

2021 Irvine Prairie Restoration/Management Work Plan

Work in 2021 will consist primarily of new planting: spring seeding, summer mowing, and potential fall re-seeding in problem areas. Some plug transplanting will occur. Tasks to support 2021 restoration and management operations follow:

Winter (January 1 - March 31)

Frost Interseeding

Small wetland areas of Irvine Prairie will be hand broadcast interseeded by TPC staff. A seed mix will be planted in the wet area surrounding the tile intake and drainage control structure. Seeding will be conducted as early as feasible to promote dormancy breaking in seeded forbs.

- *Operator: TBA*
- *Equipment: Buckets, bulking agent*
- *Location: Wet area surrounding the tile intake/drainage control structure*
- *Timing: Anytime with frozen soil and no snow cover*

Spring (April 1 - June 30)

Prescribed Burning

Approximately 8 acres of Irvine Prairie planted in 2018 will be burned as part of the long-term management of the site. Work is dependent on favorable weather.

- *Operator: JM, TPC staff and volunteers*
- *Equipment: 2 pump engines, 4 backpack sprayers, 2 flappers*
- *Location: Throughout 2018 planting area*
- *Timing: March-May*

Terrace Leveling

- *Operator: BP*
- *Equipment: BP earthwork implements*
- *Location: All terraces in the 2021 planting area*
- *Timing: March-April*

Tile Surface Inlet Capping

- *Operator: BP*
- *Equipment: BP drainage materials*
- *Location: Three tile inlets capped in the 2021 planting area.*
- *Timing: March-April*

Placement of large glacial erratics in the parking area

- *Operator: BP*
- *Equipment: BP equipment*
- *Location: Parking area*
- *Timing: March-April*

Spring Seeding

Approximately 13 acres of Irvine Prairie will be drilled in early spring by TPC staff using a 6ft Truax native seed drill. Three seed mixes will be planted across the south central section of Irvine Prairie (see Map 4). Seeding will be conducted as early as feasible to promote dormancy breaking in seeded forbs.

- *Operator: JM/AD*
- *Equipment: Truax Drill (6ft)*
- *Location: 2021 Work Area (see [Seeding Areas Map](#))*
- *Timing: mid-late April*

Supplemental Plug Planting

Plug planting may include container-grown Virginia bunchflower that was initially collected from nearby ditches, depending on size and condition of plants. Planting locations are currently unknown, but will likely focus on drier upland sites of Irvine Prairie, though some species suited for wetter soils are also being propagated. Four species of upland sedges, wild strawberry, groundplum milkvetch, field pussytoes, and whorled loosestrife will be transplanted into suitable, strategic locations. Additionally, we are attempting to grow out small samples of locally collected seed of prairie violet, hairy hedgesettle, needle-and-thread grass, and several species of panic grasses (*Dichanthelium* spp.).

- *Operator: LFW*
- *Equipment: Volunteer labor, hand tools*
- *Location: TBD*
- *Timing: late April-early June*
-

Invasive Grass Mowing

Problem perennial grass areas found in old waterways should be mowed to promote uniform growth in preparation for a spring herbicide application.

- *Operator: JM or CI*
- *Equipment: Any mower set to 4 in. cutting height*
- *Location: Past waterways*
- *Timing: Brome boot stage (mid-May)*

Invasive Grass Spot Herbicide Application #1

After invasive perennial grass areas have had time to regrow, they should be sprayed with Roundup or Clethodim at label recommended rates. Spot spraying will minimize off-target effects.

- *Operator: JM*
- *Equipment: Backpack sprayer*
- *Location: Past waterways*
- *Timing: mid May*

Establishment Mowing #1 (2021 Areas)

All early plantings benefit from mowing relatively early in the season to encourage light penetration to the soil surface. This mowing will cover ~13 acres. Depending on the equipment available, rotary disc mowers or other hay mowers are ideal for avoiding vegetation matting, which can impede light penetration to soil surface.

- *Operator: BP*
- *Equipment: Hay mower ideal, brush hog OK, mower at ~6 in*
- *Location: 2021 Work Area (see [Seeding Areas Map](#))*
- *Timing: late June*

Summer (July 1 - August 30)

Establishment Mowing #2 (2021 Planting Areas)

A second mowing should occur when weed or cover crop reaches approximately 2ft in height. Plan to mow at the end of July. This mowing will cover the 13 acres, planted in 2021. Depending on the equipment available, disc or sickle mowers are ideal for encouraging light penetration to soil surface.

- *Operator: BP*
- *Equipment: Hay mower ideal, bush hog OK, mower at 4-6in*
- *Location: 2021 Work Area (see [Seeding Areas Map](#))*
- *Timing: late July*

Establishment Mowing #3 (2021 Planting Areas)

A third mowing may not be necessary, but should occur when weed or cover crop once again reaches approximately 2ft in height. Plan for a final mow mid-late August. This mowing will cover the 13 acres, planted spring 2021. Depending on the equipment available, disc or sickle mowers are ideal for encouraging light penetration to soil surface.

- *Operator: BP*
- *Equipment: Hay mower ideal, bush hog OK, mower at 4-6in*
- *Location: Throughout 2021 Work Area (see [Map 1](#), [Map 2](#))*
- *Timing: late August*

Fall (September 1-December 1)

Seeding Establishment/Vegetation Outcomes Monitoring

In order to assess the success of the planting areas, formal monitoring needs to be undertaken. Information derived from monitoring will be used to identify areas for reseeded next year, and plan for future management prescriptions.

- *Operator: JM*
- *Equipment: GPS, Sampling frame, datasheets*
- *Location: Throughout 2018-2020 Work Area (see Map 3)*
- *Timing: September*

Invasive Grass Spot Herbicide Application

After invasive perennial grass areas have had time to regrow, they should be sprayed with Roundup at label recommended rates. Spot spraying will minimize off-target effects.

- *Operator: JM*
- *Equipment: Backpack sprayer*
- *Location: Past waterways*
- *Timing: October*

Dormant Broadcast Seeding (Possible)

If cover crop establishes satisfactorily by winter, a portion of the 2021 seeding area may be dormant broadcast, depending on equipment procurement and satisfactory weather. Re-seeding will also occur at sites where vegetation was terminated with herbicide earlier in the year.

- *Operator: JM*
- *Equipment: TBD Broadcast seeder*
- *Location: TBD, Past waterways,*
- *Timing: November*