

# **Operations, Maintenance and Stewardship Services Proposal**

**(Parker Jordan / City of Centennial Open Space)**



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November 2014

## **Introduction**

The Parker Jordan Centennial Open Space (PJCOS) is comprised of 107 acres of natural area along Cherry Creek within the City of Centennial (City). The property was purchased by the Parker Jordan Metro District (District) in September 2009. The site provides one of the last missing pieces of permanent regional trail in a 40-mile stretch of the Cherry Creek Regional Trail from Confluence Park in lower downtown Denver to Castlewood Canyon State Park in Douglas County. On October 15, 2010 the City became partners with the District by buying into one-half ownership of the 107 acres. This created the new name for the property now known as the Parker Jordan Centennial Open Space or PJCOS.

The District and the City have been relying on private contract services to manage and maintain the open space and its associated amenities. Arapahoe County Open Spaces (ACOS) manages the Cherry Creek Valley Ecological Park to the north and the 17 Mile House Open Space to the south of the PJCOS. The District, the City and the County have historically discussed a consolidated management approach for the open spaces within the Cherry Creek corridor from the Douglas County line to Arapahoe Rd. This proposal seeks to formalize and test this concept by placing the PJCOS under the management of the ACOS Operations Division through an Intergovernmental Agreement for the 2015 fiscal year. The goal of this partnership is to provide the citizens of Arapahoe County a consistently managed trail and open space corridor while providing a cost savings to the District, City and its residents.

## **Site Inventory and Existing Conditions**

The PJCOS is comprised of 107 acres of natural area, the stream channel of Cherry Creek, both hard and soft surface trails and numerous site amenities. The PJCOS has been managed through private contract services since its grand opening in 2012. The contractor maintained the irrigation systems, newly planted trees, trail system, signage and other site amenities. The ACOS Operations Manager and his operations staff completed a site inventory of the property in November of 2014. The site visit and inventory allowed ACOS staff to develop recommendations and cost estimates for managing the property in the 2015. *Figure 1* below describes the property's current assets and associated amenities:

Figure 1

### PJCOS Site Inventory Summary

**Total Acreage:** 107 acres

**Front Country Acreage:** 14.5\*

\* See map in APPENDIX B

**Back County Acreage:** 93.5\*

Amenity Description	Quantity	Notes
Directional / Informational Signage	13	Wire mesh / log frame or post
Log Post Signage	12	8 site name, 4 mile markers
General Regs Signage	19	DOL, restoration, carved rocks
Exercise Stations	3	Energi World Systems
Social / Picnic Areas	4	Log / stone mix
Benches	12	Combo log / stone, log only
Trash Cans	12	Green and cedar round
Dog Waste Stations	4	Signage and dog waste bags
Irrigation System	13 valves	Includes approx. 1,387 ft irr. lines
Irrigated Trees (deciduous)	101	7 are currently dead
Riparian Tree (planted Cottonwoods)	~ 234	46 are currently dead / dying
Hard Surface Trail (Concrete)	5344 ft	All hard surfaces, 10 ft wide trail
Soft Surface Trail (Crusher Fines)	11,066 ft	Includes secondary adjacent trail
Kiosk / Shelter	1	Includes electronic interp. display

ACOS staff surveyed the PJCOS to identify maintenance backlogs, noxious weed infestations and the general site conditions that would need attention during the County's first year of managing the PJCOS. The following is a list of the survey's general findings:

1. The trailhead and interpretive kiosk were in good condition. All wood / log elements need to be stained and sealed on an annual basis.
2. The concrete trail system of the PJCOS is in excellent and safe condition with minimal cracks or heaving. Future trail safety monitoring of trail will be needed.
3. The soft surface trails were level with minimal erosion or braiding. The secondary trail adjacent to the Cherry Creek Regional Trail appears to have been receiving a higher level of maintenance as compared to the soft surface trails on the west side of the creek.

4. A few potential hazard trees and site line issues were noted on the soft surface trail west of the creek.
5. The north end of the PJCOS has a significant amount of down woody debris. ACOS recommends removing a percentage of this material to reduce potential drainage and wild land fire issues while maintaining key wildlife habitat.
6. The log benches in the social areas and along the trails need to be stained and water proofed on a shorter interval.
7. The 27 acre parcel on the west side of the PJCOS shows the most significant areas of noxious weed infestations. Species identified within the area included: scotch thistle, toad flax and leafy spurge. ACOS recommends a site wide GIS based map of the current baseline be completed to support future weed management efforts and monitoring.
8. The Oxbow Amphitheater and Sand Point need additional vegetation management practices to ensure visitors can fully access and utilize these social areas.
9. ACOS was not able to verify the functionality of the irrigation system on the west boundary of the PJCOS due to the system being winterized.

ACOS documented the site inventory and existing conditions with digital photos that can be referenced in the future as a 2014 baseline survey (See APPENDIX C for a select few photos). These photos are archived on the ACOS server for documentation and future reference.

### **Operations and Management Practices**

As noted earlier in this document Arapahoe County Open Spaces (ACOS) maintains both the property to the north and south of the PJCOS. The ACOS operations staff and their contract service partners (see organizational chart in APPENDIX D) will integrate the PJCOS into their management program for the Cherry Creek open space corridor. The ACOS Operations staff manages with a holistic approach by maintaining the man-made amenities, effectively operating the trail system and stewarding the natural areas and adjacent creek. The ACOS Operations staff utilize a “zoning” approach to managing open spaces (refer to map in APPENDIX B). The 14.5 acres of “front country” area will be managed on a weekly basis throughout the year. The 93.5 acres of “back country” area will receive strategic management based on site conditions and seasonal needs. This approach to managing the open space will reduce operations and maintenance expenses, focus active management in areas under active use and allow staff to manage the property based on land management zoning. The following is the proposed Scope of Work for the management of the PJCOS:

#### Initial Operations and Management (January – March 2015)

1. Establish base knowledge of site amenities, kiosk operation and irrigation system components. Install trail counting system along regional trail.
2. Evaluate trail system for repairs and hazard tree removals.
3. Identify site amenity and signage maintenance needs for spring improvements.
4. Develop a plan for woody debris removal and fire mitigation with permitting approvals.



PJCOS Weed Management and Restoration Scope of Work (2015 Annual Plan)

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
<b>Integrated Weed Mang. &amp; Restoration</b>												
Noxious Weed Field Monitoring												
GPS Mapping of Infestations												
Large Area Boom Applications												
UTV Small Areas Applications												
Backpack Backcountry Area Applications												
Soft Surface Trail Pre-Emergent Applications												
Soft Surface Trail Backpack Applications												
Riparian Area Weed Management												
Mechanical Weed Management												
Erosion Control and Reclamation												
Restoration and Native Area Seeding												

**Operations and Management Cost Analysis**

Managing the PJCOS will be a new endeavor for ACOS Operations staff. The cost estimate tables below are primarily based on data from the historic contract services provider and their particular service levels provided to the District. The ACOS staff is proposing additional management and stewardship services that the District has not received as part of their former contracts while reducing the overall cost of managing the PJCOS. Examples would include GIS/GPS mapping of noxious weed populations, trail counting services, mosquito control services, wildlife management services and expanded site amenity maintenance. The ACOS Operations Manager can refine the cost analysis and estimates if the proposed level of service required is amended by the PJMD Board. The ACOS Operations Manager would document staff time and all costs associated with the management of the PJCOS within the first year of this partnership. This first year data would allow for the realization of additional efficiencies and cost saving if the ACOS staff continued to manage the PJCOS beyond 2015. Comparing the cost proposal below with management costs of the adjacent County managed Cherry Creek Valley Ecological Park also supports the concept that the County can manage the PJOC on a more cost

effectively basis than a private contractor. The total estimated cost for the County to manage the PJCOS in 2015 is \$32,246. The proposed Scope of Work and the associated cost estimate does not include: capital improvements, repairs from natural storm / disaster events, emergency management, utility maintenance, environmental compliance management or large infrastructure repairs.

2015 PJCOS Operations and Maintenance Program and Cost Estimates

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Service Interval	Unit Cost	Cost/Year
<b>Operation / Management / Stewardship Action</b>															
Weekly Site and Safety Inspections													52	\$22	\$1,144
Weekly Trash / Dog Waste Collection													See above	See above	See above
Trail Shoulder Mowing													14	\$308	\$4,312
Hard Surface Trail Sweeping													3	\$44	\$132
Soft Surface Trail Maintenance													12	\$66	\$792
Irrigation System Operation and Management													14	\$132	\$924
Tree & Shrub Health Care													10	\$176	\$1,760
Signage & Site Amenity Maintenance													17	\$66	\$1,122
Picnic and Social Area Maintenance													12	\$110	\$1,320
Outdoor Exercise Equipment Maintenance													6	\$88	\$528
Drainage / Bridge Underpass Debris Cleaning													5	\$88	\$440
Mosquito Monitoring & Control													n/a	n/a	\$700
Wildlife Management													n/a	n/a	\$500
Hard Surface Trail Snow Removal / Ice Removal													21	\$100	\$2,100
														<b>TOTAL</b>	<b>\$15,774</b>

2015 PJCOS Integrated Weed Management & Restoration Program and Cost Estimates

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Service Interval	Unit Cost	Cost/Year
<b>Integrated Weed Mang. &amp; Restoration</b>															
Noxious Weed Field Monitoring													4	\$176	\$704
GPS Mapping of Infestations													5	\$176	\$880
Large Area Boom Applications													4	\$604	\$2,416
UTV Small Areas Applications													7	\$280	\$1,960
Backpack Backcountry Area Applications													7	\$360	\$2,520
Soft Surface Trail Pre-Emergent Applications													4	\$176	\$704
Soft Surface Trail Backpack Applications													8	\$88	\$704
Riparian Area Weed Management													3	\$176	\$528
Mechanical Weed Management													6	\$176	\$1,056
Erosion Control and Reclamation													n/a	n/a	\$1,500
Restoration and Native Area Seeding													n/a	n/a	\$2,500
Chemical Costs (ACOS Applications)													n/a	n/a	\$1,000
													<b>TOTAL</b>		<b>\$16,472</b>

**Notes:**

- The 2015 PJCOS Operations and Maintenance Program and Cost Estimates table above is based on ACOS staffing costs for field staff at a rate of \$22/hour.
- The 2015 PJCOS Integrated Weed Management & Restoration Program and Cost Estimates table above is based on both Weed Wrangler contract pricing (hourly cost varies by service type) and ACOS staffing costs. The cost to the District is dependent on whether the service is performed in house by ACOS staff or subcontracted out to Weed Wranglers.

## Partnership Process

The ACOS Operations staff recommends the following process to establish a successful interagency partnership in managing the PJCOS:

1. ACOS and PJMD Board review partnership proposal, finalize scope of work and establish first year goals (December, 2014)
2. Present partnership project to Arapahoe County Board of County Commissioners. (December, 2014)
3. Establish IGA governing the partnership and its financial obligations. (Late December, 2014)
4. Establish communication and reporting protocols. Build supporting forms and tracking documents for use during initial year of partnership. (Early January, 2015)
5. Initiate early season management and maintenance of PJCOS. (January through March, 2015)
6. ACOS Operations Manager and Supervisor present objectives of first year of operations, maintenance and stewardship of the PJCOS at the February 2015 PJMD Board meeting.
7. Initiate core operations, maintenance and stewardship activities. GPS mapping of site and resources (April through November, 2015)
8. ACOS Operations Manager or Supervisor to provide PJMD with monthly PJCOS management reports and cost invoices. Attend Board meetings when necessary. (Fiscal year 2015)
9. Review 2015 accomplishments and functionality of partnership. Draft recommendations for 2016 partnership. (October 2015)
10. Renew IGA and establish goals and improvements for 2016. (November / December 2015)

**APPENDIX A:**

**Parker Jordan Centennial Open Space:**



**APPENDIX B:**

**Parker Jordan Centennial Open Space Management Zones:**



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**APPENDIX C:**

**Existing Conditions Photos:**



Photo 1: Main Entry Sign (North end)



Photo 2: Main Kiosk (North end)



Photo 3: Soft surface trail with potential hazard tree (West side of Cherry Creek)



Photo 4: Open space looking south with significant woody debris



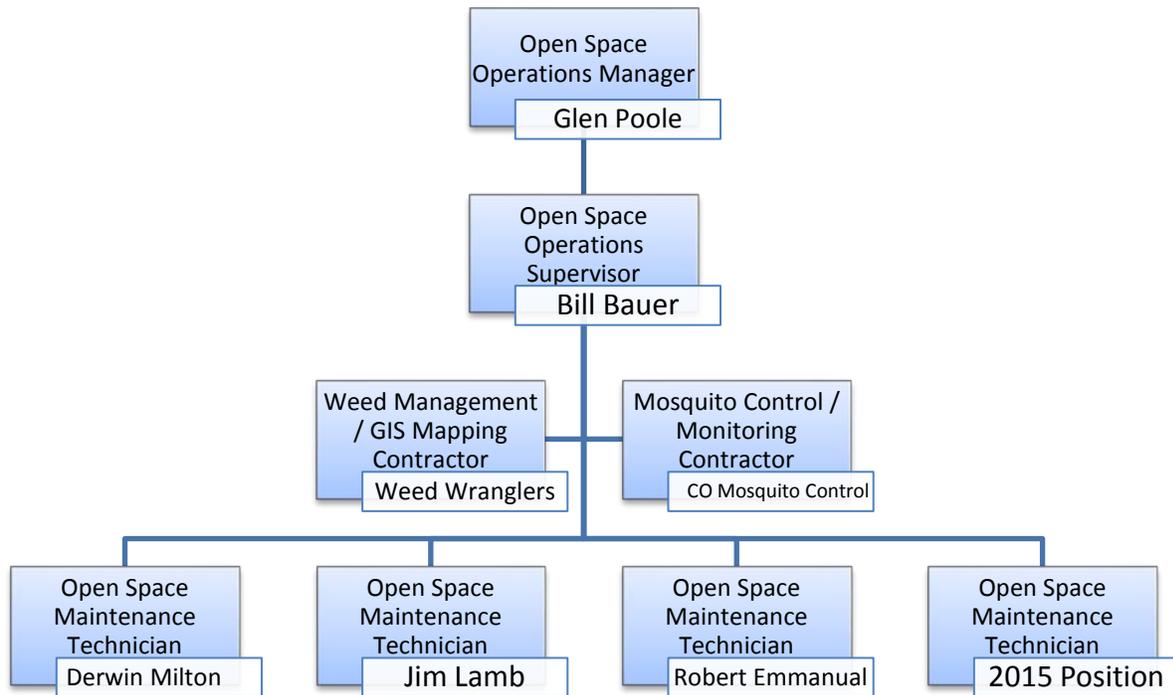
Photo 5: Concrete trail with encroaching vegetation (northern trail segment)



Photo 6: Social area adjacent to Cherry Creek with encroaching vegetation

**APPENDIX D:**

**ACOS Operations Staffing and Contract Resources:**



**Note:**

Arapahoe County Open Spaces has additional contract service relationships with numerous service providers not listed above that would augment Arapahoe County Open Spaces ability to cost effectively manage all aspects of the PJCOS. Examples include: wildlife mitigation services, special event supply services, and arboricultural services.