Project Overview

Native and Water-Wise Grass Installation and Maintenance Manual

11/10/2022

Purpose

To produce an educational manual that describes the best practices for the successful installation and maintenance of native and water-wise grasses in urban/suburban landscapes in Colorado.

Need

Native and water-wise grasses have become a viable water conservation measure, especially for replacement of high-water turfgrass in large commercial and municipal landscapes. But current native grass installation and maintenance best practices have not been systematically identified, current projects have many points of failure, and there is not a common skill set among landscape professionals. This project seeks to distill best known steps into actionable procedures, create usable resources, and educate landscape owners/managers along with landscape industry professionals. **This resource is critical to enable successful large-scale, non-essential turfgrass replacement in Colorado**.

Objectives

1. Document consistent, expert guidance, and best practices to maximize project success. Identify common causes of failure, potential risks, and provide guidance to improve outcomes.
2. Provide usable tools for landscape professionals, project managers, program managers, and associated parties involved in decisions and oversight of grass projects.
3. Include case studies to showcase options, costs vs. benefits, and water/maintenance savings.
4. Communicate options for different ecological regions.

Web-based Delivery Format

The manual will be an interactive website rather than a static document. Web-based delivery will enable us to reach more people, provide greater help through interactive tools, and sustain a more up-to-date resource by updating the content as new information becomes available.

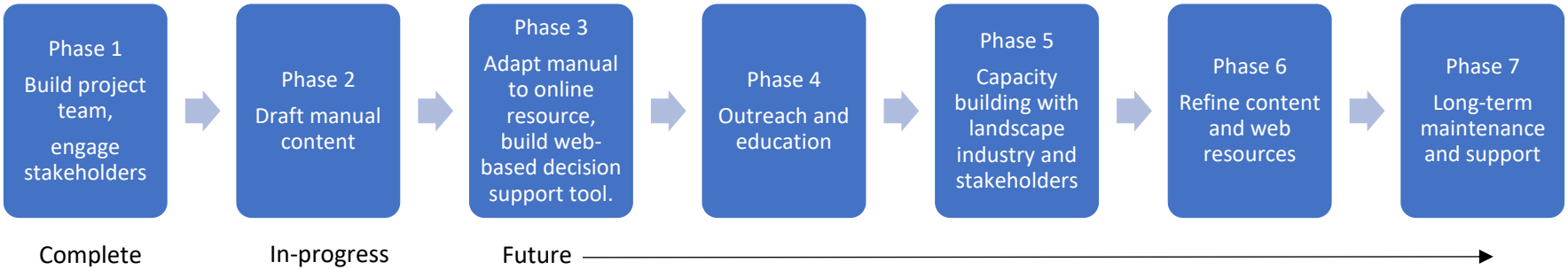
Besides providing general guidance on best practices, one of the biggest needs is support for choosing a type of grass that will meet the project's objectives, fulfill the landscape's function, and tolerate the site's conditions. To help landscape owners and managers make better choices, we will include an interactive decision support tool for appropriate grass type selection.

Project Phases

To enable widespread success of turf replacement with native or water-wise grasses, this effort should encompass more than just the manual/website creation. Completing the seven phases identified in Figure 1 will set the stage for significant landscape water conservation in Colorado.

In Phases 1 through 3, the Working Group will record the best practices and create the decision support tool. Building upon this effort, the information can as a foundation for outreach and education of suitable turfgrass replacement options in Phase 4. In Phase 5, we will launch a systematic capacity building effort with landscape professionals so that there are enough trained professionals to do native grass projects successfully. Refining and supporting the resources are described in Phases 6 and 7.

Figure 1: Project Phases



A stand-alone website with an identified, long-term owner responsible for keeping the information current is the ideal arrangement to maximize public access. The content should be free and accessible to all Coloradans, not offered solely as a member benefit by a fee-generating organization. (See Figure 2, pages 5-6 for an outline of how we envision the manual content to function in a web-based format.)

Collaborators

There currently are 45 stakeholders and contributors engaged with this effort through an informal, collaborative working group, which demonstrates strong interest in this project and a clear need for the deliverables (Table 1).

Table 1: Roster of professionals/organizations interested in participating in the Native Grass Working Group

Joe	Stephen	Adams 12
Liesel	Hans	Alliance for Water Efficiency
Lisa	VanderHeyden	Arapahoe County Facilities & Fleet
Diana	Denwood	Aurora Water
Morgan	Hopkins-Crawley	Aurora Water
Patricia	Whitby	Brown and Caldwell
Linda	Gould	Castle Rock Water
Rick	Schultz	Castle Rock Water
Robert	Glenn	City of Boulder
Sarah	Bargsten	City of Cheyenne - Board of Public Utilities
Daniel	Gould	City of Colorado Springs
Jarod	Clayton	City of Colorado Springs Parks and Recreation
Morgan	Hester	City of Colorado Springs Planning Department
Scott	Benton	City of Fort Collins
Kate	Rentschlar	City of Fort Collins
Katie	Helm	City of Fountain
Dena	Egenhoff	City of Greeley
Ruth	Quade	City of Greeley
Hope	Bartlett	City of Longmont
Ben	Gratton	City of Longmont
Jim	Krick	City of Longmont
Laura	Wing	City of Thorton
Drew	Beckwith	City of Westminster
Blake	Ramsey	City of Westminster
John	Vann	City of Westminster
Lance	Ackerman	Colorado Springs Utilities
Tony	Koski	Colorado State University
Deryn	Davidson	CSU Extension
Brad	Paterson	Denver Office of Climate Action Sustainability and Resiliency
Trent	Bailey	Denver Parks and Recreation/Planning, Design, and Construction
Austin	Krcmarik	Denver Water
Bea	Stratton	Denver Water
Kristy	Bruce	Fort Collins Nature in the City
Katie	Collins	Fort Collins Utilities

Bob	Howey	Irrigation Analysis
Joan	Sapp	Landscape Architect
Frank	Kinder	Northern Water
Lyndsey	Lucia	Northern Water
Ally	Mazurek	Northern Water
Darren	Nowels	Northern Water
Esther	Vincent	Northern Water
Andrew	Dickinson	Pawnee Buttes Seed
Katherine	Kallenbach	Pueblo West Metro District
Kate	Larson	Resource Central
Steve	Loy	Sun Maintenance Services
Laura	Belanger	Western Resource Advocates

Five Key Functions for Native Grass Manual Web-Based Resource

1. Roadmap

- Planning a Project

2. Decision Tool

- Help me Choose

3. Species Specific Information

- Installation
- Establishment
- Maintenance
- Weed Control
- Irrigation

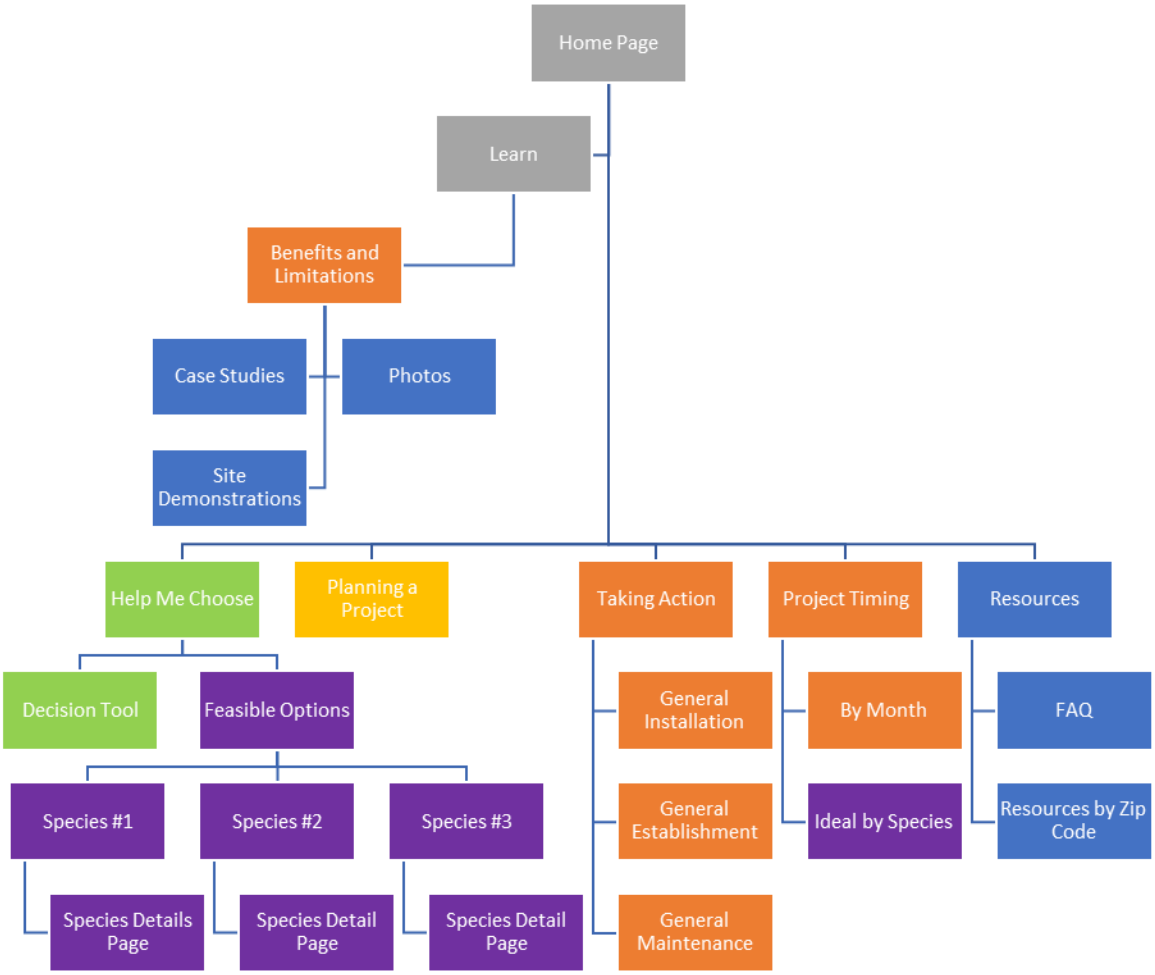
4. Universal Best Practices

- Installation
- Establishment
- Maintenance
- Project Timing

5. Resources

- Case Studies
- Site Demonstrations
- Photos
- Rebates

Figure 2: Native Grass Website Wireframe Draft



Phase 3 Fiscal Entity Options and Recommendation

Adapting the manual content to a web-based resource will require contracting with a website designer and/or developer. If grant funds are used to pay for this work, the optimal fiscal entity applying for the grant and the organization supporting the website long-term must be identified. Table 2 lists several options for roles to contract and support this phase with grant funds.

Table 2: Options for Phase 3, (See Page 7 for Role Descriptions).

Option	Fiscal Entity for Grant	Considerations	Project Manager/Content Creator	Long-Term Owner
1	Non-profit association	Streamlines grant application and contractor selection process. Requires program administration fee and MOU between non-profit and working group. Non-profit needs interest and capacity to sustain the resource long-term.	Native Grass Manual Working Group	Non-profit association, website management company, or CWCB
2	Colorado Springs Utilities or other Water Provider	Streamlines fiscal entity and project management tasks. Needs a different long-term owner as a statewide resource. Complicates contractor selection process due to rigorous procurement process.		
3	CWCB	Preserves website as a statewide, free resource. Model may not fit with CWCB's funding options or staff resources.		

Recommendation: Option 1 is the best avenue to streamline the procurement and contracting process, which is appropriate for a project of this modest scale. We recommend discussions with relevant non-profits to determine their interest. To preserve the manual as a free resource, we recommend creating a long-term maintenance task list and schedule during the website design and development. A non-profit entity or CWCB could use the task list and schedule to sustain the manual, perhaps using a website management company to streamline the site's administrative tasks.

Next Steps: Identify relevant non-profit organizations; share project description; determine best organization; create MOU; apply for grant funds.

Description of Phase 3 Roles

Fiscal Entity Role

- Submit grant application.
- Invoice partners for matching fund contributions.
- Pay vendor.
- Submit prepared grant progress reports and add invoices.
- Receive grant funds.
- Provide input to NGMWG on project management procedures, if needed.

Native Grass Working Group Role

- Produce manual content, case studies, and decision support tool content.
- Prepare grant application, including budget and schedule.
- Identify stakeholders and document matching fund commitments.
- Create statement of work and manage vendor selection process.
- Serve as project manager.
- Accept/reject deliverables.
- Produce grant progress reports.

Long-Term Owner

- Pay for website hosting, SSL certificate, and domain name costs each year.
- Ensure website technical and security updates occur as needed.
- Ensure content is updated as needed (can be in collaboration with working group) SME's.