

MINUTES  
OF THE  
NATURAL RESOURCE COMMISSION  
MEETING

SEPTEMBER 26, 2012

HELD AT:

IOWA DEPARTMENT OF NATURAL RESOURCES  
HENRY WALLACE STATE OFFICE BUILDING  
502 EAST 9<sup>TH</sup> STREET  
DES MOINES, IA 50319

For Office Use Only

Date Minutes Approved By NRC: 10/11/12

Director's Signature: Chuck Gipp  
Chuck Gipp  
Director

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File Name: ADM 1-1-1

NRC MINUTES

Sender's initials: KE

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**MEETING MINUTES****CALL TO ORDER**

The meeting of the Natural Resource Commission was called to order by the NRC Chair, Margo Underwood, on 09/26/12 at 1:16pm.

**COMMISSIONER ATTENDANCE**Present by Telephone

Conrad Clement

Gregory Drees

Richard (Kim) Francisco, Secretary

Dr. Sally Prickett, Vice-Chair

Janelle Rettig

Dennis Schemmel

Margo Underwood, Chair

Absent

None

**PUBLIC PARTICIPATION**

None

**1. ENGINEERING CONSTRUCTION PROJECT - CONTRACT FOR IOWA GREAT LAKES ELECTRIC FISH BARRIER****IOWA GREAT LAKES - ELECTRIC FISH BARRIER; DICKINSON -- PROJECT # 13-01-30-03**

Unprecedented flooding in 2011 allowed Asian carp species to invade the Iowa Great Lakes. Future invasions of these injurious species causes concern to the harm they could have on the local fauna and economy. The Minnesota DNR also has voiced concern that Asian carp may invade Minnesota waters by way of the Iowa Great Lake chain. An electric barrier in the vicinity of the Lower Gar Lake spillway is the best management strategy to prevent future invasions. In June 2012 the Commission approved a consulting contract to investigate and design an electric fish barrier in the vicinity of the Lower Gar Lake spillway. All water flowing through the Iowa Great Lakes spills over this spillway. At the site assessment phase, Fisheries staff and Smith-Root, Inc., (Consultant) agreed that the best location for the barrier is immediately below the Lower Gar Lake spillway apron. The barrier will span the width of spillway and extend up the channel banks. It will have a 27' depth. Strong local community support and interest in the electric barrier has resulted in a successful fund raising campaign and a commitment to donate funds toward the construction of a barrier. The purpose of the barrier is to prevent the invasion of Asian carp species into the Iowa Great Lakes (IGL). The barrier will operate when water is leaving the lakes during high flow events. The low-frequency pulsed direct current (DC) produced by the barrier's power source is set to deter fish away from the barrier; the current intensity is not intended to stun or immobilize fish.

The DNR is very cognizant of potential concerns associated with the construction of an electric fish barrier below the IGL weir structure. Implementation of safety measures were part of the decision making process when the DNR awarded a contract to Smith-Root, Inc. (SRI), for project design. The SRI barrier and behavioral guidance system is designed to be non-lethal and use only low-frequency pulsed direct current (DC) to create electric fields. Humans are three times more likely to be harmed by alternating current (AC) than by DC. Pulse frequency, duration, and current can all contribute to potential injury, thus SR typically sets these values well below the electrocution threshold of a typical ground fault interrupter. The electrical field dissipates quickly beyond the barrier pad. The pulse frequencies for the barrier are much lower than those used by Fisheries Bureau staff in traditional electrofishing units to conduct fish surveys. Safety concerns were taken serious even though the maximum power consumption of the IGL barrier is not significant. 230<sup>th</sup> Avenue separates the barrier site from

the Iowa Great Lakes; this prevents boat access to the site. The water area between 230<sup>th</sup> Avenue and the weir is small, has a shallow water depth shallow and not conducive for boating opportunities. However the DNR is aware that the barrier is located on public land and will attract attention from onlookers. Recreational opportunities are limited to people who are sightseeing, wildlife watching, and fishing. It is important that people visiting the barrier location area are alerted to the potential danger of the barrier and an effort will be made to educate people of potential safety risks. Fencing and signage are the two measures selected to alert people visiting the area of safety risks. Safety fencing will be constructed around the building housing equipment and electrical components for the barrier, fuel container for the back-up generator and the north and south ends of the barrier to create an exclusion zone. Signage alerting visitors of electrical danger will be posted on all fencing. Signs will also be attached to posts encompassing the entire area between 230<sup>th</sup> Avenue and the barrier fences. The area will be under observation during routine patrol by both DNR and local enforcement officers. A surveillance camera will be mounted on-site so DNR staff located at Spirit Lake Hatchery can monitor the site. As part of the contract, SRI is required to submit a training and operations manual with safety instruction. The contract also stipulates SRI to conduct an onsite two day training for five people. DNR staff will be given preference to attend the training, and local enforcement and emergency medical technician (EMT) personnel will be invited to fill open spaces.

- DNR Project Manager:** Mike Broderick, PE; Engineering Bureau  
Martin Konrad, Fisheries Bureau
- Designer:** Aaron Murphy, PE; Smith Root Inc.
- Green Features:** Silt Fence and Hydro Seeding
- DNR Inspector:** Jeff Felts, PE; Engineering Bureau
- Operating Bureau:** Fisheries
- Funding Source:** 71% Marine Fuel Tax, 29% Local match (Capital Link 138)
- Cost Estimate:** \$627,464.00
- Plans Issue Date:** 09/05/12
- Bid Letting Date:** 09/25/12
- Plan Holders:** 7
- Number of Bids Received:** 3

**Bidders**

Christensen Construction & Design Company, Inc	Estherville, IA	\$843,101.04
Graves Construction Company Inc.	Spencer, IA	\$986,945.38
Dixon Construction Company	Correctionville, IA	\$1,189,713.40

**IDNR recommends awarding the Bid to Christensen Construction & Design Company, Inc.**

Martin Konrad updated the funding to reflect the locals' commitment of \$400,000, the DNR \$300,000, and Minnesota DNR will be contracting with the Department to commit \$261,000 toward this project.

Motion – Commissioner Francisco  
 Seconded – Commissioner Prickett  
 Discussion – Staff responded that educational signage can be created to inform the public about the partnerships and the purpose of the project. They also provided information that the barrier is constructed with water level sensors providing for automatic shut off. Also, the electrical current is not designed to be lethal, just to cause enough discomfort to the fish to cause them to turn around. Exclusion fences will be at the weir and the culverts in this area are small and the water level is too shallow so watercraft or swimmer use is not anticipated.  
 Decision – Approved by Unanimous Vote

CARRIED AS PRESENTED

**ADJOURNMENT**

Motion to adjourn the meeting – Commissioner Underwood  
Seconded – Commissioner Clement  
Decision - Approved by Unanimous Vote  
With no further business to come before the Natural Resource Commission, Chair Underwood  
adjourned the meeting on 09/26/12 at 1:32pm.

CARRIED – MEETING ADJOURNED

**UPCOMING NRC MEETING DATES**

- October 10, 2012 – NRC Field Tour, Monona County (location/time tbd)
- October 11, 2012 – Monona County (location/time tbd)
- November 8, 2012 – Henry Wallace State Office Building, Des Moines, 9:30am
- December 13, 2012 – Henry Wallace State Office Building, Des Moines, 9:30am

