AUSTIN PARKS & RECREATION Cultural Places, Natural Spaces	Austin Parks and Recreation Department Standard Operating Procedure **OPERATIONS DIVISION**

Subject: **Pollinator Habitat Management Area Policy/ Grow Zone Mowing Policy**	**SOP** #:
	Initiated:
	Revised:

A.PURPOSE: To establish standard operating procedures that will foster expansion and conservation of native wildflowers and native grass communities. City Council Resolution 20150514-004 directs staff to initiate a process for "incorporating the cultivation of native milkweed where feasible into the city's landscape portfolio at city-owned properties" in order to support declining populations of the monarch butterfly. Most milkweeds are perennial species that have evolved over thousands of years in the grasslands and prairies of North America and are best adapted to these environments. The successful management and enhancement of milkweed populations in the urban landscape therefore can best be facilitated by re-creating these prairie plant communities throughout the city. Underutilized areas of parkland, those that are routinely mowed but have minimal to no active recreation on them, represent ideal locations for developing these communities.

All safety procedures for public right of way, limited sight areas, pest, and wildfire mitigation still apply. Peak blooming periods are usually from mid-April, early summer and end in late fall, although exact time is difficult to predict due to many environmental factors, including but not limited to site conditions and weather.

ANNUALS: Since many of these wildflowers are annuals, this means they will need to go to seed in order to come back in the next year. Strategic control of the method and timing of mowing will allow natural regeneration of native seed banks.

PERENNIALS: These species are highly valued and return each year from expanded clumps. Starting from seed most perennials do not bloom until they have lived through at least one growing seasons and a winter. During the first year they develop small top growth, while developing deep root systems. This growing process allows the plant to survive its first winter and then enables natural development of the plant in the second season.

B. SCOPE: Any Parks and Recreation Department employee responsible for performing tasks, functions or activities associated with this standard operating procedure shall also follow Standard Operating Procedure for Mowing. These procedures apply only to pre-approved designated "Pollinator Habitat Management" areas. **A GIS inventory of all wildflower beds, areas, buffer strips and meadows shall be documented.**

PROCEDURE:

In order to achieve healthy biologically diverse native wildflower communities it is important to maintain the following conditions with regard to mowing:

1. **Soil and vegetation enhancement practices:** Reduced mowing and soil carbon amendments will result in an increase in plant rooting depth and enhanced storm water filtration and infiltration. The enhanced performance of large areas of open space in parks will improve water quality and reduce runoff and erosion at a watershed scale, resulting in more functional green space in the city and healthier watersheds.

    a. Areas designated as pollinator habitat should receive a one-time application of mature hardwood mulch (within CWQZ/floodplain) or compost (outside CWQZ/floodplain) early in the fall.
    b. Native wildflower and grass seed should be applied with a no-till seed drill at least one week after mulch/compost application but no later than mid fall. Seed mixes can include a diverse array of wildflowers that provide benefit to both adult and larval stage of pollinators, including a source of nectar to different species of bees, butterflies and hummingbirds

2. **Timing and Seed Development:** Wildflowers emerge at certain times of the year and bloom months later. At this stage seeds develop mature seed heads or pods and start to dry, turning beige, brown and yellow. It is now an appropriate time to mow to allow the plant to spread its seed bank for the next year. Field review and follow-up correspondence from appropriate staff should be involved before mowing commences.

    a. Bloom cycle occurs – variable
        i. Two or more bloom cycles may occur depending on habitat composition and plant communities. **No mowing** during bloom cycle allowed.
        ii. Exceptions permitted for wildfire risk areas as determined by Austin Fire Department or Department Director
    b. Seed development stage occurs - variable
        i. Mowing allowed. Mowing ground crew leaders or district managers consult Lady Bird Johnson Wildflower Center expert for advice about when to mow each year.
        ii. Mowing setbacks and heights: In order to provide an element of safety and the appearance of active management/ maintenance it is important to mow a “border strip” approximately 72 inch wide path along the perimeter of the Pollinator Habitat Management Area. This practice will apply to areas adjacent to sidewalks, street right of way (ROW) and designated trails, when appropriate.
        iii. Mowing heights should be set to minimize scarring of new wildflower growth and to protect emerging rosettes of wildflowers such as our state flower the Texas bluebonnet. Scarring attracts disturbance weed species and non-native species.
        iv. Pollinator Habitat Management boundaries will be predetermined by District managers, marked with Grow Zone signage and easily identified by mowing crews.
    c. Post mowing

i. After seed heads have matured and mowing has occurred, leave plant material onsite for seed bank regeneration and mulch.

3. Erosion control: In order to minimize and or reduce scarring of natural slopes, drainage swales and designated stream corridors mowing equipment shall be restricted.
    a. Steep slopes with an aspect of 21% (2 ½ inch rise per 12 inch run) or more will not be disturbed by equipment.
    b. Drainage swales shall be left undisturbed in order to preserve their functional values of infiltration, erosion control and capture of sediment. It may be necessary to temporarily fence off or sign areas in order to protect the area.
4. **Invasive non-native species:** Careful removal of non-native invasive species should be done by trained staff and or approved volunteer groups. This can be done by hand or by hand pulling, cutting of individual species. For more resistant species herbicide may be required and must be done by a licensed applicator under the supervision of the specific district. (See IPM plan)
5. **Signage:** Successful awareness of Grow Zone: Pollinator Habitat Management Areas requires public education. Simple signage and that identifies a site as a "Wildflower Area" can be installed with Pollinator Habitat Management signs.

D. SAFETY PERSONAL PROTECTION EQUIPMENT:

Gloves, eye protection, vests, steel toed boots, etc. per existing mowing SOP.

E. ATTACHMENTS: NA. Sites already designated as pollinator habitat management areas