What is the IC-ID Manual?

• Guidance document, published in 2013
• Field methods to help meet requirements for Illicit discharge detection and elimination (IDDE) in municipal NPDES permit
• Single source of information
• Audience: municipal stormwater staff
• IC-ID vs. IDDE
Why update the IC-ID Manual

• Widely used resource for IC-ID work
• Updated manual coincides with reissuance of municipal stormwater permits (2019)
• Supports SAM program and regional adaptive stormwater management
Input For Potential Updates to Manual

- Online survey
- Feedback workshops
- Update literature review
- Review 2014 IDDE database
Focus on Field Methods

- Field Screening Methodologies (FSM)
- Indicators
- Source Tracing Methodologies (STM)

Does not cover elimination of IDs or ICs, enforcement, or corrective actions
Field Screening Methodologies (FSM)

Flow chart
Revise flow chart and introduction with option to skip field screening

Ditch Inspections
Distinguish between creek and ditch, also mention under Flow indicator

BMP Inspections
Add reference to reviewing BMP as-built drawings to Methods section

Outfall Screening: Dry Weather vs. Wet Weather (Seasonal vs. Year-Round)
Expand description to include all options, pros/cons, applications
Field Screening Methodologies (FSM)

Business Inspections and BMP Inspections

Move to appendix. May be used for IC and ID investigation, but not typically tracked as part of IDDE activities.

Other

1. Check construction permits: add to Introduction and Methods
2. Add discussion in Introduction regarding calculating percent screened

Automated Sampling

Expand description?
Add Additional

1. Odor: expand Sources table to include dead animals, natural gas
2. Others: caffeine, DNA sampling, chemical oxygen demand, fecal sterols, oxygen stable isotopes, pharmaceuticals (EPA 1694), salinity, UV light absorbance

Soil Indicators, add to list of Others

Bacteria, dissolved metals

Color

1. Add test strips as equipment option, expand description accordingly
2. Expand information about color sampling: depth, lighting, 2nd opinion
Reclassify
1. Total petroleum hydrocarbons: move from Other to Follow-up
2. *E. coli* bacteria: move from Other to Follow-up, add EasyGel to equipment list
3. Fluorescence: move to Other, link to optical brightener monitoring (STM)
4. Move fecal coliform to Other? Keep both *E. coli* and fecal coliform?

Combinations
1. Caffeine with: bacteria, cholesterol, DNA
2. Conductivity with: ammonia, potassium, salinity
Expand Description

1. Turbidity, fluoride, and hardness: evaluate background conditions
2. Metals: add information about hardness correction factor for toxicity

Add Pollution Types

Expand Sources tables for each Indicator with common pollutant types
Add New

Pressure testing: drinking water or irrigation pipes. Add to Others list.

Add Information

1. Sand bagging: remove bags when finished
2. Dye testing: inform neighbors, traffic control, run-time, charcoal packs
3. Smoke testing: traffic control

Reclassify

Optical brightener monitoring: move to Others list, shift description to appendix
Combinations and Sequencing

1. In-pipe methods (smoke, dye, video) for in-pipe sources: sewage, FOG
2. Ground methods (reconnaissance, inspection) for ground sources: spills, discharge

Add Pollution Types

Expand Sources tables for each STM with common pollutant types
Add Discussion

1. Update permit requirements as related to scope of manual
2. Conditionally allowable discharges
3. Clarify permit field screening requirements

Visual Methodologies and Indicators

Can be subjective, have 2nd person verify

Order of Presentation FSMs, Indicators, and STMs

Keep alphabetical or reorder based on: frequency of use, priority, other?
Overall Updates or Edits

**Equipment Costs**
1. Update Appendix A
2. Update equipment lists as needed in each methodology or indicator

**Document Navigation**
1. Add index
2. Add section names in header or footer

**Other**
1. Create streamlined examples of field sheets
2. Request additional photos from permittees
Next Steps: Update Manual and Trainings

**Update Manual**
- Review and approval by Source ID subgroup and SAM coordinator
- Publish: by end of 2019
  - Ecology SAM website
  - WA Stormwater Center website

**Trainings**
- 8 throughout western WA
- Live, hands-on, demo stations
- Winter and Spring of 2020
- Videos of previous trainings on WSC website
  - 14 current videos
  - Create 6 more videos
Jeanne Dorn  
King County Natural Resources  
Water Quality Planner/Project Manager  
206.477.4679  
Jeanne.Dorn@kingcounty.gov

James Packman  
Aspect Consulting  
Senior Hydrologist  
206.780.7723  
jpackman@aspectconsulting.com

Rebecca Dugopolski  
Herrera Environmental  
Associate Engineer  
206.787-8261  
rjugopolski@herrerainc.com