



Implementing an Erosion Control Plan - Contractor's Perspective

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WE DO THAT ... & MORE

Safety Awareness Moment


- Check in at field office
- Personal protective equipment (PPE)
- Escort
- Eye contact with equipment operators
- Situational awareness




Safety is the cornerstone of our culture. 

Who We Are

- Founded in 1959
- Brownsville, Wisconsin headquarters
- Licensed in all 50 states; and internationally
- 8,000 global employees
- 18,000 pieces of construction equipment
- ~\$4.2B in Revenue



MICHEL'S OFFICE LOCATIONS



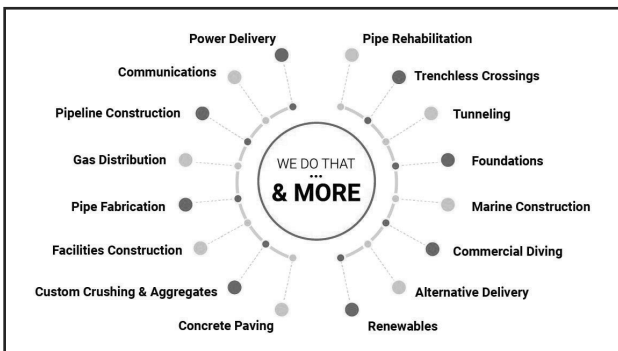
UNITED STATES

Anchorage, AK	Independence, OH
Atlanta, GA	Perth Amboy, NJ
Bakersfield, CA	Uniontown, OH
Elk Grove, CA	Tulsa, OK
Bo Vista, CA	Grants Pass, OR
San Diego, CA	Homebush Hills, NSW
San Jose, CA	La Grange, OR
Scottsbluff, NE	Shawnee, OR
South Windsor, CT	Salina, OR
Waterford, CT	White City, OR
Waterbury, CT	Harrisburg, PA
Atlanta, GA	Washington, PA
Apex, NC	Houston, TX
March, IA	Corpsville, VA
Bedford Park, IL	Rockland, WA
Morgantown, IL	Pasco, WA
Indianapolis, IN	Kenosha, WI
Muncie, IN	Tumwater, WA
Topsham, IA	Brownsville, WI MI
Brownwood, LA	Fond du Lac, WI
Baltimore, MD	Fond du Lac, WI
Libertyville, MN	Green Bay, WI
Chicago, MN	Loma Vista, WI
Carrollton, MO	Minneapolis, WI
Minnetonka, MN	Honolulu, HI
Hamlet, NC	Muskegon, MI
East Syracuse, NY	St. Albans, VT
Wilton, NY	

CANADA
Edmonton, AB
Toronto, ON
Vancouver, BC
SINGAPORE
Singapore

GERMANY
Lahr, Baden-Wuerttemberg

AUSTRALIA
Warragamba, Victoria



Environmental Programs

Environmental Policy

- Compliance
- Pollution prevention
- Continual improvement
- Training & education

Environmental Cornerstones

- "Top 10" compliance issues
- Visual reminders
- Establishing culture

Sustainability Initiatives


- Emissions & Energy reduction
- Fleet Upgrades
- Waste reduction

Expert Support & Partnerships

- Dedicated in-house environmental staff
- Diverse professional backgrounds
- Additional consultant network


Site Review for SWPPP Design

- Visit the site during design
- Do not use only Google Earth
- Understand site conditions
- What is being built?




SWPPP Design

- Good survey data
- Entire drainage area
- Build in temporary detention
- Consider all the tools in your toolbox



SWPPP Design

- Construction Phasing - spell it out
- Limit open ground on schedule or contractual

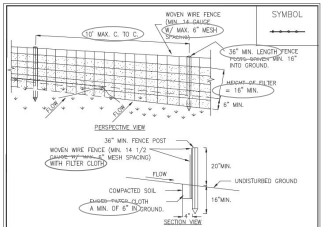


Plan Development

- Consistency between narrative, details
- Review BMP details
- Direct vs. ambiguous wording
- Define roles

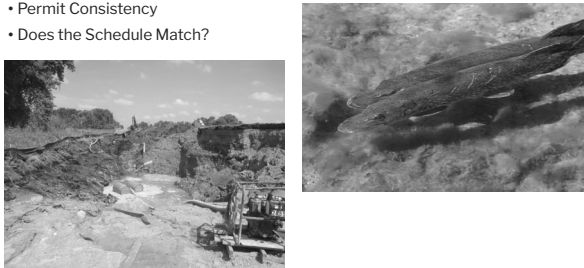
"Site inspections should be performed weekly or after a major rainfall event."

"Owner's inspector shall complete a documented site inspection every 7 days or after 0.5 inches or greater of rain".




Plan Development

- Permit Consistency
- Does the Schedule Match?




Site Visit Basics

- Notify a lead person at field office of your purpose
- May be required to attend a safety orientation
- Come with PPE
- Debrief before leaving



Inspections

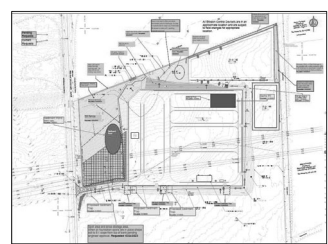
- Water quality expectations?
- Significance of the storm
- Whose rainfall record?
- After demobilization?



Inspection Report: "Turbid water continues to exit culvert"


Amending SWPPP

- Is amendment easy to follow?
- Who has authority to amend?
- Amendments that are design changes?
- List dates



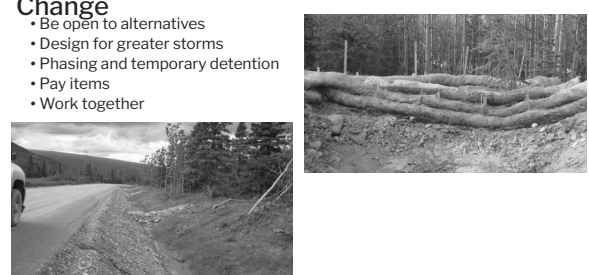
Stormwater Challenges from Climate Change

- 50+ year rain events more frequent
- More intense rain events
- Temporary BMPs = 2 yr. 24 hr.
- Maintenance after significant events
- Agency notification, if required




Stormwater Challenges from Climate Change

- Be open to alternatives
- Design for greater storms
- Phasing and temporary detention
- Pay items
- Work together



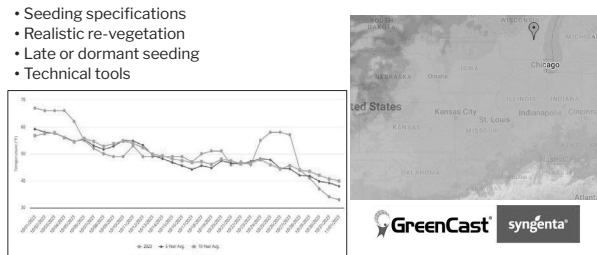
Restoration Challenges

- Drought or rain affecting revegetation
- Late or intermittent winter onset
- Early or intermittent spring thaw
- Pre-restoration job walk
- Pre-winter job walk



Restoration Challenges

- Seeding specifications
- Realistic re-vegetation
- Late or dormant seeding
- Technical tools




Summary

- Site visit before designing
- Clear expectations
- Expect BMP failure during large storms
- Re-adjust proactively
- Smart restoration
- Work together to address challenges



Thank You!
Questions or Comments?



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