

Appendix O
Fecal Coliform Monitoring Plan

FECAL COLIFORM SAMPLING PLAN

The Hocking River and its tributaries will be sampled at several locations during dry and wet weather periods. This stream sampling is being conducted to evaluate any potential effects from CSO discharges or stream tributaries on the lower portion of the Hocking River. River samples will be collected upstream and downstream of all CSOs. All grab samples will be taken at approximately the midpoint of the stream width at a depth of roughly three feet where possible. When the river depth is less than three feet, the sample will be collected at approximately mid depth of the stream.

Background samples will be collected during dry weather periods to determine the natural levels of fecal coliform in the Hocking River and tributary streams. A dry weather period is defined by 72 hours with less than 0.05 inches of rain prior to the sampling time. One grab sample will be collected on 10 separate occasions from each of the sampling locations listed below:

- Hocking River near Ety Rd.
- Feters Run near S.R. 37.
- Ewing Run north of Rainbow Dr.
- Hunters Run near Lincoln Ave. and Trace Dr.
- Tarhae Run near S.R. 793.
- Baldwin Run south of CSO 1034.
- Current upstream Permit Location #4PD00001801 (South Broad St. and Hocking River).
- Current downstream Permit Location #4PD00001901 (Sugar Grove Rd. and Hocking

River).

When possible, one to two background samples should be collected per week from each river sampling location.

Samples will be collected during wet weather periods to determine the effect of CSOs on the receiving streams. Samples will be collected from at least three rainfall events exceeding 0.1 inches of rain that cause overflows. If possible, the rainfalls will vary in magnitude and duration. A wet weather sampling event will consist of collecting one sample from each of the sampling locations listed above. Each of the samples shall be collected as soon as possible after the 0.1 inches of rain have accumulated and not exceeding 18 hours after the 0.1 inches have accumulated. One sample will also be collected from each of the river sampling locations for each of the next three days. Using this criteria, a total of 32 grab samples will be collected and analyzed for fecal coliform for each rain event (8 samples/day x 4 days). In addition to collecting river samples, each overflow structure must be verified after the completion of a rain event and prior to the next rain event to determine if an overflow occurred.

Sampling will be performed by Malcolm Pirnie, Inc. and City of Lancaster personnel. All laboratory samples will be analyzed by the City of Lancaster for fecal coliform. The results reported to EPA will include the following information:

- description of each sampling location
- date and time of sample collection
- description of sampling procedure
- analytical results
- inches and duration of rainfall (wet weather samples only)

The section below, "Additional sampling recommendations" was not performed as part of the 1996 fecal coliform sampling program.

Additional sampling recommendations

When possible, samples shall be collected from each CSO head wall discharging to the receiving stream after river samples have been collected. A total of one sample shall be collected from each head wall. Using this criteria a total of 24 locations (this number includes 4 SSO locations) will be sampled.

Sampling Summary

DWF-

- one sample from each of 8 locations
- 10 samples per location
- less than 0.05 inches of rain for 72 hours prior to sampling
- 1 to 2 samples collected from each location per week

WWF-

- one sample from each of 8 locations ASAP or within 18 hours of the accumulation of 0.1 inches of rain
- one sample from each of the 8 locations for each of the next three days after a rain event
- labeling of collected samples with date, time and location

- **verification of overflow blocks prior to next rainfall event**

Additional WWF-

- **collect sample for fecal analysis from the combined sewer overflow at each head wall location discharging to the receiving body of water**
- **total of 1 sample required from each of 24 locations (includes SSOs)**