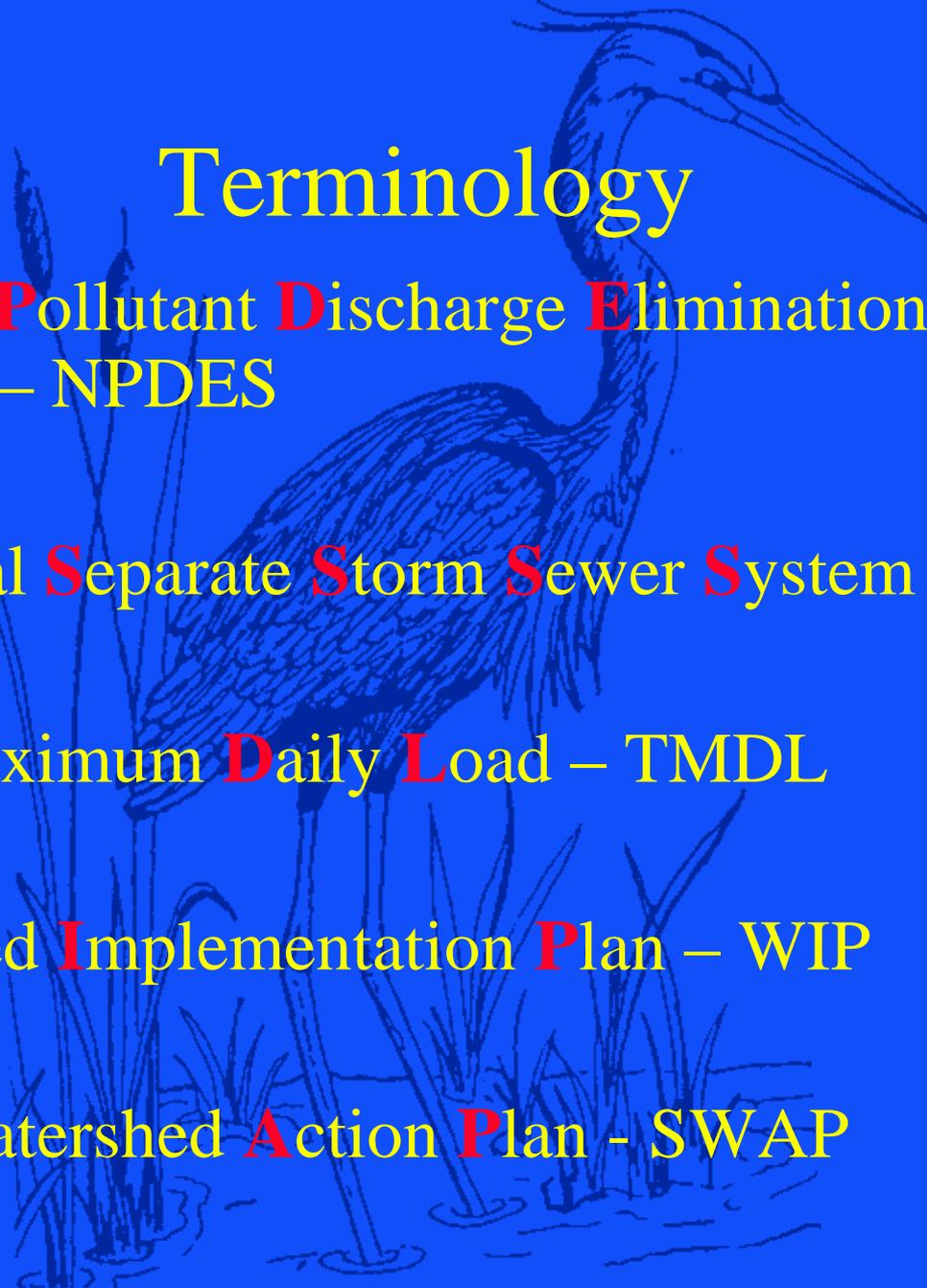


A scenic view of a river flowing through a forest with autumn foliage. The river is the central focus, winding through the landscape. The banks are lined with trees showing vibrant autumn colors in shades of orange, red, and yellow. Large rocks are scattered in the river, creating small rapids and pools. The overall atmosphere is peaceful and natural.

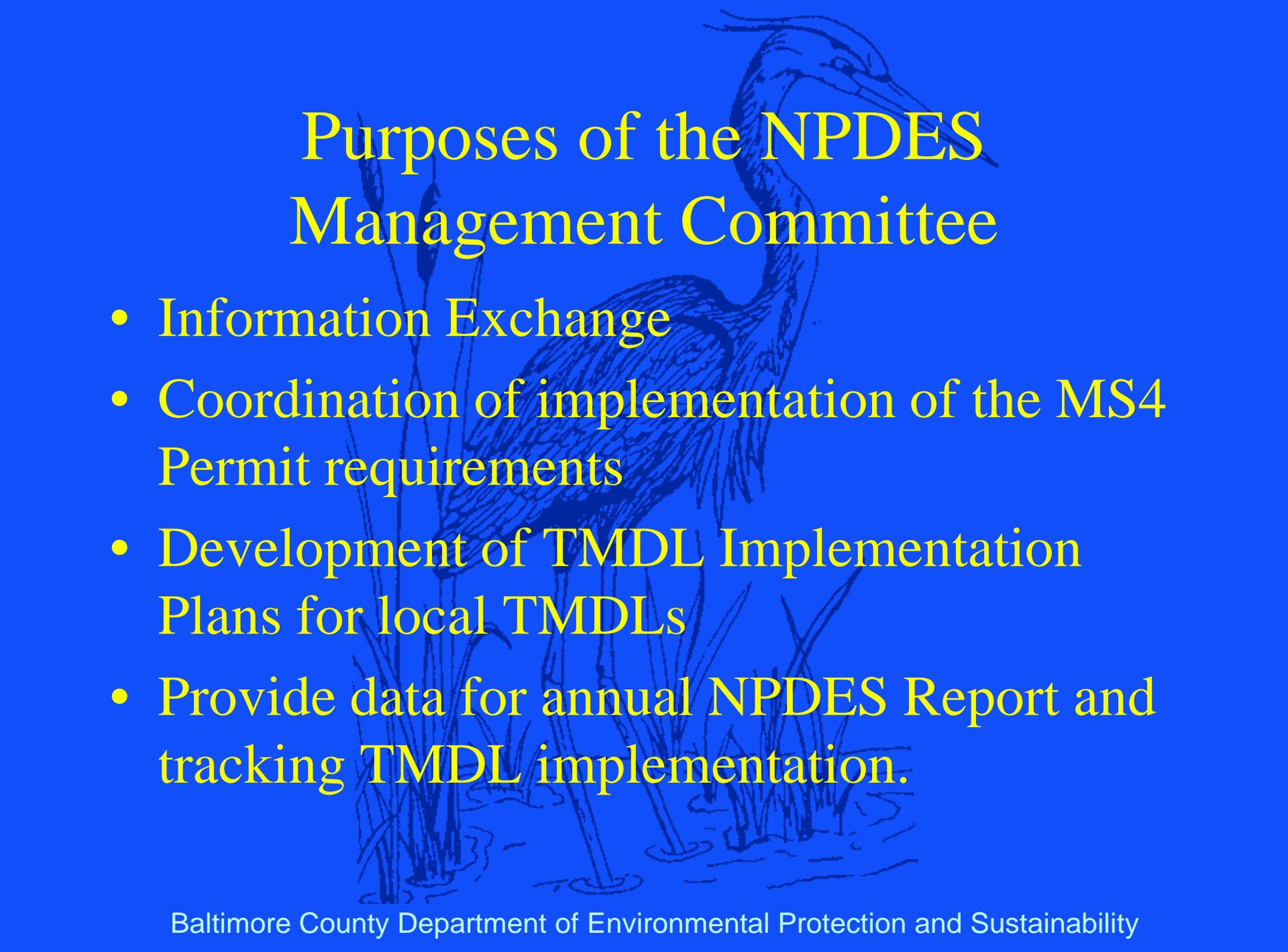
**Draft 2013 NPDES – MS4 Permit
and the Relationship with the Bay TMDL
and Local TMDLs**

**NPDES Management Committee
June 5, 2013**

Terminology



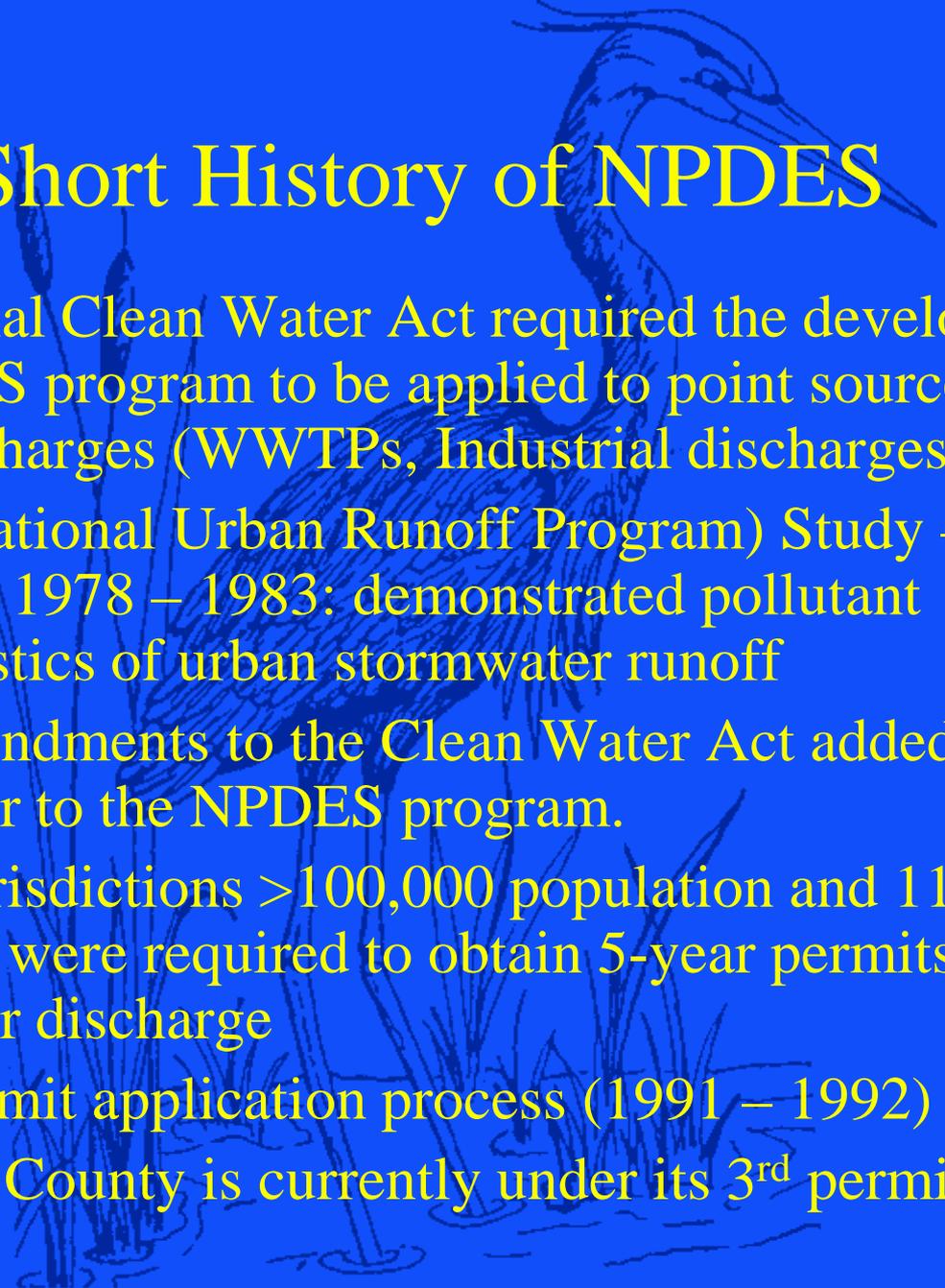
- **National Pollutant Discharge Elimination Program – NPDES**
- **Municipal Separate Storm Sewer System – MS4**
- **Total Maximum Daily Load – TMDL**
- **Watershed Implementation Plan – WIP**
- **Small Watershed Action Plan – SWAP**



Purposes of the NPDES Management Committee

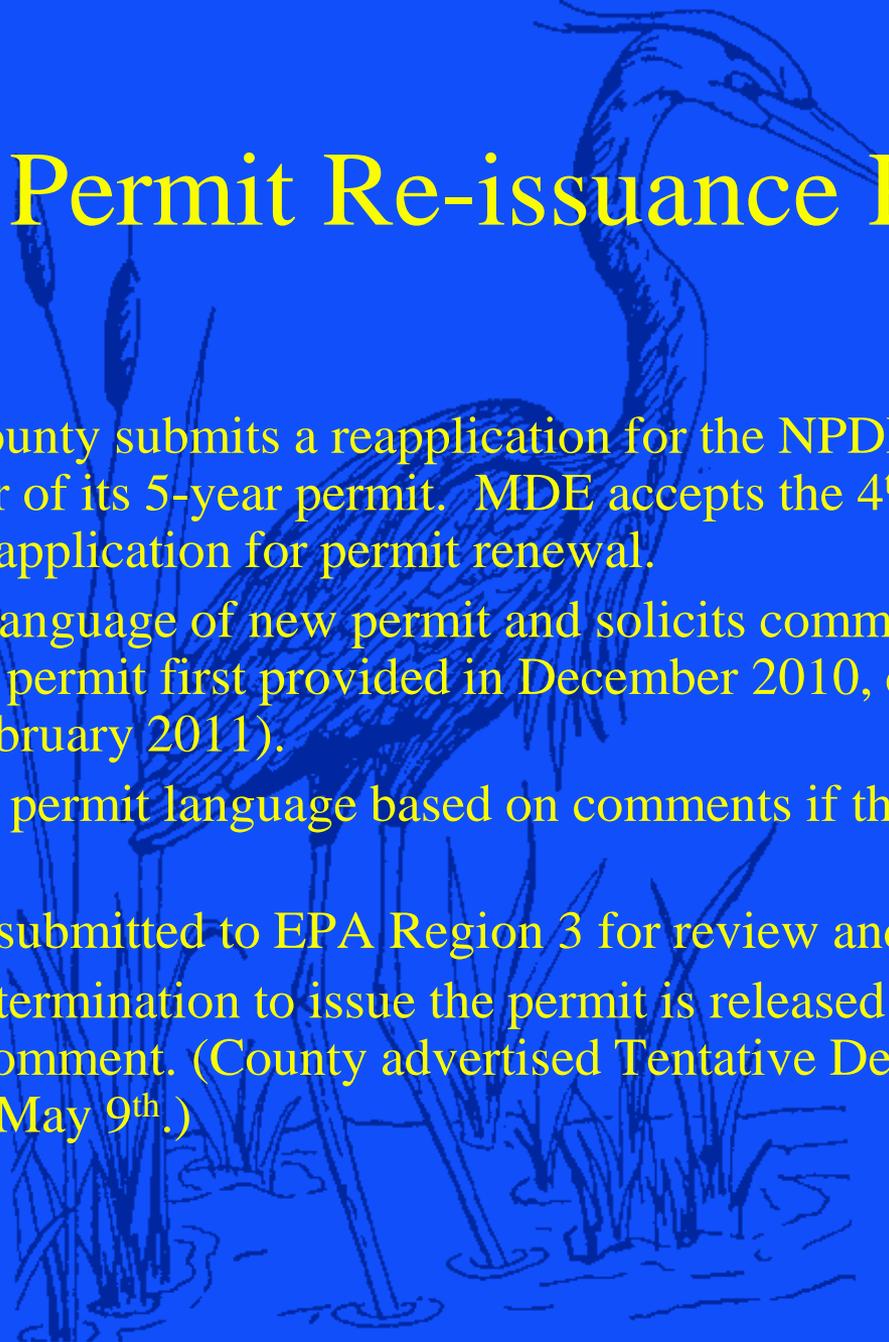
- Information Exchange
- Coordination of implementation of the MS4 Permit requirements
- Development of TMDL Implementation Plans for local TMDLs
- Provide data for annual NPDES Report and tracking TMDL implementation.

Short History of NPDES



- The original Clean Water Act required the development of the NPDES program to be applied to point source surface water discharges (WWTPs, Industrial discharges, etc.)
- NURP (National Urban Runoff Program) Study – conducted 1978 – 1983: demonstrated pollutant characteristics of urban stormwater runoff
- 1987 Amendments to the Clean Water Act added stormwater to the NPDES program.
- Phase I jurisdictions >100,000 population and 11 industrial categories were required to obtain 5-year permits for stormwater discharge
- 2-year permit application process (1991 – 1992)
- Baltimore County is currently under its 3rd permit.

MS4 – Permit Re-issuance Process



- Baltimore County submits a reapplication for the NPDES MS4 permit in the 4th year of its 5-year permit. MDE accepts the 4th year annual report as a reapplication for permit renewal.
- MDE drafts language of new permit and solicits comments from the county (draft permit first provided in December 2010, comments submitted February 2011).
- MDE revises permit language based on comments if they are in agreement.
- Draft permit submitted to EPA Region 3 for review and comment.
- Tentative Determination to issue the permit is released for public review and comment. (County advertised Tentative Determination on May 2nd and May 9th.)

MS4 – Permit Re-issuance Process

Continued

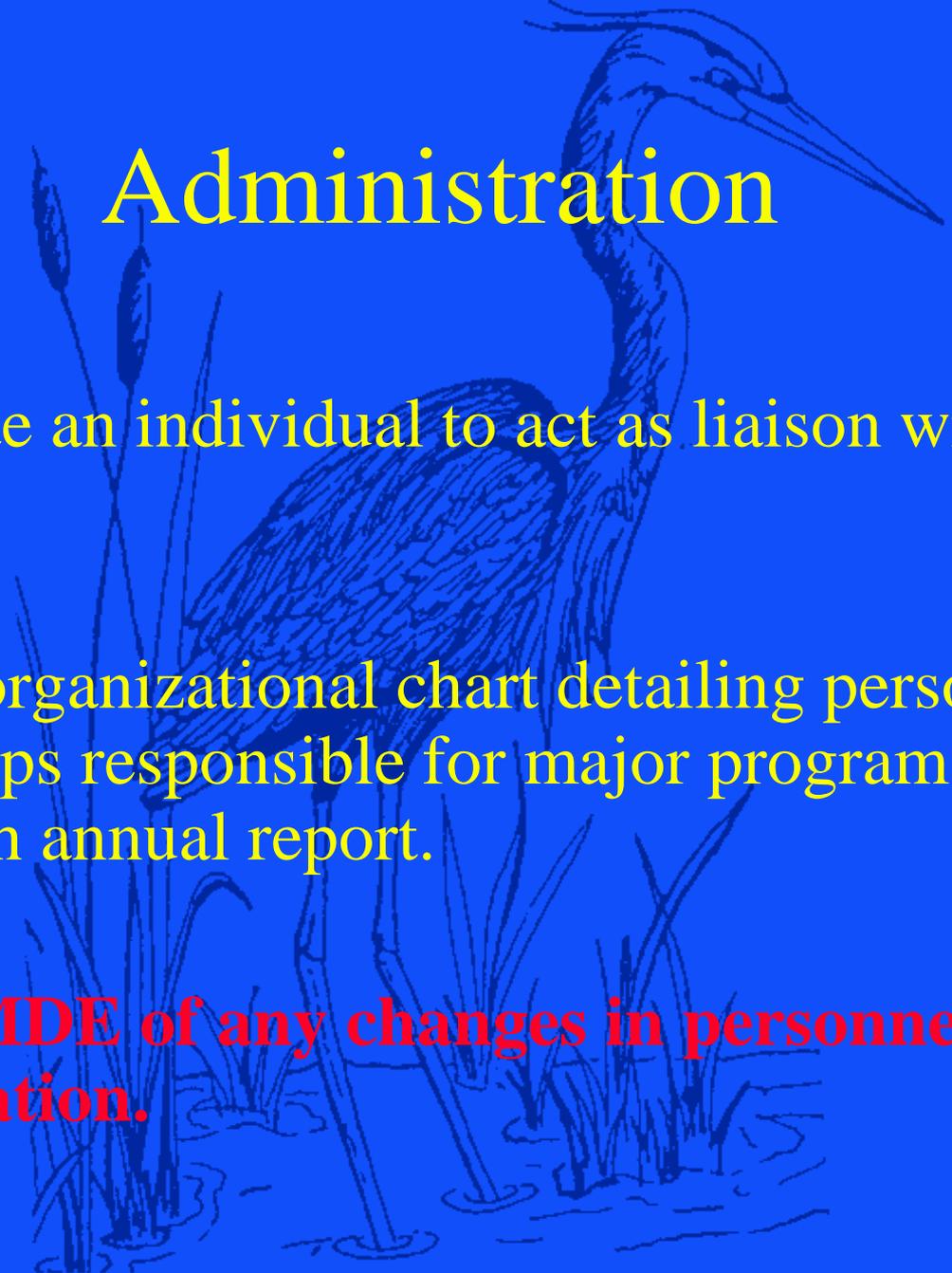


- If public meeting is requested within 20 days after second publication then one is scheduled.
 - **A request was received and a public hearing is scheduled for June 26th at 4:00 PM**
- Comments accepted 30 days after second publication – deadline June 10th.
 - **Comment period extended to July 10th 2013 based on request.**
- MDE considers comments, prepares a comment response document, modifies permit language (if in agreement with comment)
- MDE confers with EPA – Region 3 regarding comments and any permit language changes.
- Issues final determination.
- Issues permit (barring legal challenges)

NPDES Permit Requirements has 8 Components

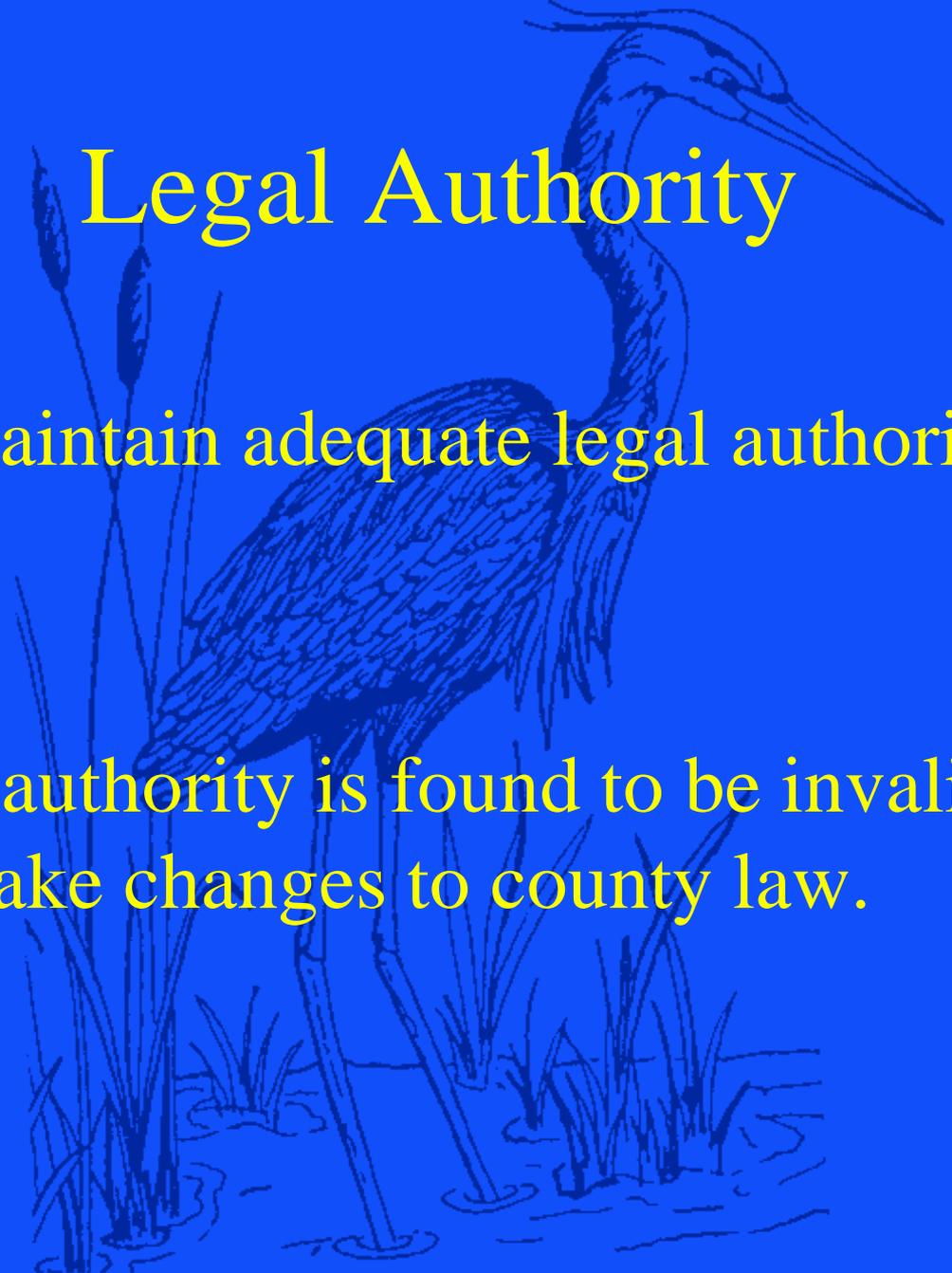
- Permit Administration
- Legal Authority
- Source Identification
- Management Programs
- Restoration Plans and Total Maximum Daily Loads (formerly Watershed Assessment and Planning, and Watershed Restoration)
- Assessment of Controls
- Program Funding
- Annual Reporting

Administration



- Designate an individual to act as liaison with MDE.
- Submit organizational chart detailing personnel and groups responsible for major program tasks with each annual report.
- **Notify MDE of any changes in personnel or organization.**

Legal Authority

A detailed black and white line drawing of a heron, likely a Great Egret, standing in a marshy environment. The heron is positioned in the center-right of the frame, facing right. It has a long, sharp beak and a long neck. The background features several tall reeds with seed heads and some water with ripples. The drawing is done in a sketchy, cross-hatched style.

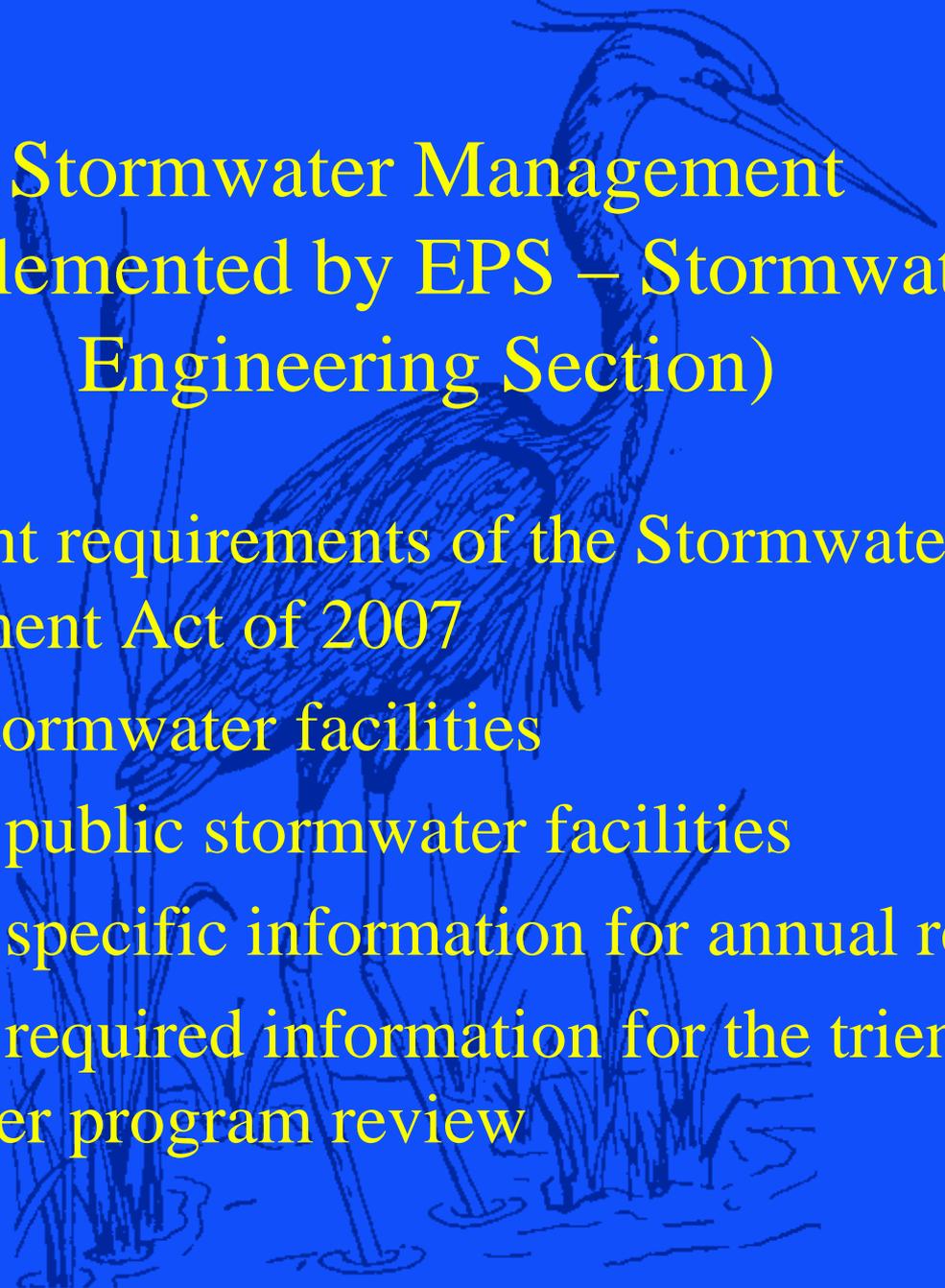
- Must maintain adequate legal authority
- If legal authority is found to be invalid, then must make changes to county law.

NPDES - Source Identification

- Mainly GIS driven with data layers for:
 - Storm drain system
 - Industrial and Commercial Sources
 - Urban best management practices (BMPs)
 - Impervious Surfaces
 - Monitoring locations
 - Watershed restoration

NPDES - Management Programs

1. Stormwater Management Program
2. Erosion and Sediment Control Program
3. Illicit Connection Program
4. Trash and Litter
5. County Property Management and Maintenance
6. Public Education



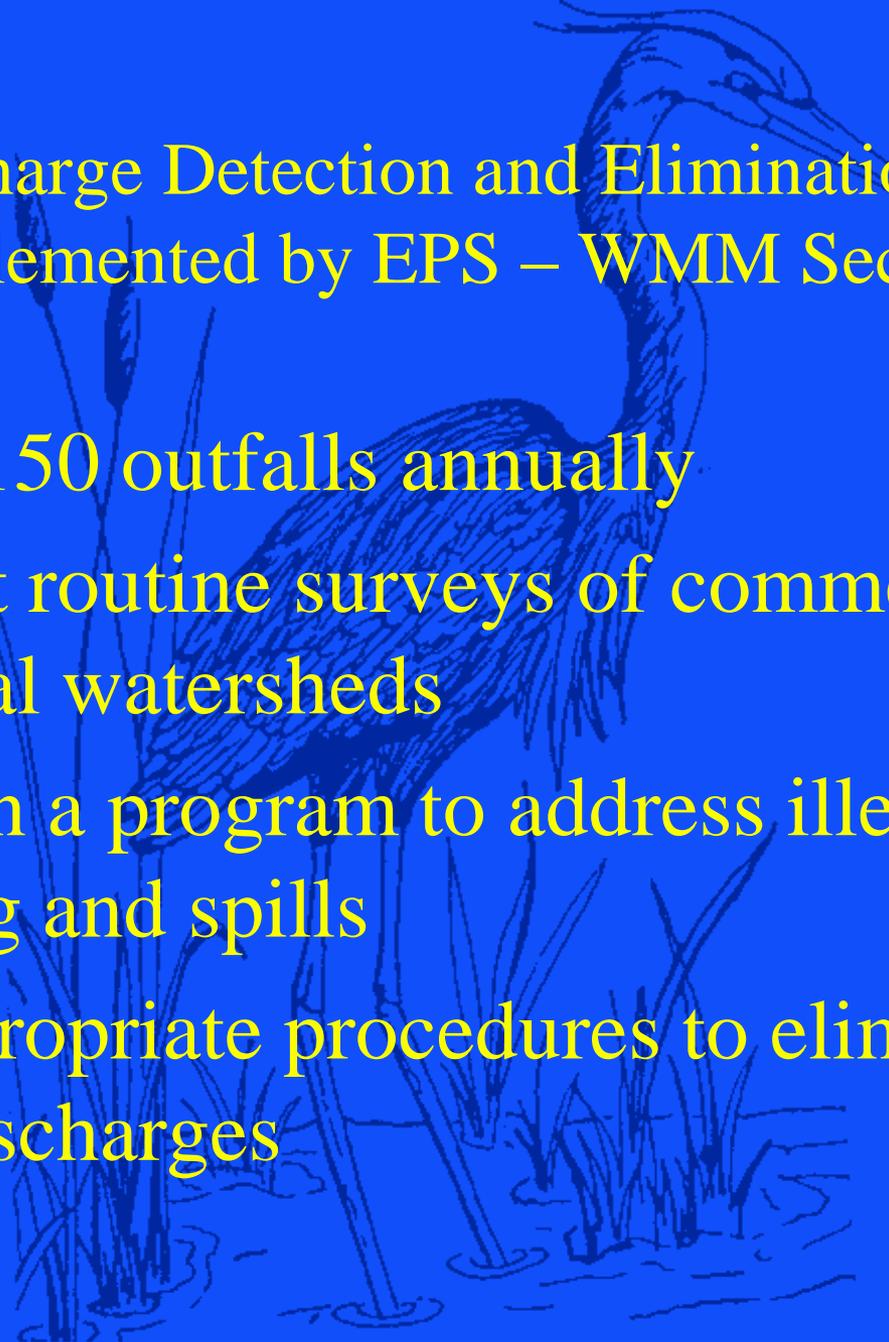
Stormwater Management (Implemented by EPS – Stormwater Engineering Section)

- Implement requirements of the Stormwater Management Act of 2007
- Inspect stormwater facilities
- Maintain public stormwater facilities
- Maintain specific information for annual reporting
- Maintain required information for the triennial stormwater program review

Erosion and Sediment Control (Implemented by PAI – Building Inspections/Sediment Control Section)

- Maintain an acceptable erosion and sediment control program
- Provide “responsible personnel” certification training – 3 times per year
- Report quarterly grading permits with land disturbance areas in excess of 1 acre (done by EPS – WMM Section)





Illicit Discharge Detection and Elimination Program (Implemented by EPS – WMM Section)

- Screen 150 outfalls annually
- Conduct routine surveys of commercial and industrial watersheds
- Maintain a program to address illegal dumping and spills
- Use appropriate procedures to eliminate illicit discharges



Trash and Litter

(New Permit Condition)

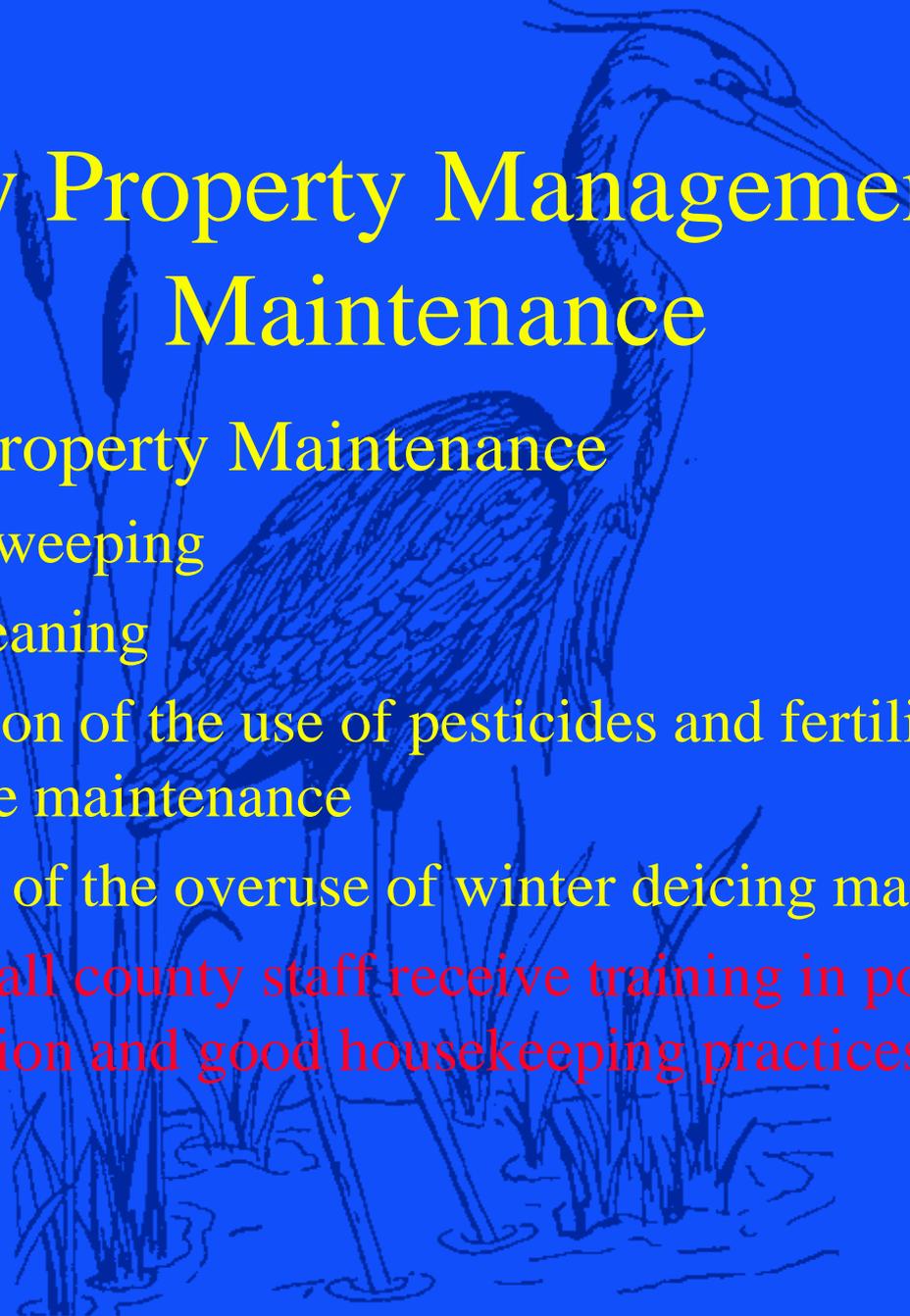
- Develop public education
- Establish baseline conditions
- Develop a work plan that details control measures with a implementation time-line
- Implement control measures
- Evaluate and modify if necessary control measures
- Public process for development of the control strategy
- Report annually progress in reduction strategies
- Expand to other major watersheds in the county.
- Develop a Trash TMDL Implementation Plan within one year of EPA approval of Trash TMDL.



County Property Management and Maintenance (implemented by various agencies)

- Combines two management programs from previous permit; County Property Management and Road Maintenance
- County Property Management (applies to facilities subject to the General Industrial Stormwater Discharge Permit)
 - Identify all County-owned facilities requiring NPDES stormwater general permit coverage.
 - Submit Notices of Intent (NOI) to MDE
 - Status of pollution prevention plan development and implementation, and restoration progress shall be submitted annually.

County Property Management and Maintenance



- County Property Maintenance
 - Street sweeping
 - Inlet cleaning
 - Reduction of the use of pesticides and fertilizers for roadside maintenance
 - Control of the overuse of winter deicing materials.
 - Ensure all county staff receive training in pollution prevention and good housekeeping practices

Education Programs

(implemented by various agencies)

- Establish and publicize compliance hotline for public reporting of suspected illicit discharges, illegal dumping and spills.
- Provide public education on a wide variety of water quality issues.
- Provide education to the regulated community on water quality issues when requested.



Restoration Plans and Total Maximum Daily Loads

(planning and progress tracked by WMM)

- Replaces former Watershed Assessment and Planning; and the Watershed Restoration Sections of the current permit.
- **Must show progress towards meeting TMDL – load reduction requirements.**
- Watershed assessment section:
 - Complete assessments for the entire county by end of the permit term.
 - List of minimum requirements for watershed assessments.

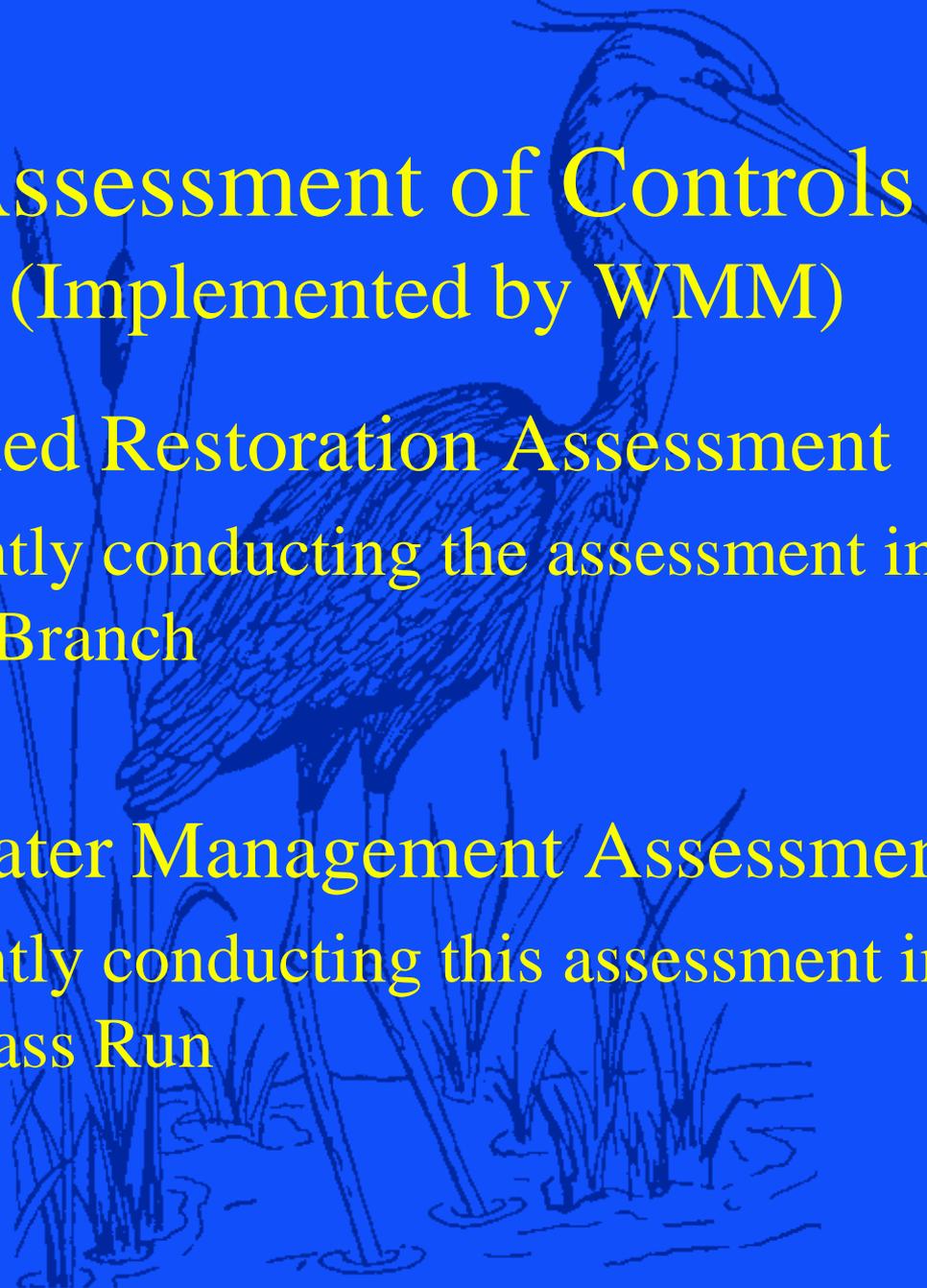
Total Maximum Daily Loads

(WMM Lead with Assistance from Various Agencies)

- **Watershed Implementation Plans**
 - Within one year of permit issuance submit an implementation plan to MDE for approval for each TMDL.
 - Include a public participation mechanism and address material comments.
 - Plans are enforceable under the permit
- Implement restoration efforts on 20% of impervious surface area not already restored. (~6,000 acres)

Total Maximum Daily Loads (continued)

- TMDL Compliance
 - Estimate pollutant load reductions due to restoration
 - Compare to benchmarks and load reduction requirements
 - Itemize costs
 - Provide cost estimates to meet TMDL reductions
 - Plan for additional restoration actions when load reductions or project funding is inadequate.



Assessment of Controls (Implemented by WMM)

- **Watershed Restoration Assessment**
 - Currently conducting the assessment in Scotts Level Branch
- **Stormwater Management Assessment**
 - Currently conducting this assessment in Windlass Run

Assessment of Controls

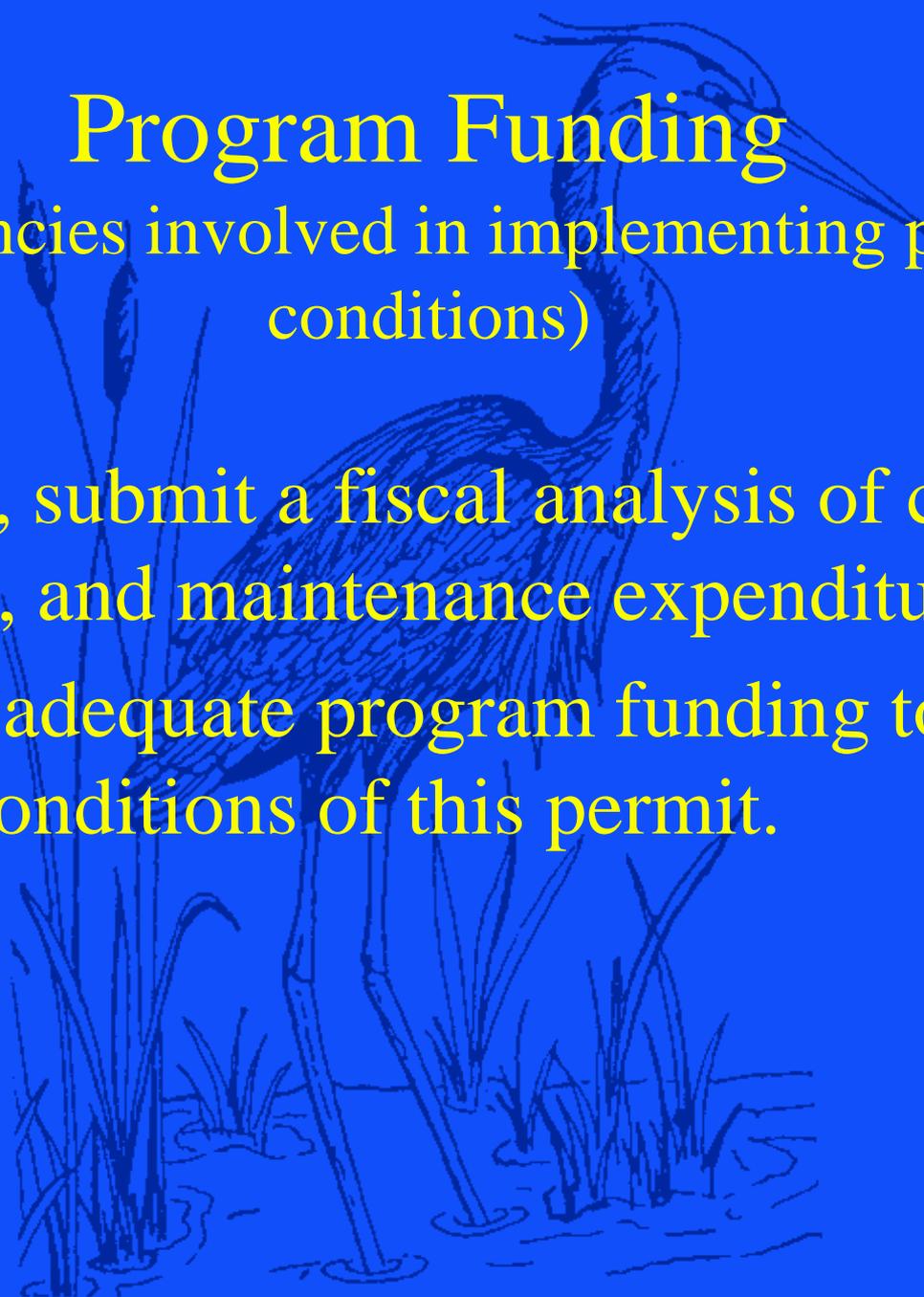
- Focus remains the same - assessing the effectiveness of stormwater management programs and watershed restoration projects. Adds language regarding progress towards meeting TMDL load reductions.

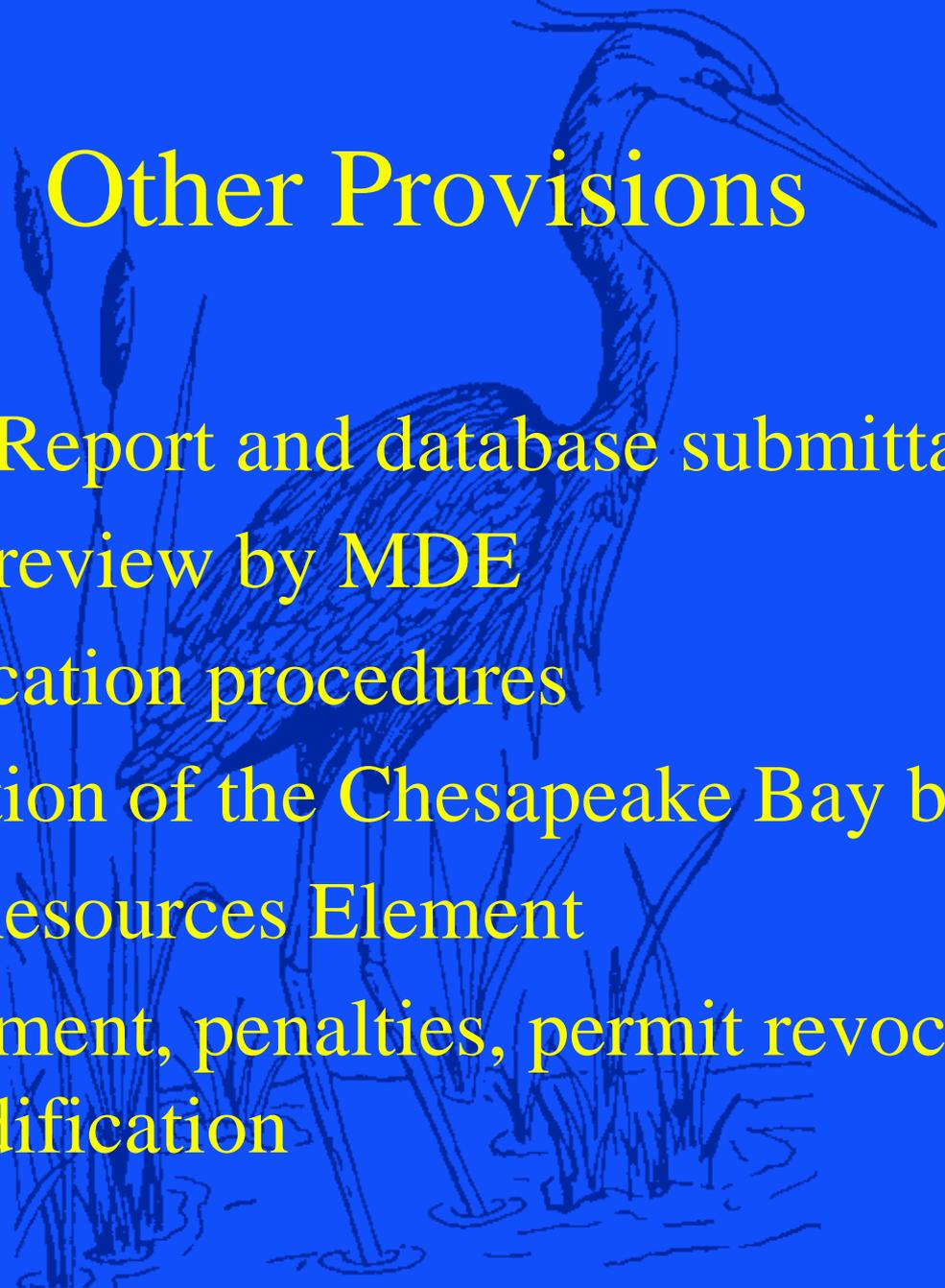


Program Funding

(all agencies involved in implementing permit conditions)

- Annually, submit a fiscal analysis of capital, operation, and maintenance expenditures
- Maintain adequate program funding to comply with all conditions of this permit.





Other Provisions

- Annual Report and database submittal
- Annual review by MDE
- Reapplication procedures
- Restoration of the Chesapeake Bay by 2020
- Water Resources Element
- Enforcement, penalties, permit revocation and modification



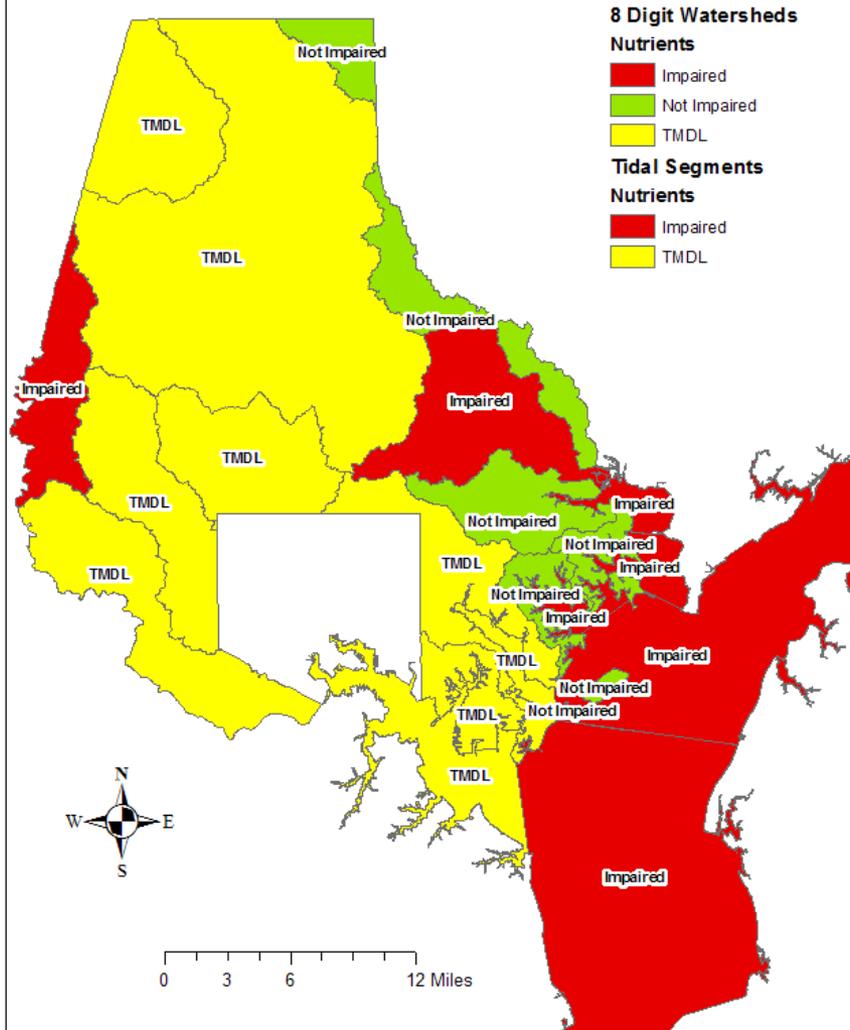
Local TMDLs

Local TMDLs



- Developed by MDE to address water quality impairments in local watersheds (streams), reservoirs, or tidal waters.
- Subject to review and approval by EPA
- 23 EPA approved TMDLs in Baltimore County waters to date.
- Will need to prepare a TMDL Implementation Plan for each within one year of permit issuance.

Baltimore County - Nutrient Impairments



Local Nutrient TMDLs (4 EPA approved)

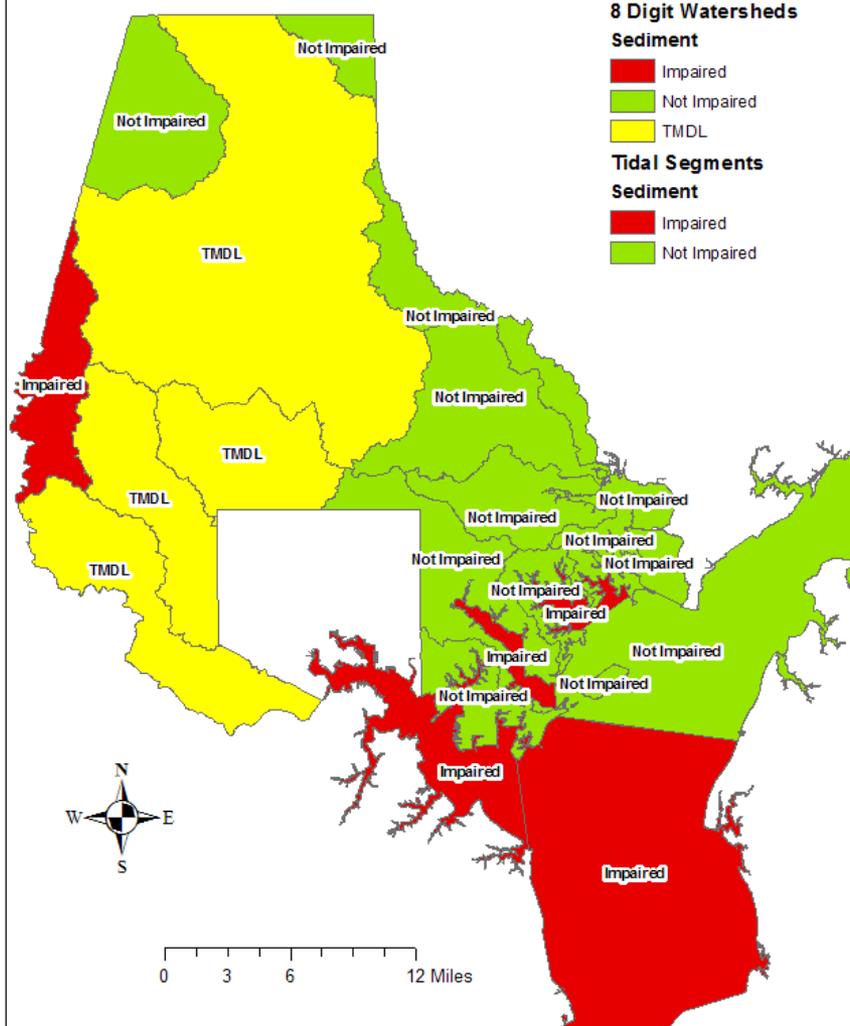
Prettyboy Reservoir – 54%
Phosphorus Reduction (15%
Urban Reduction)

Loch Raven Reservoir – 50%
Phosphorus Reduction (15% Urban
Reduction)

Liberty Reservoir TMDL – 46%

Gwynns Falls, Jones Falls
Back River, Patapsco River,
Baltimore Harbor – 15%
Nitrogen and Phosphorus
Reduction (may be superceeded by
Bay TMDL)

Baltimore County - Sediment Impairments



Local Sediment TMDLs (4 EPA approved)

Loch Raven Reservoir – 25%

Liberty Reservoir – 23%

Patapsco – 0 – 15.1%

Gwynns Falls – 23.5 – 44.6%

Jones Falls – 21.9%

Bacteria TMDLs

(7 EPA approved)

Patapsco River 12.9 – 56.1%

Liberty Reservoir 64.9%

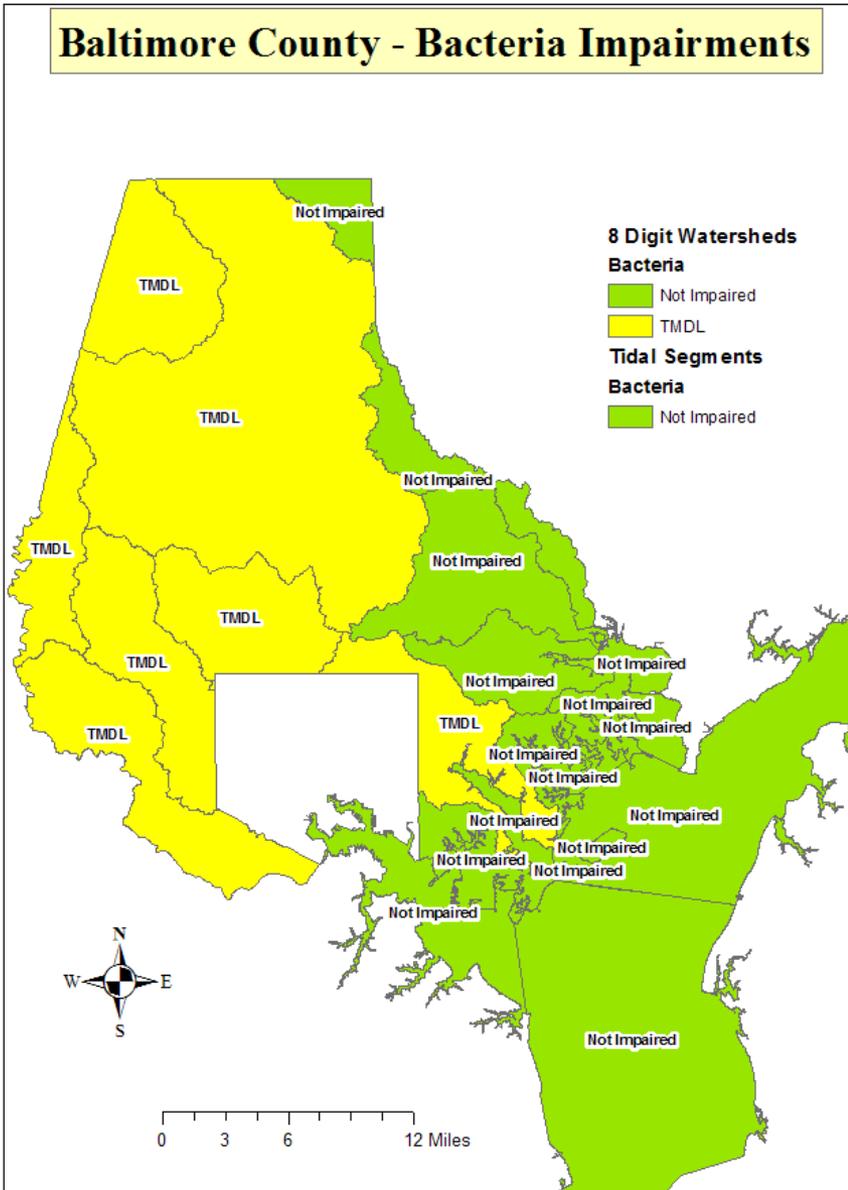
Gwynns Falls 67.2 – 99.9%

Jones Falls 92.1 – 95.3%

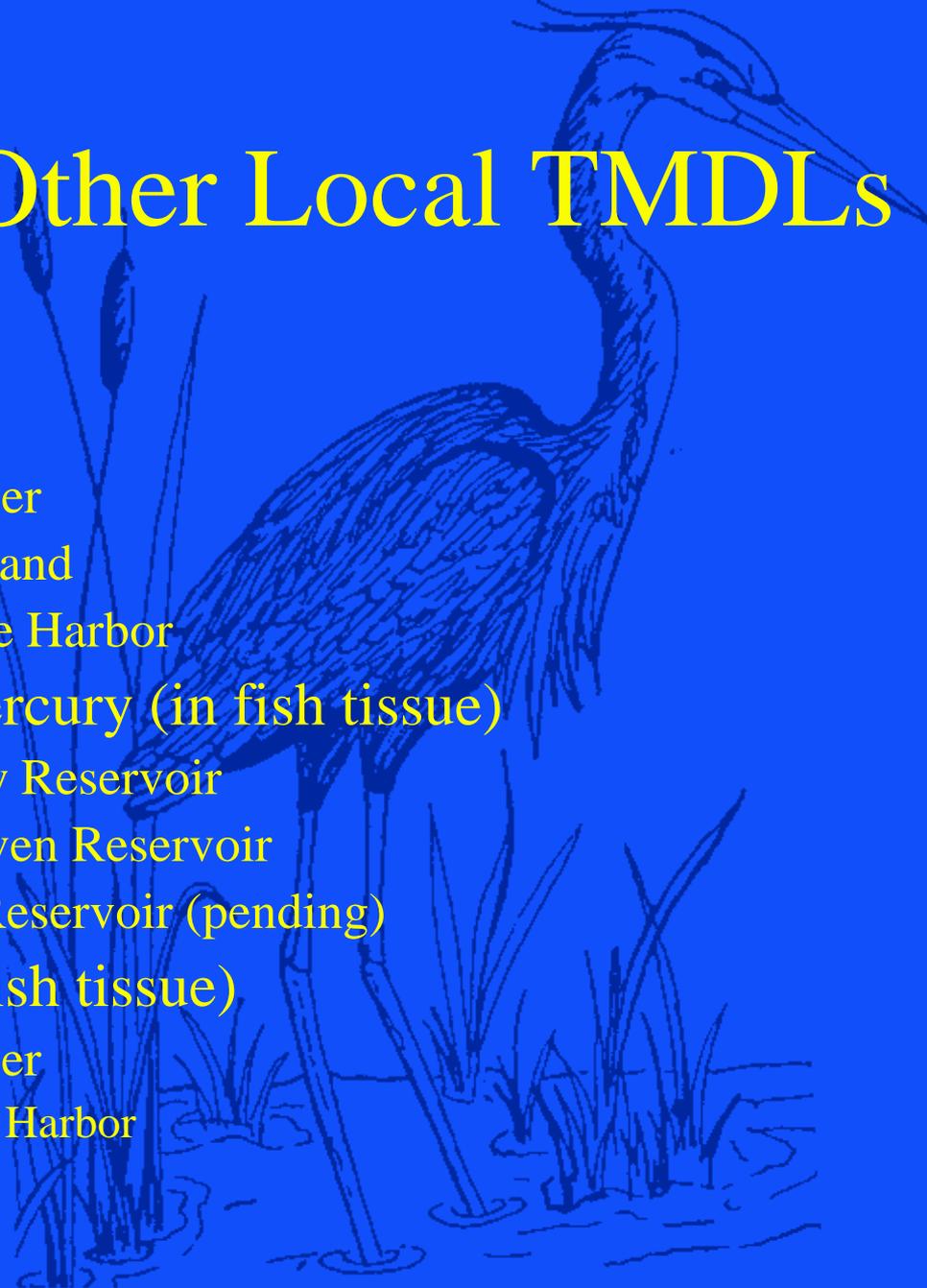
Back River 91.3 – 95.5%

Prettyboy Reservoir 9.5 – 85.3%

Loch Raven Reservoir 0 – 89.8%



Other Local TMDLs



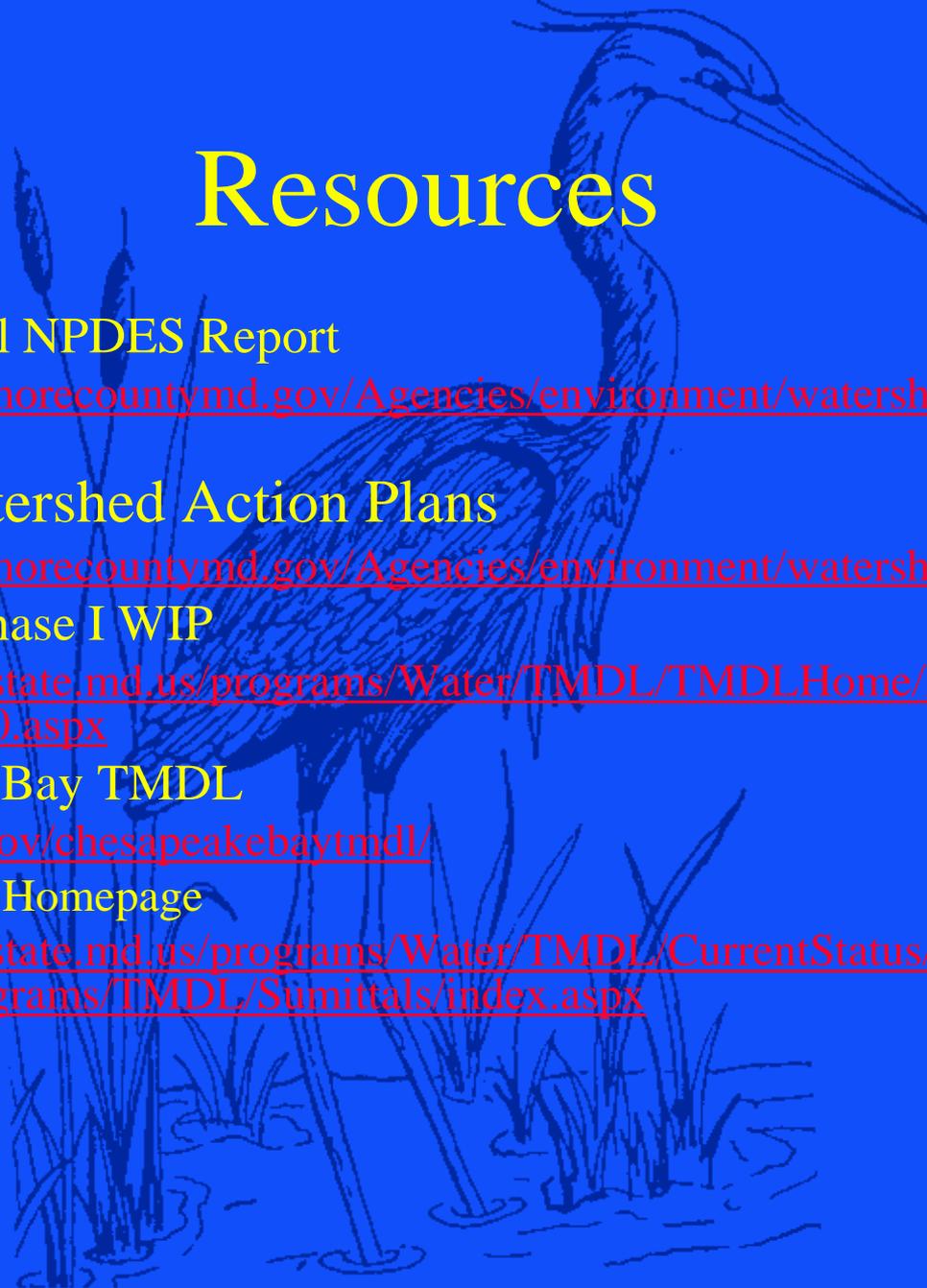
- Chlordane
 - Back River
 - Lake Roland
 - Baltimore Harbor
- Methyl Mercury (in fish tissue)
 - Prettyboy Reservoir
 - Loch Raven Reservoir
 - Liberty Reservoir (pending)
- PCBs (in fish tissue)
 - Back River
 - Baltimore Harbor

On the Horizon



- Accounting for Growth – development of a program at the state level of an offset program to keep nutrient and sediment loads below the Chesapeake Bay TMDL cap.
- NPDES Geodatabase – currently under development, intended to make MS4 data submittal uniform.
- EPA Stormwater Rule – target date for release June 10th.

Resources



- 2012 Annual NPDES Report

<http://www.baltimorecountymd.gov/Agencies/environment/watersheds/epnpdesmain.html>

- Small Watershed Action Plans

<http://www.baltimorecountymd.gov/Agencies/environment/watersheds/swap.html>

- Maryland Phase I WIP

http://www.mde.state.md.us/programs/Water/TMDL/TMDLHome/Pages/Final_Bay_WIP_2010.aspx

- Chesapeake Bay TMDL

<http://www.epa.gov/chesapeakebaytmdl/>

- Local TMDL Homepage

<http://www.mde.state.md.us/programs/Water/TMDL/CurrentStatus/Pages/Programs/WaterPrograms/TMDL/Sumittals/index.aspx>

Comments

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