



# Jordan River Cooperative Weed Management Area Updates

Rae Robinson, Jordan River Vegetation Project Coordinator  
Jordan River Commission  
Division of Forestry, Fire and State Lands

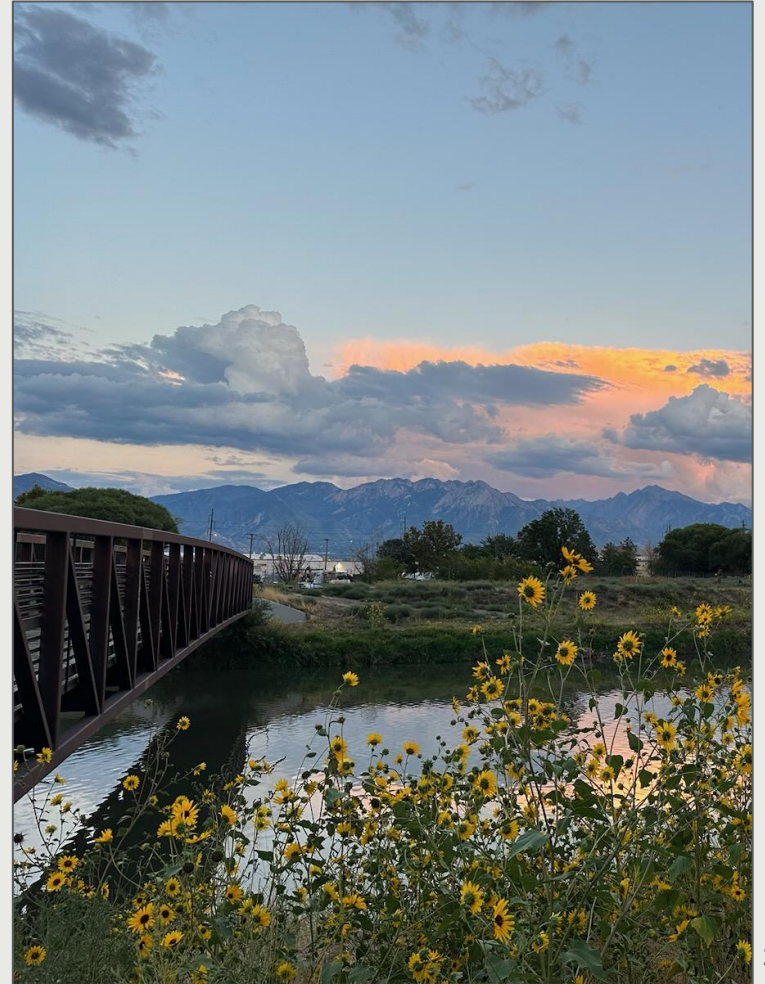
Jordan River Commission TAC meeting  
*December 21, 2023*



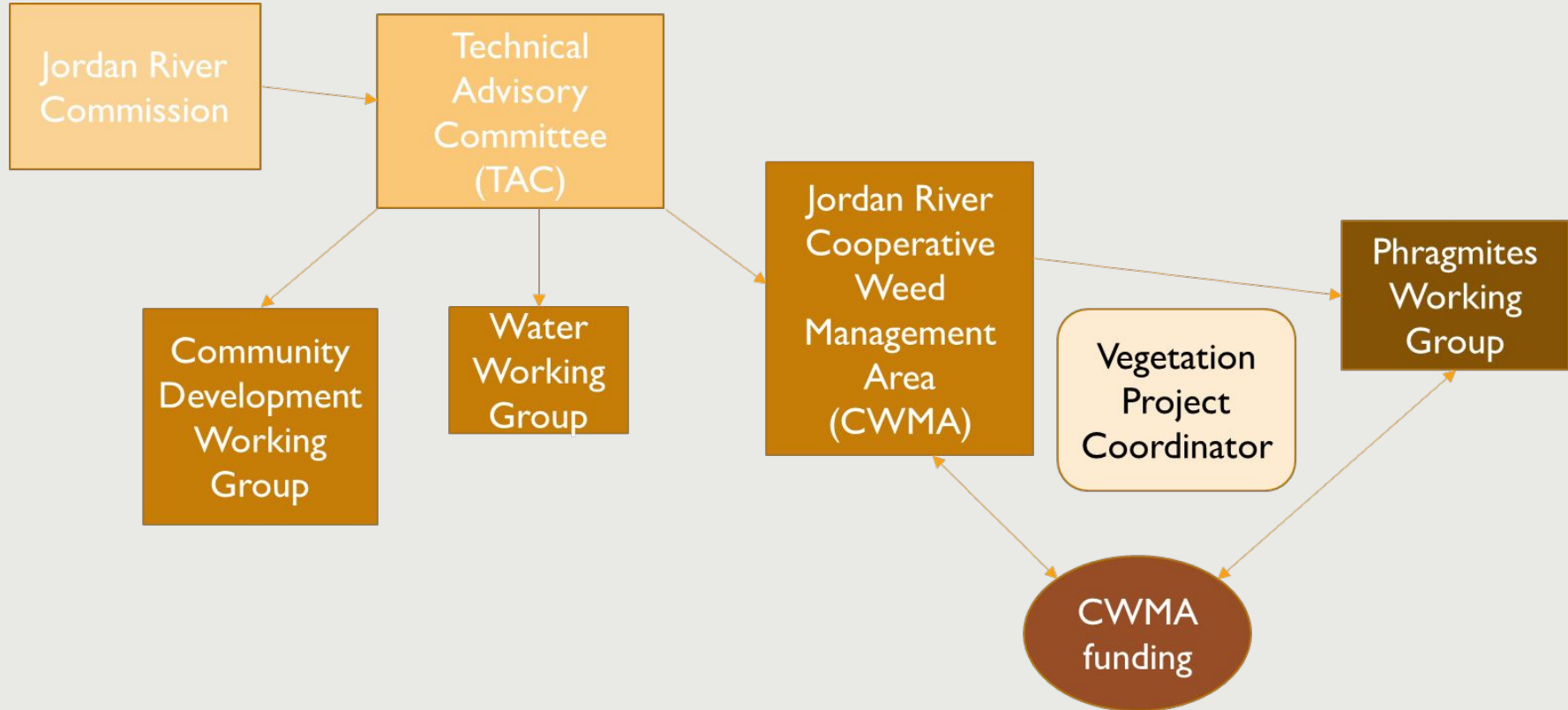
**Utah Division of  
Forestry, Fire & State Lands**

# Presentation outline

- Jordan River Cooperative Weed Management Area overview
- Stakeholder [survey](#) to gather information
- Overview of invasive plant control and revegetation on the Jordan River (2023–2024)
  - Projects funded through CWMA grant program
  - FFSL/JRC invasive species control efforts
  - Tall-pot plantings
  - Puncturevine pulling
- Site prioritization
- Resources
  - Best practices
  - Funding



# Jordan River Cooperative Weed Management Area (CWMA) structure



# CWMA focus— four invasive species on the noxious weed list



Phragmites  
(*Phragmites australis* subsp.  
*australis*)



Tamarisk (*Tamarix* spp.) and  
Russian olive (*Elaeagnus*  
*angustifolia*)



Puncturevine  
(*Tribulus terrestris*)

Other invasive species as deemed necessary...

# Jordan River CWMA activities

- Quarterly meetings
  - Discuss invasive plant best management practices
  - Discuss successes and failures
  - Discuss opportunities for collaboration and funding
- Educational site visits
- Other activities?
- What are the goals of the CWMA?



# What are the goals of the CWMA?

*The following goals are the long-term desired outcomes for the Phragmites Working Group effort:*

1. **Prioritization Criteria:** Create criteria for prioritizing locations for Phragmites removal projects.
2. **Best Management Practices:** Develop best management practices for phragmites removal and revegetation on the Jordan River and educate all potential practitioners on them.
3. **Funding:** Determine how to allocate funding for the effort and help partners acquire alternative grant funding.
4. **Partnerships:** Cultivate partnerships to leverage efforts, share lessons learned, and help one another.
5. **Adaptation:** Goals 1 through 4 and the strategies executed to achieve them should be reassessed annually in an iterative process as lessons are learned and experience is gained.

Can we apply these goals to the CWMA? Are there other goals?

# My current effort to gather information: stakeholder survey

- Intended for people that are **interested or involved** in invasive plant control and restoration of the Jordan River
- Take the short survey [here](#). *Please take this survey no later than January 15, 2024.*
- Survey responses will help inform future work on the River


## Jordan River Cooperative Weed Management Area Stakeholder Survey (December 2023)


Greetings!

This short survey is intended for people that are interested or involved in the Jordan River Cooperative Weed Management Area (CWMA). Phragmites, Russian olive, tamarisk, and puncturevine are the four species of focus for the Jordan River Cooperative Weed Management Area. I am interested in capturing information about priority locations for invasive plant control and restoration, what is working well, barriers to this work, and any other insights people may have. Feel free to share this survey with people inside and outside of your agency/organization. Please submit this survey no later than January 15, 2024. Thanks for taking the time to answer these questions.

Sincerely,

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Jordan River Commission and Division of Forestry, Fire, and State Lands

raerobinson@utah.gov [Switch account](#) 

 Not shared

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Name

Your answer

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Your agency/organization

Your answer

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Your position title

# CWMA grant program projects (FY 2023–2024)

## Funded in Fiscal Year 2023

- Lehi City Willow Park Phragmites Removal
- West Jordan City Big Bend Site Invasive Species Removal & Restoration
- Salt Lake County Pioneer Crossing Park Pond Phragmites Removal
- Salt Lake County West Valley Redwood Nature Park Phragmites Removal
- Salt Lake Fish and Game Association Murray Property Phragmites Removal
- Riverton City Phragmites Removal

**Total Awarded = \$157,575**

## Funded in Fiscal Year 2024

- Thanksgiving Point Phragmites Control
- Riverton City Phragmites Control
- VOLO Revegetation
- Lehi City Phragmites Control
- Salt Lake Fish and Game Association Murray Property Phragmites Removal
- Saratoga Springs Phragmites Control
- Oakwood Homes Phragmites Mowing
- Tracy Aviary Revegetation
- Sage Estates (technical support)

**Total Awarded = \$118,571**



# CWMA funded projects (FY 2023–2024)

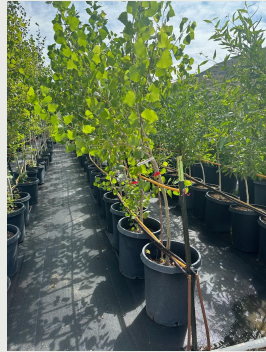
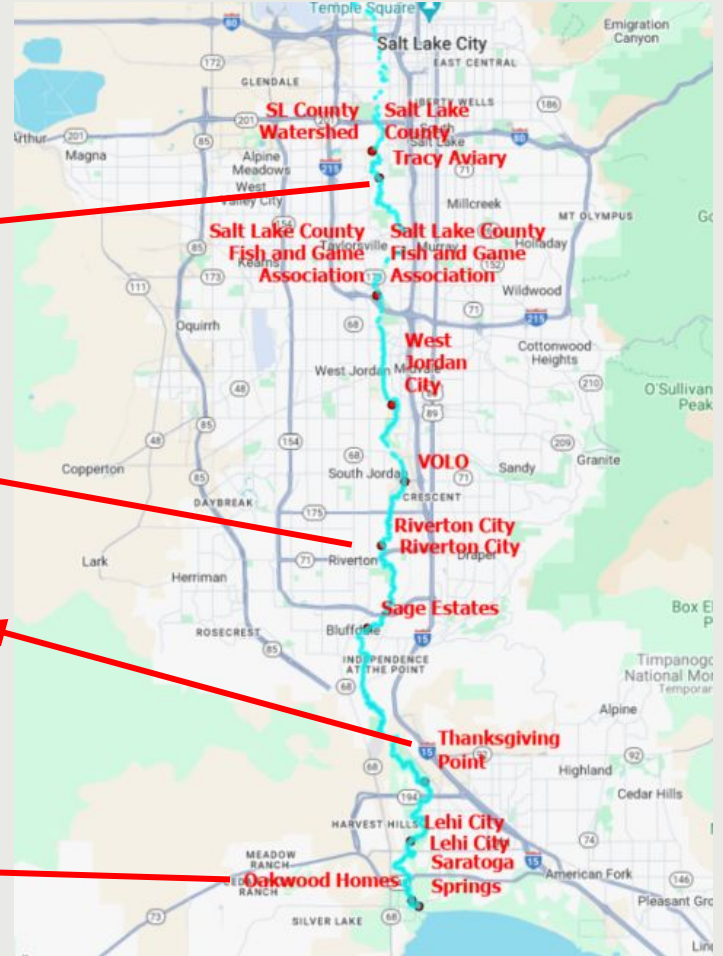


Figure 1: Wander Development Phragmites Treatment Area on State Lands  
Approximately 13.5 Acres

Google Earth



# Pilot project: drone spraying to control Phragmites along the Jordan River

- 8 acres sprayed by drone at Thanksgiving Point Trailhead Park in mid-September
- 6 acres sprayed at the Galena Soo'nkahni Preserve
- A viable option for some sites along Jordan River
  - Ideal in areas with limited foot or vehicle access
  - High vantage points are necessary



September drone herbicide application at Thanksgiving Point Trailhead Park

# Utah Conservation Corps control invasive species on the Jordan River

- 9 weeks of UCC work June–October 2023
  - **Jordan River Migratory Bird Refuge:** Tamarisk and Russian olive cut stump, Phragmites brush cutting, thistle control, seeding
  - **Thanksgiving Point Trailhead Park and Pioneer Crossing Park:** Phragmites brush cutting
  - **Galena Soo'nkahni Preserve:** Tamarisk cut stump, thistle control, seeding, Phragmites brush cutting



UCC paddles the Jordan River



Patch of Phragmites mowed by UCC at Thanksgiving Point Trailhead Park

# Planting native trees along the Jordan River in October 2023 – December 2023

- Tall-pot Fremont cottonwood and peachleaf willow trees sourced from the Jordan River
  - Public and private landowners and managers on the Jordan River can [apply](#)
  - Site visits and survival data to inform future efforts
- 276 trees planted this fall
- Expand species list and plant materials in the future



# 2,380 pounds of puncturevine pulled along the Jordan River Parkway in summer 2023



**Puncturevine Bounty Program**

**\$2.50/lb for *Tribulus terrestris* (puncturevine, goathead) along the Jordan River**  
*A program of the Jordan River Commission and Division of Forestry, Fire and State Lands*

**FUNDING AVAILABLE AUGUST-SEPTEMBER 2023**

The poster features the logos for the Jordan River Commission and Utah DNR Forestry. The background image shows a scenic view of the Jordan River with a paved path and a white fence in the distance.

## 2023 puncturevine season stats:

- 227 volunteers
- 11 organizations
- 6 events hosted by JRC staff
- ~\$6,000 bounty awarded



Latinos in Action students (Granite School District) pull puncturevine along the Parkway in West Valley City

# Site prioritization

- With so many invasive plants on the Jordan River, where should we work?
- Draft site prioritization— will update based on:
  - Feedback from TAC, CWMA partners, land managers on the River
  - Knowledge gained from working on the ground
- We have Phragmites mapped along the River; some mapping of Russian olive, tamarisk, and puncturevine



**Baseline mapping of Phragmites completed March 2023. At least 170 acres of Phragmites.**

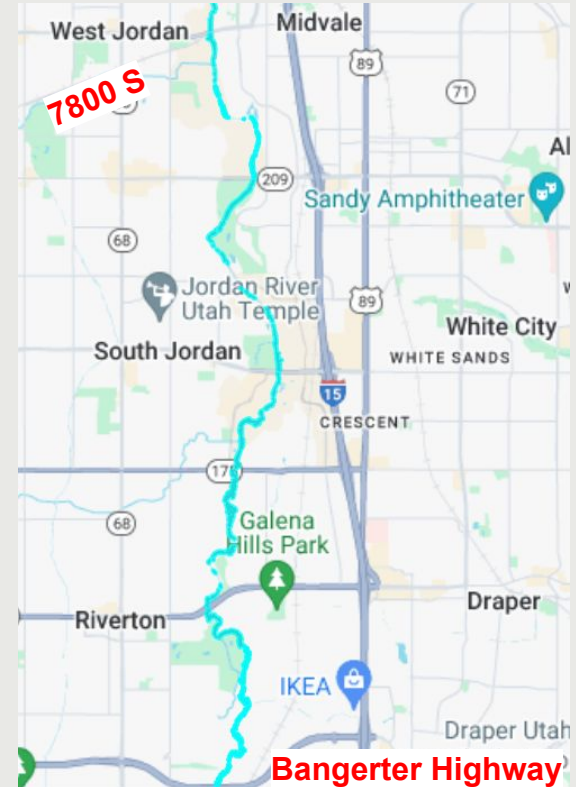
# Prioritization criteria developed by Phragmites Working Group

- Prioritization criteria
  - **Critical need** — areas where ecosystem functions and services are at great risk and demand immediate attention
  - **Protection** — areas where ecosystem functions and services are of high quality but need management to maintain this status
  - **Leveraged efforts** — areas where control efforts would build upon other investments along the Jordan River
- The following slides show some priority areas...  
*(this is a draft prioritization, I hope it generates discussion)*



# Bangerter Highway (Draper) to 7800 S (near Big Bend, West Jordan)

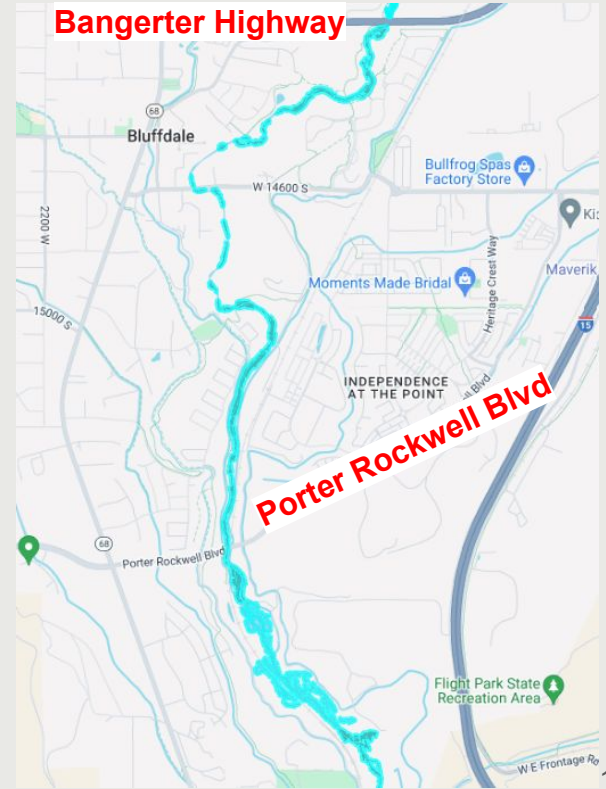
- Control Phragmites on river channel and terraces
- Leverage other large investments and protect high quality ecosystem functions:
  - Big Bend Restoration Project— 69 acres
  - URMCC properties—139 acres
  - Galena Soo'nkahni Preserve— 250 acres
- Good access associated with established partnerships and boat ramp infrastructure— may be most feasible place to start in 2024





# Joint Dam area (near Perry Farms Park, Bluffdale) to Bangerter Highway (Draper).

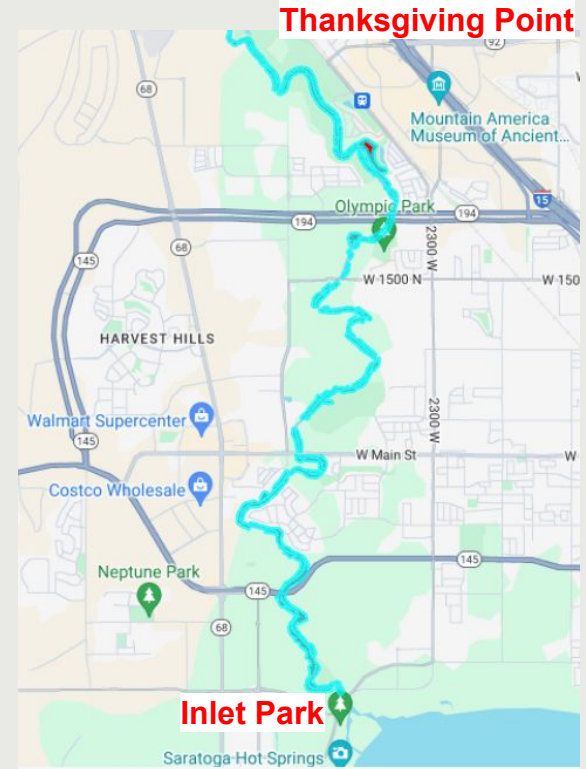
- Phragmites encroaches heavily into channel and spans the channel in some locations
- Navigation is a FFSL public trust value that we strive to uphold. This area is a large impediment to recreation (fishing, paddling, etc.)
- Could use funds from Salt Lake County here (1x funding of \$100,000) to improve the water trail





# Inlet Park (Saratoga Springs) to Thanksgiving Point (Lehi)

- Substantial private and public investment into parks, natural lands, river access infrastructure
  - For example, CWMA grant program has supported Phragmites control at the RC Park boat ramp (Saratoga Springs), Oakwood Homes Wander Development (Saratoga Springs), Thanksgiving Point (Lehi) in FY 2024.
- High recreation use (Parkway and River)



# Work adjacent to CWMA-funded projects

- Strengthen partnerships with grantees
- Leverage investments (some grantees bring match)
- Support grantees in technical knowledge sharing and on the ground presence
- Possibility to share state-hired contractor and Utah Conservation Corps crews



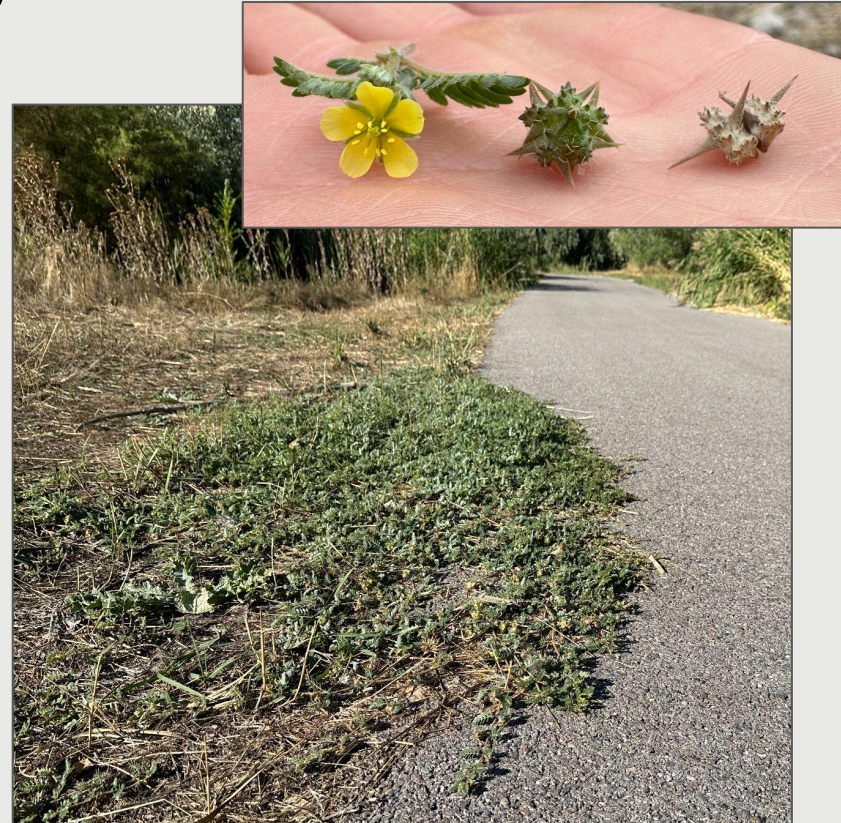
# Prioritization for Russian olive and tamarisk

- Same as priority areas for Phragmites. Removal will improve access to treat Phragmites
- Adjacent to and conjunction with tall pot planting areas



# Prioritization for puncturevine

- Large infestations are ideal for volunteer events associated with Bounty Program
  - Mill Creek Confluence (S. Salt Lake)
  - Redwood Nature Area (West Valley City)
  - Willow Park (Lehi)
  - 7800 S to Bangerter (mapped)
  - Small infestations: Jordan River Narrows
  - Others?
- Check EDDmaps and do site reconnaissance in late spring/early summer
- Possible future direction: do we need a working group for controlling puncturevine along the Parkway? Is more coordination necessary?



# Revegetation

- Tall-pot program (application based, entire River Corridor, public and private landowners can apply)
- Will depend on Phragmites, Russian olive, tamarisk, and puncturevine control in the next few years
- Pilot areas for seedings and plantings in 2024 TBD
- Scale up native plant materials
  - Private nurseries
  - Utah Valley University greenhouse management program
  - Prison
  - Salt Lake City Department of Public Lands



# Breakdown of labor

- Utah Conservation Corps (and possibly 2 winter FFSL fire seasonals)
  - Phragmites brushcutting
  - Russian olive and tamarisk cut stump
  - UCC can pull puncturevine and support volunteer activities of the Puncturevine Bounty program
- Contractor (to be hired under state contract)
  - spray Phragmites (using backpack, boat, vehicle, drone)
  - mow Phragmites when larger equipment is required





# Jordan River Cooperative Weed Management Area best practices

- Currently have drafts for:
  - Phragmites control
  - Invasive tree (Russian olive and tamarisk) control
  - Revegetation
- Your feedback is encouraged
- We will improve these documents as we learn more about how to do this work on the Jordan River

## Best practices for revegetation along the Jordan River (Utah, USA) following control of invasive plant species

Rae Robinson, Keith Hambrecht, and Eric McCulley

Version 1 | December 2023

This document was informed by the experience of practitioners working in wetland and riparian areas in the region, including those working with the Jordan River Commission and Division of Forestry, Fire and State Lands.

## Best practices to control non-native, invasive Russian olive and tamarisk within the Jordan River Corridor (Utah, USA)

Rae Robinson, Keith Hambrecht, and Eric McCulley

Version 1 | December 2023

This document was informed by the experience of practitioners working in wetland and riparian areas in the region, including those working with the Jordan River Commission and Division of Forestry, Fire and State Lands.



## Best practices to control non-native, invasive Phragmites within the Jordan River Corridor (Utah, USA)

Rae Robinson, Keith Hambrecht, and Eric McCulley

Version 1 | December 2023

This document was informed by the experience of practitioners working in wetland and riparian areas in the region, including those working with the Jordan River Commission and Division of Forestry, Fire and State Lands.

### Introduction

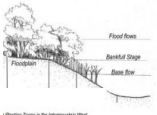
Controlling Phragmites (*Phragmites australis* subsp. *australis*) is a common goal of many land managers working in wetland and riparian areas in North America. In this document we summarize best practices for controlling Phragmites from our experience and those of practitioners working on the Jordan River in UT. We plan to update this document as we make progress treating Phragmites on public and private lands along the Jordan River so that it will be a relevant resource for those working to control Phragmites on the Jordan River.

### Non-native, invasive *Phragmites australis* subsp. *australis*

The Phragmites species we reference in this document is the non-native, invasive subspecies that is not originally from North America and has aggressive characteristics. Almost all of the Phragmites in northern Utah is *Phragmites australis* subsp. *australis*. This subspecies outcompetes and replaces diverse native plant communities which sustain diverse resident and migratory wildlife species. Phragmites encroaches into the river channel and up the banks of the Jordan River, impeding human and wildlife access



Aim to restore diverse native vegetation (multiple species, diverse vertical structure, various growth forms)



© Riparian Zones in the Intermountain West

© Utah Natural Center, Aberdeen, UT

### Bank control

ants in phases. This will help to mitigate the

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# Jordan River Cooperative Weed Management Area Funding

- Funding from the America the Beautiful grant to expand current efforts
  - 36 UCC crew weeks/year x 3 years
  - Support work on sovereign and adjacent lands, Big Bend, Gillmor Sanctuary (south shore of Great Salt Lake)
- **Funding opportunity:** Multi-year funding agreements for the CWMA grant program— **RFP for FY 2025 – 2027 will be released in January 2024**



# Conclusions

- Let's continue to build partnerships and share information (currently gauging interest for workshops, field tours in 2024)
- Your feedback is key!
  - Please take and share the Jordan River Cooperative Weed Management Area stakeholder [survey](#) (no later than January 15, 2024)
  - Please let us know your thoughts about the prioritization process, criteria, or locations
  - Please review and provide feedback on the best practices documents
- Please reach out with questions and comments:  
Rae Robinson, Jordan River Vegetation Project Coordinator, [raerobinson@utah.gov](mailto:raerobinson@utah.gov), 385-214-8942

