# Setting up Your Watershed Restoration Program:
# An Overview
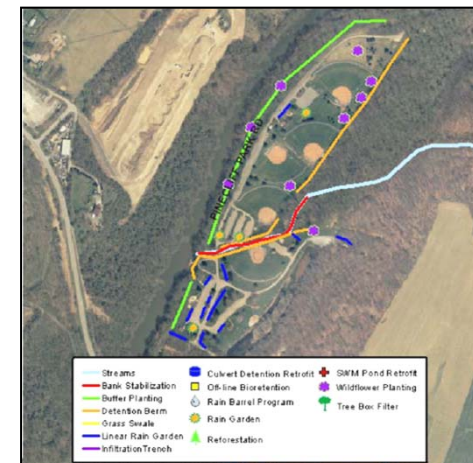
## CWEA Conference May 18, 2017

*Lessons Learned in Restoration and Program Implementation:*
*From MS4 Program Startup to BMPs in the Ground*

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# How to Ideally Create Your Program

- Clean up your SWM data and set up a process to get good data in the future
- Map your storm sewer system
- Calculate your "baseline" and restoration obligations
- Develop a 5-year restoration and funding program
- Conduct engineering assessments
- Begin project design pipeline
- Apply for permit coverage
- Begin construction

# The Reality for Many Communities

- You've been assigned the MS4 permit compliance! Read the draft permit.
- Realize that this new permit is a MAJOR COMMITMENT.
- Convince your leadership to take this seriously by showing them the part about fines and consent decrees.
- Go to Phase I MS4 that has done this and ask for help.
- Piggyback on their consultant contract to do mapping and/or a watershed assessment.
- Pray for grant money to fall from the sky for projects.

# Recordkeeping Tips

**Clean up your historical stormwater files and set up a process for good records in the future**

- Figure out what data you and others have electronically and where old plan sets are kept.
  - Find out if you have an agreement with your County to collect/maintain SWM data. Get copies.
  - Do you have as-builts for old SWM?  You need them.
  - Look at Accounting for Stormwater doc for BMP types
- Use MDE geodatabase as basis for tracking data.
  - Use urban BMP, stream restoration, tree planting, annual practices tables for inventory
  - Use an as-built checklist for new plan submissions

# Calculate your Restoration Baseline

Restoration obligation = 20% of "baseline" acres that are not treated.

- You need to define the MS4 boundary.
    - MDE's definition of service area differs from what's in the Clean Water Act.
- Calculate the area of impervious surface in the MS4
    - See if the County or state has data you can use.
- Subtract SWM area treated
    - Credit depends on design era.  Pre-2002 = no credit -
    - Or calculate treatment for older facilities to see if you can get partial credit.  Need data from plan set.
- Remaining number is your baseline. Multiply by 20%.

# Building Your Restoration Portfolio

- **Do some research in-house to see what projects you may have in your portfolio already**
  - **Septic denitrification**
  - **Septic pumpouts**
  - **Tree planting**
  - **Street sweeping**
  - **Redevelopment**
  - **Projects not done for mitigation**
  - **Not for developer requirements**
- **Projects can predate the permit**
- **Talk to nonprofits, county, MDE and DNR to see if there are other projects**

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# Building Your Restoration Portfolio

- **Choose most cost-effective practices for your region:**
  - Frederick County: Pond retrofits for water quality, tree planting, septic pumpouts with coupon, grass swale retrofits (our soils are clay and we have fractured bedrock and karst ☹)
  - Other places: regenerative stormwater conveyances, street sweeping, stream restoration
- **Consider pollutant removal for TMDLs.**
  - Tree planting, stream restoration have great efficiencies and are GI practices
  - Look at agricultural streams with impervious urban above them- cheaper land for these practices and ok with MDE.
- **Partner with nonprofits to leverage funds**
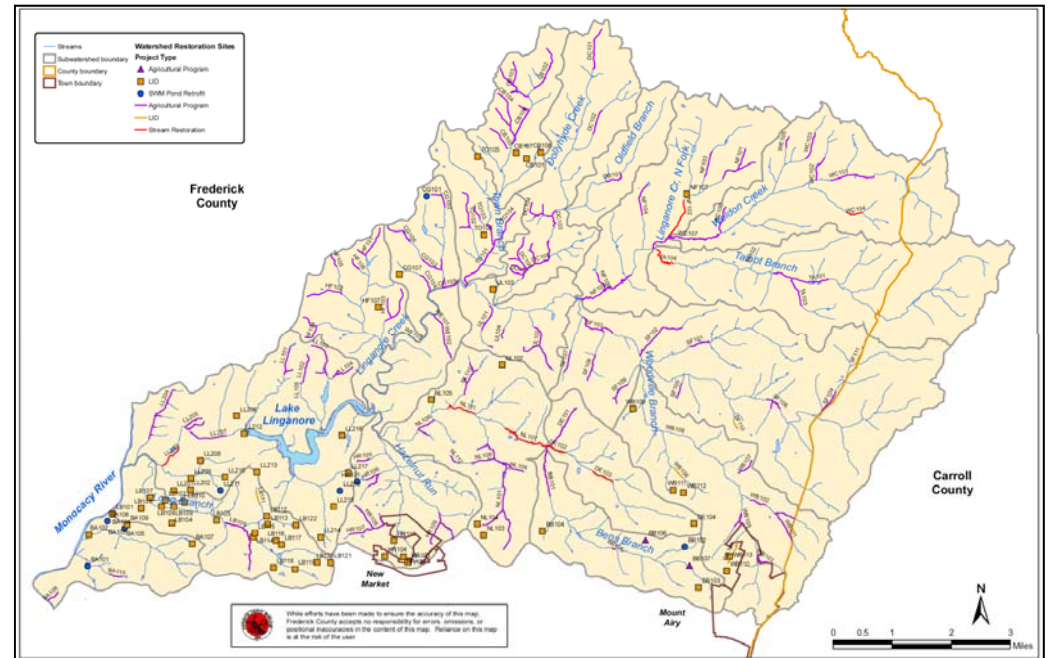
# Funding Your Restoration Portfolio

- **Set aside funds for projects NOW based on cost/ac.**
  - **King and Hagan assessment generally accurate**
  - **Local county estimates- most counties average around $75K/acre not counting annual practices**
  - **Include O&M**
- **Get to know funders and their requirements**
  - **Contact the Environmental Finance Center at UMD**
  - **Look for technical assistance grants for watershed assessments, design funds and/or consultants**
    - **NFWF**
    - **CBT**
  - **319(h) and Chesapeake and Atlantic Coastal Bays Trust Fund like shovel-ready projects**

# In Conclusion

- **Get started NOW.**
- **Add retrofits to your FY' 18 budget.**
- **Calculate your baseline and retrofit requirements.**
- **Start your projects ASAP.**
- **Ask for help.**

# Thank You!

**Shannon Moore**
**301.600.1413**
**Frederick County Government**
**Office of Sustainability and Environmental Resources**
**smoore@frederickcountymd.gov**