
YRCDC Objectives & Goals: 2010/2011

Objective 1: COLLECT BASELINE DATA

Purpose: Collect scientific baseline data on which to base management decisions.

Goals:

1. Complete the Yellowstone River Watershed National Wetlands Inventory Mapping project.
2. Work toward completing the following scopes of work as identified in the Project Management Plan (PMP) and as mandated by the Water Resources Development Act of 1999 (Section 431, Yellowstone River Corridor Comprehensive Study, MT).
 - a. Biological; Socioeconomic, Cultural & Recreational; Information Management & GIS Development; Channel & Flood Plain, Hydrology, Hydraulics & Geomorphic Analysis; and Cumulative Effects Analysis as identified in the PMP.
3. Continue to develop and complete strategies (including funding) for additional assessments/inventories/studies.

Objective 2: SERVE AS A CLEARINGHOUSE

Purpose: Provide a clearinghouse for studies and management plans.

Goals:

1. Conduct the Yellowstone River Roundtable/Symposium
2. Conduct annual basin-wide Yellowstone River Clean-Up projects.
3. Conduct two tours to educate policy/decision makers and highlight the Cumulative Effects Study (Yellowstone River Comprehensive Corridor Study)
 - a. Rail Tour 2010
 - b. Boat Tour 2011
4. Coordinate/Communicate with similar efforts.
 - a. Conduct a joint meeting with the Missouri River Conservation Districts Council
5. Develop and maintain a web site.

Objective 3: SUPPORT THE RESOURCE ADVISORY COMMITTEE (RAC)

Purpose: Provide informational services to Montanans and interested organizations on the Yellowstone River Issues.

Goals:

1. Assist the YRCDC Resource Advisory Committee with implementing an Outreach & Education scope of work.
2. Continued outreach and public relations for nominations and recruitment of new members.
3. Develop and implement an outreach and education program pertinent to the BMPs and study results.

Objective 4: IDENTIFY AND IMPLEMENT BEST MANAGEMENT PRACTICES (BMPs) FOR RESOURCE ACTIVITIES

Purpose: Implementation of study results and BMPs.

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Goals:

1. Development management alternatives
2. Create handouts specific to each BMP
3. Implement BMPs

Objective 5: SUPPORT RESOURCE ACTIVITIES WITH SIMILAR GOALS AND OBJECTIVES WITHIN THE YELLOWSTONE RIVER CORRIDOR.

Purpose: provide local leadership, assistance, and guidance for the wise use and conservation of the Yellowstone River's natural resources.

Goals:

1. Write letters of support
2. Publish position papers

Objective 6: PROVIDE TECHNICAL AND FINANCIAL ASSISTANCE TO IMPLEMENT STUDIES AND BMPS.

Purpose: Council operations and organization

Goals:

1. Conduct monthly meetings of YRCDC and operations.
2. Secure funding for YRCDC operations and activities.
3. Administer ongoing grants

Objective 7: CONDUCT OUTREACH & EDUCATION.

Purpose: Bring stakeholders up to date on findings developed through the Cumulative Effects Study.

Goals:

1. Develop an outreach and education program working directly with the Resource Advisory Committee, the Yellowstone River Forum and the Montana Audubon.
2. Identify funding for Outreach & Education
3. Hire or contract an Outreach & Education Coordinator
4. Implement the work.

Objective 8: ONGOING EVALUATIONS BOTH INTERNAL & EXTERNAL

Purpose: Insure YRCDC and related activities are on track in addressing of the Yellowstone River.

Goals:

1. Review and evaluate public participation.

Russian Olive/Salt Cedar Special Initiative

2009



Prepared by:
NRCS Area & Field Office Staff

DISCUSSION

Russian-olive is native to southern Europe, Central Asia and western Himalayas (Bailey 1914). It was introduced to North America during colonial times (Elias 1980) and is widely planted in the western United States. The first references for planting Russian-olive in the West occurred in New Mexico, Nevada, and Arizona in 1903, 1906, and 1909, respectively (Christiansen 1963). By the 1940's it was common ornamental plant growing in many cities of the West. It was promoted as an excellent species for windbreaks, erosion control, and wildlife enhancement as early as 1939 (Van Dersal 1939).

The first documentation of Russian-olive escaping cultivation occurred in 1924 in Utah, and by 1954 it had escaped cultivation in each of the adjoining states (Knopf and Olsen 1984, Christiansen 1963). It is especially invasive in wet-saline riparian environments. It continues to be grown and planted in the West. In the Intermountain West, Northern Great Plains and Great Basin states, it is prevalent in dryland windbreaks and shelterbelts, saline riparian areas, and urban ornamental plantings.

Russian-olive and salt cedar (*Tamarix pentandra* Pall.) are extremely invasive in western riparian areas (Christiansen 1962 - 1963, Carman and Brotherson 1982). Russian-olive is not listed on the Federal Noxious Weed List and New Mexico is the only state currently listing it as legally noxious (based on PLANTS.usda.gov information). It is listed as a noxious weed in several Utah counties.

Russian-olive replaces native cottonwood and willow in wet saline bottomlands. Once established, Russian-olive stands are very tenacious.

Salt Cedar or *Tamarix* was introduced to the United States as an ornamental shrub, a windbreak, and a shade tree in the early 1800s. In the 1930s, during The Great Depression, tree-planting was used as a tool to fight soil erosion on the Great Plains, and the trees were planted by the millions.

Eight species are found in North America. They can be divided into two sub-groups. The *Tamarix aphylla*, or Athel tree, a large evergreen tree, which does not sexually reproduce in the local climate and is not considered a seriously invasive species. The Athel tree is commonly used for windbreaks on the edge of agricultural fields and as a shade tree in the deserts of the Southwestern United States. And the deciduous tamarisk, which are small shrubby trees, commonly known as "salt cedars" these include the *Tamarix pentandra*, *Tamarix tetrandra*, *Tamarix gallica*, *Tamarix chinensis*, *Tamarix ramosissima*, and *Tamarix parvifolia*.

It establishes in disturbed and undisturbed streams, waterways, bottom lands, banks and drainage washes of natural or artificial water bodies, moist rangelands and pastures, and other areas where seedlings can be exposed to extended periods of saturated soil for establishment.

It is commonly believed that *Tamarix* disrupts the structure and stability of North American native plant communities and degrades native wildlife habitat by outcompeting and replacing native plant species, salinizing soils, monopolizing limited sources of moisture, and increasing the frequency, intensity and effect of fires and floods. While it has been shown that individual plants may not consume larger quantities of water than native species (Anderson, 1996,1998) it has also been shown that large dense stands of *Tamarix* do consume more water than equivalent stands of native cottonwoods (Sala 1996). There is an active and ongoing debate as to when *Tamarix* can out-compete native plants and if it is actively displacing native plants or it just taking advantage of disturbance by removal of natives by humans and changes in flood regimes (Cooper 1999) (Cooper 2003) (Everitt 1980)(Everitt 1998)(Stromberg 1998). Research on competition between *Tamarix* seedlings and co-occurring native

trees has found that the seedlings are not competitive over a range of environments (Sher, Marshall & Gilbert 2000)(Sher, Marshall & Taylor 2002)(Sher & Marshall 2003), however stands of mature trees effectively prevent native species establishment in the understory, due to low light, elevated salinity, and possibly changes to the soil biota (e.g. (Busch & Smith 1995) and (Taylor & McDaniel 1998). Thus, anthropogenic activities that preferentially favor tamarisk (such as changes to flooding regimes) are associated with infestation (Shafroth, Stromberg & Patten 2000) (Merritt & Cooper 2000) (Horton, Kolb & Hart 2001). To date, Tamarix has taken over large sections of riparian ecosystems in the Western United States that were once home to native cottonwoods and willows (Christensen 1962) (Stromberg 1998) (Zamora 2001) (Zavaleta 2000), and are projected by some to spread well beyond the current range (Morisette 2006).

INITIATIVE NAME: *Yellowstone River Conservation District*

NRCS RESPONSIBLE PERSON: Joe Fidel, Area Resource Con., Bozeman Area

GEOGRAPHIC LOCATION: Riparian corridors along the Yellowstone River in Montana and its tributaries.

OBJECTIVES:

- Remove Russian olive and Salt Cedar in the riparian corridor along the Yellowstone River in Montana and tributaries to the Yellowstone River.
- Re-vegetate those areas where removal occurred, where needed, with native tree and shrub species and herbaceous material.
- Develop strategies to control noxious weeds on the contracted acreage.
- Develop grazing and other management strategies to reduce the probability of re-infestation.
- Continue working with partners to develop alternative markets or outlets for the wood products.
- Develop monitoring strategies to assure objectives are accomplished.

AMOUNT OF FUNDING REQUESTED.

LEVERAGED FUNDING OR OTHER SUPPORT: The Yellowstone River Conservation District Council has applied for a grant that if approved will be used, at least in part, to fund Russian Olive and Salt Cedar removal on lands that are not eligible for NRCS contracts and/or to assist producers pay for the cost that exceeds what NRCS cost share pays for.

REPORTABLE PROGRESS – Conservation plans written, 3.1 - grazing and forest lands with practices applied to protect and improve the resource base.

NUMBER OF INTERESTED PRODUCERS – Interest is wide spread along the Yellowstone but caution is still the measure of the day. There are currently 15 interested, eligible producers in the Bozeman Area and an additional ____ in the Miles City Area.

TOTAL NUMBER OF PRODUCERS IN SI GEOGRAPHIC AREA – Producers from Park County to Richland County along the Yellowstone River and the tributaries that feed the Yellowstone River in Montana.

TOTAL NUMBER OF ACRES – Total number of acres where these species will be removed is approximately ___300 ac in Bozeman NRCS Area and an additional

NUMBER OF CONTRACTS – The estimated number of contracts is 12 in the Bozeman NRCS Area and ___ _____ in the Miles City Area.

LANDUSE ELIGIBLE FOR THIS SI: The targeted areas are riparian corridors which would fall under 3 main land uses;
In addition, all areas where these species occur are eligible for treatment.

ELIGIBLE AG PRODUCERS – It is estimated that this initiative will serve 40 eligible producers.

RESOURCE CONCERNS TO BE ADDRESSED

ELIGIBLE PRACTICES AND PROPOSED COST-SHARE RATES

Cost share will be the **same** that is listed on the state cost list. No additions or deletions are requested except as noted below.

NRCS WORKLOAD INFORMATION: Workload will be handled by the existing local field offices with assistance from the respective area office. The Bozeman Area will assist with map production, plan and contract development. The Bozeman area and the state office staff will develop a set of "best management practices" that will assist the field in decision making. The field office staff will be responsible for job sheets, cost share information, practice certification, payments and modifications. The area staff will assist in monitoring procedures and evaluation as requested by the field.

TSP'S AVAILABLE - NA

USE OF TSP'S

There is no need at this time to use TSP's to implement this program. However, there may be an opportunity working through county entities to use a contribution agreement to implement this project on large areas with numerous landowners.

RANKING CRITERIA – See special initiative screening tool (attached) for guidance on prioritization.

PROJECT DESCRIPTION – This effort will focus on cutting large trees of Russian olive and Salt Cedar and applying herbicide to the cut stump to prohibit re-sprouting. In addition, those trees/shrubs too small to cut will be treated on site. The cut wood will be stacked and burned at a later time or chipped and piled or shipped to a burn location. All identified noxious weeds will be controlled until removed or for a minimum of 3 contract years. Those areas where canopy densities prohibited understory growth will be evaluated for re-vegetation with native trees and/or shrubs and grasses. The areas will be planned for future grazing strategies and/or wildlife cover and food.

WRITTEN CONCURRENCE OF THE APPLICABLE ASTC-FO

I have reviewed this proposal, agree with the intent and the particulars and concur with the funding request.

David Kascht – ASTC-FO Bozeman Area

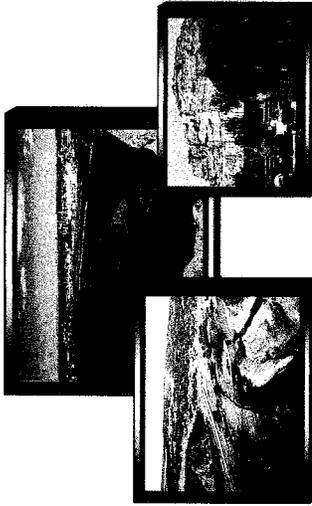
Date

David Pratt – ASTC-FO Miles City Area

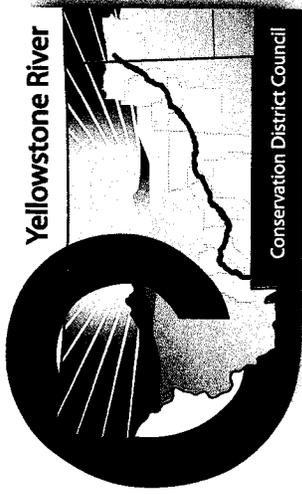
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Our History

The Yellowstone River stretches over 670 miles and is the longest free-flowing river in the lower 48 states. Originating in Yellowstone National Park, it drains 70,000 square miles of land before it joins the Missouri River in McKenzie County, North Dakota. In addition to an abundance of fish and wildlife, the Yellowstone River supports a wide variety of agricultural, domestic, industrial and recreational uses.



The natural and historic significance of the Yellowstone River, combined with major floods in 1996 and 1997, elevated interest and increased public debate over the impacts of human activities on the River. The lack of information upon which to base permitting decisions emphasized the need for public forums to discuss complex issues and potential solutions. Governor Marc Racicot created the Upper Yellowstone River Task Force in 1997 to address problems arising from the floods and began studying the cumulative effects in Park County. In 1999, the **Yellowstone River Conservation District Council** was formed to address conservation issues on the entire river.



Working Relationships Yield A Shared Vision ...

By encouraging communication and cooperation through collaboration, education, incentives and voluntary action, it is our purpose to ensure a healthy river and riparian system capable of sustaining the needs of Montana citizens and the communities we serve.

Rimtop Drive • Billings, MT 59105



- Historical Aerial Photo Acquisition & Distribution: supports cumulative effects assessment, 310/404 permit review and land use planning.
- Physical features mapping: identifies extents of bank armor and floodplain dikes.

Demonstration Projects

- Cottonwood Regeneration verified methods of reestablishing cottonwood stands and documented the benefits associated with reestablishment.
- Locke Creek Fish Passage implemented minor modifications to a concrete culvert to facilitate passage of Yellowstone cutthroat trout.
- Pryor Creek Fish Passage appraisal level design and estimate for construction of a siphon, grade control and fish passage.
- Richland Bendway Rock Weirs evaluated alternative bank stabilization methods and materials.
- Salt Cedar Mapping surveyed salt cedar infestations and established control efforts at six fishing access sites.
- Salt Cedar & Russian Olive Pilot Project established methods of control in two diverse counties.
- Yellowstone River Clean-Up Project 2007 gathered 18,320 pounds of trash, 91 tires, 5,506 aluminum cans, and 1,500 pounds of steel.

Studies & Reports

- Avian Communities of the Middle and Lower Yellowstone: describes bird communities and factors influencing distribution and abundance.
- Bridge Surveys: identified bridge openings, location of channel bottom, pier shapes, abutment types, flood levels, the presence of rip-rap, etc.
- Cultural Inventory: documents how people describe the physical character of the river, view bank stabilization and management.
- Human Impacts Timeline: identifies rates of physical features construction since 1950.
- Riparian Vegetation Study: identifies plant community composition, structure and dynamics, evaluates interrelationships between the riparian plant community and invasive species, channel geomorphology, river hydraulics and in-channel fish habitat.

Tours & Workshops

- 310 Google Database workshops — 2007/2008
- Intake Diversion Dam & Confluence tour — 2007
- Russian Olive Removal workshops — 2007/2008
- T & Y Diversion Dam tour — 2008
- Yellowstone River Boat tour — 2007
- Yellowstone River Rail tour — 2008

CONSERVATION DISTRICT COUNCIL MEMBERS:

Carbon • Custer • Dawson • Park • Prairie • Richland • Rosebud • Stillwater
 • Sweet Grass • Treasure • Yellowstone • McKenzie County, North Dakota •
 Montana Association of Conservation Districts • RAC Chairman



2009 LEGISLATIVE SESSION

1. Operational Funding

- \$100,000 per year/\$200,000 per biennium
- DNRC budget line item
- In FY 2008, leveraged into approximately \$750,000 in total grants, in-kind, and federal contributions.

2. Reclamation & Development Grant Program (RDGP)

- Yellowstone River Riparian Restoration Project
- Recommended by DNRC for \$177,831 funding
- Invasive plant inventory, Russian olive and Saltcedar demonstration projects and long-term riparian management strategies including outreach & education, reclamation, and monitoring.

3. Authority: Water Resources Development Act (WRDA)

- WRDA 1999, Section 431 authorized the US Army Corps of Engineers to conduct the Yellowstone River Comprehensive Corridor Study. Cost-share agreement signed by USACE and Custer County CD in 2004.
- WRDA 2007, Section 3110 is a \$30,000,000 authorization of appropriations for immediate and substantial ecosystem restoration & recreation benefits on the Yellowstone River and tributaries. Specifically names the YRCDC.

4. Recent Accomplishments:

Best Management Practices (BMP) & Position Papers

- Dornix Park position paper
- Glendive By-Pass Chute position paper
- Intake Diversion/Fish Passage position paper
- Russian olive management BMP
- Salt cedar management BMP

Bi-Products of the Yellowstone River Comprehensive Corridor Study

- 310-permit Google-Earth database: a web-based application to facilitate the permitting process.
- Baseline geomorphic inventory: subdivides the river into reaches based on stream type.
- Channel Migration Zone mapping: county-level maps identifying segments of the floodplain at risk of flooding and excessive erosion.
- Cumulative Effects Assessment (CEA) database: stores and displays summarized results from of the CEA.
- High Resolution Orthophotography, LiDAR Topographic Data, Planimetric Feature Mapping: key to other technical aspects of the study.

The Yellowstone River Conservation District Council is made up of representatives from twelve conservation districts bordering the main stem of the Yellowstone River (see illustration below). A thirteenth member represents the Montana Association of Conservation Districts. The Council has a chair and a vice-chair, one each selected from the upper and lower reaches of the river.

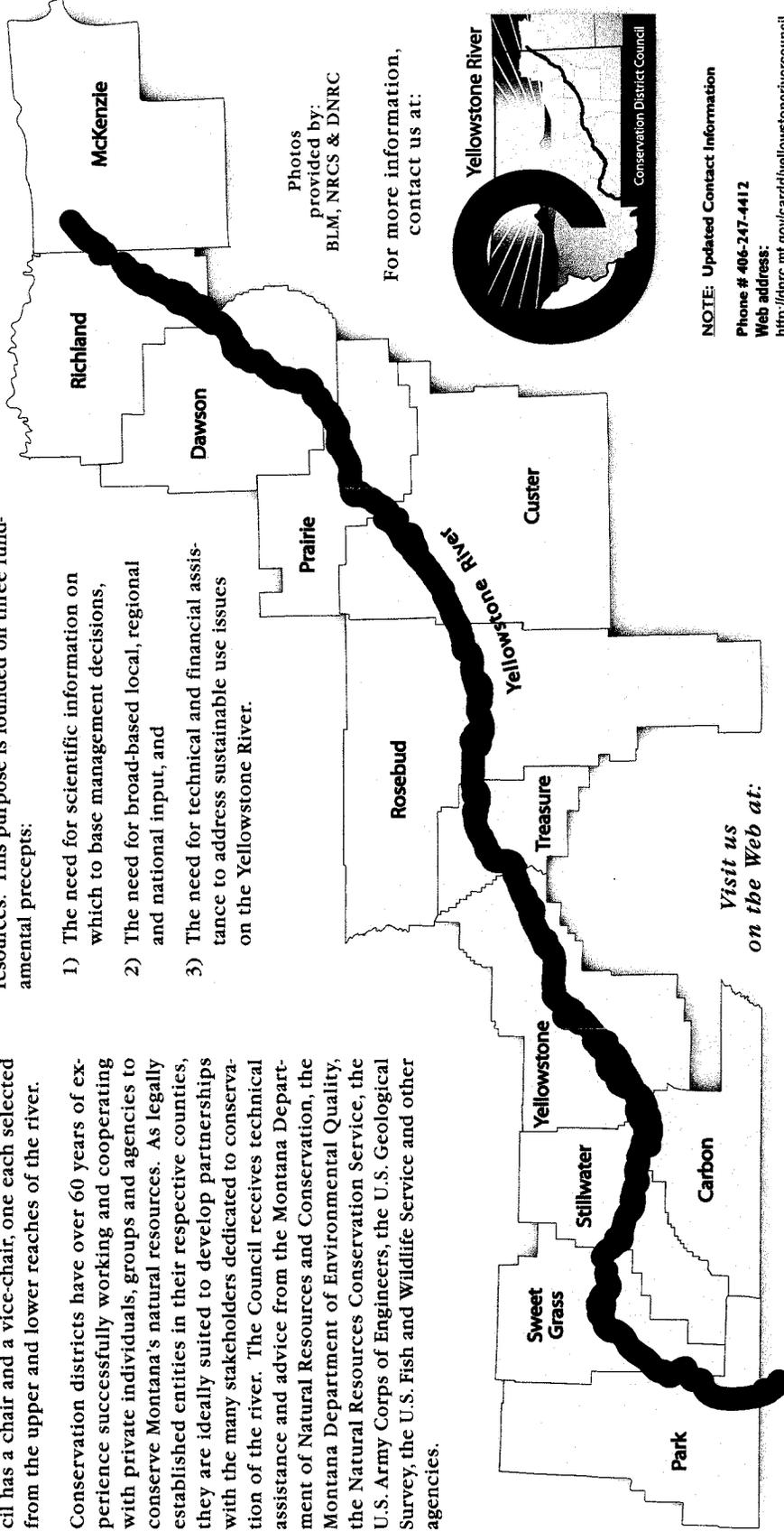
Conservation districts have over 60 years of experience successfully working and cooperating with private individuals, groups and agencies to conserve Montana's natural resources. As legally established entities in their respective counties, they are ideally suited to develop partnerships with the many stakeholders dedicated to conservation of the river. The Council receives technical assistance and advice from the Montana Department of Natural Resources and Conservation, the Montana Department of Environmental Quality, the Natural Resources Conservation Service, the U.S. Army Corps of Engineers, the U.S. Geological Survey, the U.S. Fish and Wildlife Service and other agencies.

Our Mission

The Council's purpose is to provide local leadership, guidance and assistance for the wise use and conservation of the Yellowstone River's natural resources. This purpose is founded on three fundamental precepts:

- 1) The need for scientific information on which to base management decisions,
- 2) The need for broad-based local, regional and national input, and
- 3) The need for technical and financial assistance to address sustainable use issues on the Yellowstone River.

Our current focus is on developing recommendations for voluntary "Best Management Practices" to maintain a naturally functioning river system.



Photos provided by:
BLM, NRCS & DNRC

For more information, contact us at:

Visit us
on the Web at:

<http://www.yrcc.org/yrcouncil/ymcouncil.html>

NOTE: Updated Contact Information

Phone # 406-247-4412

Web address:

<http://ftrc.mt.gov/cardd/yellowstonerivercouncil>