



BMP Inspection and Reporting

Inspection forms
&
Preparing a bidding document

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Inspection forms: What do we use these for?

- Municipal NR216 compliance
 - Illicit discharge inspections
 - Water Quality credit toward 40% TSS reduction
- Maintenance & Inspection Tracking
 - Does maintenance need to be performed?
 - When was the last time an inspection or maintenance was performed ? What was performed ?
 - How do maintenance activities stack up to useful life of facility and or maintenance plan/Agreement



Sample Forms

- [Menomonee Falls](#)
- [Santa Clara Valley, CA](#)
- [Town of Apex, NC](#)
- [Center for Watershed Protection](#)

City of Oconomowoc STORMWATER POND INSPECTION CHECKLIST

Pond Location:	Inspector:
Most recent rainfall (date & amount):	Date:
	Time:

Original Plan Set	Available? Y <input type="checkbox"/> / N <input type="checkbox"/>	Reviewed Prior to Inspection? Y <input type="checkbox"/> / N <input type="checkbox"/>
"As built" Plan Set	Available? Y <input type="checkbox"/> / N <input type="checkbox"/>	Reviewed Prior to Inspection? Y <input type="checkbox"/> / N <input type="checkbox"/>
Written SWMP	Available? Y <input type="checkbox"/> / N <input type="checkbox"/>	Reviewed Prior to Inspection? Y <input type="checkbox"/> / N <input type="checkbox"/>
Planting Plan	Available? Y <input type="checkbox"/> / N <input type="checkbox"/>	Reviewed Prior to Inspection? Y <input type="checkbox"/> / N <input type="checkbox"/>

*** Note: If documents are available they MUST be reviewed prior to inspection.**

Items Inspected	Checked			Maintenance Needed			Comments
	Y	N	NA	Y	N	NA	
EMBANKMENT & EMERGENCY SPILLWAY							
1. Is the spillway level?	<input type="checkbox"/>						
2. Adequate vegetation & ground cover?	<input type="checkbox"/>						
3. Appropriate vegetation?	<input type="checkbox"/>						
4. Adequate freeboard? (min 1' from top of bank to highest outlet)	<input type="checkbox"/>						
5. Embankment erosion evident?	<input type="checkbox"/>						
6. Cracking, bulging or sliding of embankment	<input type="checkbox"/>						
a) interior face	<input type="checkbox"/>						
b) exterior face	<input type="checkbox"/>						
c) emergency spillway location	<input type="checkbox"/>						
7. Evidence of animal burrows?	<input type="checkbox"/>						
8. Seepage evident on exterior face of embankment?	<input type="checkbox"/>						
9. Vertical & horizontal alignment of top of dam as per plans	<input type="checkbox"/>						
10. Emergency spillway clear of obstructions & debris?	<input type="checkbox"/>						
11. Maintenance access clear of obstruction?	<input type="checkbox"/>						
12. Other?	<input type="checkbox"/>						
RISER & SERVICE SPILLWAY							
13. Low flow orifice obstructed?	<input type="checkbox"/>	Comments					
14. Low Flow Trash rack:	<input type="checkbox"/>						
a) Is debris removal necessary?	<input type="checkbox"/>						
b) Is corrosion evident?	<input type="checkbox"/>						
15. Weir trash rack maintenance	<input type="checkbox"/>						
a) Is debris removal required?	<input type="checkbox"/>						
b) Is corrosion evident?	<input type="checkbox"/>						
16. Is there excessive sediment accumulation inside the riser?	<input type="checkbox"/>						
17. Sediment accumulation in outlet pipe?	<input type="checkbox"/>						
18. Outfall channels functioning?	<input type="checkbox"/>						
19. Under drain functioning?	<input type="checkbox"/>						
20. Slope protection or rip-rap failures?	<input type="checkbox"/>						
21. Other?	<input type="checkbox"/>						
WET DETENTION POND							
22. Undesirable vegetative growth?	<input type="checkbox"/>	Comments					
23. Removal of floating debris required?	<input type="checkbox"/>						
24. Visible oil/chemical presence?	<input type="checkbox"/>						
25. Evidence of wave action?	<input type="checkbox"/>						
26. Safety shelf erosion or failure?	<input type="checkbox"/>						
27. Other?	<input type="checkbox"/>						

A good Inspection form:



- Is specific to the type of BMP
- Has a checklist of what to look for
- Rates the condition of major components
- Has a list of repair & maintenance strategies
- Has a section for inspector notes
- Includes Photos

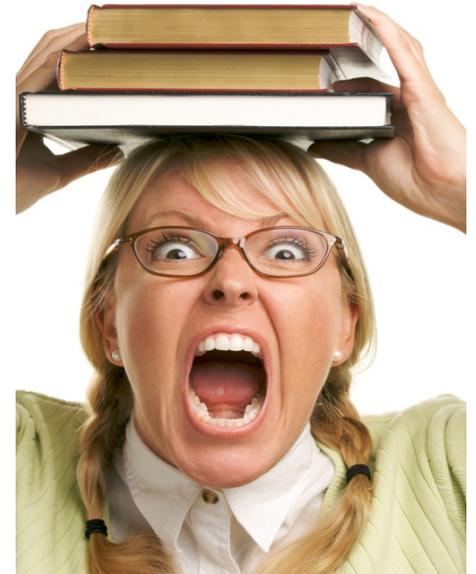
Prepare bidding documents

- Hurdles and questions ???
- Public vs private facilities
- Community's role and responsibilities



Hurdles and questions

- What is “The Work”?
- Type of contractor
 - (Underground/Landscape/Grading/General)
- Regulatory framework/Permits? (What am I allowed to do?)
 - DNR/County/Community
 - NR528 sediment management issues
- Payment/milestones
- Ownership/easements/legal



Public Facilities

- Bidding Documents
 - Drawings/Details
 - Bid form with quantities or lump sum
 - Bid Bond/Payment Bond
 - Measurement and payment
 - General and Supplementary Conditions
 - Specifications
 - Insurance requirements
 - Approval/Acceptance
 - Milestones
 - Ad for bid/quote
 - Construction Review?



Public Facilities

- Talk to your favorite local contractor
- List “the Work” use the inspection forms as a starting point & provide to the contractor
- Have a preconstruction meeting
 - Discuss time lines
 - Critical issues
 - Dewatering
 - Restoration
 - Erosion & sediment control



Private Facilities

- Home Owner or Condo Assoc/Commercial/Industrial facilities
 - Likely forced into inspection & maintenance per municipality
 - Will turn to municipality for guidance
 - “Why do we need to do this?”



Municipal Role & Responsibility

- Educate, Educate, Educate
- Provide guidance documents
 - Inspection forms
 - List of potential Contractors/Professionals
 - Specifications
 - End result expectations
 - List of potential approval agencies
- Provide alternatives
 - Special assessments
 - Storm water utility district
 - Redevelopment/sustainability



Links to the good stuff

- <http://www.menomonee-falls.org/DocumentView.aspx?DID=608>
- [http://www.scvurppp-w2k.com/permit_c3_docs/Treatment OM Inspection Form Final 11-05.pdf](http://www.scvurppp-w2k.com/permit_c3_docs/Treatment_OM_Inspection_Form_Final_11-05.pdf)
- <http://www.apexnc.org/depts/pw/stormwaterBMPs.cfm>
- [http://www.cwp.org/Resource Library/Center Docs/SW/ExtremeBMP/extrmbmp tech rprt09.pdf](http://www.cwp.org/Resource_Library/Center_Docs/SW/ExtremeBMP/extrmbmp_tech_rprt09.pdf)

Questions

