

**PARKS AND RECREATION ADVISORY BOARD
AGENDA
March 15, 2017**

ADMINISTRATIVE ITEMS

- ADMIN-1 Advisory Board Member Introductions
ADMIN-2 Adoption of Minutes – February 15, 2017 Advisory Board Meeting

INFORMATION ITEMS

- I-1 2016 Integrated Pest Management Annual Report
I-2 Meadow Creek Valley Master Plan Implementation
I-3 Ragged Mountain Natural Area Process Update
I-4 Tonsler Park Master Plan Implementation Update
I-5 McIntire Park Projects Update
I-6 YMCA Project Construction Status Update

CHAIRMAN'S MATTERS

BOARD MATTERS

DIRECTOR'S MATTERS

ADJOURNMENT



City of Charlottesville
Parks and Recreation Advisory Board – Agenda Item
March 15, 2017

ADMINISTRATIVE – 1

Advisory Board Member Introductions

ADMINISTRATIVE – 2

Adoption of Minutes – February 15, 2017 Parks and Recreation Advisory Board Meeting

ACTION REQUIRED:

Advisory Board adoption of the minutes of the February 15, 2017 meeting.

ENCLOSED DOCUMENTS:

Minutes of February 15, 2017 meeting.

PARKS AND RECREATION ADVISORY BOARD

MINUTES

February 15, 2017

The Parks and Recreation Advisory Board held a regular meeting on Wednesday, February 15, 2017 at 5:30 p.m. @ Carver Recreation Center. Members present were: Elise Cruz, Llezelle Dugger, Anne Hemenway, David Hirschman, and Ned Michie, John Santoski and Jennifer Slack. Members absent: Ruth Barnett

Staff: Vic Garber, Doug Ehman, Avery Watkins

Election of Officers

- Chair – Ned Michie nominated Elise Cruz for Chair, second by Llezelle Dugger, vote was unanimous
- Vice Chair – Ned Michie nominated David Hirschman for Vice Chair, second by Llezelle Dugger, vote was unanimous

Motions – Minutes

Minutes – December 21, 2016

- Ned Michie made a motion to approve minutes from December 21, 2016, second by Anne Hemenway, vote was unanimous

Minutes – January 18, 2017

- David Hirschman asked that Alicia Lugo's name be added in the diversity sentence.
- Jennifer Slack made a motion to approve minutes from January 18, 2017, Anne Hemenway second, vote was unanimous

Athletics Program Update

- Avery Watkins , Athletic Program Supervisor gave the following report:
 - Athletic program includes allocation user groups, schools, adult softball, volleyball, youth basketball
 - Will be initiating a Spring Flag Football Program, working with USA football, will be using Buford, Tonsler and Rives locations, coaches and training will be provided, 6-9 years old, will be coed.
 - Volleyball surveys recently sent out – asking where participants are from, what can be better, looking for trends, any complaints, etc.
 - Youth Basketball Super Saturday will be held Saturday, February 25, final games of the season @ Key Center

Ragged Mountain Natural Area Process Update

- Vic Garber stated that white flags are present on the new shared use trails; orange flags are present for the new trail alignment for hiking only @ Ragged Mountain Natural Area.
- A guided tour will be held on Saturday, March 4, 2017 @ 9 am – staff will be there, will take approximately 3 hours
- Trail layout will go to City Council in April
- Trails should be completed by end of April

- David Hirschman asked if there was a desire from public for ecologists to verify trails, Doug Ehman replied that they have been involved

Meadowcreek Valley Master Plan Implementation

- Doug Ehman reported that NDS is still looking @ plans for Meadowcreek Valley, should have more information @ next meeting

Tonsler Park Master Plan Implementation Update

- Doug Ehman reported that package was went to Purchasing, have all information from staff for splash pad install, put in template for bidding, 100 page plus package, go on street for bid in about 2 weeks, out for 5 weeks, take from there. Would like work completed by middle of October, so splash pad can be tested before winterizing

McIntire Park Projects Update

- Doug Ehman reported that the Purchasing package for the pedestrian bridge is on the street, pre-bid meeting next week, would like done by middle of November, does not include parking area, which is on hold at this time
- Skatepark – bids came in \$1 million over budgeted funds, procurement law allows to negotiate with low bidder, feel value is out of line with industry norms

YMCA Project Construction Status Update

- Doug Ehman reported that the YMCA facility could be open by Memorial Day, which would be 6-8 weeks ahead of schedule
- Facility tours are held regularly and are open to the public

Chairman's Matters

- Elise Cruz stated trying to keep track of Bob Fenwick concerning Skatepark funding

Board Matters

- John Santoski reported that the Planning Commission is starting discussions about comprehensive plan review, structure of how that is going to happen, in addition to public meetings, stakeholder meetings and setting up priorities
- David Hirschman reported the following:
 - He attended the Open House @ Smith Aquatics Center, lots of families attended.
 - Thanked Anne Hemenway for making City Council aware of recent issues
 - Asked if County parks staff could attend one of upcoming board meetings to talk to, wants to establish a relationship with Advisory Board
- Ned Michie asked about a Needs Assessment for Parks & Recreation as it was listed in the Efficiency Study recommendations. Doug Ehman replied that staff is talking to the UVA center concerning survey instruments, in process of getting that lined up to go, Brian Daly will bring to future meeting.
- Anne Hemenway stated that she was bothered by the process that City Council used for the statue issue, moving without knowing legal authority, where to move to, etc.

Directors Matters

- Doug Ehman stated that staff now has the certified resolutions for statue removal, the passed resolution, and City Council directive for staff to bring back options
- Lee Park Renaming – City Council directive for staff is to bring City Council a range of names @ next meeting. This will be discussed @ next meeting of Advisory Board
- Budget work sessions begin in March

Motion – Adjourn Meeting

- Llezelle Dugger made a motion to adjourn meeting, Ned Michie second, motion was unanimous
- Meeting adjourned @ 6:50 pm

Respectfully submitted,

Linda Daly
Secretary to the Advisory Board

City of Charlottesville
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INFORMATION – 1

2016 Integrated Pest Management Program Annual Report

On April 20, 2015, City Council adopted the City's first Integrated Pest Management (IPM) Policy. This policy guides the staff's IPM program and prescribed the generation of an annual report that is presented to the Parks and Recreation Advisory Board each March. The 2016 Annual Report is complete and will be presented to the Board by staff. The Report is enclosed as Attachment 1.

INFORMATION – 2

Meadow Creek Valley Master Plan Implementation

Staff will provide an update of the ongoing efforts to implement the Master Plan for the Meadow Creek Valley. Specific details are outlined below.

Meadow Creek Valley Plan Implementation Update March 2017

Kneedler Bridge

- FEMA publishes final LOMR in March
- Local floodplain permits have been filed – awaiting approval
- Cost estimate ~\$110,000

Senior Center bridge

- RFQ for design to be released in April/May
- Cost Estimate \$160,000

Trails

- Greenbrier trail and boardwalk currently in site plan review at NDS
- Cost estimate \$350,000

Culverts

- Construction drawings being generated now
- Met with Army Corps and does not require special permits
- Local review will occur after final construction drawings
- Continue to pursue land acquisitions (Dominion, Holiday Drive)
- Cost estimate \$50,000

Kenwood Easement

- Negotiations ongoing

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Budget

CIP balance	\$312,000
DCR grant	\$140,000
<u>Dominion Grant (RTF)</u>	<u>\$ 10,500</u>
TOTAL CASH ON HAND	\$462,500

Holmes-Rio (+LMOA)

Final negotiations with the Locust Meadows Owners Association ongoing
Trails can be built when easement approved and funding is available
Developer bridge over Meadow Creek to Locust Avenue to be built 2017

Leander Right-of-Way/ Moore's Creek

The Leander right of way exists and discussions continue regarding other parcels along this reach of Moore's Creek

250 Bypass Trail

Hydraulic to Dairy/Meadowbrook Heights – final plans delivered this week
One final land acquisition pending
YMCA - discussion underway now for connective trail – it will occur as part of the YMCA project
West Parking lot connector
Pedestrian Bridge over railroad– in bid, due March 22
McIntire Park Trail connection to interchange and north/south bridge over tributary to Schenk's Branch – awaiting NDS final approval of site plan for the east side of McIntire Park which should be complete before the end of March.

INFORMATION – 3

Ragged Mountain Natural Area Process Update

Staff will provide an update of the completion of the planning process at Ragged Mountain Natural Area and the next steps of trail construction. The final draft trail plan is attached for your review and will be presented to City Council at their April 3, 2017 meeting.

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INFORMATION - 4

Tonsler Park Master Plan Implementation

Staff will provide an update of the ongoing efforts to implement the Master Plan for Tonsler Park.

INFORMATION - 5

McIntire Park Projects Update

Staff will provide an update of the ongoing efforts to implement the Master Plan for McIntire Park.



McIntire Park Pedestrian Bridge over Norfolk Southern Railroad

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INFORMATION - 6

YMCA Construction Project Status

Staff will provide an update on the construction of the new YMCA in McIntire Park as well as other ongoing discussions with the YMCA.

City of Charlottesville Parks and Recreation 2016 Annual Report

Integrated Pest Management



What is a pest?

Pests are organisms including insects and undesirable plants that damage landscapes, structures, infrastructure, or that impact human or animal health.

Integrated Pest Management Program

Charlottesville Parks and Recreation Department

IPM Coordinator

John Mann, Landscape Manager/Horticulturalist

IPM Program Manager

Patrick Hagan, Gardener II

IPM Committee

Brian Daly, Director, Parks and Recreation

Doug Ehman, Parks Manager

Kristel Riddervold, Environmental Sustainability Manager

Dave Hirschman, Parks and Recreation Advisory Board Representative

Ineke Dickman, Charlottesville Tree Commission Representative

Introduction

The intention of this report is to disclose the current activities of the City of Charlottesville's Integrated Pest Management (IPM) program as adopted by City Council in 2015. It will provide insight into the decision-making process as it pertains to the implementation of the IPM program and analyze the past goals as well as highlight the future goals of the program.

An effective IPM program requires constant planning and revision. Looking critically at the level of service and methods used to maintain this level of service are paramount to the success of the program. Assessing these methods and practices maintains a level of responsibility and transparency to the public and promotes innovation in the IPM program. The Parks and Recreation Department strives to be proactive rather than reactive in the implementation of IPM methods.

Establishing environmentally sustainable practices in IPM methods requires analyzing the landscape as an individual ecosystem. Proper amendments and the introduction of beneficial microbes into the soil of these landscape systems will promote healthier plants. Healthier plants sustain a higher resistance to pests and diseases. Maintaining the correct balance and integrity of the soil is crucial to long term health of the ecosystem.

This strategy includes increasing mulch and compost applications, appropriate pre-emergent applications in weed-prone right of way areas, and continued exploration of safer and more effective products and methods in the implementation of the IPM program.

Looking back on 2016

Many of the IPM goals set forth in 2015 were realized in the past year.

- Round Up was phased out as the primary source of glyphosate due to public concern over its adjuvants
- A transition to organic herbicides was initiated on elementary school grounds
- Initiatives were taken to remove problematic landscape areas
- A habitat restoration project occurred at Pen Park
- No herbicides were used on general turf areas managed by the City of Charlottesville
- Several turf managers received certification from the State of Virginia as fertilizer applicators
- The Weed Dragon (flame-based weed control device) was piloted

- The interior of McGuffey Park remained free of synthetic chemicals
- A mulch blower was piloted with great success
- Volunteer efforts helped to control invasive species in natural areas
- Trunk injections to combat Emerald Ash Borer were allocated to preserve the most valued ash trees throughout the City.

Overview of 2016

In 2016 there was a major reduction in glyphosate usage in the City overall. This reduction was also seen in parks and schools, with the majority of herbicide usage restricted to right of way areas. The City also realized the goal of reducing the use of Round Up and systemic herbicides.

A transition to organic herbicides was initiated on school grounds. While glyphosate was not completely eliminated on all school grounds, emphasis was placed on using organics on the grounds of elementary schools. Appropriate future funding will help the Parks Department realize the goal of organics only on all school grounds.

The City received significant new vegetated areas to maintain such as the McIntire Interchange, new park lands along the John Warner Parkway, new construction along Route 250 between Barracks Road and Emmett Street, and 79 newly planted trees.

Initiatives were taken to reduce problematic areas. These areas include the juniper banks at Jackson-Via Elementary School. A large portion of the existing juniper was removed due to invasive vine proliferation and inaccessibility. The vines in these areas were historically weeded by hand and treated with herbicides with minimal long-term success. Unintentional damage to the shrubs while accessing this area deemed it problematic and prompted its removal. The area was converted to a pollinator friendly meadow planting.

A habitat restoration project occurred at Pen Park. The natural area between the tennis courts and the Parks Department office was cleared of invasive vines, non-native trees, debris, and then integrated with native plantings. These improvements were accomplished with the help of goats, volunteers, and Parks staff.

No herbicides were used on general turf areas managed by the City. Turf managers continued to practice IPM methods such as maintaining proper mowing heights to inhibit weed growth and mulching leaves to increase organic matter and fertility of turf areas.

Several turf managers received certification from the State of Virginia as fertilizer applicators.

The Weed Dragon, a flame based weed control device, was utilized in specific areas where deemed appropriate. This pilot program presented safety concerns and will be confined to parking lots or other areas where fire concerns are at a minimum.

Other pilot programs proved more successful. The interior of McGuffey Park, for example, has remained free of synthetic chemicals. This is largely due to increased mechanical controls such as weed trimming and the efforts of volunteers.

Another successful pilot program was utilizing a mulch blower for mulching applications. Increased mulch applications are a major goal of the IPM program as they reduce weeds and chemical applications while building soil health.

Acquisition of a mulch blower would contribute to further anticipated reductions in chemical applications and a move to a fully organic protocol.

Conclusion

A major goal of the IPM program in 2015 was the continued reduction of glyphosate usage. As the data shows, this goal was met Citywide and in parks and schools, respectively. This reduction is related to the usage of pre-emergent products, increased mulching and mechanical maintenance controls.

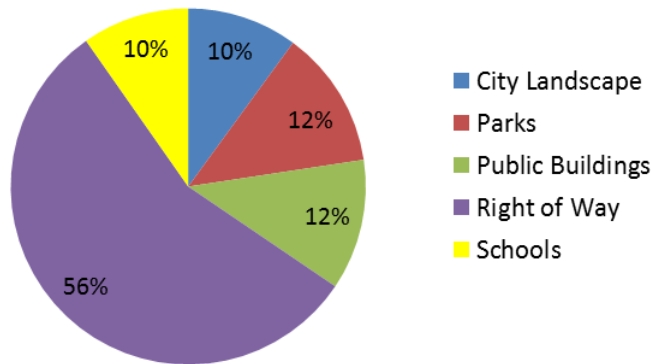
For more information please see:

<http://www.charlottesville.org/departments-and-services/departments-h-z/parks-recreation-/parks-trails/landscape-management/pest-management>

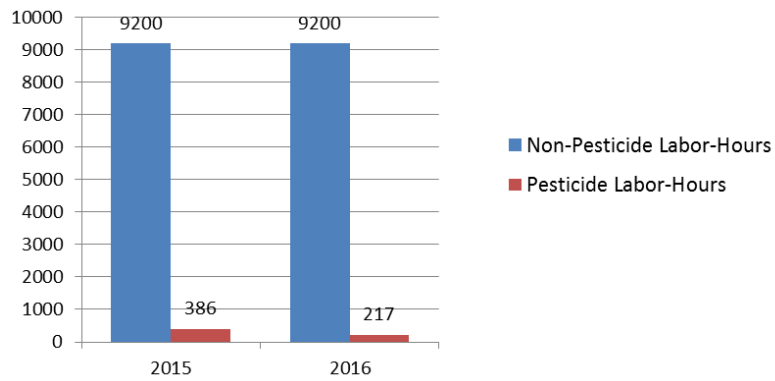
Parks & Recreation Pesticide Application Database: Data Model

	System	Location	Facility
	Parks	Azalea Park Bailey Park Belmont Park Fifeville Park Foresthills Park Greenbriar Park Greenleaf Park Jackson Park Jordan Park Lee Park McGuffey Park McIntire Park East McIntire Park West Meade Park Meadowcreek Park Meadowcreek Stream Valley Northeast Park Pen Park Quarry Park Riverview Park Rives Park Schenks Greenway Starhill Park Tonsler Park Washington Park	Athletic Fields Curbs/Sidewalks Landscape Beds Natural Areas Playgrounds Stormwater Structures
	Schools	Buford School Burnley Moran School CHSchool/PAC Clark School Greenbriar School Jackson Via School Johnson School School Admin Venable School Walker School	Athletic Fields Curbs/Sidewalks Landscape Beds Natural Areas Playgrounds Stormwater Structures
	Public Buildings	Circuit Court City Hall City Hall Annex DT Transit Jefferson Center McGuffey Arts Parks Admin Pavillion PW Avon PW City Yard Smith	Curbs/Sidewalks Landscape Beds Natural Areas Stormwater Structures
	Right of Way	250 Bypass 5th Street Avon Street Barracks Road Brown Blvd DT Mall Emmett Street Fontaine Ave Jefferson Park Ave Mcintire Road/Ridge Street Meadowcreek Parkway Other City Street Preston Ave UVA Corner	Curbs/Sidewalks Landscape Beds Natural Areas Stormwater Structures
	Cemeteries	Maplewood Cemetery Oakwood Cemetery Pen Park Cemetery Daughters of Zion	Curbs/Sidewalks Landscape Beds Natural Areas
	Hort Sector	250 Bypass Sector 5th & Belmont Sector Downtown Sector JPA & Main Sector Preston & McIntire Sector	Landscape Beds
	Golf Course	Meadowcreek Course Meadowcreek Clubhouse	Curbs/Sidewalks Fairways Green Surrounds Greens Landscape Beds Natural Areas Roughs Stormwater Structures Tees

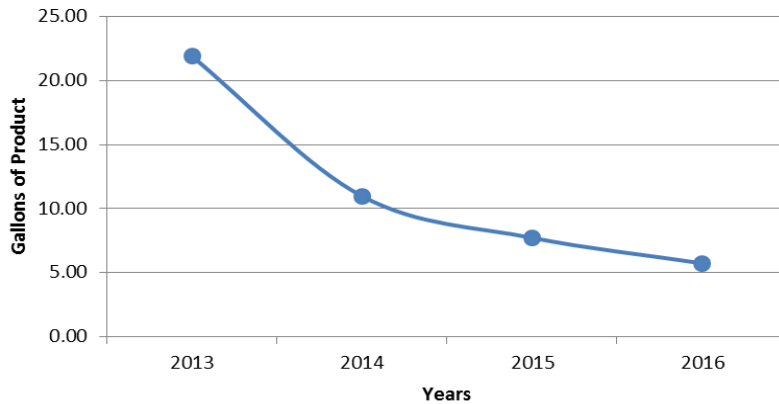
Liquid Applications by Area: 2016



Pesticide vs Non-Pesticide Labor Hours: 2015-2016



Glyphosate Applications



Parks Horticulture Pesticide Applications by Product Name 2013-2016: Liquid Products						
Units	Active Ingredient	Product Name	2013	2014	2015	2016
Gallons	2,4,D	Brushmaster	0.10			
	2,4,D Total		0.10			
	Azadirachtin	Azatrol		0.12		
	Azadirachtin Total			0.12		
	Clopyralid	Lontrel		0.00		0.05
	Clopyralid Total			0.00		0.05
	d-Limonene	Nature's Avenger		1.38	0.25	
	d-Limonene Total			1.38	0.25	
	Fluazifop-P-butyl	Ornamec	0.82	0.25	0.10	0.37
	Fluazifop-P-butyl Total		0.82	0.25	0.10	0.37
	Glyphosate	Aquamaster	0.21			
		Gly Star Plus	2.89	10.18		3.80
		Honcho	9.84			
		QuickPro (Roundup)		0.47	7.69	1.72
		Ranger-Pro	8.96			
		Roundup Pro		0.33	0.04	
		Round Up Custom				0.21
	Glyphosate Total		21.91	10.98	7.73	5.74
	Horticultural Oil	Hort Oil	3.00			
	Horticultural Oil Total		3.00			
	Lithium salt of Bromacil	Brom 7.5	0.93			
	Lithium salt of Bromacil Total		0.93			
	Monosodium acid methanearsonate	Trimec Plus		0.02		
	Monosodium acid methanearsonate Total			0.02		
	Oryzalin	Oryzalin 4	5.18	7.12	11.45	8.09
		Prokoz Surflan AS	0.38			
		Surflan AS			4.71	
	Oryzalin Total		5.55	7.12	16.16	8.09
	Prometon	Primatol 25E	1.80	2.31	2.16	
	Prometon Total		1.80	2.31	2.16	
	S-Kinoprene	Enstar	0.01			
	S-Kinoprene Total		0.01			
	Sodium Salt of bentazon	Basagran		0.89		
Sodium Salt of bentazon Total			0.89			
Triclopyr	Pathfinder	0.25	0.69	0.48	1.20	
Triclopyr Total		0.25	0.69	0.48	1.20	
Pelargonic Acid	Scythe				0.27	
Pelargonic Acid Total					0.27	
Tetramethrin	Wasp Spray				0.44	
Tetramethrin Total					0.44	
Gallons Total			34.37	23.75	26.86	16.16

Parks Horticulture Pesticide Applications by Product Name 2013-2016: Granular Products						
Units	Active Ingredient	Product Name	2013	2014	2015	2016
Pounds	Glyphosate	Roundup QuikPro		0.26		
	Glyphosate Total			0.26		
	Halosulfuron-methyl	Pro Sedge Selctive Herbicide2			0.08	0.04
		Pro-Sedge	0.07	0.06		
	Halosulfuron-methyl Total		0.07	0.06	0.08	0.04
	Imidacloprid	Merit	5.00			
		Zenith 0.5G		0.50		
	Imidacloprid Total		5.00	0.50		
	Oryzalin	XL 2G		10.00		31.50
	Oryzalin Total			10.00		31.50
	Trifluralin+Isoxaben	Snapshot	1050.00	550.00	445.00	690.00
	Trifluralin+Isoxaben Total		1050.00	550.00	445.00	690.00
	Pounds Total			1055.07	560.82	445.08

Golf Course Pesticide Applications by Product Name 2013-2016: Liquid Products

Units	Active Ingredient	Product Name	2013	2014	2015	2016
Sum of GallonConversion						
FinalUnit	ActiveIngredient	ProductName	2013	2014	2015	2016
Gallons	24d/mcpp/dicamba	triplet 3/ way herb.		17.63		
	24d/mcpp/dicamba Total			17.63		
	Azoxystrobin	Heritage TL	7.72	8.64	2.55	6.39
	Azoxystrobin Total		7.72	8.64	2.55	6.39
	Bifenthrin	Bifenthrin Golf & Nursery	1.16	0.87	1.16	1.16
	Bifenthrin Total		1.16	0.87	1.16	1.16
	chlorothalonil	Daconil WeatherStik	5.41	24.30	12.85	15.66
		Daconil ZN	7.73	7.69	3.84	11.51
	chlorothalonil Total		13.15	31.98	16.69	27.16
	dithiopyr	DITHIOPYR 40 WSB.	0.51	0.51	0.39	0.47
	dithiopyr Total		0.51	0.51	0.39	0.47
	Glyphosate	Gly Star Plus				0.00
		Honcho	0.02			
		QuickPro (Roundup)			0.29	
		Roundup Pro		0.16		
	Glyphosate Total		0.02	0.16	0.29	0.00
	HERBICIDE	PYLEX		0.00		
	HERBICIDE Total			0.00		
	Iprodione	Chipco 26GT	38.67	7.73	3.87	7.71
	Iprodione Total		38.67	7.73	3.87	7.71
	Mancozeb	FORE 80 WP	5.06			
	Mancozeb Total		5.06			
	Metalaxyl-M	Subdue Maxx	3.23	3.24	1.30	1.30
	Metalaxyl-M Total		3.23	3.24	1.30	1.30
	Metconazole	TOURNEY		0.47	0.47	0.94
	Metconazole Total			0.47	0.47	0.94
	Propamocarb hydrochloride	Banol	9.42	6.88	5.11	7.65
	Propamocarb hydrochloride Total		9.42	6.88	5.11	7.65
	Propiconazole	Banner Maxx		1.65		1.29
	Propiconazole Total			1.65		1.29
	pyraclostrobin	Insignia SC	0.88	1.77	1.77	1.86
	pyraclostrobin Total		0.88	1.77	1.77	1.86
	pyraclostrobin,bascalid	Honor			2.81	17.81
	pyraclostrobin,bascalid Total				2.81	17.81
	WETTING AGENT	OARS		7.64	7.64	7.64
		CONDUT 90		20.39		
		oars ps			12.78	12.78
	WETTING AGENT Total			28.03	20.42	20.42
	Trinexapac-ethyl	Primo Maxx				9.03
	Trinexapac-ethyl Total					9.03
	fluxapyroxad	Xzempler				0.60
	fluxapyroxad Total					0.60
	Sulfentrazone	Nassau 4SC				3.00
	Sulfentrazone Total					3.00
	dichloro , 2,4D	On deck				27.56
	dichloro , 2,4D Total					27.56
Gallons Total			79.83	109.57	56.82	134.35

Golf Course Pesticide Applications by Product Name 2013-2016: Granular Products						
Units	Active Ingredient	Product Name	2013	2014	2015	2016
Sum of GallonConversion			Date			
FinalUnit	ActiveIngredient	ProductName	2013	2014	2015	2016
Pounds	boscalid	Emerald	6.00	2.00	5.50	3.88
	boscalid Total		6.00	2.00	5.50	3.88
	chlorothalonil	Daconil 5% Granular			25.00	
		Daconil 2787			50.00	
	chlorothalonil Total				75.00	
	flutolanil	ProStar	48.00	1.00	42.00	
	flutolanil Total		48.00	1.00	42.00	
	Glyphosate	Roundup QuikPro			4.00	
	Glyphosate Total				4.00	
	Halosulfuron-methyl	Pro Sedge Selctive Herbicide2				0.25
		Pro-Sedge	0.22	0.00		
	Halosulfuron-methyl Total		0.22	0.00		0.25
	Oryzalin	XL 2G				4.00
	Oryzalin Total					4.00
	Prodiamine	Prodiamine 65WDG			36.00	75.00
	Prodiamine Total				36.00	75.00
	Trifluralin+Isoxaben	Snapshot				10.00
	Trifluralin+Isoxaben Total					10.00
	Vinclozolin	Curalan EG	10.00	20.00	9.38	42.21
	Vinclozolin Total		10.00	20.00	9.38	42.21
	Fungicide X	Fungicide X				105.72
	Fungicide X Total					105.72
	Chloroneb	Fungicide IX				210.00
	Chloroneb Total					210.00
	Chlorophenoxy	Fungicide VII				117.00
	Chlorophenoxy Total					117.00
Pounds Total			64.22	23.00	171.88	568.06

Importance of Pre-Emergent Products

Pre-emergent products are a type of selective, low toxicity herbicide that impedes the germination of weed seeds by utilizing enzyme inhibitors with no effect to established plantings. These products are extremely effective given that they are applied concurrently with mulching and that the timing of their application is correct. Typically these products are applied in the spring and fall when air temperatures reach 60 degrees for four consecutive days which coincides with seed germination. A second spring application 6-8 weeks later will optimize the success rate through the summer months.

Pre-emergent products are especially useful in high vehicular traffic areas and other right of way locations where motorist and staff safety is a concern. The Park Street ramp beds and liriopie medians on 250 Long Street, for example, represent locations where pre-emergent applications are beneficial.

IPM in Golf

The Meadowcreek Golf Course is an 18-hole public golf facility operated as an enterprise division of Charlottesville Parks and Recreation. It is a revenue-generating course that requires healthy turf in order to provide for competitive play. The fairways, tee boxes and greens have a lower tolerance for weed and fungal infestations. Routine scouting and early intervention in disease suppression aid in turf health. Many cultural controls are utilized such as fertilizer applications and efficient irrigation planning to maintain healthy turf. Much of the chemical applications on the golf course are contracted and outsourced.

IPM in Trails and Natural Areas

The Parks Department is responsible for the management of nearly 600 acres of natural lands. These lands include over 30 miles of nature trails linking neighborhoods to a variety of recreational opportunities. Over six miles of trails are paved for hiking, biking and other outdoor activities.

The control of invasive and exotic species such as Autumn Olive, Ailanthus, Porcelain Berry and Bittersweet, is the most common maintenance issue associated with IPM in natural areas. These invasive species are mechanically cut back and the cut stumps or stems are individually treated with herbicide. This method limits the application of chemical control and confines it to only the surface area of the cut invasive plant as opposed to swath-spraying an area.

Ragged Mountain Natural Area is one example where these invasive species are prevalent, especially along the western border of the property. A management plan for this area is under development to address the issue of invasive species.

Volunteer efforts with Charlottesville Area Tree Stewards and at Ragged Mountain continue to aid in the control of invasive species in these natural areas.

IPM in Urban Forestry

One of the City's most extensive and valuable infrastructures is its trees. With over 7,000 trees throughout the City and overall City canopy coverage of over 45%, the Urban Forester closely monitors trees for pests and diseases.

Cultural controls such as mulching, pruning and proper irrigation are effective tools in the prevention of pest attacks. Currently all first and second year trees are watered and monitored as often as once a week during the summer months.

Treatment measures are taken to protect the health of high-value trees throughout the City. Specimen American elm trees are trunk-injected every three years with fungicide to control Dutch elm disease. These treatments are contracted to certified professional arborists.

The threat of Emerald Ash Borer is present in Albemarle's neighboring counties. This pest is fatal without immediate treatment. The Parks Department has allocated treatment in the form of trunk injections to preserve the most valued ash trees throughout the City. These treatments are outsourced to private contractors.

2017 Goals at a Glance

- Increase funding strategies to allow for the acquisition of a mulch blower to reduce pre-emergent applications
- Increase mulching applications
- Reduce pre-emergent applications on City School grounds
- Increase funding to provide organic herbicides for City Schools and Parks
- Eliminate use of glyphosate at City Elementary Schools
- Procure new signage indicating organic pesticide applications
- Increase biological controls through the use of organic bio-stimulants in the form of humic acid
- Enhance mechanical weed maintenance frequencies on athletic fields

Looking ahead in 2017

The year ahead presents an opportunity to realize the continued goals of the IPM program.

The reduction in glyphosate usage in 2016 is directly linked to the use of pre-emergent products. It is, however, the intention of the Parks staff to reduce the use of these pre-emergent applications, particularly in areas where mulch applications can be increased. This reduction can be applied in low traffic areas where mulch applications will increase.

New landscaped areas such as Schenk's Greenway will be completed and placed on the maintenance schedule. Typically new areas require more maintenance than established areas. While further reductions in chemical controls are always a goal of the IPM program, the level of service in new landscapes requires increased maintenance inputs.

Increasing the level of funding to provide a mulch blower will help to realize the goal of reducing pre-emergent applications. Steep bank areas such as Park Street and Clark School beds would benefit from increased mulch applications.

An increase in funding to provide organic herbicides for use on school grounds and in parks frequented by children, such as Forest Hills and Greenleaf Park, is necessary to achieve the goals of the IPM program. While these organic herbicides are more costly and require more frequent applications, it is the responsibility of the Parks Department to provide a higher level of safety to children and citizens.

New signage indicating organic pesticide applications will be used in the upcoming year. This signage is intended to better inform and educate the public of the activities occurring in their parks or schools. Although all areas that are treated with pesticides are currently flagged, this new signage will distinguish a synthetic application from an organic application.

Increasing biological controls is also a goal of the IPM program in 2017. The Parks department has utilized several bio-pesticides in the past such as essential oils and Neem oil. Bio-pesticides contain naturally occurring substances obtained from plants, microbes, fungi and nematodes. They do not affect photosynthesis or plant physiology, are biodegradable, and come from renewable resources. These environmentally sustainable products are also more beneficial to pollinators. Many organic farming systems utilize this approach to pest control.

The IPM program calls for a continued review of historically problematic areas. The gravel areas at Washington Park, for example, require constant attention during the growing season to maintain a weed free appearance. Transitioning this area back to grass will reduce chemical applications.

Enhanced maintenance frequencies on athletic fields will also contribute to herbicide reductions.

Concluding Statement

The goals of an IPM program cannot be focused solely on numbers and reductions. There must be exploration and innovation in the program that challenge the current operational methods. The program objectives have to become proactive toward environmentally sustainable practices that take into account the entire landscape system.

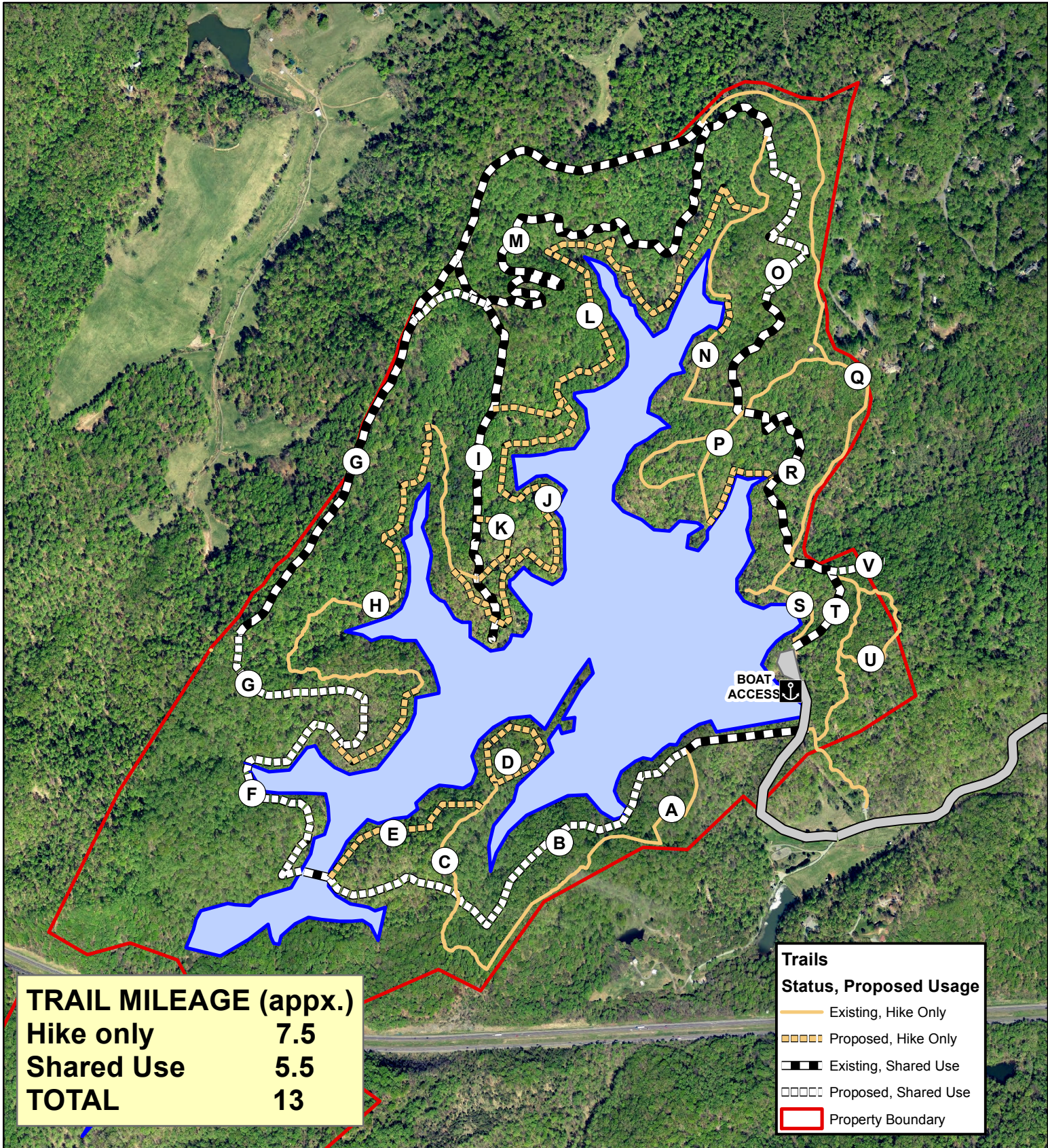
It is the intention of the Parks Department to become an innovator and model of sustainable landscape practices.



RAGGED MOUNTAIN DRAFT TRAIL USE PLAN

Hiking permitted on all trails and exclusivley on brown trails
Biking/Jogging permitted only on checkered trails

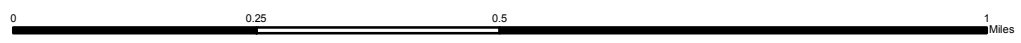
March 10, 2017



TRAIL MILEAGE (appx.)	
Hike only	7.5
Shared Use	5.5
TOTAL	13

Trails
Status, Proposed Usage

- Existing, Hike Only
- Proposed, Hike Only
- Existing, Shared Use
- Proposed, Shared Use
- Property Boundary



Trail locations are field located during construction with approximate routing shown in plan. Final locations will depend on site specific conditions and field verification.

Ragged Mountain Draft Trail Use Plan

Proposed Trail Alignment Descriptions

Sections are labeled A-V starting from the parking lot and going clockwise around the reservoir.

March 10, 2017

This document describes the rationale behind the locations for proposed trails and permitted uses on the accompanying map. Staff was directed by City Council to create a draft trail use plan that accommodates hiking, jogging, and biking around the reservoir, provide for a separated pedestrian only trail as much as possible, and takes into account environmental and topographical limitations. This plan provides for nearly 90% of the trail to be separated with the exception of the environmentally sensitive area in the southwest corner of the property. This is near the floating bridge where staff believes one shared trail close to the reservoir shoreline is the most appropriate means of protecting the sensitive area from human encroachments. The corridors noted on the map are somewhat broadly defined as final exact trail placement will be determined by staff and informed by comments from users on the proposed alignments.

- A. The existing trail from the dam to the peninsula is designated hiking/jogging only.
- B. On the west side of the spillway a new shared use trail can be built closer to the reservoir, roughly 50 feet in from shore. The terrain is somewhat steep and passes through a mountain laurel area for a portion, then can cross over the existing trail/roadbed towards the bridge.
- C. Portions of trail in this area are along old roadbeds. The roadbed is wide, but may be steeper than desired in some areas. Options for rerouting it are limited and use of the old roadbed may be the best option to reduce further ground disturbance. Where possible, rerouting or modification should be done to create a more sustainable trail.
- D. The peninsula is designated hiking only (no jogging) to allow for quiet enjoyment of nature.
- E. A new hiking only trail will be built near the shore to the floating bridge.
- F. On the west side of the bridge, only one shared use trail is proposed near the lake shore. This area is already somewhat disturbed, and keeping the trail below the sensitive area will limit the threat of spread of invasives in accordance with the Ecological study recommendation. DEQ recommended using the upper roadbed since it already exists, but that portion is not on City property and the road going uphill from the bridge is not sustainable due to steep grades. A small footbridge where the tributary meets the reservoir will prevent the need to have any trail intrude up the hollows into the sensitive areas. The existing unplanned trail leading uphill from the bridge will need to be properly routed on contours to be sustainable and safe.
- G. An old driveway/roadbed leads from the reservoir up to the maintenance road on the property boundary. This driveway lends itself well to shared use, and is already disturbed. The upper maintenance road from the top of this old driveway to a point just before Ednam Forest is proposed for shared use.
- H. The hiking/jogging only trail can follow the reservoir shore, connect to the existing trail built by Ivy Creek Foundation in the next hollow, and will require construction of another section near the shore to connect to existing trails that lead to the old upper dam access road bed.
- I. The old upper dam access road bed is wide and flat and well suited for shared use.
- J. Terrain between the old upper dam access road bed and the next two hollows leading towards the tunnel is quite steep. This trail may not be needed if users can agree to share the old upper dam road bed for about 100 yards.

- K. The old waterworks pump valves and sluice offer a good hike only side trail and interpretive opportunity.
- L. There are a number of ravines running down the next hill towards the lake, so the new hiking only trail should either be located above these ravines, or along the reservoir shore, and may require some small footbridges over the ravines. There is an old driveway/roadbed that might be more suitable for trail use, and intersects with the upper dam road at a good location to diverge a hiking and jogging only trail towards the tunnel. From the tunnel to the eagle bridge, a new trail is proposed near the reservoir shore.
- M. The existing trail that has switchbacks leading down to the tunnel is proposed for shared use and may require limited improvement for such use. This trail connects to the upper roadbed.
- N. The existing trail along the reservoir shore is proposed for hiking and jogging only and connects to the Bear Statue. The last portion will need some rerouting since it follows an old roadbed used by ICF as a trail that is too steep in some areas.
- O. A new shared use alignment has been flagged to avoid use of the upper roadbed behind Ednam Forest in accordance with neighborhood request. This trail includes new portion to be built that is just out of sight of the Ednam residences, then connects to and uses the existing trail to the bear statue. The alignment of this trail will need to be field verified and might shift somewhat based on ground conditions. It is intended to avoid entering the pine forest stand.
- P. The roadbed leading from the water tower to the lake, including a loop trail on the peninsula, is proposed for hiking only.
- Q. The upper roadbed along the back of Ednam Forest is proposed for hiking only all the way to the mountain man statue.
- R. The existing trail from the bear to the mountain man is proposed for shared use and may require some improvements.
- S. The existing lower trail from the mountain man to the parking lot is proposed for hiking only.
- T. The upper roadbed from the mountain man to the parking lot is proposed for shared use.
- U. Roundtop Mountain trails and the link trail from the lower parking lot are proposed for hiking only (no jogging). There is an existing trail going up to Roundtop that is too steep and may require re-routing
- V. If the connection is desired to the Ragged Mountain trails from adjacent property and biking is permitted on that property, a new shared use link would need to be constructed to avoid existing Roundtop trails.