**Big McKenzie Zebra Mussel Project**

**Project Number AIRR21917**

**Grantee: McKenzie Lakes Association**

**Year End Report 2019**

**Executive Summary**: In October of 2016 Zebra Mussels (ZM) were discovered on a removed section of dock on Big McKenzie (BM) in Washburn County. The DNR was notified and verified that it was a ZM. A DNR Rapid Response Grant for Aquatic Invasive Species (AIS) was applied for by the McKenzie Lakes Association (MLA) and was granted in April of 2017. The grant required the following activities by the MLA.

* Monitoring of the ZM population on all three of the McKenzie Lakes-Big, Middle and Lower
* Watercraft Inspections
* Decontamination
* Information and Education Activities

In addition two board members of the MLA served on the DNR’s ZM Management Committee (ZMMC) to keep the members of this committee informed of the progress and to work in partnership on extra activities required by the ZMMC. This report will outline the progress that the MLA has achieved to date during 2019.

**Monitoring of the ZM population**:

**Plate Samplers:** Volunteers who deployed plate samplers in 2018 deployed them in 2019 on all three lakes. Two additional samplers were added on Middle McKenzie to cover the south shore. Two additional plate samplers were deployed on a nearby private lake (Lindy) and a small public lake that has no public access (Mystery). Twenty-four plates were deployed on BM, 9 on MM and 5 on LM. During 2019 BM showed a huge increase in the numbers of ZM on the plates. In 2018 there were 55 ZM/sq.ft on the plates. This year there were so many that they were to numerous to count but estimate at least 1,000/sq.ft. MM show a moderate increase from less than 1/sq.ft in 2018 to 45/sq.ft in 2019 and none reported on plates in Lower McKenzie Lake or on the two sentinel lakes.

**Additional Monitoring:** Veliger monitoring was accomplished on Big McKenzie in July with the help of MLA volunteers. Middle McKenzie had veliger monitoring and subsurface evaluation (snorkeling) with the aid of volunteers and their pontoons in July. A detailed subsurface evaluation was performed by the DNR and volunteers which included snorkeling and scuba divers on Lower McKenzie Lake..

**Watercraft Inspections:**

MLA worked in partnership with the Washburn and Burnett counties AIS coordinators to set up a schedule to staff the public launch sites at BM and MM during 2019. The remaining grant was used to primarily fund boat inspections on Big McKenzie. 311 hours were spent on boat inspections where 610 boats were inspected and 1,423 people contacted during the 2019 season. MLA applied for and received a CB/CW DNR grant to cover boat inspections on Middle McKenzie. MLA entered into a contract with Burnett County to provide paid boat inspections at the public landings on Big and Middle McKenzie. Volunteers from MLA provided additional inspectors at the BM public boat landing.

**Decontamination:**

**Amended Law**: Prior to the watercraft season in 2018, MLA spearheaded an effort to amend the transport laws in Burnett and Washburn Counties. Volunteers worked with Burnett and Washburn Lakes and Waters Association to build a consensus to support a change in the law to require boats to be decontaminate if a decon station is available. An amended law was presented to the Board of Supervisors for both counties and both boards passed the amended law. Once the law went into effect, the signs at the public landings were changed to state it was the law to decontaminate boats entering or leaving the lakes.

**Decon Stations**: In 2019, the decon stations on each of the three lakes were monitored daily to make sure the bleach was replenished depending upon usage. A detailed schedule was made and volunteers assigned to maintained the decon stations for a week as a time. This scheduled was maintained until the middle of October.

**Informational and Education Activities**:

The following is a list of the Informational and Education Activities either provided or attended by members of the MLA.

* Attending the ZM informational meeting presented by the St. Croix River Association
* Provided self-service pamphlets on AIS species as well as ZM identification and decontamination.
* Distributed ZM informational pamphlets during boat inspections
* Set –up a ZM informational table at the MLA annual booya fundraiser.
* Provided updates and educational materials to MLA members and non-members at their monthly meetings, via email and on their website.
* Attended ZM Management meetings to provide updates on the progress of all of the activities on the grant.
* Attended other county AIS committees to provide updates and experiences of MLA efforts.
* Presented MLA ZM experienced to other lake associations

**Matching Funds: 2017/18**

A requirement of the grant is that the grantee (MLA) must provide at least 25% of the total amount of the funds provided by the grant. The following table is a breakdown of the matching funds or activities applied to the grant through October 1, 2019.

Table 1

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| --- | --- | --- | --- |
| **Activity** | **Rate** | **Amount** | **Total** |
| Volunteer Hours | $12/hour | 727.25hrs | $8,727.00 |
| Pontoon Rental | $34.38/hr | 12hrs | $412.50 |
| Mileage | 0.515 | 2,919 | $1,503.29 |
| **Grand total 2017** |  |  | **$10,642.79** |
| Estimated Volunteer hours 2018  (Not Reported) | $12/hr-Decon Stations | 60 hrs | $720 |
| Estimated Volunteer hours 2019 (Not reported) | $12/hr Decon Stations | 60 hrs | $720 |
| Volunteer Hours-Boat Inspection (SWIMS) | $12/hr | 58 hrs | $696 |
| **Grand total of matching funds for entire grant** |  |  | **$12,778.79** |

Since MLA obtained the entire matching funds in 2017, MLA did not track volunteer hours in 2018 or 2019 except on the SWIM database. It is estimated that at least an additional 178 volunteer hours were used to support the grant in 2018/2019 performing boat inspections and maintaining the decon stations on the lakes, as well as mileage and approximately 12 hours of pontoon/boat use provided by volunteers to do sampling in the lakes.

**Future Activities:**

The RRG time limit and funding will be completed by the end of 2019. However, the MLA is still committed to continuing their efforts in maintaining the decon stations, educational efforts and boat inspections. Some of MLA future activities will be to;

* Continue to monitor research activities on the early detection of ZM
* Attend ZM Management Meetings
* Develop and or attend educational opportunities on AIS detection and control..
* Continue to support the decontamination stations on all three of the McKenzie Lakes.
* Provide educational opportunities on ZM for users of the lakes
* Determine if there are other sensitive early detection methods for ZM and implement them if financially viable.
* Continue to support DNR efforts to perform assessments on the McKenzie Lakes by providing volunteers and pontoons or boats as required.
* Continue boat inspections through CB/CW DNR grants.

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