MISSOURI RIVER WATERSHED COALATION

http://www.weedcenter.org/mrwc/index.html
Missouri River Watershed Coalition

MISSION
To maintain productive, biodiversity riparian ecosystems that provide quality water, habitat, recreation, and power to meet the economic and ecological needs of the Missouri River Watershed region.

Need
At 2,540 miles, the Missouri River is the longest river in the United States; it drains about one-sixth of the North American Continent.
GOALS

- Reduce the introduction and spread of Salt Cedar and invasive plants in the Missouri River Watershed
- Increase coordination and communication, develop regional management. Strategies and priorities
- Maximize funding efficiency for education, prevention, management and restoration
- Team government, business, universities, conservation groups, landowners, water users and sportsmen.
Executive Committee

Andrew Canham President  Industry
Patricia Gilbert Vice  US Army Corps. of Engineers, MT
Liz Galli-Noble Financial Officer, CIPM
Dave Burch Montana Dept. Ag
Mitch Coffin Nebraska Dept. Ag
Slade Franklin  Wyoming Dept. Ag
Ron Moerhring,  South Dakota Dept Ag
Rachel Siefert-Splice, North Dakota Dept Ag
Kelly Uhing, Colorado Dept. Ag
OVERVIEW

- Established 2006 through MOA
- Six States SD, WY, MT, NE, ND, and CO
- Membership as of Sept. 09
  - 110 Active members
  - All six states actively participate
  - Members represent Landowners, Gov. entities, universities
- Communication - Headwaters list serve and Website, Semi-annual meetings
- 2006-2007 – Missouri River Watershed Coalition Salt Cedar Management Plan
  - Outlines Strategy and compiles info to best use of collective resources
Overview

- 2008 – approved Constitution and bylaws
- 2008-2009 Established special work groups to address key concerns
  - Mapping
  - EDRR
  - Outreach and Awareness
  - Coordination and Fiscal Responsibilities
Coordination and Fiscal Responsibilities

- CIPM
- Liz Galli-Noble- Contact
Funding for MRWC

- 2008-100,000
- 2008-24,500
- 2009-100,000
- 2009-2010-MRWC begin to submit grants and accept donations
Current MRWC Projects
MRWC MAPPING PROJECT - Current Situation
EDRR Project
Education And Outreach
- Data Entry sheet and web based downloading system was established
EDRR
EDRR Project

- Identified EDRR as priority.

- Most valuable on a regional scale.

- Doctor Eric Lehnhoff (CIPM Assistant Director)
Questions to Consider

• How many species to include? Which ones?
• Historical data
  Current species distribution?
  Just new species?
• Reporting new species?
  Authority
• Resolution?
  County, ¼ quad, point (GPS)?
• Notification?
  Who validates?
• How do you want to be able to query database?
EDRR Systems to Consider

• Invaders database system
  – University of Montana (Peter Rice)

• EDDMapS
  – Center for Invasive Species & Eco-system Health, University of Georgia (Chuck Bargeron)

• South Dakota system
  – Andy Canham, Kelly Sharp, South Dakota Dept Ag
  South Dakota Invasive Species Management Association
Why EDD Maps?

• Fast and Easy to Use – no knowledge of GIS required
• Ready to go – today!
• Integration with Invasive.org/Invasive Plants of U.S. DVD info and pictures AND USDA PLANTS
• One database for both local and national data
• Custom/hosted applications can quickly and inexpensively be developed
• Proven record with images
• Fully relational referenced taxonomic database
• Meets NAWMA standards
• Data can be output to meet your needs
Advanced Queries

- By State or Multiple States
- By User
- By Habitat
- Any Attribute or Combination of Attributes
- Map the Results
Focus of EDRR

The system will focus on plants and not other invasive species taxa.

As part of the system, a web page interface will be developed to allow users to enter the location of a species via Google Maps or by entering GPS coordinates.
Web page will also allow the user to provide:

(1) information on population characteristics such as the size and density of the infestation,
(2) photographs of the species for identification purposes,
(3) comments and (4) contact information.
Colorado
Purple Loosestrife, Giant Salvinia, Hydrilla, Garlic Mustard, Water Hyacinth, Knotweeds – Japanese, Giant and Bohemian

Nebraska
- Houndstongue, Garlic Mustard, Sulfur Cinquefoil, St. Johnswort, Perennial Pepperweed

- Wyoming
  Dyer’s Woad, Vipers Bugloss, Eurasian Watermilfoil, Yellow Starthistle, Sericea Lespedeza, Squarrose Knapweed, Rush Skeletonweed
North Dakota
Houndstongue, Yellow Toadflax, Dalmatian Toadflax, Black Henbane, Hoary Cress, Baby’s Breath, Orange Hawkweed, Yellow Starthistle

South Dakota
Yellow Starthistle, Dyer’s Woad, Orange Hawkweed, Grecian Foxglove, Vipers Bugloss, Japanese Knotweed
Wyoming
Dyer’s Woad, Vipers Bugloss, Eurasian Watermilfoil, Yellow Starthistle, Sericea Lespedeza, Squarrose Knapweed, Rush Skeletonweed
Notification and Validation

Mechanisms will be set up to *automatically* notify appropriate State Weed Coordinators and County Weed Supervisors when a species on the list is reported. Other interested users will also be able to register to receive notifications when a species is reported in their area of concern and the report has been confirmed / validated by the State Weed Coordinator or County Weed Supervisor.

A newly reported population of invasive species will *not* be shown on the Google Maps interface until the report has been confirmed / validated.

Reminders will be sent to the appropriate personnel until the report has been confirmed or refuted.
Education And Outreach
Education And Outreach

- **Key Watershed-wide Message Points** - Produce educational and awareness products for watershed-wide distribution.

- **Ideas of Products that Could be Immediately Initiated** - The long-term outcome that every citizen is actively engaged in preventing invasive species in the watershed will require coordinated effort.

- **MRWC Ideas and Expert Resources** - Please help the Outreach and Awareness Workgroup meet your collective state's priorities. Your ideas and knowledge of existing programs and information materials will be added into the mix.
Current MRWC Efforts & Priorities

Outreach & Awareness Program

– Prevention is the most efficient and economical tool.
– Increasing public education and awareness
– Public relations campaign across the region in 2009-2010
– Workgroup in collaboration in Carla Hoopes.
– Key individuals from 6 states.
– Share Products and Programs
What Is In Your World

- Youth Naturalist Weed Scientist teacher training workshop for a pilot project.
- Applying For A Forest Service Grant for 40 Kits
- Targeted for kids 4-14
- Indiana Jones Activities Type Format
- Expand To Include 4-H and Ag In The Classroom
Education And Outreach

Hunter Safety Courses
– Reaches 4,000 to 4,500 Kids per year
– Work into the habitat training module program
– Half-Hour long on Invasive Species
Pending or Potential MRWC Projects
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- Russian Olive and Saltcedar Bio-fuel Pilot Project
- Salt cedar Control and Restoration Database
- Evaluating Saltcedar/Russian Olive Treatment Success
- Phragmites Monitoring and Genotyping
MRWC partners have proposed **Saltcedar/Russian Olive Bio-Fuels Effort**. The MRWC was recently asked to provide a letter of support for grant applications submitted by High Plains WMA (NE) and The North Platte River Invasive Species Control Project in late August.

Identify uses for two invasive species, saltcedar or tamarisk (*Tamarix spp.*) and Russian olive (*Elaeagnus angustifolia*), as sources for energy production and end user products.

Both species are pervasive along riparian corridors throughout the Western U.S.
Identify uses for two invasive species, saltcedar or tamarisk (*Tamarix spp.*) and Russian olive (*Elaeagnus angustifolia*), as sources for energy production and end user products.

Both species are pervasive along riparian corridors throughout the Western U.S.

Frequently, these species are burned on site after removal, wasting a potentially valuable source of energy and contributing to air pollution. In addition, as the tamarisk bio-control agent (*Diorhabda elongata*) continues to expand its range, state, federal, and private land managers will be faced with new management challenges created by large areas of standing dead tamarisk biomass.
Saltcedar Control and Restoration Database for the Missouri River Watershed Coalition

Project Timeframe: September 2009 – May 2010

Coordinating with individuals from within the six-state region (CO, MT, NE, ND, SD and WY) including county weed supervisors, conservation district representatives, academics, the Tamarisk Coalition and others.
Salt cedar Control and Restoration Database

- Collect information, presence and absence, treatments methods, such as biological releases, herbicide treatment, mechanical, restoration, cost, monitoring, successes, and failures.

- A new MRWC Saltcedar control and restoration database project is being conducted by CIPM. Coalition membership voted to support this effort at the June meeting and MRWC base funding is paying for the project.
Collecting information regarding *Tamarix* presence and absence, saltcedar treatment areas, biological treatment releases, methods used, restoration actions, costs associated, monitoring of treated sites, treatment successes and failures.
Working closely with CIPM’s database manager to compile information into a web-based database that is accessible and searchable by a diverse group of interested users.

Developing training materials for use of the database.

Presenting project progress updates and performing database training at a MRWC semi-annual meeting.

So far we have set up the database spreadsheets and are on our way to contacting as many MRWC members and partners as we can.
Salt cedar Monitoring and Research

- Assessing plant community and soil characteristics
- Yellowstone, Big Horn and Musselshell rivers and Hell Creek on Fort Peck.
- Conduct experiments to determine what vegetation is suitable.
Collecting several tons of each species from a variety of locations and conditions, including beetle-killed and green specimens, and shipping to testing facility/facilities.

Testing of each species: Basic variables, including moisture content, lignin, ash, sulfur, chlorine, and BTU output, that will be relevant for **wood boiler systems**, running chipped samples of through the bio-max gasification process and generate data on **biogas outputs**, and possibly some continuing research on suitability for a bio-composite fiberboard.

Compiling the results of the testing in report form and submitting the report to the USDA.

Posting results on the website, making them available to land managers, other researchers, and the commercial sector.
Partnering on a Larger Scale

- Missouri River Association Of States and Tribes
- MORAST
MoRAST

- Missouri River Association of States and Tribes
  - Missouri River Authorized Study of the 1944 Flood Control Act
    - $25,000,000 for the express purpose to review the original project purposes based on the Flood Control Act of 1944 and amendments
      - Ultimately, this study may allow a new comprehensive plan to be developed to meet those needs in the Missouri River Basin.
Why partner?

- The MoRAST seems very organized and focused.
- They take a holistic approach and cover a wide array of topics including:
  - Flood risk prevention
  - Domestic, Municipal and Industrial Water Supply
  - Navigation
  - Recreation
  - Hydropower
  - Power Plants and cooling water
  - Irrigation
  - Fish and Wildlife
Cultural and Historic Properties and Cultural Resources
Social, economic and other impacts from construction to the mainstream reservoir system
Ecosystem Restoration
Sedimentation, Degradation and Bank Stabilization
Future Development
- Tribal water rights
- Impact of climate change on the basins water supply
- They are well represented from the entire Missouri Watershed and delegate responsibilities to those who equipped to handle it. (When you deal with so many issues you have to depend on the experts in those areas)
Communications and the willingness to work with private, state, federal and tribal organizations in solving issues were very professional and open.
MRWC is a component of MoRAST

- Fits well into the Ecosystem Restoration
- MRWC is already organized
  - MOU 6 STATES
  - Defined Goals
  - Plan with active creditable partners
Missouri River Ecosystem Restoration Plan

- Deadline was Dec 1 2009 for comments
- Plan will include comments on all aspects of invasive plant management
- Comments I.D. MRWC role as creditable active partner
Public Scoping Meetings
Project Progress to Date:
So far we have set up the database spreadsheets and are on our way to contacting as many MRWC members and partners as we can.

Please help us out by responding if you hear from us. 😊
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Pending or Potential MRWC Projects

- Russian Olive and Saltcedar Bio-fuel Pilot Project
- Phragmites Monitoring and Genotyping
- Evaluating Saltcedar/Russian Olive Treatment Success:
  – A comparative Study on the Missouri & Yellow Stone Rivers
- Invasive Species Riparian Restoration Projects Salt cedar Control and
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Collecting information regarding *Tamarix* presence and absence, Treatment areas, Biological treatment releases, methods used, Restoration actions, costs associated, monitoring of treated sites, Treatment successes and failures. Make the information accessible and searchable.