

**U.S. Hydropower Resource Assessment  
for  
Ohio**

**Prepared by:  
Alison M. Conner  
James E. Francfort**

**Project Manager:  
Ben N. Rinehart**

**MASTER**

**Published December 1997**

**DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED**

**Idaho National Engineering and Environmental Laboratory  
Renewable Energy Products Department  
Lockheed Martin Idaho Technologies Company  
Idaho Falls, Idaho 83415**

**Prepared for the  
U.S. Department of Energy  
Assistant Secretary for Energy Efficiency and Renewable Energy  
Under DOE Idaho Operations Office  
Contract DE-AC07-94ID13223**

## **DISCLAIMER**

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

## **DISCLAIMER**

**Portions of this document may be illegible electronic image products. Images are produced from the best available original document.**

## **ABSTRACT**

The U.S. Department of Energy is developing an estimate of the undeveloped hydropower potential in the United States. The Hydropower Evaluation Software (HES) is a computer model that was developed by the Idaho National Engineering Laboratory<sup>a</sup> for this purpose. HES measures the undeveloped hydropower resources available in the United States, using uniform criteria for measurement. The software was developed and tested using hydropower information and data provided by the Southwestern Power Administration. It is a menu-driven program that allows the personal computer user to assign environmental attributes to potential hydropower sites, calculate development suitability factors for each site based on the environmental attributes present, and generate reports based on these suitability factors. This report describes the resource assessment results for the State of Ohio.

---

a. In January 1997, the name of the Idaho National Engineering Laboratory (INEL) was changed to the Idaho National Engineering and Environmental Laboratory (INEEL). INEEL will be used throughout the text of the document, except where the use of INEL is historically important.



## **ACKNOWLEDGMENTS**

The authors thank Peggy A. M. Brookshier and John V. Flynn of the U.S. Department of Energy for their active participation and timely comments.



## **CONTENTS**

<b>ABSTRACT .....</b>	<b>iii</b>
<b>ACKNOWLEDGMENTS .....</b>	<b>v</b>
<b>INTRODUCTION .....</b>	<b>1</b>
Model Development .....	1
Model Goal .....	1
Dam Status .....	2
<b>ASSESSMENT RESULTS .....</b>	<b>2</b>
Summary Results .....	2
Detailed Results .....	5
<b>OBTAINING INDIVIDUAL STATE INFORMATION .....</b>	<b>5</b>
<b>ADDITIONAL HYDROPOWER EVALUATION SOFTWARE INFORMATION .....</b>	<b>6</b>
<b>REFERENCES .....</b>	<b>7</b>
Appendix A—Summary Report	
Appendix B—River Basins Report	
Appendix C—Ohio Sites List	
Appendix D—Individual Resource Database List	

## **FIGURES**

1. Number of sites, by capacity groups, with HES-modeled undeveloped hydropower potential..... 3
2. The nonmodeled and HES-modeled undeveloped hydropower potential..... 3
3. The number of sites with undeveloped hydropower potential and the total megawatts of HES-modeled undeveloped hydropower potential..... 4

4.	Number of sites with undeveloped hydropower potential in the Ohio river basins.....	4
5.	Megawatts of HES-modeled undeveloped hydropower potential in the Ohio river basins .....	5

## **TABLES**

1.	Undeveloped hydropower potential summary for Ohio.....	2
----	--	---

# **U.S. Hydropower Resource Assessment for Ohio**

## **INTRODUCTION**

In June 1989, the U.S. Department of Energy initiated the development of a National Energy Strategy to identify the energy resources available to support the expanding demand for energy in the United States. Public hearings conducted as part of the strategy development process indicated that undeveloped hydropower resources were not well defined. As a result, the Department of Energy established an inter-agency Hydropower Resource Assessment Team to ascertain the undeveloped hydropower potential. In connection with these efforts by the Department of Energy, the Idaho National Engineering Laboratory designed the Hydropower Evaluation Software (HES), which has been used to perform a resource assessment of the undeveloped conventional hydropower potential in over 40 states. This report presents the results of the hydropower resource assessment for the State of Ohio. Undeveloped pumped storage hydropower potential is not included.

The HES was developed as a tool to measure undeveloped hydropower potential regionally or by state. The software is not intended to provide precise development factors for individual sites, but to provide regional or state totals. Because the software was developed as a generic measurement tool encompassing national issues, regional and state totals must be considered judiciously; various local issues may skew undeveloped hydropower potential totals. The information for the resource assessment was compiled from the Federal Energy Regulatory Commission's Hydroelectric Power Resources Assessment database and several other sources. Refer to DOE/ID-10338, the *User's Manual* (Francfort, Matthews, Rinehart 1991) for the specifics of the software and to DOE/ID-10430.1, the *Status Report* (Conner, Francfort, Rinehart 1996) for an overview of all resource assessment activities to date.

## **Model Development**

Hydropower Evaluation Software, both a probability-factor computer model and a database, is a menu-driven program that is intended to be user-friendly. Computer screens and report-generation capabilities were developed to meet the needs of users nationwide. The software uses environmental attribute data to generate an overall project environmental suitability factor (PESF) between 0.1 and 0.9, where 0.9 indicates the highest likelihood of development and 0.1 indicates the lowest likelihood of development. The suitability factors depend on the unique environmental attributes of each potential site. They reflect the considerations that (a) environmental concerns can make a potential site unacceptable, prohibiting its development (for a suitability factor of 0.1), or (b) if there are no environmental concerns, there is no negative effect on the likelihood of site development (for a suitability factor of 0.9). A combination of attributes can result in a lower suitability factor because multiple environmental considerations would reduce the likelihood that a site may be developed to its physical potential.

## **Model Goal**

The goal of the HES is to assemble an accurate resource database of all sites with undeveloped hydropower potential in the United States for use as a planning tool to determine the viable national hydropower potential. Undeveloped hydropower potential is not limited to the development of new sites; it also includes the development of additional hydropower-generating capacity at sites that currently have hydropower, but are not developed to their full potential. This undeveloped hydropower potential is a source of nonpolluting, renewable energy available to meet the growing power needs of the United States. The HES should help make this goal obtainable and ensure a set of uniform criteria for national assessment.

## Dam Status

The effects of environmental attributes vary by dam status. The dam status classifications used are as follows:

- W = Developed hydropower site with current power generation, but the total hydropower potential has not been fully developed. Only the undeveloped hydropower potential is discussed in this report.
- W/O = Developed site without current power generation. The site has some type of developed impoundment or diversion structure, but no developed hydropower generating capability.
- U = Undeveloped site. The site does not have power generation capability nor a developed impoundment or diversion structure.

## ASSESSMENT RESULTS

### Summary Results

A total of 43 sites (Table 1) have been identified and assessed for their undeveloped hydropower potential. The HES results for

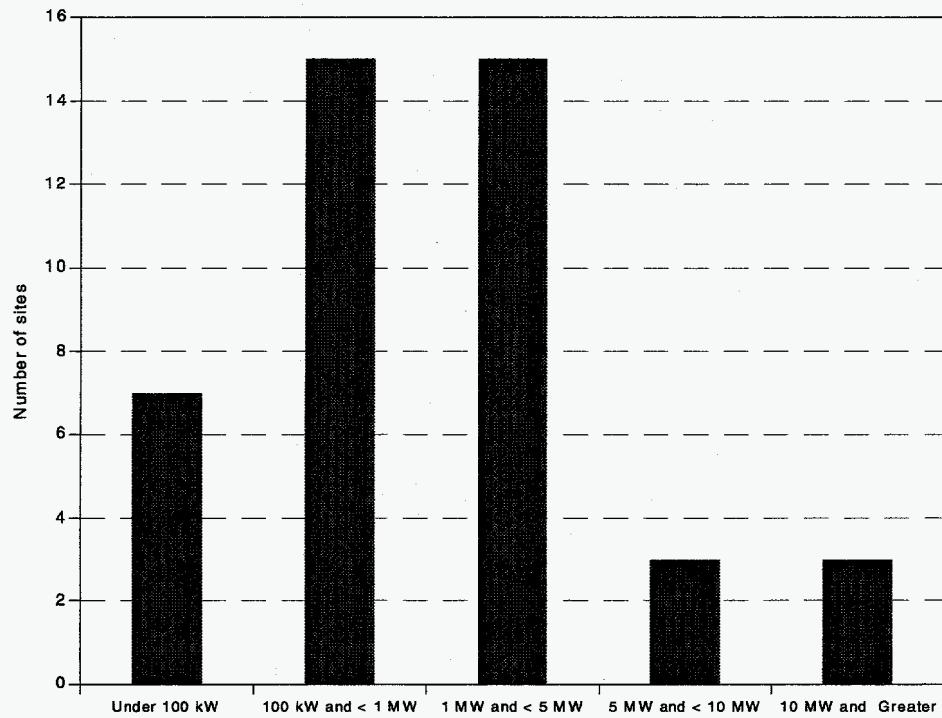
individual site capacities range from 25 kilowatts (kW) to 40 megawatts (MW). Greater than one-half (51%) of the sites in Ohio are small hydropower sites, less than 1 MW (Figure 1).

The nonmodeled undeveloped hydropower potential total for Ohio was identified as 242 MW. The HES results lowers this estimate about 24% to 183 MW. The greatest reduction in undeveloped hydropower potential, by MW, occurs at sites that have some type of developed impoundment or diversion structure, but no hydropower generating capability (W/O category). These sites have a HES-modeled undeveloped hydropower potential of about 138 MW, a 45-MW reduction in the estimated undeveloped hydropower potential (Figure 2). Figure 3 correlates the number of sites that have undeveloped hydropower potential with the total megawatts of HES-modeled undeveloped hydropower potential.

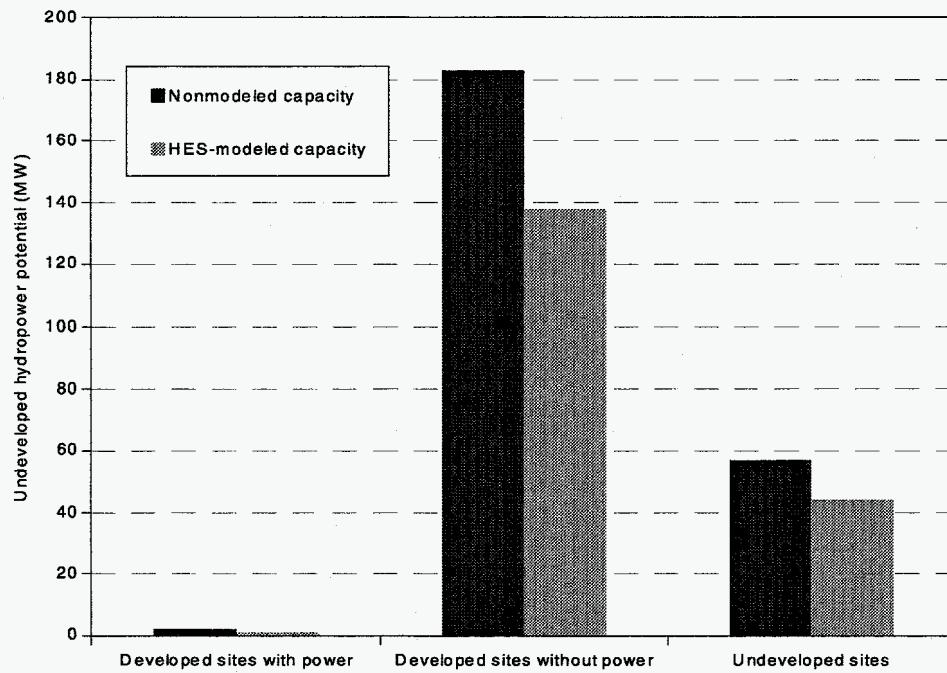
The 43 identified sites are located within four major river basins and several minor river basins. The number of sites per major river basin ranges from 1 in the Maumee River basin to 29 in the Ohio Main Stream River basin (Figure 4). Ninety-two percent of the undeveloped hydropower potential in the State of Ohio is contained within the Ohio Main Stream River basin (Figure 5).

**Table 1.** Undeveloped hydropower potential summary for Ohio. The table contains the nonmodeled undeveloped nameplate potential and the HES-modeled undeveloped potential totals.

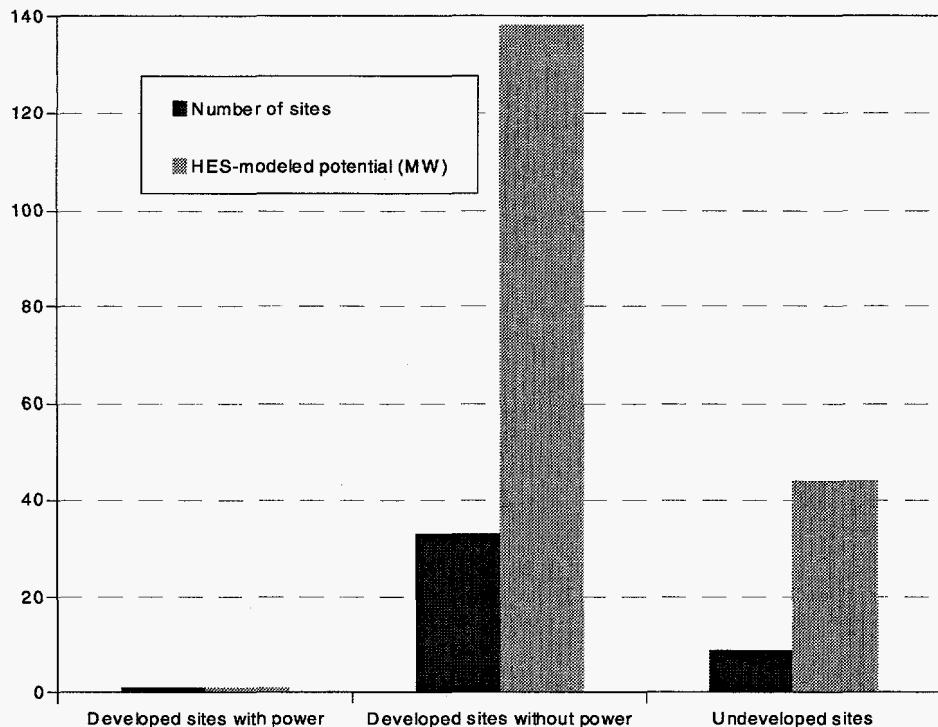
	Number of projects	Nameplate potential (MW)	HES-modeled potential (MW)
With Power	1	2.0	1.0
W/O Power	33	183.1	138.0
Undeveloped	9	57.0	44.2
State Total	43	242.1	183.2



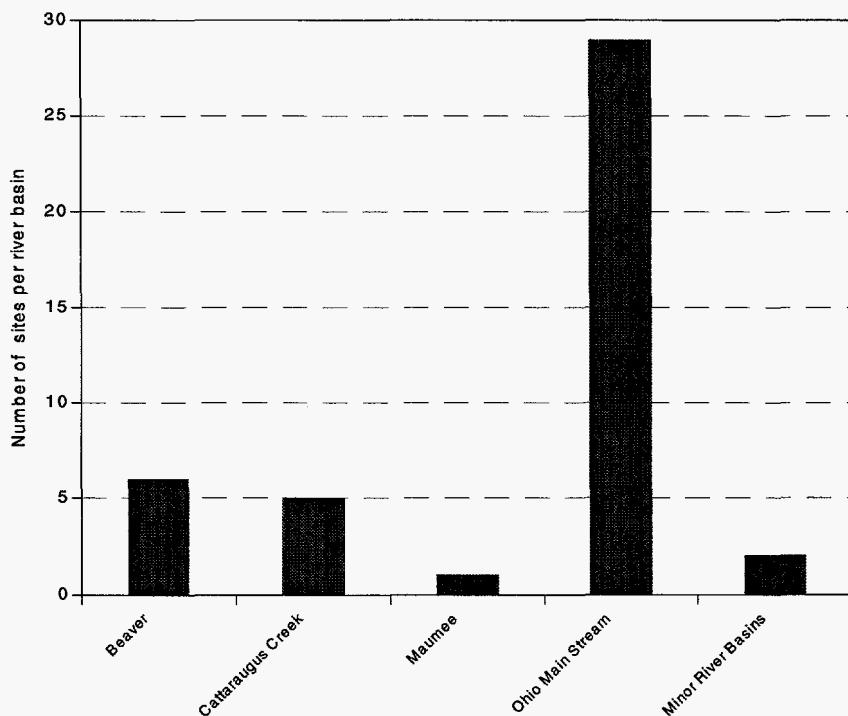
**Figure 1.** Number of sites, by capacity groups, with HES-modeled undeveloped hydropower potential.



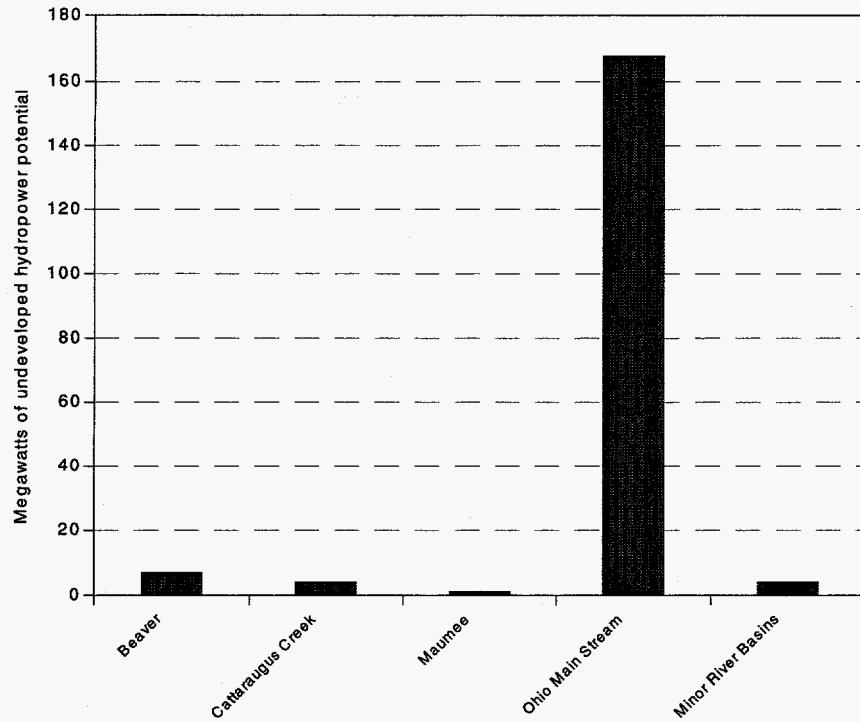
**Figure 2.** The nonmodeled and HES-modeled undeveloped hydropower potential.



**Figure 3.** The number of sites with undeveloped hydropower potential and the total megawatts of HES-modeled undeveloped hydropower potential.



**Figure 4.** Number of sites with undeveloped hydropower potential in the Ohio river basins.



**Figure 5.** Megawatts of HES-modeled undeveloped hydropower potential in the Ohio river basins.

## Detailed Results

The appendices contain, in the form of HES-generated reports, detailed information about the undeveloped hydropower potential in Ohio. The appendices contain the following information:

**Appendix A** summarizes the undeveloped hydropower potential by dam status groups. The number of sites, nonmodeled undeveloped hydropower potential, and HES-modeled undeveloped hydropower potential is provided based on the dam status.

**Appendix B** provides the hydropower resource assessment by river basin, which includes the project number, project name, stream name, dam status, nonmodeled undeveloped hydropower potential, and the HES-modeled undeveloped hydropower potential for each site. Subtotals are provided for each river basin.

**Appendix C** lists the project numbers, plant name, stream name, if a site is Federally owned, nonmodeled undeveloped hydropower potential,

and HES-modeled undeveloped hydropower potential. The sites are grouped by dam status.

**Appendix D** contains a resource database list for the 43 sites in Ohio. Information includes plant name, stream, state, county, river basin and owner names, project number, nameplate and HES-modeled undeveloped hydropower potential, the unit and plant types, dam status, latitude, longitude, and the environmental factors that the HES uses to determine the PESF.

## OBTAINING INDIVIDUAL STATE INFORMATION

Additional copies of the hydropower resource assessment results for individual states are available and can be obtained by writing or calling the authors or the National Technical Information Service (NTIS).

**Telephone Orders**—(703) 487-4650. NTIS sales desk and customer services are available between 8:30 a.m. and 5:00 p.m., Eastern Standard Time.

**Fax**—(703) 321-8547. Customers may fax their orders to NTIS. These orders may be charged to a NTIS deposit account, American Express, VISA, or MasterCard.

**Mail Orders**—Mail orders should be sent to National Technical Information Service, Document Sales, 5285 Port Royal Road, Springfield, VA 22161. Call the sales desk for prices before placing an order.

**E-mail**—Customers may e-mail their requests to info@ntis.fedworld.gov.

**Method of Payment**—Customers may pay for reports (and other NTIS products and services) by (a) credit card (American Express, Visa or MasterCard); (b) check or money order on a United States bank payable to NTIS; (c) NTIS deposit account; or, (d) by asking to be billed (add \$7.50 per order), United States, Canada, and Mexico, only.

**Handling Fee**—A \$4.00 handling fee per total order applies to orders from the United States, Canada, and Mexico. Handling charges do not apply to rush order service or pick-up orders.

**Postage and Shipping**—Orders are shipped first class mail, or equivalent, to addresses in the United States, Canada, and Mexico.

**Order Turnaround Time**—Orders for technical reports generally are shipped within 3 to 5 days of receipt. For faster service, NTIS offers rush order service.

**Rush Order Service**—Call 1-800-533-NTIS. In Ohio, Canada, and Mexico call (703) 487-4700.

For NTIS rush order service add \$15 per item. This guarantees that an order will be processed through NTIS within 24 hours of its receipt. These orders receive immediate, individual attention. The items ordered are delivered by first call mail. Call NTIS for information on rush order service for computer products.

**For Help in Tracing an Order**—Call (703) 487-4650 and request the customer service option.

## **ADDITIONAL HYDROPOWER EVALUATION SOFTWARE INFORMATION**

Additional information concerning the HES can be obtained by contacting Ben Rinehart or Jim Francfort at the addresses provided below. Copies of the software and the User's Manual may also be obtained from these individuals.

Ben Rinehart, Project Manager  
Idaho National Engineering and Environmental Laboratory  
P.O. Box 1625, MS 3830  
Idaho Falls, ID 83415-3830  
(208) 526-1002

Jim Francfort  
Idaho National Engineering and Environmental Laboratory  
P.O. Box 1625, MS 3830  
Idaho Falls, ID 83415-3830  
(208) 526-6787

## **REFERENCES**

- Conner, A. M., J. E. Francfort, and B. N. Rinehart, 1996, *Uniform Criteria for U.S. Hydropower Resource Assessment, Hydropower Evaluation Software Status Report-II*, DOE/ID 10430.1, Idaho National Engineering Laboratory, Idaho Falls, Idaho.
- Francfort, J. E., S. D. Matthews, and B. N. Rinehart, 1991, *Hydropower Evaluation Software User's Manual*, DOE/ID-10338, Idaho National Engineering Laboratory, Idaho Falls, Idaho.

## **Appendix A**

### **Summary Report**

## H Y D R O P O W E R

## C A P A C I T Y

## S U M M A R Y

DATE: 12/01/97

State	Category	Number of Projects	Name Plate Capacity (KW)	HES Adjusted Capacity (KW)
OH	With Power	1	1950	975
	W/O Power	33	183120	137975.50
	Undeveloped	9	56990	44235
	STATE TOTAL	43	242060	183185.50
TOTALS	With Power	1	1950	975
	W/O Power	33	183120	137975.50
	Undeveloped	9	56990	44235
GRAND TOTAL		43	242060	183185.50

**Appendix B**

**River Basins Report**

Page No. 1  
12/01/97

HYDROPOWER RESOURCE ASSESSMENT BY RIVER BASIN

FERC Number	Plant Name/ Stream	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
<b>** River Basin BEAVER RIVER BASIN</b>					
OH010	LAKE MILTON MAHONING R	U	2570.00	0.90	2313.00
10252	BOOSTER STA OWSC PL(MAHONING R)	U	200.00	0.90	180.00
OH008	MOSQUITO CREEK MOSQUITO CR, MAHONING R	WO	1100.00	0.90	990.00
OH009	MICHAEL J KIRWIN W BR MAHONING R	WO	1470.00	0.90	1323.00
09972	MILTON MAHONING R	WO	1000.00	0.90	900.00
03359	BERLIN LAKE MAHONING R	WO	1560.00	0.75	1170.00
<b>** Subtotal **</b>			7900.00		6876.00
<b>** River Basin CATTARAUGUS CREEK BASIN</b>					
03279	KENT DAM CUYAHOGA R	U	420.00	0.10	42.00
OH001	FREMONT SANDUSKY R	U	4700.00	0.10	470.00
10619	CUYAHOGO FALLS CUYAHOGA R	WO	5500.00	0.50	2750.00
03088	ROCKWELL CUYAHOGA R	WO	680.00	0.50	340.00
07237	ELYRIA EAST BR, BLACK R	WO	650.00	0.50	325.00
<b>** Subtotal **</b>			11950.00		3927.00
<b>** River Basin MAUMEE RIVER BASIN</b>					
06637	DEFIANCE(AUGLAIZE R) AUGLAIZE R	W	1950.00	0.50	975.00
<b>** Subtotal **</b>			1950.00		975.00

HYDROPOWER RESOURCE ASSESSMENT BY RIVER BASIN

FERC Number	Plant Name/ Stream	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
<b>** River Basin MINOR RIVER BASINS</b>					
10860	EAST FORK E FK LITTLE MIAMI R	WO	4000.00 0.50		2000.00
07933	CAESAR CREEK CAESAR CR,LITTLE MIAMI R	WO	3000.00 0.50		1500.00
<b>** Subtotal **</b>					
			7000.00		3500.00
<b>** River Basin OHIO MAIN STREAM</b>					
OH005	PIQUA MIAMI R	U	800.00 0.90		720.00
06079	DEEP CREEK DEEP CR,SCIOTO R	U	2200.00 0.10		220.00
06075	ALUM CREEK ALUM CR,SCIOTO R	U	900.00 0.10		90.00
06074	DELAWARE DAM OLENTANGY R	U	1200.00 0.50		600.00
OH006	RACINE L&D OHIO R	U	44000.00 0.90		39600.00
02724	HAMILTON MIAMI R	WO	750.00 0.90		675.00
OH002	DAYTON LOW DAM GREAT MIAMI R	WO	50.00 0.50		25.00
OH003	C J BROWN BUCK CR,MAD R	WO	99.00 0.50		49.50
OH004	ISLAND PARK GREAT MIAMI R	WO	50.00 0.50		25.00
07871	PAINT CREEK PAINT CR,SCIOTO R	WO	8000.00 0.50		4000.00
03171	HOOVER BIG WALNUT CR,SCIOTO R	WO	500.00 0.10		50.00
02946	GRIGGS SCIOTO R	WO	2100.00 0.10		210.00
09042	GALLIPOLIS L&D OHIO R	WO	48000.00 0.75		36000.00

HYDROPOWER RESOURCE ASSESSMENT BY RIVER BASIN

FERC Number	Plant Name/ Stream	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
07751	DEVOLA L&D 2 MUSKINGUM R	WO	7300.00	0.90	6570.00
06998	MUSKINGUM L&D 3 MUSKINGUM R	WO	10000.00	0.90	9000.00
07234	BEVERLY L&D 4 MUSKINGUM R	WO	5000.00	0.90	4500.00
07261	LUKE CHUTE L&D 5 MUSKINGUM R	WO	4000.00	0.90	3600.00
08376	MUSKINGUM L&D 6 MUSKINGUM R	WO	1500.00	0.90	1350.00
07262	MCCONNELLSVILLE L&D 7 MUSKINGUM R	WO	4500.00	0.90	4050.00
07222	ROKEBY L&D 8 MUSKINGUM R	WO	5000.00	0.90	4500.00
07221	PHILO L&D 9 MUSKINGUM R	WO	5800.00	0.90	5220.00
06563	MUSKINGUM L&D 10 MUSKINGUM R	WO	930.00	0.75	697.50
07220	ELLIS L&D 11 MUSKINGUM R	WO	5000.00	0.90	4500.00
08268	DILLON LICKING R	WO	2100.00	0.75	1575.00
08269	WILLS CREEK WILLS CR, MUSKINGUM R	WO	2400.00	0.75	1800.00
08270	PLEASANT HILL CLEAR FORK R	WO	1160.00	0.75	870.00
03266	PIEDMONT DAM STILLWATER CR, TUSCARAWAS R	WO	300.00	0.75	225.00
OH007	DOVER TUSCARAWAS R	WO	121.00	0.50	60.50
03218	PIKE ISLAND OHIO R	WO	49500.00	0.75	37125.00

Page No. 4  
12/01/97

HYDROPOWER RESOURCE ASSESSMENT BY RIVER BASIN

FERC Number	Plant Name/ Stream	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
<b>** Subtotal **</b>					
			213260.00		167907.50
<b>*** Total ***</b>					
			242060.00		183185.50

**Appendix C**

**Ohio Sites List**

Page No. 1  
12/01/97

HYDROPOWER RESOURCE ASSESSMENT BY FERC NUMBER

Plant Name/ Stream	ST	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
** FERC Number 03279 KENT DAM CUYAHOGA R		OH U	420.00	0.10	42.00
** Subtotal **			420.00		42.00
** FERC Number 06074 DELAWARE DAM OLENTANGY R		OH U	1200.00	0.50	600.00
** Subtotal **			1200.00		600.00
** FERC Number 06075 ALUM CREEK ALUM CR,SCIOTO R		OH U	900.00	0.10	90.00
** Subtotal **			900.00		90.00
** FERC Number 06079 DEEP CREEK DEEP CR,SCIOTO R		OH U	2200.00	0.10	220.00
** Subtotal **			2200.00		220.00
** FERC Number 10252 BOOSTER STA OWSC PL(MAHONING R)		OH U	200.00	0.90	180.00
** Subtotal **			200.00		180.00
** FERC Number OH001 FREMONT SANDUSKY R		OH U	4700.00	0.10	470.00
** Subtotal **			4700.00		470.00
** FERC Number OH005 PIQUA MIAMI R		OH U	800.00	0.90	720.00

HYDROPOWER RESOURCE ASSESSMENT BY FERC NUMBER

Plant Name/ Stream	ST	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
<b>** Subtotal **</b>			800.00		720.00
<b>** FERC Number OH006</b> RACINE L&D OHIO R	OH	U	44000.00	0.90	39600.00
<b>** Subtotal **</b>			44000.00		39600.00
<b>** FERC Number OH010</b> LAKE MILTON MAHONING R	OH	U	2570.00	0.90	2313.00
<b>** Subtotal **</b>			2570.00		2313.00
<b>** FERC Number 06637</b> DEFIANCE(AUGLAIZE R) AUGLAIZE R	OH	W	1950.00	0.50	975.00
<b>** Subtotal **</b>			1950.00		975.00
<b>** FERC Number 02724</b> HAMILTON MIAMI R	OH	WO	750.00	0.90	675.00
<b>** Subtotal **</b>			750.00		675.00
<b>** FERC Number 02946</b> GRIGGS SCIOTO R	OH	WO	2100.00	0.10	210.00
<b>** Subtotal **</b>			2100.00		210.00
<b>** FERC Number 03088</b> ROCKWELL CUYAHOGA R	OH	WO	680.00	0.50	340.00
<b>** Subtotal **</b>			680.00		340.00

HYDROPOWER RESOURCE ASSESSMENT BY FERC NUMBER

Plant Name/ Stream	ST	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
** FERC Number 03171 HOOVER BIG WALNUT CR,SCIOTO R		OH WO	500.00	0.10	50.00
** Subtotal **			500.00		50.00
** FERC Number 03218 PIKE ISLAND OHIO R		OH WO	49500.00	0.75	37125.00
** Subtotal **			49500.00		37125.00
** FERC Number 03266 PIEDMONT DAM STILLWATER CR,TUSCARAWAS R		OH WO	300.00	0.75	225.00
** Subtotal **			300.00		225.00
** FERC Number 03359 BERLIN LAKE MAHONING R		OH WO	1560.00	0.75	1170.00
** Subtotal **			1560.00		1170.00
** FERC Number 06563 MUSKINGUM L&D 10 MUSKINGUM R		OH WO	930.00	0.75	697.50
** Subtotal **			930.00		697.50
** FERC Number 06998 MUSKINGUM L&D 3 MUSKINGUM R		OH WO	10000.00	0.90	9000.00
** Subtotal **			10000.00		9000.00
** FERC Number 07220 ELLIS L&D 11 MUSKINGUM R		OH WO	5000.00	0.90	4500.00

HYDROPOWER RESOURCE ASSESSMENT BY FERC NUMBER

Plant Name/ Stream	ST	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
<b>** Subtotal **</b>			5000.00		4500.00
<b>** FERC Number 07221</b> PHILO L&D 9 MUSKINGUM R	OH	WO	5800.00	0.90	5220.00
<b>** Subtotal **</b>			5800.00		5220.00
<b>** FERC Number 07222</b> ROKEBY L&D 8 MUSKINGUM R	OH	WO	5000.00	0.90	4500.00
<b>** Subtotal **</b>			5000.00		4500.00
<b>** FERC Number 07234</b> BEVERLY L&D 4 MUSKINGUM R	OH	WO	5000.00	0.90	4500.00
<b>** Subtotal **</b>			5000.00		4500.00
<b>** FERC Number 07237</b> ELYRIA EAST BR, BLACK R	OH	WO	650.00	0.50	325.00
<b>** Subtotal **</b>			650.00		325.00
<b>** FERC Number 07261</b> LUKE CHUTE L&D 5 MUSKINGUM R	OH	WO	4000.00	0.90	3600.00
<b>** Subtotal **</b>			4000.00		3600.00
<b>** FERC Number 07262</b> MCCONNELSVILLE L&D 7 MUSKINGUM R	OH	WO	4500.00	0.90	4050.00
<b>** Subtotal **</b>			4500.00		4050.00

HYDROPOWER RESOURCE ASSESSMENT BY FERC NUMBER

Plant Name/ Stream	ST	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
** FERC Number 07751 DEVOLA L&D 2 MUSKINGUM R		OH WO	7300.00	0.90	6570.00
** Subtotal **			7300.00		6570.00
** FERC Number 07871 PAINT CREEK PAINT CR,SCIOTO R		OH WO	8000.00	0.50	4000.00
** Subtotal **			8000.00		4000.00
** FERC Number 07933 CAESAR CREEK CAESAR CR,LITTLE MIAMI R		OH WO	3000.00	0.50	1500.00
** Subtotal **			3000.00		1500.00
** FERC Number 08268 DILLON LICKING R		OH WO	2100.00	0.75	1575.00
** Subtotal **			2100.00		1575.00
** FERC Number 08269 WILLS CREEK WILLS CR,MUSKINGUM R		OH WO	2400.00	0.75	1800.00
** Subtotal **			2400.00		1800.00
** FERC Number 08270 PLEASANT HILL CLEAR FORK R		OH WO	1160.00	0.75	870.00
** Subtotal **			1160.00		870.00
** FERC Number 08376 MUSKINGUM L&D 6 MUSKINGUM R		OH WO	1500.00	0.90	1350.00

HYDROPOWER RESOURCE ASSESSMENT BY FERC NUMBER

Plant Name/ Stream	ST	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
<b>** Subtotal **</b>			1500.00		1350.00
<b>** FERC Number 09042</b> GALLIPOLIS L&D OHIO R	OH	WO	48000.00	0.75	36000.00
<b>** Subtotal **</b>			48000.00		36000.00
<b>** FERC Number 09972</b> MILTON MAHONING R	OH	WO	1000.00	0.90	900.00
<b>** Subtotal **</b>			1000.00		900.00
<b>** FERC Number 10619</b> CUYAHOGO FALLS CUYAHOGA R	OH	WO	5500.00	0.50	2750.00
<b>** Subtotal **</b>			5500.00		2750.00
<b>** FERC Number 10860</b> EAST FORK E FK LITTLE MIAMI R	OH	WO	4000.00	0.50	2000.00
<b>** Subtotal **</b>			4000.00		2000.00
<b>** FERC Number OH002</b> DAYTON LOW DAM GREAT MIAMI R	OH	WO	50.00	0.50	25.00
<b>** Subtotal **</b>			50.00		25.00
<b>** FERC Number OH003</b> C J BROWN BUCK CR,MAD R	OH	WO	99.00	0.50	49.50
<b>** Subtotal **</b>			99.00		49.50

HYDROPOWER RESOURCE ASSESSMENT BY FERC NUMBER

Plant Name/ Stream	ST	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
** FERC Number OH004 ISLAND PARK GREAT MIAMI R		OH WO	50.00	0.50	25.00
** Subtotal **			50.00		25.00
** FERC Number OH007 DOVER TUSCARAWAS R		OH WO	121.00	0.50	60.50
** Subtotal **			121.00		60.50
** FERC Number OH008 MOSQUITO CREEK MOSQUITO CR, MAHONING R		OH WO	1100.00	0.90	990.00
** Subtotal **			1100.00		990.00
** FERC Number OH009 MICHAEL J KIRWIN W BR MAHONING R		OH WO	1470.00	0.90	1323.00
** Subtotal **			1470.00		1323.00
*** Total ***			242060.00		183185.50

## **Appendix D**

### **Individual Resource Database List**

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 1

FERC Number	Plant Name	Stream	State Name
02724	HAMILTON	MIAMI R	OH

County Name	River Basin
BUTLER	OHIO MAIN STREAM

Class	Owner Name
-------	------------

M	HAMILTON, CITY OF
---	-------------------

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
750.00	0.90	675.00	3500.00	3150

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3929.00
C	ROR	NO	WO	Longitude	8430.00

Factor	Exist Prob	Factor	Exist Prob
--------	------------	--------	------------

Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	0.90
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 2

FERC Number	Plant Name	Stream	State Name	
02946	GRIGGS	SCIOTO R	OH	
County Name		River Basin		
FRANKLIN		OHIO MAIN STREAM		
Class		Owner Name		
M		COLUMBUS,CITY OF		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
2100.00	0.10	210.00	6500.00	650
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	STG	XX	WO	4001.00 8305.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	Y 0.75	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	Y 0.10	
Fish Presence Value	0.90	Federal Land Code 104	0.90	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	Y 0.75	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	Y 0.75	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 3

FERC Number	Plant Name	Stream	State Name
03088	ROCKWELL	CUYAHOGA R	OH

County Name	River Basin
PORTAGE	CATTARAUGUS CREEK BASIN

## Class                    Owner Name

M                    AKRON,CITY OF

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
680.00	0.50	340.00	2100.00	1050

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	0.00
	ROR	XX	WO		0.00

## Factor                    Exist Prob                    Factor                    Exist Prob

Wild/Scenic Protection	Y	0.50	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream			Threatened/Endangered Fish	Y 0.75
Wild/Scenic Location		0.90	Threatened/Endangered Wildlife	0.90
Cultural Value		0.90	Federal Land Code 103	0.90
Fish Presence Value	Y	0.75	Federal Land Code 104	0.90
Geologic Value		0.90	Federal Land Code 105	0.90
Historic Value		0.90	Federal Land Code 106	0.90
Other Value		0.90	Federal Land Code 107	0.90
Recreation Value	Y	0.75	Federal Land Code 108	0.90
Scenic Value	Y	0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 4

FERC Number	Plant Name	Stream	State Name	
03171	HOOVER	BIG WALNUT CR, SCIOTO R	OH	
County Name		River Basin		
FRANKLIN		OHIO MAIN STREAM		
Class		Owner Name		
M		COLUMBUS,CITY OF		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
500.00	0.10	50.00	3700.00	370
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	ROR	XX	WO	4006.00 8253.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	Y 0.75	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	Y 0.10	
Fish Presence Value	0.90	Federal Land Code 104	0.90	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	Y 0.75	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	Y 0.75	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## RESOURCE DATABASE LISTING

DATE: 12/01/97

PAGE NO: 5

FERC Number	Plant Name	Stream	State Name
03218	PIKE ISLAND	OHIO R	OH

County Name	River Basin
BELMONT	OHIO MAIN STREAM

Class	Owner Name
-------	------------

M	ORRVILLE, CITY OF
---	-------------------

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
49500.00	0.75	37125.00	236400.00	177300

Unit Type	Plant Type	Project Status	Dam Status	Latitude	4009.00
				Longitude	8042.00
	ROR	MO	WO		

Factor	Exist Prob	Factor	Exist Prob
--------	------------	--------	------------

Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	Y 0.75
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 6

FERC Number	Plant Name	Stream	State Name	
03266	PIEDMONT DAM	STILLWATER CR, TUSCARAWAS R	OH	
County Name		River Basin		
HARRISON		OHIO MAIN STREAM		
Class		Owner Name		
M		HARRISON COUNTY		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
300.00	0.75	225.00	2300.00	1725
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	STG	XX	WO	4011.00 8113.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	0.90	
Fish Presence Value	0.90	Federal Land Code 104	Y 0.75	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	0.90	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	0.90	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 7

FERC Number	Plant Name	Stream	State Name
03279	KENT DAM	CUYAHOGA R	OH

County Name	River Basin
PORTRAGE	CATTARAUGUS CREEK BASIN

Class		Owner Name		
	M	KENT,CITY OF		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
420.00	0.10	42.00	1926.00	192.60

Unit Type	Plant Type	Project Status	Dam Status	Latitude	4112.00
				Longitude	8121.00
	ROR	XX	U		

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection	Y	0.10	Wildlife Value		0.90
Wild/Scenic Tributary or Upstream/Downstream			Threatened/Endangered Fish	Y	0.50
Wild/Scenic Location		0.90	Threatened/Endangered Wildlife		0.90
Cultural Value		0.90	Federal Land Code 103		0.90
Fish Presence Value	Y	0.25	Federal Land Code 104		0.90
Geologic Value		0.90	Federal Land Code 105		0.90
Historic Value		0.90	Federal Land Code 106		0.90
Other Value		0.90	Federal Land Code 107		0.90
Recreation Value	Y	0.25	Federal Land Code 108		0.90
Scenic Value	Y	0.50	Federal Land Code 198		0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 8

FERC Number	Plant Name	Stream	State Name		
03359	BERLIN LAKE	MAHONING R	OH		
County Name		River Basin			
PORTAGE		BEAVER RIVER BASIN			
Class Owner Name					
R CONTINENTAL HYDRO CORP					
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)		
1560.00	0.75	1170.00	5850.00		
PESF Annual Energy Rating (MWh)			4387.50		
Unit Type	Plant Type	Project Status	Dam Status	Latitude	4103.00
				Longitude	8100.00
	ROR	XX	WO		
Factor	Exist Prob	Factor	Exist Prob		
Wild/Scenic Protection	0.90	Wildlife Value	0.90		
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90		
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90		
Cultural Value	0.90	Federal Land Code 103	0.90		
Fish Presence Value	0.90	Federal Land Code 104		Y	0.75
Geologic Value	0.90	Federal Land Code 105	0.90		
Historic Value	0.90	Federal Land Code 106	0.90		
Other Value	0.90	Federal Land Code 107	0.90		
Recreation Value	0.90	Federal Land Code 108	0.90		
Scenic Value	0.90	Federal Land Code 198	0.90		

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 9

FERC Number	Plant Name	Stream	State Name
----------------	------------	--------	---------------

06074	DELAWARE DAM	OLENTANGY R	OH
-------	--------------	-------------	----

County Name	River Basin
DELAWARE	OHIO MAIN STREAM

Class	Owner Name
-------	------------

R	ENERGENICS SYSTEMS INC
---	------------------------

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
1200.00	0.50	600.00	3700.00	1850

Unit Type	Plant Type	Project Status	Dam Status	Latitude	4022.00
				Longitude	8304.00
	ROR	XX	U		

Factor	Exist Prob	Factor	Exist Prob
--------	------------	--------	------------

Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	Y 0.50
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 10

FERC Number	Plant Name	Stream	State Name		
06075	ALUM CREEK	ALUM CR,SCIOTO R	OH		
County Name		River Basin			
DELAWARE		OHIO MAIN STREAM			
Class Owner Name					
R ENERGENICS SYSTEMS INC					
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)		
900.00	0.10	90.00	1500.00		
PESF Annual Energy Rating (MWh)					
150					
Unit Type	Plant Type	Project Status	Dam Status	Latitude	4011.00
				Longitude	8257.00
	ROR	XX	U		
Factor	Exist Prob	Factor	Exist Prob		
Wild/Scenic Protection	0.90	Wildlife Value			0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	Y		0.50
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife			0.90
Cultural Value	0.90	Federal Land Code 103	Y		0.10
Fish Presence Value	0.90	Federal Land Code 104	Y		0.90
Geologic Value	0.90	Federal Land Code 105			0.90
Historic Value	Y	Federal Land Code 106			0.90
Other Value	0.50	Federal Land Code 107			0.90
Recreation Value	0.90	Federal Land Code 108			0.90
Scenic Value	0.25	Federal Land Code 198			0.90
	0.90				

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 11

FERC Number	Plant Name	Stream	State Name
----------------	------------	--------	---------------

06079	DEEP CREEK	DEEP CR,SCIOTO R	OH
-------	------------	------------------	----

County Name	River Basin
PICKAWAY	OHIO MAIN STREAM

Class	Owner Name
-------	------------

R	ENERGENICS SYSTEMS INC
---	------------------------

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
2200.00	0.10	220.00	4800.00	480

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3937.00
				Longitude	8313.00
	ROR	XX	U		

Factor	Exist Prob	Factor	Exist Prob
--------	------------	--------	------------

Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	Y 0.50
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	Y 0.10
Fish Presence Value	0.90	Federal Land Code 104	Y 0.90
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	Y 0.50	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	Y 0.25	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 12

FERC Number	Plant Name	Stream	State Name	
06563	MUSKINGUM L&D 10	MUSKINGUM R	OH	
County Name		River Basin		
MUSKINGUM		OHIO MAIN STREAM		
Class		Owner Name		
R		ENERGENICS SYSTEMS INC		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
930.00	0.75	697.50	4300.00	3225
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	ROR	XX	WO	3956.00 8101.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	0.90	
Fish Presence Value	0.90	Federal Land Code 104	Y 0.75	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	0.90	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	0.90	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 13

FERC Number	Plant Name	Stream	State Name
06637	DEFIANCE(AUGLAIZE R)	AUGLAIZE R	OH

County Name	River Basin
DEFIANCE	MAUMEE RIVER BASIN

Class		Owner Name		
	R	TOLEDO EDISON CO		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
1950.00	0.50	975.00	6300.00	3150

Unit Type	Plant Type	Project Status	Dam Status	Latitude	4114.00
C	ROR	LE	W	Longitude	8424.00

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	Y 0.75
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	Y 0.75	Federal Land Code 104	0.90
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	Y 0.75	Federal Land Code 106	0.90
Other Value	Y 0.75	Federal Land Code 107	0.90
Recreation Value	Y 0.75	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 14

FERC Number	Plant Name	Stream	State Name	
06998	MUSKINGUM L&D 3	MUSKINGUM R	OH	
County Name		River Basin		
WASHINGTON		OHIO MAIN STREAM		
Class		Owner Name		
R		UPPER MISSISSIPPI WTR CO		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
10000.00	0.90	9000.00	50000.00	45000
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	ROR	XX	WO	3932.00 8131.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	0.90	
Fish Presence Value	0.90	Federal Land Code 104	0.90	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	0.90	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	0.90	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 15

FERC Number	Plant Name	Stream	State Name
----------------	------------	--------	---------------

07220	ELLIS L&D 11	MUSKINGUM R	OH
-------	--------------	-------------	----

County Name	River Basin
MUSKINGUM	OHIO MAIN STREAM

Class	Owner Name
-------	------------

R	MUSKINGUM R HYDRO ASSOC
---	-------------------------

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
5000.00	0.90	4500.00	30000.00	27000

Unit Type	Plant Type	Project Status	Dam Status	Latitude	4002.00
ROR	XX		WO	Longitude	8158.00

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	0.90
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 16

FERC Number	Plant Name	Stream	State Name		
07221	PHILO L&D 9	MUSKINGUM R	OH		
County Name		River Basin			
MUSKINGUM		OHIO MAIN STREAM			
Class Owner Name					
R MUSKINGUM R HYDRO ASSOC					
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)		
5800.00	0.90	5220.00	30000.00		
PESF Annual Energy Rating (MWh)					
27000					
Unit Type	Plant Type	Project Status	Dam Status	Latitude	3952.00
				Longitude	8155.00
ROR	XX	WO			
Factor	Exist Prob	Factor	Exist Prob		
Wild/Scenic Protection	0.90	Wildlife Value	0.90		
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90		
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90		
Cultural Value	0.90	Federal Land Code 103	0.90		
Fish Presence Value	0.90	Federal Land Code 104	0.90		
Geologic Value	0.90	Federal Land Code 105	0.90		
Historic Value	0.90	Federal Land Code 106	0.90		
Other Value	0.90	Federal Land Code 107	0.90		
Recreation Value	0.90	Federal Land Code 108	0.90		
Scenic Value	0.90	Federal Land Code 198	0.90		

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 17

FERC Number	Plant Name	Stream	State Name
----------------	------------	--------	---------------

07222	ROKEBY L&D 8	MUSKINGUM R	OH
-------	--------------	-------------	----

County Name	River Basin
MORGAN	OHIO MAIN STREAM

Class	Owner Name
-------	------------

R	MUSKINGUM R HYDRO ASSOC
---	-------------------------

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
5000.00	0.90	4500.00	30000.00	27000

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3939.00
ROR	XX	WO		Longitude	8151.00

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	0.90
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 18

FERC Number	Plant Name	Stream	State Name	
07234	BEVERLY L&D 4	MUSKINGUM R	OH	
County Name		River Basin		
WASHINGTON		OHIO MAIN STREAM		
Class		Owner Name		
R		MUSKINGUM R HYDRO ASSOC		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
5000.00	0.90	4500.00	30000.00	27000
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	ROR	XX	WO	3933.00 8139.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	0.90	
Fish Presence Value	0.90	Federal Land Code 104	0.90	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	0.90	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	0.90	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 19

FERC Number	Plant Name	Stream	State Name		
07237	ELYRIA	EAST BR,BLACK R	OH		
County Name		River Basin			
LORAIN		CATTARAUGUS CREEK BASIN			
Class Owner Name					
R MULLER,EUGENE F					
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)		
650.00	0.50	325.00	2456.00		
PESF Annual Energy Rating (MWh)					
1228					
Unit Type	Plant Type	Project Status	Dam Status	Latitude	4122.00
				Longitude	8206.00
ROR	XX	WO			
Factor	Exist Prob	Factor	Exist Prob		
Wild/Scenic Protection	0.90	Wildlife Value	0.90		
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90		
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90		
Cultural Value	0.90	Federal Land Code 103	0.90		
Fish Presence Value	0.90	Federal Land Code 104	0.90		
Geologic Value	0.90	Federal Land Code 105	0.90		
Historic Value	Y 0.75	Federal Land Code 106	0.90		
Other Value	0.90	Federal Land Code 107	0.90		
Recreation Value	Y 0.75	Federal Land Code 108	0.90		
Scenic Value	Y 0.90	Federal Land Code 198	0.90		

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 20

FERC Number	Plant Name	Stream	State Name	
07261	LUKE CHUTE L&D 5	MUSKINGUM R	OH	
County Name		River Basin		
MORGAN		OHIO MAIN STREAM		
Class		Owner Name		
R		MUSKINGUM R HYDRO ASSOC		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
4000.00	0.90	3600.00	24200.00	21780
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	ROR	XX	WO	3132.00 8143.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	0.90	
Fish Presence Value	0.90	Federal Land Code 104	0.90	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	0.90	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	0.90	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 21

FERC Number	Plant Name	Stream	State Name
----------------	------------	--------	---------------

07262	MCCONNELLSVILLE L&D 7	MUSKINGUM R	OH
-------	-----------------------	-------------	----

County Name	River Basin
MORGAN	OHIO MAIN STREAM

Class	Owner Name
-------	------------

R	MUSKINGUM R HYDRO ASSOC
---	-------------------------

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
4500.00	0.90	4050.00	27000.00	24300

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3939.00
				Longitude	8157.00
	ROR	XX	WO		

Factor	Exist Prob	Factor	Exist Prob
--------	------------	--------	------------

Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	0.90
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 22

FERC Number	Plant Name	Stream	State Name	
07751	DEVOLA L&D 2	MUSKINGUM R	OH	
County Name		River Basin		
WASHINGTON		OHIO MAIN STREAM		
Class		Owner Name		
R		MUSKINGUM R HYDRO ASSOC		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
7300.00	0.90	6570.00	23200.00	20880
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	ROR	XX	WO	3928.00 8130.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	0.90	
Fish Presence Value	0.90	Federal Land Code 104	0.90	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	0.90	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	0.90	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 23

FERC Number	Plant Name	Stream	State Name
----------------	------------	--------	---------------

07871	PAINT CREEK	PAINT CR,SCIOTO R	OH
-------	-------------	-------------------	----

County Name	River Basin
ROSS	OHIO MAIN STREAM

Class	Owner Name
-------	------------

R	ROSS ASSOC
---	------------

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
8000.00	0.50	4000.00	35000.00	17500

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3915.00
				Longitude	8321.00
	ROR	XX	WO		

Factor	Exist Prob	Factor	Exist Prob
--------	------------	--------	------------

Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	Y 0.75
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	Y 0.75
Geologic Value	Y 0.90	Federal Land Code 105	0.90
Historic Value	Y 0.75	Federal Land Code 106	0.90
Other Value	Y 0.75	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 24

FERC Number	Plant Name	Stream	State Name	
07933	CAESAR CREEK	CAESAR CR,LITTLE MIAMI R	OH	
County Name		River Basin		
WARREN		MINOR RIVER BASINS		
Class		Owner Name		
R		WARREN HYDRO PARTNERS		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
3000.00	0.50	1500.00	12000.00	6000
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	ROR	XX	WO	3928.00 8403.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	Y 0.50	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	0.90	
Fish Presence Value	0.90	Federal Land Code 104	Y 0.75	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	0.90	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	0.90	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 25

FERC Number	Plant Name	Stream	State Name
08268	DILLON	LICKING R	OH

County Name	River Basin
MUSKINGUM	OHIO MAIN STREAM

Class	Owner Name
-------	------------

R	DILLON LAKE HYDRO ASSOC
---	-------------------------

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
2100.00	0.75	1575.00	10450.00	7837.50

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
				3959.00 8205.00
	ROR	XX	WO	

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	Y 0.75
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 26

FERC Number	Plant Name	Stream	State Name
08269	WILLS CREEK	WILLS CR,MUSKINGUM R	OH
County Name		River Basin	
COSHOCTON		OHIO MAIN STREAM	
Class Owner Name			
R WILLS CREEK HYDRO ASSOC			
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)
2400.00	0.75	1800.00	10300.00
PESF Annual Energy Rating (MWh)			
7725			
Unit Type	Plant Type	Project Status	Dam Status
			Latitude 4006.00
			Longitude 8151.00
	ROR	XX	WO
Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	Y 0.75
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 27

FERC Number	Plant Name	Stream	State Name	
08270	PLEASANT HILL	CLEAR FORK R	OH	
County Name		River Basin		
ASHLAND		OHIO MAIN STREAM		
Class		Owner Name		
R		PLEASANT HILL HYDRO ASSOC		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
1160.00	0.75	870.00	4900.00	3675
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
			WO	4036.00 8220.00
ROR	XX			
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	0.90	
Fish Presence Value	0.90	Federal Land Code 104	Y 0.75	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	0.90	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	0.90	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 28

FERC Number	Plant Name	Stream	State Name	
08376	MUSKINGUM L&D 6	MUSKINGUM R	OH	
County Name		River Basin		
MORGAN		OHIO MAIN STREAM		
Class		Owner Name		
I		STOCKPORT MILLING CO, INC		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
1500.00	0.90	1350.00	12000.00	10800
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	ROR	XX	WO	3933.00 8147.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	0.90	
Fish Presence Value	0.90	Federal Land Code 104	0.90	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	0.90	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	0.90	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 29

FERC Number	Plant Name	Stream	State Name
09042	GALLIPOLIS L&D	OHIO R	OH

County Name	River Basin
GALLIA	OHIO MAIN STREAM

Class	Owner Name
-------	------------

R	GALLIA HYDRO PARTNERS
---	-----------------------

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
48000.00	0.75	36000.00	231000.00	173250

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3841.00
				Longitude	8211.00
	ROR	MO	WO		

Factor	Exist Prob	Factor	Exist Prob
--------	------------	--------	------------

Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	Y 0.75
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 30

FERC Number	Plant Name	Stream	State Name	
09972	MILTON	MAHONING R	OH	
County Name		River Basin		
MAHONING		BEAVER RIVER BASIN		
Class		Owner Name		
M		YOUNGSTOWN, CITY OF		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
1000.00	0.90	900.00	4000.00	3600
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	ROR	XX	WO	4107.00 8058.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	0.90	
Fish Presence Value	0.90	Federal Land Code 104	0.90	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	0.90	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	0.90	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 31

FERC Number	Plant Name	Stream	State Name	
10252	BOOSTER STA	OWSC PL(MAHONING R)	OH	
County Name		River Basin		
MAHONING		BEAVER RIVER BASIN		
Class Owner Name				
R OHIO WTR SERVICE CO INC				
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	
200.00	0.90	180.00	1700.00	
PESF Annual Energy Rating (MWh)				
1530				
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
DIV	XX		U	4110.00 8042.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	0.90	
Fish Presence Value	0.90	Federal Land Code 104	0.90	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	0.90	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	0.90	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 32

FERC Number	Plant Name	Stream	State Name		
10619	CUYAHOGO FALLS	CUYAHOGA R	OH		
County Name		River Basin			
SUMMIT		CATTARAUGUS CREEK BASIN			
Class Owner Name					
R CUYAHOGA FALLS HYDRO ASSOC					
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)		
5500.00	0.50	2750.00	24000.00		
PESF Annual Energy Rating (MWh)					
12000					
Unit Type	Plant Type	Project Status	Dam Status	Latitude	4108.00
				Longitude	8130.00
	ROR	XX	WO		
Factor	Exist Prob	Factor	Exist Prob		
Wild/Scenic Protection	Y 0.50	Wildlife Value	0.90		
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	Y 0.75		
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90		
Cultural Value	0.90	Federal Land Code 103	0.90		
Fish Presence Value	Y 0.75	Federal Land Code 104	0.90		
Geologic Value	0.90	Federal Land Code 105	0.90		
Historic Value	0.90	Federal Land Code 106	0.90		
Other Value	0.90	Federal Land Code 107	0.90		
Recreation Value	Y 0.75	Federal Land Code 108	0.90		
Scenic Value	Y 0.90	Federal Land Code 198	0.90		

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 33

FERC Number	Plant Name	Stream	State Name	
10860	EAST FORK	E FK LITTLE MIAMI R	OH	
County Name		River Basin		
CLERMONT		MINOR RIVER BASINS		
Class		Owner Name		
R		LEWIS, WM & ASSOC INC		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
4000.00	0.50	2000.00	15800.00	7900
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
				3903.00 8410.00
ROR	PO	WO		
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or		Threatened/Endangered Fish	0.90	
Upstream/Downstream		Threatened/Endangered Wildlife	0.90	
Wild/Scenic Location	Y	Federal Land Code 103	0.90	
Cultural Value	0.90	Federal Land Code 104	Y	0.75
Fish Presence Value	0.90	Federal Land Code 105		0.90
Geologic Value	0.90	Federal Land Code 106		0.90
Historic Value	0.90	Federal Land Code 107		0.90
Other Value	0.90	Federal Land Code 108		0.90
Recreation Value	0.90	Federal Land Code 198		0.90
Scenic Value	0.90			

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 34

FERC Number	Plant Name	Stream	State Name	
OH001	FREMONT	SANDUSKY R	OH	
County Name		River Basin		
SANDUSKY		CATTARAUGUS CREEK BASIN		
Class		Owner Name		
M		FREMONT,CITY OF		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
4700.00	0.10	470.00	9850.00	985
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	ROR		U	4120.00 8308.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	Y 0.10	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	0.90	
Fish Presence Value	0.90	Federal Land Code 104	0.90	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	Y 0.50	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	Y 0.25	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 35

FERC Number	Plant Name	Stream	State Name
OH002	DAYTON LOW DAM	GREAT MIAMI R	OH

County Name	River Basin
MONTGOMERY	OHIO MAIN STREAM

Class	Owner Name
-------	------------

M	MIAMI CONSERVANCY DIST
---	------------------------

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
50.00	0.50	25.00	144.00	72

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3937.00
				Longitude	8423.00
	ROR		WO		

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	Y 0.75	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	0.90
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	Y 0.75	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	Y 0.75	Federal Land Code 108	0.90
Scenic Value	Y 0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 36

FERC Number	Plant Name	Stream	State Name	
OH003	C J BROWN	BUCK CR,MAD R	OH	
County Name		River Basin		
CLARK		OHIO MAIN STREAM		
Class		Owner Name		
F		CORPS OF ENGINEERS		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
99.00	0.50	49.50	825.00	412.50
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	STG		WO	3957.00 8345.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	Y 0.75	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	Y 0.75	Federal Land Code 103	0.90	
Fish Presence Value	Y 0.75	Federal Land Code 104	0.90	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	Y 0.75	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	Y 0.75	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 37

FERC Number	Plant Name	Stream	State Name
----------------	------------	--------	---------------

OH004	ISLAND PARK	GREAT MIAMI R	OH
-------	-------------	---------------	----

County Name	River Basin
MONTGOMERY	OHIO MAIN STREAM

Class	Owner Name
-------	------------

M	DAYTON,CITY OF
---	----------------

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
50.00	0.50	25.00	144.00	72

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3955.00
	ROR		WO	Longitude	8420.00

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	Y	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	0.90
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	Y	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	Y	Federal Land Code 108	0.90
Scenic Value	Y	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 38

FERC Number	Plant Name	Stream	State Name	
OH005	PIQUA	MIAMI R	OH	
County Name		River Basin		
SHELBY		OHIO MAIN STREAM		
Class		Owner Name		
M		PIQUA MUNICIPAL PWR SYS		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
800.00	0.90	720.00	3000.00	2700
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	ROR		U	4021.00 8416.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	0.90	
Fish Presence Value	0.90	Federal Land Code 104	0.90	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	0.90	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	0.90	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 39

FERC Number	Plant Name	Stream	State Name
OH006	RACINE L&D	OHIO R	OH

County Name	River Basin
MEIGS	OHIO MAIN STREAM

Class	Owner Name
-------	------------

F	CORPS OF ENGINEERS
---	--------------------

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
44000.00	0.90	39600.00	231000.00	207900

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3855.00
				Longitude	8155.00
	ROR		U		

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	0.90
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 40

FERC Number	Plant Name	Stream	State Name	
OH007	DOVER	TUSCARAWAS R	OH	
County Name		River Basin		
TUSCARAWAS		OHIO MAIN STREAM		
Class		Owner Name		
F		CORPS OF ENGINEERS		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
121.00	0.50	60.50	1050.00	525
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	STG		WO	4033.00 8125.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	0.90	
Fish Presence Value	0.90	Federal Land Code 104	0.90	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	Y	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	Y	Federal Land Code 108	0.90	
Scenic Value	Y	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 41

FERC Number	Plant Name	Stream	State Name
OH008	MOSQUITO CREEK	MOSQUITO CR, MAHONING R	OH

County Name	River Basin
TRUMBULL	BEAVER RIVER BASIN

Class	Owner Name
-------	------------

F	CORPS OF ENGINEERS
---	--------------------

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
1100.00	0.90	990.00	1900.00	1710

Unit Type	Plant Type	Project Status	Dam Status	Latitude	4118.00
				Longitude	8045.00
	STG		WO		

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	0.90
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 42

FERC Number	Plant Name	Stream	State Name	
OH009	MICHAEL J KIRWIN	W BR MAHONING R	OH	
County Name		River Basin		
PORTAGE		BEAVER RIVER BASIN		
Class		Owner Name		
F		CORPS OF ENGINEERS		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
1470.00	0.90	1323.00	4000.00	3600
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
	STG		WO	4110.00 8105.00
Factor	Exist Prob	Factor	Exist Prob	
Wild/Scenic Protection	0.90	Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90	Federal Land Code 103	0.90	
Fish Presence Value	0.90	Federal Land Code 104	0.90	
Geologic Value	0.90	Federal Land Code 105	0.90	
Historic Value	0.90	Federal Land Code 106	0.90	
Other Value	0.90	Federal Land Code 107	0.90	
Recreation Value	0.90	Federal Land Code 108	0.90	
Scenic Value	0.90	Federal Land Code 198	0.90	

## R E S O U R C E D A T A B A S E L I S T I N G

DATE: 12/01/97

PAGE NO: 43

FERC Number	Plant Name	Stream	State Name		
OH010	LAKE MILTON	MAHONING R	OH		
County Name		River Basin			
MAHONING		BEAVER RIVER BASIN			
Class Owner Name					
M YOUNGSTOWN, CITY OF					
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)		
2570.00	0.90	2313.00	5610.00		
PESF Annual Energy Rating (MWh)					
5049					
Unit Type	Plant Type	Project Status	Dam Status	Latitude	4106.00
				Longitude	8059.00
	STG		U		
Factor	Exist Prob	Factor	Exist Prob		
Wild/Scenic Protection	0.90	Wildlife Value	0.90		
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90		
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90		
Cultural Value	0.90	Federal Land Code 103	0.90		
Fish Presence Value	0.90	Federal Land Code 104	0.90		
Geologic Value	0.90	Federal Land Code 105	0.90		
Historic Value	0.90	Federal Land Code 106	0.90		
Other Value	0.90	Federal Land Code 107	0.90		
Recreation Value	0.90	Federal Land Code 108	0.90		
Scenic Value	0.90	Federal Land Code 198	0.90		