

**Appendix L**  
**Ohio EPA Meeting Minutes - February 25, 1999**

March 19, 1999

Mike Nixon  
WPCD Superintendent  
City of Lancaster WPCD  
800 South Lawrence Street  
Lancaster, Ohio 43130

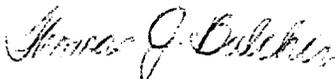
Re: Water Pollution Control Department  
Wastewater Collection System Evaluation  
Ohio EPA Progress Meeting Minutes

Dear Mr. Nixon:

Enclosed are meeting minutes for the progress meeting that was held at the Ohio EPA Central District Office on February 25, 1999. If you have any questions regarding the enclosed information, please let us know.

Very truly yours,

MALCOLM PIRNIE, INC.



Thomas J. Bulcher, P.E.  
Associate

lnoepamm.11/mdw

Enclosure

c: Arthur M. Wallace, Mayor  
Earl H. Strawn, Service-Safety Director  
L. Kent Huston, P.E., City Engineer  
Paul Menz, WPCD Pretreatment Coordinator  
Marcy Stewart, City Council Clerk  
Robert Ubbing, City Council, President  
Dwight Andrews, City Council  
Karl Justus, City Council

Bill Mallory, City Council  
Ken Metcalf, City Council  
Keith Kistler, City Council  
W. Dean Scholl, City Council  
Steve Davis, City Council  
Robert Harvey, City Council  
Walter Arrowsmith, City Council

0491-028

**CITY OF LANCASTER  
WATER POLLUTION CONTROL DEPARTMENT  
WASTEWATER COLLECTION SYSTEM EVALUATION**

**LONG TERM CONTROL PLAN - OHIO EPA COORDINATION MEETING  
FEBRUARY 25, 1999**

**MEETING MINUTES**

A progress meeting for the City of Lancaster Long Term Control Plan was held on February 25, 1999 at the Ohio EPA Central District Office. A copy of the meeting agenda, handouts, and meeting attendance list is attached.

Opening

The meeting began with a brief introduction of all persons in attendance.

Tom Bulcher (Malcolm Pirnie) stated that Malcolm Pirnie and the City of Lancaster requested a meeting with Ohio EPA to discuss findings from the recent aquatic survey by EnviroScience Inc. of the Hocking River and its tributaries and to discuss the development of the City of Lancaster's Long Term Control Plan (LTCP).

Mr. Bulcher summarized work completed to date related to the City's Combined Sewer System:

- ▶ In March 1998, the Combined Sewer System Operational Plan and Wastewater Monitoring Plan were submitted to Ohio EPA for approval.
- ▶ The Fecal Coliform Study has been completed and submitted.
- ▶ Flow monitoring of the sewer system has been completed.
- ▶ Biomonitoring of the receiving waters was completed in 1998. The most recent previous sampling was by the Ohio EPA in 1995.

The remaining documents to be submitted include the Sewer System Characterization Report and the LTCP. These are due to Ohio EPA on December 1, 1998 and June 1, 2000 respectively.

1. LTCP - Sewer System Extension Evaluation

Tom Bulcher discussed the approach being used to address the sewer system extension evaluation requirement of the NPDES Permit.

The City's current collection system consists of both combined and sanitary sewers with the combined sewers predominantly in the older downtown and central portion of the City. The sanitary sewers surround the combined sewers and flow added to the sanitary areas flow through the combined sewer areas.

The approach of the City of Lancaster LTCP is to develop a plan such that sanitary flow from new developments does not increase CSO volume.

To predict the increase of CSO volume during a typical year resulting from future sewer system development, Malcolm Pirnie is using the Stormwater Management Model (XP-SWMM) developed as part of the Sewer System Characterization. As part of the Sewer System Characterization, annual rainfall was broken down into four typical storms that vary in magnitude and duration. Model runs were made for each typical storm. The year 1995 was selected as a baseline and model results from these simulations were used to estimate the annual CSO volume for 1995. The City's annual average dry weather flow at the Water Pollution Control Facility (WPCF) is approximately 5.5 MGD.

For evaluation purposes, a planning year of 2020 was selected. Malcolm Pirnie estimated 3.5 MGD of additional sanitary sewer flow would be generated in new developments by the year 2020. This means the average daily flow would increase to approximately 9 MGD. It was concluded that a flow increase of 3.5 MGD in a 20 year period was conservative, however necessary for planning purposes.

The model was used to predict the annual increase in combined sewer overflow (CSO) volume due to the additional 3.5 MGD. To date, the City of Lancaster and Malcolm Pirnie have looked at a combination of infiltration/inflow (I/I) removal projects and CSO modification projects to offset the projected increase in CSO. These projects include:

- ▶ Inflow Removal - A failed sewer stub in a manhole that was allowing direct river flow into the collection system has been repaired.
- ▶ CSO Abandonment - The City has abandoned a CSO identified as a source of river inflow.
- ▶ Sewer Separation- The City has begun preliminary design for separating the combined sewers located in a downtown revitalization project area.

Other projects that may be used to reduce CSO volume include:

- ▶ Adjusting CSO weir elevations
- ▶ Building an equalization basin to temporarily store CSO volume for later treatment at the WPCF.

Tom Bulcher summarized that the goal of the sewer system extension evaluation was to prevent new upstream development from increasing CSO volume. He asked for verification of this approach.

Gary Stuhlfauth (OEPA DSW-Central Office) agreed that was the intent of the sewer system evaluation study requirement for receiving streams that were in or near attainment.

Dan Markowitz (Malcolm Pirnie) stated that he had attended a recent Ohio EPA Northeast District Office (NEDO) Permit seminar. At the seminar, he was told that the NEDO would allow communities in attainment of water quality to use a 1 to 1 ratio of new sewer flow to CSO volume reduction. Communities not in attainment of water quality may have removal ratios greater than 1 to 1. For example, Akron is supposed to have a removal ratio of 10 to 1.

Jenny Leshnock (OEPA DSW-Central Office) agreed that the trend is for communities in attainment of water quality to have a 1 to 1 removal ratio while communities not in attainment of water quality have removal ratios greater than 1 to 1.

Jeff DeShon (OEPA DSW - Central Office) stated that the Hocking River was in attainment, but he was not sure about the Baldwin Run.

Dan Markowitz agreed. However, he believed the Baldwin Run has some habitat problems and should have been reclassified as a modified warmwater habitat in the same way part of the Hocking River was reclassified. This will be discussed in more detail later in the meeting.

## 2. LTCP Approach

Tom Bulcher stated that the City of Lancaster is going to use the Presumptive Approach in its LTCP. Based on current modeling results, the City is near the 85% capture criteria required by the approach. It is believed that with some sewer system modifications, such as those discussed above, the City can capture 85% of the combined sewage.

### 1998 Hocking River and Tributaries Biomonitoring

Tom Bulcher distributed Figures 2-3, 4.1, 4.2 and a Lancaster area USGS map (attached for reference).

Mr. Bulcher explained that Fig. 2-3 presented a schematic of the sampling sites. Figures 4.1 and 4.2 provide the results of the sampling. The USGS map shows the nine 1998 sample locations and Ohio EPA sampling sites. The 1998 sites were chosen to bracket CSO locations and Ohio EPA sample locations where possible. In addition, locations other than Ohio EPA sample locations were selected to investigate other potential impacts to the streams.

After some review, Jeff Deshon (OEPA) requested that Figures 4.1 and 4.2 show the entire range, not just the "significant departure" value.

Hocking River Tributaries (Fetters, Ewing and Baldwin Run)

Tom Bulcher directed the meeting's attention to sample site #2 due to its apparently poor ICI score but good IBI score shown on Figure 4.1. Mr. Bulcher stated that sample location #2 had one CSO upstream. Most of the CSO discharge to the Baldwin Run is discharged below site #2 and above site #4. The upstream CSO was on Fetters Run and its volume is small in comparison to the volume discharged downstream.

Mr. Bulcher stated that field visits to site #2 found that this section of stream was highly modified and channelized. There was much erosion occurring at the site and further upstream as well. From these facts it was concluded that the low ICI score at site #2 was due to habitat issues and not CSOs. As part of the LTCP, a redesignation of Baldwin will be requested.

Jeff DeShon (OEPA DSW - Central Office) disagreed and stated that Ohio EPA's experience indicates that when the fish are in attainment of water quality and the macroinvertebrates are not, pollutant discharges are typically the reason. In addition, a lack of habitat would impact the fish more than the macroinvertebrates.

Dan Markowitz agreed this can be true. However, the fish scores at both sites #2 and #4 were in attainment of Warmwater Habitat. In addition, the macroinvertebrate score at site #2 was significantly lower than the macroinvertebrate score at the downstream site #4 that receives much more CSO volume. Thus, it is not likely that CSOs are the cause of the low ICI score at site #2.

Jamie Krejsa (EnviroScience) added that they had difficulty finding a suitable site for the Hester-Dendy sampler. In his opinion this impacted the ICI score. Mr. Krejsa listed the following problems with sampling site #2 for macroinvertebrates:

- ▶ The stream is highly channelized with little stream cover.
- ▶ The depth of flow at the time of sampler installation was low (~1 to 2 inches).
- ▶ Due to low depth and lack of pools in the main flow stream, the Hester-Dendy sampler was located outside the main flow stream in a depression created by a storm sewer.
- ▶ Significant erosion along stream banks created deposition.

Jeff Deshon asked if the kick sample supported the sampler score.

Dan Markowitz said the kick sample scores were relatively poor, however not as poor as the ICI score would have predicted.

Dan Markowitz added that the good fish scores at site #2 have to be looked at closely. The data shows very high numbers of small fish with good diversity, but no large fish. Jamie Krejsa added that in his opinion the fish found at this site were not a "breeding" population. Rather they bred elsewhere and traveled through this area, but could not stay and grow larger due to the shallow water and good gradient.

Tom Bulcher stated that the City of Lancaster is proposing a Master Plan to address the erosion and flooding problems in this area. However, instead of simply protecting the channel bank, they are looking at a solution that will allow the restoration of habitat for aquatic life to this stream segment.

Paul Menz (Lancaster) stated that recent heavy rains in January 1999 had flooded the parking lot adjacent to Site #2 and washed out several sewer headwalls. The property owners and City were now motivated to solve the problems in this area.

Mike Wilson (Malcolm Pirnie) distributed photos of sample locations:

- ▶ Site #2: Channelization and bank erosion of Baldwin Run
- ▶ Site #2: Stream bank erosion and depositions near the confluence of Feters Run and Ewing Run
- ▶ Site #4: Channelization of Baldwin Run near the confluence with Hocking River.

Dan Markowitz added that the Master Plan would recommend river restoration. The goal of the plan is to develop a river channel that would not erode the existing stream banks during high flows and that would also have a stable low flow channel. This configuration would support aquatic life better than the current unstable stream bed.

### Hocking River Sites

Dan Markowitz directed the meeting attendees to look at the five Hocking River sample locations shown in Figure 4.2. In general, the Ohio EPA and EnviroScience MIwb scores were significantly different. Dr. Markowitz stated that in the past, such differences in data were due to different assumptions and calculations, not actual differences in the health of fish populations.

Jeff DeShon (OEPA DSW - Central Office) agreed to provide copies of their sample data so EnviroScience could check their calculations.

Dan Markowitz also noted that site #7 (HR 90.25) shows how a relatively short section of improved habitat can dramatically increase aquatic life scores. Site #7 was in Maher Park. The Hocking River in this section has overhanging trees, pools, and a less channelized shape when compared to other sampling locations within the City of Lancaster. As seen in Figure 4.2, this location recorded the highest fish scores on the Hocking. This indicates that sections of improved habitat can increase the aquatic life in the stream.

Tom Bulcher discussed the Hocking River sampling locations.

- ▶ Site #5 was upstream of the City and would reflect upstream impacts.
- ▶ Site #6 was upstream of the CSO area but downstream of the River Valley Mall and other significant commercial development.
- ▶ Site #7 was the first site downstream from CSOs. Approximately 25% of all Hocking River CSO volume discharges above this location.
- ▶ Site #8 was downstream of a major CSO but upstream of the plant outfall.
- ▶ Site #9 was below the WPCF and the confluence with Baldwin Run.

Dan Markowitz noted that the fish and macroinvertebrate scores were lowest for the Hocking River at sample location # 8. It was concluded that these scores were due to the impact of both a high volume upstream CSO (CSO #5) and a dry weather overflow.

Mike Wilson (Malcolm Pirnie) added that approximately 75% of the Hocking River CSO is discharged between sample sites #7 and #8.

Paul Menz stated that the dry weather overflow has since been repaired and was due to vandalism.

Tom Bulcher stated that the LTCP will include a project that reduces CSO discharges to this section of the Hocking River.

Tom Bulcher discussed sample site #9. This site was intended to sample the same location the Ohio EPA had sampled, approximately two miles downstream of the WPCF. However, when EnviroScience went to sample the site, they found a gravel company had built a flow-through dam to allow trucks to drive through the river. Pipes had been built into the dam to allow the stream to pass under the dam. However, a backwater effect was still created. During a recent site visit, it was observed that the pipes now appear plugged.

Jamie Krejsa added that during their first fish sampling effort, they began collecting fish samples above the dam but due to a rain storm were unable to finish data collection and subsequently released the fish. On the following day, Enviroscience noticed ponding above the dam and decided to collect fish samples from below the dam. For the second fish sampling, Enviroscience

collected samples downstream of the dam. They also observed many trucks using the dam which may have impacted the aquatic life. The Hester-Dendy's were installed downstream of the dam to avoid the impact of the dam.

Paul Menz added that the Corp of Engineers has been notified about the dam and that it was apparently built without the required permits. Also, some agency has apparently shut down the gravel company's operation due to its location in the flood plain.

Dan Markowitz said it was not possible to quantify the impact of the dam. The LTCP will recommend resampling once the dam has been removed. There is an opportunity for cooperative sampling between the City of Lancaster and the Ohio EPA.

Jeff Deshon stated that the stream would definitely be sampled if it was a TMDL site.

Mike Wilson distributed photos of sample location #9 showing the low head dam.

Tom Bulcher stated that, in conclusion, the LTCP will focus on site #2 and site #8.

### 3. Public Meetings

Tom Bulcher stated that the City of Lancaster is planning to hold two separate meetings to present the LTCP to the public. The first meeting will provide the public with background information and data collected to date for the LTCP. The second meeting will present the draft LTCP to the public. It is anticipated that the first meeting will be in March/April 1999 and the second meeting will be held in July 1999.

It is planned that both meetings will be presented at the biweekly "council as whole" meetings. These are meetings that alternate with the regular City Council meetings. They are standing meetings that allow discussion of current issues in the City of Lancaster.

Tom Bulcher stated that these meetings are regularly scheduled and open to the public. The City also intends to send letters of invitation to persons or groups known to have an interest in water quality in the Hocking River. One known group is the Upper Hocking River Watershed Action Group (UHAG).

Tom Bulcher asked if this approach was satisfactory.

Gary Stuhlfauth stated that it sounded appropriate to include elected officials and to use a regular scheduled meeting with the public. Mr. Stuhlfauth and Mr. Jan Rice (Ohio EPA CDO) asked to be included in any advertisements for the meeting.

Mike Nixon stated that the media would also be notified.

Dan Markowitz asked if anyone knew of someone looking to do some remediation work on the Hocking River as part of a 401 or some other type of mitigation project. Perhaps it could fund the proposed work on Baldwin Run (sample site #2).

Jeff Bohne (Ohio EPA, CDO) suggested applying for 319 funds.

Paul Menz stated that UHAG is investigating 319 funds for some of its projects.

### Conclusion

Mike Nixon stated that the City of Lancaster scheduled this meeting to keep the Ohio EPA up-to-date on what the City was doing regarding its CSO plans. The City does not want to head down the wrong path. Mr. Nixon asked if the approach to the LTCP presented today was satisfactory.

Jeff Deshon stated that he agreed in general that CSOs are not a significant problem. He added that CSOs still have aesthetic issues, such as floatables and other garbage that may become a problem.

Paul Menz stated that there is a negative perception of the Hocking River in the community. One of the goals of the City in the LTCP, and also in its involvement in UHAG, is to change the perception of the Hocking River so that it is seen as a resource.

- End of Minutes -

**CITY OF LANCASTER, OHIO  
WATER POLLUTION CONTROL DEPARTMENT  
WASTEWATER COLLECTION SYSTEM EVALUATION**

**OHIO EPA LONG TERM CONTROL PLAN MEETING AGENDA**

**FEBRUARY 25, 1999**

1. LTCP - Sewer System Extension Evaluation
  - ▶ Sanitary sewer flow addition through year 2020
  - ▶ Alternatives to accomodate sewer system extension
  
2. LTCP Approach
  - ▶ Presumptive Approach
  - ▶ Demonstrative Approach/Aquatic Sampling
  
3. Public Meetings
  - ▶ #1 - Project Background
  - ▶ #2 - LTCP Alternatives



**Figure 2-3  
City of Lancaster  
1998 Biological Sampling Locations**

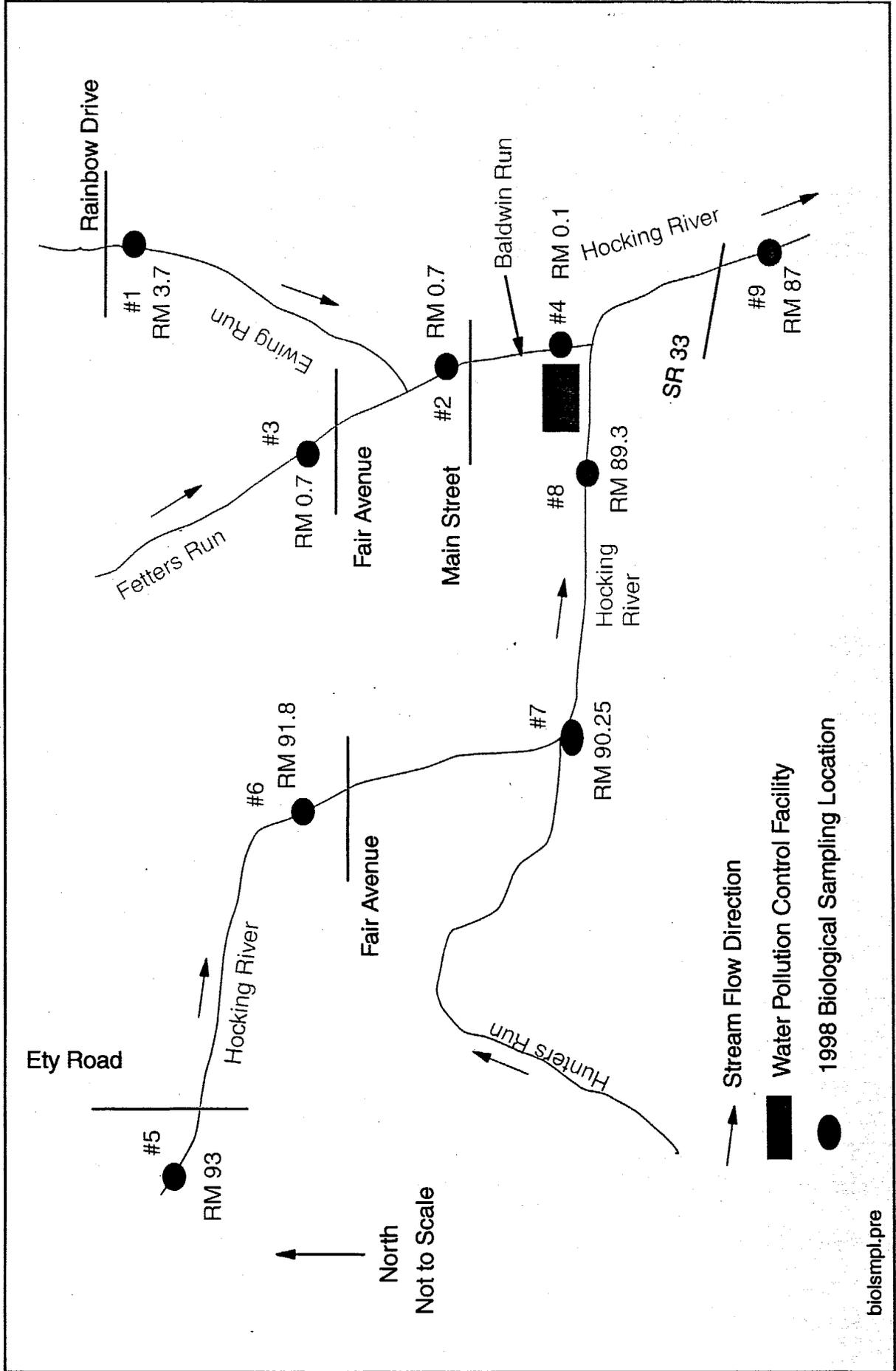


Figure 4.1 Biological Data for Hocking River Tributaries

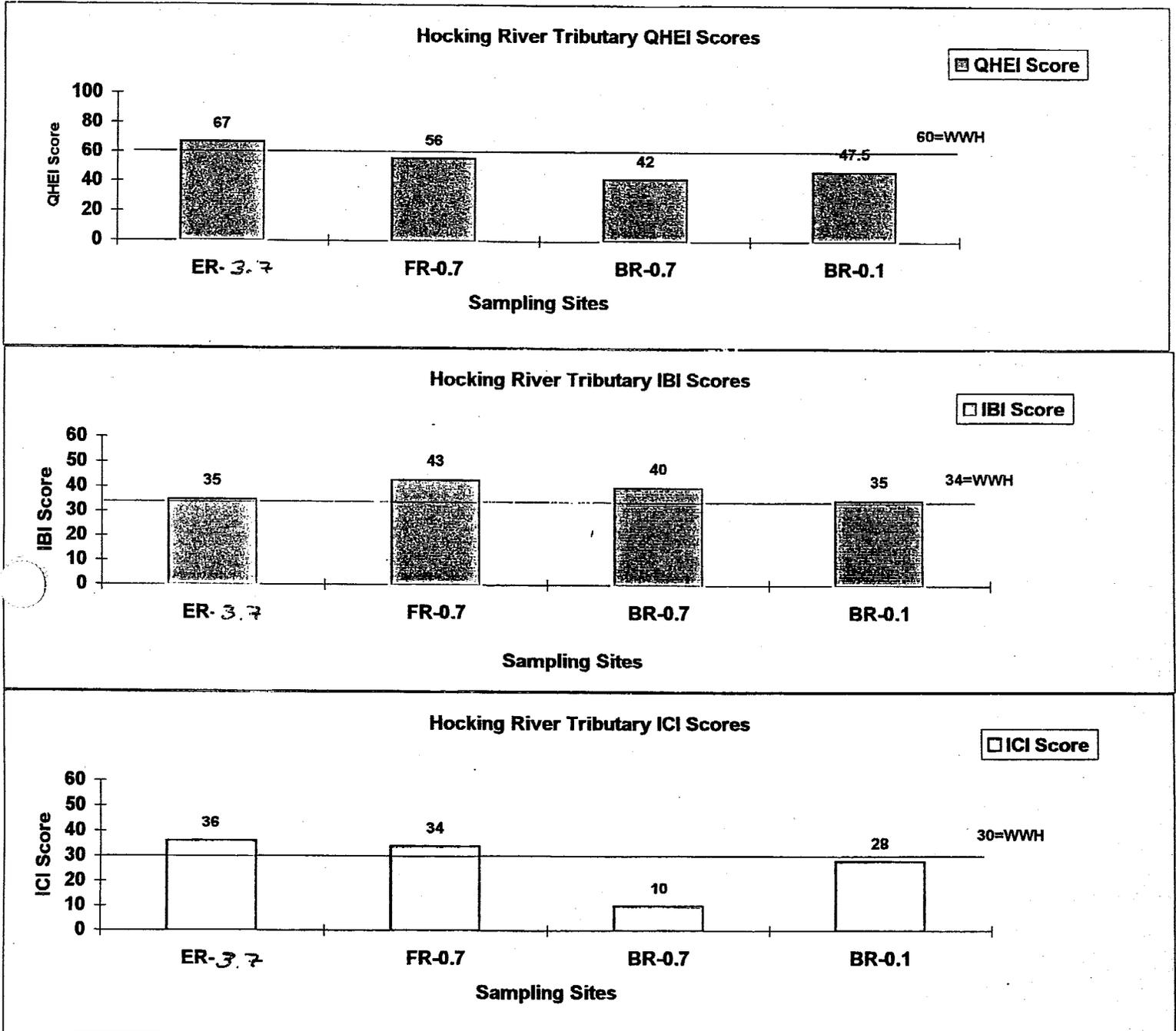
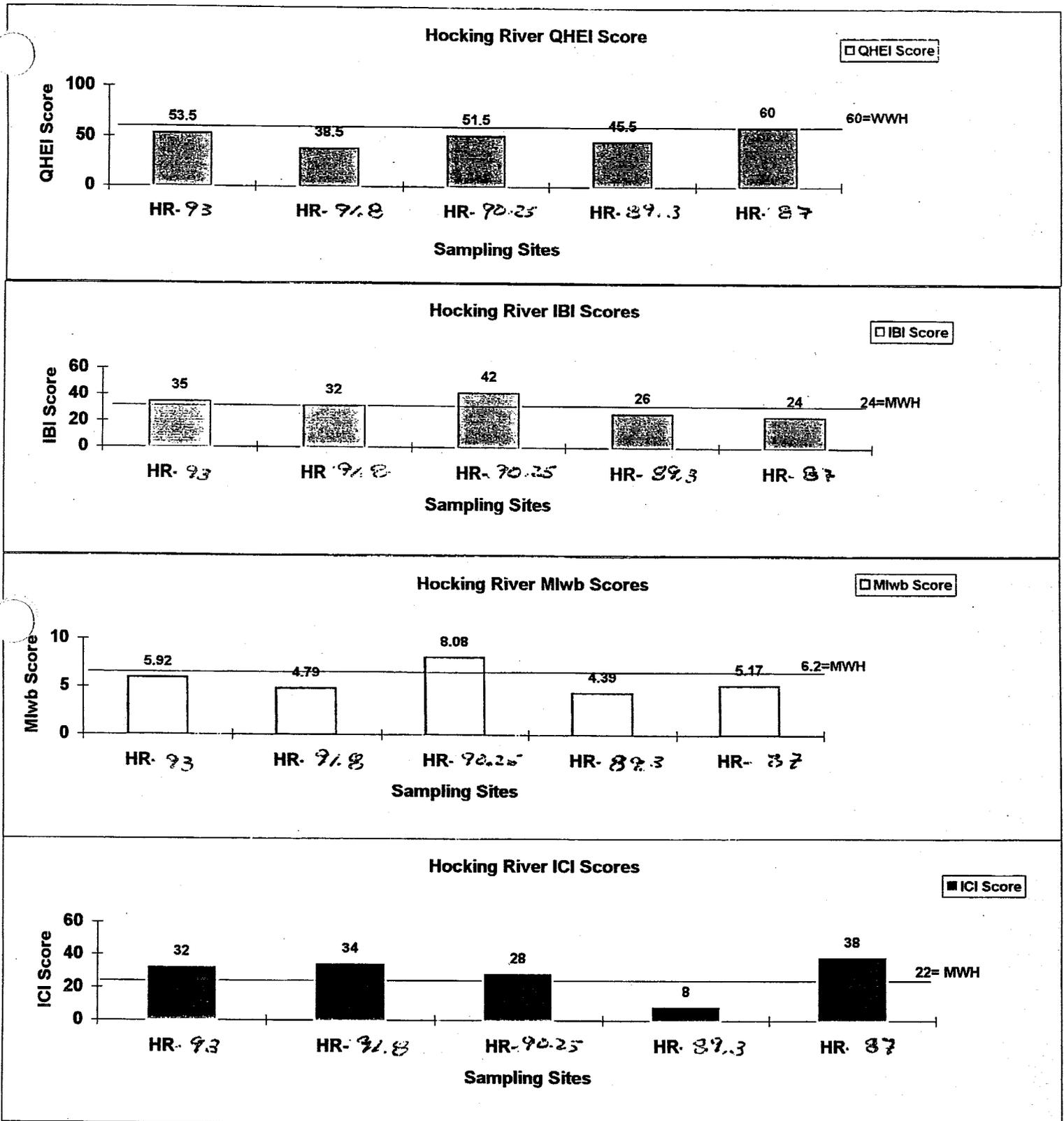
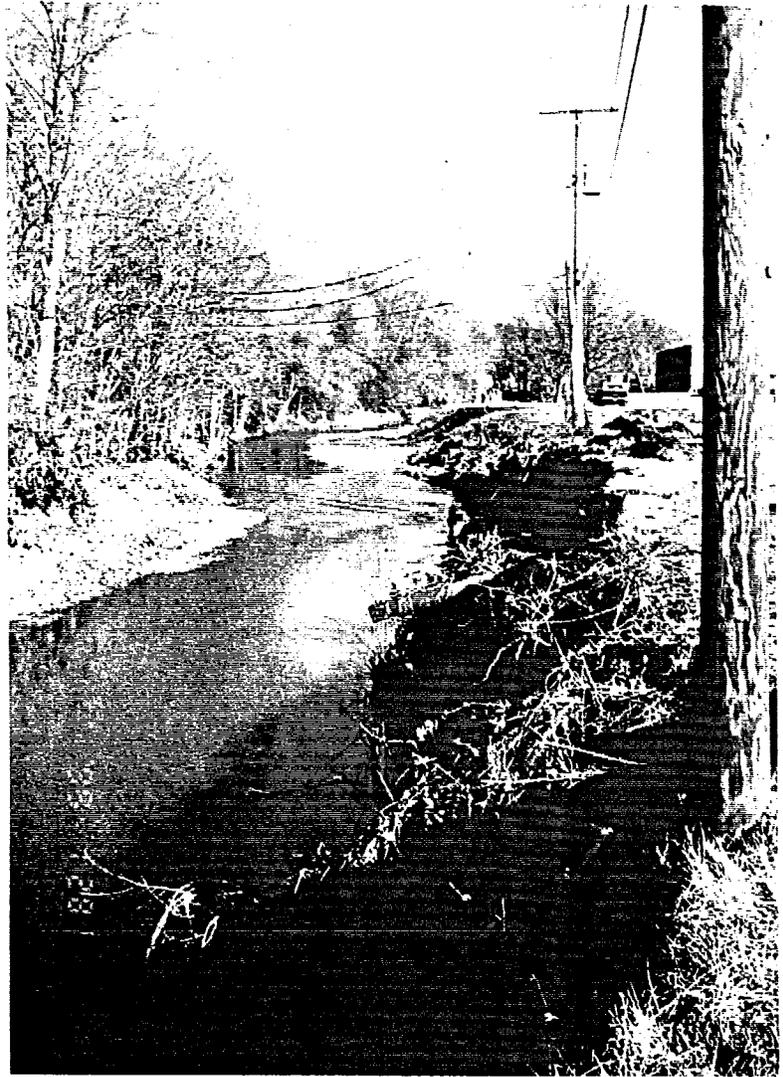


Figure 4.2 Biological Data for Hocking River



Upstream



Downstream



Baldwin Run  
Sample Location #2

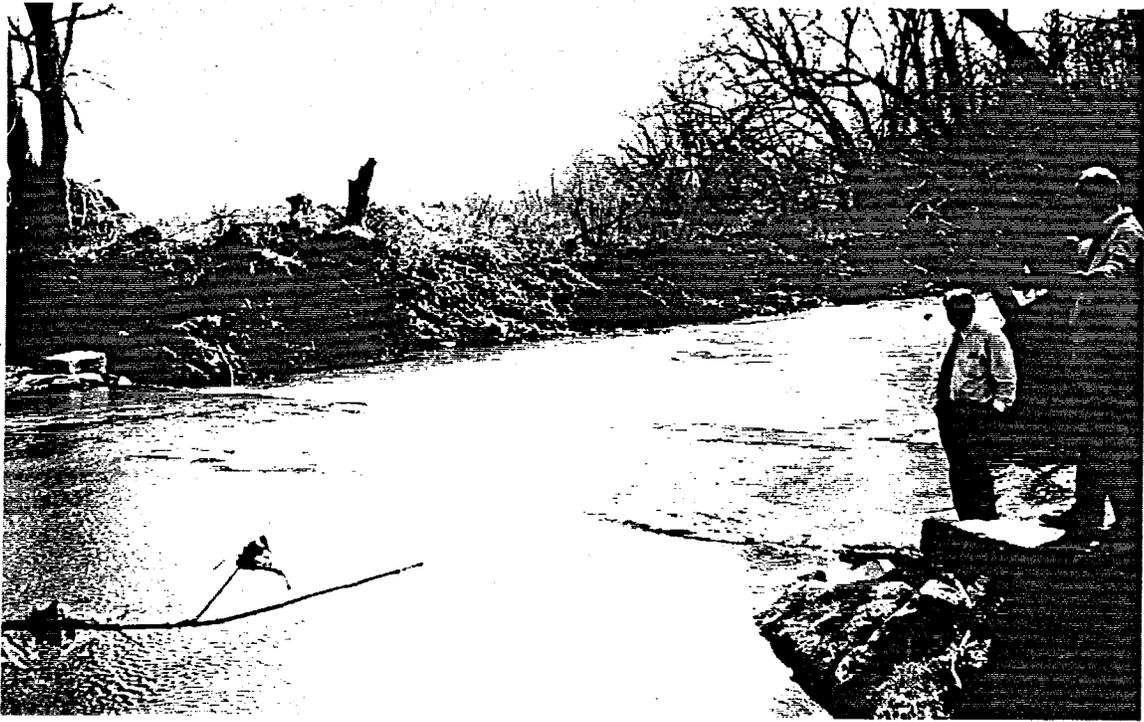


Bakers Run  
Sample Location #4





Hocking River  
Sample Location #9



Hocking River  
Sample Location #9

EW 203.7

