## Four Mile Run Park




## Background

Four Mile Run Park (51.56 acres) has all the major components of an urban oasis: ballfields, soccer fields, multi-purpose courts, public plaza, and, its swamp forest and self-sustaining freshwater tidal marsh. The Park is located in a very diverse and active community in Alexandria's Arlandria neighborhood. Local residents play lively soccer matches on the multi-purpose courts while bird watchers quietly observe the diverse habitat. The heavily used bike trail connects to regional destinations and, therefore, cyclists and other visitors travel through the Park. Yet, the Park does not have the facilities or landscape to support and sustain its desired uses and upkeep.

Both natural and man made interventions have led to the Park's current conditions. Native Americans once inhabited the Park and later, during the Civil War, the Southwest portion of the park was used as campground for the 1st and 2nd Ohio militias and the 1st and 3rd New Jersey Militias. Tax records indicate the possible presence of a cemetery in the northwest section of the Park. By the early 20th century urban development began to surround the park, spurred by the transportation opportunities along the stream and the nearby railway. By the mid-20th century, there were several instances where Four Mile Run Stream flooded the Park and its surrounding neighborhoods. As a result, the Army Corps of Engineers channelized the stream, addressing the flooding issues, but creating hard, inaccessible boundaries between the water and land and reducing the ecological resources in the stream and along the banks.

Since then, the tidal marsh has been impassible, especially at high tide, and the outgrowths of invasive plants threaten the Park's natural resources and deny visitors opportunities for environmental education. This valuable natural resource has been neglected, leading to difficulty in managing both illegal activity and prolific invasive flora and fauna. In 2006, Arlington County and the City of Alexandria adopted the Four Mile Run Restoration Master Plan with the support of the U.S. Environmental Protection Agency. The Plan provides the framework for the restoration of 2.3 miles of highly degraded stream within the hardened flood control channel, including the section of the Stream that borders the Park from Mt. Vernon Avenue to U.S. Route One. The Four Mile Run Tidal Restoration Demonstration Project is currently (2013) in the design phase. The project aims to restore the banks of the Four Mile Run shoreline and wetlands along Four Mile Run from Mt. Vernon Avenue to Route One. The scope of work includes naturalization of the corridor, such as removal and management of invasive species and re-introduction of herbaceous plantings, a sediment transition/ capture area to minimize the amount of sediment that flows into the tidal section of Four Mile Run, and reestablishment of wetlands in Four Mile Run Park. The City of Alexandria and Arlington County anticipate the construction to begin September 2014 and conclude September 2015.

Ernesto's Four Mile


Ernesto Martinez has been a resident of the Arlandria neighborhood in Alexandria, for eight years. He loves walking the trails and playing soccer at Four Mile Run Park, where he walks to and from his home at the Arlandria Chirilagua Housing Cooperative south of the Park. Ernesto hopes that with future improvements, Four Mile Run Park will become an even better place for playing recreational soccer, spending time with friends, or simply enjoying the area's natural beauty.

Along the edge of the forested area is one of the Park's dominant features, its pedestrian and cyclist trail. This trail is a local and regional route. However, due to its lack of clear signage and bike racks, the trail functions as a connection through the park and not a path welcoming people to stay and enjoy the many features within it. Moreover, the trail system through the park is not connected with other activity centers, such as the Cora Kelly Recreation Center. The path through the Park's natural area is not marked and does not connect through the wetlands, making the Park's natural resources difficult to explore.

Within the Park, Four Mile has facilities for visitors to engage in a number of sporting activities including basketball courts (mainly used for futsal) and baseball, softball, and soccer fields. Sporting teams, including the collegiate baseball team, the Alexandria Aces, place a high demand on most of these facilities, especially the soccer field and Frank Mann Baseball Field, each of which are in need of re-grading and drainage improvements. While, the majority of park users bike or walk to the Park, it is a destination for sports field users who drive and carry athletic equipment to use the fields. The current parking lots are insufficient in capacity, despite efforts to encourage multi-modal methods of transportation, such as buses and carpooling.

While the sports facilities are heavily used, the passive areas and landscape are largely neglected. The off-leash and unfenced dog area is only occasionally used for dogs, and is more often a space to play soccer. Four Mile also lacks park furniture to accommodate spectators watching the sports games or for park users. For example, there is only one picnic table in the Park. Moreover, the playground is outdated and under used. As parents and neighbors partaking in this planning process pointed out, many people consider the playground unsafe in its current location because trees hide it from view and it is isolated from other park activities.

The Cora Kelly School and Recreation Center are located along the southeast corner of the Park. The Center is a hub of community activity, including after school programs, fitness classes and events. Its situation within a residential neighborhood and the edge of a park full of sports fields and nature education opportunities seems ideal. Yet, the entrance to the building is on Commonwealth

Avenue, away from the Park and there is no pathway or connection from the building to the Park. Recreation leaders bring classes along Commonwealth Avenue and through a parking lot, despite there being wetlands and open space to see just behind the Center.

On the west/northwest end of the Park, the Conservatory building at 4109 Mount Vernon Avenue is drawing more activity to the area. The City acquired the open space properties at 4109-4125 Mount Vernon Avenue, including the former Duron Paint store building, in January 2007 through the City's Open Space Program. In June 2010, the City Council approved a Special Use Permit to convert the old paint store into a community building for public use, as guided by the Four Mile Run Restoration Plan. City Council dedicated the building at a grand opening ceremony held on May 15, 2012. As of now (Fall 2013), the building does not have a heating, ventilation, and air conditioning (HVAC) system and is predominantly used for seasonal activities such as the increasingly popular Four Mile Run Farmers' and Artisans' Market and community festivals. Playgroups and other community groups also regularly rent the building. The plaza area includes rain gardens with trees and shrubs, reducing the pollutants discharging into Four Mile Run. This area of the Park has proven to be a successful hub of renewed community involvement and activity, exemplifying the potential for other park improvements.


Flooding from Four Mile Run prior to channelization of the stream.


## Community Feedback

From September through early December 2012, RPCA solicited input on the existing conditions and possible future uses for Four Mile Run Park.

To gather information, RPCA held a public workshop to discuss park needs, distributed an online survey asking for feedback, and placed hard copy surveys in boxes located at entrances to the park, Cora Kelly Recreation Center and in the mailboxes of adjacentneighborhoodhomes. Staff also visited events, local businesses, and a playgroup in the Conservatory to hold "mobile workshops." The survey asked park users to identify their usual point of access into the park, the mode of transportation they use to get there, their typical park activities, what they like about the park, and what areas of the park need improvement. Survey participants also prioritized their improvement needs. See the appendix for detailed community feedback reports

RPCA received 91 completed surveys. Of those surveyed, 32 participants lived in the 22301 zip code and 28 lived in the adjacent zip code, 22305. Fewer than 10 participants lived in the lived in each of the other Alexandria zip codes and none lived in 22206. Seven participants lived in Arlington. The majority of those who visit do so weekly (42.9\%).

This is what we heard:
There is not a dominant mode of transportation to Four Mile Run Park. Park Users almost equally walk (30.8\%) as much as drive (29.7\%), while 39.6\% bike.

When looking at this information in combination with the question "What do you do in the Park," it is apparent that survey participants are using the Park's trails (30\% use the park for biking and $14 \%$ for walking), implying that the trail through the Park is one of the major Park resources. Other activities of significance include the visits to the Farmer's Market and general relaxation.

When asked, "What do you like about the Park," participants overwhelmingly identified the trail, reinforcing the Parks importance as a route for walkers and cyclists. Other replies, including "nature," "location," "openness and green space," recognize the Park's natural setting along the Four Mile Run Stream, a scarce resource in an urban setting.

There are some consistent themes throughout the three methods of community feedback. These include:

## Nature

The survey and workshop clearly indicated

What needs improvement in Four Mile Run Park?


The highest priority is shown as the largest circle; the lowest priority is the smallest circle. Priorities are based on the number of responses to needed improvements and then weighted by how participants prioritized their answers

## What do you like about the Park?



What do you do in the Park?

the Park's highest asset and priority for improvement are the Park's natural areas. The Park's features, such as the wetlands and stream, are rare in an urban environment and create bird habitats and unique ecological resources. Yet, the Park's current design and the growth of invasive species have masked these resources and opportunities for environmental education.

## Trails and Connections

One of the dominant uses of the Park is its pedestrian and bicyclist trail. As indicated in the survey and the workshop, the trail is a local and regional destination. However, the trail mainly serves as a connection through the park, rather than attracting people to stay in the Park. Trail amenities, such as bike racks and park activities, would allow people to not only pass through, but to visit. Additionally, more
trails through the wetlands and to the Cora Kelly Recreation Center would allow greater park usage and connections to nature.

## Security and Park Activities

The playgroup's major concern with using the Park is its security. This was also emphasized in the workshop and survey. Park activities, such as the playground, do not appear to be fully used because they are hidden from the street and isolated. As suggested in the workshop, one solution to enhance the Park's activities is to cluster uses near the park entrances. This would create a convergence for mixed age groups and programs, allowing more "eyes on the park" and the perception of active, safe spaces.

## Parking

The majority of Park visitors bike or walk to the

Park. However, there are many users that drive, particularly to use the athletic fields. It is likely that most sports players will continue to drive as they originate from all over the City to use the fields and often carrying athletic equipment. Appropriate parking accommodations must be met for sports field use, but while doing so natural areas will need to be preserved.

## Natural play spaces

The workshop participants indicated an interest in seeing more areas in the park for kids to play on informal park elements, such as boulders and climbing features. The survey also supports the need for a renovated playground with park furniture, while the playgroup hoped to see play features in more visible locations. All three of these interests may be incorporated near park entrances and other locations.

## The Plan

## KEYED LEGEND

1. RENOVATE PARKING LOTS \& ADD BIKE PARKING COMPLETE IMPLEMENTATION OF COMMUNITY BUILDING AND PARK EXPANSION
ADD WATER FOUNTAIN
ADD MOTION SENSOR AREA LIGHTING PER APD
IMPROVE FIELD CONDITIONS
RELOCATE \& FENCE DOG AREA
ADD 2-3 ADULT FITNESS STATIONS ALONG PATH RELOCATE \& CLUSTER PLAYGROUND, COURTS AND SEATING
ADD MILE MARKERS ALONG EXISTING PATH
2. ADD NEW HARD \& SOFT TRAILS
3. IMPROVE PERIMETER TREES TO CREATE "GREEN ALLEYS"
4. INSTALL NEW BRIDGES
5. CONSTRUCT STORMWATER MANAGEMENT ELEMENT WITH EDUCATIONAL FEATURES
6. ESTABLISH NEW COMMUNITY GARDEN
7. CREATE OPEN-USE FIELD WITH SEATING
8. AMEND TURNABOUT \& REESTABLISH GREEN SPACE WITH PICNIC AREA AND GRILLS
9. RESERVE AREA FOR POSSIBLE FUTURE RECYCLING CENTER
10. RENOVATE MUSTER ROOM AND ADD RESTROOMS
11. INCREASE CONNECTIVITY TO CORA KELLY FACILITIES
12. PEDESTRIANIZE INTERSECTION \& CONNECT TO 3550 COMMONWEALTH AVE PARK
FORMALIZE PARK ENTRANCE

## PER FMR

A. NATURALIZE STREAMBANK

RESTORATION
B. REMOVE FILL \& RESTORE WETLAND
c. INSTALL NEW BRIDGE


GRAPHIC KEY:

|  | SOFT TRAILSI BOARDWALK | PARK BOUNDS | ENTRANCE <br> PLAZAS | ATHLETIC FIELDS | STREAM BANK RESTORATION | TIDAL WETLANDS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## Recommendations \& Implementation Strategy



Drivers park haphazardly in the parking lot west of the soccer fields.


In 2007 the City acquired the properties at $4109-4125 \mathrm{Mt}$. Vernon Ave. A group of local architects donated their time to develop the plan for the site, shown above. In 2011 the City completed the first phase of work, including the building shell renovation, event space, and stage.

## Renovate parking lots \& add bike parking*

The parking lots will be able to accommodate more vehicles for sports field users once they are renovated and restriped. The renovated parking lots will reduce run-off by including porous pavement which is particularly important in such a highly sensitive environment. Additionally, installing bike racks will encourage visitors to bike to Four Mile Run Park.
ESTIMATED COST: \$690,000-\$832,000
PRIORITY: High
PROPOSED TIMEFRAME: 3-10 Years

## Complete implementation of the Four Mile Run Park Conservatory \& park expansion

The parkland along Mount Vernon Avenue will continue its transformation into a thriving community space. As previously planned, the Community Building needs a new HVAC system and roof repairs, connecting trail, natural play features, park furnishings and rain gardens added to the surrounding plaza area.

ESTIMATED COST: \$400,000 PRIORITY: High PROPOSED TIMEFRAME: 3-10 Years


## Add drinking fountains

A drinking fountain in this area will serve those using the Conservatory as well as general park visitors.
ESTIMATED COST: $\$ 5,000-\$ 10,000 \quad$ PRIORITY: Medium PROPOSED TIMEFRAME: 3-10 Years

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The Four Mile fields are amongst the best in the City, but need improved drainage systems. Field \#2 faces the wrong orientation for meeting standards.


The boundary of the existing dog area is defined by wooded bollards.


The 2013 Parks and Recreation Needs Assessment results showed a high need for fitness equipment, such as the chin up bars recently installed in Holmes Run, above.


The current playground is secluded in the Park.


## Improve field conditions

Frank Mann Field needs a new backstop, press box and foul ball fencing. Improvements to both Field \#2 and \#3's makeover will include a new backstop, soccer goals, benches, and irrigation. These investments will allow RPCA to maximize use of sports facilities at Four Run Mile Run while maintaining high quality standards over time. This plan recommends re-orienting the softball field (field \#2) to an optimal field alignment for sun and shade.

ESTIMATED COST: $\$ 1,252,585-\$ 1,601,020 \quad$ PRIORITY: Medium PROPOSED TIMEFRAME: 3-10 Years

## Relocate and fence dog area

People bring their dogs to the current dog area throughout the day even though it is unfenced and relatively small compared to others in the City. Moving the dog area and creating a boundary around it will help create an active hub in the center of the park. The new dog park will meet the City's fenced dog area standards.

ESTIMATED COST: $\$ 65,000-\$ 90,000 \quad$ PRIORITY: Medium PROPOSED TIMEFRAME: 1-3 Years

## Add 2-3 adult fitness stations along path

Many people walk, jog, or run through the Park as part of their exercise route. The new adult fitness stations would provide exercise opportunity for park users and give active passersbys a reason to spend more time in the Park. The 2013 Needs Assessment showed a strong desire for fitness stations.

ESTIMATED COST: $\$ 10,000-\$ 18,000 \quad$ PRIORITY: High PROPOSED TIMEFRAME: 1-3 Years

## Relocate and cluster playground, courts, and seating

Clustering the playground, courts, and seating will open up more contiguous open space in the center of the park and encourage interactions between people in different age and user groups. The activities will also be more visible from the proposed Mount Vernon Village Center, creating a safer activity space.

ESTIMATED COST: $\$ 170,000-\$ 210,000^{*} \quad$ PRIORITY: High PROPOSED TIMEFRAME: 1-3 Years
*The costs shown are only for the playground. The Mount Vernon Village Center Development will contribute funds for the sports court relocated.


Informal "desire lines" indicate where park users want pathways.


The southside of the Park abuts the alley of a residential neighborhood.


Currently, there is no pedestrian connection over the tidal marsh.

## Add wayfinding and mile markers along existing path

Many pedestrians, joggers, and runners use the path through the Park. Enhanced directional signage and mile markers will make the path a more enjoyable and safer route for people to take.
ESTIMATED COST: $\$ 5,000-\$ 10,000 \quad$ PRIORITY: High PROPOSED TIMEFRAME: 1-3 years

## Add new hard and soft trails

The informal desire paths at Four Mile demonstrate the need for a cohesive system of pathways throughout the Park. The paths have evolved over time as external and internal uses have changed. The lack of convenient paths linking different park facilities has caused park users to blaze their own. New hard and soft trails on the northern half of the Park will create additional routes for pedestrians to walk and increase access to park facilities.

ESTIMATED COST: $\$ 450,000-\$ 720,000 \quad$ PRIORITY: High PROPOSED TIMEFRAME: 3-10 Years

## Improve perimeter trees to create "Green Alleys"

"Green Alleys" will serve as a natural buffer between the Park and the adjacent neighborhood. They will create a comfortable sense of enclosure for people in the Park with sufficient openings for neighbors and park visitors to see in and out of the Park. The new trees will also contribute to the City's tree canopy. New trees would contribute to the goals of the Urban Forestry Master Plan.

ESTIMATED COST: $\$ 61,000-\$ 75,000 \quad$ PRIORITY: High PROPOSED TIMEFRAME: 3-10 Years

## Install new bridges

With new bridges installed, park users can take continuous routes throughout the Park. The bridges would be built to allow park users to cross natural habitat with minimal disturbance.

ESTIMATED COST: \$535,000-\$1,270,000 PRIORITY: High PROPOSED TIMEFRAME: 1-3 Years


Integrated stormwater management in Portland, OR.


Co-op garden at George Washington Middle School.


Open play often occurs in the dog area, as shown above.


The Commonwealth Ave. Park entrance lacks a welcoming entrance and the part of the street north of the entrance is currently unused.


The City has a standard recycling drop-off center, as shown above in Jones Point Park.


## Construct stormwater management element with educational features

The City is studying the feasibility of a stormwater treatment forebay at the existing outfall near the trail to help reduce the amount of trash, sediment and pollutants (phosphorous and nitrogen) discharging to the existing wetland. Since the area is adjacent to a park trail, the facility may be accompanied by educational signage explaining the stormwater benefits of the facility and the existing wetland area.

ACTION: T\&ES to complete engineering feasibility

## Establish new community garden

A new community garden will help address the City's need for gardening opportunities in the Arlandria community, as demonstrated in the 2013 Parks and Recreation Needs Assessment The garden will be a collaborative effort between the Park's neighboring residents and institutions, and will create a great space for bridging new relationships in the community. The garden will present an opportunity for children at the Cora Kelly School and Recreation Center to discover gardening and components of a healthy lifestyle.
ESTIMATED COST: $\$ 105,000-\$ 131,000 \quad$ PRIORITY: High PROPOSED TIMEFRAME: 3-10 Years

## Create open-use field with seating

The open play field will be a designated space within the park for people to engage in nonprogrammed active uses like pick-up soccer, touch football, or ultimate frisbee. The field will be graded at a modified elevation and lined with built-in terraced seating where people can congregate to watch others play.
ESTIMATED COST: $\$ 58,000-\$ 80,000 \quad$ PRIORITY: High PROPOSED TIMEFRAME: 3-10 Years

## Amend turnabout and reestablish green space with picnic furniture

In accordance with the goals of the City's Open Space Plan, this Plan proposes to move the Commonwealth Avenue turnabout to the entrance at the parking lot and convert the . 25 acres of this under used stretch of Commonwealth Avenue along the edge of Field \# 2 to a working open space. This space will have picnic tables to accommodate park gatherings and spectators from the games happening at Frank Mann Field and Field \#2. The new turnabout would serve as a formal entrance to the park.

ESTIMATED COST: $\$ 158,000-\$ 190,000 \quad$ PRIORITY: Medium PROPOSED TIMEFRAME: 3-10 Years


## Reserve area for possible future recycling center

As part of a recycling plan for the City, Transportation \& Environmental Services may use this location as a drop-off center for recycling with a collection box.

ESTIMATED COST: \$45,000 - \$50,000
PRIORITY: Medium
PROPOSED TIMEFRAME: 3-10 Years


The existing park staff room is an insufficient size and located between two restrooms.


The southwest corner of the park, the back of Cora Kelly Recreation Center, and 3550 Commonwealth Park are currently disconnected and lack formal entrances.


## Renovate muster room and add restrooms

Park staff is in great need of additional space to store equipment and adequate restrooms in order to best perform their task of maintaining Four Mile Run Park to the highest quality possible.

ESTIMATED COST: $\$ 200,000-\$ 400,000 \quad$ PRIORITY: High PROPOSED TIMEFRAME: 3-10 Years

## Increase connectivity to Cora Kelly facilities

The link to Cora Kelly Facilities is extremely important given that Four Mile offers an incredible space for children of all ages to play and learn. With a better connection to the Park, Cora Kelly will facilitate programs and events in Four Mile. It also will allow children more access to the abundant natural resources in the Park, including wetlands, and provide environmental education opportunities.

ESTIMATED COST: \$320,000 - \$525,000 PRIORITY: High
PROPOSED TIMEFRAME: 3-10 Years

## Pedestrianize intersection and connect to 3550 Commonwealth Park

The new pedestrian route connecting to 3550 Commonwealth Park is a practical means of creating an interconnected system of Parks and open spaces in Arlandria. ACTION: Underway through T\&ES

## Formalize park entrance

Currently, there is a lack of signage and prominent entrances publicizing the park and its many features. This new entrance plaza will welcome neighbors and Dale Street passersby to the Park.
ESTIMATED COST: $\$ 24,000-\$ 36,000 \quad$ PRIORITY: Medium


During the Four Mile Run flood control project of the 1970's, the Four Mile Run streambank and wetlands were inundated with construction fill and, subsequently, invasive species. The Four Mile Run Restoration Project aims to restore these sites as natural habitats for plants and wildlife within an urban setting.


In 2010, Arlington and Alexandria held a design competition for a pedestrian-cyclist bridge connecting the two jurisdictions. A design team lead by Buro Happold won the award and is now completing design sets for the bridge concept shown above.

## Naturalize Streambank Corridor

In order to naturalize the streambank, the City and Arlington County will remove the riprap, gabions, and invasive species along both sides of the streambank. Herbaceous plantings of appropriate native species, including low growing, low maintenance hearty naturalizing species will improve the habitat, increase stability and improve water quality throughout the corridor.
IMPLEMENTATION IS ALREADY UNDERWAY.
DESIGN COMPLETION: Spring 2014
CONSTRUCTION COMPLETION: Fall 2015

## Remove Fill and Restore Wetland

This project will remove, lower and terrace the riverside portion of Four Mile Run Park to establish and restore the historic wetlands prior to construction of the flood control project. This will create new emergent tidal wetlands with wetland plantings. The grading will remove the artificial fill and be designed flat to allow for a future boardwalk and trail.

IMPLEMENTATION IS ALREADY UNDERWAY.
DESIGN COMPLETION: Spring 2014

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\text { CONSTRUCTION COMPLETION: Fall } 2015
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## Install Pedestrian Cyclist Bridge

The project consists of a new pedestrian and cyclist bridge to be built over the existing Four Mile Run flood control channel between the borders of Alexandria and Arlington Counties. The design ideas for the bridge were first explored via a competition process organized by Arlington and Alexandria in 2010 and is currently in design. The bridge will connect existing bike paths near South Eads Street and Commonwealth Avenue. It is approximately 375 feet from one side of the channel to the other in this location.

DESIGN IS ALREADY UNDERWAY, FUNDED BY VDOT AND LOCAL MATCH.
ESTIMATED CONSTRUCTION COST:
$\$ 7,000,000-\$ 9,000,000 \quad$ PRIORITY: Medium PROPOSED TIMEFRAME: 3-10 years

## Overall Preliminary Cost Estimates

The estimated cost range (in 2013 dollars) shown on the right includes two scenarios: 1) If the recommendations were implemented independent of other projects and include associated soft costs (contingency, engineering, survey, geotechnical, environmental, permitting) and 2) a cost scenario in which all the recommendations are implemented together.
The priority for each recommendation is shown as "low, medium, or high." RPCA determined these rankings based upon three factors: 1) park user safety, 2) community prioritization feedback and the results of the 2011 and 2013 Parks and Recreation Needs Assessment, 3) life span of existing facility.

The proposed timeline for each recommendation considers the project priority, the project cost with relation to the Department budget and contingent upon the Capital Improvement Plan, and the construction sequencing of recommendation amongst other park projects.

Projects included as part of the Four Mile Run Restoration Project are already funded through local and federal State and Tribal Assistance Grant programs.



[^0]:    *In addition to bike parking at Four Mile Run Park, a new bike share station will be installed near the Park in conjunction with the upcoming Mount Vernon Village Center. Bike share will help create linkages between Four Mile Run Park and other area parks, making it easier for people to access Four Mile from different parts of the City

