MDSS DESIGN SEQUENCE FLOW CHART

MDS Project Flexible Treatment Options (FTO)

The MDS Project Flexible Treatment Options (FTO) alternatives presented here should be evaluated when the Performance Goal is not feasible and/or the FTO Alternatives are not feasible and/or allowed.

FTO 1: Flexible Treatment Options to comply with the following conditions:

1. Achieve at least 50% volume reduction (G)
2. Achieve discharge requirements.
3. Achieve BMP(s) regulatory requirements.

FTO 2: Flexible Treatment Options to comply with the following conditions:

1. Achieve volume reduction to the maximum extent practicable (G)
2. Achieve discharge requirements as required by the Local Authority (G)
3. Achieve BMP(s) regulatory requirements.

Notes:

- Volume reduction targets considered may include infiltration, volume attenuation, or retention.
- Facilities may include new construction, expansion, renovation, or reconstruction.
- Adherence to the Minnesota Department of Natural Resources (MDNR) standards and/or the original construction activity as the original design and/or existing building.

2. Category I: Voluntary treatment included in the MDS Program and required by the Local Authority.

2.a. Achieve volume reduction to the maximum extent practicable (G)

2.b. All options considered and presented shall examine the merits of accommodating FTO Alternatives and their impact on the original construction activity. Option(s) to be presented shall address expected performance, costs, and other constraints across the project.

2.c. Options considered and presented shall determine the reality of attaining the original Performance Goal and the maximum extent volume reduction.

3. Category II: Voluntary treatment included in the MDS Program and optional by the Local Authority.

3.a. Video surveillance, maps, regulations, and/or estimates documenting that meeting the original Performance Goal and rejecting FTO Alternatives is not feasible and/or allowed.

3.b. Provide documentation of extent of contamination and remediation requirements.

3.c. Provide report documenting potential hydrologic impacts of infiltration on the site, prepared by registered engineer, hydrologist, or wetlands specialist.

3.d. Provide soil boring or infiltration test results documenting high-infiltrating soils.

3.e. Provide soil boring or infiltration test results documenting low-infiltrating soils.

3.f. Provide documentation of offsite run on to project area.

4. Category III: Mandatory treatment included in the MDS Program and required by the Local Authority.

4.a. Video surveillance, maps, regulations, and/or estimates documenting that meeting the original Performance Goal and rejecting FTO Alternatives is not feasible and/or allowed.

4.b. Provide report documenting potential hydrologic impacts of infiltration on the site, prepared by registered engineer, hydrologist, or wetlands specialist.

4.c. Provide soil boring or infiltration test results documenting high-infiltrating soils.

4.d. Provide soil boring or infiltration test results documenting low-infiltrating soils.

5. Category IV: Mandatory treatment included in the MDS Program and optional by the Local Authority.

5.a. Video surveillance, maps, regulations, and/or estimates documenting that meeting the original Performance Goal and rejecting FTO Alternatives is not feasible and/or allowed.

5.b. Provide report documenting potential hydrologic impacts of infiltration on the site, prepared by registered engineer, hydrologist, or wetlands specialist.

5.c. Provide soil boring or infiltration test results documenting high-infiltrating soils.

5.d. Provide soil boring or infiltration test results documenting low-infiltrating soils.

6. Category V: Treatment not included in the MDS Program.

6.a. Video surveillance, maps, regulations, and/or estimates documenting that meeting the original Performance Goal and rejecting FTO Alternatives is not feasible and/or allowed.

6.b. Provide report documenting potential hydrologic impacts of infiltration on the site, prepared by registered engineer, hydrologist, or wetlands specialist.

6.c. Provide soil boring or infiltration test results documenting high-infiltrating soils.

6.d. Provide soil boring or infiltration test results documenting low-infiltrating soils.

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