

IEPA Log No.: **C-0315-08**
FERC appl. #: **P-13351**

Public Notice Beginning Date: **April 6, 2011**
Public Notice Ending Date: **May 6, 2011**

Section 401 of the Federal Water Pollution Control Act
Amendments of 1972

Section 401 Water Quality Certification to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-3362

Name and Address of Discharger: Marseilles Land and Water Company – 4132 S. Rainbow Blvd.,
PMB #247, Las Vegas, NV 89103

Discharge Location: Near Marseilles in Sections 13 & 24 of Township 33N, Range 4E of the 4th P.M. in
LaSalle County.

Name of Receiving Water: Illinois River

Project Description: Proposed new hydroelectric powerhouse containing four generating units with total
installed capacity of 10.26 megawatts with new intake and forebay structures, reconfigured
existing headrace channels, new tailrace, new underground transmission lines and appurtenant
facilities.

The Illinois Environmental Protection Agency (IEPA) has received an application for a Section 401 water
quality certification to discharge into the waters of the state associated with a Federal Energy Regulatory
Commission application for license to construct and operate a hydroelectric power generation plant. The
Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. The
last day comments will be received will be on the Public Notice period ending date unless a commenter
demonstrating the need for additional time requests an extension to this comment period and the request
is granted by the IEPA. Interested persons are invited to submit written comments on the project to the
IEPA at the above address. Commenters shall provide their names and addresses along with comments
on the certification application. Commenters may include a request for public hearing. The certification
and notice number(s) must appear on each comment page.

The attached Fact Sheet provides a description of the project and the antidegradation assessment.

The application, Public Notice/Fact Sheet, comments received, and other documents are available for
inspection and may be copied at the IEPA at the address shown above between 9:30 a.m. and 3:30 p.m.
Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the certification
application, the IEPA may, at its discretion, hold a public hearing. Public notice will be given 30 days
before any public hearing. If a Section 401 water quality certification is issued, response to relevant
comments will be provided at the time of the certification. For further information, please call Darren
Gove at 217/782-3362.

DRG:C-0315-08_401 PN and FS_08Jan09.docx

Fact Sheet for Antidegradation Assessment
For Marseilles Land and Water Company
IEPA Log No. C-0315-08
FERC Docket No. P-13351
Contact: Mark Books; 217/785-6937
Public Notice Start Date: April 6, 2011

Marseilles Land and Water Company (“Applicant”) has applied for a Section 401 water quality certification for impacts associated with the construction of a new 10.26 Megawatt Hydroelectric power plant. The proposed Project is located within the City of Marseilles, in Sections 13 and 24, Township 33 North, Range 4 East in LaSalle County. The proposed project would utilize the head created by the Marseilles Lock & Dam, which is owned and operated by the U.S. Army Corps of Engineers (“USACE”), located at Illinois River mile 247. Operation of the proposed facility would be as a run-of-the-river facility, involving no storage for hydroelectric purposes, and no modification of the existing dam. The project proposes to rewater and use the existing head races located at this dam. The two existing head races are located adjacent to each other and are separated by a narrow isthmus. The head races were constructed and modified during a period from 1903 to 1907 and were operated as a water supply canal for mechanical and electrical power from 1903 until 1988 when Illinois Power’s hydroelectric generating station was shut down. The project involves the construction and operation of four S type Kaplan turbine generators, the refurbishment of the existing north head race civil structures and a new intake diversion structure at the power house. Each turbine generator is rated a 17 feet of head, 2,000 cfs and 2,540 kW at maximum output. The project involves the dredging of sediment from the North Channel head race at the site. The dredged material from the North Channel will be either used as fill at the site or it will be disposed of offsite at an Illinois-licensed disposal facility, depending on the soil test results.

Identification and Characterization of the Affected Water Body.

The Illinois River has a 7Q10 flow of 1,990 cfs at this location and is a General Use water. Illinois River Waterbody Segment IL_D-23 is listed in the Illinois Integrated Water Quality Report and Section 303(d) List-2006, the partially approved 2008 303(d) List and the draft 2010 303(d) List as impaired for fish consumption and primary contact uses. The causes of impairment for fish consumption use are mercury and PCB’s. The cause for primary contact recreation use impairment is Fecal Coliform bacteria. The Illinois River at this location is an enhanced waterbody pursuant to the dissolved oxygen water quality standard. Using the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, the Illinois River, at this location, is not listed as a biologically significant stream. The Illinois River has a drainage area of approximately 8,259 square miles at the project site.

The Applicant has identified 3.8 acres of wetlands that will be affected by this project. The IDNR WIRT system listed the Greater Redhorse and the River Redhorse as state threatened or endangered aquatic species residing in the project area.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.

The pollutant load increases that would occur from this project include some possible increases in suspended solids during the construction of the project. Erosion control measures will be utilized to minimize any increase in suspended solids. Aquatic life use of the headraces that may

be disturbed during construction will be negatively impacted, but is anticipated to recover to pre-construction conditions over time in the headrace segments that will remain.

The Applicant has agreed to the following conditions in order to minimize impacts of this proposed hydroelectric project:

- Allow a minimum of approximately 1,000 cubic feet per second (cfs) of flow through the Marseilles Dam to ensure adequate aquatic habitat and maintain dissolved oxygen (DO) levels below the dam in the tailwater and downstream.
- Install trash rack (vertical bar grate) with a bar width of no greater than 2.0 inches to minimize entrainment and/or impingement of fish.
- Design trash rack with adequate surface area to ensure that intake approach velocities do not exceed 1.5 feet per second (fps).
- Conduct a mussel survey, by qualified biologist(s), in the Illinois River within the immediate construction area and in the vicinity of proposed construction activities (up and down stream) prior to conducting any construction activities. If native mussels are found to be present in the construction area, develop and implement a mussel relocation and site restoration plan approved by IDNR.
- Obtain a Stormwater Pollution Permit prior to construction activities which will include a Sediment Erosion Control Plan.
- Obtain a NPDES discharge permit for the treated (filtration and granular activated carbon treatment) wastewaters that will be discharged to the Illinois River from the construction area of the site remediation area.
- Obtain an Incidental Take Authorization from IDNR prior to beginning construction. Note: the Applicant is currently working with IDNR to receive this authorization.
- Conduct all necessary site clearing (e.g. vegetation removal) outside of the primary raptor nesting and bat roosting seasons to avoid any potential effects to these birds and mammals, in the case that they could be present in the area.
- Enroll the entire project site area into the IEPA Site Remediation Program (“SRP”) and obtain a No Further Remediation (NFR) letter for the site.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids will be local and temporary. Erosion control measures will be utilized to minimize any increase in suspended solids and prevent further impact to the stream.

The Applicant has stated that,

“The approximately 0.25 mile long section of river between the dam and the tailrace of the proposed project would experience changes to water flow with operation of the proposed project. A portion of the water currently released through the Marseille Dam gates would be diverted through the headrace to the proposed powerhouse. A minimum flow of approximately 1,000 cfs would continue to be released into the natural river channel below Marseille Dam at all times, as required by IDNR and IEPA, to ensure adequate habitat [e.g. physical habitat] and DO levels in this stretch of the river and downstream,” (page 12 Detailed Action Report, dated October 2010). “Based on the existing data and the fact that at least 1000 cfs would be guaranteed to flow through the Dam, the proposed Project will have an insignificant impact on the tailwater habitat

between the Dam and Project tailrace outfall. Downstream of the Project the river would be unchanged since the entire flow of the river will exist downstream of the powerhouse,” (page 18 Antidegradation Assessment in Support of Clean Water Act, Section 401 Water Quality Certification report, dated October 2010).

The Applicant has also stated that,

“The proposed power plant will utilize 8000 cfs of the available 10,748 cfs mean daily flow in the river at this location. The flow balance will be adequate to allow for the required minimum flow through the USACE dam and for the ability to lock boats through the facility,” (page 3, General Design Drawings and Supporting Design Report- December, 2008).

The Applicant has completed a Sediment Management Plan for the project site. The results of the sediment analysis were that some sediment samples exceeded the various sediment quality guidelines for metals, PAHs and PCBs. The Applicant states that,

“Dredged material from the North Head Race, east of Main Street, which is acceptable for on-site reuse, will be used as fill material in a portion of the South Head Race east of Main Street, the North Head Race Forebay Area, and the area west of the North Head Race ... Dredged material from other work areas will be handled as contaminated material and disposed off-site at an Illinois-licensed landfill... The quantity of excavated material associated with these areas is approximately 29,445 cubic yards... Based on previous analytical results ... sediments from the North Head Race, east of Main Street can be used on site as fill material. The quantity of dredged fill material associated with this area is approximately 30,351 cubic yards. Fill material will be placed in a portion of the South Head Race east of Main Street, the North Head Race Forebay Area, and the area west of the North Head Race... This alternative removes the contaminated sediment and achieves the necessary long-term effectiveness of the cleanup. Removal of contaminated sediment minimizes the uncertainty associated with other technologies as well as the potential for future exposure and transport of contaminants,” (page 2 & 3 Sediment Management Plan- March 2011).

Sediment quality, removal and use on-site will be addressed through the applicant’s plan to enroll the entire site into the Bureau of Land (BOL) Site Remediation Program. Sediment and soil material being relocated within or brought into the designated boundaries of the site will undergo material testing and review by the BOL Site Remediation Program for compliance with standards of 35 Ill Adm. Code 742.

The project will eliminate the current habitat in the affected wetland area. To offset the wetland impacts the Applicant plans on creating 2.87 acres of wetlands on-site and an additional 3 acres of off-site wetland credits will be purchased from the Afton Forest Preserve Wetland Bank in order to provide wetland mitigation ratio greater than 1:1.5 (3.8 acres removed – to - 5.87 acres created and/or purchased). The Applicant has agreed to do the following:

1. Conduct the mitigation plan completed by Grobbel Environmental & Planning Associates, March 15, 2011.
2. Contact the USACE once the mitigation work is completed.

Purpose and Social & Economic Benefits of the Proposed Activity.

The project will provide economic and power generation opportunities for the community. Applicant has stated that during the two year construction period of the project 22 construction jobs will be created. After construction the facility will create 4 permanent jobs. The facility is anticipated to generate 67,000 MW hours per average year. The Applicant has stated that, “The proposed project would produce renewable, clean energy, utilizing the existing headrace structures as a run of the river facility with no storage for hydroelectric purposes and no modification of the existing reservoir releases. Generation of this energy would utilize the energy potential of the river at this location. This potential once used to run factories in Marseilles could again become available as an asset to Illinois, and provide the region with green energy replacing the equivalent energy generated from fossil fuels, thereby reducing the carbon footprint of the region,” (page 16 Antidegradation Assessment Report, dated October 2010).

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.

The Applicant looked at two alternatives to the proposed project, the No Project Alternative and the Lower Flow Project Alternative.

“The No Project Alternative would not allow for the social and economic benefits of utilizing from existing infrastructure and river potential for green power generation, without increasing the carbon footprint or dependence on nuclear facilities. The direct and indirect jobs, and museum and marina to enhance the recreational facilities in the region, which would be created under the Proposed Project, would not be created under the No Project Alternative. For these reasons the No Project Alternative is not an acceptable alternative... The alternative approach of building a facility half as large which would use only one-half of the river energy potential at this location is possible... The capital cost of the facility would likely only be reduced by the avoided cost of decreasing the number of planned turbines..The output for the facility under the Lower Flow Alternative would be reduced ... without a commensurate reduction in project costs or project footprint (Mill Road Engineering 2010). Therefore the Lower Flow Alternative in not an acceptable alternative.” (Page 17, Antidegradation Assessment report dated October 2010).

The construction of the proposed project will follow conditions set forth by the Agency and USACE. Erosion control measures will need to be implemented to prevent additional impacts to the stream.

Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities

IDNR has reviewed the conditions identified above and have stated in a letter written by Todd Rettig, dated December 8, 2010, that they support this project with the conditions identified; therefore, consultation is terminated.

Agency Conclusion.

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard)

and was based on the information available to the Agency at the time this antidegradation review summary was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all existing uses of the receiving waters will be maintained; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community at large by providing a new power generating facility. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.