BUILDING RELATIONSHIPS:

The Key to an Effective MS4 Construction Program

Muncie Sanitary District

- The MSD serves as the delegated entity to implement the NPDES Phase 2 MS4 Program for the City of Muncie, Town of Yorktown, Delaware County and Ivy Tech Community College of Muncie

Town of Zionsville

- Good ol' fashioned independently-permitted MS4 community.

Much of the program success for both has been built through partnerships with fellow MS4s and watershed groups.

Interlocal Agreement Challenges

- Delaware County and the Town of Yorktown have ordinance capabilities, for more teeth in enforcement
- Muncie Sanitary District must create resolutions, but has better financial resources
- Ivy Tech is mostly administrative with less to contribute to the enforcement part of the program

Structure Decisions

- Delaware County has the most comprehensive authority (County Commissioners & Surveyor)
- Muncie Sanitary District has better resources for administration
- Town of Yorktown contributes financially, but leaves the enforcement and administration up to the larger entities
- Ivy Tech contributes financially, and in a supportive role for outreach and meeting space

Strong MS4 Programs are achieved by building strong relationships with key stakeholders

- Other MS4s
- Non-Profit Organizations
- Developers
- Contractors
- Utility companies
- Local elected officials
- State regulators

Other MS4s

- Networking
- Round table discussions
- Reach out to other inspectors & plan reviewers
- Find out how others address the same issues
- Visit websites of other MS4s
- Seek inspiration and guidance

Non-Profit Organizations

- INAFSM – Inspectors Group
- WRA & other watershed groups
- National organizations: IECA, NMSA, Forester University
- Training and certifications: EnviroCert, CISEC, SWAC, WRA Trained Individual
- Online publications: Erosion Control & Stormwater Magazines

If You Build it…

Developers & Contractors

- Educational outreach is a must
- Be prepared to explain what you expect and why
- Fair but Firm: Show that you hold everyone to the same standards
- Recognition for good work goes a long way
- Always, always, follow through and follow up

Utility Companies

- Make contact with company representatives
  - Contacts included on plans
  - Plan Commissions usually have these contacts
- Are emergency repairs exempt?
- Just like with developers, let them know what you expect up front

Local Elected Officials

- Attend public meetings
  - County Commissioners
  - Sanitary Board
  - Town or City Council
  - Drainage Board
- Submit reports to show your progress
  - This can be the best way to let them know exactly what you are doing
- Ask for their opinion or input on projects
- Notify them of major violations you have issued
  - They may receive calls. It makes them look good if they are prepared and aware of why a violation was issued.

State Regulators

- Know the state requirements, become familiar with them.
- Educate yourself on what offices you may need to work with, IDEM, IDNR, INDOT, USACE.
- Make yourself familiar with the Indiana Stormwater Quality Manual.
- Know who your Stormwater Specialist is.
- Don’t be afraid to reach out to them if you need guidance on a particular issue.

A-Z of establishing a strong construction run-off program

- Key components for an effective MS4 program
- Common barriers to program implementation
- Possible solutions to barriers with program examples
- How to build relationships with stakeholders

Key Components

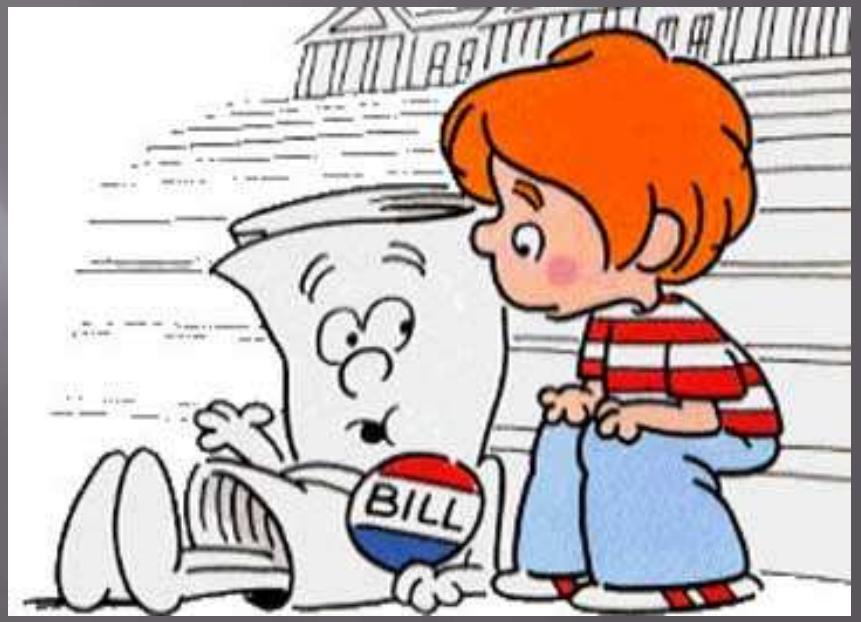
- Program overview requirements & enhancements
- Efficiently managing your program
- Ordinance & technical standards
- SWPPP review and inspections
- Compliance & enforcement tools
- Recognized guidance documents
- Staff and Construction professionals training
- Targeted outreach
- Regulatory audits
- Post Construction
- Updating ordinances
- Enhancing your SWPPP reviews & inspections

Barriers and Suggestions

- No support from Administration and Political Leaders
  - Educate them on the requirements, consequences of non-compliance, and how other communities achieve these goals
- Lack of Funding
  - Research. Compare. Learn how other communities are funding their programs. What are their rates?
- Resistance from the Development Community
  - It's the law, it's federally mandated, and it's not going away.
  - Continue to educate the construction community
  - Make compliance the easiest road to travel
  - Consistency can help break down barriers

Rules and Regulations

- Clean Water Act
- Rule 5
- Rule 13
  - Stormwater Quality Management Plan
  - (MCM 4 & 5)
- Your Ordinance!



"The best advice I ever got was that knowledge is power and to keep reading."
-David Bailey

Where do I start?

- Efficiently managing your program
  - A well managed program will provide the legitimacy and consistency to help build support from MS4 leadership and contractor accountability.
- Ordinance & Technical Standards
  - Must have a strong ordinance with **"teeth"**. Rules without penalties are just words...

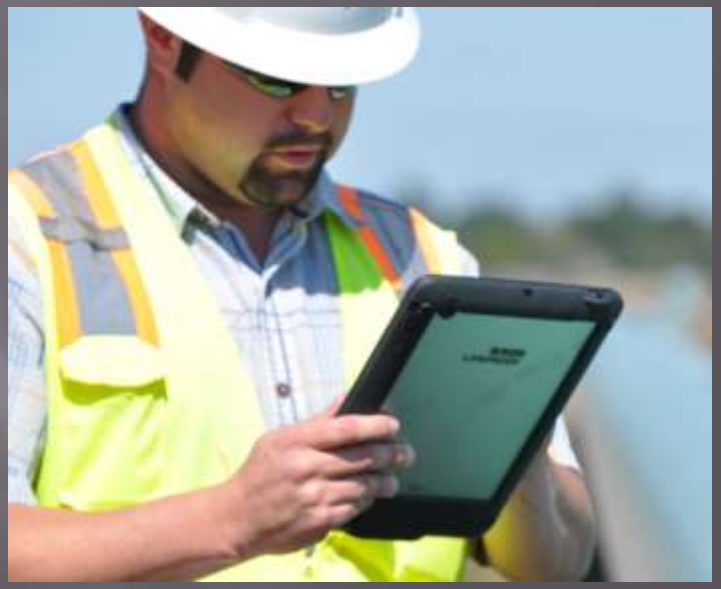
(Continued)

Where do I start? (Continued)

- SWPPP Review
  - Starting with a strong SWPPP is critical!
    - BMPs will be included in construction contracts.
    - Don't forget the narrative!
- Preconstruction
  - A compliant site begins at pre-construction
    - "Troubleshoot" your SWPPP with contractor.
    - Put faces to names
    - Discuss roles and responsibilities.
    - Clearly define expectations.

Where do I start? (Continued)

- Inspections and Self-Monitoring
  - Emphasize and require self-monitoring, it's the law!
  - "Trained Individual"
- Technology
  - Mobile inspection hardware & software
  - Pictures worth 1,000 words
  - GIS for both SWPPP review and inspection



Where do I start? (Continued)

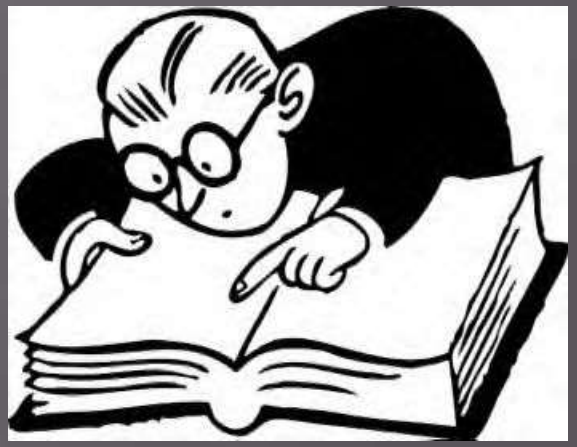
- Compliance & Enforcement Tools
  - Start with a strong ordinance and clearly defined procedures
    - Fines (citations vs. administrative)
    - Stop Work Orders
    - Withholding Certificates of Occupancy
    - Withholding code inspections
    - Utilizing other departments
    - Education in-lieu

Where do I start? (Continued)

- Construction & Development Resources: recognized guidance documents, professional development
  - Indiana Stormwater Quality Manual, CWP, EPA
  - Other State's Manuals
  - Free online resources and webinars
  - Formal fee-based training (EnviroCert, CISEC, WRA Trained Individual)
- Targeted Outreach
  - Builders, Excavators, Concrete Companies

Where do I start? (Continued)

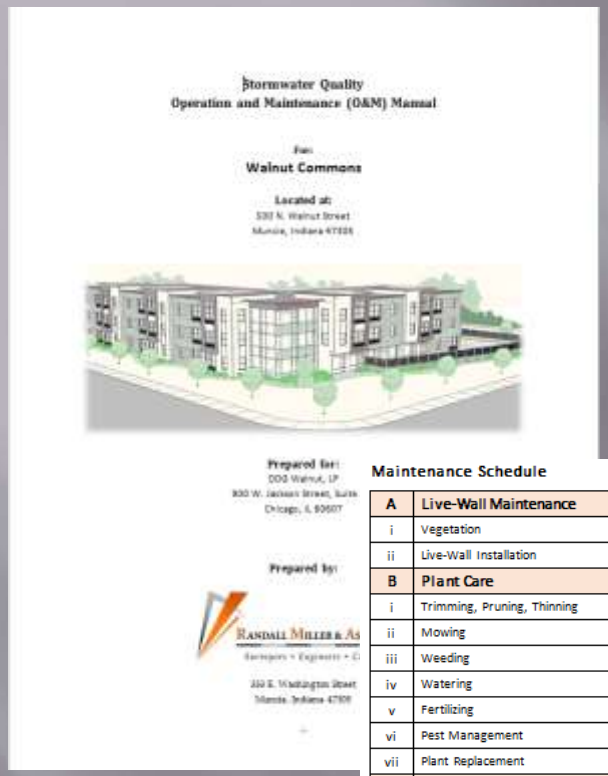
- Updating Ordinances
  - Stay current with Industry Standards
  - Eliminate potential loopholes
  - Review periodically and address weaknesses
- Enhancing Your SWPPP Reviews & Inspections
  - Yearly training/continuing education
  - Learning from experience with SWPPP implementation on the ground
  - Develop checklists
  - Consistency is KING!



Where do I start? (Continued)

- Regulatory Audits
  - Strive for improvement
  - Documentation from review and permitting, to inspections and project close out.
- Post Construction
  - BMP Operation & Maintenance manuals
  - Owner acknowledgement agreements
  - Maintenance requirements
  - Routine inspections
  - Long term plan

Post Construction


Stormwater Quality
Operation and Maintenance (O&M) Manual

For:
Walnut Commons

Located at:
330 N. Walnut Street
Muncie, Indiana 47305

Prepared for:
DDG Walnut, LP
900 W. Jackson Street, Suite
Chicago, IL 60607

Prepared by:

Randall Miller & As
Surveyors • Engineers • C
350 E. Washington Street
Muncie, Indiana 47305

Stormwater Quality Maintenance Form

Stormwater Quality Inspection Form

Maintenance Schedule

A	Live-Wall Maintenance	Spring			Summer			Fall			Winter		
i	Vegetation												
ii	Live-Wall Installation												
B	Plant Care	Spring			Summer			Fall			Winter		
i	Trimming, Pruning, Thinning												
ii	Mowing												
iii	Weeding												
iv	Watering												
v	Fertilizing												
vi	Pest Management												
vii	Plant Replacement												
C	Infiltration Maintenance	Spring			Summer			Fall			Winter		
i	Ponding & Drainage Problems												
ii	Trash and Debris Removal												
iii	Composting or Disposal												
iv	Mulching												
v	Pet Waste Removal												
vi	Snow Removal												
vii	De-Icing												
C	Inflow Points	Spring			Summer			Fall			Winter		
i, ii	Riprap Displaced/Outfall Undercut												
iii	Sediment Accumulation												
iv	Structural Damage												

Required as necessary Required at low frequency Required

Appendix A
Maintenance Agreement

Annual Inspection and Maintenance Certification Letter
For
Walnut Commons
Stormwater Quality Construction Basin

Does your MS4 have these components?

Why not?

What are your barriers?

What suggestions could help you get past those barriers?

Conclusion

Don’t be timid, or smug

Reach out to others for guidance and inspiration

Continue to educate, both yourself, and others

Tackle it one issue at a time

Communicate!!!!

Contact Information

Toni Cecil, CISEC, CESSWI
Muncie Sanitary District
5150 W. Kilgore Ave., Bldg. 8
Muncie, Indiana
(765) 749-1114
tcecil@msdeng.com

Gavin Merriman, CPESC, CFM
Town of Zionsville
1100 W. Oak St.
Zionsville, In 46077
(317) 873-4544
gmerriman@zionsville-in.gov