



Green Initiatives for Park Landscape Maintenance & Operations

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Purpose



To provide an update to the Environment and Sustainability Committee on green and innovative management practices adopted by Park Maintenance and Operations to sustainably maintain Dallas parks.





- Notable Green Initiatives
- Integrated Pest Management (IPM)
- IPM in Action
- New Standards for Glyphosate:
One of the World's Most Common Herbicides



Low Emission Initiatives



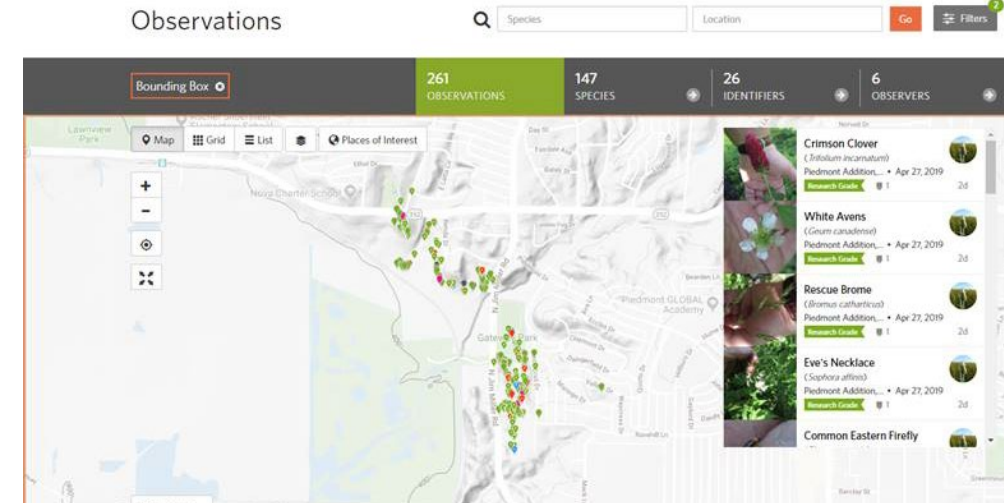
- Green Team Pilot Program
- Robotic Field Marker
- Robotic Mowers



Green Programming



- Adopt-a-Prairie
- Bioblitz!
- Branching Out
- Eco Warriors



Bird City Texas



- Designation created by TPWD/Audubon to promote bird conservation practices in Texas
- PKR enacting habitat improvements, protections and outreach related to birds
- Dallas one of the inaugural “Bird City Texas” designees recognized



Integrated Pest Management



- The Park and Recreation Department has an active Integrated Pest Management (IPM) Program that has been in place since 2008
- Minimize risk to human health and environment by reducing use of pesticides in park and recreation facilities
- Manage pests at acceptable levels rather than complete pest elimination



Integrated Pest Management



- IPM implementation practices include:
 - Monitoring **threshold** levels
 - Preventative means
 - Cultural controls (water, pest-resistance, mowing)
 - Biological controls
 - Chemical controls
 - Evaluating existing conditions prior to action to find most conservative of measure *if* action is required



IPM In Action: Trained Staff



- Staff are certified pesticide applicators, licensed by the Texas Department of Agriculture who recertify annually by taking 5 required courses for continuing education units (CEUs)
- Required knowledge and skills: regulations, plant and insect biology, safety requirements, mixing calculations and Integrated Pest Management (IPM) principles



- **PKR Turf Management Program:** Uses pre-emergent herbicides and mechanical aeration to reduce weed pressure in parks, therefore reducing the use of post-emergent herbicides.



- **PKR GPS Enabled Sprayers on Golf Courses –**
Sprayers have GPS units and golf courses are mapped using GPS mapping software.
 - Reduces pesticide, herbicide and fertilizer amounts as it only sprays the targeted area
 - Prevents overapplication of chemicals that might damage turf or soil since computer does not allow reapplication on crossover areas



- Treecycling Program
 - Projected to begin Phase I of program in Spring 2021
 - Recycles forestry byproducts to be used in parks as compost or mulch and diverts from landfill



PKR Organic Pilot Program: 3-year research pilot at Celebration of Life Park in downtown for full organic program

- Pilot concluded in 2019 and research helped determine costs of organic alternatives and which products were most effective.

Organic Playgrounds: Pest management in playground areas is now **fully organic**



IPM in Action: Glyphosate-Free Pilot



- Park Maintenance District 4 researched/used glyphosate alternatives in parks From March 2019 to June 2020
- PKR used research results to update approved treatments for new best practice strategies and opportunities
- Glyphosate alternatives added to new Master Agreement solicitation list



IPM in Action: Glyphosate Alternatives



- Cost of Glyphosate alternatives substantially higher than Glyphosate
- Enhancement bid for organics and alternative pesticides recently approved to offset increases enabling PKR to reduce glyphosate, neonicotinoids and other synthetic chemicals
 - \$509,847 allocated in FY 20/21

Product	Chemical	Cost
Ranger Pro Herbicide 2.5 gal	Glyphosate	\$45.00
Interline 2.5 gal	Glyphosate alternative	\$99.99
Cheetah Pro 2.5 gal	Glyphosate alternative	\$194.99



New Standards for Glyphosate in Parks



- PKR has used research from pilot programs to use glyphosate alternatives and organic products in parks as well as measure effectiveness
- This research has allowed the Department to extremely limit the use of glyphosate

Glyphosate Usage		
Approved Location for Use	Former Application	Current Application
Athletic Fields	X	
Emerging Aquatic Vegetation	X	
Expansion Joints	X	
General Turf Areas	X	
Golf Courses	X	X
Gravel Areas	X	
Invasives in Non-programmed Areas	X	X
Liquid Edging	X	
Major Grounds Renovation Projects	X	X
Ornamental Beds	X	
Playground Surfacing	X	
Rec Center Areas	X	



Next Steps



- Monitor Green Initiative Programs and analyze data annually
- Request recommendation for new pesticide / herbicide contract to be placed on Council Agenda





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