LIDER ENGINEERING PLLC
Low Impact Development Engineering Resources
Stormwater and Erosion Control Engineering
WILLIAM M LIDER, PE, CESCL

TRANSMITTED BY E-MAIL

June 28, 2019

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Subject: 2019 Industrial Stormwater General Permit Reissuance
William M. Lider, PE, CESC Comments

These comments are to augment my verbal comments at the public hearing on June 18, 2019.

Site Drawings

I have reviewed dozens of site plans for industrial sites from various Industrial General Stormwater Permit (ISGP) sites. Some are very professional, while others look like they were drawn on a bar napkin. Accurate site drawings are absolutely essential to evaluate a site when it fails to meet its benchmark discharge limits.

Site drawings should be prepared by a licensed land surveyor or professional engineer. Minimum CAD standards for drawings should meet generally accepted standards of municipalities like King or Snohomish counties. At a minimum, ISGP site plan drawings should meet the following requirements:

- Be drawn to an appropriate scale, typically 1" = 50'; but in no case larger than 1" = 100'
- Provide vicinity plan, north arrow, and scale bar
- Legend clearly identifying all symbols, (e.g. water meter, manhole, catch basin, etc.)
- Minimum drawing size shall be 11" x 17"; maximum drawing size shall be 24" x 36"; use hard match lines for larger sites
- The base drawing should be surveyed by a licensed land surveyor locating
  - All property corners and property lines
  - Show all building/structure locations, fence lines, manufacturing, and storage areas

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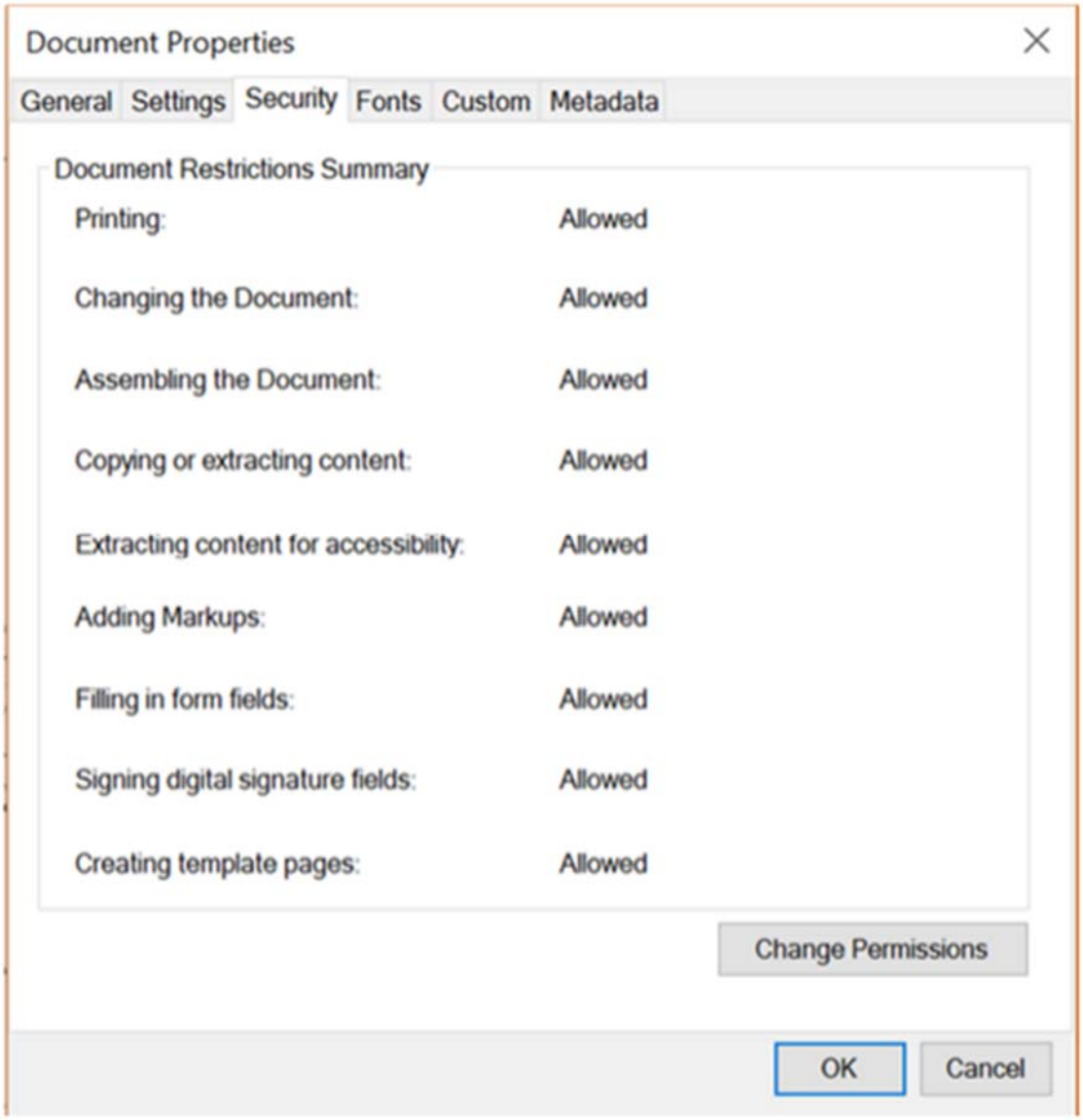
- Call out all pavement types (e.g. concrete, asphalt, crushed rock, earth, etc.)
- Show contour lines at 1-foot intervals with directional arrows showing the direction of stormwater flow
- Font type shall be TrueType (SHX and Raster format fonts are not allowed)
- Font size shall be a minimum of 10 pt, or 3/32”, with a clarity equivalent to, or better than, the theme fonts Arial, Gill Sans, or Tahoma
- PDF documents shall be created from electronic source
- PDF security settings shall be:

Security Settings



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- Show all underground utilities and structures, e.g. gas, electrical, telecommunications, water, sanitary sewer, underground storage tanks (UST's), oil/water separators, etc.
- Call out catch basin, manhole, inlet type and show rim and invert elevations.
- Show all storm drain conveyances, piping, ditches, etc. Note pipe/ditch slope percent (S= x.xx%), direction of fall, pipe size, pipe type, etc.
- Label all treatment facilities, detention vaults, orifice size & elevations, any ancillary structures, etc.
- All storm drain facilities shall be located to the nearest 1/100th of a foot vertically and horizontally.
- Clearly label all current and past monitoring location(s), the discharge point(s) from the site and the receiving waterbody or MS4 system.

First Flush Date

Capturing first flush data is critical in determining threshold discharge compliance and effectives of operational and maintenance source controls for a facility. Starting first flush monitoring in September is arbitrarily and can miss first flush events in August or July when thunderstorm rain events (1-inch/hour) often occur. These storms can occur during weekends, holidays, or outside of normal work hours. Missing these first flush events gives a false sense that a site is in compliance with its threshold discharge limits.

To this end, all ISGP permit holders must be required to install monitoring equipment capable of collecting and determining benchmark pollutant concentrations at any time. This will allow Ecology to better determine if a permit holder is exceeding its benchmarks and that it is in compliance with its ISGP permit.

Emerging Treatment Technologies

Many industrial activities have challenging problems in preventing pollution from industrial activities from entering stormwater and leaving the site. In order to meet its benchmark discharge limits permit holders often utilize emerging treatment technologies specific to a permit holder's activities; however, the effectiveness and long term maintenance requirements for these facilities are often unknown. To address this issue:

1. The permit holder shall submit emerging technology design drawings to both Ecology and the local municipality for permit review.
2. Ecology and the local permitting municipality shall inspect the completed design and confirm that it was constructed in strict accordance with the approved drawings.

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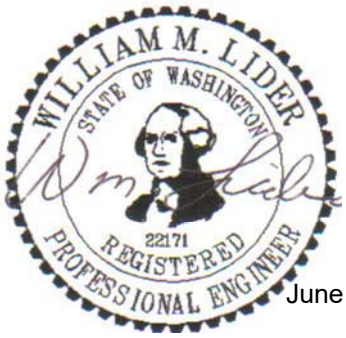
3. Unproven or new technologies lacking a Use Level Designation (ULD) shall be enrolled in the Technical Approval Protocol-Ecology (TAPE) program to monitor its effectiveness and maintenance requirements over time.

Thank you for your consideration of these comments and I look forward to reviewing the final ISGP when approved.

Sincerely,
LIDER ENGINEERING, PLLC



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Principal Engineer

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