Dolores River Restoration Partnership

Dolores Public Lands

A Collaborative Approach to River Restoration and the Development of a New Generation of Land Stewards

Tamarisk Coalition

a non-profit alliance working to restore riparian lands

CANYON COUNTRY YOUTH CORPS

Service Conservation Education Adventure

UT CO AZ NM

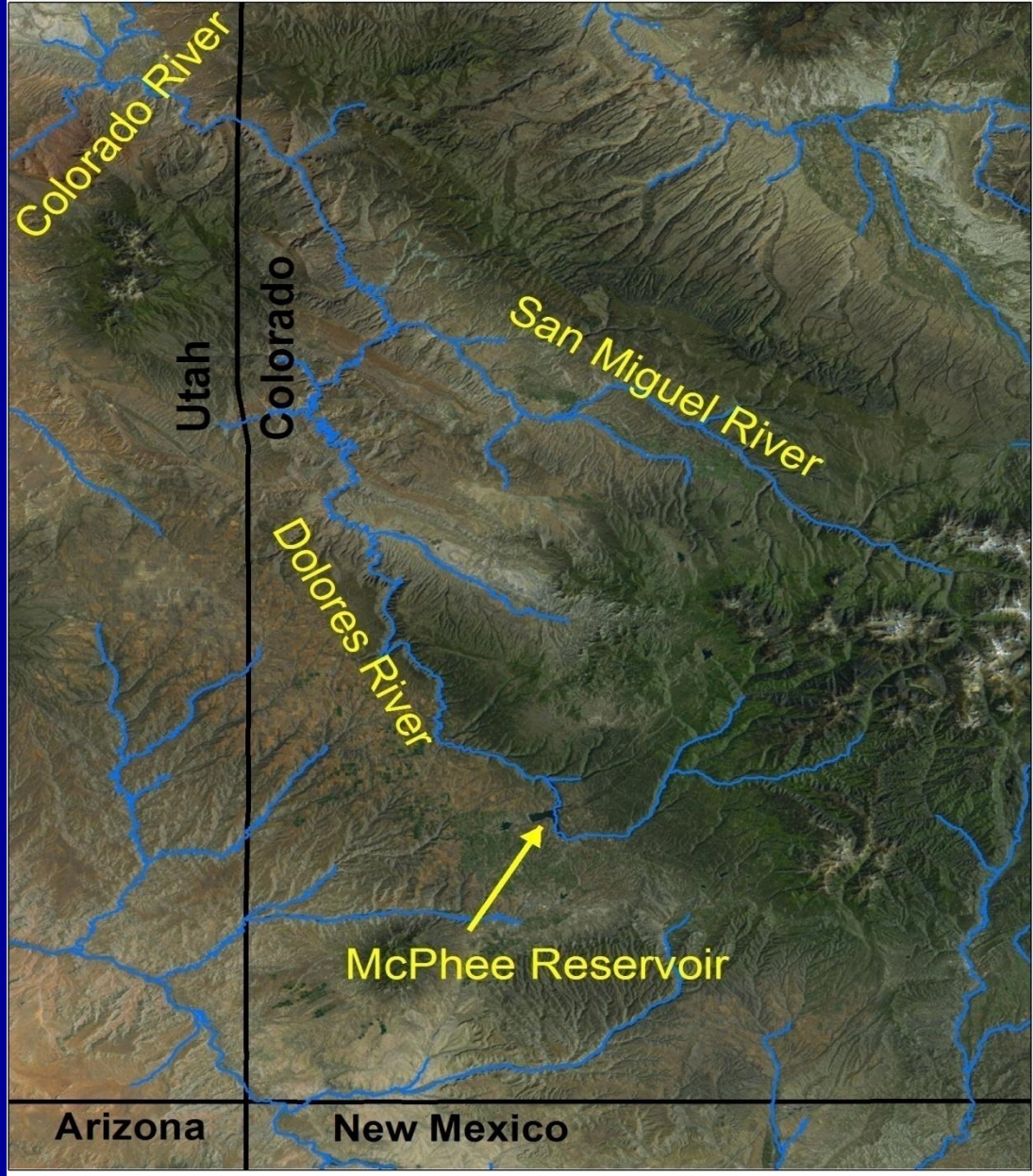
Southwest Conservation Corps

The Nature Conservancy

Protecting nature. Preserving life.™

Project Area

From McPhee Reservoir to the confluence with the Colorado River – the project area covers more than 4,600 square miles of the arid southwest





Why the Dolores?

- Rare riverside plant communities.
- A healthy native fish community:
  - endangered Colorado Pikeminnow,
  - Seven State Agreement, Species of Concern: roundtail chub, flannelmouth sucker, bluehead sucker
- An ideal target for restoration: location within the arid southwest, size, resilient native fish and plant communities, and its connection to the main stem of the Colorado.
- To demonstrate collaborative conservation on a major scale.

Vision

A thriving Dolores River system that is ecologically, socially, and economically sustainable in a multiuse context.

Replace tamarisk with a sustainable, healthy riparian community

Results:

Biodiversity increases
Habitat value increases
Sediment transfer regimes improve
Native vegetation seed source improves
Tamarisk seed source decreases
Fire threat to native vegetation decreases
Water usage is more beneficial to ecosystem

History of Partnership

Formed - Fall 2008
Partners include:

- Conservation Corps Groups
- The Nature Conservancy
- Dolores Public Lands (BLM)
- Walton Family Foundation
- The Tamarisk Coalition
- SEUTP (Southeastern Utah Tamarisk Partnership)
- San Miguel County Weed Program

Commissioned the Tamarisk Coalition to develop a Dolores River Tamarisk Resource Plan

Why is the Partnership important?

- Collaborative decision making process
- Watershed-wide stake holder input
- Shared financial, implementation and monitoring responsibilities
- Integration of social and ecological goals
- Develop process for shared planning, implementation, and monitoring to inform and/or assist other projects and partners

Initial Partnership Successes

- Treated 23 miles of Dolores River riparian habitat (low to medium density)
- Inventoried 502 acres, of which 191 acres were treated
- Disappointment Creek/Slickrock, 21 acres (high density)
- Trained and deployed 2 Conservation Corps programs for 13 weeks, fall 2009
- Raised $1,000,000 + to begin project

Initial Funding

- David and Lucile Packard Foundation
- Dolores Public Lands (BLM)
- Walton Family Foundation
- Colorado Water Conservation Board
- Marathon Oil Corporation
- The Nature Conservancy

Dolores – The River of Sorrows – The Ecological and Conservation Challenges

- Altered flows since the beginning of the last century – agriculture and community depend on Dolores water

- Significant rare and imperiled plant and fish species

- Suitability for Wild and Scenic sets off a charged debate about how to balance natural values and human needs/rights

- Recreational pressures rise and fall with the intermittent spills from McPhee Dam

Lower Dolores Plan Working Group – Fall 2009

Planning Challenges

Initial Tamarisk Coalition DRAFT surfaces several fundamental questions:

- **Vision – what does success look like?**

- **Priorities – how will you determine what is and what is treated and restored?**

- **Beetle – Is "let the beetle do its thing" reasonable or irresponsible?**

- **Monitoring – How will learn from our successes and failures on the ground?**

Work Begins, September 8th 2009

Under the direction of Canyon Country Youth Corps Project Director, Tim Foulkes, the orientation soon gives way to cutting

Social Goals

Conservation Corps programs seek to educate and train young adults through their participation in restoration activities that benefit important public lands.

Stories from the field - Steven

Half of Canyon Country and Southwest crews and leadership are Native American

Most are navigating huge social, educational, and economic challenges

Steven - Returning member, sober, great group leader and motivator, changed his vision of himself

Skills Learned

- S-212 chain saw safety and maintenance
- Noxious weeds, specie identification, herbicide application
- Specie specific cutting, brush cutter safety
- GPS mapping, way points and data collection
- Riparian ecology processes
- Social and personal skill development
- Applying for federal jobs training

Social Goals – Initial Progress

- 75% of crew members earned their AmeriCorps education award – paving the way for higher education
- 67% of crew members and leaders may pursue careers with public land agencies
- Completion – 75% of crew members successfully completed 13-week program

Ecological Goals

Riparian areas throughout the watershed will be dominated by native vegetation.

We also expect riparian habitat and fluvial geomorphological processes to be minimally influenced by invasive species.

Indicators of Success

- Watershed's riparian areas are 95% dominated by native vegetation

- Outstandingly Remarkable Values: Kachina daisy, Hanging Gardens, Roundtail Chub, and New Mexican privet communities gain in size and resilience over time

- Coyote willow, narrow leaf and Freemont cottonwood, and native grasses become established in areas previously covered by tamarisk

Monitoring

1. Monitoring, science-based
2. Maintenance

Monitoring: Anna Sher, Denver University

Tamarisk Treatments – Effectiveness

- Regrowth?
- Native and non-native response
- Effects on hydrology: surface flow, depth to groundwater
- Soil composition: salinity, moisture, fertility
- Local Site Conditions: grazing, geomorphology

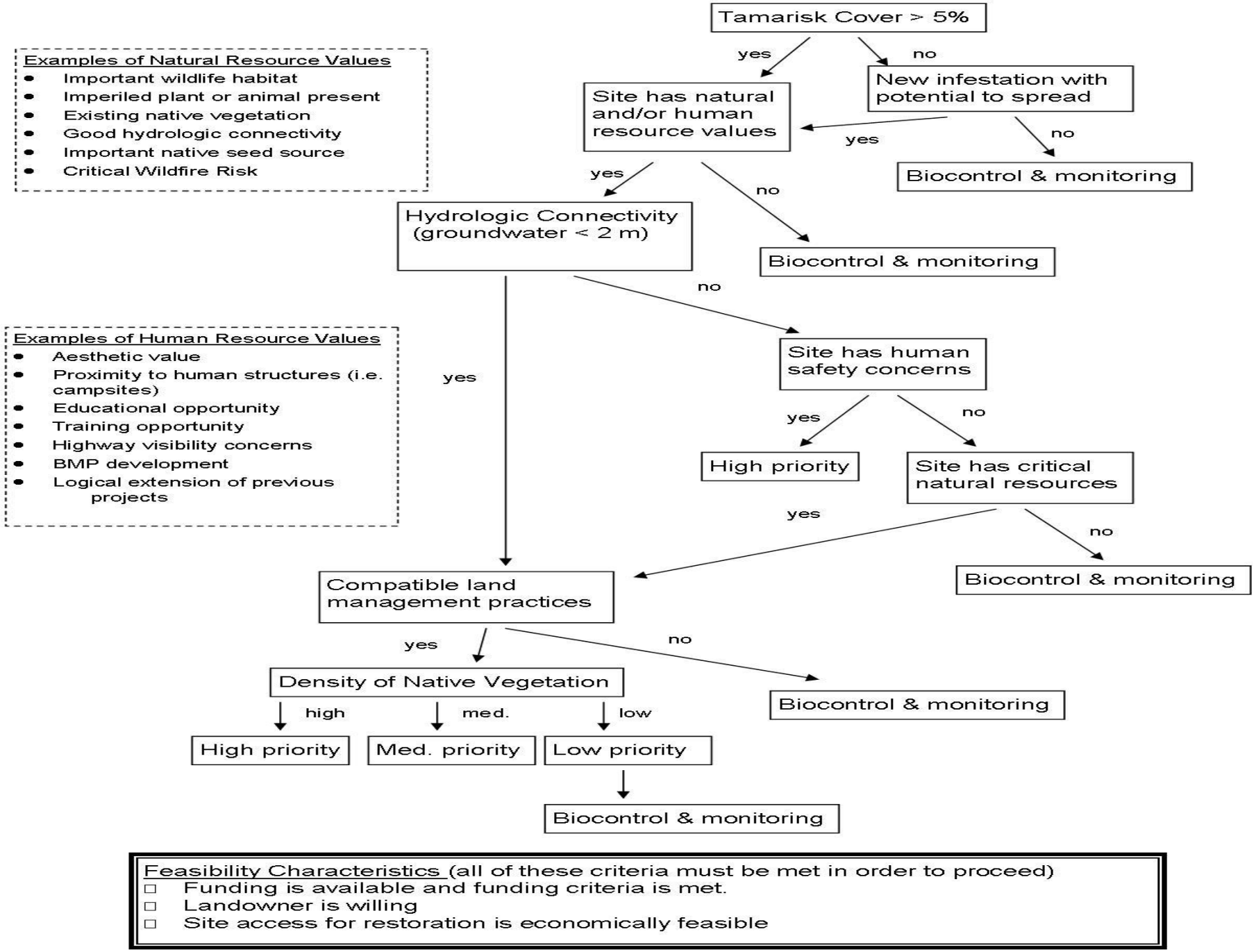
Monitoring – Maintenance
The feedback loop

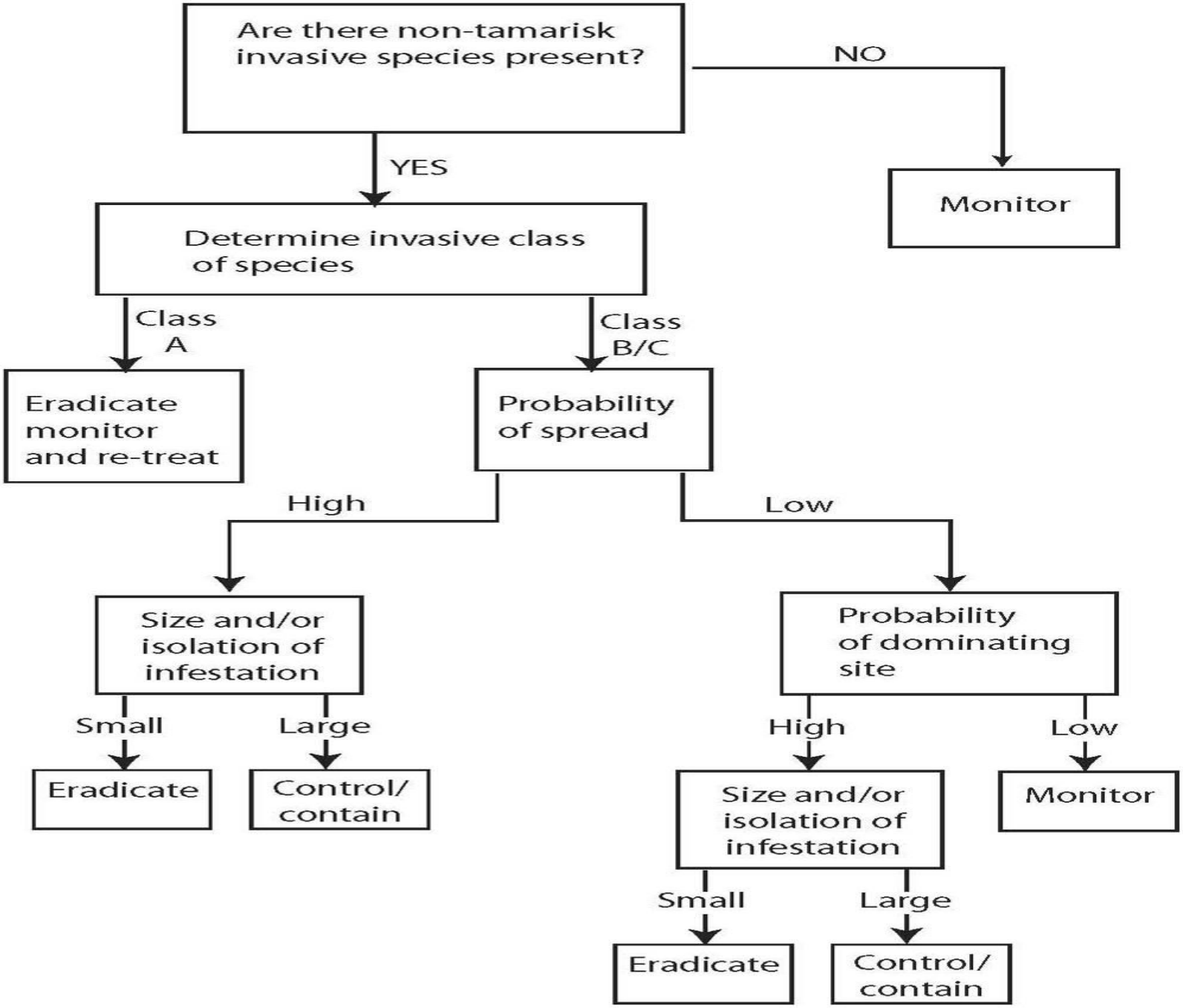
Questions:

What's working, what isn't?

Are we making the best decisions in the field based on the answers above?

Use the following Decision Trees to affirm that we are working in the right places, and doing the right things


Tamarisk Cover > 5%
yes
no
New infestation with potential to spread
Site has natural and/or human resource values
yes
no
Biocontrol & monitoring
yes
no
Hydrologic Connectivity (groundwater < 2 m)
Biocontrol & monitoring
no
Examples of Natural Resource Values
Important wildlife habitat
Imperiled plant or animal present
Existing native vegetation
Good hydrologic connectivity
Important native seed source
Critical Wildfire Risk
Examples of Human Resource Values
Aesthetic value
Proximity to human structures (i.e. campsites)
Educational opportunity
Training opportunity
Highway visibility concerns
BMP development
Logical extension of previous projects
yes
Site has human safety concerns
yes
no
High priority
Site has critical natural resources
yes
no
Biocontrol & monitoring
Compatible land management practices
yes
no
Biocontrol & monitoring
Density of Native Vegetation
high
med.
low
High priority
Med. priority
Low priority
Biocontrol & monitoring
Feasibility Characteristics (all of these criteria must be met in order to proceed)
□ Funding is available and funding criteria is met.
□ Landowner is willing
□ Site access for restoration is economically feasible


Are there non-tamarisk invasive species present?
NO
Monitor
YES
Determine invasive class of species
Class A
Class B/C
Eradicate monitor and re-treat
Probability of spread
High
Low
Size and/or isolation of infestation
Probability of dominating site
Small
Large
High
Low
Eradicate
Control/ contain
Size and/or isolation of infestation
Monitor
Small
Large
Eradicate
Control/ contain

Next Steps

I - Gateway – January 22
Reaching for consensus:
vision
goals, and
implementation guidelines

II – Affirm monitoring protocol for both scientific and program planning

IIII – Conclude Dolores Public Lands (BLM) Implementation Plan, March 2010

IV – Finalize Dolores River – Restoration Action Plan, March 2010

V – Resume Conservation Corps work , March 2010

VI – Begin monitoring work

Dolores River – Parting Shot

The Dolores River has helped distinguish southwest Colorado as one of the most appealing places to live and work. It is also one of the most precious ecosystems in the West. Restoring native cover to the Dolores' channels and banks will bring new life to the region's plants and animals .

Special Thanks

- Barb Sharrow – for her patience, support and guidance of our work and outreach on the San Miguel River. All good things have to start somewhere.
- Steve Beverlin – for his willingness and enthusiasm of opening the restoration door on the Dolores. “Let’s go forth and do good things.”