**O&M Service provider – Need to Know**

1. **Understand administrative requirements required by the local ordinance**
   1. 7080 requirements
   2. Local ordinance per 7080
   3. Provision that requires MPCA registered and licensed professionals (Qualified Employees and Designated Registered Professionals)
   4. LUG cannot issue additional licenses
   5. Ordinance requirements
      1. Management plan
      2. Monitoring
      3. Mitigation
   6. System classifications
      1. Acceptable
      2. Unacceptable
      3. Needing maintenance
   7. Local units of government must enforce their ordinance
   8. Permit requirements
      1. Operating permits
      2. Operating and mitigation plans
   9. Inspection Requirements
   10. Recordkeeping Requirements
   11. Annual Reporting Requirements to MPCA
2. **General O&M**
   * 1. Terminology
        1. Inspection
        2. Operation
        3. Maintanence
        4. Monitoring
        5. Repair/ Upgrade
        6. Mitigation
        7. Management
     2. System Treatment train
        1. Id components
        2. Reading a permit
        3. Completing an inspection- form 1.1
     3. Developing a Service Company
        1. Tools
     4. Developing a Service Contract
        1. Creating a File
        2. Form 1.2
     5. Site Assessment
        1. Surface water
        2. Encroachments
        3. Vegetation
        4. GW Monitoring wells
3. **O&M of Piping**
   * 1. Flow line
     2. Cleanout locations
     3. Cleaning
4. **O&M of Septic and Holding Tanks**
   * 1. Acceptable tank conditions
     2. Tank access
     3. Alarms
     4. Operating conditions
     5. Pumping recommended
     6. Baffles
        1. Effluent screens
     7. Tank structure
5. **O&M of Pump Tanks**
   * 1. Acceptable tank conditions
     2. Tank access
     3. Alarms
     4. Operating conditions
     5. Discharge assembly
     6. Electrical
     7. Tank structure
     8. Baffles
        1. Screens or filters
6. **O&M of Pumps, Floats, and Controls** 
   1. Correct pump, placement and connections
   2. Verify dose frequency and volumes
   3. Wiring safe
   4. Float placement and tie downs
      1. Dose volume
   5. Flow measurement
   6. Timer settings
   7. Safety
      1. Confined space
7. **O&M of Distribution Systems (gravity and pressure)**
   1. Gravity
      1. System identification
      2. General assessment
      3. Distribution
      4. Inspection pipes
         1. Ponding
      5. Switching valves
   2. Pressure
      1. System identification
      2. General assessment
      3. Distribution
         1. Distill pressure
      4. Inspection pipes
         1. Ponding
      5. Switching valves
8. **O&M of At-grade Systems & Mound Systems**
   * 1. Pressure distribution
     2. Ponding
     3. Seepage at the toes
9. **O&M of Drip systems \***
   * 1. System identification
     2. General assessment
     3. Filters
     4. Distribution
        1. System pressure
     5. Air release valves
     6. Switching valves
     7. Flow calculation
10. **O&M of Alternative Systems \***
    1. ATU
       1. System identification
       2. General assessment
       3. Air supply
       4. Mixed liqueur
       5. Separation
          1. Settling
          2. Growth
       6. Return
       7. Effluent quality
    2. Media filter
       1. System identification
       2. General assessment
       3. Distribution
          1. Ponding
       4. Media replacement
       5. Effluent quality
    3. Constructed Wetland Systems
       1. System identification
       2. General assessment
       3. Water level
       4. Vegetation
       5. Effluent quality
    4. Disinfection systems
       1. System identification
       2. General assessment
       3. Disinfection agent
11. **Monitoring of Systems**
    * 1. Types of monitoring
      2. Necessary tools
         1. Monitoring
         2. Shipping
      3. Monitoring location
      4. Sampling requirements
      5. Sample handling
         1. COC
         2. Lab needs
12. **Reporting**
    * 1. Who gets report
      2. Method
      3. Forms
13. **Large System Reporting**
    * 1. Frequency
      2. Who gets report
      3. Additional legal requirements
         1. Operator licenses
      4. Method
         1. Groundwater monitoring
      5. Forms

**XII.** **Basic Math Requirements**

* 1. Add, subtract, multiply and divide
     1. Slope
     2. Unit conversion
        1. Metric to English
        2. English unit conversion
  2. Average
     1. Weighted average
  3. Use powers and percentages
  4. Graphing (pump curves)
  5. Basic algebra/geometry