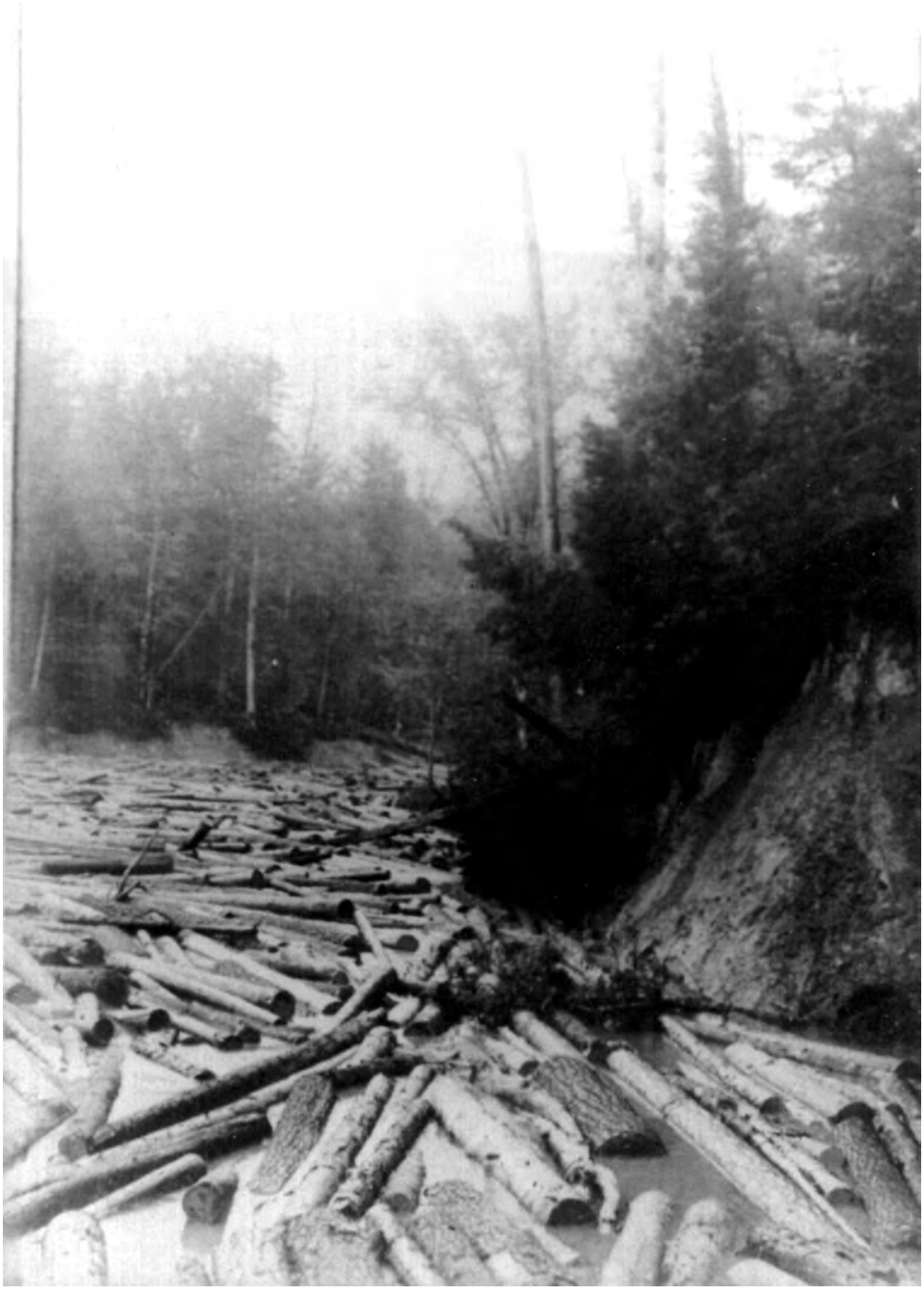
# Appendix II

The following laser copies of photographs were made from originals that are stored in the Manistee County Historical Museum, 425 River Street, Manistee, Michigan 49660. Steve Harold, Curator. 616-723-5531. Photographs 2, 3, and 5 were taken by Leonard Short, Druggist and Photographer of Manistee in 1903 or 1904 while on a canoe trip from the present day site of Tippy Dam to the City of Manistee. Photographs 1 and 4 were selected from hundreds in the archives at the museum by anonymous photographers.



Photograph #1

A large log-jam on the Manistee River.  These were major causes of bank erosion.

Photograph #2

Ongoing bank erosion created by turn of the century logging practices. Note only second growth cove adjacent to the nearly vertical river bank.

Photograph #3

A log sluice located at Udell Hills Rollway in Manistee County, T22N, R15W, Section 36, that is at the mouth of Pine Creek. This method of delivering the logs to the river was more commonly used on the west coast. White rollways, as depicted on the cover photograph, were typical of Michigan's loggers.

Photograph #4

A “cut-off”, areas where the river made a large U-shaped bend. The loggers, who systematically removed all the woody debris from the stream channel to facilitate floating logs to market, cut through these bends. This straightened the river and eliminated bends where log jams typically occurred. This photograph is thought to be at the present day site of the US Forest Service Peterson Bridge (M-37) campground on the Pine River, formerly the South Branch of the Manistee River.

Photograph #5

The “wannigans”, or floating cook shacks. These followed the lumberjacks down the river during the log drives.

# Appendix III

Federal Energy Regulatory Commission settlement agreement between Consumers Power Company, Michigan Department of Natural Resources, Michigan State Historic Preservation Officer, United States Department of Interior—Fish and Wildlife Service, United States Department of Interior—National Parks Service, and United States Department of Agriculture—Forest Service.

# Appendix III

Federal Energy Regulatory Commission settlement agreement between Consumers Power Company, Michigan Department of Natural Resources, Michigan State Historic Preservation Officer, United States Department of Interior—Fish and Wildlife Service, United States Department of Interior—National Parks Service, and United States Department of Agriculture—Forest Service.

United States of America

Before The Federal Energy Regulatory Commission

| | |
|---|---|
| Consumers Power Company] | Project No. 2451 (Rogers) |
| ) | Project No. 2452 (Hardy) |
| ) | Project No. 2468 (Croton) |
| ) | Project No. 2448 (Mio) |
| ) | Project No. 2447 (Alcona) |
| ) | Project No. 2449 (Loud) |
| ) | Project No. 2453 (Five Channels) |
| ) | Project No. 2450 (Cooke) |
| ) | Project No. 2436 (Foote) |
| ) | Project No. 2599 (Hodenpyl) |
| ) | Project No. 2580 (Tippy) |

TABLE OF CONTENTS





TABLE OF CONTENTS

TABLE OF CONTENTS





TABLE OF CONTENTS

TABLE OF CONTENTS





TABLE OF CONTENTS

OFFER OF SETTLEMENT

1.0 Jurisdiction

1.1 This OFFER OF SETTLEMENT ("SETTLEMENT") is entered into voluntarily by and between the "parties," Consumers Power Company ("CPCo"), the licensee applying for new licenses for 11 FERC-licensed hydroelectric projects and the United States Department of Agriculture Forest Service ("USFS"), the United States Department of Interior Fish and Wildlife Service ("USF&WS"), the Michigan Department of Natural Resources ("MDNR"), the United States Department of Interior National Park Service ("NPS"), and the Michigan State Historic Preservation Officer ("SHPO") pursuant to Federal Energy Regulatory Commission ("FERC") rule, 18 CFR Section 385.602. The "resource agencies" are defined as USFS, USF&WS and the MDNR. This Settlement concerns the resolution of project operation, fish passage, project boundaries, land management, water quality, downstream fish protection, historical and archeological resource management, soil erosion control, threatened, endangered and sensitive species management and establishment of retirement funds for the hydroelectric projects and other matters.

2.0 Effect of Offer of Settlement

2.1 This Settlement is made upon the express understanding that it constitutes a negotiated settlement of issues in the above-captioned proceedings, and no party to the Settlement shall be deemed to have approved, admitted, accepted, agreed to or otherwise consented to any operation, management, valuation or other principle underlying or



supposed to underlie any of the matters herein, except as expressly provided herein. Further, the parties agree that this Settlement shall not be used as a precedent or as an admission with regard to any issue dealt with in the Settlement.

2.2 For those issues addressed in this Settlement, parties other than the USFS agree not to propose, mandate, support or otherwise communicate to FERC any license condition other than those provided for herein, except as provided for in Paragraph 9.3. The USFS agrees not to propose, support or otherwise communicate to the FERC any license condition other than those provided for herein except to the extent that its analysis under the National Environmental Policy Act of 1969 ("NEPA") results in mandatory license conditions pursuant to § 4(e) of the Federal Power Act. This section shall not be read to predetermine the outcome of the required NEPA analysis. However, if such NEPA analysis leads to the addition of any license conditions beyond those contained herein, the parties recognize that such an addition would trigger the rights of the parties to withdraw from this agreement pursuant to Paragraph 2.3.

2.3 This Settlement shall become effective upon issuance by FERC of "final" orders accepting this Settlement without modification or condition and issuing licenses in accordance with the Settlement for the 11 hydro electric projects dealt with herein. If FERC issues orders accepting the Settlement with modifications or conditions, this Settlement shall be considered modified to conform to the terms of those orders unless at least one party indicates to the other parties in writing within 30 days after the issuance of such orders its objection

to the orders and its withdrawal from the Settlement. If any party so withdraws, this Settlement shall cease to have any force or effect except for Paragraph 2.1. If this Settlement is modified to conform to the terms of FERC orders, as discussed above, it shall become effective once those orders become "final" as of the date rehearing is denied, or if rehearing is not applied for, the date on which the right to seek rehearing expires. The terms of this Agreement shall continue in effect, subject to the FERC's reserved authority under the licenses to require modifications, until the earlier of the expiration of a new license (plus the term of any annual license) issued by the FERC or the effective date of any FERC order approving surrender of a project under Section 6 of the Federal Power Act.

2.4 It is a fundamental assumption of CPCo that the amounts to be expended, as a result of this Settlement, balance economics and environmental stewardship and that rate-recovery of those amounts will not be denied by the Michigan Public Service Commission ("MPSC") or, where appropriate, by FERC. All parties concur that the Settlement fairly and appropriately addresses the environmental and natural resource issues covered by this Settlement and associated with the relicensing of CPCo's 11 hydroelectric projects by FERC. The resource agencies will, if requested, support this Settlement before the MPSC and FERC as fairly and appropriately addressing environmental and natural resource issues.

2.5 CPCo shall prepare a draft schedule for implementing the studies, plans and actions called for in this Settlement. The schedule shall specify dates for initiation, progress reporting and completion



for each study, plan, or action and shall include milestones for major activities. A draft schedule shall be submitted to the resource agencies for review in accordance with Section 13 not later than 90 days after execution of this Settlement by the parties.

3.0 Parties Bound

3.1 This Settlement shall apply to, and be binding on, the parties and their successors and assigns. However, no party shall be bound by any part of this Settlement except with regard to the above-captioned licensing proceedings and then only if the Settlement is approved and made effective as provided for in Paragraph 2.3. No change in corporate status of CPCo shall in any way alter CPCo's responsibilities under this Settlement. Each signatory to this Settlement certifies that he or she is authorized to execute this Settlement and legally bind the party he or she represents.

3.2 If the Michigan Water Resources Commission (WRC) fails to issue for each project, within 90 days from the signing of this Settlement, a water quality certificate that is in conformance with the water quality terms [Sections 6, 8, 15 (as it pertains to Sections 6, 8, 16 and Appendix C), 16 and Appendix C] and the operation conditions (Sections 17 through 36 inclusive) of this Settlement, any party may withdraw from this Settlement and need not comply with its terms. The parties shall have up to 30 days from the date of certificate issuance (or up to 30 days after the end of the 90-day period if fewer than 11 certificates are issued) to withdraw from this Settlement. If the WRC issues water quality certificates in conformance with the above listed

sections of this Settlement, for all projects, CPCo agrees not to contest the issuance of the certificates for those projects.

3.3 Funds allocated by CPCo for capital costs (costs for study, planning, design, construction and preoperational testing), except for downstream fish protection, can be utilized by CPCo for other capital costs covered by this Settlement after consulting with the resource agencies (and with the SHPO regarding funds provided for in Paragraph 7.1) and approval from FERC. Unexpended funds not needed for the implementation of this Settlement may be retained by CPCo after consulting with the resource agencies and approval from FERC.

4.0 Land Management

4.1 CPCo shall, in consultation with the resource agencies, develop and implement Land Management Plans for its hydroelectric projects on the AuSable, Manistee and Muskegon River systems.

4.2 Each Land Management Plan (Plan), one for each river system, shall include the following sections: recreation; Federal and State threatened, endangered, candidate and sensitive species; wildlife and their habitat; and forestry. The Plans shall also include a CPCo staffing section providing for a minimum of four (4) full time natural resource employees to implement the Plans. The Plans, including implementation schedules, shall be submitted to and reviewed by the resource agencies prior to submittal for approval by FERC, as provided for in Section 13. Upon FERC approval of a Land Management Plan, CPCo shall implement that Plan.



4.3 The Recreation Management Sections of the Plans will be developed by CPCo in consultation with the resource agencies and local communities, and shall address future recreation needs over the term of the new licenses including lease management, use administration, facility development, resource protection, operation and maintenance of recreational facilities, recreation signing and site plans.

4.4 CPCo shall fund capital costs in the amount of $2.5 million in 1992 dollars (adjusted for the Consumers Price Index (CPI)) for study, planning, design and construction of additional recreational facilities or facility improvements in accordance with the Plans. Operation and maintenance (O&M) costs related to the Land Management Plans are not included in the $2.5 million. The O&M costs of $132,000 for MDNR and $183,000 for USFS managed facilities identified in Appendix A shall be remitted to the respective resource agencies by October 1 annually, upon license issuance, for use in the ensuing fiscal year. The resource agencies O&M costs are in 1992 dollars to be adjusted annually based on the CPI. No later than December 1 of each year after issuance of the new licenses pursuant to this Settlement, the MDNR and USFS will provide CPCo with a written statement of the prior year's O&M costs for the MDNR and USFS managed facilities identified in Appendix A and the next year's payment by CPCo shall be adjusted to reflect any unexpended amounts from a previous year.

4.5 Candidate new recreational facilities and proposed improvements to existing recreational facilities, are listed in Appendix A. The final list of recreational facility improvement and construction will be developed in the recreation section of the Land Management Plans

based on: Appendix A; compatibility with other aspects of the Land Management Plans listed in Paragraph 4.2; consultation with the resource agencies, the NPS, and the public; and the ongoing CPCo recreation use study being conducted in response to the FERC additional information requests dated May 21, 1992.

4.6 Prior to issuance by CPCo of any new leases (in this Settlement "leases" shall include licenses CPCo may grant for the use of project lands) or renewals of existing leases of hydroelectric project lands as defined by Section 10, CPCo shall consult with the resource agencies.

4.7 CPCo shall develop a revised lease instrument(s), in consultation with the resource agencies, to provide for management control of each lease. CPCo shall develop the instrument(s) in accordance with applicable government standards, USFS special use permits and applicable Appendix B requirements. CPCo shall obtain resource agencies review of the lease instrument(s) prior to use.

4.8 CPCo shall develop a lease inspection form based on the revised lease instrument provided for in Paragraph 4.7. CPCo shall subsequently inspect each leased recreational facility for compliance with the revised lease instrument provided for in Paragraph 4.7. These comprehensive inspections shall be completed within 18 months of each project's license issuance.

4.9 CPCo shall upgrade existing lease instruments to requirements specified in Paragraph 4.7 and shall require each lessee to upgrade



facilities to meet the revised lease conditions as soon as practicable, but for leases that expire prior to January 1, 1994, not later than 10 years after each project's license issuance.

## 5.0 Downstream Fish Protection

5.1 CPCo shall study, plan, design, construct, operate and maintain fish entrainment protection devices or measures in accordance with this Section. For these 11 hydroelectric projects, the parties agree that fish protection, where practicable, is preferred to the annual contributions called for in Paragraph 5.3. CPCo shall fund capital costs in the amount of $5 million in 1992 dollars (adjusted for the CPI) to study, plan, design and construct fish protection devices or measures in accordance with the provisions of Paragraph 5.2 at its projects on the AuSable, Manistee and Muskegon Rivers. The allocation of the $5 million among the projects will depend on the results of the evaluation in Paragraph 5.2. Operation and maintenance costs related to the fish protection devices and measures are not included in the $5 million. All submittals shall follow procedures in Section 13. If less than the $5 million is spent on studying, planning and constructing fish protection devices or measures as a result of the inability to obtain FERC approval, per Paragraph 5.2, CPCo shall retain the balance of the $5 million and utilize it for the contributions required by Paragraph 5.3.

5.2 CPCo shall contract with consulting firm(s) experienced in the design and installation of downstream fish protection devices at hydroelectric projects to evaluate designs, applicability, costs and

effectiveness of fish protection devices or measures for installation at each hydroelectric project. CPCo shall provide the name and qualifications of its recommended consulting firm(s) for resource agencies review, in accordance with Section 13, 90 days after issuance of the FERC license for each of CPCo's hydroelectric projects. Within twelve (12) months of resource agencies review of the firm(s), CPCo shall complete an evaluation of potential measures and devices at each of the 11 hydroelectric projects. The evaluation results shall be provided to the resource agencies for review. When the resource agencies recommend fish protection device installation, CPCo shall (subject to Section 14) make application to FERC within 180 days of receipt of the resource agencies recommendation. When FERC approves the protective measures, CPCo shall within 90 days, begin contracting for design and installation. Upon FERC approval of the final design, CPCo shall apply for necessary permits and proceed with installation.

5.3 Beginning with the effective date of the FERC license for each hydroelectric project, CPCo shall annually contribute the following amounts in 1992 dollars (adjusted for the CPI) to the State of Michigan Habitat Improvement Account to be used for the following activities: fisheries habitat restoration or enhancement, preparing comprehensive river management plans, aquatic studies, fisheries recreation, water quality improvement and soil erosion control activities on the AuSable, Manistee and Muskegon Rivers.



| Muskegon | | Manistee | | Au Sable | |
|---|---|---|---|---|---|
| Rogers | $ 9,000 | Hodenpyl | $11,000 | Mio | $ 55,000 |
| Hardy | $ 6,000 | Tippy | $34,000 | Alcona | $ 30,000 |
| Croton | $ 47,000 | | | Loud | $ 43,000 |
| | | | | 5 Channels | $105,000 |
| | | | | Foote | $177,000 |
| | | | | Cooke | $ 58,000 |

Contributions made in accordance with this paragraph shall be by check made payable to the State of Michigan by October 1st of each year for the previous 12-month period, or any portion thereof, and shall be forwarded to the Assistant Attorney General in charge of the Environmental Protection Division for deposit to the State of Michigan Habitat Improvement Account. For any period of time in which this Settlement is in place and one or more of the units associated with the projects listed in Paragraph 5.3 are not operating due to maintenance, or other scheduled or unscheduled outages, the payments shall be adjusted downward accordingly.

5.4 Each year, MDNR will consult in advance with USF&WS, USFS and CPCo regarding the expenditure of contributions made pursuant to Paragraph 5.3 and liquidated damages assessed pursuant to Paragraph 6.9 prior to MDNR authorizing an activity. The MDNR need not obtain FERC approval of an activity, unless it would require modification of one of the 11 licenses, and will provide an annual accounting report to FERC, USFS, USFWS and CPCo of expenditures made from these funds by December 1 of each year.

5.5 If a fish protection measure(s) is implemented at any project, the annual contribution specified in Paragraph 5.3 for such project shall be reduced based upon the effectiveness of the fish protection. The effectiveness of the fish protection will be determined by comparing the results of the preapplication fish entrainment and mortality studies with a single, one-year study of similar scope performed after the fish protection measures are installed. CPCo shall provide all study plans, study results and recommended contribution changes to the resource agencies as provided for in Section 13. If CPCo subsequently modifies the fish protection, CPCo may conduct an additional study(ies) to re-establish the amount of future contributions.

6.0 Water Quality

6.1 CPCo shall study, plan, design, construct, operate and maintain water quality enhancements in accordance with this section. CPCo shall fund capital costs in the amount of $1.75 million in 1992 dollars (as adjusted for the CPI) for study, planning, design and construction of water quality enhancements, including dissolved oxygen (D.O.) enhancement measures and temperature enhancement measures as described herein. Operation and maintenance costs related to the enhancement measures are not included in the $1.75 million.

6.2 After installation of water quality monitoring instruments pursuant to Paragraphs 6.4 and 8.1, CPCo will evaluate the water temperature and D.O. data received from the monitoring devices and shall submit a water temperature and D.O. evaluation to the resource agencies. The evaluation shall be for the purpose of determining whether a project



will attain the water quality limits specified in Paragraphs 6.5 and 6.6. For those projects that have not attained the water quality limits, the evaluation will also analyze whether the limits can be attained by: 1) increasing the volume of cooler water passing through the plant turbines during the summer months; and/or 2) engineering or operational measures to increase downstream D.O. concentrations. The resource agencies will review the evaluation and provide comments to CPCo within 45 days of receipt. For any project whose compliance with the limits of Paragraphs 6.5 and 6.6 will improve from an increase in cooler water or D.O., CPCo shall provide the name(s) and qualification(s) of recommended consulting firm(s) experienced in the design and installation of measures for: 1) increasing the volume of cooler water to be passed through the project turbines during the summer months; and/or 2) increasing D.O. concentrations through engineering or operational measures, as appropriate, for resource agencies review. Within eighteen (18) months of the resource agencies review, CPCo shall contract with the consulting firm(s) and complete an evaluation of designs, applicability and costs of D.O. and/or water temperature enhancement measures at each hydroelectric project that has not met the applicable water quality limits specified in Paragraphs 6.5 and 6.6. The results of the evaluation shall be provided to the resource agencies for review and comment. If the resource agencies recommend a field test to evaluate a measure for increasing the volume of cooler water or D.O., or recommend installation of such a measure, CPCo shall (subject to the dispute resolution process in Section 14) make application to FERC within 180 days of receipt of the resource agencies recommendation. When FERC approves the field test or the measure, CPCo, within 90 days,

shall apply for necessary permits and approvals and begin contracting for the field test or the installation.

6.3 CPCo shall develop and implement, in consultation with the resource agencies, a water quality, fish contaminant and sediment quality monitoring program as outlined in Appendix C.

6.4 CPCo shall contract with the United States Geological Survey (USGS) pursuant to Paragraph 8.1 for the installation of continuous recording instruments at locations reviewed by the resource agencies both upstream and below the discharge from each of its hydroelectric projects to monitor water temperatures and D.O. concentrations. Water temperature and D.O. data shall be recorded on the hour and be provided to the resource agencies on a quarterly basis.

6.5 The following water quality limits apply to the Rogers and Hardy Projects when flows are greater than or equal to monthly 95% exceedance flows:

A. Monthly average temperature downstream of either project shall not exceed the following temperatures (°F).

| J | F | M | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 38 | 38 | 41 | 56 | 70 | 80 | 83 | 81 | 74 | 64 | 49 | 39 |

B. CPCo shall not warm the Muskegon River below either project greater than a monthly average of 5°F above the temperature measured upstream of the project.



C. Dissolved oxygen concentrations in the project tailwaters shall not be less than 5 milligrams per liter (mg/l) at any time unless CPCo demonstrates to the WRC that these D.O. limits are not attainable through further feasible and prudent measures or the variation between the daily average and daily minimum D.O. concentrations in the river exceeds 1 mg/l. If the WRC agrees with CPCo's demonstration, D.O. concentrations in project tailwaters shall not be less than 4 mg/l at any time or less than 5 mg/l as a daily average during the warm weather season (June through September) until such time as the WRC causes the preparation and implementation of a comprehensive plan to upgrade these waters to 5 mg/l at any time.

D. CPCo shall prepare operating procedures to address water quality conditions which deviate from the above limits.

6.6 The following water quality limits apply to the Croton, Mio, Alcona, Loud, Five Channels, Cooke, Foote, Hodenpyl and Tippy Projects when flows are greater than or equal to monthly 95% exceedance flows:

A. Monthly average temperature downstream of the projects shall not exceed the following temperatures (°F):

| J | F | M | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 38 | 38 | 43 | 54 | 65 | 68 | 68 | 68 | 63 | 56 | 48 | 40 |

B. CPCo shall not warm the river below any project greater than a monthly average of 2°F above the temperature as measured upstream of the project.

C. Dissolved oxygen concentrations in the project tailwaters shall not be less than 7 mg/l at any time unless CPCo demonstrates to the WRC that these D.O. limits are not attainable through further feasible and prudent measures or the variations between the daily average and daily minimum O.O. concentrations in the river exceeds 1 mg/l. If the WRC agrees with CPCo's demonstration, D.O. concentrations in project tailwaters shall not be less than 6 mg/l at any time during the warm weather season (June through September) until such time as the WRC causes preparation and implementation of a comprehensive plan to upgrade these waters to 7 mg/l at any time.

D. CPCo shall prepare operating procedures to address water quality conditions which deviate from the above limits.

6.7 The numerical monthly average temperature limits set forth in this Settlement may be exceeded for short periods with approval from WRC when natural water temperatures measured upstream of the project exceed the ninetieth percentile occurrence of natural water temperatures (the monthly average temperatures in Paragraphs 6.5.A and 6.6.A are the ninetieth percentile values plus the temperature increases allowed in Paragraphs 6.5.B and 6.6.B). In all cases, temperature increases shall not be greater than the natural water temperature as measured upstream of the project plus the increase allowed, respectively, in Paragraphs 6.5.B and 6.6.B.

6.8 Any party to this Settlement may petition the WRC during every fifth year after the signing of this Settlement, to modify the D.O. or temperature limits contained herein and in the State Water Quality



Certification to ensure the protection of the public health, welfare, safety, and the natural resources of the State of Michigan, including the fishery resources.

6.9 If CPCo is not in compliance with any water quality limit in this Section, MDNR may assess the following liquidated damages for damages to the natural resources for non-compliances that occur more than two years after installation of the monitoring equipment required in Paragraphs 6.4 and 8.1 or more than three years from license issuance, whichever is earlier. The MDNR shall not assess liquidated damages for any non-compliance under both this Settlement and the Water Quality Certificate. Payment shall be made in the manner and be used for the purposes provided in Paragraph 5.3.

Liquidated damages shall accrue during the pendency of any dispute, but payment of such damages shall be stayed until the dispute is resolved or the WRC issues its final determination in accordance with Section 14, whichever is earlier.

A. For exceedances of temperature limits:

| Liquidated Damages Per Temperature Exceedance(s) Per Month/Per Project |
|---|
| $1,500 |

(1) Damages may only be assessed at any project where temperature exceedance(s) under Paragraphs 6.5.A or 6.6.A have occurred in two or more months in any calendar year. In the event exceedances occur in two or more months, damages may be assessed for the first two months of exceedance and every month of exceedance thereafter.

(2) Damages may only be assessed at any project where temperature exceedance(s) under Paragraphs 6.5.B or 6.6.B have occurred in two or more months in any calendar year above the upstream water temperature. In the event exceedances occur in two or more months, damages may be assessed for the first two months of exceedance and every month of exceedance thereafter.

(3) The damages in any given month at any project shall not be greater than $3,000 for temperature exceedances.

B. For non-compliance of D.O. limits:

| Dissolved Oxygen Non-compliance(s) Per Month/Per Project | Liquidated Damages Per Day |
|---|---|
| 1 - 12 | $ 100 |
| 13 or more | $ 200 |

(1) Damages may only be assessed in any month at any project where D.O. non-compliance has occurred on three or more days in that month. In the event non-compliance occurs on three or more days, damages may be assessed for the first three days and every day thereafter.



(2) Damages in any given month at any project shall not be greater than $3,000 for D.O. non-compliances.

## 7.0 Historical & Archaeological Resources

7.1 CPCo shall provide a total of $1 million in 1992 dollars (adjusted for the CPI) to provide for historical and archaeological (cultural) resource evaluation, mitigation and enhancement activities. All such activities will be conducted in accordance with the provisions of the "Programmatic Agreement Among The Federal Energy Regulatory Commission, The Advisory Council On Historic Preservation (Council), The USDA Forest Service Huron-Manistee National Forests And The Michigan State Historic Preservation Officer (SHPO) And Consumers Power Company For The Management Of Historic Properties Affected By Consumers Power Company Hydroelectric Projects" and "Programmatic Agreement Among The Federal Energy Regulatory Commission, The Advisory Council On Historic Preservation, The Michigan State Historic Preservation Office, And Consumers Power Company For The Management Of Historic Properties Affected By Consumers Power Company Hydroelectric Projects." Each Programmatic Agreement will provide for compliance with requirements of Section 106 of the National Historic Preservation Act, as amended, by outlining general provisions for the treatment of historic properties and requiring CPCo to prepare Cultural Resource Management Plans (CRMPs) for each project covered by this Settlement in consultation with the USFS, the SHPO and the Council.

7.2 Costs for development of the CRMPs and completion of remaining prelicense Phase I Archaeological Surveys are not included in the $1 million.

7.3 CPCo shall utilize the funds identified in Paragraph 7.1 to implement the CRMPs. Each CRMP will provide for: future identification needs, the proper management of any identified or unidentified cultural property, cultural resource activity reporting requirements, procedures for the treatment and disposition of cultural and human remains and cultural resource interpretive activities. Within twelve months of new license issuance for each project and prior to filing for FERC approval in accordance with the Programmatic Agreement, CPCo will submit each CRMP to the SHPO, USFS where applicable, and the Council for review.

## 8.0 Stream Gauging and Water Quality Monitoring Facilities

8.1 CPCo shall fund capital costs in the amount of $500,000 in 1992 dollars (adjusted for the CPI) to construct new or upgrade existing stream flow gauging and water quality monitoring facilities, including telemetry, to support run-of-river operations and monitor water quality at certain CPCo hydroelectric projects covered under this Settlement. Upon approval of the FERC, CPCo shall contract with the USGS for the installation, upgrading, maintenance and operation of the flow gauging and water quality monitoring stations required under this Settlement.



## 9.0 Fish Passage Structures

9.1 CPCo shall provide for the design, construction, operation and maintenance of fish passage structures (upstream and associated downstream) at each hydroelectric project subject to the following conditions:

A) For a given project, a comprehensive river management plan which demonstrates the appropriateness of fish passage has been developed by the MDNR with the USFS, USF&WS and public input, and approved by the Michigan Natural Resources Commission.

B) The USFS does not object to fish passage based on the provisions of the Huron-Manistee National Forest Land and Resource Management Plan, and the USF&WS, after consultation under the Section 7 authority of the Endangered Species Act of 1973, as amended, does not object to fish passage.

C) The FERC approves such structures.

9.2 Once conditions in Paragraphs 9.1 A and B have been met for a hydroelectric project, the resource agencies will provide to CPCo a list of fish species to be passed and all necessary biological design parameters for the fish passage facilities to be constructed at that hydroelectric project. CPCo shall, within 12 months thereafter, submit a design plan for resource agencies review prior to submittal for approval by FERC, as provided for in Section 13.

9.3 The USF&WS reserves the Secretary of Interior's authority under Section 18 of the Federal Power Act, 16 USC Section 811, to prescribe fishways after the issuance of new licenses, and will not invoke this authority, or make recommendations pursuant to the Fish and Wildlife Coordination Act for implementing fish passage, until conditions of Paragraphs 9.1 A and B, and 9.2 are met.

9.4 CPCo shall complete installation of the fish passage structures no later than 24 months after the FERC approves a design plan. Prior to completing construction of a structure, CPCo shall submit an operation and maintenance plan and a performance evaluation plan (OMPEP) for resource agencies review prior to submittal for approval by the FERC, as appropriate or required, as provided for in Section 13. CPCo shall implement the OMPEP upon FERC approval and completion of fish passage construction.

9.5 If more than one hydroelectric project meets the above conditions at the same time, within 12 months of FERC approval of the fish passage design plan for the first hydroelectric project, CPCo shall prepare and submit for the resource agencies review and FERC approval, an implementation schedule for the next project to be modified for fish passage. This process would be repeated until all hydroelectric projects meeting the above requirements are modified.

9.6 CPCo shall modify a fish passage structure and/or the project operation, if necessary, to meet the biological design parameters for the fish passage facility. Any structural modification of the fish



passage facility shall follow consultation with the resource agencies and shall be subject to FERC approval, as appropriate or required.

10.0 Project Boundaries

10.1 CPCo shall maintain within each hydroelectric project boundary all CPCo owned lands that were within the hydroelectric project boundary as of January 1, 1992. In addition, where National Forest system lands join the margin of the reservoir, CPCo shall include within the hydroelectric project boundary 200 ft of National Forest system land measured horizontally from the reservoir edge at normal maximum surface elevation (high water mark).

10.2 The USFS agrees that the inclusion of the additional National Forest land, above the high water mark within the project boundaries, shall have no effect on the existing Federal Power Act, Section 4(e), Conditioning Authority of the Secretary of Agriculture, with respect to the CPCo projects covered by this Settlement, and shall not create such authority where none presently exists.

10.3 CPCo shall not be responsible for injury to any person, property, flora or fauna on National Forest lands included in a CPCo project boundary, except in the case of gross negligence or willful misconduct by CPCo or CPCo employees. In no event will the liability of the USFS extend beyond that provided for in the Federal Tort Claims Act (28 USC Section 2671 through 2680).

10.4 CPCo shall not be responsible for any enforcement activities related to Federal laws or regulations on the National Forest land within the project boundary, except as required by the FERC under the provisions of the Federal Power Act.

10.5 Upon the National Forest System lands included within the hydroelectric project boundary as described above, the obligation of CPCo for management activities shall be limited to those activities specifically agreed to through the land management plan process outlined in Section 4 except as required pursuant to the Federal Power Act. Such responsibilities will be jointly agreed to by USFS and CPCo on an activity basis and shall generally include, but not be limited to: joint wildlife habitat enhancement activities, joint recreational facility improvements, and joint watershed improvement projects performed in cooperation with the USFS; the dissemination of information to recreation users regarding recreational opportunities and regulations; and providing information to USFS managers about recreation user statistics and observed violations of applicable regulations. CPCo shall not be responsible for injury to any person or persons within said project boundary that results solely from actions or inactions of USFS.

10.6 By entry into this Settlement, the MDNR, the SHPO, USF&WS, and the NPS shall not be considered to have approved any alteration of the legal liabilities of CPCo or the USFS under Paragraphs 10.3 through 10.5.



11.0 Retirement Studies and Trust Fund

11.1 It is the intent of the parties to seek the establishment of trust funds that would ensure that funds are available for proper future management of each project upon retirement from power production.

11.2 Ten years after license issuance, CPCo will begin consulting with the resource agencies on a plan for studying the costs of: 1) permanent non-power operation, 2) partial project removal, or 3) complete project removal at each of the 11 projects. Within six (6) months thereafter, CPCo will submit the study plans to the FERC for approval. Within twenty-four (24) months after approval of the plans by FERC, CPCo shall complete the studies called for by the plans, unless the FERC shall establish a different period for study completion. On completion of the studies, CPCo shall submit study reports to the FERC and resource agencies. In its first retail and wholesale general change of rate filings following completion of the studies, CPCo shall include costs related to the establishment of trust funds to collect from ratepayers the costs of: 1) permanent non-power operation, or 2) partial project removal, or 3) complete project removal at each of the 11 projects. If the MPSC or FERC does not approve CPCo's rates insofar as they reflect costs related to the trust funds, CPCo shall include such costs in each successive retail and wholesale general change of rate filing unless the Steering Committee believes making such a proposal would be unproductive. The State of Michigan on behalf of the CPCo ratepayers, shall be beneficiary of the trust funds unless otherwise directed by the MPSC or FERC.

11.3 Nothing herein shall be construed as creating any obligation on the part of CPCo to retire any project or not seek additional relicenses for any project.

12.0 Project Coordination

12.1 The coordination and implementation of this Settlement will be overseen by a two-level project coordination structure. These shall be known as the CPCo-Resource Agencies Steering Committee and the Manistee-Muskegon-AuSable Coordination Team.

12.2 CPCo and the resource agencies shall each designate a Project Leader (a total of 4) who will have overall responsibility for the coordination and implementation of the actions required by this Settlement and shall be collectively known as the CPCo-Resource Agencies Steering Committee (Steering Committee). The Steering Committee shall be responsible for the resolution of any disputes, in accordance with the procedures outlined in Section 14 of this Settlement, and shall also meet at least once annually to review the progress of overall implementation of this Settlement. The chair of the Steering Committee shall be the CPCo Project Leader. The Chair shall be responsible for setting the date, time and place of the annual meeting and such other meetings of the Steering Committee, as may be required, and shall notice the other Project Leaders at least 14 (fourteen) days in advance, provided, however, that the Chair shall set a meeting of the Steering Committee if requested, in writing, by any two of the Steering Committee members. The Chair shall also be responsible for all meeting arrangements, including the recording and dissemination of notes. A



quorum of the Steering Committee to conduct business shall be defined as any three of the four Project Leaders at a properly noticed meeting. If any party decides to change its designated Project Leader, the name, address, and telephone number of the successor shall be provided, in writing, to the other parties and the FERC seven (7) days prior to the date the change becomes effective or as soon after as practical. The date, time and location of the annual meeting of the Steering Committee to review the overall implementation of the Settlement shall also be noticed to the following individuals at least 14 (fourteen) days in advance: Director, FERC Division of Compliance and Administration (DCPA); Regional Director, NPS; and Chairman, Michigan Hydro Re-Licensing Coalition (MHC). These individuals, or their designee, may attend the annual meeting and participate in an ex-officio advisory capacity. These individuals shall each receive a copy of the notes from the annual meeting, regardless of whether they or their designee attended. Provision of notice and notes to the Chairman of the MHC is dependent on the MHC providing the Steering Committee with its Chairman's name and address in writing. The Steering Committee may, at its option, invite any individual or organizational representative to any of its meetings to serve in a similar advisory capacity.

12.3 A Manistee-Muskegon-AuSable Coordination (MMAC Team) shall be established to provide for the ongoing coordination and implementation of the actions required by this Settlement. The MMAC Team shall consist of one representative each from CPCo and the three resource agencies, who shall be appointed by the respective Project Leaders described in Paragraph 12.2 above. If any party decides to change its MMAC Team member, the name, address and telephone number of the successor shall be

provided, in writing, to the other parties and the FERC Director, DCPA, seven (7) days prior to the date the change becomes effective or as soon after as practical. Communications between the parties and all documents, reports, submissions and correspondence concerning activities performed pursuant to the terms and conditions of this Settlement shall be directed through the MMAC Team members. The MMAC Team will meet as often as is necessary to provide for the swift and orderly implementation of the terms and conditions of this Settlement, providing, however, that the MMAC Team Chair shall set a meeting within 14 (fourteen) days of a request, in writing, by any two of the MMAC Team members. The Chair of the MMAC Team shall be the designated representative of CPCo. The Chair shall be responsible for setting the date, time and place for MMAC Team meetings and for providing other appropriate meeting arrangements. A quorum of the MMAC team necessary to conduct business shall be any three of the four members at a properly noticed meeting. The MMAC Team may, at its option, invite any individual or organizational representative to any of its meetings for advice and participation in an ex-officio advisory capacity. The MMAC Team may also form ad-hoc teams that include other employees, interested parties, contractors or consultants to pursue and/or monitor any actions required by or resulting from this Settlement. The MMAC shall also inform, on a periodic basis, all interested parties, including those defined in Paragraph 12.2 and such others as may be identified, regarding their progress and actions taken to implement this Settlement. This information may be provided in a written or meeting format. The frequency of these periodic reports will be determined at the annual Steering Committee meeting described in Paragraph 12.2 by the Project Leaders. Any disputes arising from the conduct of the MMAC Team mission



shall be referred to the Project Leaders for resolution in accordance with the provisions of Section 14 of this Settlement.

12.4 By December 1, of each year after the issuance of licenses pursuant to this Settlement, the MDNR will provide CPCo and the Director of the DCPA with a written statement of costs incurred by it in the previous fiscal year in overseeing the conduct of the activities required by this Settlement including, but not limited to, reviewing, developing, or commenting on submissions; overseeing and monitoring field activities; monitoring and documenting compliance with this Settlement; assessing the need for or planning resource enhancement measures; and participating on the MMAC Team established pursuant to Paragraph 12.2. Any such written cost statement of work performed on this Settlement will describe with reasonable specificity the nature of the costs incurred.

12.5 CPCo shall reimburse the MDNR for such costs up to an annual cap of $100,000, (adjusted for the CPI) within thirty (30) days of receipt of a written statement from the MDNR. All payments required pursuant to Paragraph 12.3 shall be by check made payable to the "State of Michigan" and forwarded to the Assistant Attorney General in charge of the Environmental Protection Division for deposit in the State of Michigan Habitat Improvement Account.

13.0 Resource Agencies Review, Consultation and Concurrence

13.1 This section provides for communication procedures between the resource agencies and CPCo. Resource agencies reviews referred to

in this section pertain to activities among the parties and would be, in many cases, preparatory to seeking FERC approvals. In all situations described herein, where the license requires FERC approval, CPCo shall use its best efforts to promptly seek and obtain authorizations from FERC before any changes to operations, facilities, project boundaries, or procedures are implemented.

13.2 All plans, studies, reports and submissions ("submissions") shall be delivered to the resource agencies for review in accordance with the schedules set forth in this Settlement.

13.3 Upon receipt of any "submission" or other item relating to the work that is required to be submitted for review pursuant to this Settlement, the resource agencies MMAC team members will, in writing within forty-five (45) days, signify:

(a) Concurrence with the "submission," or;

(b) Non-concurrence with the "submission", notifying CPCo of deficiencies. Upon receipt of a notice of concurrence and following FERC approval as necessary, CPCo shall proceed to take any action required by the "submission" or other item as concurred with or as modified. Approved "submissions" shall become enforceable under the terms of this Settlement and any new licenses issued.

13.4 Notice of non-concurrence arising from Paragraph 13.3 will specify the reason(s) for the non-concurrence. Unless a notice of non-concurrence specifies a longer time period, and upon receipt of a notice of non-concurrence from the resource agencies, CPCo shall within sixty (60) days thereafter; a) address the comments and submit the modified



plan, report, or other item to the resource agencies or to FERC for approval, if necessary, or b) refer the matter to dispute resolution pursuant to Section 14. CPCo shall proceed to take any action not directly related to the portion of the "submission" non-concurred with to the extent that any required FERC approval has been received.

13.5 Resource agencies concurrence means the "submission" is acceptable to meet the intent of the Settlement and does not mean that the resource agencies concur with all conclusions, methods, or statements in the "submissions".

## 14.0 Disputes

14.1 Any dispute that arises under this Settlement shall, in the first instance, be the subject of informal negotiations between CPCo and the resource agencies. The MMAC shall engage in a period of negotiations not to exceed seven (7) working days from the date of written notice by any team member that a dispute has arisen unless extended by agreement. If the MMAC is unable to resolve the dispute, CPCo shall, at the end of the period of negotiations, refer the matter to the Steering Committee for a period of negotiations not to exceed seven (7) working days from the date of the referral, unless extended by agreement. At the end of this negotiation period, the resource agencies shall provide to CPCo a written statement setting forth their proposed resolution of the dispute. Within seven (7) working days of receiving the resource agencies proposed resolution, CPCo shall indicate to the resource agencies in writing whether or not it accepts the proposed resolution. During this informal dispute resolution period, any

Steering Committee member may request the FERC Director of the Office of Hydropower Licensing (OHL) or the Director's designee, to participate in the negotiations to assist in resolving the dispute.

14.2 If CPCo rejects the resource agencies proposed resolution, any Steering Committee member may refer the dispute to FERC for expedited dispute resolution except as provided for in this Section. All disputes taken to FERC under this Section shall be governed by FERC's Rules of Practice and Procedures, 18 CFR Part 385. If CPCo rejects the proposed resolution of any dispute regarding water quality limits pursuant to Paragraphs 6.5 through 6.7, any Steering Committee member may refer the dispute to the WRC for expedited dispute resolution. All disputes taken to the WRC shall be governed by Michigan Administrative Code R 323.1025 or, if applicable, R323.1021.

15.0 Liquidated Damages

15.1 It is the intent of the parties to resolve all disputes either informally or through formal dispute resolution pursuant to Section 14 without the need for FERC resolution. However, the parties recognize that the environmental enhancements and protections provided in this Settlement may not be fully realized if CPCo's commitments are not carried out in a timely and appropriate manner. Except as provided by Paragraphs 6.9 and 15.2, for failure to comply with this Settlement or with the schedule developed under Paragraph 2.5, the resource agencies may assess CPCo liquidated damages in the following amounts for damages to the environmental resources.



| Period | Damages Per Failure Per Day |
|---|---|
| 1st through 30th day | $1,000 |
| 31st through 60th day | $2,000 |
| Beyond 60 days | $4,000 |

The resource agencies may, individually or jointly, assess liquidated damages but not both. The resource agencies shall not assess liquidated damages for any given non-compliance under both this Settlement and the Water Quality Certificates. No more than one resource agency may assess individually for any given non-compliance. Liquidated damages may be waived by the resource agency or by unanimous agreement of the resource agencies that assessed them.

15.2 Liquidated damages shall begin to accrue on the day performance was due, or other failure to comply occurred, and shall continue to accrue until the final day of correction of noncompliance unless:

A. CPCo invokes the dispute resolution procedures within seven (7) working days of written demand for payment of liquidated damages from USFS, USF&WS or MDNR and CPCo accepts the resource agencies proposed resolution of the dispute pursuant to Paragraph 14.2, in which case no liquidated damages shall be owed, and/or;

B. More than ninety (90) days have lapsed between the day performance was due, or other failure to comply occurred, and the date of a written demand, in which case, damages shall begin to accrue ninety (90) days prior to the written demand.

Liquidated damages owed to the resource agencies shall be paid no later than thirty (30) days after receiving a written demand from USFS, USF&WS or MDNR, unless CPCo invokes the dispute resolution provisions of Section 14. If CPCo invokes the dispute resolution provisions and rejects the resource agencies proposed resolution, the payment of liquidated damages shall be stayed and need not be paid until the dispute is resolved or FERC affirms, in whole or in part, the resource agencies demand, whichever is earlier.

15.3 Payment of liquidated damages shall be made to a cooperative account to be established by the resource agencies. The funds in this account shall be expended to further the environmental enhancements encompassed by this Settlement. The resource agencies shall consult with CPCo regarding the expenditure of contributions made pursuant to this Section prior to authorizing an environmental enhancement activity. The resource agencies need not obtain FERC approval of expenditures, but will provide a report of expenditures to FERC and the parties by December 1 if there were any expenditures from these funds in the preceding fiscal year.

15.4 Nothing in this Settlement shall be construed to preclude the FERC from exercising its authority under Section 31 of the Federal Power Act.

16.0 Soil Erosion Control

16.1 CPCo shall develop stream and reservoir bank stabilization and soil erosion control plans for sections of the AuSable, Manistee and



Muskegon Rivers influenced by CPCo's hydroelectric projects. CPCo shall provide $1 million, up to $200,000 in any given year within the first ten years after the execution of this Settlement, in 1992 dollars (adjusted for the CPI) for erosion control work at sites identified by the plans.

16.2 The plans shall include an erosion site inventory, prioritization schedule for erosion control and potential control alternatives and their associated costs. The plans and associated erosion control project implementation schedule shall be developed in consultation with the resource agencies and when, within a project boundary, with approval by FERC.

16.3 CPCo and the resource agencies shall jointly select sites, from the erosion site inventory, for final design and construction. CPCo shall implement the control activity at each identified site. The resource agencies may provide financial assistance and/or participate in construction activities at selected sites.

16.4 CPCo, in cooperation with the resource agencies, shall:

A) Muskegon River - Identify streambank and reservoir soil erosion sites on the Muskegon River from the Rogers Hydroelectric Project downstream;

B) Manistee River - Utilize the erosion survey performed by the Northwest Michigan Resource Conservation and Development Council in

1986 and other data provided by the resource agencies for soil erosion site identification from Hodenpyl Hydroelectric Project downstream, and;

C) AuSable River - Utilize the Soil Erosion Survey for the AuSable River prepared by Huron Pines Resource Conservation and Development Council in 1991 and other data provided by the resource agencies for soil erosion site identification from the Mio Hydroelectric Project downstream.

17.0 Rogers Project Operations

17.1 The parties agree that run-of-river operation, as defined below, is the appropriate operational mode at the Rogers Project to enhance and protect the environment at this project by maximizing the Rogers reservoir and downstream river habitat. CPCo shall contract with USGS to install and maintain a flow gauge with telemetry upstream of the Rogers reservoir at Big Rapids. CPCo shall request that USGS complete flow gauge installation and commence operation within twenty-four (24) months of FERC license issuance. Upon installation and commencement of operation of the flow gauge, CPCo agrees to operate the Rogers Project on a run-of-river basis. Run-of-river means the Muskegon River flow through the Rogers project shall approximately equal the Muskegon River flow upstream at Big Rapids corrected for time of passage and water accretion.

17.2 "Approximately equal" means flow through the project, determined from turbine rating curves developed by CPCo in conjunction with USGS, is within ± 5% of the flow gauge reading. When the flow



gauge is ice affected, the flow through the project shall be within ± 20% of the flow gauge reading. A definition of "ice affected" will be developed during the 3-year operation period described in Paragraph 17.4. Frequency of turbine rating curve calibration will be determined by CPCo and the resource agencies based upon USGS recommendations.

17.3 Flow fluctuations that deviate from run-of-river for special requests by official governmental entities will not exceed a period of four (4) hours without resource agencies notification or one business day without concurrence. Flow fluctuations for maintenance or special requests by official governmental entities that result in zero flow require prior resource agencies notification.

17.4 CPCo shall provide a manual operation testing plan 90 days after FERC license issuance for resource agencies review in accordance with Section 13. For the first three years that the flow gauge is in operation, CPCo shall implement the operation testing plan to evaluate how closely the Rogers Project can match flow through using manual operations.

17.5 Within six months after the end of the three-year test period CPCo shall submit to the resource agencies a written report on the operational testing program. The report shall assess how closely the Rogers Project can match flow through and describe its effect on reservoir surface water level fluctuations using manual operations.

17.6 The resource agencies will evaluate the report to determine whether manual operation of the project can meet run-of-river flows. If

the resource agencies determine that manual operation of the project can meet run-of-river flows, CPCo will continue manual operation of the Rogers Project. If the resource agencies determine that manual operation of the project cannot adequately meet run-of-river flows, CPCo will within six months of such a written determination, provide plans, specifications and schedules for installation and operation of automatic operation controls to meet the run-of-river flows for resource agencies review according to the procedures specified in Section 13. Within 90 days of the necessary FERC approvals, CPCo shall commence with the design and procurement for the installation of automatic operation controls to meet run-of-river flows.

18.0 Rogers Project Reservoir Surface Water Elevation

18.1 During normal operations, CPCo will maintain the reservoir surface water elevation at a nominal operating elevation of 861.3 ft USGS datum. Compliance with run-of-river operation will be based on river flow in accordance with Paragraph 17.1.

18.2 During periods of maintenance, the reservoir may be drawn down below the nominal operating elevation of 861.3 ft USGS datum. The rates of drawdown and refill shall not exceed one (1) ft per twenty-four (24) hour period. For maintenance requiring a drawdown of greater than two (2) ft, CPCo will obtain any necessary MDNR permit(s). Copies of the permit application(s) shall be supplied to the resource agencies at the time of application.



19.0 Hardy Project Operation

19.1 The parties agree that the project operation, as defined below, is the appropriate operational mode at the Hardy Project to enhance and protect the environment at this project by: minimizing project river regulation impacts on Hardy reservoir habitat; minimizing impacts on reservoir habitat from peaking operation; and maximizing downstream river habitat by the appropriate use of storage. CPCo shall maintain Hardy Reservoir at 822.0 ft USGS datum with ± 0.5 ft fluctuation on a daily basis except during periods of reservoir drawdown, reservoir refill, emergency conditions and maintenance. During reservoir drawdown, the change in water surface elevation shall not exceed 1.0 ft in any 24-hour period. Headwater elevations shall be recorded every thirty minutes. CPCo shall provide to the resource agencies, a report summarizing all events during the quarter in which the elevation fluctuations exceeded ± 0.5 ft during normal operation or ± 1 ft in any 24-hour period during reservoir drawdown. CPCo will modify the Hardy Project operation in consultation with the resource agencies, and upon FERC approval based on the Croton re-regulation analysis to be performed for the downstream Croton hydroelectric project as provided for in Section 20.

19.2 Winter reservoir drawdown will occur from early January to approximately the end of April. The maximum permissible drawdown without prior resource agencies concurrence is twelve (12) ft below 822.5 ft USGS datum ± 0.5 ft.

19.3 CPCo shall develop target drawdown and refill rates and operating procedures for the drawdown and refill periods at the Hardy Project as part of the Croton re-regulation study required by Section 20. These target rates and procedures will be utilized by CPCo to establish drawdown and refill durations.

19.4 During periods of maintenance, the reservoir may be drawn down below the nominal operating elevation of 822 ft USGS datum. The normal rates of drawdown and refill shall not exceed one (1) ft per twenty-four (24) hour period. For maintenance requiring a drawdown of greater than two (2) ft, CPCo will obtain any necessary MDNR permit(s). Copies of the permit application(s) shall be supplied to the resource agencies at the time of application.

20.0 Croton Project Operation

20.1 The parties agree that the re-regulated operation, as defined below, is the appropriate operational mode at the Croton Project to enhance and protect the environment at this project by maximizing downstream river habitat and minimizing project impacts on the Croton reservoir habitat. CPCo shall operate the Croton Project to re-regulate the operation of the Hardy Project, but under no circumstance shall this result in a loss of the Hardy project as a peaking facility. When Hardy is at full pool, 822.0 ft USGS datum ± 0.5 ft or when Hardy is at minimum pool, 810.5 ft USGS datum ± 0.5 ft, the flows from the Croton Project shall approximately equal the inflows to the Rogers Project plus the inflow from the Little Muskegon River corrected for time of passage and water accretion. During Hardy reservoir drawdown or refill periods,



the Croton Project shall release the projected mean daily discharge from Hardy Reservoir plus the inflow from the Little Muskegon River.

20.2 During normal operations, CPCo will maintain the Croton Project reservoir surface water elevation at a nominal operating elevation of 722.0 ft USGS datum. The Croton Project reservoir operating range will be determined by the Croton Project reservoir re-regulation study as described in Paragraphs 20.3 and 20.4.

20.3 CPCo shall develop a Croton re-regulation plan to meet the standards outlined in Paragraphs 20.1 and 20.2.

20.4 The Croton re-regulation plan shall be developed according to the schedule provided in Paragraph 2.5. The plan shall be submitted to the resource agencies for review. Upon approval by the FERC, CPCo shall implement the Croton re-regulation plan. This plan shall include interim operation guidelines to be adhered to during the study period. The report shall identify the optimum operating procedures for the Croton Project to meet the operating standards outlined in Paragraphs 20.1 and 20.2 and indicate whether these standards can be met with manual operation of the project or whether automated controls are required. The report shall describe fluctuations in Croton Project reservoir surface elevation due to re-regulation operations.

20.5 The resource agencies will evaluate the report to determine whether manual operation of the project can meet the operations standards of Paragraphs 20.1 and 20.2 and indicate whether these standards can be met. If the resource agencies determine that manual

operation of the project can meet operations standards, CPCo may continue manual operation of the Croton project. If the resource agencies determine that manual operation of the project cannot adequately meet operations standards, CPCo will, within six months of such a written determination, provide plans, specifications and schedules for installation and operation of automatic operation controls to meet operations standards for resource agencies review according to the procedures specified in Section 13. Within 90 days of the necessary FERC approvals, CPCo shall commence with the design and procurement for the installation of automatic operation controls to meet operations standards.

20.6 CPCo shall contract with USGS to install and maintain the necessary flow gauging with telemetry upstream of the Croton Project reservoir on the Little Muskegon River and immediately downstream of Croton Dam. CPCo shall request that USGS complete flow gauge installation and commence operation within twenty-four (24) months of FERC license issuance.

20.7 During periods of maintenance, the Croton Project reservoir may be drawn down below the nominal operating elevation of 722.0 ft USGS datum. The rates of draw down and refill shall not exceed one (1) ft per twenty-four (24) hour period. For maintenance requiring a draw down of greater than two (2) ft, CPCo will obtain any necessary MDNR permit(s). Copies of the permit application(s) shall be supplied to the resource agencies at the time of application.



## 21.0 Mio Project Operations

21.1 The parties agree that run-of-river operation, as defined below, is the appropriate operational mode at the Mio Project to enhance and protect the environment at this project by maximizing the Mio reservoir and downstream river habitat. CPCo shall contract with USGS to install and maintain a flow gauge with telemetry upstream of the Mio reservoir below Big Creek and a flow gauge with telemetry immediately downstream of Mio. CPCo shall request that USGS complete flow gauge installation and commence operation within twenty-four (24) months of FERC license issuance. Upon installation and commencement of operation of the flow gauges, CPCo agrees to operate the Mio Project on a run-of-river basis. Run-of-river means the Au Sable River flow through the Mio project shall approximately equal the Au Sable River flow upstream below Big Creek corrected for time of passage and water accretion.

21.2 "Approximately equal" means flow gauge readings below the project are within ± 5% of the upstream flow gauge readings. When the gauges are ice affected, the flow gauge reading below the project shall be within ± 20% of the upstream flow gauge reading. A definition of "ice affected" gauges will be developed during the three (3) year operation test period in accordance with Paragraph 21.4.

21.3 Flow fluctuations that deviate from run-of-river for special requests by official governmental entities will not exceed a period of four (4) hours without resource agencies notification or one business day without resource agencies concurrence. Flow fluctuations for

maintenance or special requests by official governmental entities that result in zero flow require prior resource agencies notification.

21.4 CPCo shall provide a manual operation testing plan 90 days after FERC license issuance for resource agencies review in accordance with Section 13. For the first three years that the flow gauges are in operation, CPCo shall implement the operation testing plan to evaluate how closely the Mio Project can match outflow to inflow using manual operations.

21.5 Within six months after the end of the three-year test period CPCo shall submit to the resource agencies a written report on the operational testing program. The report shall assess how closely the Mio Project can match outflow to inflow and describe its effect on reservoir surface water level fluctuations using manual operations.

21.6 The resource agencies will evaluate the report to determine whether manual operation of the project can meet run-of-river flows. If the resource agencies determine that manual operation of the project can meet run-of-river flows, CPCo will continue manual operation of the Mio project. If the resource agencies determine that manual operation of the project cannot adequately meet run-of-river flows, CPCo will within six months of such a written determination, provide plans, specifications and schedules for installation and operation of automatic operation controls to meet the run-of-river flows for resource agencies review according to the procedures specified in Section 13. Within 90 days of the necessary FERC approvals, CPCo shall commence with the



design and procurement for the installation of automatic operation controls to meet run-of-river flows.

22.0 Mio Project Reservoir Surface Water Elevation

22.1 During normal operations, CPCo will maintain the reservoir surface water elevation at a nominal operating elevation of 962.6 ft USGS datum. Compliance with run-of-river operation will be based on river flow in accordance with Paragraph 21.1.

22.2 During periods of maintenance, the reservoir may be drawn down below the nominal operating elevation of 962.6 ft USGS datum. The rates of draw down and refill shall not exceed one (1) ft per twenty-four (24) hour period. For maintenance requiring a draw down of greater than two (2) ft, CPCo will obtain any necessary MDNR permit(s). Copies of the permit application(s) shall be supplied to the resource agencies at the time of application.

23.0 Alcona Project Operations

23.1 The parties agree that run-of-river operation, as defined below, is the appropriate operational mode at the Alcona Project to enhance and protect the environment at this project by maximizing the Alcona reservoir and downstream river habitat. CPCo shall contract with USGS to install and maintain a flow gauge with telemetry upstream of the Alcona reservoir at 4001 Bridge and a flow gauge with telemetry immediately downstream of Alcona at Bamfield Dam road. CPCo shall request that USGS complete flow gauge installation and commence

operation within twenty-four (24) months of FERC license issuance. Upon installation and commencement of operation of the flow gauges, CPCo agrees to operate the Alcona Project on a run-of-river basis. Run-of-river means the Au Sable River flow through the Alcona project shall approximately equal the Au Sable River flow upstream at 4001 Bridge corrected for time of passage and water accretion.

23.2 "Approximately equal" means flow gauge readings below the project are within ± 5% of the upstream flow gauge readings. When the gauges are ice affected, the flow gauge reading below the project shall be within ± 20% of the upstream flow gauge reading. A definition of "ice affected" gauges will be developed during the three (3) year operation test period in accordance with Paragraph 23.4.

23.3 Flow fluctuations that deviate from run-of-river for special requests by official governmental entities will not exceed a period of four (4) hours without resource agencies notification or one business day without resource agencies concurrence. Flow fluctuations for maintenance or special requests by official governmental entities that result in zero flow require prior resource agencies notification.

23.4 CPCo shall provide a manual operation testing plan 90 days after FERC license issuance for resource agencies review in accordance with Section 13. For the first three years that the flow gauges are in operation, CPCo shall implement the operation testing plan to evaluate how closely the Alcona Project can match outflow to inflow using manual operations.



23.5 Within six months after the end of the three-year test period CPCo shall submit to the resource agencies a written report on the operational testing program. The report shall assess how closely the Alcona Project can match outflow to inflow and describe its effect on reservoir surface water level fluctuations using manual operations.

23.6 The resource agencies will evaluate the report to determine whether manual operation of the project can meet run-of-river flows. If the resource agencies determine that manual operation of the project can meet run-of-river flows, CPCo will continue manual operation of the Alcona project. If the resource agencies determine that manual operation of the project cannot adequately meet run-of-river flows, CPCo will within six months of such a written determination, provide plans, specifications and schedules for installation and operation of automatic operation controls to meet the run-of-river flows for resource agencies review according the procedures specified in Section 13. Within 90 days of the necessary FERC approvals, CPCo shall commence with the design and procurement for the installation of automatic operation controls to meet run-of-river flows.

## 24.0 Alcona Project Reservoir Surface Water Elevation

24.1 During normal operations, CPCo will maintain the reservoir surface water elevation at a nominal operating elevation of 829 ft USGS datum. Compliance with run of river operation will be based on river flow in accordance with Paragraph 23.1.

24.2 During periods of maintenance, the reservoir may be drawn down below the nominal operating elevation of 829 ft USGS datum. The rates of draw down and refill shall not exceed one (1) ft per twenty-four (24) hour period. For maintenance requiring a draw down of greater than two (2) ft, CPCo will obtain any necessary MDNR permit(s). Copies of the permit application(s) shall be supplied to the resource agencies at the time of application.

25.0 Loud Project Operation

25.1 The parties agree that the project operation, as defined below, is the appropriate operational mode at the Loud Project to enhance and protect the environment at this project by minimizing peaking impacts on Loud reservoir habitat. CPCo shall maintain Loud Reservoir at 741.8 ft USGS datum with ± 0.8 ft fluctuation on a daily basis except during periods of reservoir drawdown, reservoir refill, emergency conditions and maintenance. Headwater elevations shall be recorded every thirty minutes. CPCo shall provide to the resource agencies, a report summarizing all events during the quarter in which the elevation fluctuations exceeded ± 0.8 ft during normal operation. CPCo will modify the Loud Project operation after review by the resource agencies and with FERC approval based on the Foote re-regulation analysis to be performed for the downstream Foote hydroelectric project as provided for in Section 31.



26.0 Loud Project Reservoir Surface Water Elevation

26.1 During periods of maintenance, the reservoir may be drawn down below the nominal operating elevation of 741.8 ft USGS datum. The rates of draw down and refill shall not exceed two (2) ft in a twenty-four (24) hour period.

26.2 For maintenance requiring a draw down of greater than two (2) ft, CPCo will obtain any necessary MDNR permit(s). Copies of the permit application(s) shall be supplied to the resource agencies at the time of application.

27.0 Five Channels Project Operation

27.1 The parties agree that the project operation, as defined below, is the appropriate operational mode at the Five Channels Project to enhance and protect the environment at this project by minimizing peaking impacts on Five Channels reservoir habitat. CPCo shall maintain Five Channels Reservoir at 714.7 ft USGS datum with ± 0.3 ft fluctuation on a daily basis except during periods of reservoir drawdown, reservoir refill, emergency conditions and maintenance. Headwater elevations shall be recorded every thirty (30) minutes. CPCo shall provide to the resource agencies, a report summarizing all events during the quarter in which the elevation fluctuations exceeded ± 0.3 ft during normal operation. CPCo will modify the Five Channels Project operation after review by the resource agencies and with FERC approval based on the Foote re-regulation analysis to be performed for the downstream Foote hydroelectric project as provided for in Section 31.

28.0 Five Channels Project Reservoir Surface Water Elevation

28.1 During periods of maintenance, the reservoir may be drawn down below the nominal operating elevation of 714.7 ft USGS datum. The rates of draw down and refill shall not exceed two (2) ft in a twenty-four (24) hour period.

28.2 For FERC required annual maintenance or inspections requiring a reservoir drawdown of up to four (4) ft, MDNR permit(s) are not required. CPCo shall provide prior notification to the resource agencies of such annual maintenance or inspection(s).

28.3 For other maintenance requiring a draw down of greater than two (2) ft, CPCo will obtain any necessary MDNR permit(s). Copies of the permit application(s) shall be supplied to the resource agencies at the time of application.

29.0 Cooke Project Operation

29.1 The parties agree that the project operation, as defined below, is the appropriate operational mode at the Cooke Project to enhance and protect the environment at this project by minimizing peaking impacts on Cooke reservoir habitat. CPCo shall maintain Cooke Reservoir at 678.5 ft USGS datum with ± 0.5 ft fluctuation on a daily basis except during periods of reservoir drawdown, reservoir refill, emergency conditions and maintenance. Headwater elevations shall be recorded every thirty minutes. CPCo shall provide to the resource agencies, a report summarizing all events during the quarter in which



the elevation fluctuations exceeded ± 0.5 ft during normal operation. CPCo will modify the Cooke Project operation after review of the resource agencies and with FERC approval, based on the Foote re-regulation analysis to be performed for the downstream Foote hydroelectric project as provided for in Section 31.

30.0 Cooke Project Reservoir Surface Water Elevation

30.1 During periods of maintenance, the reservoir may be drawn down below the nominal operating elevation of 678.5 ft USGS datum. The rates of draw down and refill shall not exceed two (2) ft in a twenty-four (24) hour period.

30.2 For FERC required annual maintenance or inspections requiring a reservoir drawdown of up to four (4) ft, MDNR permit(s) are not required. CPCo shall provide prior notification to the resource agencies of such annual maintenance or inspection(s).

30.3 For other maintenance requiring a drawdown of greater than two (2) ft, CPCo will obtain any necessary MDNR permit(s). Copies of the permit application(s) shall be supplied to the resource agencies at the time of application.

31.0 Foote Project Operation

31.1 The parties agree that the re-regulated operation, as defined below, is the appropriate operational mode at the Foote Project to enhance and protect the environment at this project by maximizing

downstream river habitat and minimizing project impacts on the Foote reservoir habitat. CPCo shall operate the Foote Project to re-regulate the operation of the Cooke Project, but under no circumstance shall this result in a loss at Loud, Five Channels and Cooke projects as peaking facilities. The flows from the Foote Project shall approximately equal the inflows to the Loud Project corrected for time of passage and water accretion.

31.2 During normal operations, CPCo will maintain the reservoir surface water elevation at a nominal operating elevation of 639.2 ft USGS datum. The Foote Pond operating range will be determined by the Foote Pond re-regulation study as described in Paragraphs 31.3 and 31.4.

31.3 CPCo shall develop a Foote re-regulation plan to meet the standards outlined in Paragraphs 31.1 and 31.2.

31.4 The Foote re-regulation plan shall be developed according to the schedule provided in Paragraph 2.5. The plan shall be submitted to the resource agencies for review. Upon approval by the FERC, CPCo shall implement the Foote re-regulation plan. This plan shall include interim operation guidelines to be adhered to during the study period. The report shall identify the optimum operating procedures for the Foote Project to meet the operating standards outlined in Paragraphs 31.1 and 31.2 and indicate whether these standards can be met with manual operation of the project or whether automated controls are required. The report shall describe fluctuations in Foote Pond surface elevation due to re-regulation operations.



31.5 The resource agencies will evaluate the report to determine whether manual operation of the project can meet the operations standards of Paragraphs 31.1 and 31.2. If the resource agencies determine that manual operation of the project can meet operations standards, CPCo may continue manual operation of the Foote project. If the resource agencies determine that manual operation of the project cannot adequately meet the operations standards, CPCo will, within six months of such a written determination, provide plans, specifications and schedules for installation and operation of automatic operation controls to meet operations standards for resource agencies review according to procedures specified in Section 13. Within 90 days of the necessary FERC approvals, CPCo shall commence with the design and procurement for the installation of automatic operation controls to meet operations standards.

31.6 CPCo shall contract with USGS to install and maintain the necessary flow gauging with telemetry upstream of the Loud Project reservoir below the South Branch River and immediately downstream of Foote Dam. CPCo shall request that USGS complete flow gauge installation and commence operation within twenty-four (24) months of FERC license issuance.

32.0 Foote Project Reservoir Surface Water Elevation

32.1 During periods of maintenance, the reservoir may be drawn down below the nominal operating elevation of 639.2 ft USGS datum. The rates of draw down and refill shall not exceed two (2) ft in a twenty-four (24) hour period.

32.2 For FERC required annual maintenance or inspections requiring a reservoir drawdown of up to five (5) ft, MDNR permit(s) are not required. CPCo shall provide prior notification to the resource agencies of such annual maintenance or inspection(s).

32.3 For other maintenance requiring a draw down of greater than 5 ft, CPCo will obtain any necessary MDNR permit(s). Copies of the permit application(s) shall be supplied to the resource agencies at the time of application.

33.0 Hodenpyl Project Operations

33.1 The parties agree that run-of-river operation, as defined below, is the appropriate operational mode at the Hodenpyl Project to enhance and protect the environment at this project by maximizing the Hodenpyl reservoir and downstream river habitat. CPCo shall contract with USGS to install and maintain a flow gauge with telemetry upstream of the Hodenpyl reservoir at Sherman and a flow gauge with telemetry immediately downstream of Hodenpyl. CPCo shall request that USGS complete flow gauge installation and commence operation within twenty-four (24) months of FERC license issuance. Upon installation and commencement of operation of the flow gauges, CPCo agrees to operate the Hodenpyl Project on a run-of-river basis. Run-of-river means the Manistee River flow through the Hodenpyl project shall approximately equal the Manistee River flow upstream at Sherman corrected for time of passage and water accretion.



33.2 "Approximately equal" means flow gauge readings below the project are within ± 5% of the upstream flow gauge readings. When the gauges are ice affected, the flow gauge reading below the project shall be within ± 20% of the upstream flow gauge reading. A definition of "ice affected" gauges will be developed during the three (3) year operation test period in accordance with Paragraph 33.4.

33.3 Flow fluctuations that deviate from run-of-river for special requests by official governmental entities will not exceed a period of four (4) hours without resource agencies notification or one business day without resource agencies concurrence. Flow fluctuations for maintenance or special requests by official governmental entities that result in zero flow require prior resource agencies notification.

33.4 CPCo shall provide a manual operation testing plan 90 days after FERC license issuance for resource agencies review in accordance with Section 13. For the first three years that the flow gauges are in operation, CPCo shall implement the operation testing plan to evaluate how closely the Hodenpyl Project can match outflow to inflow using manual operations.

33.5 Within six months after the end of the three-year test period CPCo shall submit to the resource agencies a written report on the operational testing program. The report shall assess how closely the Hodenpyl Project can match outflow to inflow and describe its effect on reservoir surface water level fluctuations using manual operations.

33.6 The resource agencies will evaluate the report to determine whether manual operation of the project can meet run-of-river flows. If the resource agencies determine that manual operation of the project can meet run-of-river flows, CPCo will continue manual operation of the Hodenpyl project. If the resource agencies determine that manual operation of the project cannot adequately meet run-of-river flows, CPCo will within six months of such a written determination, provide plans, specifications and schedules for installation and operation of automatic operation controls to meet the run-of-river flows for resource agencies review according to the procedures specified in Section 13. Within 90 days of the necessary FERC approvals, CPCo shall commence with the design and procurement for the installation of automatic operation controls to meet run-of-river flows.

34.0 Hodenpyl Project Reservoir Surface Water Elevation

34.1 During normal operations, CPCo will maintain the reservoir surface water elevation at a nominal operating elevation of 809.0 ft USGS datum. Compliance with run of river operation will be based on river flow in accordance with Paragraph 33.1.

34.2 During periods of maintenance, the reservoir may be drawn down below the nominal operating elevation of 809.0 ft USGS datum. The rates of draw down and refill shall not exceed one (1) ft per twenty-four (24) hour period. For maintenance requiring a draw down of greater than two (2) ft, CPCo will obtain any necessary MDNR permit(s). Copies of the permit application(s) shall be supplied to the resource agencies at the time of application.



35.0 Tippy Project Operations

35.1 The parties agree that run-of-river operation, as defined below, is the appropriate operational mode at the Tippy Project to enhance and protect the environment at this project by maximizing the Tippy reservoir and downstream river habitat. CPCo shall contract with USGS to install and maintain a flow gauge with telemetry upstream of the Tippy reservoir on the Pine River at High School Bridge and a flow gauge with telemetry downstream of Tippy. CPCo shall request that USGS complete flow gauge installation and commence operation within twenty-four (24) months of FERC license issuance. Upon installation and commencement of operation of the flow gauges, CPCo agrees to operate the Tippy Project on a run-of-river basis. Run-of-river means the Manistee River flow through the Tippy project shall approximately equal the Manistee River flow upstream at Hodenpyl plus the inflow from the Pine River corrected for time of passage and water accretion.

35.2 "Approximately equal" means flow gauge readings below the project are within ± 5% of the upstream flow gauge readings. When the gauges are "ice affected", the flow gauge reading below the project shall be within ± 20% of the upstream flow gauge reading. A definition of "ice affected" gauges will be developed during the three (3) year operation test period in accordance with Paragraph 35.4.

35.3 Flow fluctuations that deviate from run-of-river for special requests by official governmental entities will not exceed a period of four (4) hours without resource agencies notification or one business day without resource agencies concurrence. Flow fluctuations for

maintenance or special requests by official governmental entities that result in zero flow require prior resource agencies notification.

35.4 CPCo shall provide a manual operation testing plan 90 days after FERC license issuance for resource agencies review in accordance with Section 13. For the first three years that the flow gauges are in operation, CPCo shall implement the operation testing plan to evaluate how closely the Tippy Project can match outflow to inflow using manual operations.

35.5 Within six months after the end of the three-year test period CPCo shall submit to the resource agencies a written report on the operational testing program. The report shall assess how closely the Tippy Project can match outflow to inflow and describe its effect on reservoir surface water level fluctuations using manual operations.

35.6 The resource agencies will evaluate the report to determine whether manual operation of the project can meet run-of-river flows. If the resource agencies determine that manual operation of the project can meet run-of-river flows, CPCo will continue manual operation of the Tippy project. If the resource agencies determine that manual operation of the project cannot adequately meet run-of-river flows, CPCo will within six months of such a written determination, provide plans, specifications and schedules for installation and operation of automatic operation controls to meet the run-of-river flows for resource agencies review according to the procedures specified in Section 13. Within 90 days of the necessary FERC approvals, CPCo shall commence with the



design and procurement for the installation of automatic operation controls to meet run-of-river flows.

## 36.0 Tippy Project Reservoir Surface Water Elevation

36.1 During normal operations, CPCo will maintain the reservoir surface water elevation at a nominal operating elevation of 687.4 ft USGS datum. Compliance with run of river operation will be based on river flow in accordance with Paragraph 35.1.

36.2 During periods of maintenance, the reservoir may be drawn down below the nominal operating elevation of 687.4 ft USGS datum. The rates of drawdown and refill shall not exceed one (1) ft per twenty-four (24) hour period. For maintenance requiring a drawdown of greater than two (2) ft, CPCo will obtain any necessary MDNR permit(s). Copies of the permit application(s) shall be supplied to the resource agencies at the time of application.

## 37.0 Stronach Dam Management

37.1 With respect to the Stronach Dam located on the Pine River and included in the Tippy Project License; the parties collectively agree that significant potential ecological, recreational, scenic, aesthetic and cultural benefits would be realized if the Stronach Dam was removed, including: 1) restoring approximately two miles of free flowing high gradient river habitat which is a rare habitat type in Michigan; 2) providing enhanced recreational canoeing and fishing opportunities; 3) contributing to the mitigation of habitat effects at

the other peaking hydroelectric projects specified in this Settlement; and 4) will maintain the character of that portion of the Pine River designated as a National Scenic River whose boundary is just upstream of the Stronach impoundment. The parties also recognize that ongoing studies, which are scheduled for completion in December 1992, are being conducted to determine the environmental effects of breaching or removing the Dam to restore the natural Pine River channel. However, it is the desire of the parties not to delay the execution of this Settlement awaiting the results of the Stronach Dam studies.

37.2 Following the completion of the ongoing Stronach Dam studies, CPCo will, in consultation with the resource agencies, submit to the FERC by February 15, 1993, a preferred method for removal of the Stronach Dam. If the subsequent FERC environmental analysis results in a finding that net public benefits would be achieved by the proposed removal, CPCo agrees to remove the Stronach Dam and restore the Pine River channel subject to resource agencies review and FERC approval of the final removal plans. CPCo shall fund up to $750,000 in 1992 dollars (as adjusted to the CPI) for the removal and restoration. If less than $750,000 is spent on removal and restoration, the remainder can be utilized by agreement of the resource agencies for other purposes covered by this Settlement. The final removal plans shall include the removal/breaching methods, bank stabilization, site restoration, provisions for recreational user safety and the time table for the removal process. The final removal plan shall be submitted to the FERC for approval within 12 months of license issuance. Upon FERC approval, CPCo shall implement the Stronach Dam removal plan.



Respectfully submitted by:

FOR CONSUMERS POWER COMPANY

11-23-92
Robert J Nicholson Date
Vice President, Fossil and Hydro
Electric Operations
Consumers Power Company

FOR THE US DEPARTMENT OF AGRICULTURE-FOREST SERVICE

11/23/92
Floyd J Marita, Jr Date
Regional Forester
US Department of Agriculture-
Forest Service

FOR THE MICHIGAN DEPARTMENT OF NATURAL RESOURCES and THE STATE HISTORIC PRESERVATION OFFICER

11-23-92
Frank J Kelley Date
Attorney General
State of Michigan

FOR THE US DEPARTMENT OF INTERIOR-FISH AND WILDLIFE SERVICE

11/23/92
Samuel Marler Date
Regional Director
US Department of Interior-
Fish and Wildlife Service

FOR THE MICHIGAN DEPARTMENT OF NATURAL RESOURCES

11/23/92
Roland Harmes Date
Director, Michigan Department of
Natural Resources

FOR THE US DEPARTMENT OF INTERIOR-NATIONAL PARK SERVICE

11/20/92
Don H Castleberry Date
Regional Director
US Department of Interior-
National Park Service

FOR THE STATE HISTORIC PRESERVATION OFFICER

11/23/92
Kathryn B Eckert Date
State Historic Preservation
Officer

The following is a candidate list of new recreational facilities and proposed improvements to existing recreational facilities. The final list of recreational facility improvements or additions will be developed in the recreation section of the Land Management Plans based on: compatibility with other aspects of the Land Management Plans listed in Paragraph 4.2; consultation with the resource agencies, NPS, the local public; and the ongoing CPCo recreation use study being conducted in response to the FERC additional information requests dated May 21,1992. This listing identifies the site manager responsible for site operation and maintenance whether the site is existing or proposed and the tentative capital construction priority of each site.

| | SITE MANAGER | STATUS | CONSTRUCTION PRIORITY |
|---|---|---|---|
| **I. FACILITIES/ENHANCEMENTS MANISTEE RIVER** | | | |
| **A. Hodenpyl Hydroelectric Project** | | | |
| 1. Impoundment Boat Launch and Barrier-Free Fishing Pier<br>Install parking lot, vault toilet, harden ramp and path, skid pier, signs and barrier-free fishing pier. | CPCo | PROPOSED | MEDIUM |
| 2. Tailwater Access-North Side & Woodpecker Creek<br>Upgrade canoe platform and stairway; Install canoe chute, rollers, signs, vault toilet and parking lot. | CPCo | EXISTING | HIGH |
| 3. Tailwater Access-South Side<br>Upgrade parking lot; Install chip trail, timber platform, signs, and vault toilet. | CPCo | EXISTING | HIGH |
| 4. North Country Trail Foot Bridge<br>Install suspended foot bridge over Manistee River (50% cost share with USFS). | USFS | PROPOSED | HIGH |





| | SITE MANAGER | STATUS | CONSTRUCTION PRIORITY |
|---|---|---|---|
| 5. USFS Seaton Creek Campground<br>Provide 50% share of maintenance cost. | USFS | EXISTING | NO CONSTRUCTION |
| **B. Tippy Hydroelectric Project** | | | |
| 1. Red Bridge Public Access<br>Upgrade parking lot; Install vault toilet, skid pier, and water well with hand pump. | USFS | EXISTING | MEDIUM |
| 2. Norman Township Public Access<br>Upgrade parking lot and road; Install vault toilet, picnic tables, and skid pier. | Norman Township | EXISTING | LOW |
| 3. Tippy Dam Campground<br>Upgrade toilets. | MDNR | EXISTING | MEDIUM |
| 4. Impoundment Boat Launch & Barrier-Free Pier<br>Upgrade access road, parking lot and boat ramp; Install vault toilets, signs, barrier-free fishing pier and skid pier. | MDNR | EXISTING | HIGH |
| 5. Tailwater Access-North Side<br>Upgrade access path; Install barrier-free fishing platforms with railings and covered platform. | MDNR | EXISTING | HIGH |
| 6. Tailwater Access-South Side<br>Install log stairs, boardwalk and vault toilet. | CPCo | EXISTING | HIGH |

| | SITE MANAGER | STATUS | CONSTRUCTION PRIORITY |
|---|---|---|---|
| 7. Red Bridge Scenic Overlook<br>Upgrade parking; Install cantilever deck and signs. | USFS | EXISTING | LOW |
| 8. Primitive Camping-Tippy Pond<br>Provide permit system operation funds. | USFS | EXISTING | NO CONSTRUCTION |
| 9. Low Bridge Canoe Pull-Out<br>Provide 50% share of maintenance costs. | USFS | EXISTING | NO CONSTRUCTION |
| 10. Stronach Dam Canoe Portage<br>Upgrade canoe put-in, take-out and stairway. | CPCo | EXISTING | HIGH |

**TOTAL ESTIMATED CAPITAL EXPENDITURE FOR THE MANISTEE RIVER - $440,000**

**II. FACILITIES/ENHANCEMENTS AU SABLE RIVER**

**A. Mio Hydroelectric Project**

| | | | |
|---|---|---|---|
| 1. Camp Ten Public Access<br>Provide maintenance costs. | MDNR | EXISTING | NO CONSTRUCTION |
| 2. Camp Ten Fishing Pier-North<br>Upgrade parking lot; Install vault toilet. | CPCO | EXISTING | HIGH |
| 3. Camp Ten Fishing Pier-South<br>Provide maintenance costs. | USFS | EXISTING | NO CONSTRUCTION |
| 4. MDNR Campground (Rustic)<br>Upgrade picnic tables and landscape; Install vault toilet, fire rings and skid pier. | MDNR | EXISTING | HIGH |





| | SITE MANAGER | STATUS | CONSTRUCTION PRIORITY |
|---|---|---|---|
| 5. MDNR Fishing Pier/Boat Launch<br>Upgrade existing toilets, canoe landing and pier; Upgrade parking lot; Install skid pier, roof on barrier-free fishing pier and signs. | MDNR | EXISTING | HIGH |
| 6. Canoe Portage<br>Upgrade stairs with canoe slide; Install wood fence/rail and canoe put-in (rock crib). | CPCo | EXISTING | MEDIUM |
| 7. Tailwater Access-South<br>Upgrade driveway, parking lot and canoe put-in (rock crib); Install hardened path, signs, railings, vault toilet and barrier-free boardwalk. | CPCo | EXISTING | HIGH |
| 8. Tailwater Access-North<br>Install parking lot, vault toilet and signs. | CPCo | EXISTING | MEDIUM |

**B. Alcona Hydroelectric Project**

| | | | |
|---|---|---|---|
| 1. 4001 Canoe Take-Out<br>Provide 50% share of maintenance costs. | USFS | EXISTING | NO CONSTRUCTION |
| 2. Alcona County Park (West) Boat Launch<br>Upgrade parking lot; Install vault toilet, skid pier, hardened path, boat ramp, and signs. | Alcona County Parks Commission | EXISTING | LOW |

APPENDIX A
LIST OF CANDIDATE RECREATIONAL
FACILITIES/ENHANCEMENTS

| | SITE MANAGER | STATUS | CONSTRUCTION PRIORITY |
|---|---|---|---|
| 3. Alcona County Park (East) Boat Launch<br>Upgrade parking lot; Install skid pier, signs, hardened path and vault toilet. | Alcona County Parks Commission | EXISTING | LOW |
| 4. Canoe Portage<br>Upgrade canoe take-out steps; Install gravel trail. | CPCo | EXISTING | MEDIUM |
| 5. Tailwater Access (West)<br>Upgrade access road and parking; Install hardened path, vault toilet and signs for barrier-free fishing area. | CPCo | EXISTING | HIGH |
| 6. Tailwater Access (East)<br>Install canoe launch (rollers), parking lot and road; Install hand rail, vault toilet and signs for barrier-free fishing area. | CPCo | EXISTING | HIGH |
| 7. Bamfield Road Canoe Access<br>Close existing canoe access site. | USFS | EXISTING | HIGH |
| C. Loud Hydroelectric Project | | | |
| 1. Hoppe Creek Canoe Take-Out<br>Upgrade roadway, parking; Install gravel path, signs, canoe landing, and vault toilet. | USFS | EXISTING | MEDIUM |
| 2. Impoundment Boat Launch<br>Upgrade access road and parking lot; Install hardened boat ramp, vault toilet, skid pier and signs. | CPCo | EXISTING | HIGH |



APPENDIX A
LIST OF CANDIDATE RECREATIONAL
FACILITIES/ENHANCEMENTS

| | SITE MANAGER | STATUS | CONSTRUCTION PRIORITY |
|---|---|---|---|
| 3. West Gate Scenic Overlook<br>Install stairs and boardwalk. | USFS | EXISTING | LOW |
| 4. Rollways Campground<br>Provide 50% share of maintenance costs. | USFS | EXISTING | NO CONSTRUCTION |
| 5. Rollways Picnic Site<br>Provide 50% share of maintenance costs. | USFS | EXISTING | NO CONSTRUCTION |
| 6. Close Existing Overlook<br>Close and restore site. | CPCo | EXISTING | HIGH |
| 7. Scenic By-Way Interpretive Display<br>Provide 50% share of costs for interpretive displays. | USFS | EXISTING | LOW |
| 8. Canoe Portage<br>Upgrade canoe put-in and take-out platforms and stairway; Install canoe slide. | CPCo | EXISTING | MEDIUM |
| 9. Tailwater Access-South<br>Upgrade parking lot; Install vault toilet, signs and hardened path for barrier-free fishing area. | CPCo | EXISTING | HIGH |
| D. Five Channels Hydroelectric Project | | | |
| 1. Impoundment Boat Ramp<br>Upgrade boat ramp and parking lot; Install skid pier, vault toilet, barrier-free fishing pier, hardened path and signs. | CPCo | EXISTING | MEDIUM |

APPENDIX A
LIST OF CANDIDATE RECREATIONAL
FACILITIES/ENHANCEMENTS

| | SITE MANAGER | STATUS | CONSTRUCTION PRIORITY |
|---|---|---|---|
| 2. Canoe Portage<br>Upgrade canoe put-in and take-out platforms and stairway; Install canoe slide. | CPCo | EXISTING | MEDIUM |
| 3. Tailwater Access-South<br>Install vault toilet, parking lot, hardened path and signs for barrier-free fishing area. | CPCo | EXISTING | HIGH |
| 4. Tailwater Access-North<br>Upgrade access road and parking lot; Install vault toilet, stairway, handrail and signs for barrier-free fishing area. | CPCo | EXISTING | HIGH |
| **E. Cooke Hydroelectric Project** | | | |
| 1. Impoundment Boat Launch<br>Install parking lot, hardened boat ramp, vault toilet, skid pier, roadway, and signs. | CPCO | PROPOSED | HIGH |
| 2. Iargo Springs<br>Provide 50% share of maintenance costs. | USFS | EXISTING | NO CONSTRUCTION |
| 3. Lumberman's Monument Campground<br>Provide 50% share of maintenance costs. | USFS | EXISTING | NO CONSTRUCTION |
| 4. Lumberman's Monument Visitor Center (50% CPCo Cost Share)<br>Upgrade displays; Install decks, boardwalk, picnic pavilion and restroom heaters. | USFS | EXISTING | MEDIUM |



APPENDIX A
LIST OF CANDIDATE RECREATIONAL
FACILITIES/ENHANCEMENTS

| | SITE MANAGER | STATUS | CONSTRUCTION PRIORITY |
|---|---|---|---|
| 5. Sawmill Point Campground<br>Upgrade roadway, boat ramp and harden sites; Install vault toilet and water well. | USFS | EXISTING | HIGH |
| 6. Lower Impoundment Boat Launch & Barrier-Free Pier<br>Upgrade boat ramp and parking lot; Install vault toilet, skid pier, barrier-free fishing pier, signs and hardened path. | CPCo | EXISTING | MEDIUM |
| 7. Tailwater Access-South<br>Upgrade parking lot; Install barrier-free fishing platform with roof, vault toilet, hardened ramp and skid pier. | CPCo | EXISTING | HIGH |
| 8. Cooke Campground (50% CPCo Cost Share)<br>Construct new campground on Cooke impoundment. | USFS | PROPOSED | LOW |
| **F. Foote Hydroelectric Project** | | | |
| 1. Old Orchard County Park Fishing Pier<br>Upgrade parking lot; Install barrier-free fishing pier, vault toilet, hardened path and signs. | Oscoda County Parks Commission | PROPOSED | LOW |
| 2. Oscoda Township Park Boat Launch<br>Upgrade boat ramp, parking lot, and vault toilets; Install skid pier, hardened path and signs. | Oscoda Township | EXISTING | HIGH |

| | SITE MANAGER | STATUS | CONSTRUCTION PRIORITY |
|---|---|---|---|
| 3. Oscoda Township Swimming Beach<br>Upgrade vault toilets and parking lot; Install swimming buoys. | Oscoda Township | EXISTING | HIGH |
| 4. Tailwater Access/Fishing Pier-South<br>Install barrier-free fishing pier, hardened path and vault toilet, boardwalk and signs for barrier-free tailwater fishing area. | MDNR | EXISTING | HIGH |
| 5. Rea Road Public Access<br>Upgrade vault toilets, pier and boat ramp. | MDNR | EXISTING | LOW |
| 6. Canoe Portage<br>Upgrade stairs and canoe take out; Install canoe chute. | CPCo | EXISTING | MEDIUM |

TOTAL ESTIMATED CAPITAL EXPENDITURE FOR THE AU SABLE RIVER - $1,400,000

III. FACILITIES/ENHANCEMENTS
MUSKEGON RIVER

A. Rogers Hydroelectric Project

| | | | |
|---|---|---|---|
| 1. Rogers Heights Boat Launch<br>Upgrade parking lot and vault toilet; Install hardened path, picnic tables with grills and signs. | MDNR | EXISTING | LOW |
| 2. Mecosta County Boat Launch<br>Upgrade vault toilet and site; Close boat ramp. | MDNR | EXISTING | LOW |





| | SITE MANAGER | STATUS | CONSTRUCTION PRIORITY |
|---|---|---|---|
| 3. Ulrich Park and Picnic Area<br>Upgrade parking lot, picnic tables and grills; Install barrier-free fishing pier, hardened path, vault toilet, and signs. | Stanwood Lions Club | EXISTING | LOW |
| 4. Canoe Portage<br>Upgrade canoe put-in, trail and stairs; Install canoe slide. | CPCo | EXISTING | LOW |
| 5. Tailwater Fishing Access (East)<br>Improve access road and harden path; Install barrier-free fishing pier, vault toilet, parking lot, concrete steps, fence and signs. | CPCo | EXISTING | HIGH |

B. Hardy Hydroelectric Project

| | | | |
|---|---|---|---|
| 1. US-131 Public Access<br>Upgrade vault toilets; Install barrier-free fishing pier with roof and hardened path. | MDNR | EXISTING | LOW |
| 2. Hess Bend<br>Close access road and clean up site. | CPCo | EXISTING | MEDIUM |
| 3. Newaygo State Park<br>Upgrade vault toilets and picnic tables; Install hardened path and upgrade four (4) sites for barrier-free access. | MDNR | EXISTING | HIGH |
| 4. Davis Bridge Closure<br>Close access road and clean up site. | CPCo | EXISTING | MEDIUM |

APPENDIX A
LIST OF CANDIDATE RECREATIONAL
FACILITIES/ENHANCEMENTS

| | SITE MANAGER | STATUS | CONSTRUCTION PRIORITY |
|---|---|---|---|
| 5. Hardy Dam Park Launch<br><br>Upgrade boat ramp, vault toilets and parking lot; Remove boat docks; Install skid pier, hardened path and signs. | Newaygo County Parks Commission | EXISTING | MEDIUM |
| 6. Canoe Portage-East Side<br><br>Install crosswalk, canoe chute, log stairs, chip path and special put-in. | CPCo | FUTURE | LOW |
| 7. Tailwater Access-East Side<br><br>Upgrade parking and road; Install vault toilet, hand rail, benches, signs and preserve or remove well house. | CPCo | EXISTING | HIGH |
| 8. Impoundment Fishing Pier and Picnic Area<br><br>Install parking lot, hardened path, boardwalk, barrier-free fishing pier with roof, vault toilet, signs, swimming beach, access road, and picnic tables with grills. | CPCo | FUTURE | HIGH |
| 9. Tailwater Access-West<br><br>Upgrade parking lots, driveway and site grade; Install vault toilet, hardened path, signs fence/gate, and hand rail for barrier-free fishing area. | CPCo | FUTURE | HIGH |



APPENDIX A
LIST OF CANDIDATE RECREATIONAL
FACILITIES/ENHANCEMENTS

| | SITE MANAGER | STATUS | CONSTRUCTION PRIORITY |
|---|---|---|---|
| C. Croton Hydroelectric Project | | | |
| 1. Portage, Pier, Boat Launch<br><br>Upgrade parking lot, vault toilets and canoe put-in; Install gravel path, canoe chute, barrier-free fishing pier, hardened boat ramp, skid pier, signs and fence. | CPCo | EXISTING | MEDIUM |
| 2. Tailwater Overlook and Access-East Side<br><br>Upgrade stairs, guard rail, and parking lot; Install vault toilet, lower parking lot, steps and path, railing and boardwalk, and signs for fishing access. | CPCo | FUTURE | HIGH |
| 3. Kimball Park Boat Launch & Fishing Access-West<br><br>Upgrade boat ramp, parking lot, and vault toilets; install skid pier, hardened path, signs, barrier-free boardwalk and fishing platform, additional north side parking, gravel road, steps and chip path. | Newaygo County Parks Commission | EXISTING | HIGH |

TOTAL ESTIMATED CAPITAL EXPENDITURE FOR THE MUSKEGON RIVER - $800,000

A. CAMPGROUNDS

1. Where necessary, upgrade toilet/restroom facilities to meet current public health and safety standards and the provisions of the Americans with Disabilities Act of 1991 (ADA).

2. Develop plans for providing a target 100 ft greenbelt between the water's edge and campsite locations where practical.

3. Consolidate existing multiple dock sites in a central location(s). The numbers and locations of dockage sites will be determined in consultation with the resource agencies and park management.

4. Develop a plan to reduce the number of seasonal sites and conversion of these sites to provide for additional transient camping with a limited stay of up to three (3) weeks. The appropriate mix of seasonal/transient sites will be determined in consultation with the resource agencies and park management.

5. Develop and implement a sign plan for each campground facility. For recreational facilities listed in Appendix A, the plan should ensure public access.

6. Require that each campground be licensed in accordance with state requirements and that copies of license(s) be provided to CPCo annually.

B. BOATING ACCESS SITES

1. Where necessary, upgrade toilet/restroom facilities to meet current public health and safety standards and the provisions of the ADA of 1991.

2. Where necessary, provide concrete car/trailer boat launching ramp(s).

3. Where necessary, provide for a barrier-free skid pier adjacent to the concrete ramp.

4. Provide for adequate entrance road(s) and organized parking with gravel or paved surface.

5. Develop and implement a directional, informational and safety sign plan.

6. All existing and proposed boat dockage locations shall be reviewed by CPCo in consultation with the resource agencies and park management.

7. Public use fees for all such facilities shall be reviewed by CPCo in consultation with the resource agencies and park management.

C. SWIMMING BEACH/PICNIC AREAS

1. Where necessary, provide toilet/restroom/change house facilities that meet current public health and safety and the provisions of the ADA of 1991.

2. Provide for the annual placement and maintenance of adequate safety buoys to delineate the perimeter of the swimming area(s).

3. Provide for adequate entrance road(s) and organized parking with a gravel or paved surface.

4. Public use fees for all such facilities shall be reviewed by CPCo in consultation with the resource agencies and park management.

5. Develop and implement a directional, informational and safety sign plan.





D. MARINAS

1. Where necessary, upgrade toilet/restroom facilities to meet current public health and safety standards and the provisions of the ADA of 1991.

2. Where necessary, provide watercraft sewage pump-out and disposal facilities that meet health and safety standards.

3. Provide a plan for safe and adequate dockage facilities. Proposed dockage plans shall be submitted to the resource agencies for review.

4. Provide for adequate entrance road(s) and parking with a gravel or paved surface.

5. Require that each marina facility is licensed in accordance with state requirements and copies of license(s) are provided to CPCo annually.

6. Public use fees for all such facilities shall be reviewed by CPCo in consultation with the resource agencies and park management.

7. Develop and implement a directional, informational and safety sign plan.

A. Water Quality

1. Proposed Locations in the Au Sable River
   a. Mio, Alcona and Loud above the project, in the impoundment and in the tailwater.
   b. Five Channels, Cooke and Foote, in the impoundment and in the tailwater.

2. Proposed Locations in the Manistee River
   a. Hodenpyl above the project, in the impoundment and in the tailwater.
   b. Tippy above the project (in the Manistee River and Pine River), in the impoundment (below the junction and in both arms), and in the tailwater; above Stronach and Stronach impoundment (*only if Stronach remains*).

3. Proposed Locations in the Muskegon River
   a. Rogers above the project, in the impoundment and in the tailwater.
   b. Hardy and Croton in the impoundment (in both arms at Croton) and in the tailwater.

4. Samples shall be collected as follows:
   a. Above impoundment in mid-channel locations.
   b. Impoundment profile in deepest location.
   c. Tailwater within 100 meters of outlet in mid-channel.

5. Frequency; samples shall be collected quarterly by seasons for one (1) year during the fifth, tenth, fifteenth, twentieth and twenty-fifth years of the license.

6. Parameters
   Alkalinity as CaCO3, mg/l
   Chlorophyll a, ug/l (*only in the impoundment*)
   Color, PCU's
   Dissolved Sulfate (SO4), mg/l
   Hardness as CaCO3, mg/l
   Percent Oxygen Saturation
   pH
   Secchi Disk, Meters
   Specific Conductance, umho
   Total Ammonia, mg/l
   Total Dissolved Solids, mg/l
   Total Nitrate, mg/l
   Total Nitrite, mg/l
   Total Nitrogen (N), mg/l
   Total Organic Carbon, mg/l
   Total Phosphorus (P), mg/l
   Total Suspended Solids, mg/l

7. Reservoir temperature and D.O. profiles will be collected in the deepest location of each impoundment.

8. Temperature and D.O. Frequency
   a. Measurements shall be collected in February, June, July and August.
   b. Measurements shall be collected every 0.5 meters.





B. Impoundment Sediment Sampling

1. Location
   a. Three (3) samples shall be collected in the deepest location of each impoundment.
   b. The samples shall be collected in each arm of the Tippy and Croton impoundments.

2. Frequency; samples shall be collected once in the fifteenth (15th) year of the license.

3. Parameters
   Oil and Grease, mg/kg
   Percent Volatile Solids
   Total Arsenic (As), mg/kg
   Total Barium (Ba), mg/kg
   Total Cadmium (Cd), mg/kg
   Total Chromium (Cr), mg/kg
   Total Copper (Cu), mg/kg
   Total Iron (Fe), mg/kg
   Total Lead (Pb), mg/kg
   Total Manganese (Mn), mg/kg
   Total Mercury (Hg), mg/kg
   Total Nickel (Ni), mg/kg
   Total Nitrogen (n), mg/kg
   Total Organic Carbon, mg/kg
   Total Phosphorus (P), mg/kg
   Total Selenium (Se), mg/kg
   Total Silver (Ag), mg/kg
   Total Zinc (Zn), mg/kg
   Particle Size Distribution
   Acid Volatile Sulfides, mg/kg
   PCB
   DDT
   DDE
   DDD
   Dieldrin
   Toxaphene
   Lindane
   Chlordane
   Mirex
   Hexachlorobenzene
   BHC

APPENDIX C
WATER QUALITY, SEDIMENT QUALITY AND FISH CONTAMINANT MONITORING PROGRAM

C. Fish Contaminants

1. A fish contaminant monitoring program, similar in scope to the pre-application fish contaminant study, shall be conducted at five year intervals, on a schedule to be determined by the parties, for no more than five times during the license period.

2. Prior to conducting each monitoring effort, CPCo shall develop a study plan, for resource agencies review and concurrence, that includes the species, sizes and locations to be sampled.

3. For the purposes of water quality monitoring, the study plan shall include ten walleye from each of the following locations: 1) Manistee River - Hodenpyl Reservoir and below Tippy Dam; 2) AuSable River - Above Foote Dam in one of the Impoundments and Below Foote Dam; and 3) Muskegon River - Croton Impoundment and Below Croton Dam. The walleye shall be in the 20-22 inch size range, unless another size is approved by the resource agencies. Other species and sampling locations shall be selected in consultation with the resource agencies. These fish shall be analyzed as whole fish using the MDNR standard analysis list as follows with other parameters determined in consultation with the resource agencies:

| Standard Analyses | Analytical Detection Level |
|---|---|
| Hexachlorobenzene | 0.001 mg/kg |
| gamma-BHC (Lindane) | 0.005 mg/kg |
| Aldrin | 0.005 mg/kg |
| Dieldrin | 0.005 mg/kg |
| 4,4'-DDE | 0.003 mg/kg |
| 4,4'-DDD | 0.005 mg/kg |
| 4,4'-DDT | 0.005 mg/kh |
| Heptachlor epoxide | 0.003 mg/kg |
| Mercury | 0.010 mg/kg |
| Oxychlordane | 0.003 mg/kg |
| gamma-Chlordane | 0.003 mg/kg |
| trans-Nonachlor | 0.003 mg/kg |
| alpha-Chlordane | 0.003 mg/kg |
| cis-Nonachlor | 0.003 mg/kg |
| Octachlorostyrene | 0.001 mg/kg |
| Hexachlorostyrene | 0.001 mg/kg |
| Heptachlorostyrene | 0.001 mg/kg |
| Pentachlorostyrene | 0.001 mg/kg |
| Heptachlor | 0.005 mg/kg |
| Terphenyl | 0.250 mg/kg |
| Toxaphene | 0.050 mg/kg |
| Mirex | 0.005 mg/kg |
| PBB (FF-1, BP-6) | 0.005 mg/kg |
| PCBs (Aroclors 1242, 1248, 1254 and 1250) | 0.025 mg/kg |