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Facility Stormwater Inspections and Treatment System Monitoring

MANAGING STORMWATER IN WASHINGTON
NEBC CONFERENCE // MARCH 3, 2026

NEBC northwest environmental business council

EXAMPLES TO CONSIDER FOR FACILITY MONTHLY STORMWATER INSPECTIONS

- General examples of items to look for during facility inspections
- Many facilities have stormwater treatment installed, and site-specific monitoring needs should be identified for those sites

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// Facility Inspection Examples

- The 2025 ISGP has a required BMP to keep all used and new tires stored under cover
- Ponding and improper drainage should be identified and targeted for correction, as it inhibits sweeping and removal of accumulated solids

// Facility Inspection Examples

- Verify spill kit contents to be able to respond to spills, leaks, and non-stormwater sources that could be deemed an illicit discharge
- There are CB cover products available, which are recommended for placement in advance of fuel transfer operations, and pipe plugs that can be used for wash water containment
- In example shown, plastic sheeting was placed beneath the CB grate to stop a process water pipe release

// Facility Inspection Examples

- Oil trap structures are only effective if accumulated oil gets removed
- CB filters are only effective if periodically removed & replaced

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// Include Stormwater Treatment as Part of Inspections

- As we are many years into the development of benchmarks into the ISGP, many facilities have stormwater treatment installed, so inspections should not only focus on source control.
- Facility inspections should include observations of the treatment process and equipment as well as recording relevant system information and identifying needed maintenance.

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// Develop Site-Specific Treatment System Inspections

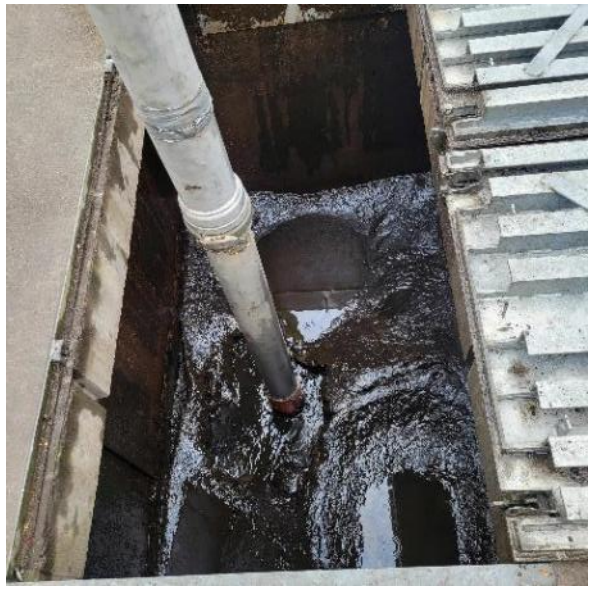
- Still using the standard inspection form language, rather than facility-specific questions based on the facility's stormwater treatment system?
- Recommend preparing tailored questions, including applicable O&M considerations.

I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
Stormwater BMPs and Treatment Structures: Visually inspect all stormwater BMPs and treatment structures devices, discharge areas infiltration and outfalls shown on the Site Map. • Are BMPs and treatment structures in good repair and operational? • Are BMPs and treatment structures free from debris buildup that may impair function? • The permit requires Permittees to clean catch basins when the depth of debris reaches 60% of the sump depth. In addition, the Permittee must keep the debris surface at least 6 inches below the outlet pipe. Based on this, do catch basins need to be cleaned? • Are berms, curbing or other methods used to divert and direct discharges adequate and in good condition?	**Yes**	**No**	**NA**	**Findings and Remedial Action Documentation:**

Default language from Ecology's SWPPP template inspection form

// Example Inspection Questions

- ❑ Annual pond sediment/vegetation removal completed?
- ❑ Proper infiltration at bioretention swale, or surface raking/cleaning needed?
- ❑ Monthly/quarterly vactor truck servicing completed for vaults and other sedimentation structures?
- ❑ Pump flow rate and pressure at treatment system inlet?
- ❑ Turbidity reading at treatment system inlet & effluent?



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// Keep Up Source Control BMPs after Installing Treatment

- Despite installing treatment, do not stop or neglect proper source control BMPs or treatment effectiveness will suffer

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// Keep Up Source Control BMPs after Installing Treatment

- After installing treatment, also do not forget about pretreatment measures

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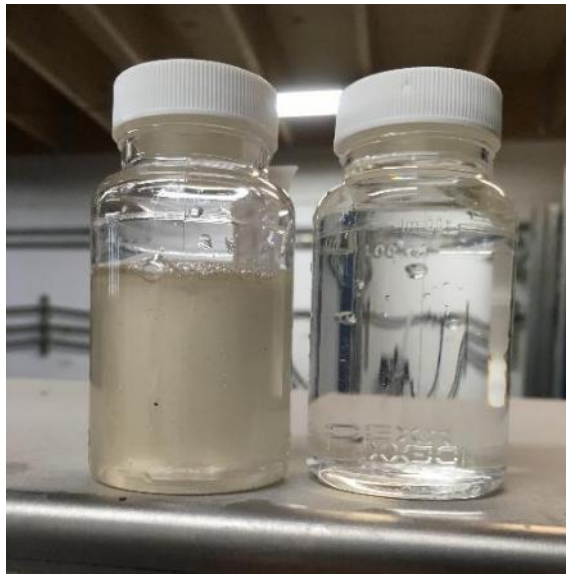
// Use of a Turbidity Meter Onsite

- Consider purchasing a turbidity meter, rather than rely only on lab analysis
- Avoids concern with 48-hour hold time
- Allows quicker knowledge and ability to react with BMP improvements
- Can help with responding to a high initial quarterly reading and enhancing ability for averaging



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// Treatment System Monitoring

- Even for an advanced treatment system with vendor maintenance, it can be helpful to record/evaluate key data (pressure, turbidity, pH, flow rate, chemical supply level, etc.) to more proactively identify issues before they become a problem.

// Monitor the Surface of Filter Media

Over time, filter media will accumulate a gummy layer of filtered solids and biological growth that will impede flow.

Inspect & Remove!

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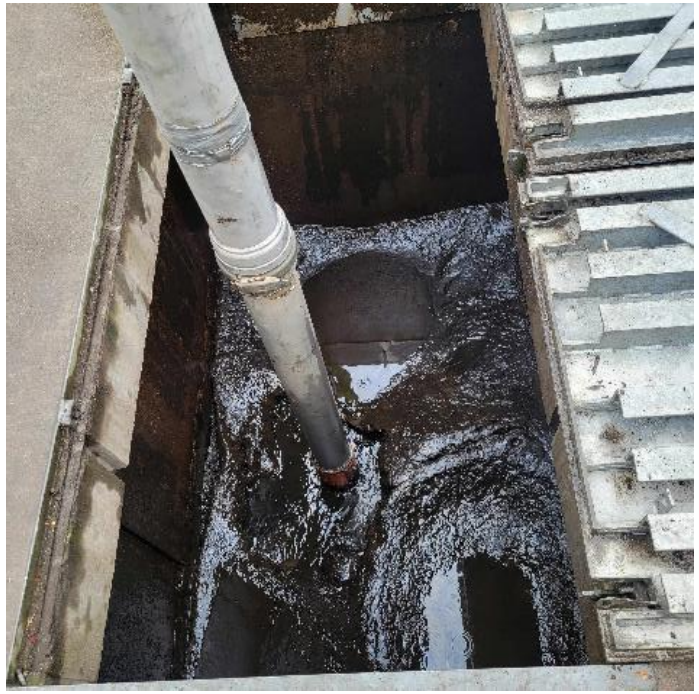
// Check/Replace Pretreatment Coagulant

Use of a chemical coagulant can be effective for facilities with fine particulates and high metals. Unlike other pretreatment, must be approved by Ecology and monitored appropriately.

// Facilities with Nitrate Benchmark – Avoid Solids Accumulation

Nitrate is a very difficult parameter to treat once it is dissolved in stormwater. Best approach is to eliminate accumulation and biological breakdown of organic solids in a wet saturated environment (CBs, sumps, vaults, treatment tanks, etc.)



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THANK YOU

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