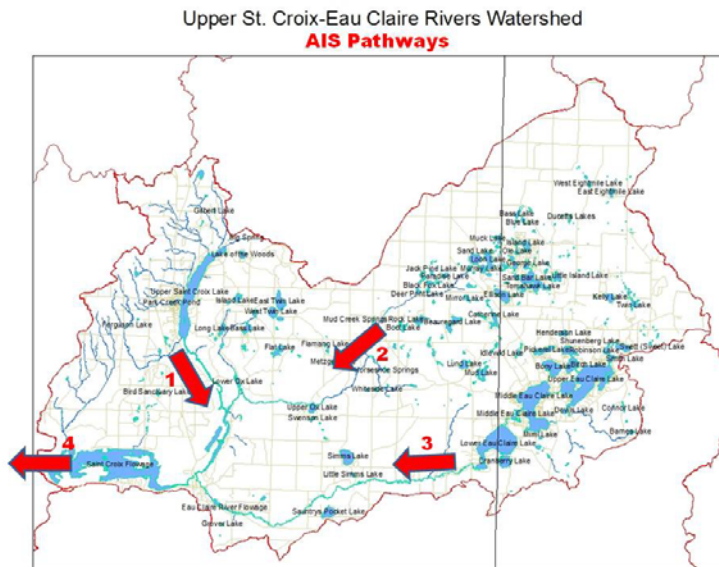


# Grant AEPP-206-10 Summary Report

## Pilot Aquatic Macrophyte River and Lake Surveys in the Upper St. Croix – Eau Claire Rivers Watershed



During the past few years, with the help of this and other grants, we have been able to do a very thorough scientific study of our watershed. This project was designed to address one of the State of Wisconsin's most immediate needs: the monitoring of our flowing waters to increase our understanding of the spread of invasive species through the vectors (pathways) shown in the map and how they are impacting riparian

ecosystems. More specifically, this project piloted a DNR-authorized river/stream aquatic plant survey method that was developed by our consultant in close cooperation with DNR Departmental staff (see consultants assessment, attached). The goal was that once this protocol was used and the results reviewed, this survey method would be adopted by the DNR and would be made available to other river groups in the State of Wisconsin.

Aquatic Plant Surveys funded under this grant were on AIS pathway #2 (Upper and Lower Ox Creek, and Mud Creek, Upper and Lower Ox Lakes, and Upper St. Croix River and Ox Creek Slough Aquatic Plant Survey) and on pathway #3 (Lower Eau Claire River, and Eau Claire River Flowage ) plus Upper St Croix Lake.

Our consultant, Matthew Berg, prepared the following aquatic plant survey reports [which are available on our website ([www.fotsch.org/?page\\_id=125](http://www.fotsch.org/?page_id=125) )]:

- **Eau Claire River Flowage**
- **Lower Eau Claire River**
- **Lower Ox Lake**
- **Upper Ox Lake**
- **Upper and Lower Ox Creek, and Mud Creek**
- **Upper St. Croix Lake** (not surveyed under RP-180-10)
- **Upper St. Croix River and Ox Creek Slough**
- **St. Croix River Dive/Boat Surveys** (immediately below the Gordon Dam in the St. Croix National Scenic Riverway).

Combining this information with that which was collected under several other DNR funded grants (listed below), we now have a much more complete understanding of the invasive and non-invasive aquatic plants in our watershed. DNR grant RP-180-10, which funded the 7-mile portion of the Upper St. Croix River, a 2005 DNR grant funded aquatic plant surveys in the Eau Claire Lakes area and a 2007 DNR grant funded an aquatic plant survey of the St Croix Flowage.

Another consultant, Valerie Haack, has delivered 20 copies of a second aquatic plants visual field guide focusing on 89 plants found in our watershed. This field guide is titled Comprehensive Guide to Aquatic Plants of the Upper St. Croix and it contains beautiful high-resolution color images of 92 different plants, with notes that will aid volunteers in their efforts to identify the aquatic plants that they find. Where possible, there is also a page number reference to a more extensive guide called Through the looking Glass: A Field Guide to Aquatic Plants. Twenty more copies of the original field guide developed under grant RP-180-10 were also purchased. This original field guide titled Introductory Guide to Aquatic Plants of the Upper St Croix, introduces citizen scientists to aquatic plants commonly found in our watershed. Both field guides have been successfully used on canoe outings (see attachment for a list of dates and outings) where the field guides were routinely soaked in water at the bottom of the canoe, but because each page is laminated, the books survived, none the worse for wear, and with the use of a dry cloth were ready for their next outing.

In order to get these books in the hands of volunteers, FOTSCH sponsored an Upper St Croix Watershed Alliance (USCWA) meeting in November of 2011. At this meeting FOTSCH distributed a copy of each of these field guides to the Lake Associations attending that meeting and we hear they are being put to good use.

We have found only two drawbacks which are now holding us back from a much wider distribution of these wonderful plant books: cost and their physical weight. To address these two issues FOTSCH is currently researching whether a “plastic” paper and waterproof ink can be used to print these books. This would eliminate the need to laminate each page after printing, which would significantly reduce the production cost and also reduce the weight of the books. So far we have been unsuccessful - but we are still looking.

In the winter of 2012/2013 FOTSCH asked our fellow USCWA partner, the Eau Claire Lakes Area Property Owners Association (POA), if they were interested in helping FOTSCH host a spring 2013 AIS conference in Barnes. Ted Eastlund brought this idea to their board and got an enthusiastic approval to co-host the event. Planning continued through early April. An ad was placed in the Northwood Shopper.

As it turned out our April 20<sup>th</sup> conference happened in spite of the foot of snow that fell the day before. We had about 35 people at the conference with presentations which included two school groups (Joanne Zosel and her students from Solon Springs High School and Matthew Berg and his students from Grantsburg High School). There were also presentations by Carrie Sanda, the Douglas County AIS Coordinator, the POA and the Gordon/St. Croix Flowage Association. This conference provided a rare opportunity

for the citizen-stewards in our watershed to get together and share their experiences in the efforts to identify and control the aquatic invasive species found in the Upper St Croix – Eau Claire Rivers Watershed (see attachment A for a list and location of invasives found.) As a follow up to this meeting, FOTSCH scheduled a Douglas County Land Conservation Committee (LCC) on June 18 to review what we have learned about the aquatic plants in our watershed over the past several years and more specifically which aquatic invasive species have been found.

During the last few years FOTSCH has been working hard to spread the word about our natural resources, and we have learned that to gain the interest of local citizens it is very important to focus the discussions on features local to each community. People seem to engage more when we relate what we are learning from the studies to things that are happening in their own back yard. One of our goals is to increase FOTSCH's visibility within our local communities, communicate effectively with the public, as well as to establish and strengthen partnerships.

One example of this idea of focusing on a specific "Neighborhood" occurred on April 16, 2011. Our consultant, Matt Berg, completed his survey of the Ox Lakes and he agreed to do a community presentation for us. The title of the talk was: The Ox Lakes - Two Ecological Jewels in the St. Croix Watershed Crown. Slides of this presentation can be found on our website ([www.fotsch.org/?page\\_id=125](http://www.fotsch.org/?page_id=125)). In addition to running an ad in the Northwood Shopper we also conducted research to identify property owners in and around Upper and Lower Ox Lakes, and Ox and Mud Creeks and surrounding area. We then prepared a mailing, typed envelopes and used the postal service to mail to over 100 property owners regarding the upcoming Ox Lakes presentation. As a result we had a very good turnout over 30 people mostly property owners.

We continued our efforts to spread the word regarding the information that was being gathered in our watershed by scheduling presentations with the Solon Springs Village Board (April 25, 2011), Solon Springs Town Board (May 9, 2011) and a Solon Springs community presentation (June 18, 2011). The PowerPoint presentation used at these presentations is attached.

In conclusion, with the help of this grant FOTSCH was able to make significant progress on the goals which were outlined in the Board Retreat held in August of 2008. We have increased the visibility of FOTSCH and the northeast reaches of the larger St. Croix River Basin by participating in two significant activities. The first was the St Croix River Association (SCRA) At Croix Paddle in July of 2011. As plans progressed FOTSCH agreed to get the permissions necessary for and "Opening Ceremony" which would be held at Lucius Woods County Park in Solon Springs the day before the paddle began. We also organized the first two days of the paddle making arrangements for campsites etc.

The second activity is the National Heritage Area Initiative that focuses on the 7,700 square-mile St. Croix River Basin (<http://www.stcroixheritage.org/>). These planning discussions began over two years ago and are still going today. Task force meetings are usually held in St. Croix Falls and FOTSCH's presence at these meetings provides a

strong northern basin voice in an otherwise southern basin orientation. FOTSCH has helped to host county-level workshops, regional gatherings, and most recently a Heritage Summit. The next step is the development of a feasibility study and application to be prepared for congressional review.

Our efforts to partner with the National Park Service (NPS) have significantly increased over the last several years. This effort started when Eurasian Water-milfoil (EWM) was found in the area just above the Gordon Dam. The Gordon/St Croix Flowage Association funded an effort to search for and remove EWM above the dam and FOTSCH began working with the NPS to coordinate work done below the Gordon Dam.

As a result of this effort a strong friendship grew and the NPS invited FOTSCH to accompany them on several St. Croix National Scenic Riverway paddles in 2011. One of these paddles was on the upper reaches of the Namekagon River, and during that paddle a discussion arose regarding the fact that there was no citizen-based “Friends” group in existence for the Namekagon River. At the next FOTSCH board meeting this fact was discussed and we decided to begin an intensive outreach effort to find local people (in Hayward, Seeley, and Cable) who were interested in their river to help them set up a new river group which would look after the Namekagon River and its watershed. This has been successfully done and FOTSCH is very pleased that the Namekagon River Partnership (<http://namekagon.org/>) now exists as a 501(c)(3) conservation organization with 70 members. FOTSCH continues to be represented on their board and provides administrative support such as hosting their website.

Namekagon River Partnership has already sponsored two very successful river cleanup events in partnership with the National Park Service. The first was held in the spring of 2012 with approximately 40 participants. The most recent river cleanup took place on April 27, 2013 with 70 participants (<http://namekagon.org/?p=1146>). This went on even with ice still on Lake Namakagon and a foot of snow still present at the Big Bend Landing. FOTSCH is very proud of this success and will continue its efforts to expand awareness and protection of the northern portion of the St. Croix Basin.

In closing, we (the FOTSCH board) want to thank you for providing us with this opportunity to continue to understand and protect this wonderful area.

## Attachment A

List of where AIS was found in the Upper St Croix and Eau Claire Rivers Watershed.

### Eurasian Water-milfoil (*Myriophyllum spicatum*)

St Croix/Gordon Flowage  
St Croix River below the Gordon Dam  
Tomahawk  
Sand Bar  
George

### Curly Leaf Pond Weed (*Potamogeton crispus*)

St Croix/Gordon Flowage  
Eau Claire Lakes  
Upper St Croix River  
Upper St Croix Lake

### Purple Loosestrife (*Lythrum salicaria*)

Upper St Croix Lake  
Park Pond  
Lower Ox Lake  
St Croix/Gordon Flowage  
Eau Claire Lakes  
Upper St Croix River

### Yellow Flag (*Iris pseudacorus*)

Upper St Croix Lake  
Upper St Croix River  
Lower Ox Lake

### Giant Reed Grass (*Phragmites australis*)

Upper St Croix River

### Reed Canary Grass (*Phalaris arundinacea*)

Upper St Croix River  
Mud Creek  
Ox Creek  
Eau Claire River  
Eau Claire Flowage

### Common Forget-me-not (*Myosotis scorpioides*)

Mud Creek  
Eau Claire River  
St Croix/Gordon Flowage

Attachment A continued:

Watercress (*Nasturtium officinale*)

St Croix/Gordon Flowage

Mud Creek

Upper St Croix Lake

Narrow-leaved cattail (*Typha angustifolia*)

Eau Claire Flowage

Upper St Croix River

Marsh-pepper knotweed (*Polygonum hydropiper*)

Upper St Croix Lake

Mystery Snails

Upper St Croix Lake

St Croix Flowage

Rusty Crayfish

Upper St Croix Lake

Park Creek

Rock Cut Creek

Eau Claire Lakes

Eau Claire River

Eau Claire Flowage

## Attachment B

List of Canoes On Wheels outings where Aquatic Plant Field Guides were used.

Starting in 2011 the COW trailer was equipped with enough of our new field guides so that each canoe could have a field guide available to its occupants. Listed below are those outings where we know that students discussed and identified Aquatic Invasive Species using the new field guides.

May 21, 2011 – May 24, 2011	Drummond School 7 <sup>th</sup> Grade Eco-Ed Field Trip – Bony Lake
June 1, 2011 – June 3, 2011	Solon Springs School
July 11, 2011 – July 17, 2011	Cable Natural History Museum – Forest Lab Internship Program
August 5, 2011 – August 6, 2011	Grantsburg High School
September 16, 2011 – September 22, 2011	Drummond School 7 <sup>th</sup> Grade Eco-Ed Field Trip
May 14, 2012	ECO-Education, Barnes, Middle Eau Claire Lake
May 29, 2012 – June 1, 2012	Solon Springs School
June 4, 2012 – June 6, 2012	NorthStar Community Charter School
June 12, 2012 – June 15, 2012	Cable Natural History Museum/ St Croix National Riverway Paddle on the Namekagon River
September 10, 2012 – September 11, 2012	NorthStar Community Charter School – Eco Adventure Pilot Paddle
September 17, 2012 – September 20, 2012	ECO-Education, Barnes, Middle Eau Claire Lake
September 27, 2012	Birchwood Blue Hills Charter School
May 14, 2013	ECO-Education, Barnes
June 4, 2013	Solon Springs School

Canoes On Wheels is by far the most effective outreach program FOTSCH has. The next few pages contain a summary of the COW activities from 2009 to the present day. This is followed by the detailed schedules.

Attachment B continued:

Below is a marketing aid FOTSCH developed to explain the Canoes On Wheels program and to document its success over the past few years.

The Canoes on Wheels (“COW”) program puts kids into canoes to help them find their passion. We work with middle and high school aged students through their schools and youth organizations.

The volunteer staff of COW offers the use of a canoe trailer, eight canoes suited for river or lake use, and canoe gear such as paddles, life vests, and aquatic plant visual field guides at no-cost to local schools and youth groups. COW also provides no-cost workshops for teachers to help them understand how to safely manage canoe outings and to integrate these activities into school curriculums. When requested, the COW program offers logistical support such as trailer transport.

Started in the fall of 2008, the COW program has a proven track record. Our canoes have been on five northwestern Wisconsin rivers and numerous lakes.

	2009	2010	2011	2012	Total
Workshops	3	1	2	2	8
Canoe outing days	20	30	43	26	119
Student-paddle count (est.)	200	300	400	450	1350
Parades	3	4	3	1	11

The COW trailer and bright red canoes are also used to publicize worthy causes such as the promotion of donations to our area food shelves by participating in local community parades and events.

Donations to the COW program are used for direct operational expenses such as insurance, winter storage costs, outing supplies, and transportation costs.

We need your support to continue this program. It costs less than \$20 per student per outing to run this program. School classes, 4-H camps, and student outdoor education camps all benefit from the COW program. We believe at least 30% of local youth will not have the opportunity to experience a “rivers-eye” view of our great Wisconsin waterways without this program.

Think about starting your own “COW” program; we would be happy to help. You will find it well worth your time and effort. **Contact us at: [scott@fotsch.org](mailto:scott@fotsch.org).**



Attachment B continued:

### **2012 Canoes on Wheels Schedule**

#### **2012 Educator Workshop Schedule**

Sept 17 Monday Drummond School

Sept 27 Thursday Birchwood Blue Hills Charter School

#### **2012 Parade Schedule**

July 4 Wednesday Solon Springs

#### **2012 Reserved COW Equipment Dates:**

April 28 Saturday Namekagon River cleanup

May 9 Wednesday Women Veterans' paddle on Namekagon River (NPS)

May 10 Thursday COW equipment return.

May 14 Monday ECO-Education, Barnes, Middle Eau Claire Lake

May 20-25 Sun-Friday SCRA Namekagon River Paddle

May 29-Jun 1 Tues-Friday Solon Springs School

June 4-6 Mon-Wed NorthStar Community Charter School

June 9 Saturday Banderdinker, Nelson Lake in Sawyer County

June 12-15 Tues-Friday Cable Natural History Museum/St Croix National Riverway  
Paddle on Namekagon River

June 23 Saturday Douglas/Washburn County 4-H, Leisure Lake Camp

June 30 Saturday FOTSCH, St. Croix River

July 4 Wednesday Solon Springs Parade

July 12 Thursday St Croix National Riverway "Paddle Through Time" on Namekagon  
River

August 4 Saturday Women's Wellness Paddle on Namekagon River (NPS)

Attachment B continued:

## **2011 Canoes on Wheels Schedule**

### **2011 Educator Workshop Schedule**

June 9	Thursday	Northwood School (St. Croix Flowage North Landing)
August 10	Wednesday	Northwood/Northstar Charter School (St. Croix Flowage North Landing)

### **2011 Parade Schedule**

July 4	Monday	Barnes Fourth of July Parade
August 13	Saturday	Minong Summer Days

### **These 2011 COW Equipment Dates Have Been Reserved:**

May 17	Saturday	Workshop for Drummond School Eco-Ed Field Trip
May 21-24	Sat-Wed	Drummond School 7 <sup>th</sup> Grade Eco-Ed Field Trip – Bony Lake
June 1-3	Wed-Friday	Solon Springs School
June 6-7	Monday-Tue	Solon Springs School Outdoor Education (Brule River paddle)
June 8	Wednesday	Video shoot for TV commercial (St. Croix River Paddle & Concert)
June 9	Thursday	Canoes on Wheels educational workshop (St. Croix Flowage)
June 14	Tuesday	4-H Eagles Club - Brule River
June 25	Saturday	4-H at Leisure Lake Camp
Jun 30-Jul 3	Thurs-Sun	Cable Natural History Museum
July 4	Monday	Town of Barnes Parade
July 6	Wednesday	St. Croix River Paddle: Upper St. Croix Lake to Gordon Dam
July 7-8	Thursday-Fri	St. Croix River Paddle: (Namekagon River) Cty K to Riverside Landing
July 9	Saturday	St. Croix River Paddle: Riverside Landing to Danbury/Yellow River
July 10	Sunday	St. Croix River Paddle: Danbury/Yellow River to Norway Point Landing
July 11-17	Mon-Sunday	Cable Natural History Museum - Forest Lab Internship Program
July 23	Saturday	Minong Lakes Fair (Minong Town Hall, Nancy Lake Road)
August 5	Friday	Grantsburg High School – Upper St. Croix Lake
August 6	Saturday	Grantsburg High School – St. Croix River
August 10	Wednesday	Northwood/Northstar Charter School (St. Croix Flowage North Landing)
August 13	Saturday	Minong Summer Days Parade
Aug 25-28	Thur-Sunday	Towing vehicle not available
Sept 2	Friday	Northstar Community Charter School – Bond Lake
Sept 13-15	Tues-Thurs	5 <sup>th</sup> Grade Outdoor Education Camp at Ernie Swift Nature Camp
Sept 16-22	Friday-Thurs	Drummond School 7 <sup>th</sup> Grade Eco-Ed Field Trip (w training & rain dates)
Sept 23	Friday	Northstar Community Charter School - Namekagon River

**<http://canoesonwheels.org/>**

Attachment B continued:

## 2010 Canoes on Wheels Schedule

The Following 2010 COW Equipment Dates Were Reserved (reference only)

April 2	Friday	Video session (Solon Springs)
May 3-12	Monday-Wednesday	Drummond School
May 18	Tuesday	Drummond Eco-Ed Field Trip
May 25	Tuesday	Solon Springs School Health & Wellness
May 27	Thursday	Solon Springs School Health & Wellness
June 1-4	Tuesday-Friday	Solon Springs School
June 15	Tuesday	St. Croix River Association
June 26	Saturday	4-H at Leisure Lake Camp
July 3	Saturday	Gordon Good Neighbor Days (GGND)
July 4	Sunday	Town of Barnes Parade
July 10	Saturday	SSSF Food Shelf Benefit - Lucius Woods Park
July 11	Sunday	Solon Springs Summer Festival (SSSF)
July 19	Monday	WITC-Ashland "Canoeing Environmental Adventures"
July 26	Monday	WITC-Ashland "Canoeing Environmental Adventures"
August 2	Monday	WITC-Ashland "Canoeing Environmental Adventures"
August 3-4	Tuesday-Wednesday	Grantsburg High School Eau Claire River Study
August 9	Monday	WITC-Ashland "Canoeing Environmental Adventures"
August 14	Saturday	Minong Summer Days
August 20	Event Canceled	Northwoods Cooperative Weed Management Area, Manitowish River
August 25-26	Event Canceled	Grantsburg High School
September 8-10	Wednesday-Friday	Northwood/Solon Springs Schools 5th Grade Outdoor Education Camp at Ernie Swift Nature Camp, Minong Flowage
September 14	Tuesday	DNR assessment, St. Croix River
September 23	Thursday	AIS teacher workshop in Iron River

Attachment C

**List of Community outreach activities:**

April 16, 2011 Solon Springs community - The Ox Lakes - Two Ecological Jewels in the St. Croix Watershed Crown

April 25, 2011 Solon Springs Village Board

April 27, 2011 USCWA meeting in Solon Springs

May 2, 2011 Eau Claire Lakes Education

May 9, 2011 Solon Springs Town Board

May 24, 2011 ECO Days event for Drummond School students - COW

June 1 – 3 Solon Springs School

June 2, 2011 NPS (Chris Stein) Tour of the St Croix Headwaters, Portage Trail

June 9, 2011 Northwood School – COW training

June 14, 2011 4-H Eagles Club – Brule River

June 18, 2011 Solon Springs community

June 25, 2011 4-H Leisure Lake Camp

June 27, 2011 Solon Springs Village Board – Lake Presentation

July 30, 2011 Water Monitoring Training (WAV) Eau Claire River

Aug 8, 2011 Solon Springs Town Board – Lake Presentation

Aug 10, 2011 COW Workshop

Aug 29, 2011 Northland College: Mike Miller

Sept 2, 2011 Northland Charter School – COW

Sept 13 - 15 5<sup>th</sup> Grade Camp – COW

Sept 16, 2011 Drummond ECO Days – Training

Sept 20, 2011 ECO Days event for Drummond School students

Sept 23, 2011	North Star Charter School - COW
Nov 12, 2011	USCWA meeting in Barnes – distribution of Aquatic Plant books to lake association members.
Jan 30, 2012	Northland College, Mike Gardner
Mar 29, 2012	USCWA Wetlands review, Solon Springs
May 9, 2012	ECO Days planning Barnes
May 9, 2012	NPS sponsored Women Veterans' paddle on Namekagon River (COW)
May 14, 2012	ECO Days event for Drummond School students
May 15, 2012	Water Monitoring Training (WAV) Brule River
June 22, 2012	COW presentation at the NW Lakes Conference.
Aug 4, 2012	Women's Wellness Paddle on Namekagon River (NPS)
Sept 24, 2012	Northland College, Cindy Dillenscheider
Dec 10, 2012	Northland College, Cindy Dillenscheider
April 20, 2013	USCWA AIS conference in Barnes
May 14, 2013	ECO Days event for Drummond School students
June 18, 2013	Presentation to Douglas County LCC regarding AIS issues in our watershed (Upper St Croix and Eau Claire Rivers Watershed)

**FOTSCH and North East St Croix Basin Visibility/ Partnership meetings:**

National Heritage Area meetings sponsored by St Croix Valley Foundation:

in 2011: 1/10, 2/22, 2/24, 4/19, 5/19, 9/8, 10/20, 12/15

in 2012: 1/19, 3/15, 5/12, 6/21, 7/19, 7/30, 8/16, 9/20, 11/8

National Park Service meetings

in 2011: 2/9, 3/2, 3/30, 4/6, 5/3, 5/4, 5/17, 5/18, 5/19, 8/3, 10/3

in 2012: 1/18, 6/8, 7/12, 11/5, 12/13, 12/17

St Croix River Association (SCRA): July 2011 St Croix Paddle. FOTSCH coordinated the opening ceremony and first two days of this paddle.

The following dates regarding preparation for the paddle and receiving permission from various groups to use their land and buildings.

2/7/11	Pat Pluntz Lucius Woods Performing Art Center (LCPAC)
3/3/11	Separate meetings with Douglas County Forestry, LWPAC, and Upper St Croix/ Gordon Flowage Association.
3/17/11	LWPAC
4/13/11	Paddle Planning Team (including SCRA – Deb Ryan, NPS – Julie Galonska, FOTSCH – Scott Peterson). Meeting held in St Croix Falls.
4/25/11	Separate meetings with Douglas County Forestry Committee and Village of Solon Springs.
4/29/11	Deb Ryan meeting at the St Croix Inn
5/9/11	Dairyland Town Board re: use of camp sites
5/15/11	Tony De Perry to arrange for Native Drumming and Dancing for 1 <sup>st</sup> evening at the Gordon Dam on 7/6
5/25/11	Paddle Planning Team
6/15/11	Paddle Planning Team

Paddle itself:

7/5/11	Opening Ceremony
7/6/11	1 <sup>st</sup> Days paddle – USCL to Gordon Dam
7/7/11	2 <sup>nd</sup> Day – Gordon Dam to Schoen Park
7/8/11	3 <sup>rd</sup> Day – Schoen Park to Riverside
8/4/11	Paddle Planning Team – Post paddle review.

Bank video regarding COW program – 6/8/11 at Lucius Woods Park

Minong Lakes Fair: 7/23/11

Cable Museum: 8/8/11, 12/6/11