

**U.S. Army Corps of Engineers
Fiscal Year 2022
Handshake Program Application**

Please review instructions before completing application!

Corps Lake/River Project Name: **John Martin Reservoir**
District / Division:**SPD - SPA**
Handshake Proposal Title: **Tamarisk Removal & Native Habitat Restoration**
Corps POC Name:**Mike Bullock**
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A. Checklist:

1. Will the Handshake funds be spent on Corps facilities and resources that are being fully maintained by the Corps? (not in outgranted parks) Yes No
 2. Will the Challenge Partnership agreement be with a non-federal public or private entity(ies)? Yes No
 3. Is the proposed activity within current authorities and contained in the annual or 5-year work plan in the approved lake project OMP? Yes No
 4. Have all of the NEPA requirements been considered for this project? Yes No
 5. I am aware the Challenge Partnership Agreement must be reviewed and approved by District Office of Counsel before sending to HQUSACE. Yes No
 6. If the full funding amount requested is not available, could a portion of this Handshake Project be completed with partial funding? Yes No
 7. I am aware that all government funds must be spent in accordance with FAR, DFAR and AFAR contracting laws and regulations, and that Handshake funds cannot be provided to the partner(s). Yes No
 8. Did you participate in a Handshake webinar in 2021 or review a 2020 Handshake webinar on the Gateway? Yes No
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B. Handshake Funding Request (maximum \$25,000): \$25,000.00

C. Corps Foundation Bonus: (maximum \$5,000): \$5,000.00

Separate bonus funding provided by the Corps Foundation for a selected Handshake Project.

D. Incentive Points Category: Check the appropriate box if your application qualifies to receive bonus points on the evaluation score.

This project will be support youth participation in natural resources and outdoor recreation. (100 points).

This project will support diversity, equity and inclusion goals to increase access to a quality recreation experience which includes a safe and healthful environment for a diverse population. This project will help the

Corps conserve natural resources and provide recreation opportunities that contribute to the quality of American life. (100 points).

E. Describe your partnership and the proposed Handshake Partnership Project:

Project applications will be evaluated on the categories below. Please complete each section as appropriate.

Summary Statement:

Tamarisk (*Tamarix ramossima*) is an invasive, five to twenty-foot-tall shrub that grows in dense thickets and can live up to 100 years. The current tamarisk infestation at John Martin Reservoir (JMR) is worse than any other place in the state of Colorado (RiversEdge West. Arkansas River Watershed Invasive Plants Partnership. 2019. <https://riversedgewest.org/events/arkansas-river-watershed-invasive-plants-partnership>. Accessed 29 Sep 2021). Tamarisk has many harmful effects on the environment including increasing the risk and severity of wildfires, intensifying flooding, blocking shoreline access for water recreationists, degrading wildlife habitat, and displacing and absorbing more water than native vegetation. To address this problem, the Ranger Crew at JMR is seeking Handshake Partnership and Corps Foundation funds to begin the Tamarisk Removal Initiative (TRI) and install a recreation area. If JMR receives the Handshake Partnership funding, the Project will be able to launch a multi-stakeholder effort to restore the environment at JMR. This project will not only positively impact the ecosystem, recreationists, and wildlife, but will also create a local community of conservationists for long-term environmental stewardship.

Handshake Funding Cost Break Down:

- Personal Protective Equipment: \$1,000
 - o Eye protection, ear plugs, gloves, etc. for volunteers
 - Hand Tools: \$2,000
 - o Loppers, handsaws, etc. for volunteers
 - Herbicide: \$10,000
 - o Aquatic safe Garlon 3A, to be applied by JMR staff
 - Interpretive Signs and Kiosk: \$2,000
 - o Dig posts, set with cement, buy kiosk lumber and construct, print and install signs
 - Recreation Shelters: \$10,000
 - o Prepare ground, pour concrete slabs, purchase and set two covered 10X10 shelters (\$3,660 each)
- Total: \$25,000

Corps Foundation Bonus Funding Cost Break Down:

- Picnic Tables: \$5,000
 - o Purchase four six-foot web style in-ground picnic tables and install in the recreation shelters

Longevity / O&M description:

If awarded these funds, JMR staff will partner with Rocky Mountain Field Institute (RMFI), Volunteers of Outdoor Colorado (VOC), and Bent County 4-H to conduct the Tamarisk Removal Initiative (TRI) and restore the ecosystem in high priority areas on Corps property. RMFI and VOC are non-profits that organize outdoor volunteers for environmental stewardship and outdoor recreation projects. 4-H is a youth development organization promoting leadership skills in agriculture and land management in rural areas. By bringing these groups together, JMR hopes to foster a conservation mindset among the 4-H youth, inspiring a new generation of conservationists and building a local community of environmental stewards. To ensure the longevity of this tamarisk-control work, JMR is proposing a two-phased approach that would last beyond the five-year scope of the funding. Phase One will involve cutting the tamarisk with heavy equipment, chainsaws, hand tools, and woodchippers. The use of hand tools (where possible) increases the sustainability of the project, in line with the Corps' Environmental Operating Principles, by reducing ground disturbance and facilitating the return to native vegetation. JMR staff will begin Phase Two and spray the cut tamarisk stumps with herbicide. This will help maintain a tamarisk-free area in perpetuity and allow for native plant recolonization. JMR will also conduct a communications campaign to facilitate open conversations with the public about the consequences of tamarisk,

empowering them to control such invasive species on their properties, and fostering long-term impacts throughout the community. Without the additional funding of the Handshake Partnership, tamarisk will continue to threaten the biodiversity and recreational values at JMR as USACE does not have the resources or staffing to mitigate this issue on its own. Therefore, the contingency plan is for John Martin's staff to reactively minimize the spread of tamarisk through mechanical means; this, however, will not provide a long-term solution to the problem JMR is facing.

Partnership Value:

Removing tamarisk is an incredibly labor-intensive process. At JMR, this is due to the high density of plants and difficult terrain. Consequently, John Martin's biggest need is sufficient staff, volunteers, and contractors to successfully remove and spray the plants. Partnerships with RMFI, VOC, and Bent County 4-H will provide JMR with the essential workforce to achieve its goals. In addition, JMR hopes that by bringing together these different groups for TRI, the Project will create an impactful impression on all parties involved. Partnering the outdoor enthusiasts from RMFI and VOC, who tend to have strong conservation values, with Bent County 4-H, who tend to have high utility values for the environment, will allow for sharing of environmental values. Furthermore, the majority of RMFI and VOC volunteers will mostly come from urban areas along the Front Range, whereas the Bent County 4-H youth come from local rural communities. TRI will facilitate a cultural exchange between these partners that will broaden the horizons for both groups.

With the Handshake Partnership funding, TRI will create a common lived experience for these diverse partners, helping JMR establish strong relationships with these groups and creating a long-lasting community of volunteers for future environmental stewardship projects. As mentioned in the previous section, JMR will partner with VOC, 4-H, and RMFI to permanently eradicate tamarisk in high-priority restoration areas. Without the participation of these diverse groups, invasive species management would be nearly impossible due to the high prevalence of tamarisk at JMR. All three groups are non-profit organizations with their own financial constraints, so matching funds is not an option for these organizations. That said, however, USACE's partnership with these groups will drastically affect JMR's ability to successfully remove tamarisk through labor and time spent, as each organization has an established list of volunteers who focus on environmental stewardship and habitat restoration. Lastly, funding will be used to purchase PPE, hand tools, and herbicide to remove tamarisk, as well as interpretative signs, kiosks, and recreation shelters once tamarisk is removed.

Recreational Benefit:

In JMR's high-priority restoration areas, the tamarisk has grown so thick it has completely taken over the shoreline and riverbank, rendering it unusable for any recreation activity. By funding TRI, the Corps will help improve the recreation experience at JMR for a diverse group of local people and visiting tourists. JMR's first choice restoration area lies less than two miles east of the town of Las Animas, CO (see Appendix A) which is an economically disadvantaged community of almost 3,000 people (41% of whom live below the Federal Poverty Level). Removing tamarisk and restoring the environment in this area will provide a safe and healthy environment for the enjoyment of this diverse community (where 41.5% of the population identifies as Hispanic). Funding of TRI will provide recreation opportunities and contribute to the quality of American life for local people and out-of-area visitors. In particular, the provision of recreation shelters, with picnic tables hopefully provided by the Corps Foundation, will enhance the recreation experience for American families. The types of recreation users who will immediately benefit include picnickers, wildlife viewers, water recreationists, anglers, and general outdoor recreationists. After successful control of the tamarisk and reestablishment of native vegetation, JMR plans to develop an interpretive trail for the enjoyment of hikers, dog walkers, and mountain bikers.

Environmental Stewardship Value:

The installation of the dam at JMR altered streamflow regimes and expedited the infestation of tamarisk in wetlands, riparian areas, and shorelines throughout the project. The Corps' Environmental Stewardship (ENS) Mission requires its employees to manage, conserve, and preserve the natural resources on USACE property, which cannot be done without managing and controlling invasive species. TRI embodies the Corps' ENS mission by controlling an invasive species that is severely jeopardizing the health of the natural resources at JMR.

Funding TRI will deliver numerous ecological benefits including reducing the risk of wildfire and flooding, reducing vegetative consumption of water, encouraging the reestablishment of native plant communities, and improving overall biodiversity. TRI will also help restore important habitat for up to three federal special status species, depending on the restoration area chosen (see Appendix A); the eastern black rail, the piping plover, and the interior least tern. The black rail population at JMR is the most stable population in the continental U.S. and the most at risk. Also, JMR was issued a final Biological Opinion in 2001, by USFWS, which requires vegetation removal and invasive species control at historic, existing, and potential nesting areas for the plover and tern. In addition, controlling invasive species helps maintain Corps compliance with federal, state, and local invasive species legal requirements.

Communication & Education Value:

One of the important missions of the Corps is stewarding the environment by managing, conserving, and preserving the natural resources on USACE property. This mission is embodied in JMR's Master Plan which says, "The land, water, and recreational resources of John Martin Reservoir will be managed to protect, conserve, and sustain natural and cultural resources, especially environmentally sensitive resources, and provide outdoor recreation opportunities that complement overall project purposes for the benefit of present and future generations." With the Handshake Partnership funding for TRI, JMR will demonstrate the Corps' commitment to combating invasive species and protecting natural resources. In addition to partnering with local youth and outdoor enthusiasts to remove tamarisk, TRI seeks to increase public awareness of the threat of tamarisk and the importance of stewarding natural resources through a multi-faceted communications campaign. The goal of the communications campaign is to provide a forum for an open and transparent public discussion on the impacts of tamarisk and empower people with the knowledge and skills to manage it. JMR will utilize multiple methods including permanent informational signage at the restoration area, ongoing interpretive events, a social media campaign, and youth education programs. Furthermore, local media will be invited and interviews will be given to showcase TRI and the work being done to eradicate tamarisk at JMR with the support of the Handshake Partnership funding. JMR staff will also coordinate with the USACE Albuquerque District's Public Affairs Office to spread the word about the vital importance of Handshake Partnerships for the stewardship of the environment. In summary, Handshake Funding will help TRI communicate the Corps' ENS mission, build a conservationist mindset among the community, and give JMR staff a platform to further convey the important work of USACE.

Innovativeness:

JMR's bountiful natural resources, especially its diverse wildlife, make this area uniquely important to conserve for future generations. The tamarisk infestation and sparse community relationships have long affected JMR and its ability to undertake large-scale restoration projects. With the Handshake Partnership funding, TRI will set JMR on a path to mitigate these problems in a holistic and sustainable way. Unlike other ecosystem restoration projects that only employ biological or ecological solutions, TRI employs a multidisciplinary technique, making it truly unique and innovative. The staff at JMR understand that a siloed approach often produces short-lived results. To be successful in the long term, JMR designed TRI to involve the public, both as partners and as participants in its communications campaign. TRI will bring diverse groups of people together to work toward a common goal, facilitate public conversations about invasive species and natural resource management, spread the Corps' mission, and ultimately benefit wildlife, the ecosystem, and recreationists. Lastly, as stated earlier, JMR has the worst tamarisk infestation of anywhere in Colorado and, if funded via the Handshake Program, John Martin could set both a regional and national example of successful invasive species eradication and the necessary public information campaign that surrounds it.

Corps Foundation Bonus:

The Corps Foundation Bonus will be dedicated to the purchase and installation of picnic tables at the recreation shelters. These picnic tables will facilitate outdoor meal sharing opportunities to better accommodate diverse recreation users and American families with children. JMR will memorialize the Corps Foundation's generous donation by installing plaques on the tables and/or shelters to ensure proper recognition.

Conclusion:

JMR has the worst tamarisk infestation in Colorado. With Handshake funds, TRI will create a community of conservationists to remove tamarisk, help restore the ecosystem, and provide recreation opportunities. This community will foster future relationships, promote environmental sustainability, and empower local youth to become ambassadors of conservation. The planned public engagement will disseminate the Corps' Environmental Stewardship Mission and the importance of invasive species management.

Double click on spreadsheet to access data entry fields and to enter Partner names.

You MUST enter partner names into the spreadsheet:

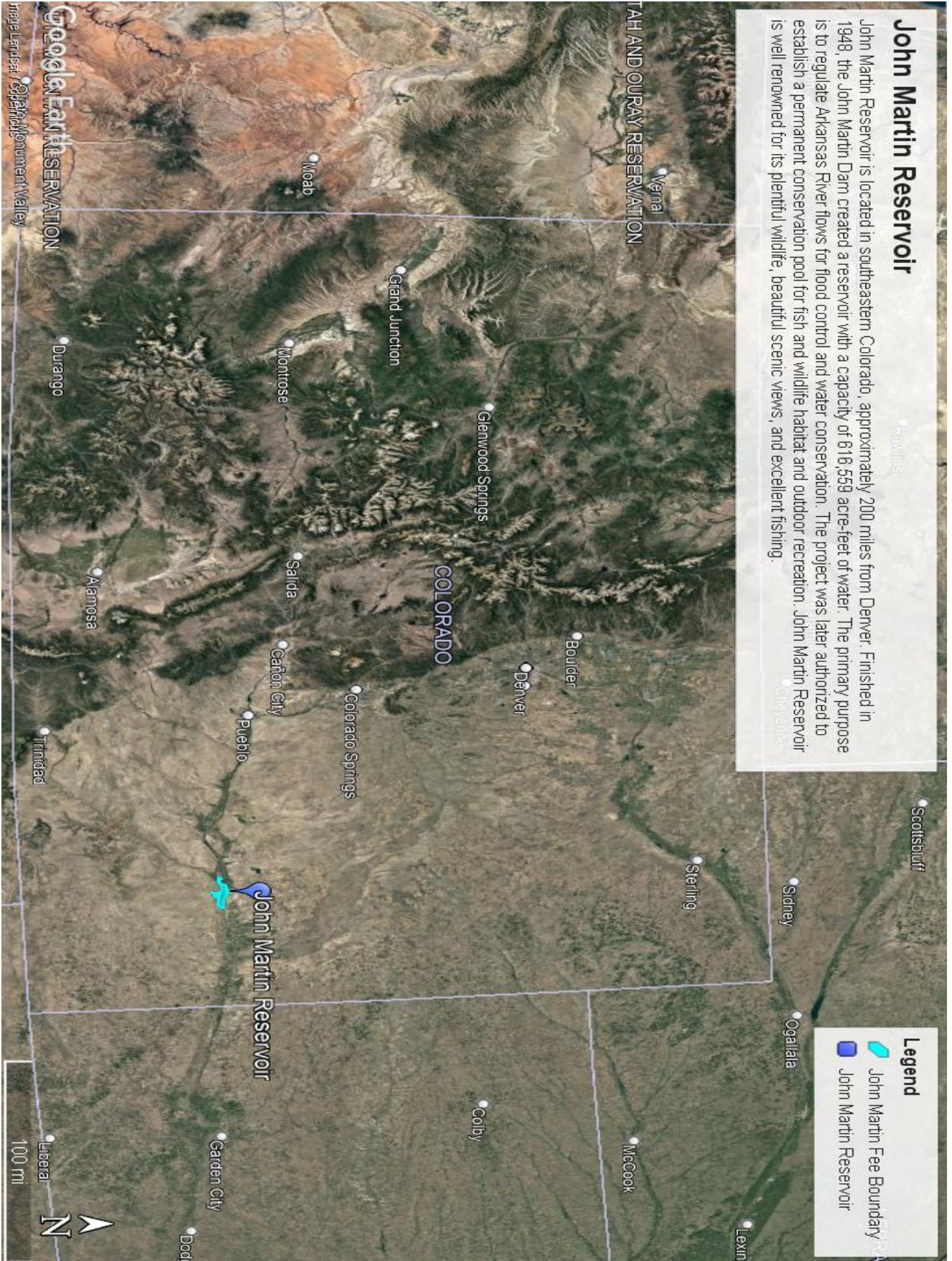
	Local Corps Office	Handshake Funds	Bent County 4-H	Volunteers of Outdoor Colorado	Rocky Mountain Field Institute	Corps Foundation Bonus
Salaries	\$108,811	N/A	\$0	\$0	\$0	\$0
Travel	NA	N/A	\$1,500	\$12,600	\$12,600	\$0
Materials and Supplies	\$40,800	\$11,000	\$0	\$0	\$0	\$5,000
Equipment Use	\$120,000	\$0	\$0	\$4,500	\$4,500	\$0
Funds Contributed	N/A	N/A	\$0	\$0	\$0	\$0
Personal Property	N/A	\$14,000	\$0	\$0	\$0	\$0
Volunteer	N/A	N/A	\$11,416	\$79,912	\$79,912	\$0
In-Kind Services	N/A	N/A	\$0	\$0	\$0	\$0
Other (explain below)	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$269,611	\$25,000	\$12,916	\$97,012	\$97,012	\$5,000
Share of Total Cost	53.2%	4.9%	2.5%	19.2%	19.2%	1.0%
	58.2%					

	Partner 5	Partner 6	Partner 7	Partner 8	Partner 9	Partner 10
Salaries	\$0	\$0	\$0	\$0	\$0	\$0
Travel	\$0	\$0	\$0	\$0	\$0	\$0
Materials and Supplies	\$0	\$0	\$0	\$0	\$0	\$0
Equipment Use	\$0	\$0	\$0	\$0	\$0	\$0
Funds Contributed	\$0	\$0	\$0	\$0	\$0	\$0
Personal Property	\$0	\$0	\$0	\$0	\$0	\$0
Volunteer	\$0	\$0	\$0	\$0	\$0	\$0
In-Kind Services	\$0	\$0	\$0	\$0	\$0	\$0
Other (explain below)	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$0
Share of Total Cost	0.0%	0.0%	0.0%	0.0%	0.0%	0

	Partner 11	Partner 12	Partner 13	Partner 14	Partner 15	Total
Salaries	\$0	\$0	\$0	\$0	\$0	\$108,811
Travel	\$0	\$0	\$0	\$0	\$0	\$26,700
Materials and Supplies	\$0	\$0	\$0	\$0	\$0	\$56,800
Equipment Use	\$0	\$0	\$0	\$0	\$0	\$129,000
Funds Contributed	\$0	\$0	\$0	\$0	\$0	\$0
Personal Property	\$0	\$0	\$0	\$0	\$0	\$14,000
Volunteer	\$0	\$0	\$0	\$0	\$0	\$171,240
In-Kind Services	\$0	\$0	\$0	\$0	\$0	\$0
Other (explain below)	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$506,551
Share of Total Cost	0.0%	0.0%	0.0%	0.0%	0.0%	100%

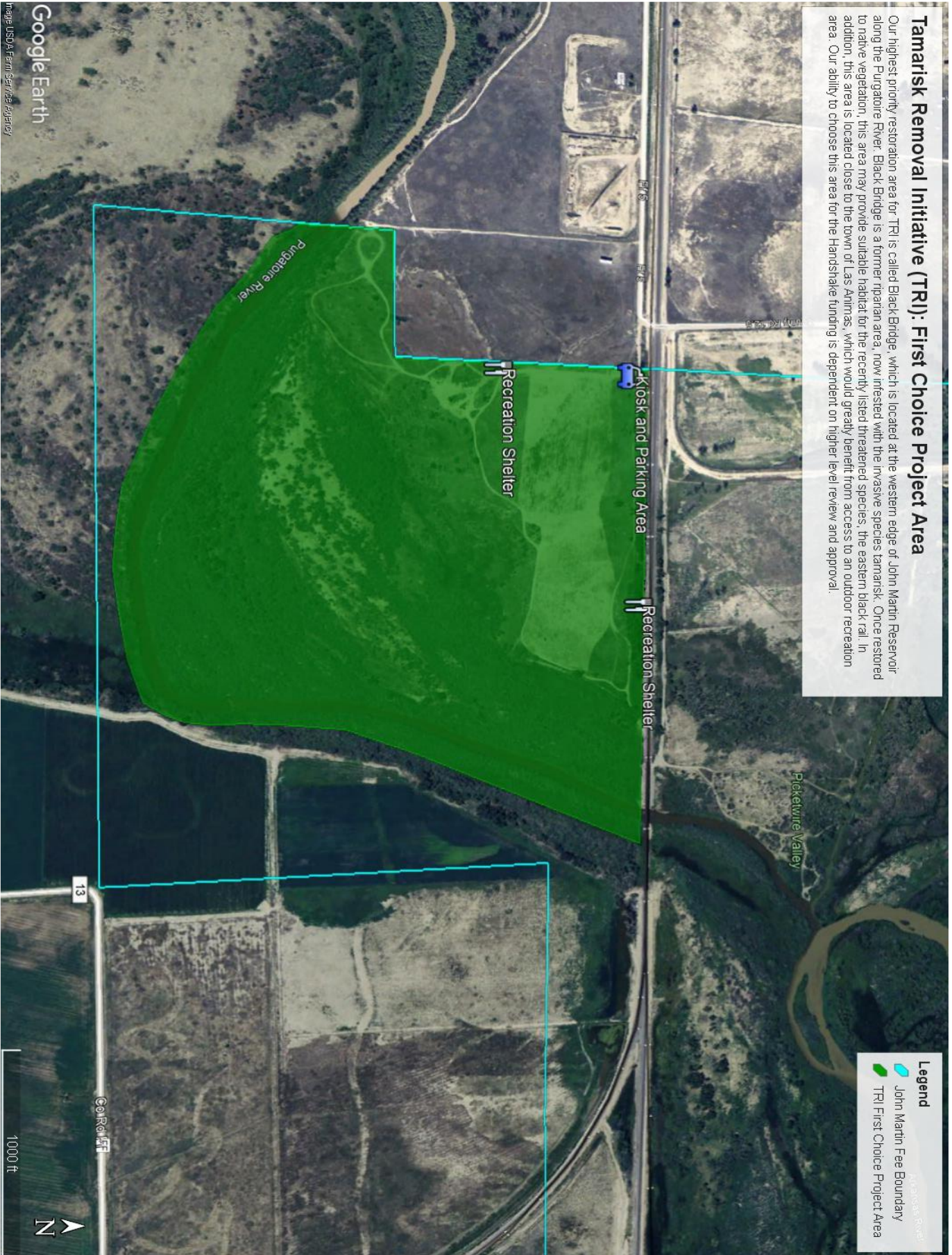
Explanations: If awarded, the Corps Foundation bonus funds will be used to purchase picnic tables for the recreation shelters. John Martin's three partners will not be able to contribute any additional funds to this project due to their respective organization's limited budgets and financial needs surrounding environmental stewardship. Both VOC and RMFI are located in the Denver metropolitan area and will use their own limited funding for their labor and travel costs related to tamarisk removal. JMR plans to remove approximately 60 acres of tamarisk contained within 100 acres of land. JMR staff estimates that they can remove 0.00625 acres per hour per person, which means 9,600 hours total will be required to cut the tamarisk across 60 acres. In-house labor consists of 5 Ranger staff who will be able to work as a team to complete 4,000 hours of removal. Ranger salary cost was determined by the locality-based rates for two GS-5s, two GS-9s, and one GS-11. The Ranger staff will also work with 60 adult volunteers to complete up to 5,600 hours of removal and with youth from Bent County 4-H to complete up to 80 hours. Corps provided materials and supplies will include fuel, oil, chainsaw maintenance supplies, concrete, and personal protective equipment for ranger staff. Equipment use estimates for USACE, RMFI, and VOC includes the local standard \$25/day rental rate for chainsaws, concrete mixer, skid steer, etc. Materials and supplies for Handshake funds will include herbicide and PPE for volunteers. Personal Property for Handshake funds includes picnic tables and shelters, interpretive signs, hand tools, and a kiosk, which will become Corps property upon purchase. Travel costs for volunteers were estimated based on the potential number of volunteers, number of travel days, distance traveled, and number of meals taken during volunteering. Volunteer values calculated for all partners are based on the FY21 rate of \$28.54/hr.

Appendix A: Maps and figures of project areas



Tamarisk Removal Initiative (TRI): First Choice Project Area

Our highest priority restoration area for TRI is called Black Bridge, which is located at the western edge of John Martin Reservoir along the Purgatoire River. Black Bridge is a former riparian area, now infested with the invasive species tamarisk. Once restored to native vegetation, this area may provide suitable habitat for the recently listed threatened species, the eastern black rail. In addition, this area is located close to the town of Las Animas, which would greatly benefit from access to an outdoor recreation area. Our ability to choose this area for the Handshake funding is dependent on higher level review and approval.



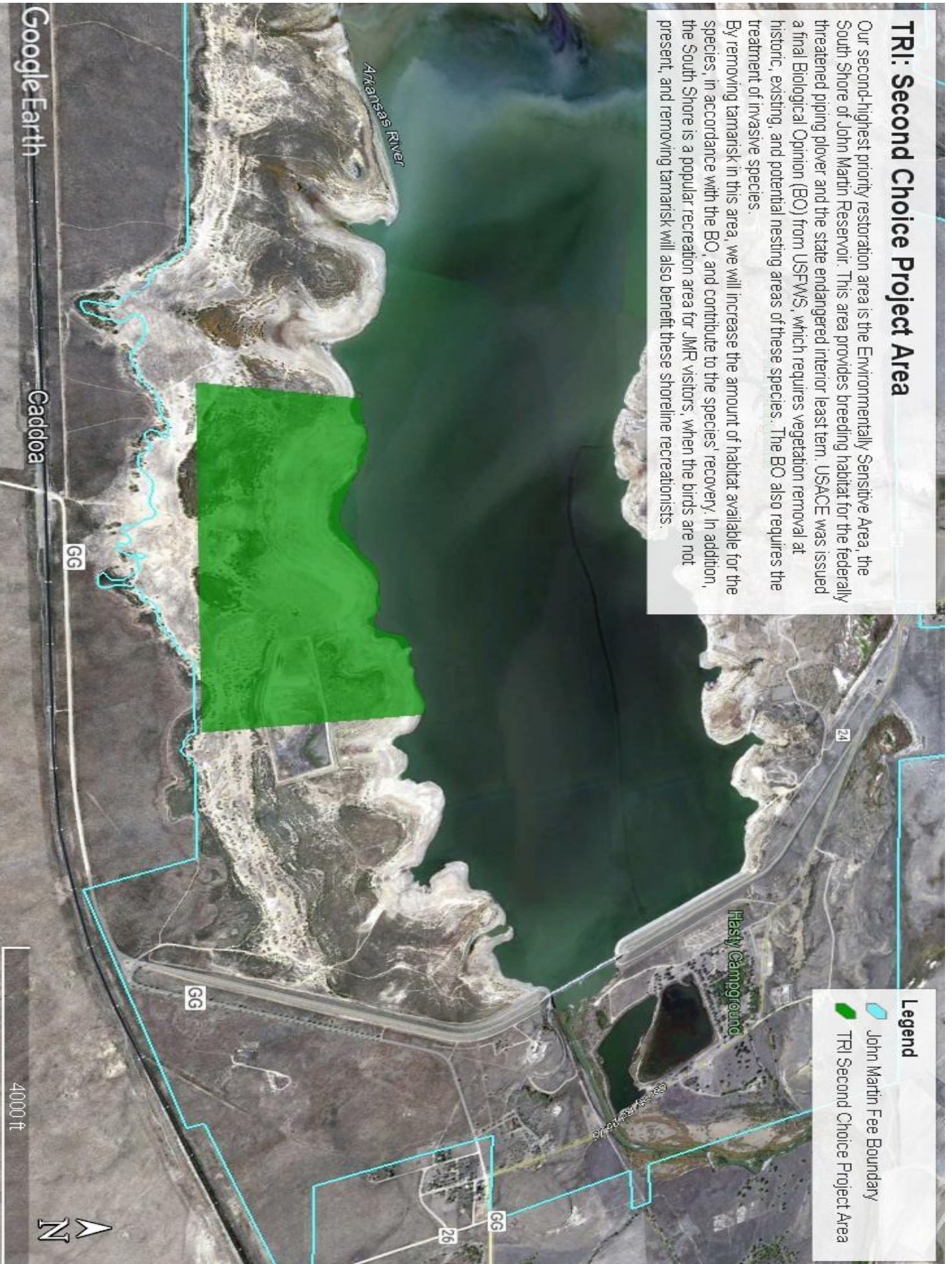
Legend

- ▭ John Martin Fee Boundary
- ▭ TRI First Choice Project Area

TRI: Second Choice Project Area

Our second-highest priority restoration area is the Environmentally Sensitive Area, the South Shore of John Martin Reservoir. This area provides breeding habitat for the federally threatened piping plover and the state endangered interior least tern. USACE was issued a final Biological Opinion (BO) from USFWS, which requires vegetation removal at historic, existing, and potential nesting areas of these species. The BO also requires the treatment of invasive species.

By removing tamarisk in this area, we will increase the amount of habitat available for the species, in accordance with the BO, and contribute to the species' recovery. In addition, the South Shore is a popular recreation area for JMR visitors, when the birds are not present, and removing tamarisk will also benefit these shoreline recreationists.



Legend

- John Martin Fee Boundary
- TRI Second Choice Project Area