvularia sessilifolia*, *Viburnum nudum*, *Viburnum recognitum*, *Viola cucullata*, *Viola primulifolia*, *Woodwardia areolata*, and *Woodwardia virginica*. Dominant fauna include red tail hawk, great blue heron, box turtle, raccoon, and deer.



### THREATS

Conservation efforts have been challenging for the Terrace Gravel Magnolia Bogs because the surrounding woodlands are being increasingly replaced with impervious surfaces, reducing the quality of these rare bogs. Seven known remaining Fall Line Magnolia Bogs and five small variants occur in the upper Anacostia watershed in the Paint Branch, Little Paint Branch, and Indian Creek drainages. Alteration of the steady supply of groundwater seepage to the bogs, either by interrupting the flow by building too nearby or by directing stormwater runoff into the bogs, is second only to habitat destruction as the principal reason for their degradation. Invasive plants including, *Polygonum perfoliatum* and *Microstegium vimineum* are present along the perimeter of the site and becoming more established.

Maryland Department of Natural Resources (DNR) has determined that this wetland warrants Wetland of Special State Concern (WSSC) designation; it will be added to the state's WSSC listing as soon as the Code of Maryland Regulations is revised by Maryland Department of the Environment.

### ACCESS

Directions: take Route 95 to Laurel, exit at Route 198 (Sandy Spring Road) east; take first rite to Van Dusen Road, travel past light at Cherry Lane, turn right on Olive Branch Way and park near the intersection of Olive Branch Way and Van Dusen Road. Hikers will find an unmarked trail along the bottom of the slope north of Bear Branch.

Wetland Gems of America format and inspiration derived from *Wisconsin's Wetland Gems* sponsored by the Wisconsin Wetlands Association









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