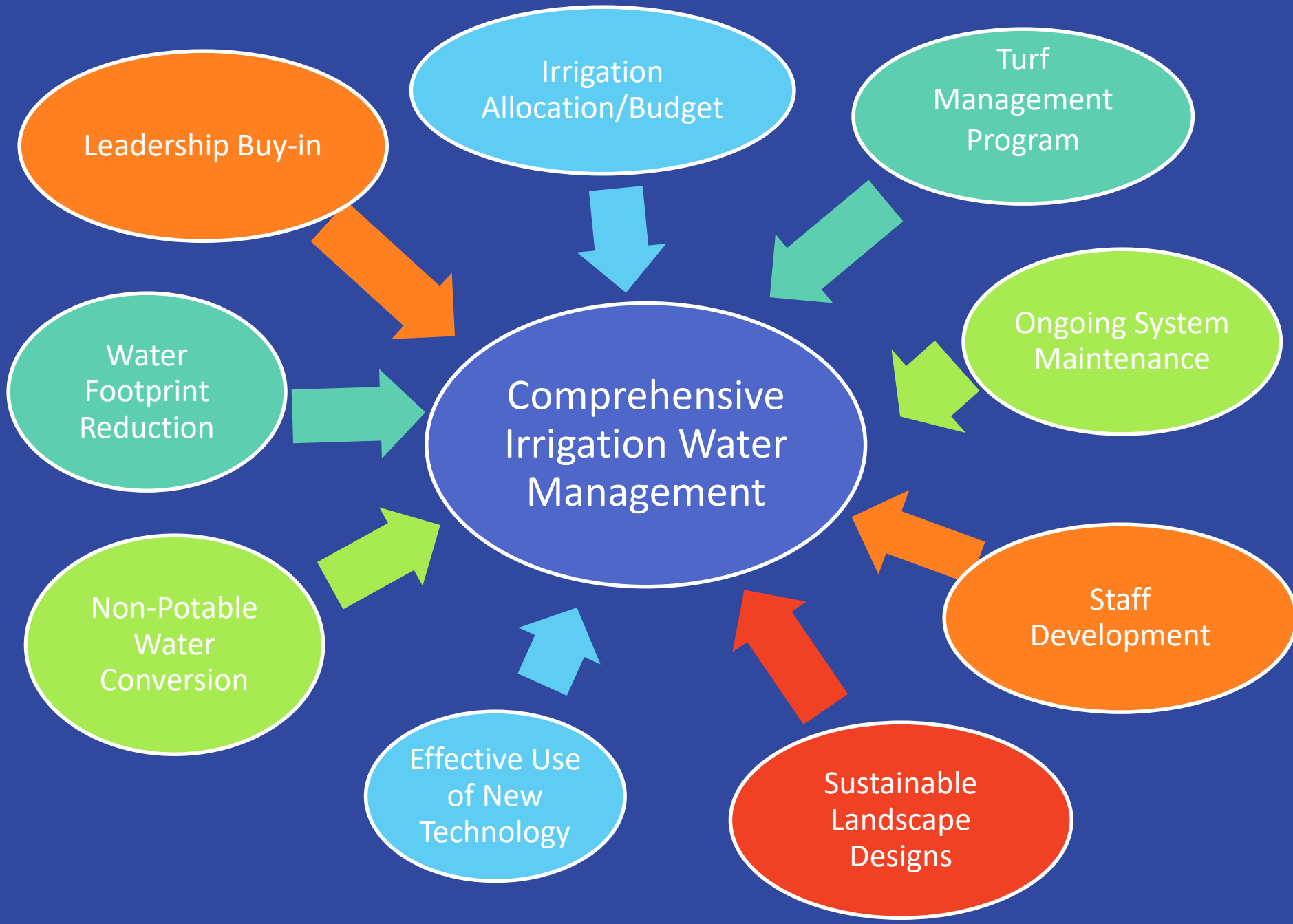
Parks, Recreation and Cultural Services Department Water Conservation Program

COLORADO SPRINGS
OLYMPIC CITY USA


Leadership Buy-in
Irrigation Allocation/Budget
Turf Management Program
Water Footprint Reduction
Comprehensive Irrigation Water Management
Ongoing System Maintenance
Non-Potable Water Conversion
Staff Development
Effective Use of New Technology
Sustainable Landscape Designs

Bluegrass Conversion Process

- Identifying area for conversion
- Evaluate site conditions
- Grass selection
- Conversion method
- Establishment
  - Irrigation
  - Mowing
  - Weed control
- Long-term maintenance
- Cost benefit

Irrigation modification at Ford Frick Park

Conversion Method

- Initiate conversion when vegetation is actively growing; May 1 – September 1
- Thoroughly treat conversion area with non-selective herbicide
- Repeat with second application in 2 weeks
- Mow area as short as possible
- Flag irrigation heads, valve boxes, etc.
- Core aerator in several different directions

Conversion Method

- Drill seed different directions when possible
- Drag entire area thoroughly
- Apply hydromulch and erosion control fabrics as needed
- Organic fertilizer: .75lb N/1000
- Irrigate

Hand sewing native grass seed can be an effective means to seeding challenging sites

Seeding


Keller aeration


Wasson seed 7/12/13


Keller seeded 7/19/13

Drill seeded 2x at 10” spacing


Area dragged after seeding


Barnes median seeded 8/6/13


Briargate seeded 8/9/13

Hand seeded, raked and rolled

Memorial Park September 6th, 2015

Ford Frick Park

Keller Park

July 2013

April 2014

August 2014

Shooks Run Park 2018

Barnes Median

Austin Bluffs Right of way

Conversion Costs

2022 Turf to Native Conversion Costs -2.5 Acres Cool-Season Native					
Item	**Unit**	**Unit Cost**	**Units Needed/Acre**	**Per Acre Cost**	**Total Cost**
Non-Selective Herbicide Application	acre	$110	2	$220	$550
Aeration	acre	$115	3	$345	$863
Power Rake	day	$88	1	$88	$88
Fertilizer	bag	$6.67	16	$107	$267
Seed 70/30 - 3#/1000	#	$4.50	131	$590	$1,474
Seeding Services	acre	$306	1	$306	$765
Post Emergent Herbicide	acre	$220	1	$220	$550
Additional Labor	hour	$24	16	$384	$960
Irrigation Retrofit	acre	$3,000	1	$3,000	$7,500
			Total Cost	**$5,260**	**$13,017**
			Cool-Season Rebate $.09/sq.ft	**$3,920**	**$9,801**
			Net Cost After Rebate	**$1,340**	**$3,216**

ROI – Prairie Native

2022 Turf to Native ROI-2.5 Acres Prairie Native (mix of cool/warm season)	
Conversion Cost	$13,016
Annual Savings From Kentucky Bluegrass	$11,307
Project Payback (Years)	1.15 years

2022 Turf to Native ROI-2.5 Acres Prairie Native with CSU Rebate	
Conversion Cost	$13,016
Less CSU Rebate ($.18/sq. ft.)	$19,602
Net Cost	$0
Annual Savings From Kentucky Bluegrass	$11,307
Project Payback (Years)	Savings $11,307

Maintenance Savings

Keller Park Maintenance Costs (7.5 acres)					
2013-2019 Prairie Annual Native Maintenance Costs	**Cost per acre**	**Overall cost**	**2013-2016 Kentucky Bluegrass Annual Maintenance Costs**	**Cost per acre**	**Overall cost**
Mowed 3x season	$150	$3,375	32 mowing's (May – October)	$200	$48,000
Herbicide (2 applications)	$150	$2,250	Herbicide (2 applications)	$150	$2,250
Fertilizer (not needed)	-	-	Fertilizer (2x/yr)	$70	$1,050
Overseeding (not needed)	-	-	Overseeding (1x/yr)	-	-
Aeration (not needed)	-	-	Aeration (1x/yr)	$110	$825
Irrigation - 12 Inches	.0676	$22,085	Irrigation - 24 Inches	.0676	$44,170
	Total	$27,710		Total	$96,295
Cost per acre		$3,695	Cost per acre		$12,840

Annual Cost Benefit

Keller Park Cost Benefit Analysis (7.5 acres)	
Annual Water Savings (CF)	326,700
Annual Savings Average (Maintenance & water)	$68,585
Renovation Cost	$17,848
Project Payback (Years)	0.26
Yearly Savings Per Acre	$9,144

Projects Sites and Acreage

Native Grass Type	Project Sites	Acreage
Warm/Cool Season Native Mix (Prairie Native)	8	28
Cool Season Native (Wheatgrass Mix)	39	53
Total	**47**	**81**

Centennial Medians Native

Wildflower Park Native

Questions?

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