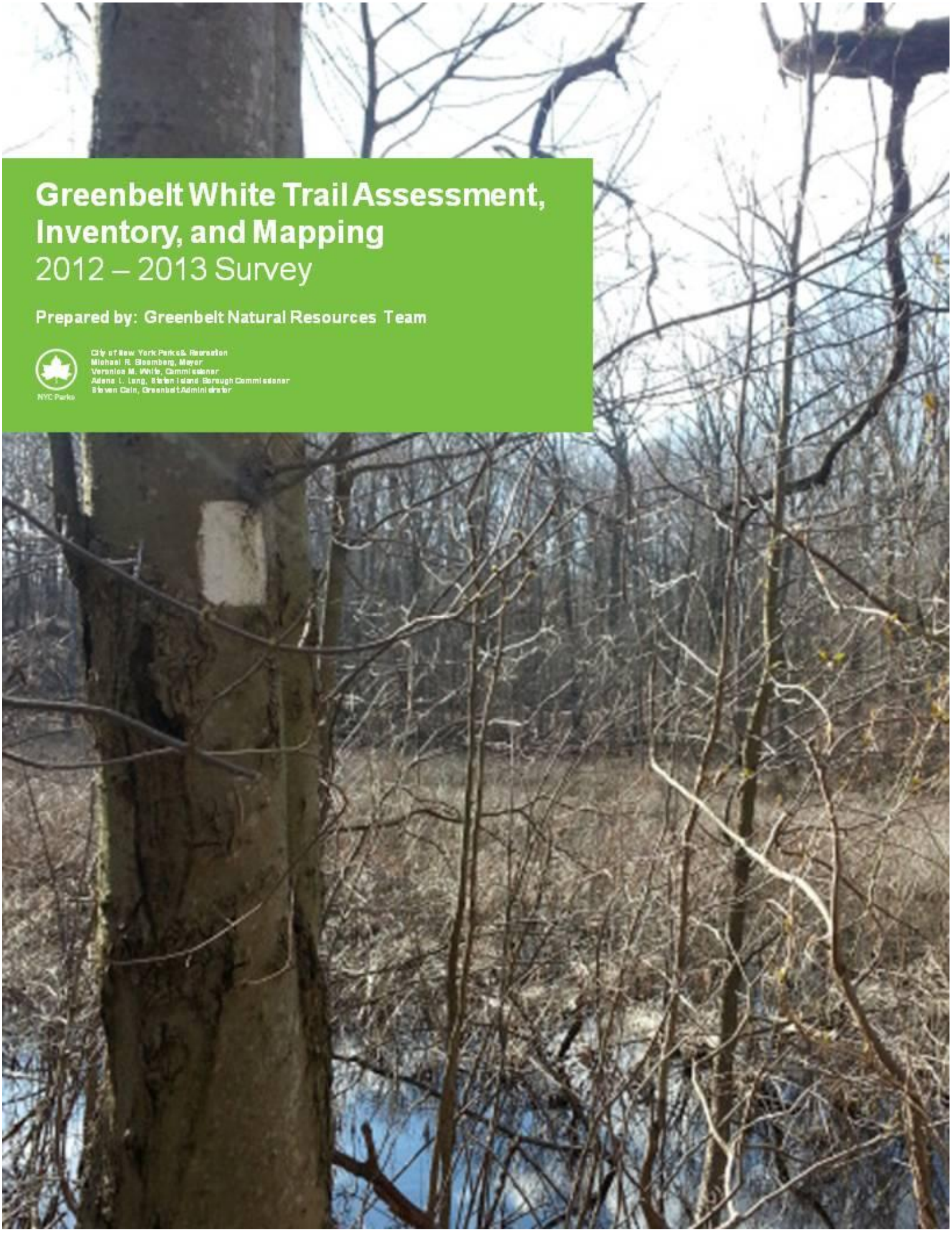
Greenbelt White Trail Assessment, Inventory, and Mapping

2012 – 2013 Survey

Prepared by: Greenbelt Natural Resources Team

NYC Parks

City of New York Parks & Recreation
Michael R. Bloomberg, Mayor
Veronica M. White, Commissioner
Adena L. Long, Staten Island Borough Commissioner
Steven Cain, Greenbelt Administrator



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Section I. Greenbelt White Trail Assessment, Inventory & Mapping

Introduction

The Greenbelt, located on Staten Island, is 2,800 acres of mixed open space and one of New York City's largest urban natural areas. The Greenbelt consists of distinct habitats, including intact forest communities, vernal ponds, brackish wetlands, rare remnant grassland and woodlands with other natural treasures that once existed throughout the Northeast region of the United States. Along with these types of natural areas, the Greenbelt also consists of landscaped parklands for recreational opportunities for the public.

NYC Parks Greenbelt Administration and the Greenbelt Conservancy, its non-profit dedicated partner, work to ensure that the Greenbelt in its entirety, which includes *High Rock Park, LaTourette Park, Bloodroot Valley, Reed's Basket Willow Swamp, Deere Park, Willowbrook Park, William T. Davis, Richmond/Willowbrook Parkways* and adjacent properties are safe, healthy and vibrant landscapes. This dynamic public/private partnership provides programs and services related to environmental education, conservation and restoration that promotes the Greenbelt's unique status as an urban natural oasis. Visitors to the Greenbelt can enjoy a spectrum of passive and active recreational opportunities such as nature walks, hiking, cross-country running, fishing and biking through our 35-mile trail system, which is the longest trail system in NYC Parks.

One of the longest trails in the Greenbelt, at over eight miles, is the White trail. The White trail traverses the Greenbelt from north to south. The White Trail's northern border is Willowbrook Park, which consists of a five-acre lake, New York City's only archery field, and the Carousel for All Children. The mid-sections of the White Trail include parts of Bloodroot Valley and La Tourette Park. Bearing south towards Great Kills Park, part of the Gateway National Park Service, is the southern extent of the White trail. The White Trail is widely used for passive recreation, including scenic nature walks and educational hikes. In the overall context of the entire Greenbelt trail system, the White trail is one of four major color-coded trails: Blue, Yellow, Red and White. These are maintained by NYC Parks staff with the invaluable assistance from our volunteers and local organizations, including the Staten Island Foundation and the NY-NJ Trails Conference.

The Greenbelt Natural Resources Team (GNRT) is made up of dedicated professionals that are passionate about the Greenbelt's natural areas. The team's core mission is to preserve, protect and restore the Greenbelt and all its components through ecologically based management practices. By implementing natural area assessments, biotic/abiotic monitoring, applied ecosystem restoration and trail restoration projects, GNRT is fulfilling the mission.

In 2011, GNRT created the Trail Reconnaissance Analysis and Inventory Logistical Systems (TRAILS). The objective is to facilitate the assessment of the entire 35-mile trail system and provide trail management recommendations for a sustainable trail system.

TRAILS

Prior to making trail management decisions, it is important to assess and inventory the trail. TRAILS supplies a park manager with important data that is readily discernable. Each trail segment, or group of segments, is homogenous and compact so it can be dealt with as an individual management area.

The objectives of TRAILS are to:

1. Delineate a trail
2. Obtain basic geographic information of trail
3. Identify and record management concerns on trail
4. Map and inventory trail using GPS technology
5. Develop a comprehensive trail map using GIS technology
6. Facilitate a trail maintenance program/schedule
7. Provide recommendations towards developing a comprehensive trail management plan

TRAILS is a trail reconnaissance mechanism. Subjective, or visual, data are collected and then analyzed, both cartographically (maps with overlays) and with GPS/GIS. The TRAILS maps indicate location and length of each trail or trail segment. It is also used to record site descriptions. Vertical aerial photograph enlargements (1"= 200' or 1" = 100' scale) are used to delineate trails in the field. Using aerial photographs and GPS/GIS technology guides the preliminary identification of various features on a trail. Teams of two technicians trained in trail analysis visit each trail and verify distinct trail conditions.

A data form has been prepared to streamline the ground truth and analysis processes. The form was designed to facilitate the transfer of field data onto a computer-based database.

Following collection of data in the field, a summary report is prepared. The summary report (TRAILS report) includes the information collected by technicians and presents a synopsis in a form readily usable by park managers, park administrators, and the public. The most useful result of the TRAILS report is a trail management plan or maintenance schedule for staff or volunteers to implement in phases.

Along with the report are trail maps of existing trail conditions with recommendations for restoration or improvements. The map can also be used for planning management strategies as well as for presentation purposes.

Acknowledgements

Cover page photo credit: Jonathan Wadolowski

Greenbelt Natural Resources Team (GNRT): George Steed, Christina Perdos, Joshua Rudder, Patrick Deshommes, Pawel Pieluszynski

2012 GNRT interns: Greg Mayer, LaVaughn Doctor

Greenbelt Trail Project Coordinator(s): Jonathan Wadolowski, Pawel Pieluszynski

Greenbelt Natural Resources Manager: Tony Rho

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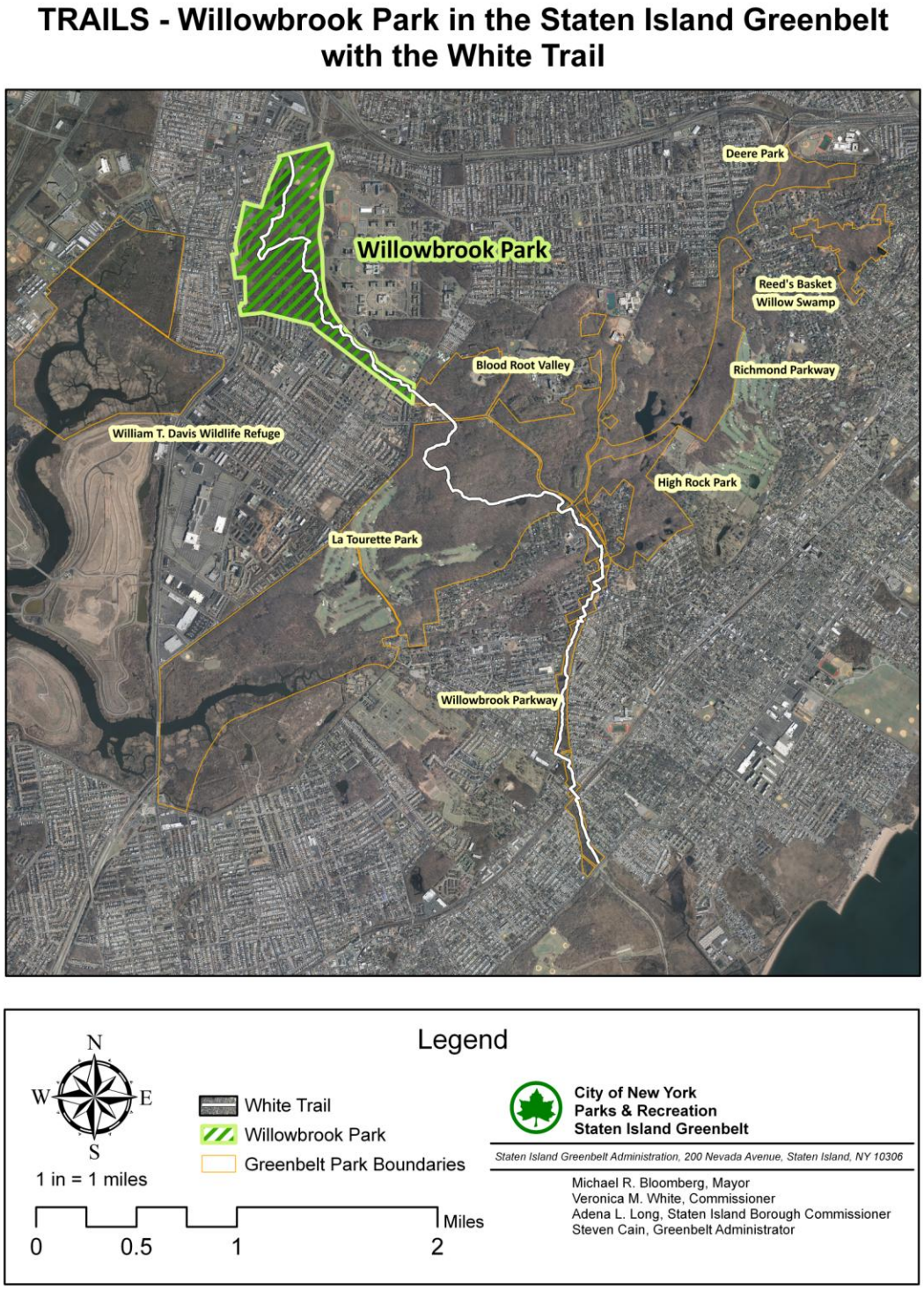
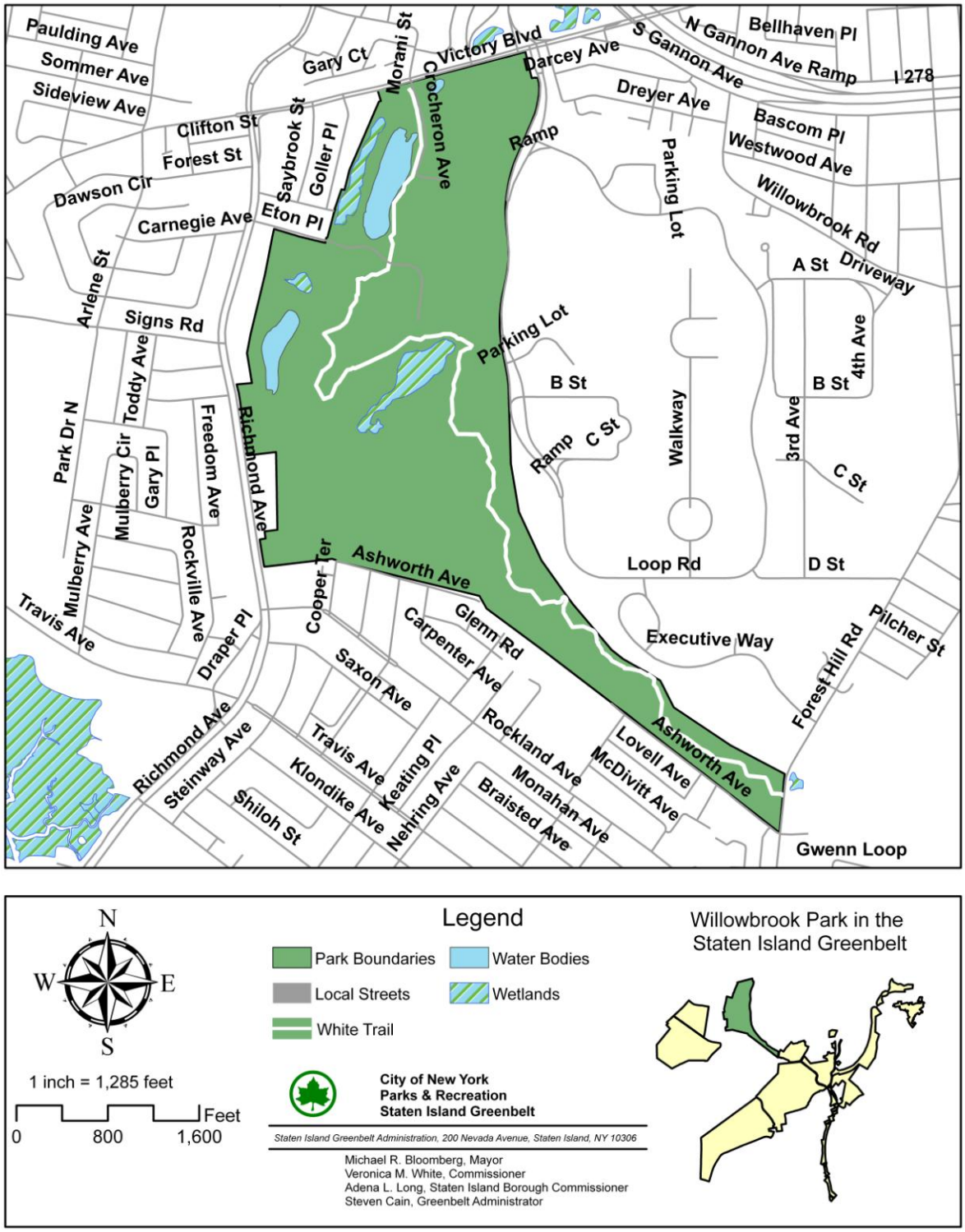
Section II. TRAILS (White Trail) Maps

Map 1: Aerial Map of the Greenbelt with Willowbrook Park Highlighted with the White Trail



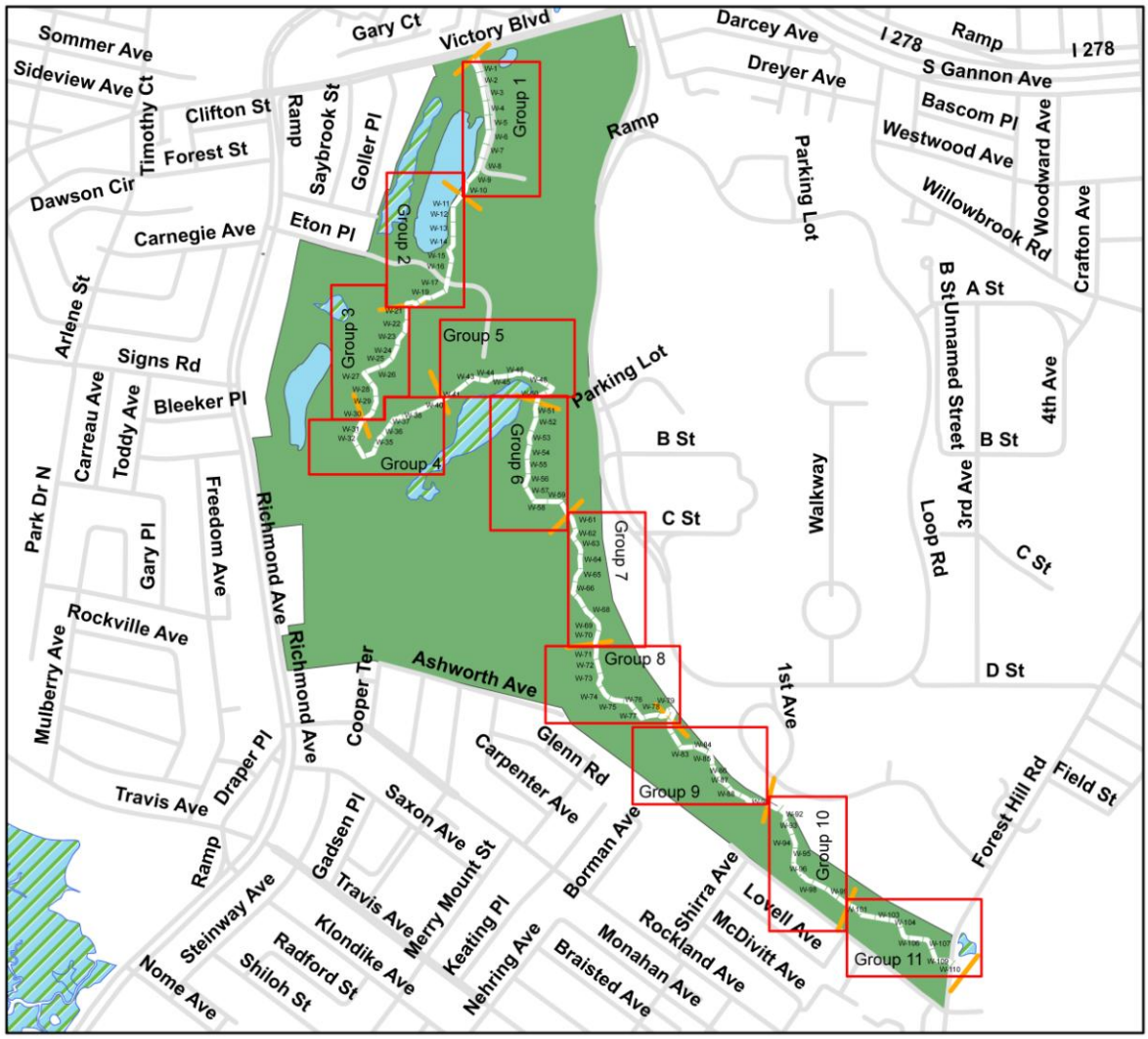
Map 2: Map of Willowbrook Park with the White Trail

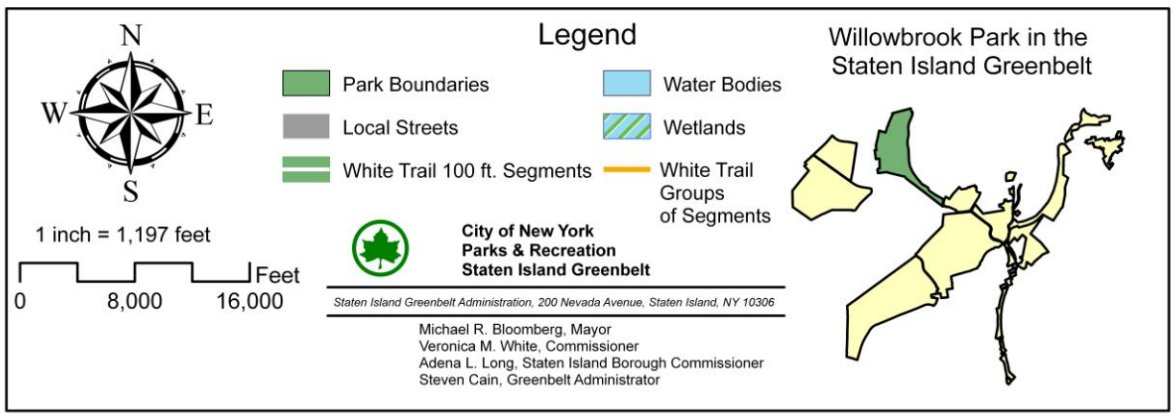
TRAILS - Willowbrook Park to White Trail



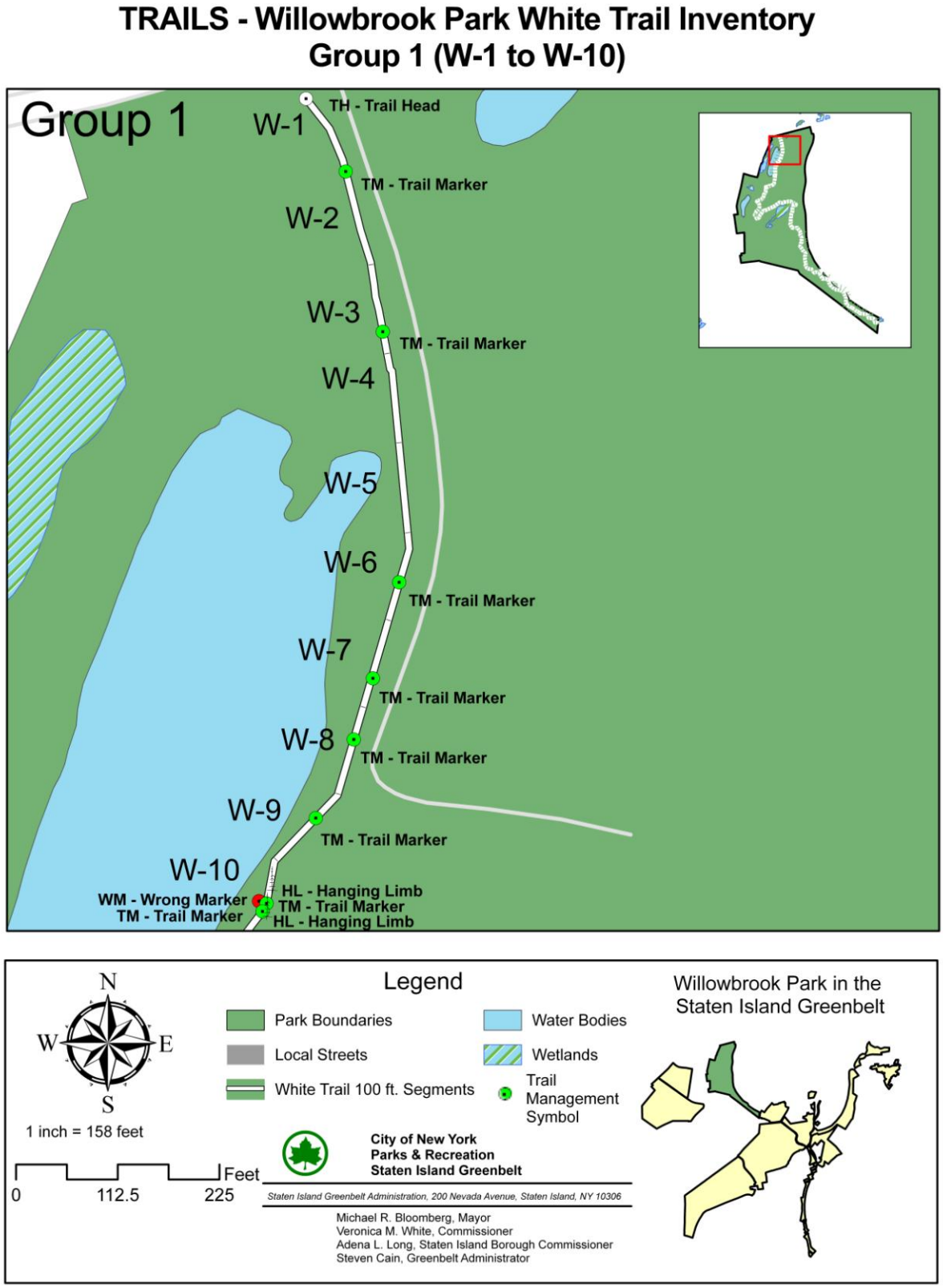
Map 3: Map of Willowbrook Park with the White Trail Delinated and Grouped

TRAILS - Willowbrook Park to White Trail Delinations

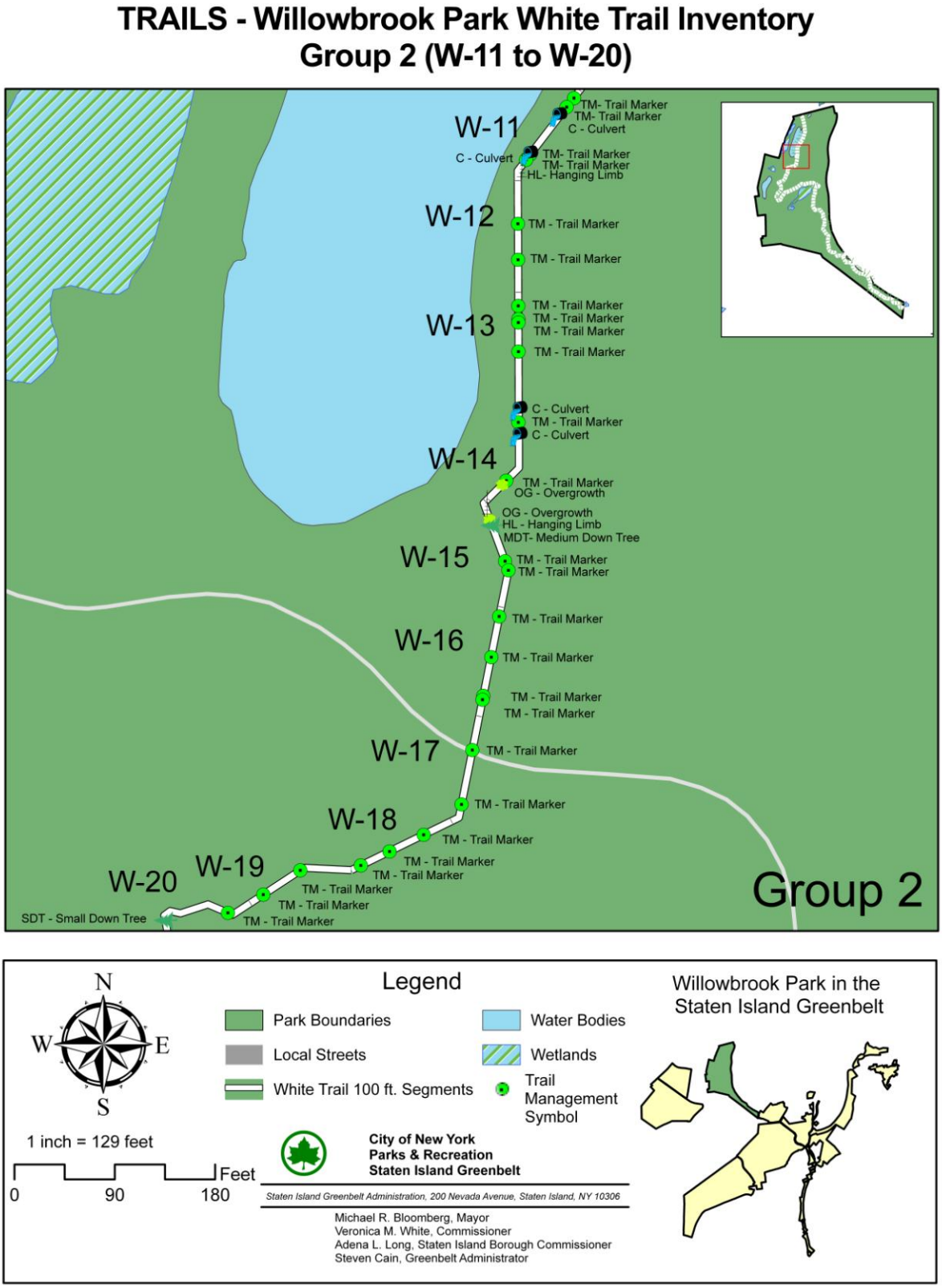




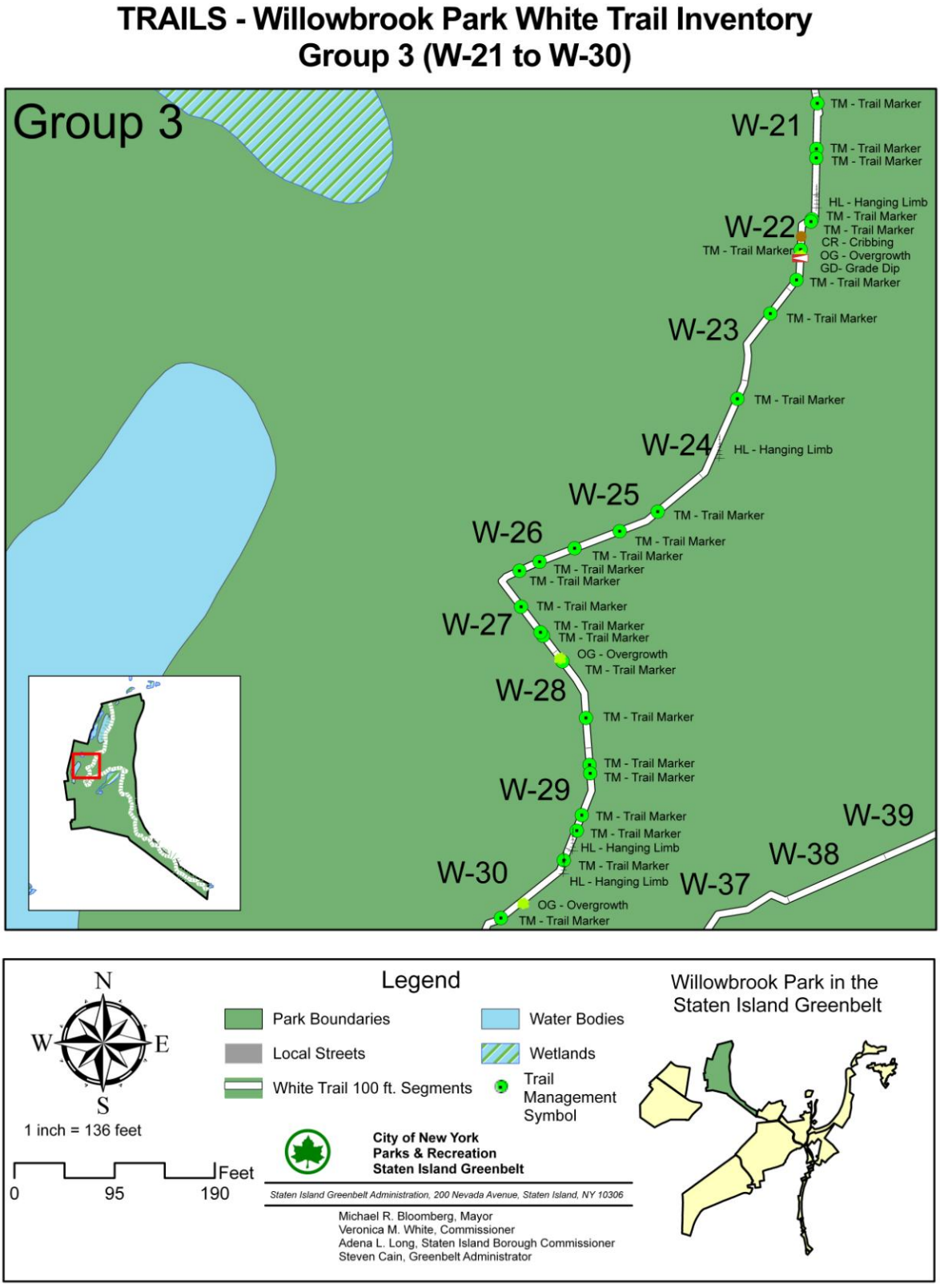
Map 4: Map of Willowbrook Park with White Trail Segment (W1 to W10) Assessed, Inventoried and Mapped



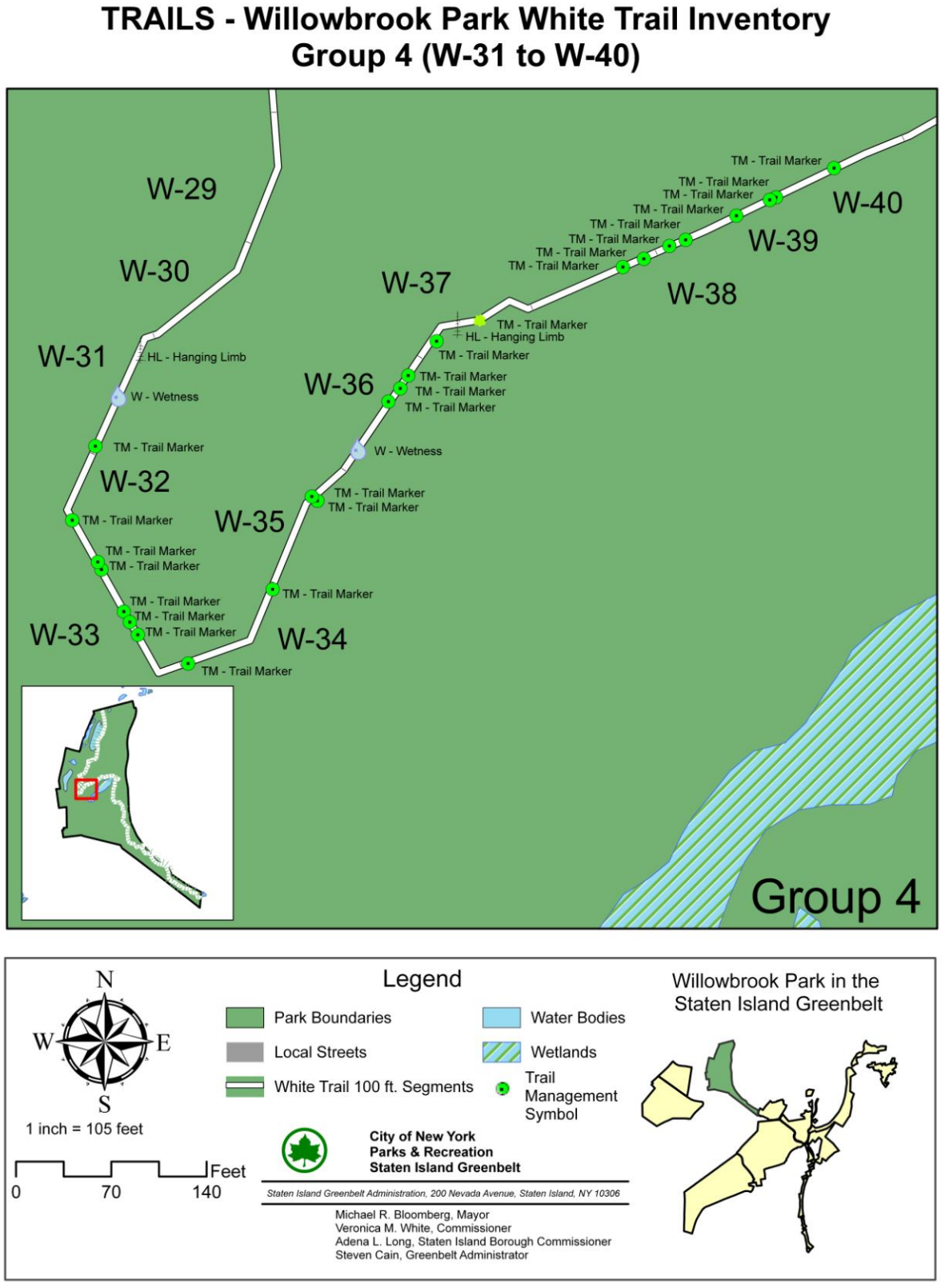
Map 5: Map of Willowbrook Park with White Trail Segment (W11 to W20) Assessed, Inventoried and Mapped



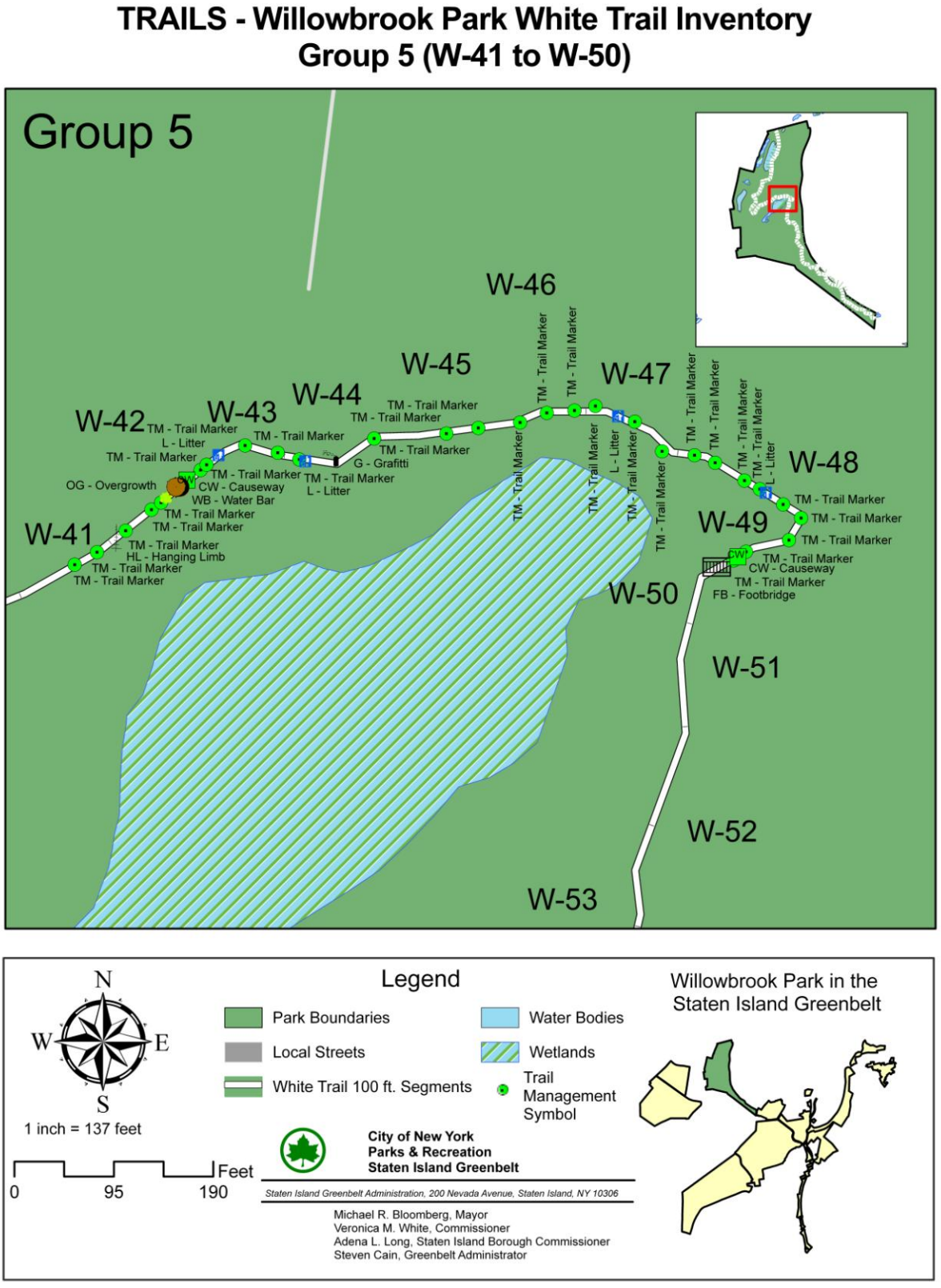
Map 6: Map of Willowbrook Park with White Trail Segment (W21 to W30) Assessed, Inventoried and Mapped



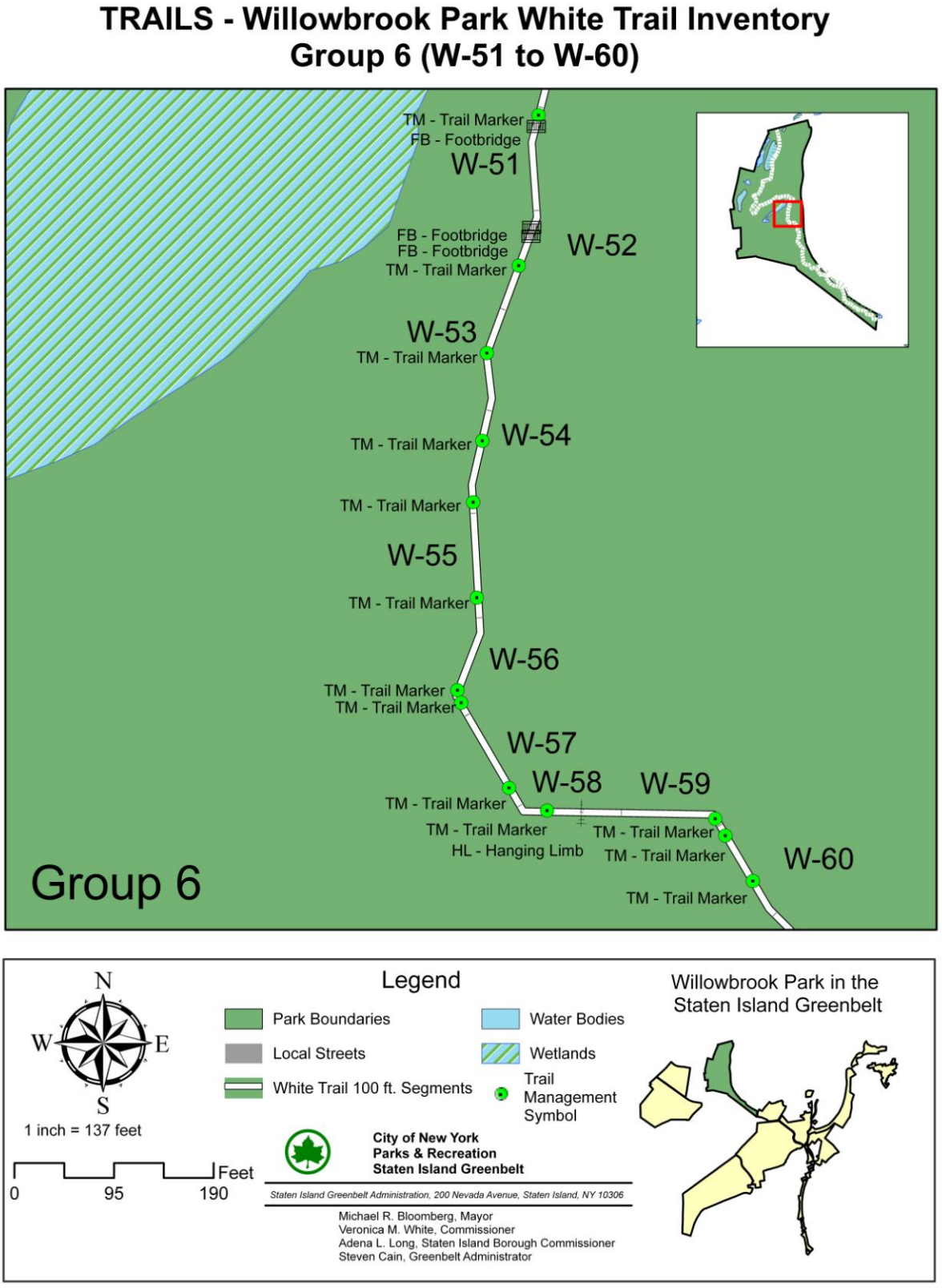
Map 7: Map of Willowbrook Park with White Trail Segment (W31 to W40) Assessed, Inventoried and Mapped



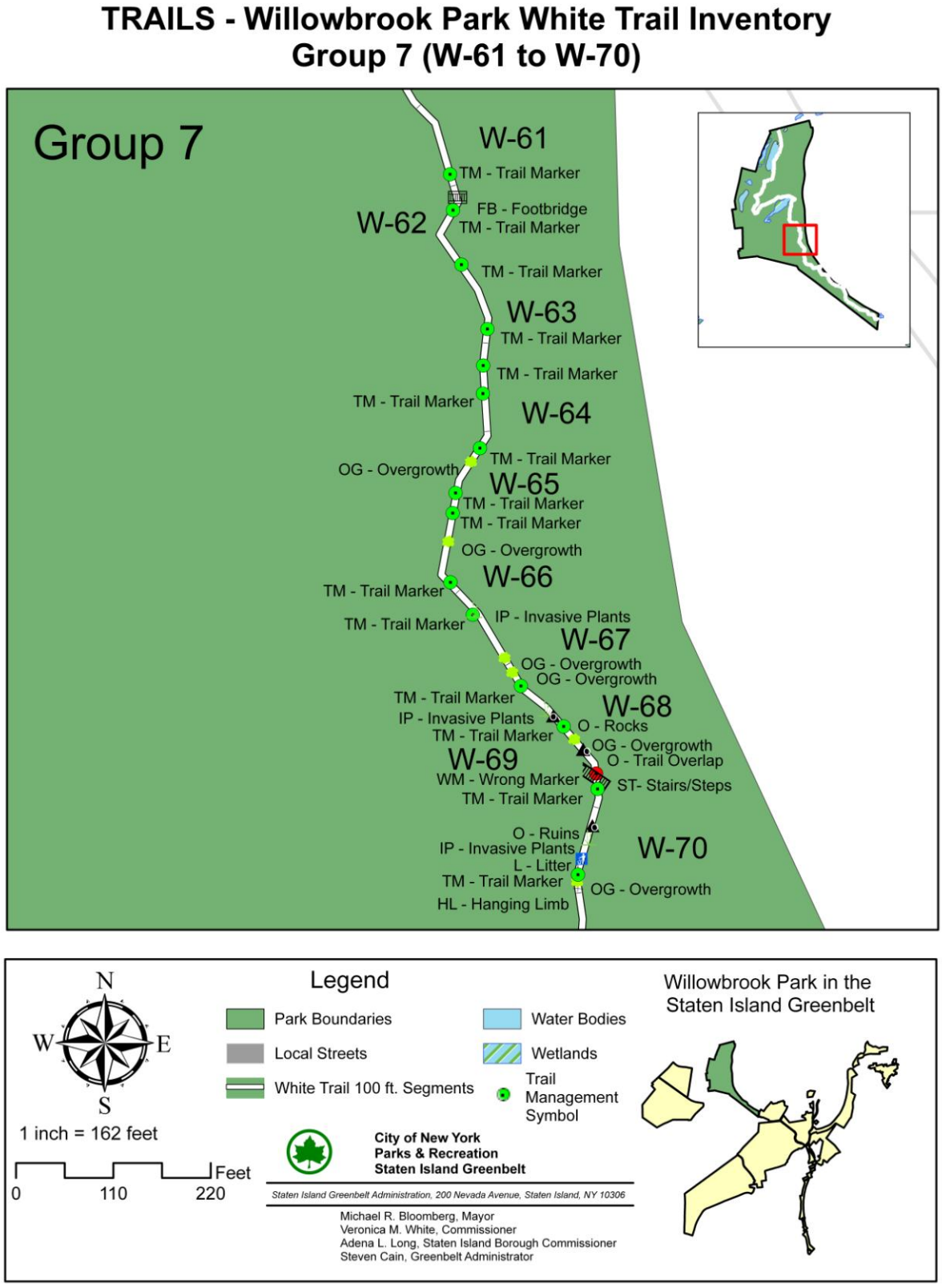
Map 8: Map of Willowbrook Park with White Trail Segment (W41 to W50) Assessed, Inventoried and Mapped



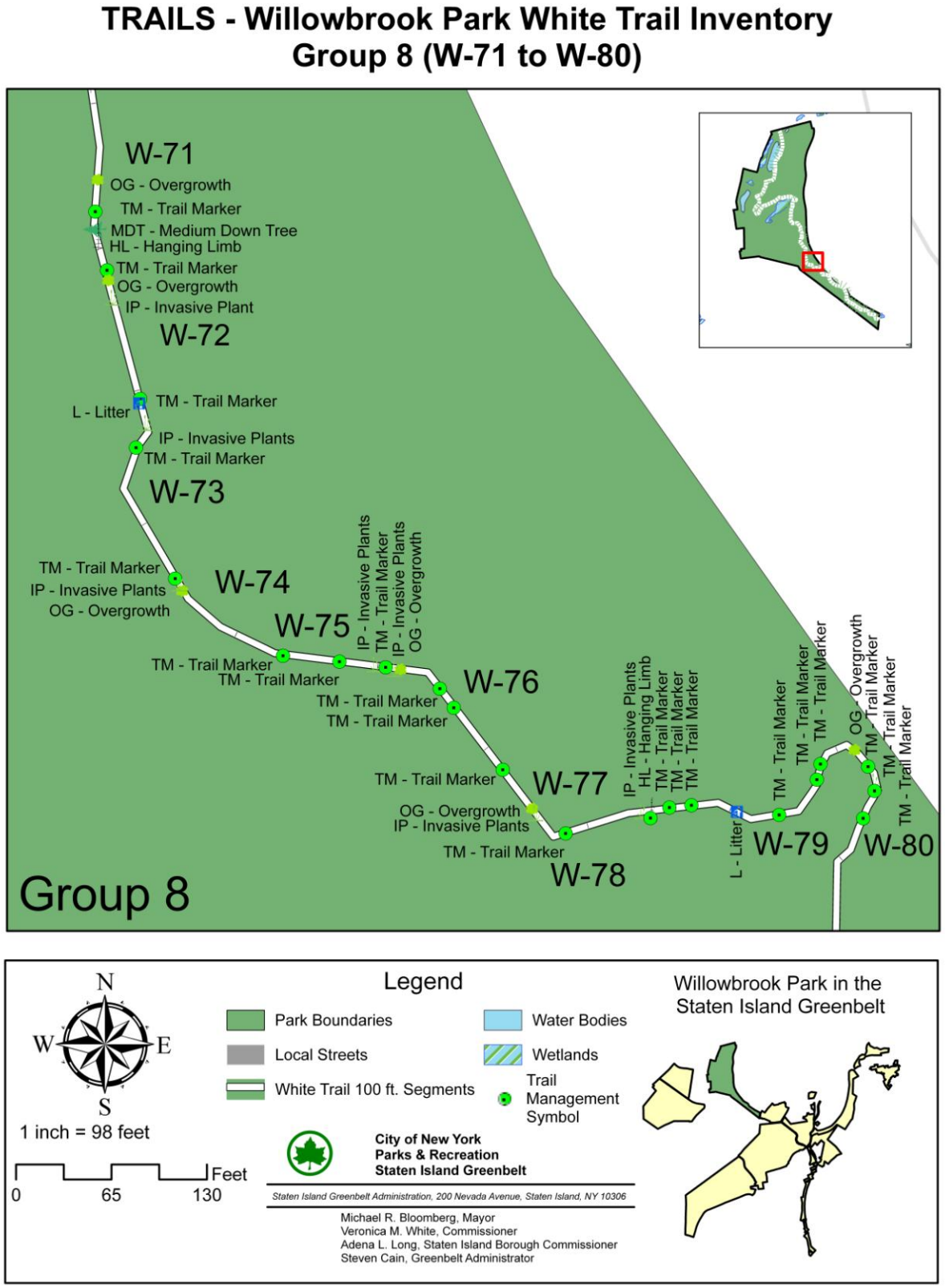
Map 9: Map of Willowbrook Park with White Trail Segment (W51 to W60) Assessed, Inventoried and Mapped



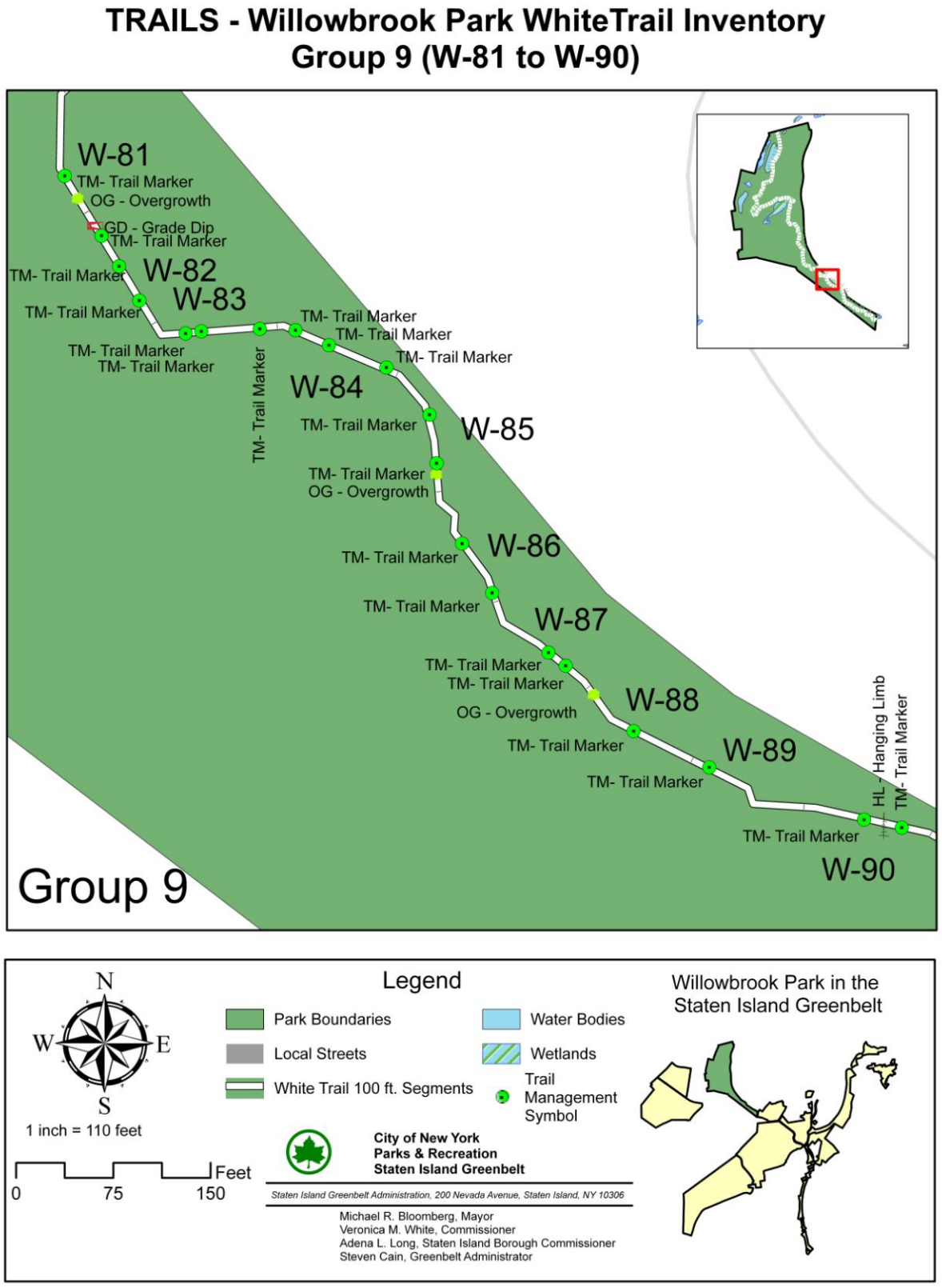
Map 10: Map of Willowbrook Park with White Trail Segment (W61to W70) Assessed, Inventoried and Mapped



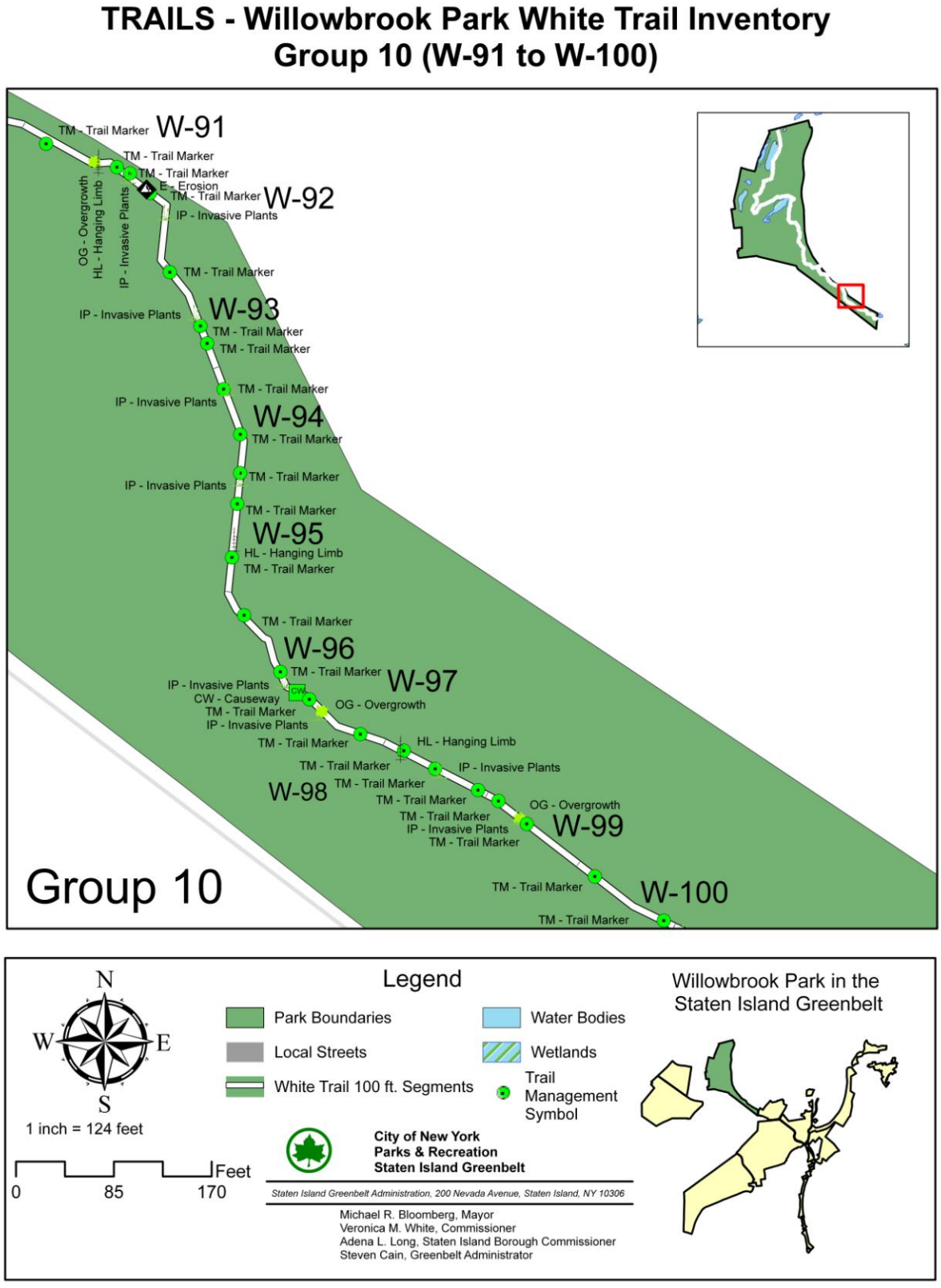
Map 11: Map of Willowbrook Park with White Trail Segment (W71to W80) Assessed, Inventoried and Mapped



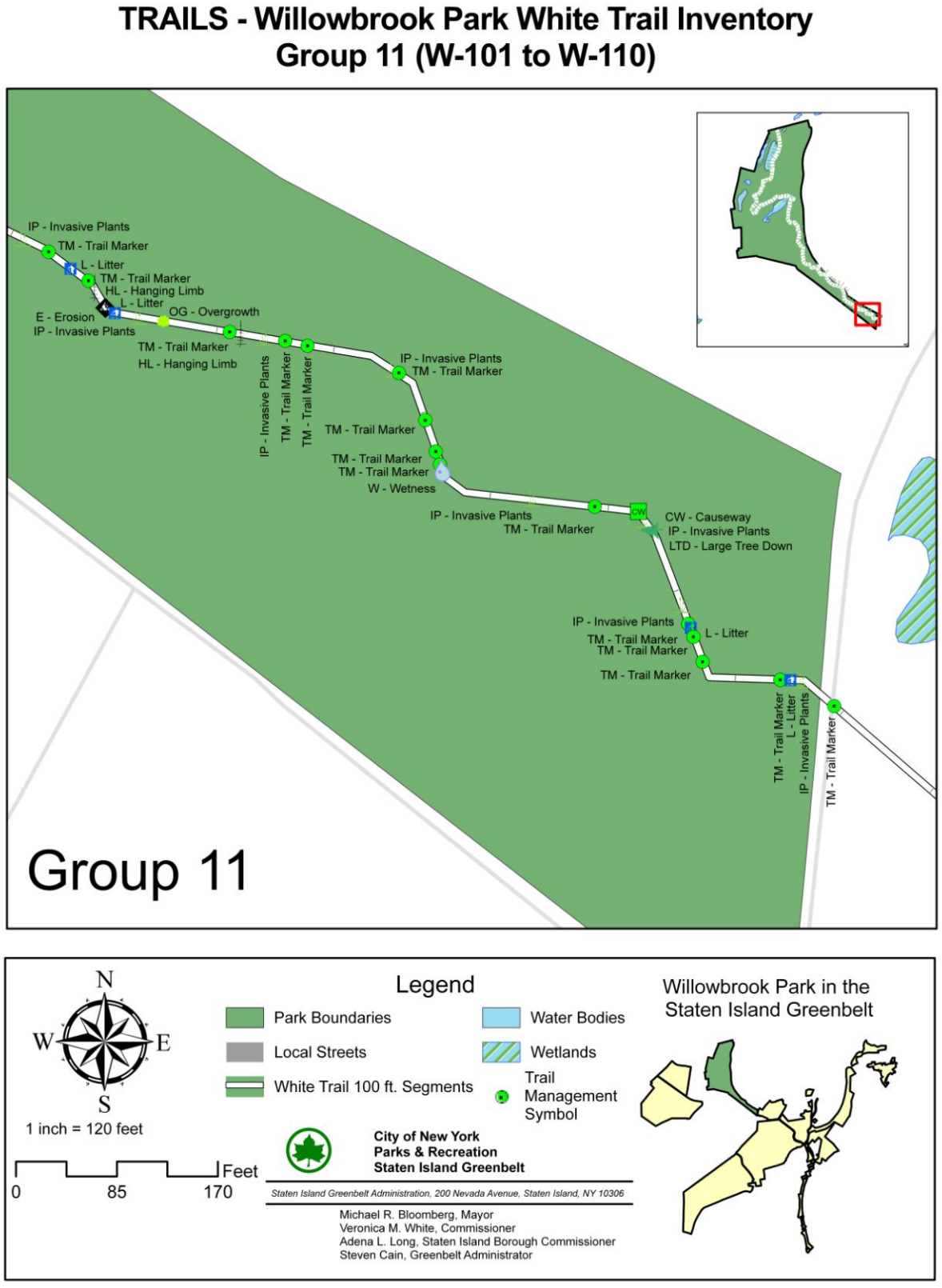
Map 12: Map of Willowbrook Park with White Trail Segment (W81 to W90) Assessed, Inventoried and Mapped



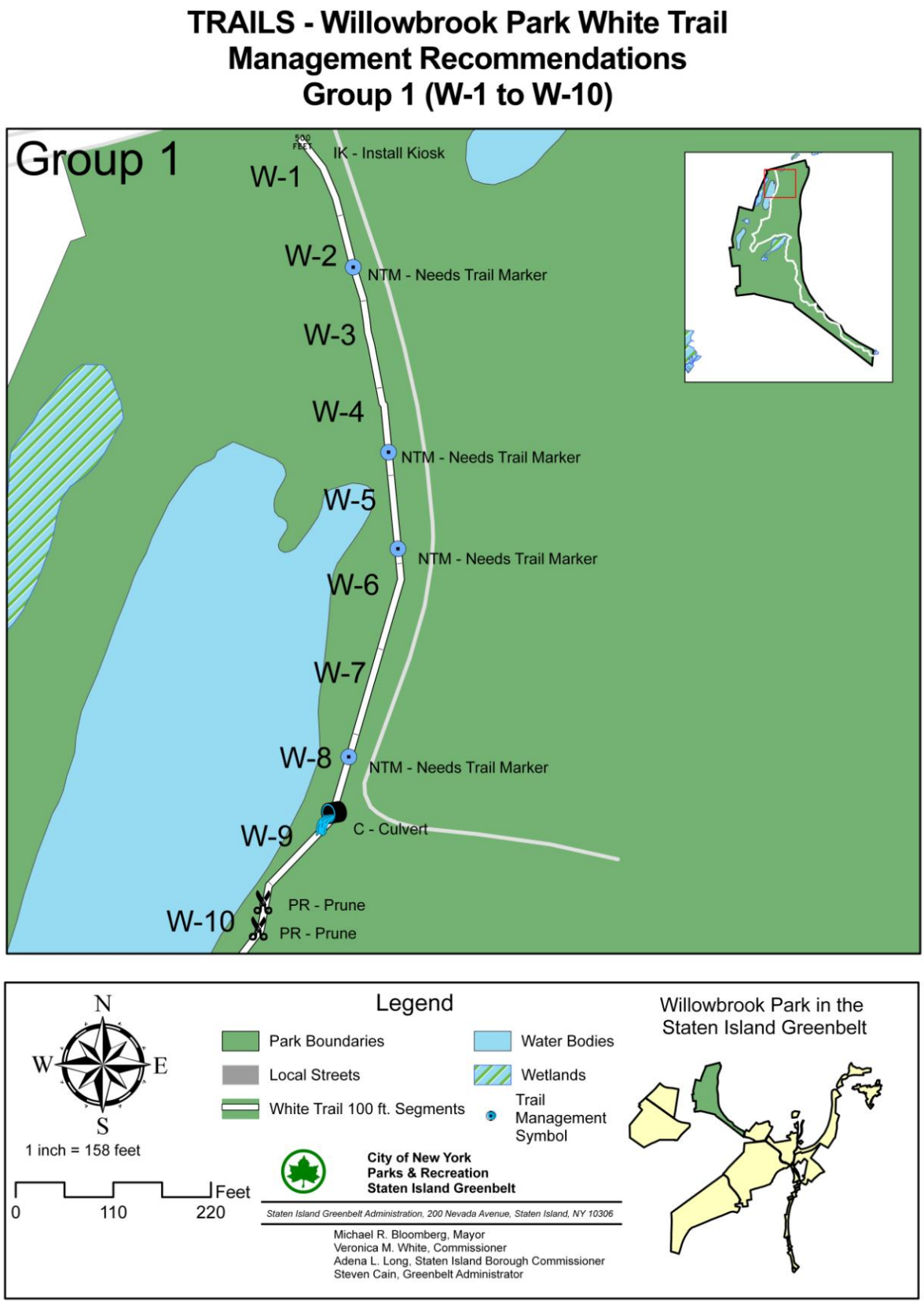
Map 13: Map of Willowbrook Park with White Trail Segment (W91 to W100) Assessed, Inventoried and Mapped



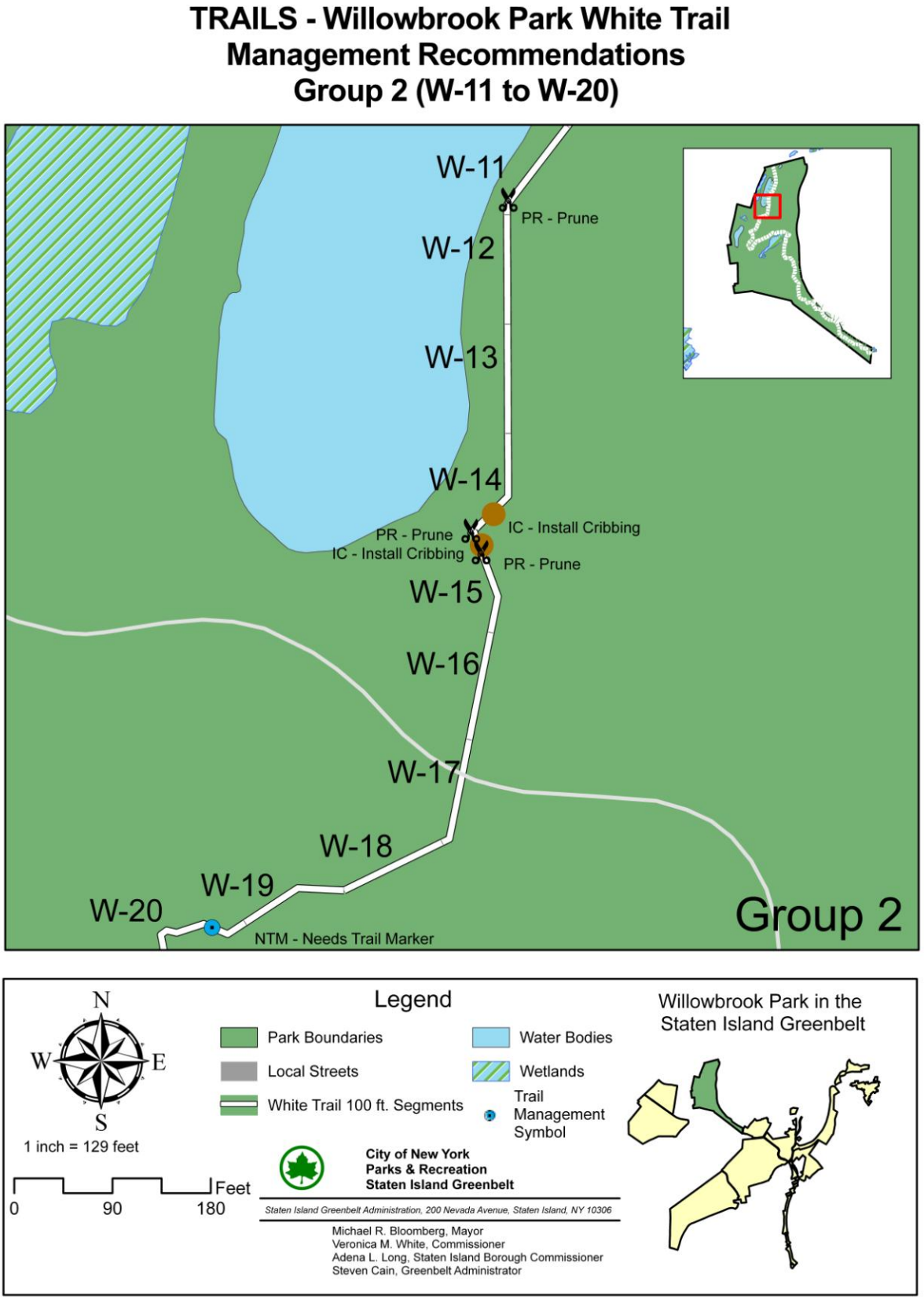
Map 14: Map of Willowbrook Park with White Trail Segment (W101 to W110) Assessed, Inventoried and Mapped



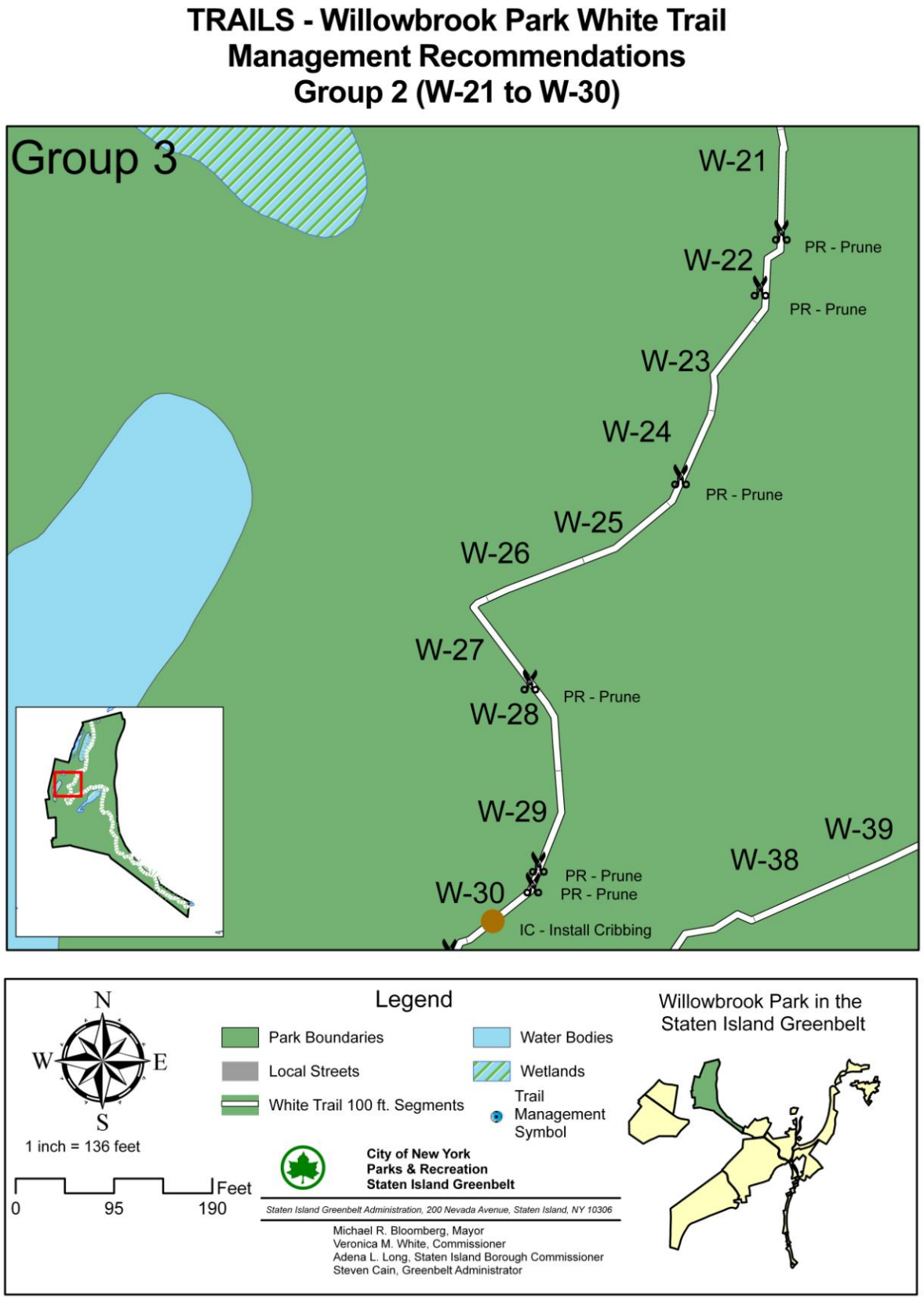
Map 15: Map of Willowbrook Park with White Trail Management Recommendations (W1 to W10)



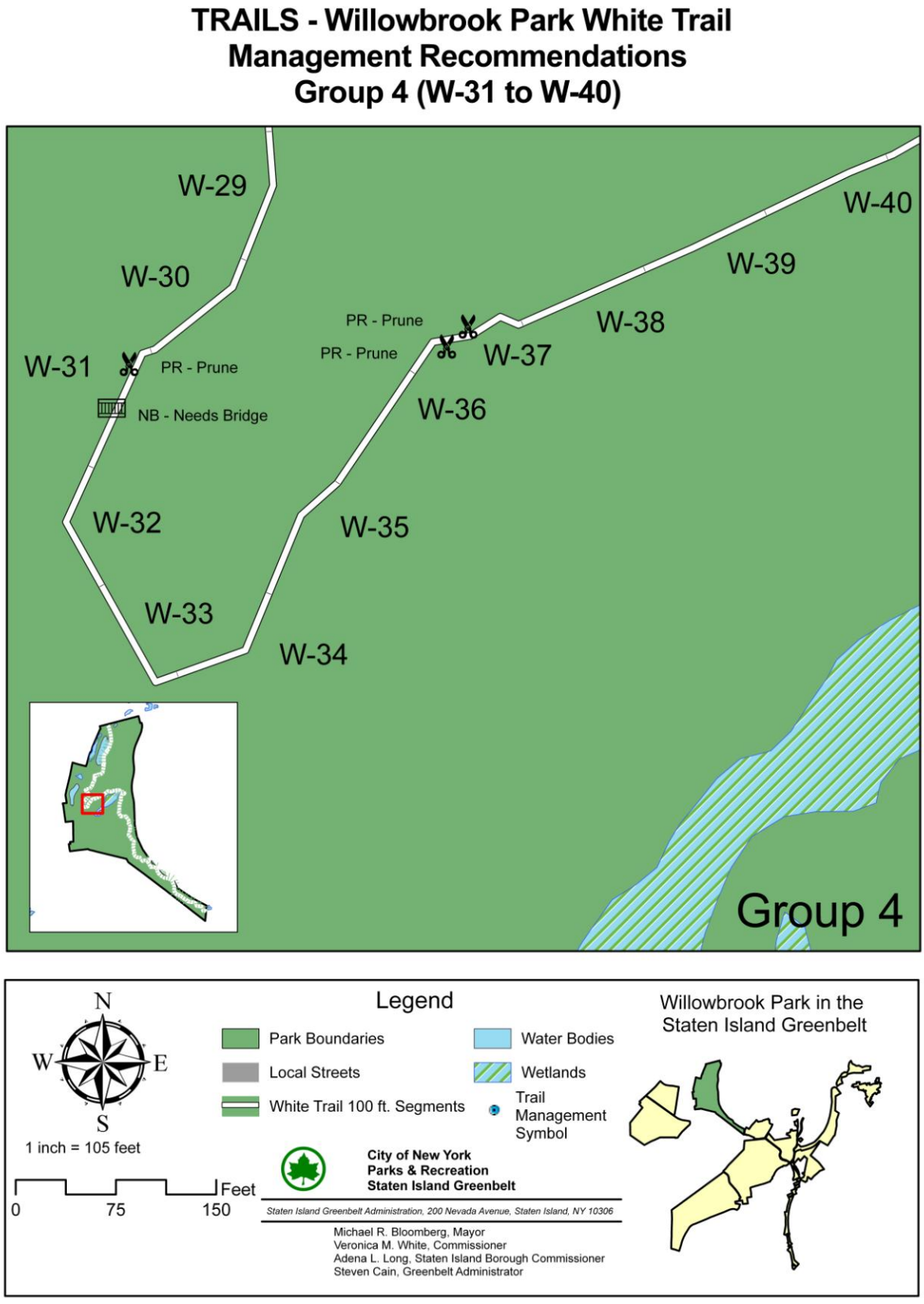
Map 16: Map of Willowbrook Park with White Trail Management Recommendations (W11 to W20)



Map 17: Map of Willowbrook Park with White Trail Management Recommendations (W21 to W30)

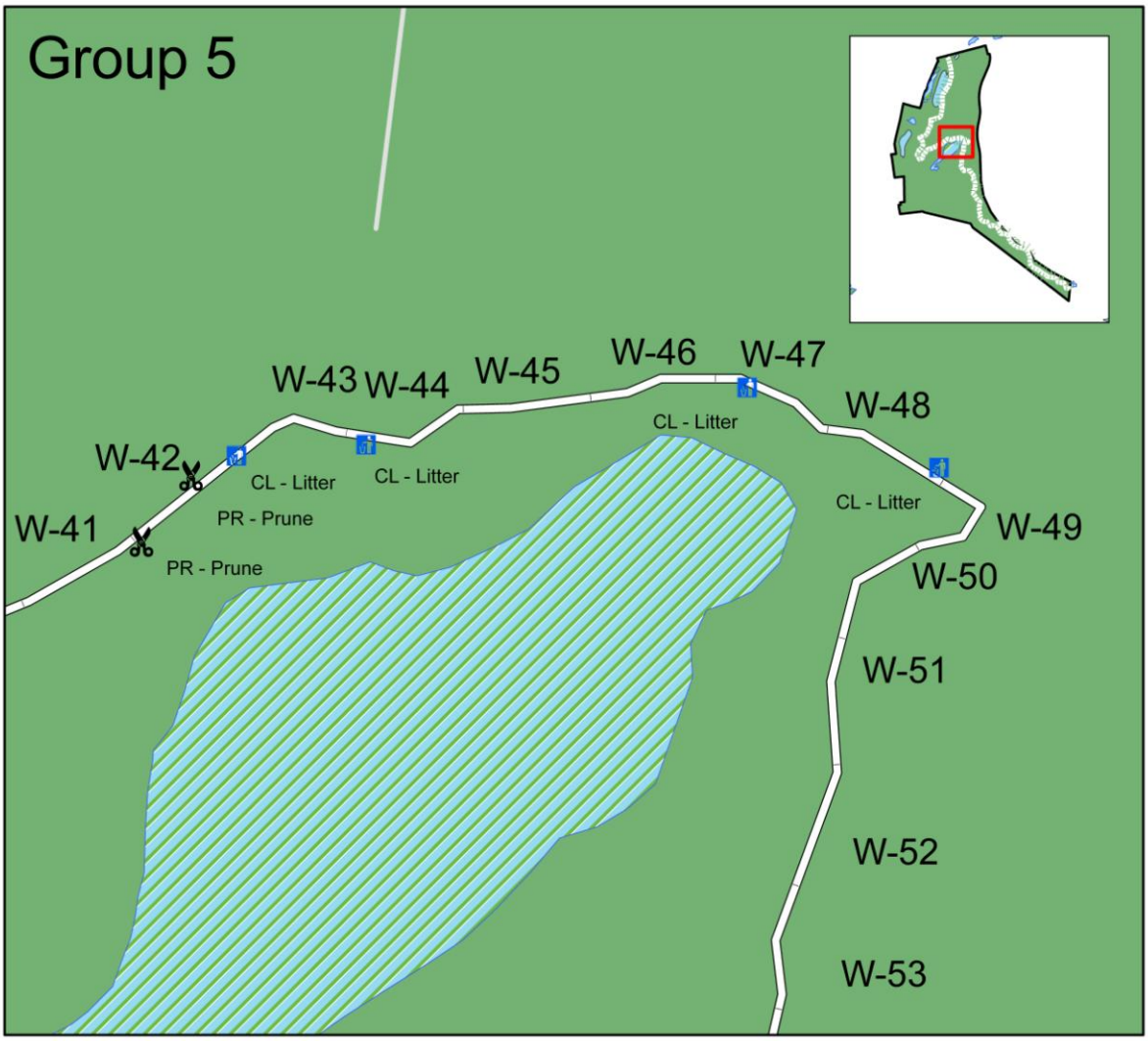


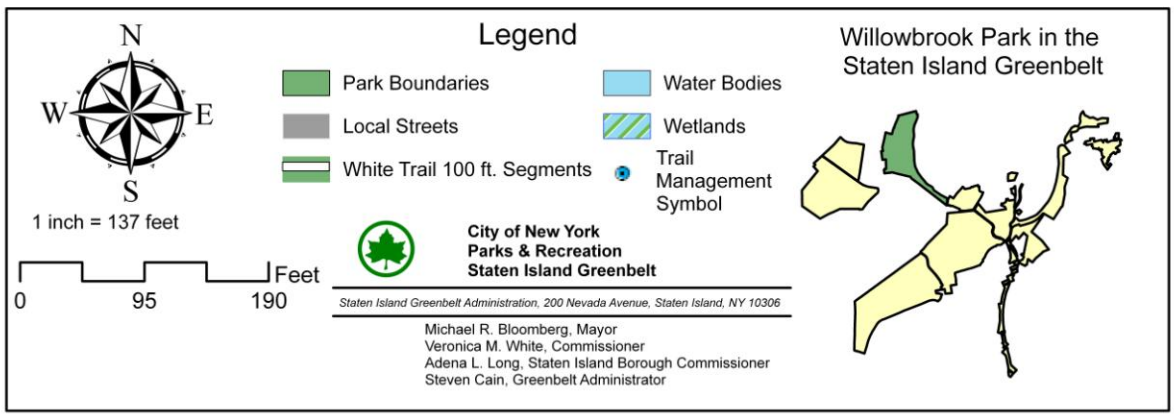
Map 18: Map of Willowbrook Park with White Trail Management Recommendations (W31 to W40)



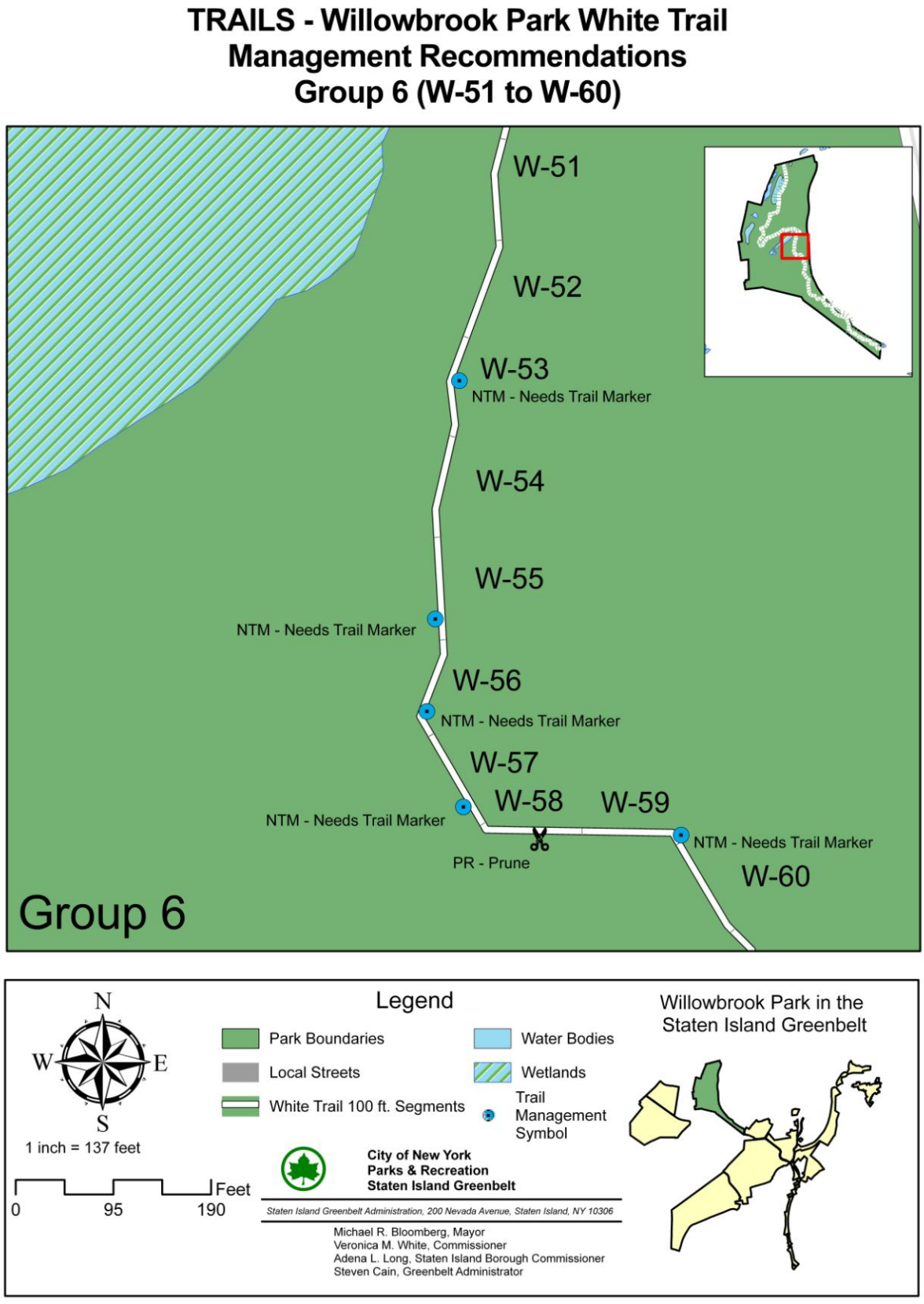
Map 19: Map of Willowbrook Park with White Trail Management Recommendations (W41 to W50)

TRAILS - Willowbrook Park White Trail Management Recommendations Group 5 (W-41 to W-50)

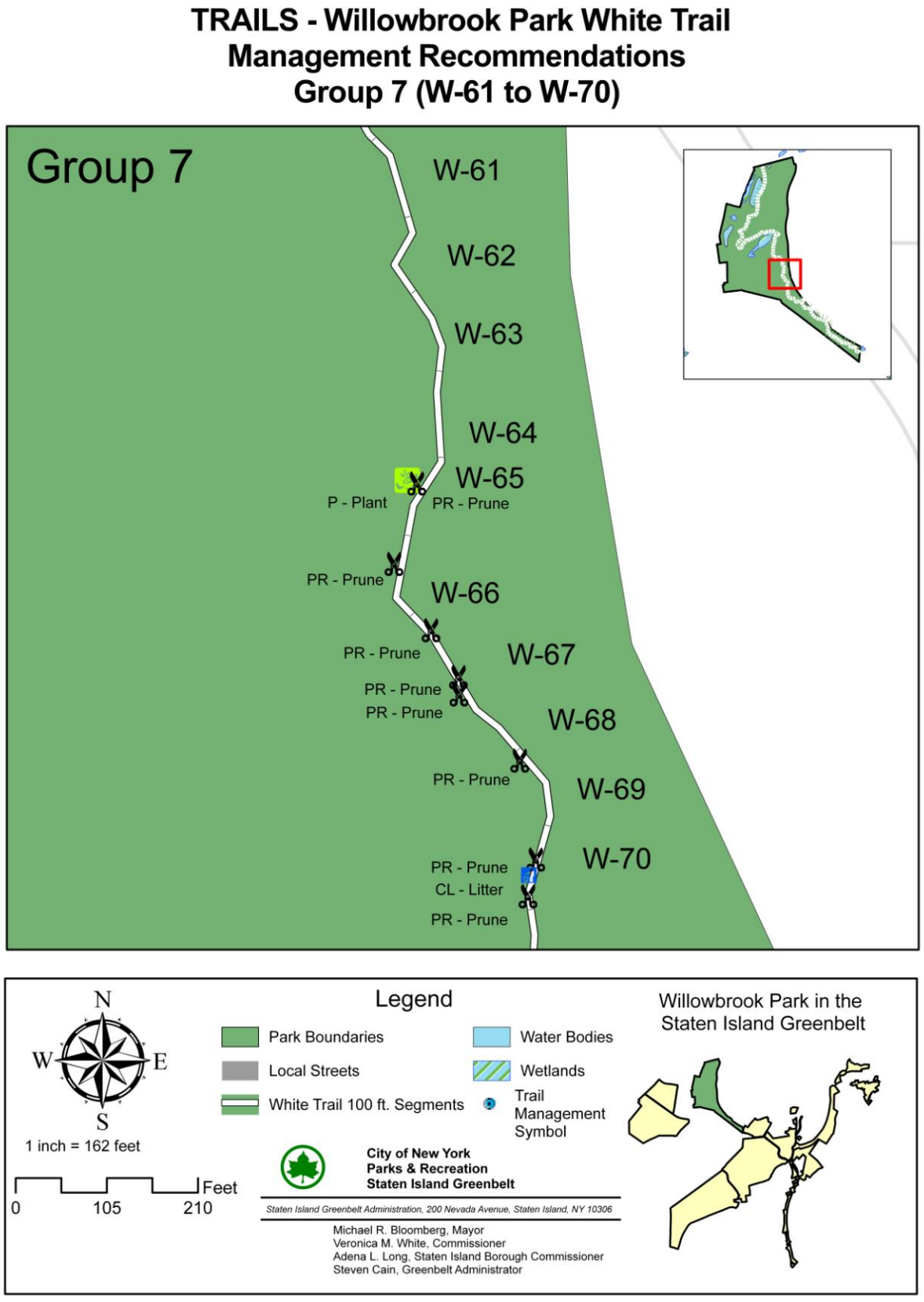




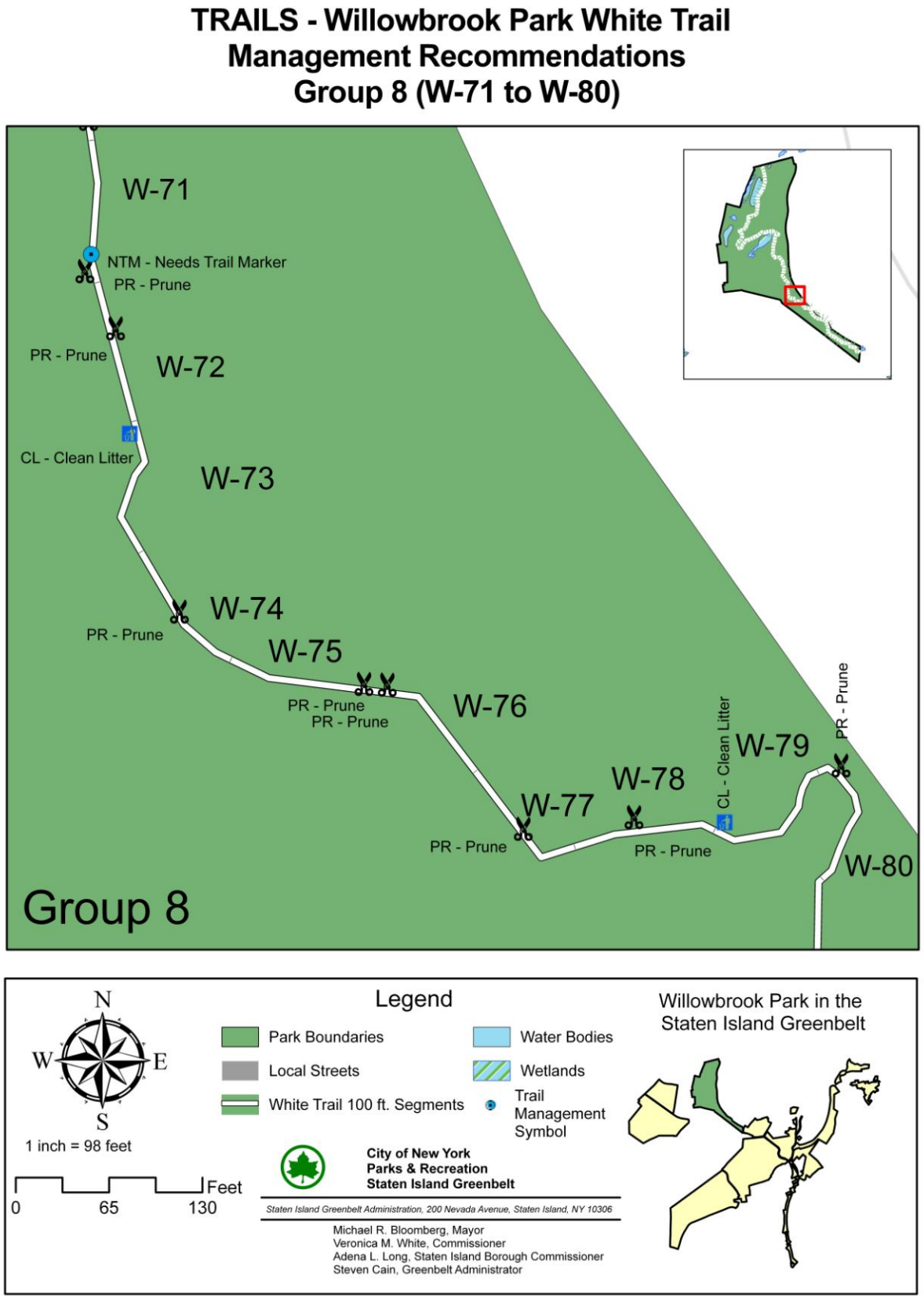
Map 20: Map of Willowbrook Park with White Trail Management Recommendations (W51 to W60)



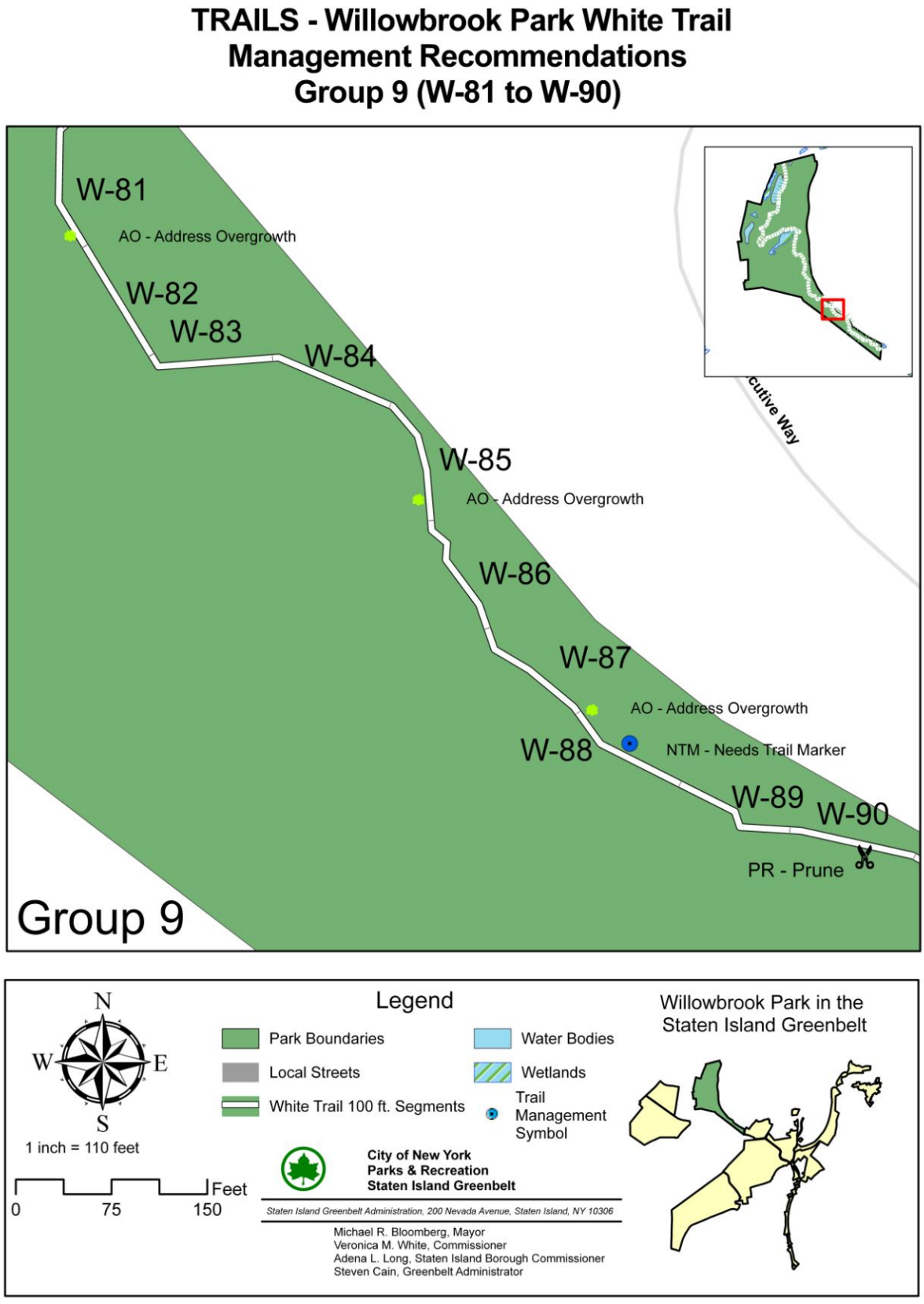
Map 21: Map of Willowbrook Park with White Trail Management Recommendations (W61to W70)



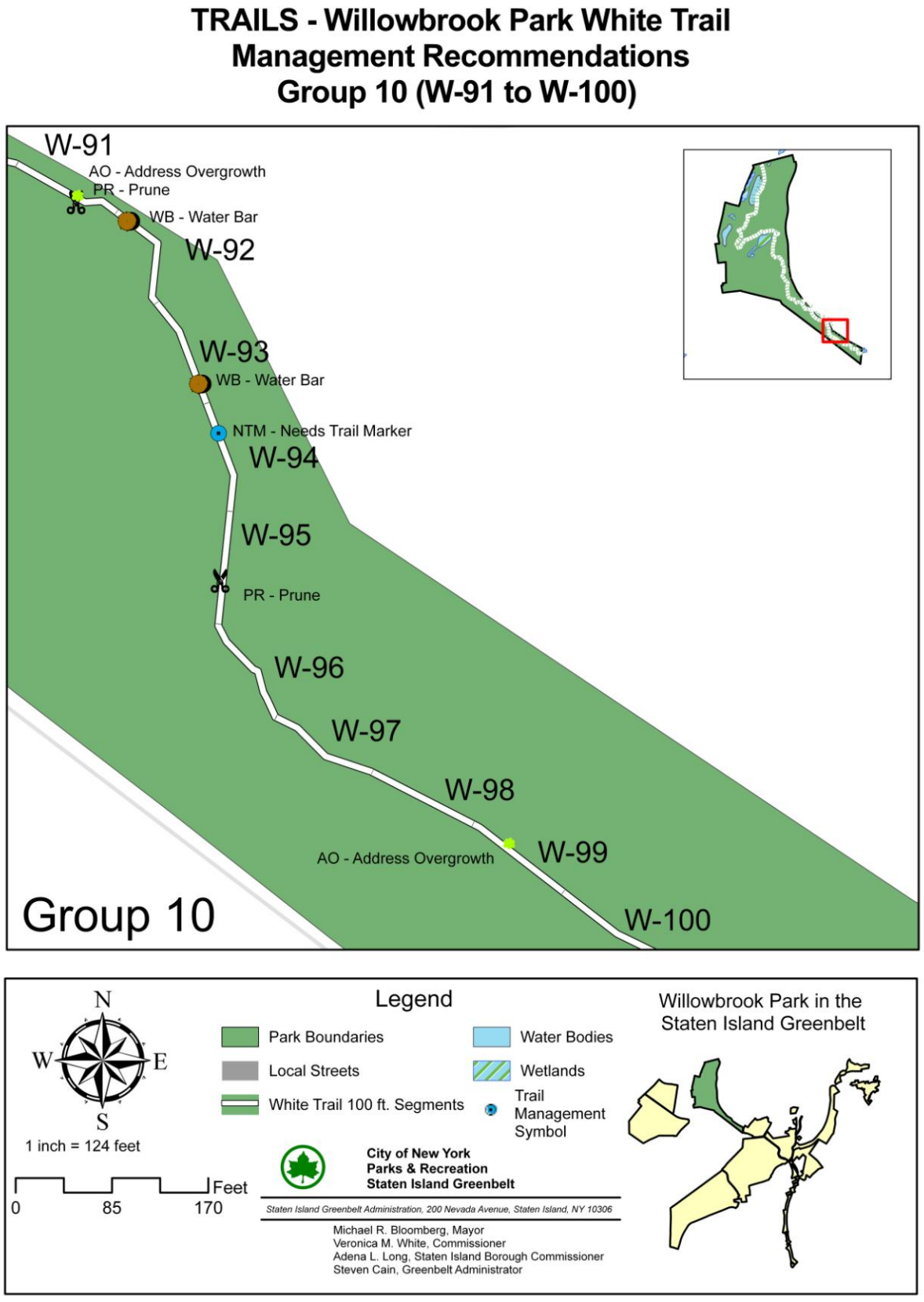
Map 22: Map of Willowbrook Park with White Trail Management Recommendations(W71to W80)



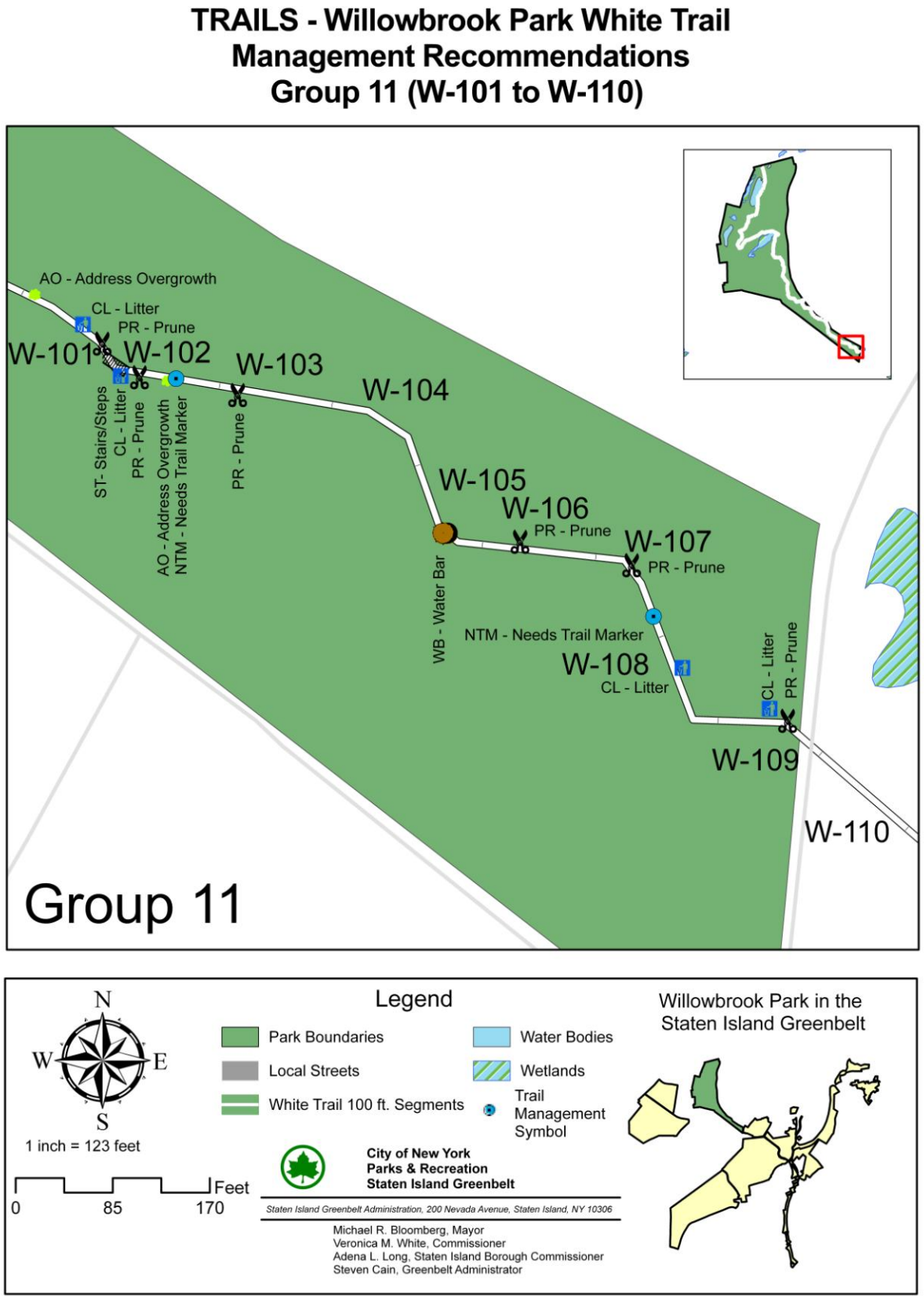
Map 23: Map of Willowbrook Park with White Trail Management Recommendations (W81 to W90)



Map 24: Map of Willowbrook Park with White Trail Management Recommendations (W91to W100)

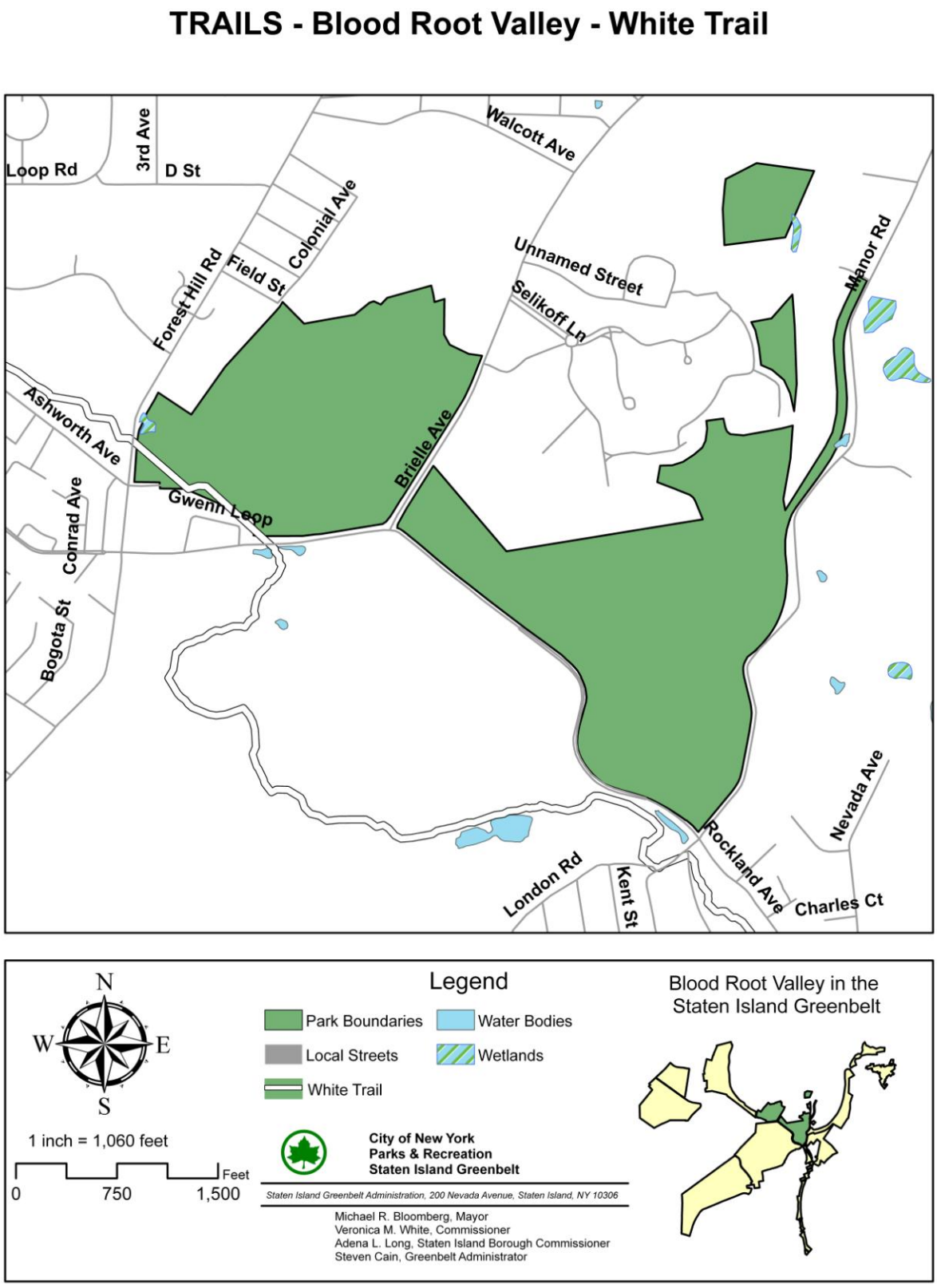


Map 25: Map of Willowbrook Park with White Trail Management Recommendations (W101 to W110)



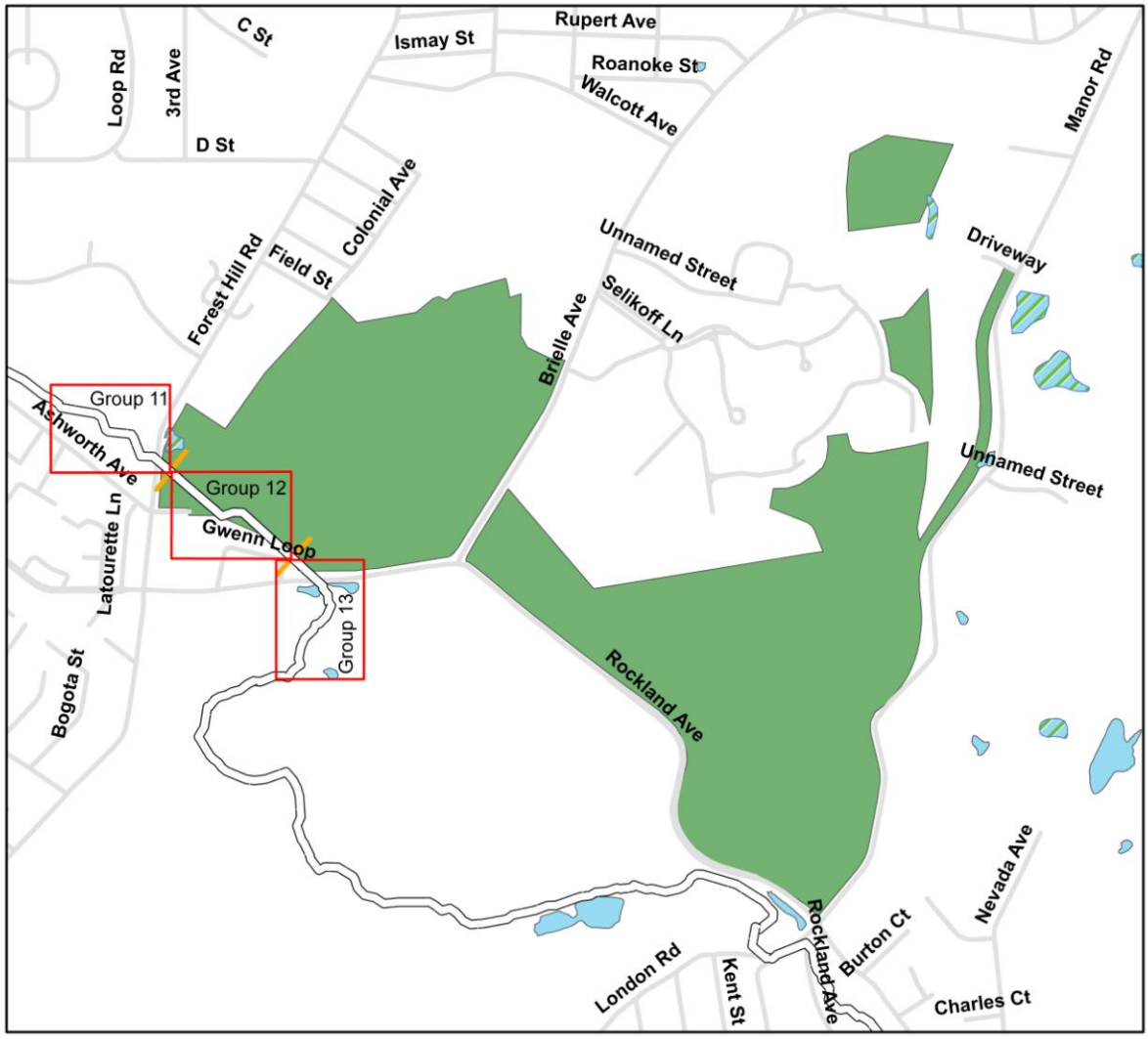
Map 26: Aerial Map of the Greenbelt with Blood Root Valley Park Highlighted with the White Trail

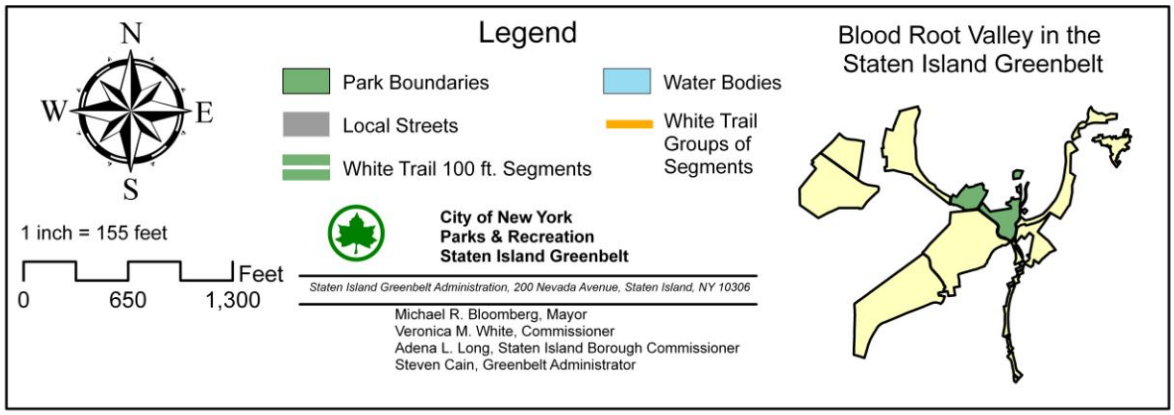
Map 27: Map of Blood Root Valley with the White Trail



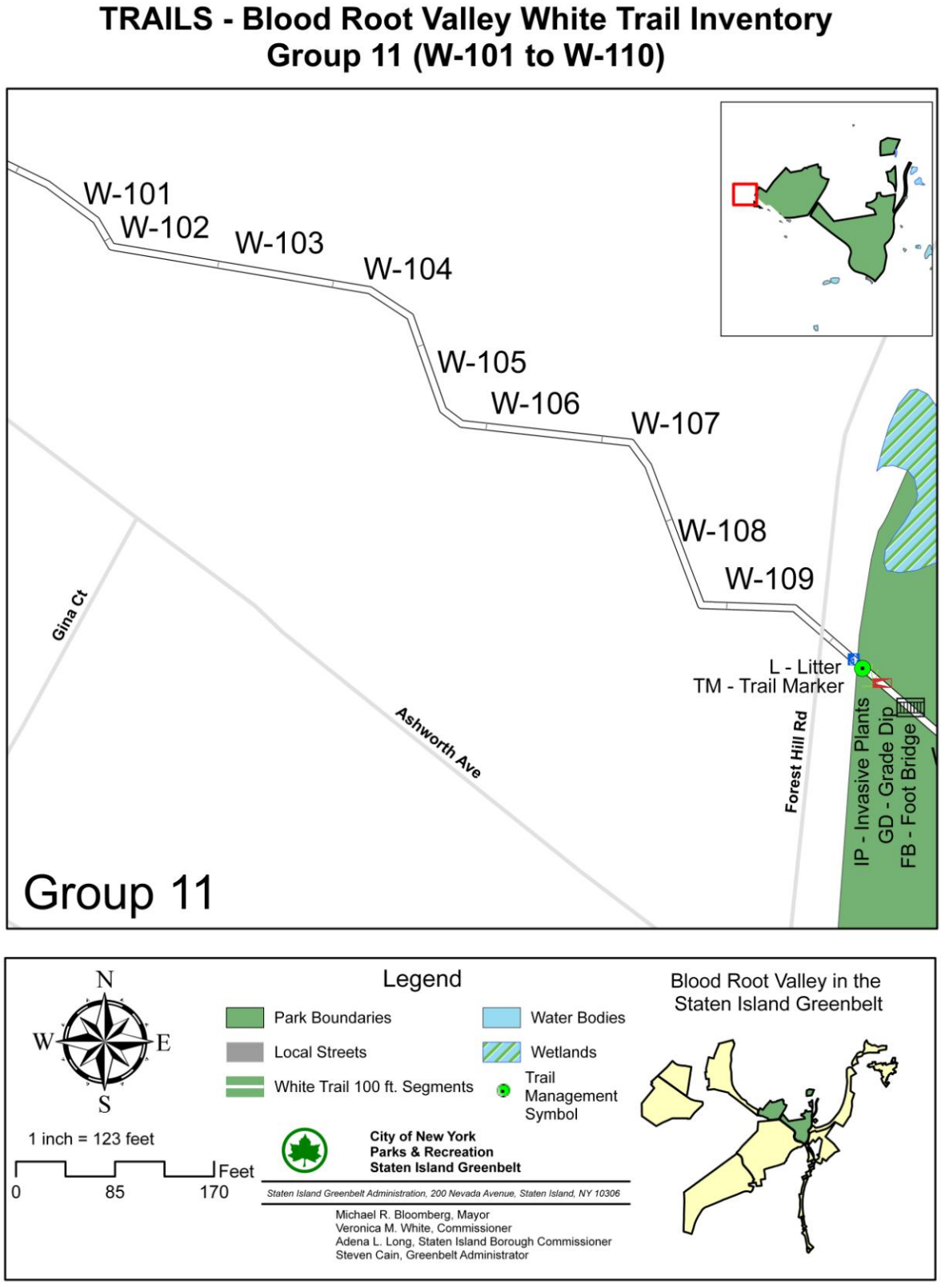
Map 28: Map of Blood Root Valley with White Trail Delinated and Grouped

TRAILS - Blood Root Valley - White Trail Delinations

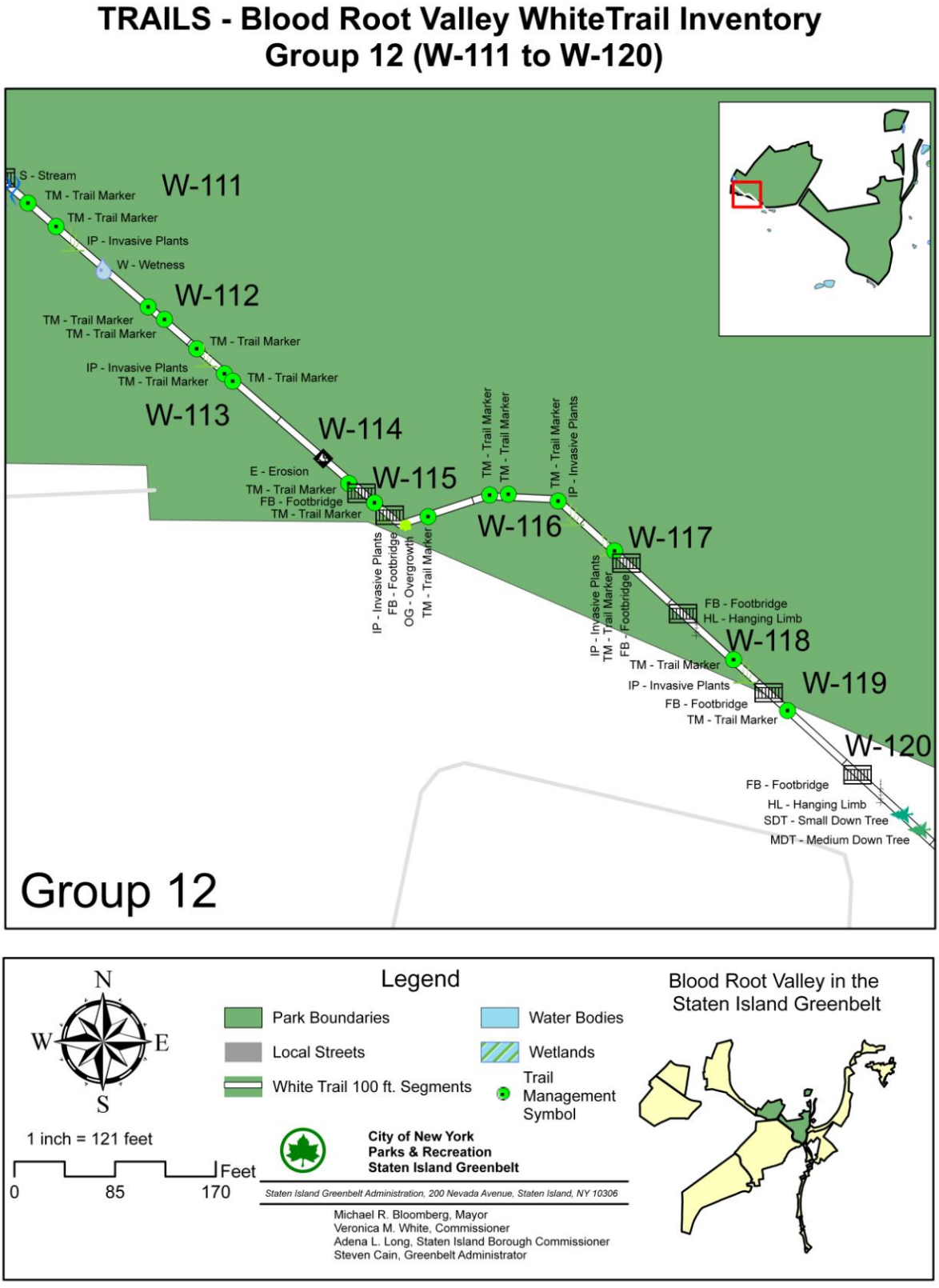




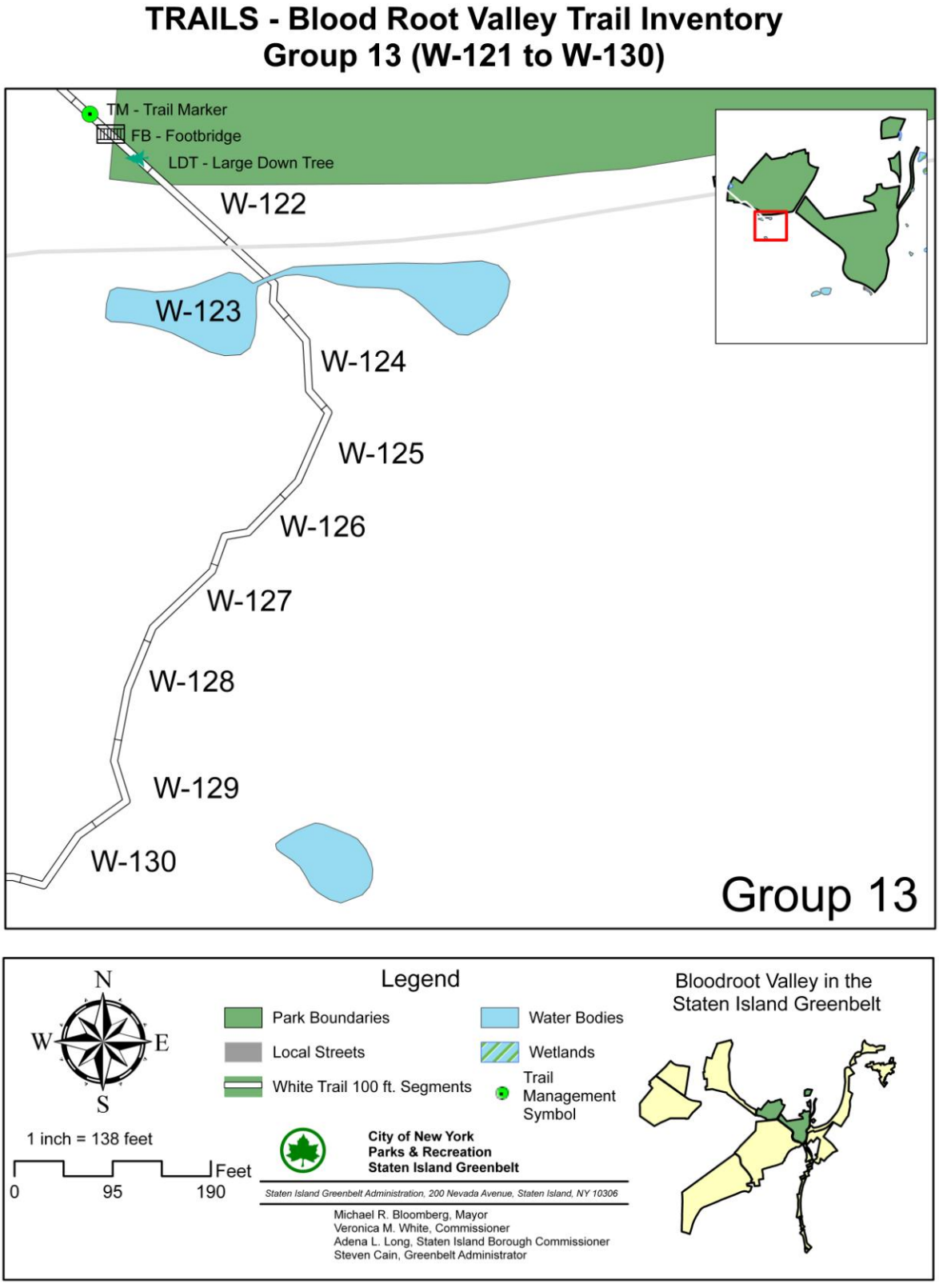
Map 29: Map of Blood Root Valley with White Trail Segment (W101 to W110) Assessed, Inventoried and Mapped



Map 30: Map of Blood Root Valley with White Trail Segment (W111 to W120) Assessed, Inventoried, and Mapped

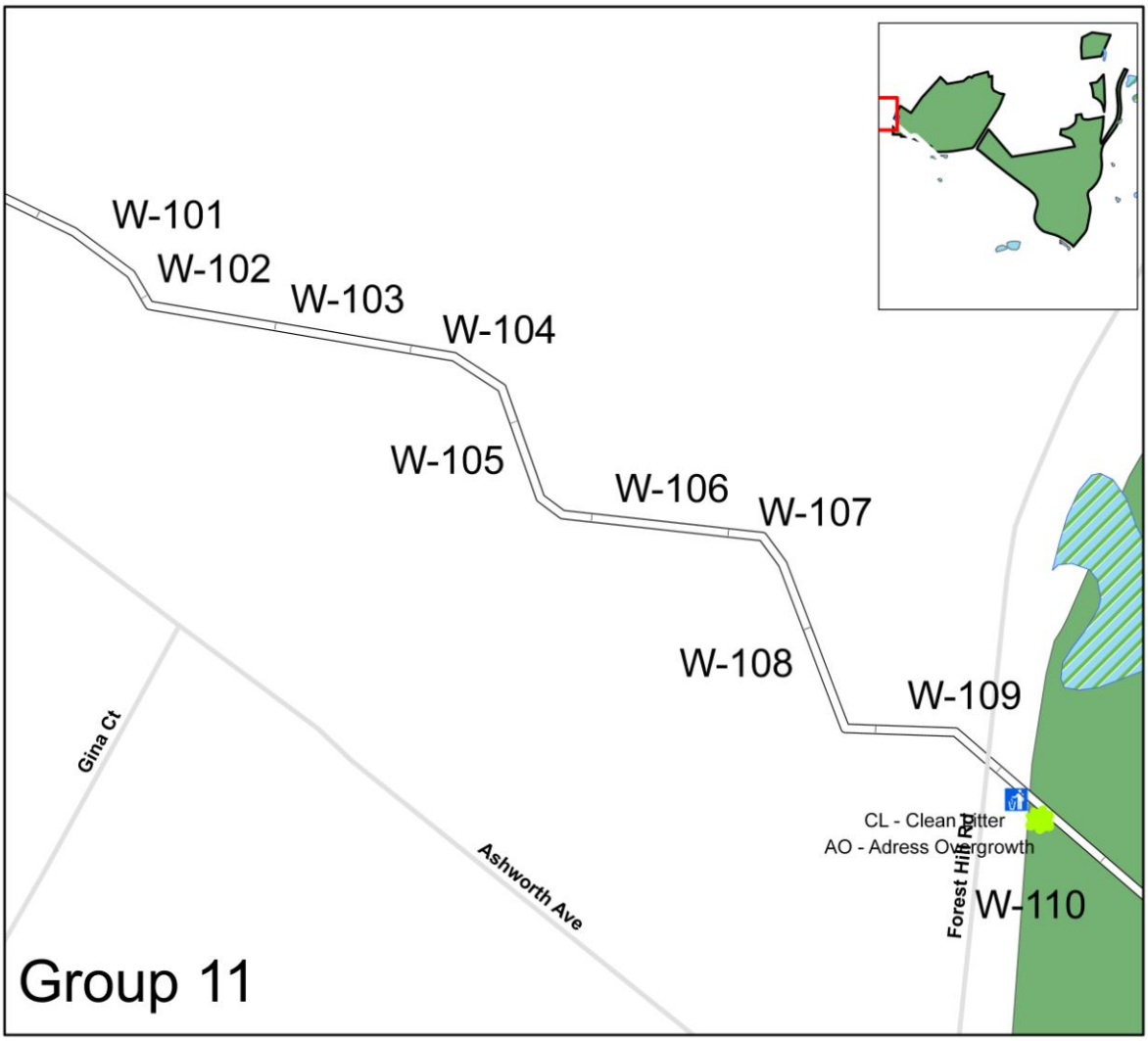


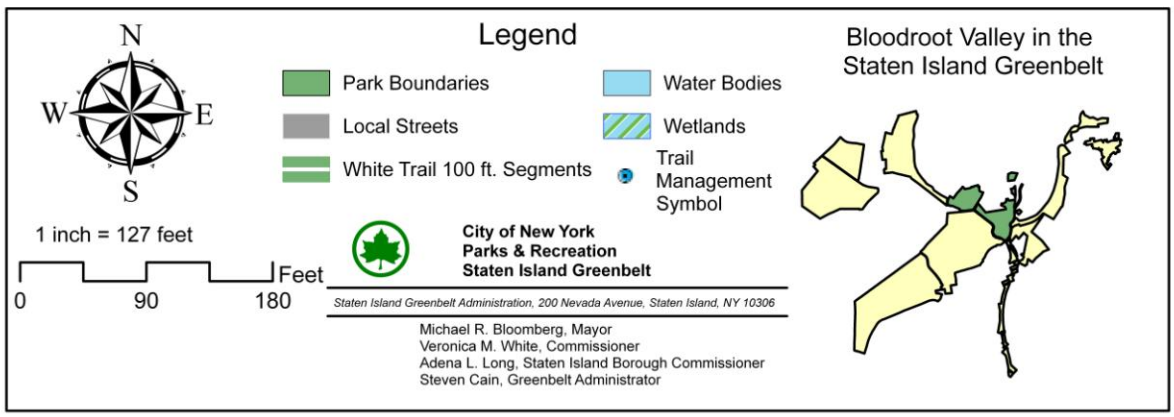
Map 31: Map of Blood Root Valley with White Trail Segment (W121 to W130) Assessed, Inventoried and Mapped



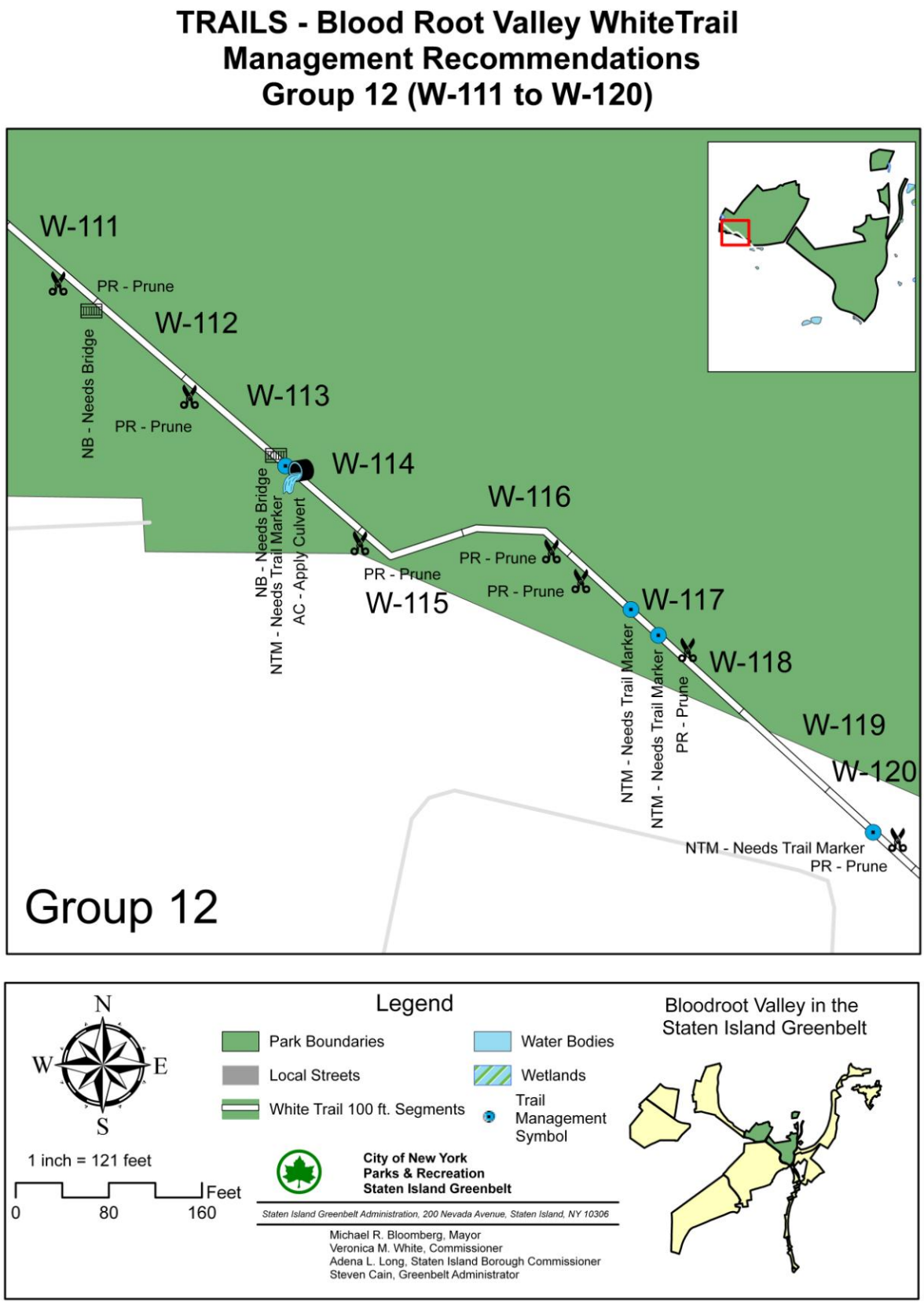
Map 32: Map of Blood Root Valley with White Trail Management Recommendations(W101 to W110)

TRAILS - Blood Root Valley White Trail Management Recommendations Group 11 (W-101 to W110)

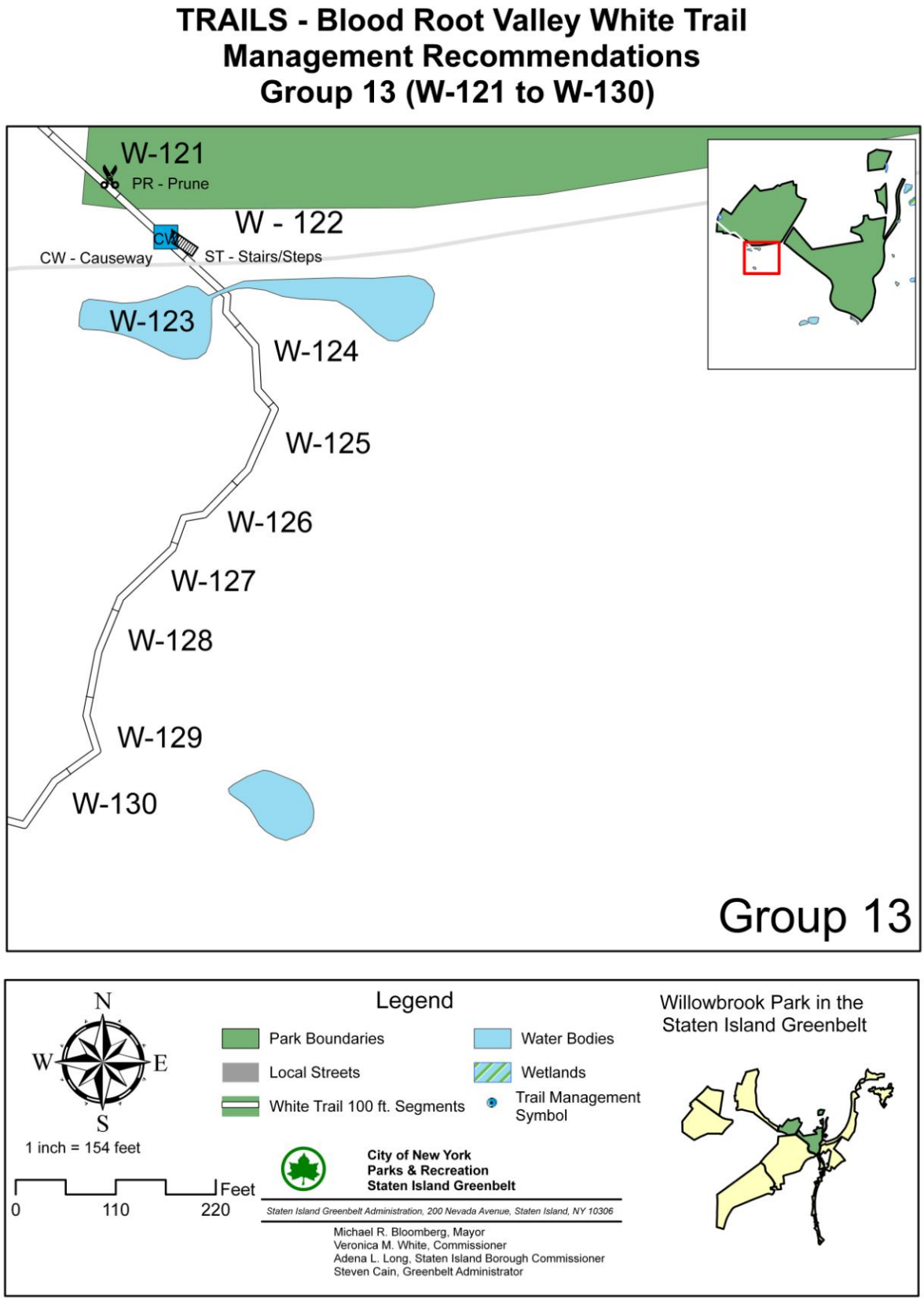




Map 33: Map of Blood Root Valley with White Trail Management Recommendations (W111 to W120)



Map 34: Map of Blood Root Valley with White Trail Management Recommendations (W121 to W130)



Map 35: Aerial Map of the Greenbelt with La Tourette Park Highlighted with the White Trail

TRAILS - La Tourette Park in the Staten Island Greenbelt with the White Trail

Legend

N
W E
S

White Trail
La Tourette Park
Greenbelt Park Boundaries

1 in = 1 miles

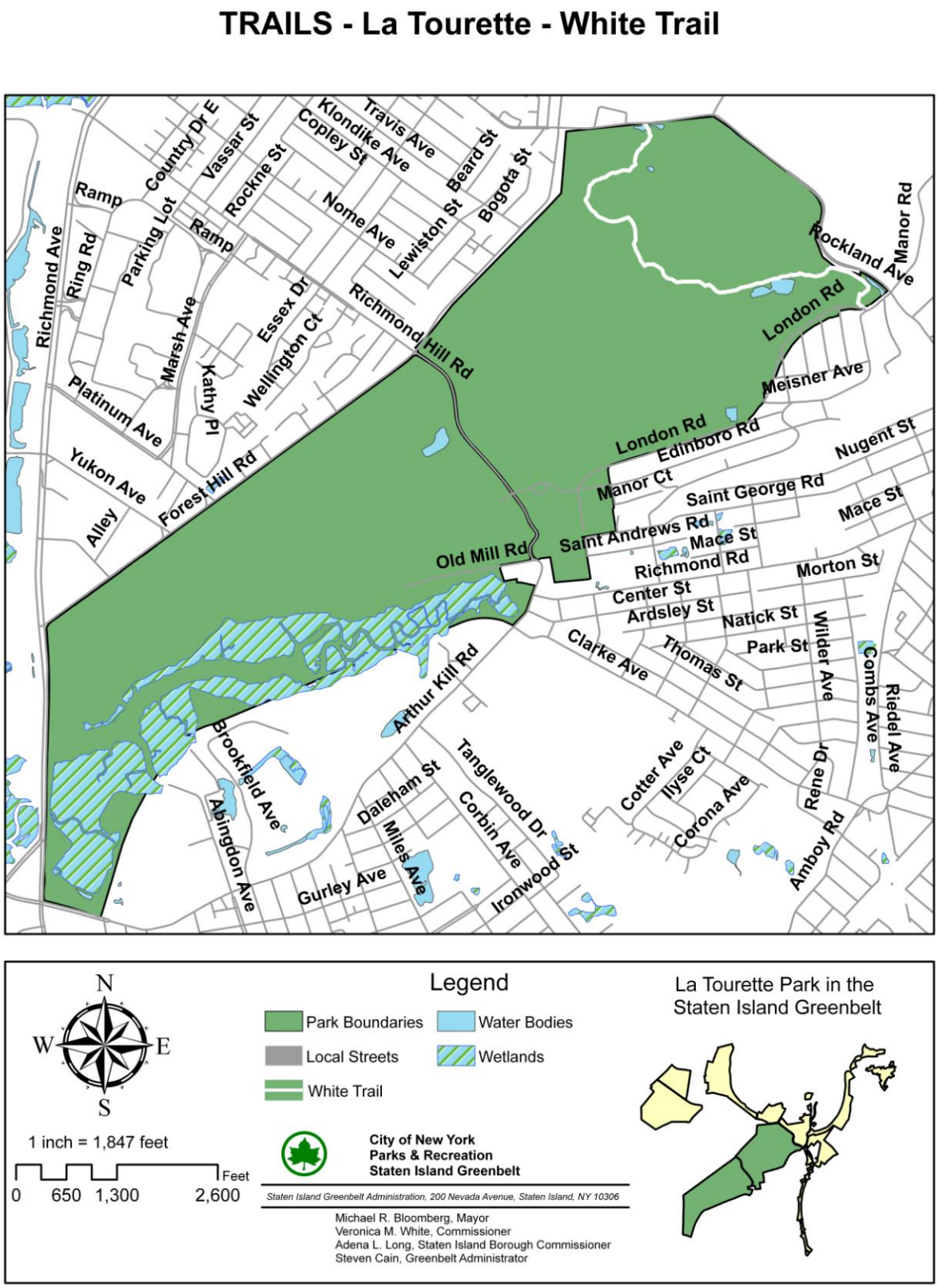
0 0.5 1 2 Miles

City of New York
Parks & Recreation
Staten Island Greenbelt

Staten Island Greenbelt Administration, 200 Nevada Avenue, Staten Island, NY 10306

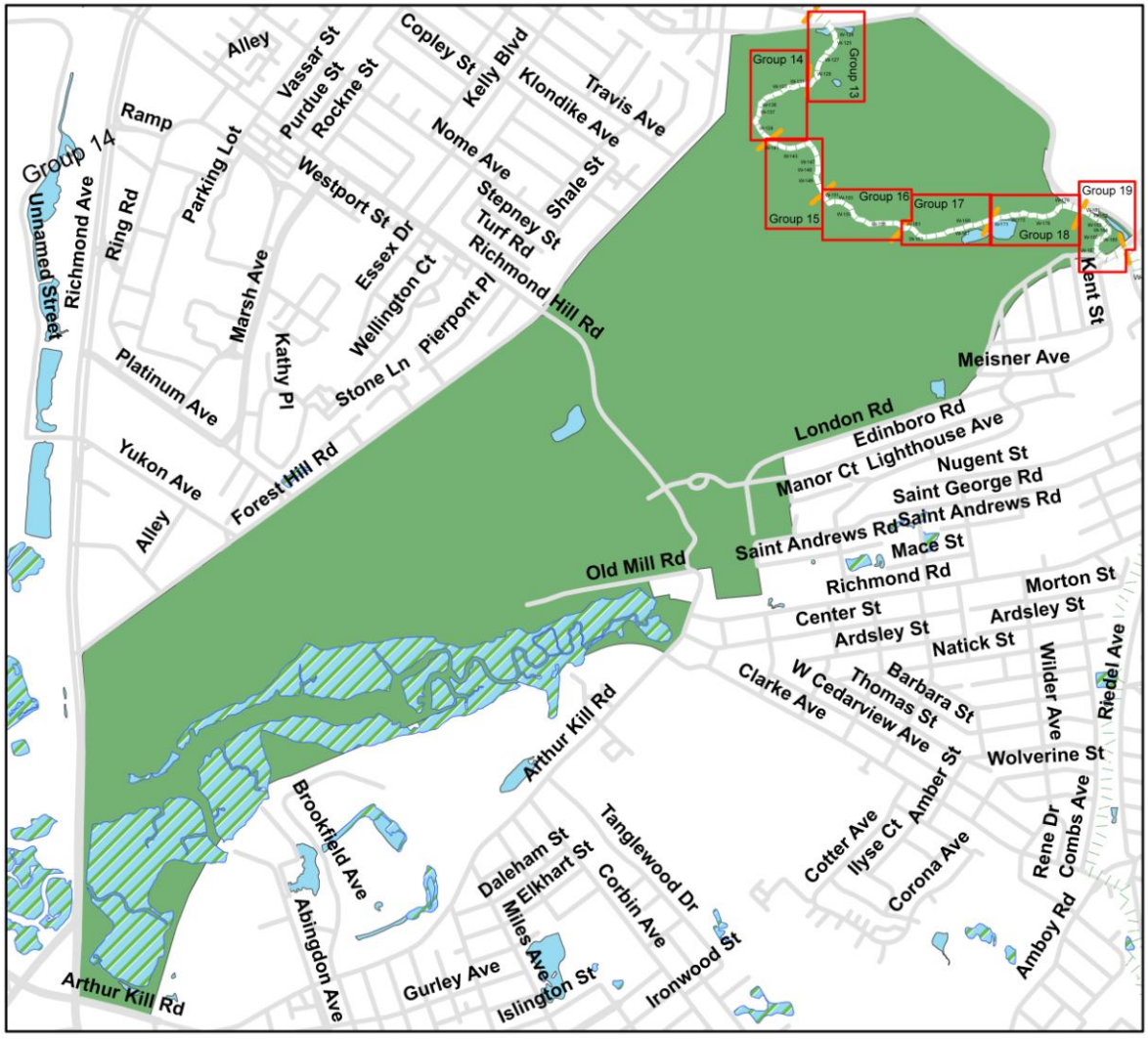
Michael R. Bloomberg, Mayor
Veronica M. White, Commissioner
Adena L. Long, Staten Island Borough Commissioner
Steven Cain, Greenbelt Administrator

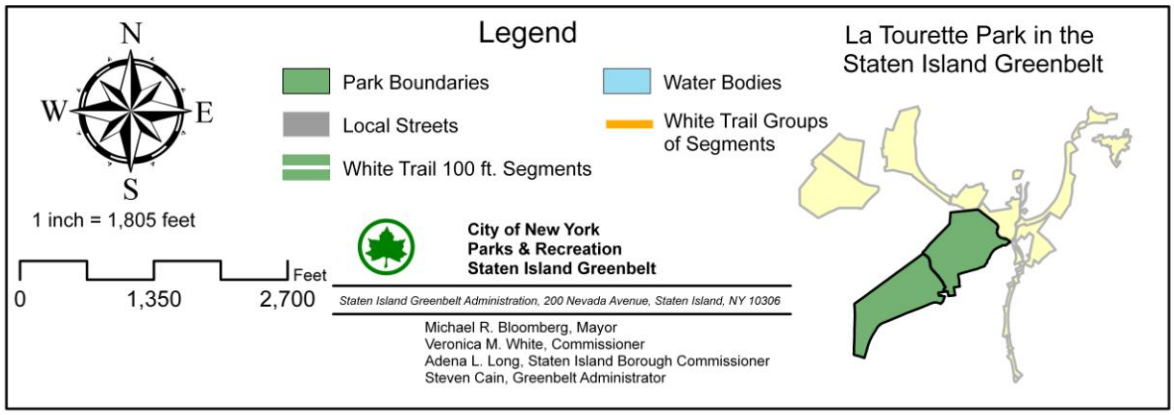
Map 36: Map of La Tourette with the White Trail



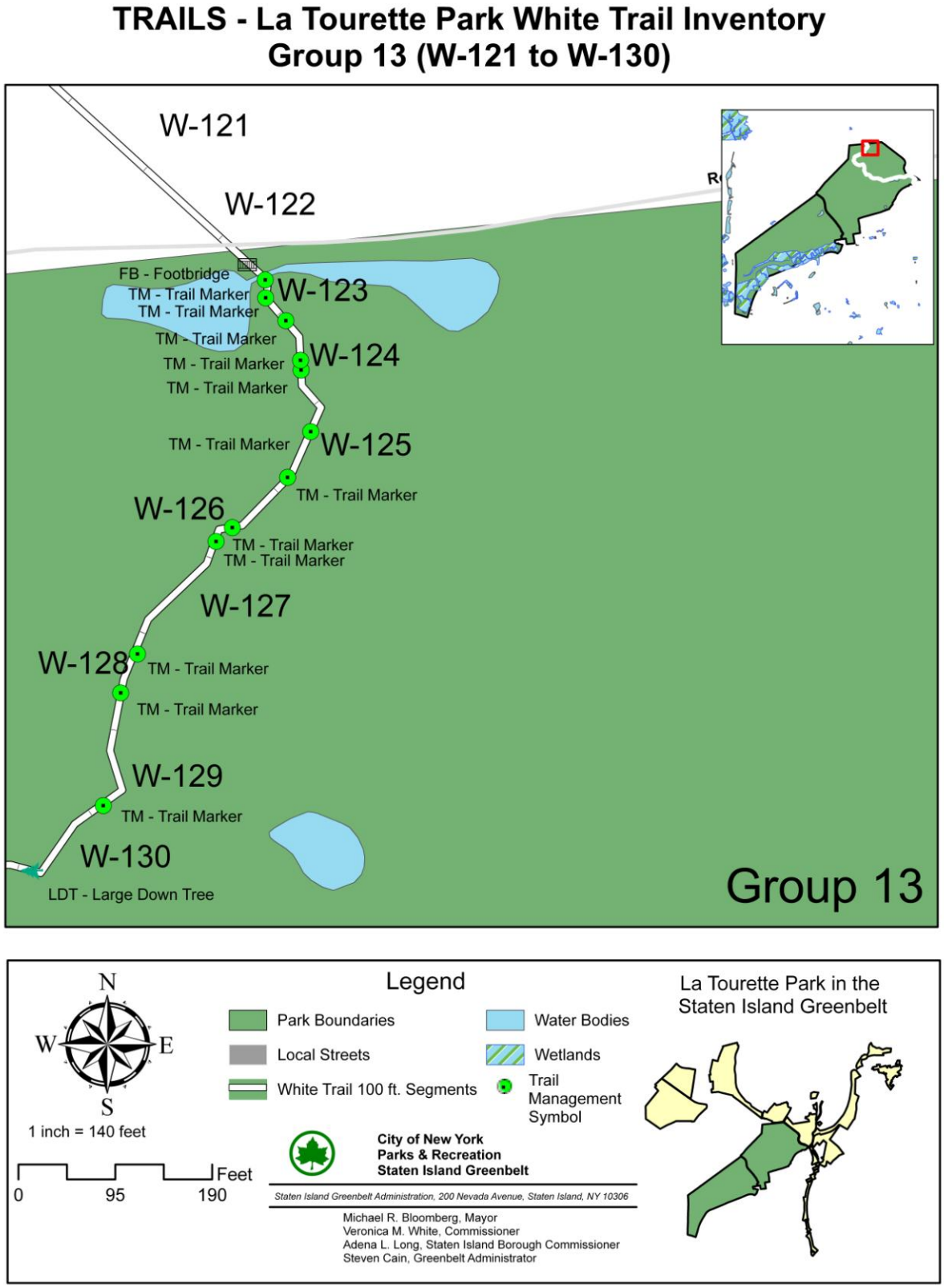
Map 37: Map of La Tourette Park with White Trail Delineation and Grouping

TRAILS - La Tourette- White Trail Delinations

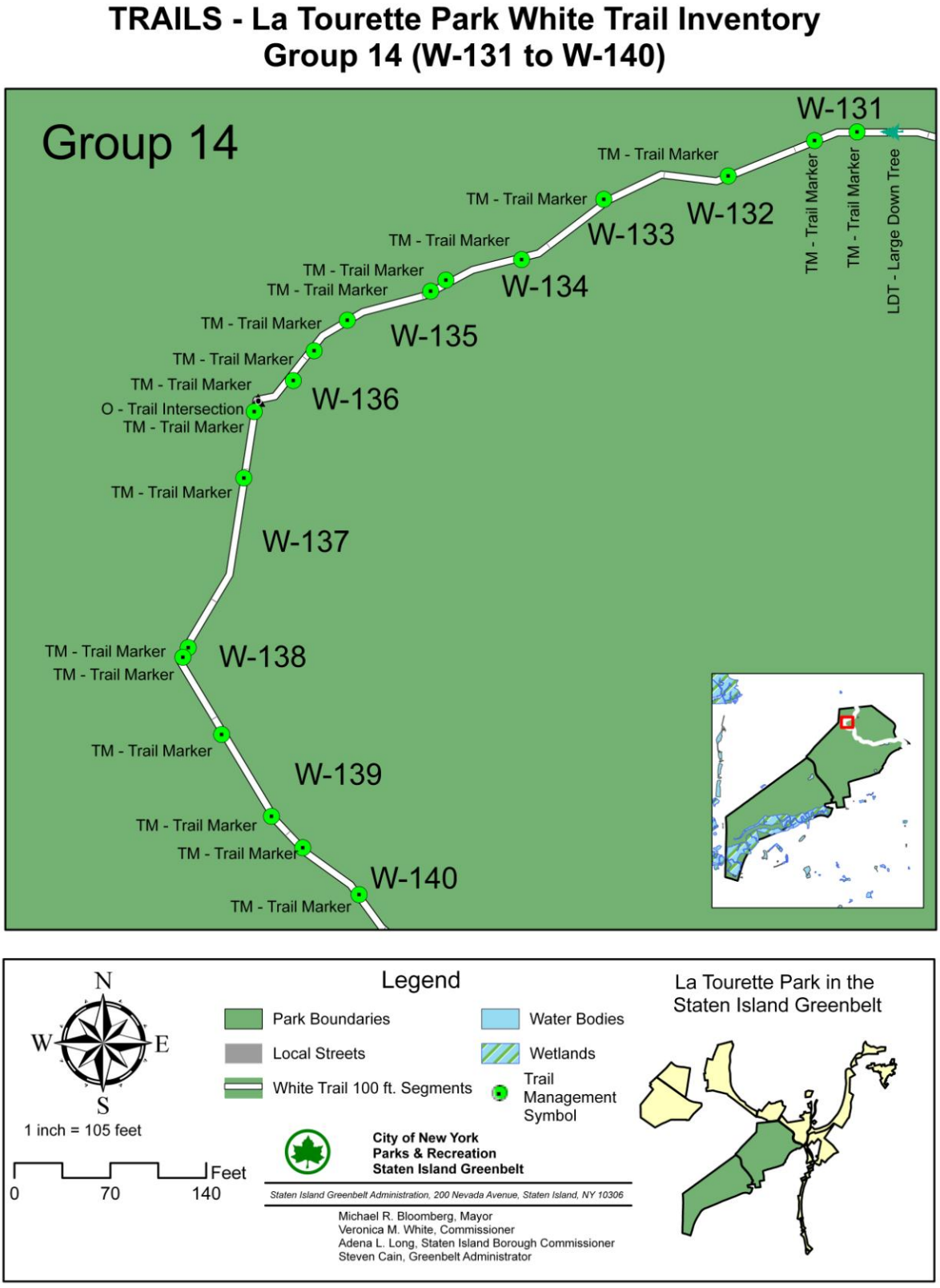




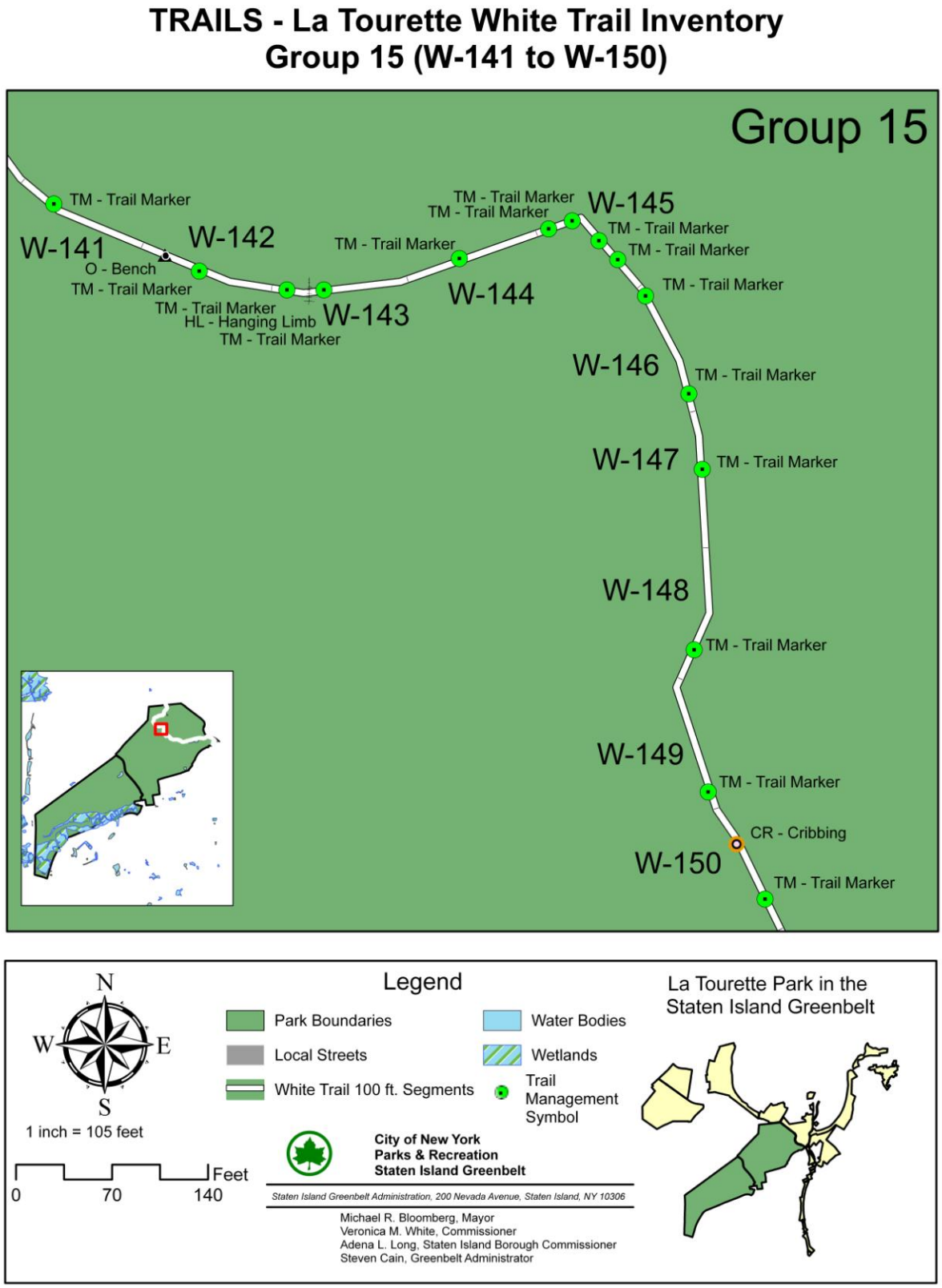
Map 38: Map of La Tourette Park with White Trail Segment (W121 to W130) Assessed, Inventoried and Mapped



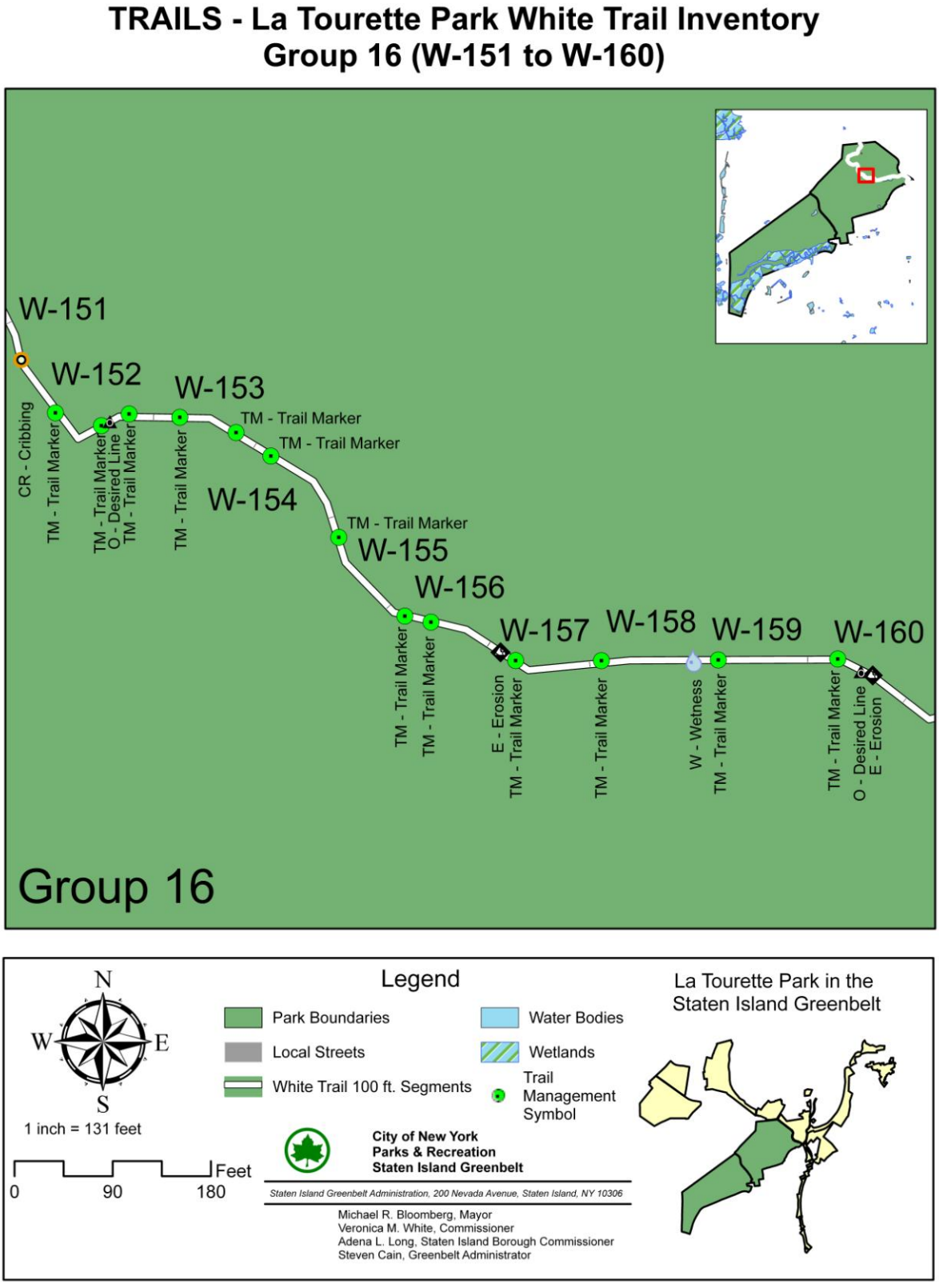
Map 39: Map of La Tourette Park with White Trail Segment (W131 to W140) Assessed, Inventoried and Mapped



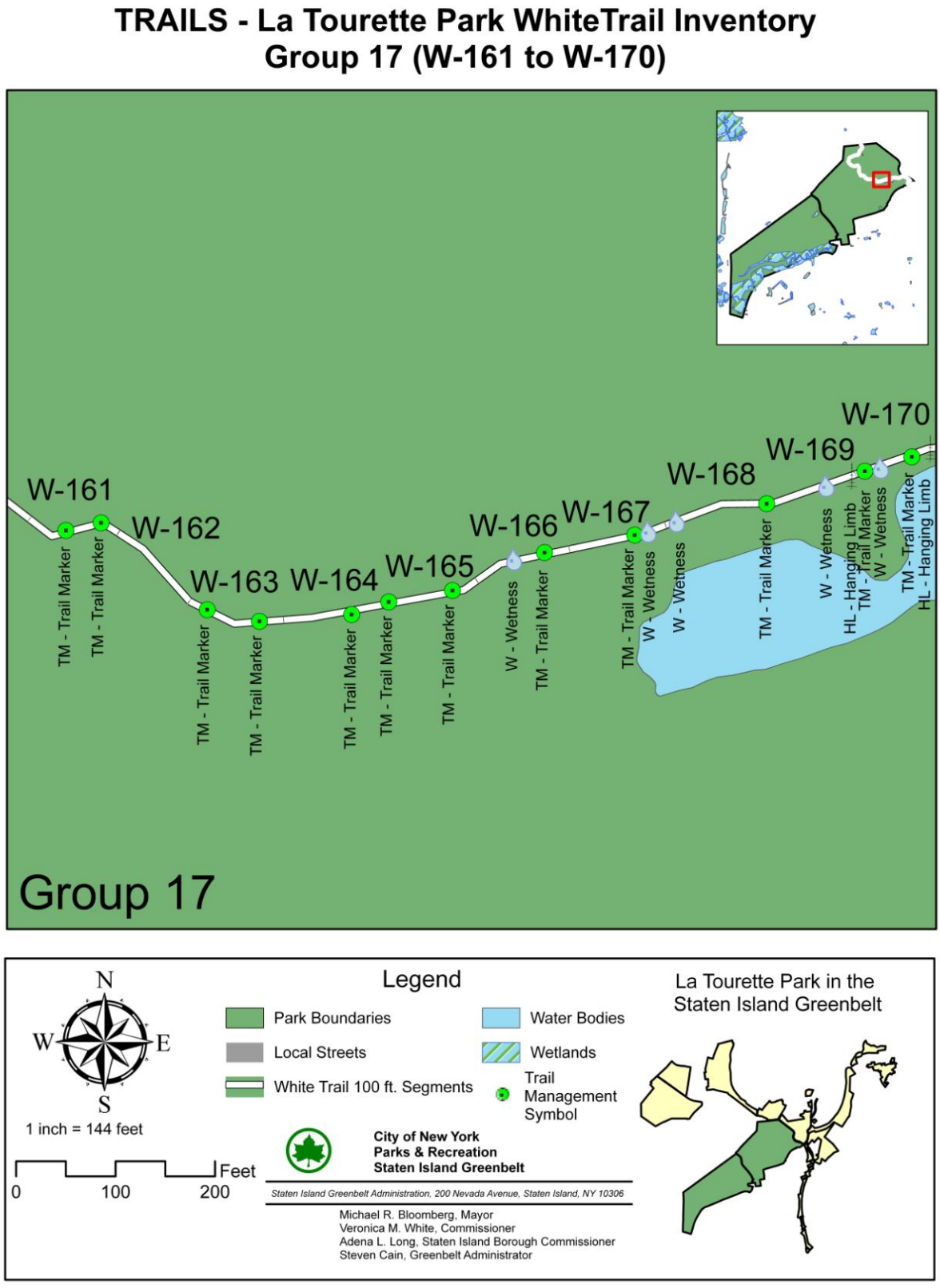
Map 40: Map of La Tourette Park with White Trail Segment (W141 to W150) Assessed, Inventoried and Mapped



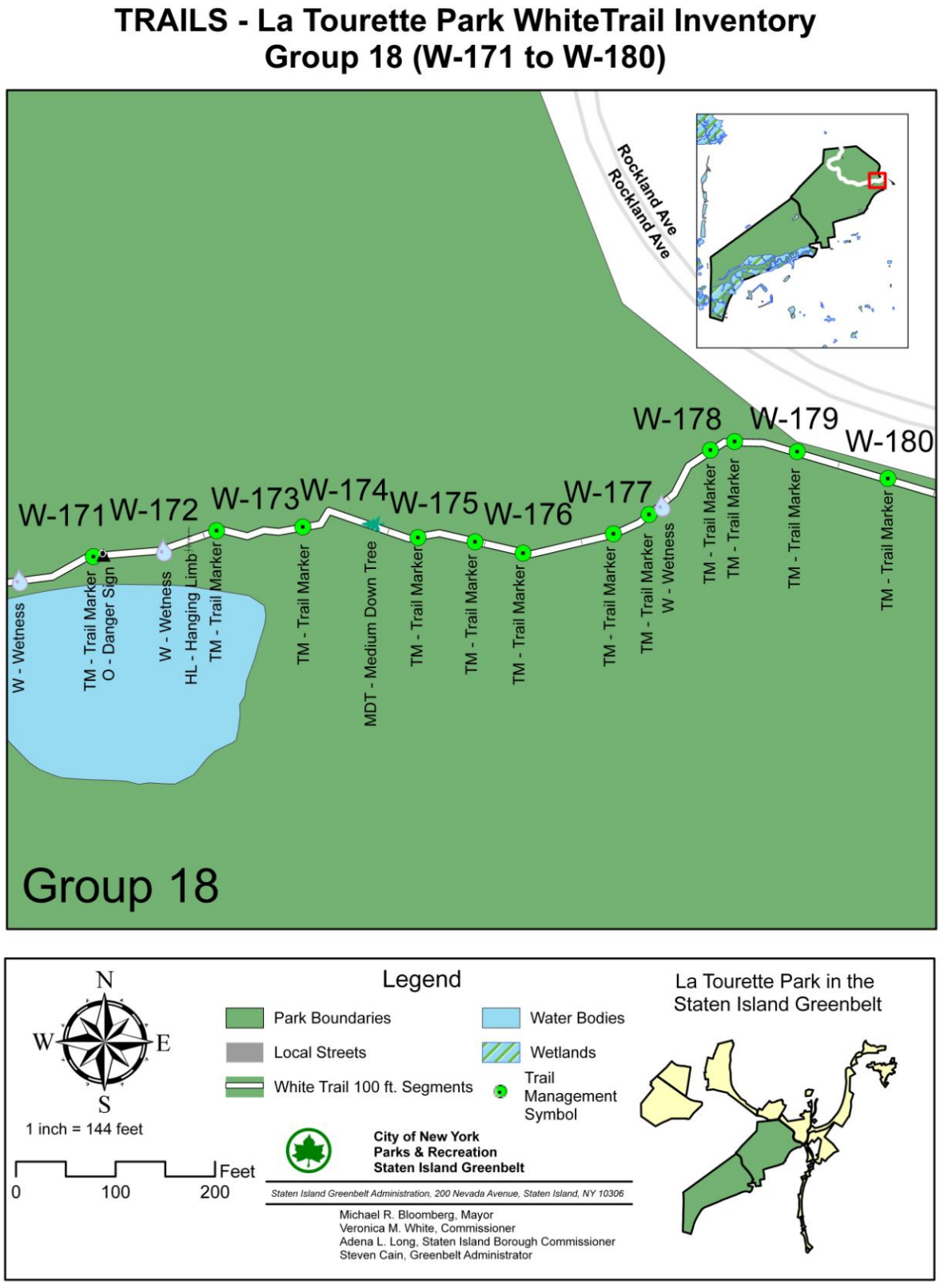
Map 41: Map of La Tourette Park with White Trail Segment (W151 to W160) Assessed, Inventoried and Mapped



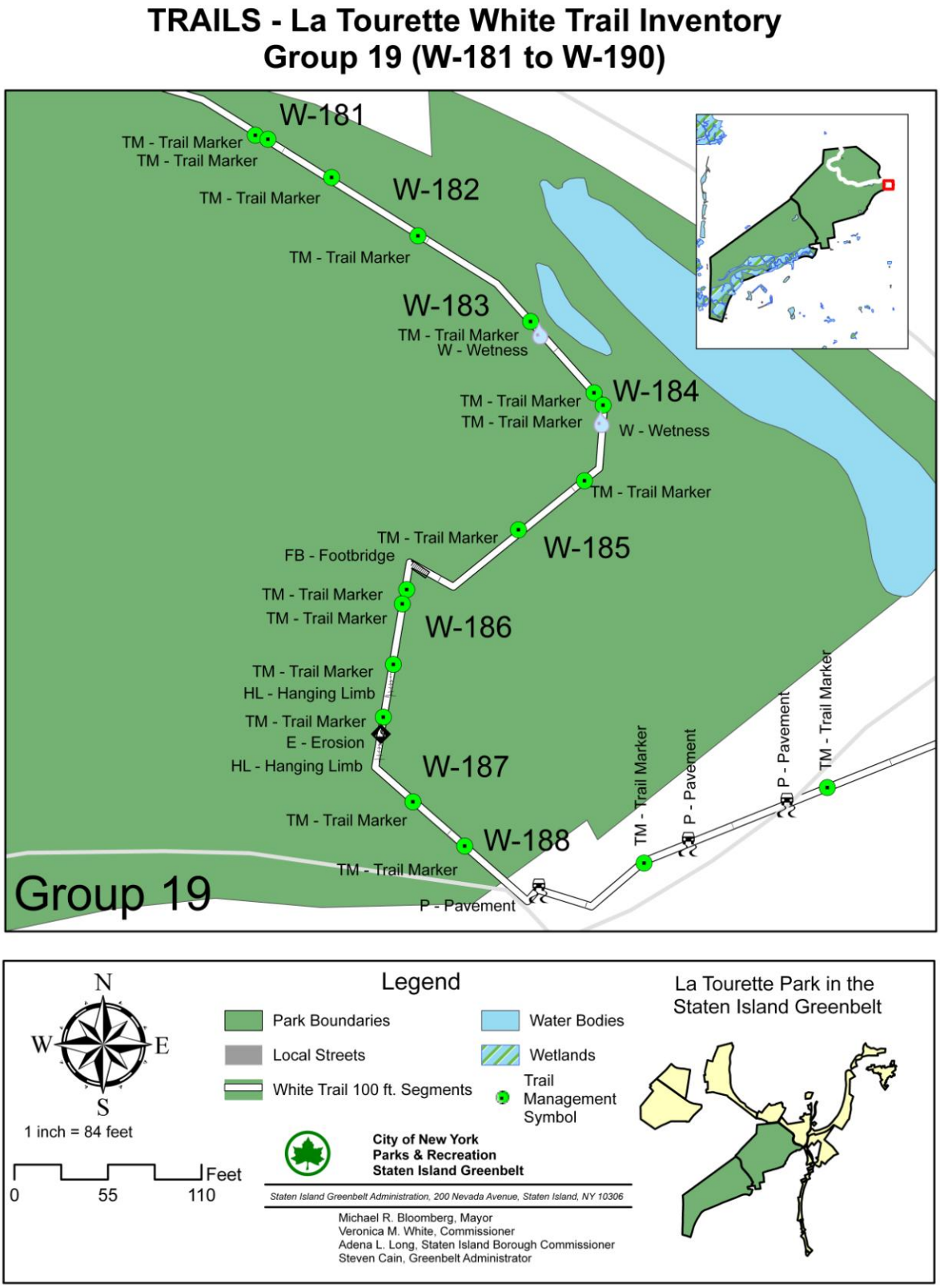
Map 42: Map of La Tourette Park with White Trail Segment (W161 to W170) Assessed, Inventoried and Mapped



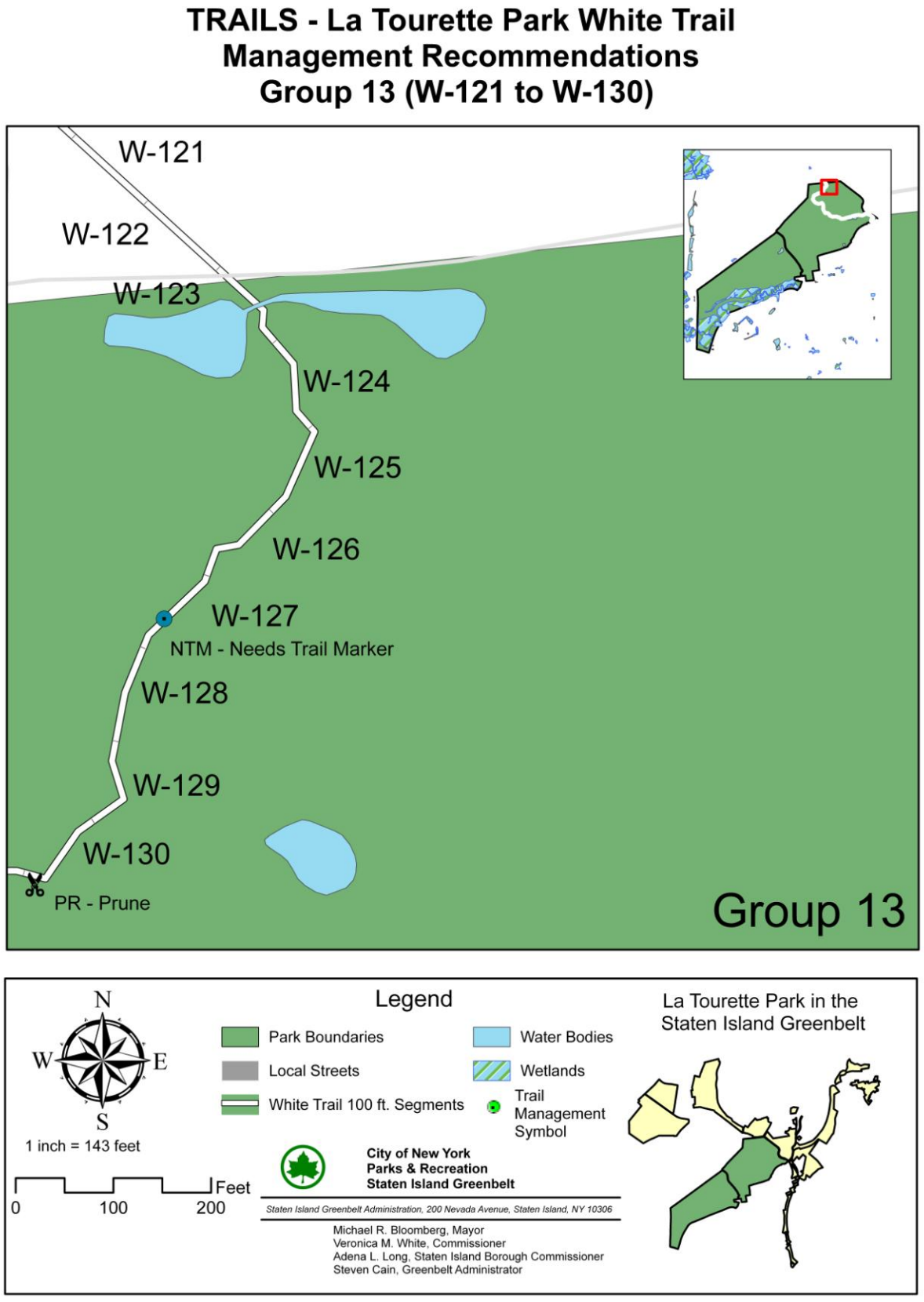
Map 43: Map of La Tourette Park with White Trail Segment (W171 to W180) Assessed, Inventoried and Mapped



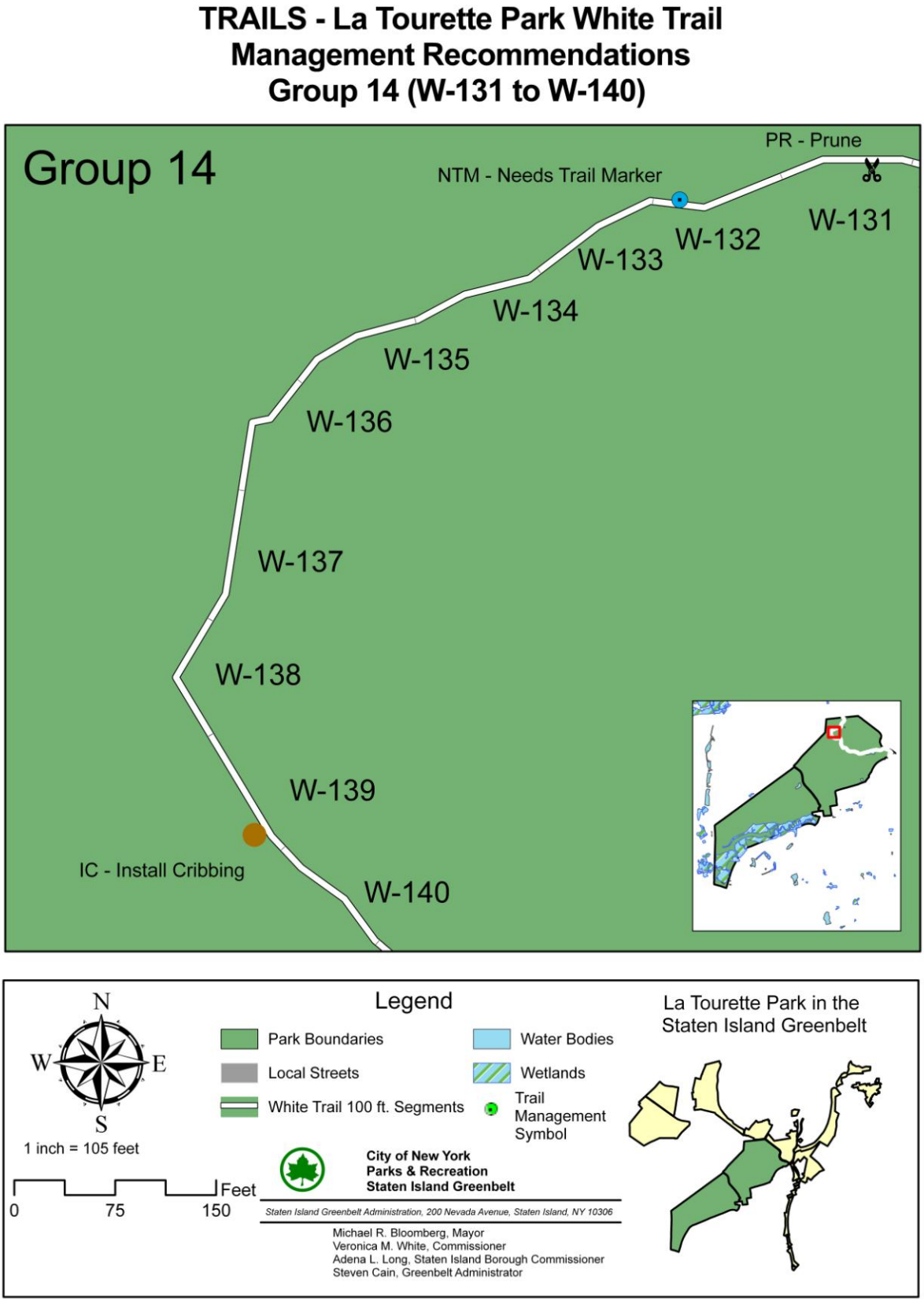
Map 44: Map of Latourette with White Trail Segment (W181 to W190) Assessed, Inventoried and Mapped



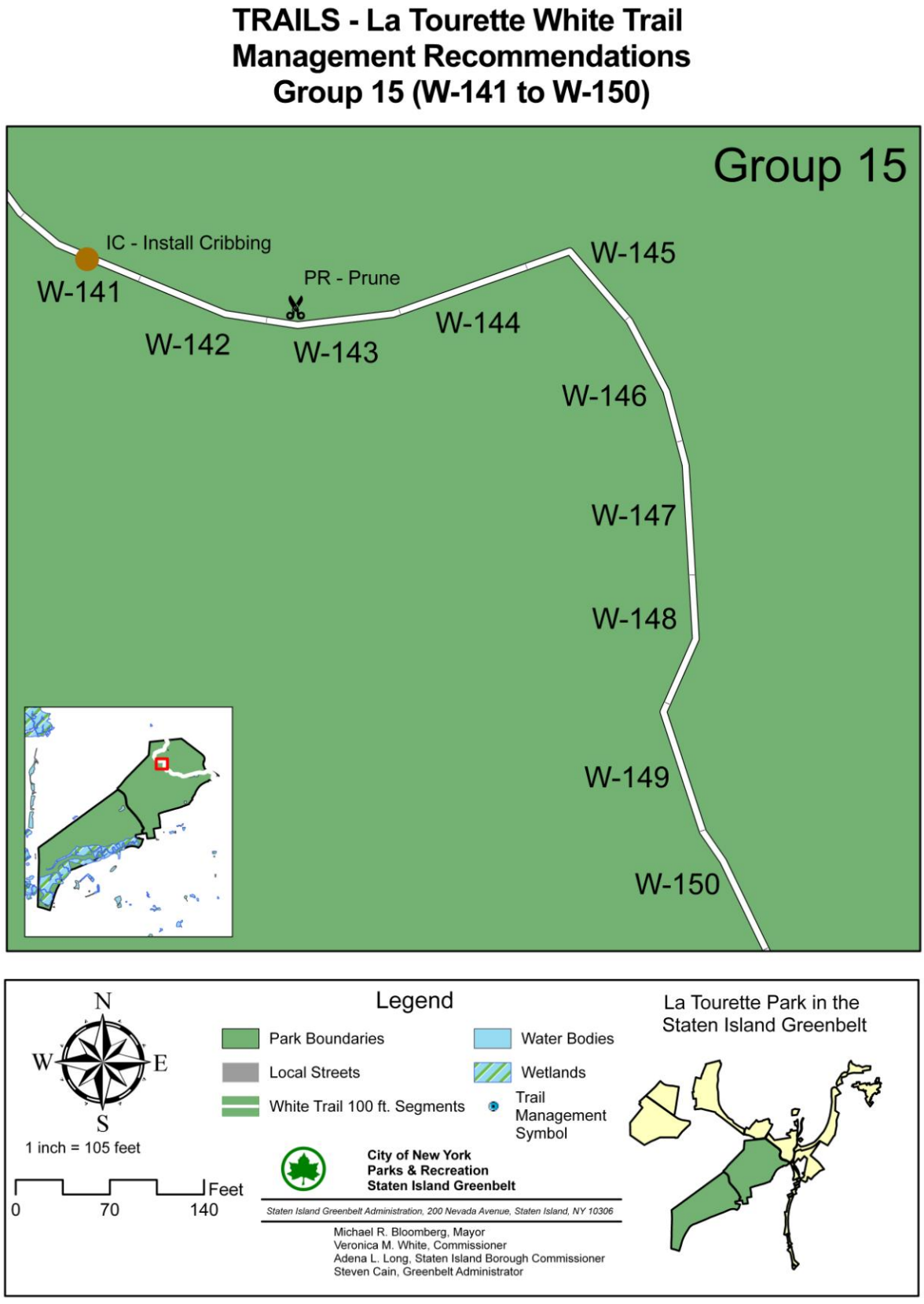
Map 45: Map of La Tourette Park with White Trail Management Recommendations (W123 to W130)



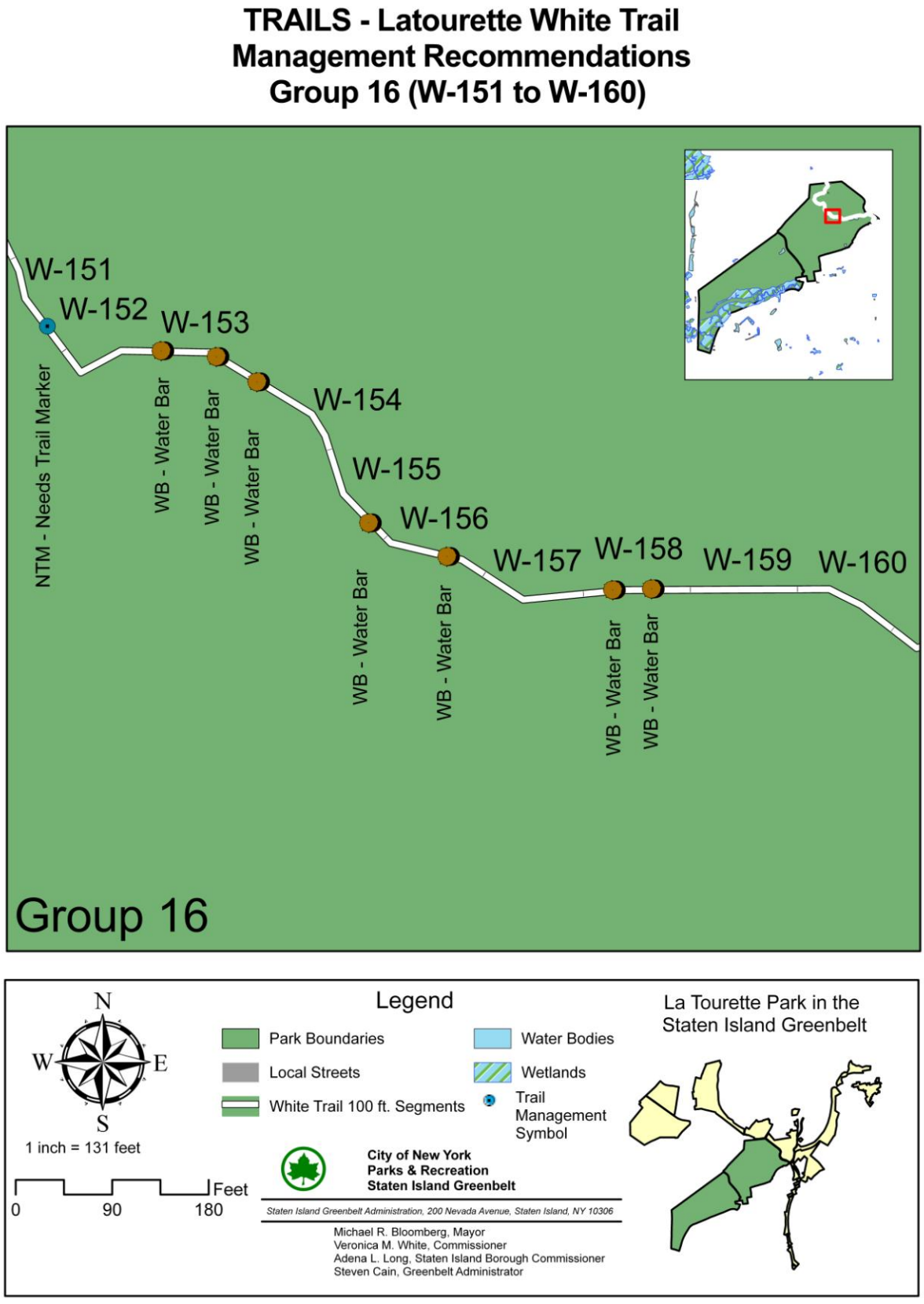
Map 46: Map of La Tourette Park with White Trail Management Recommendations (W131 to W140)



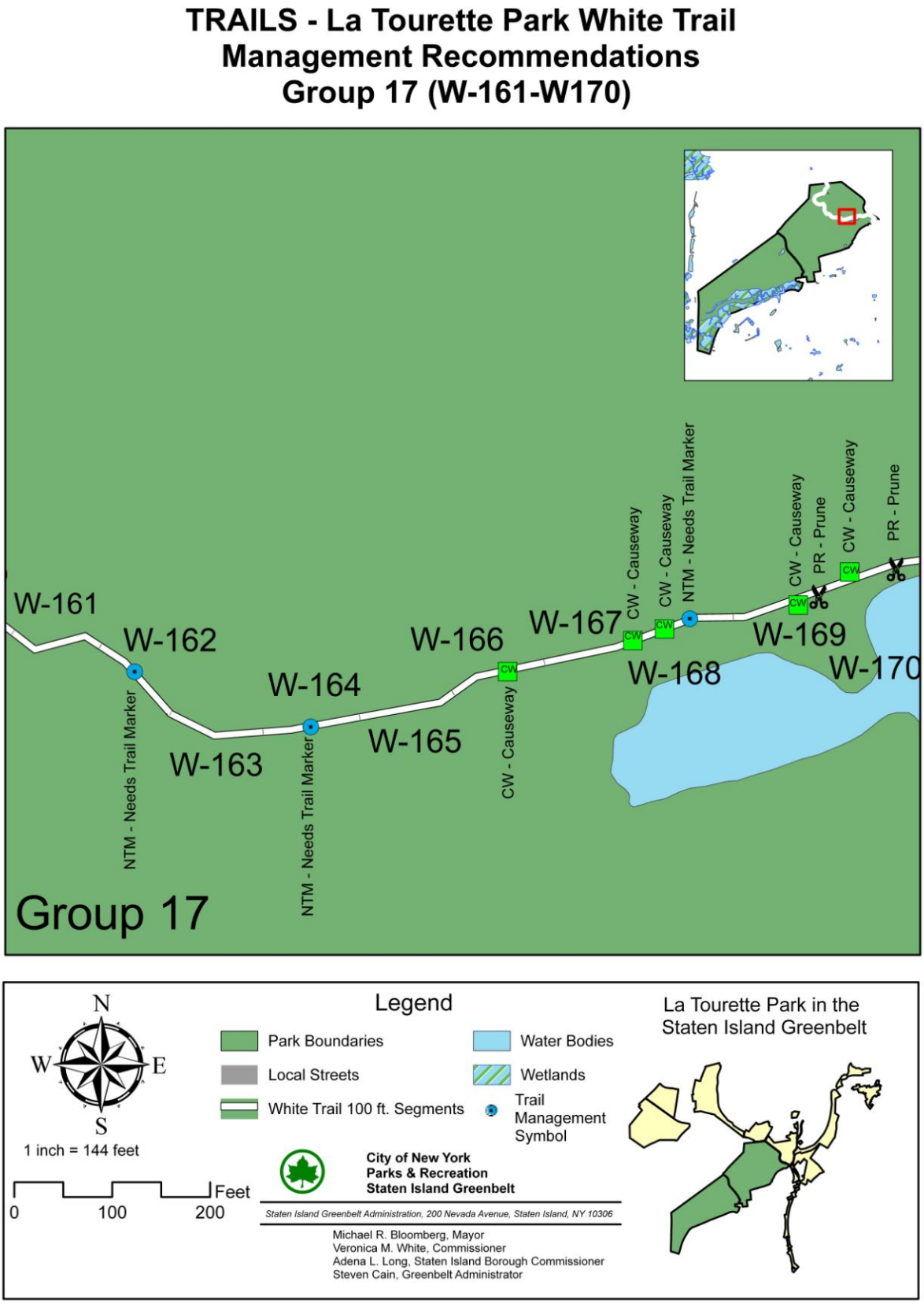
Map 47: Map of La Tourette Park with White Trail Management Recommendations (W141 to W150)



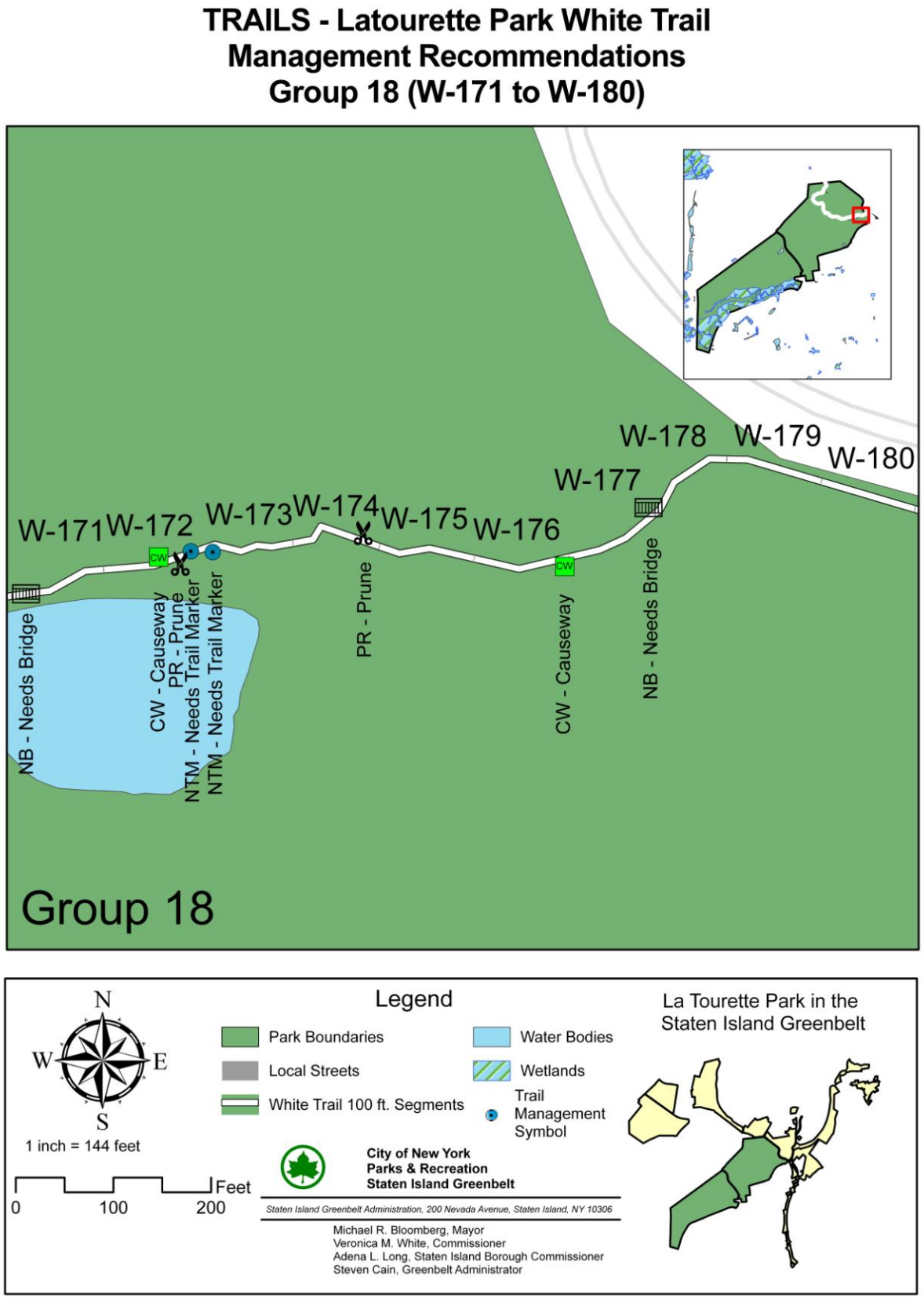
Map 48: Map of La Tourette with White Trail Management Recommendations (W151 to W160)



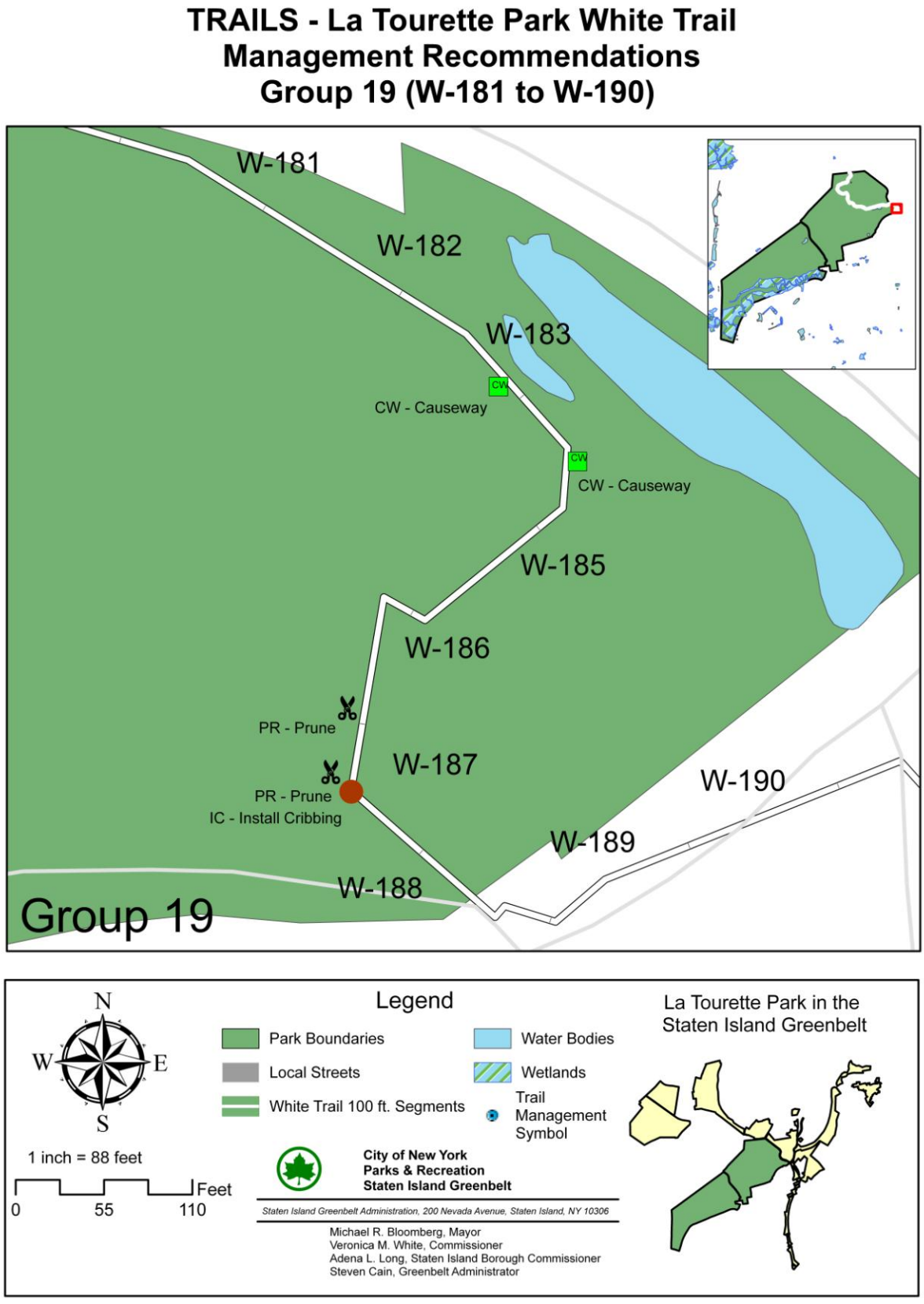
Map 49: Map of La Tourette Park with White Trail Management Recommendations (W161 to W170)



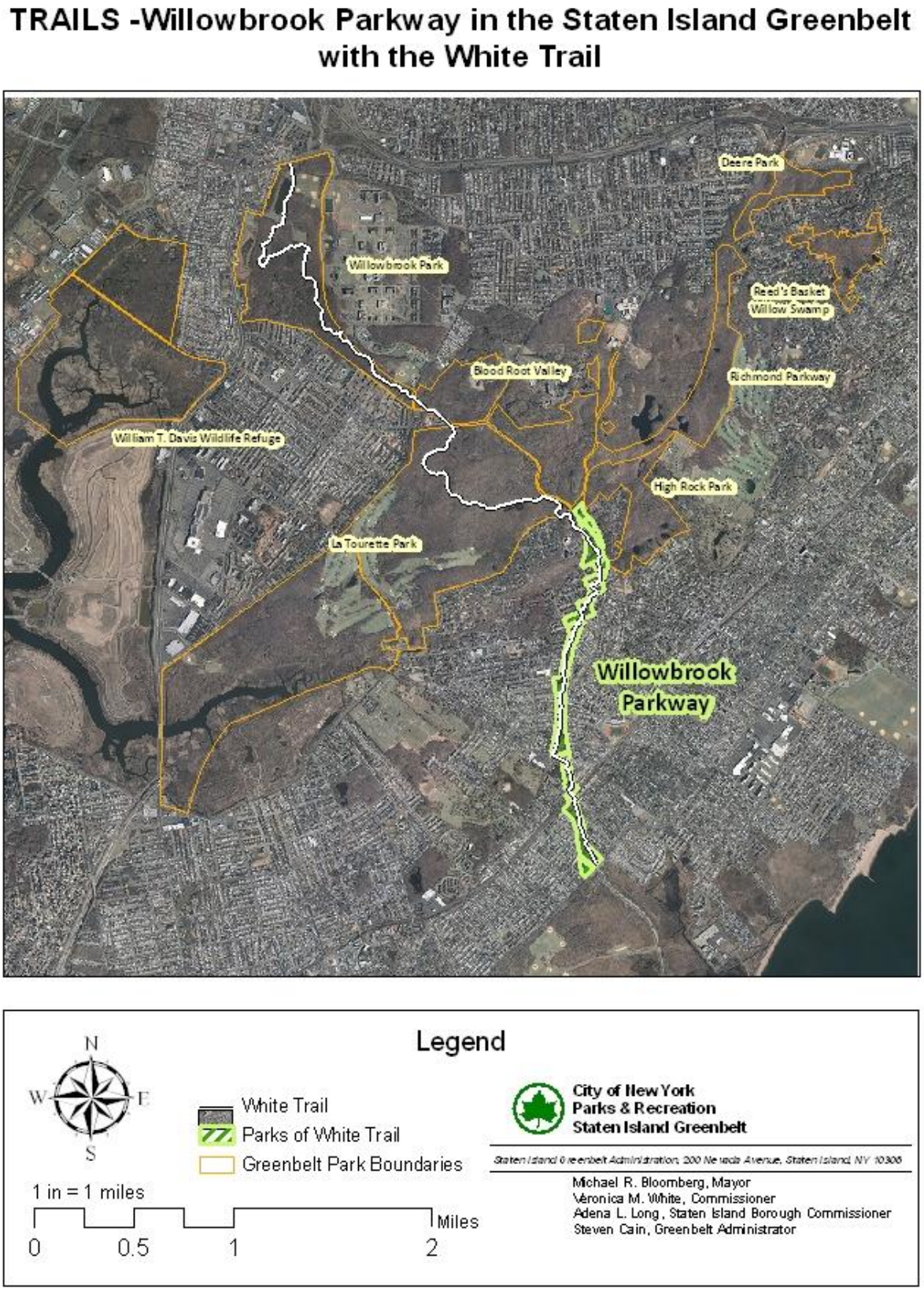
Map 50: Map of La Tourette Park with White Trail Management Recommendations (W171 to W180)



Map 51: Map of La Tourette Park with White Trail Management Recommendations (W181 to W190)

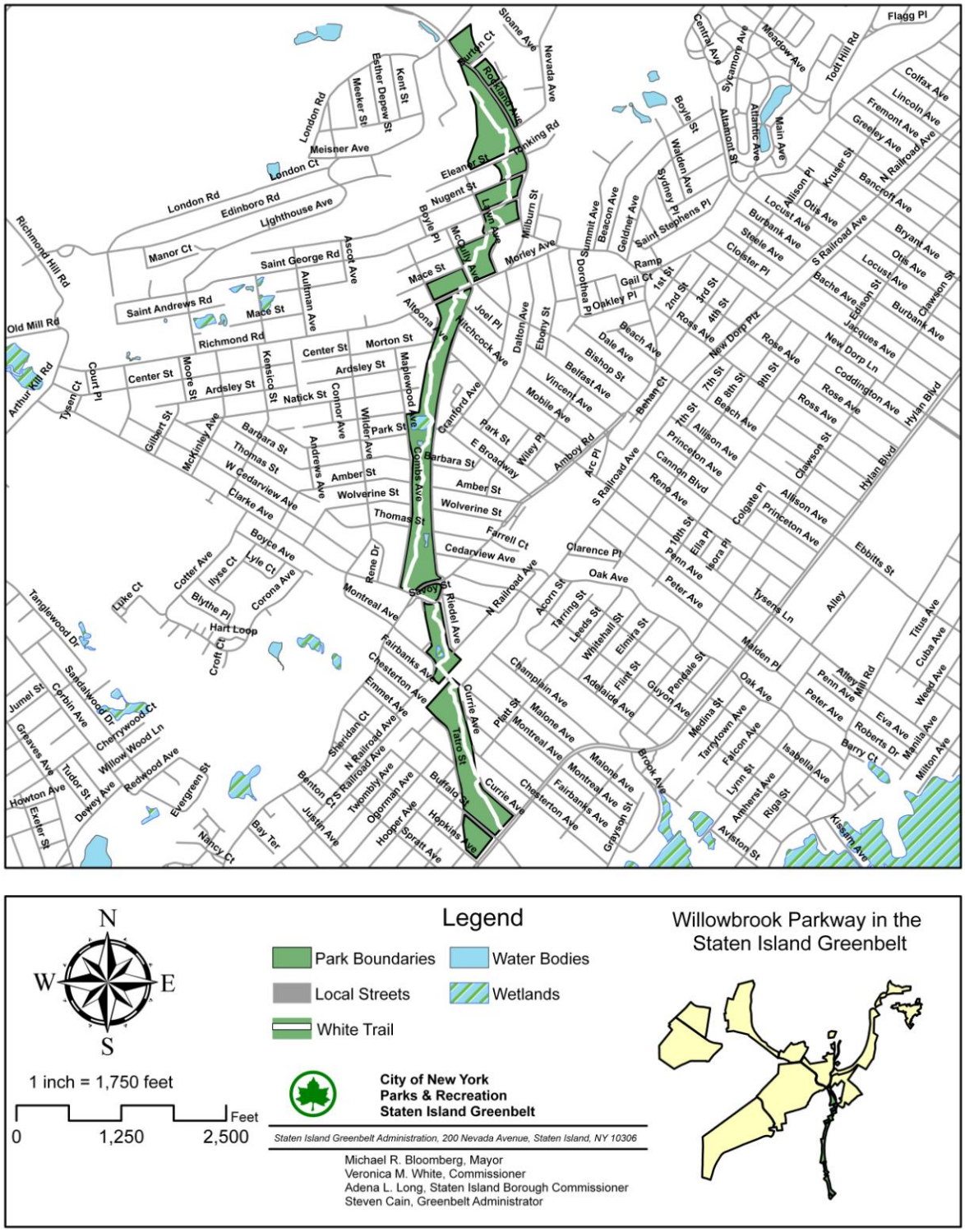


Map 52: Aerial Map of the Greenbelt with Willowbrook Parkway Highlighted with the White Trail



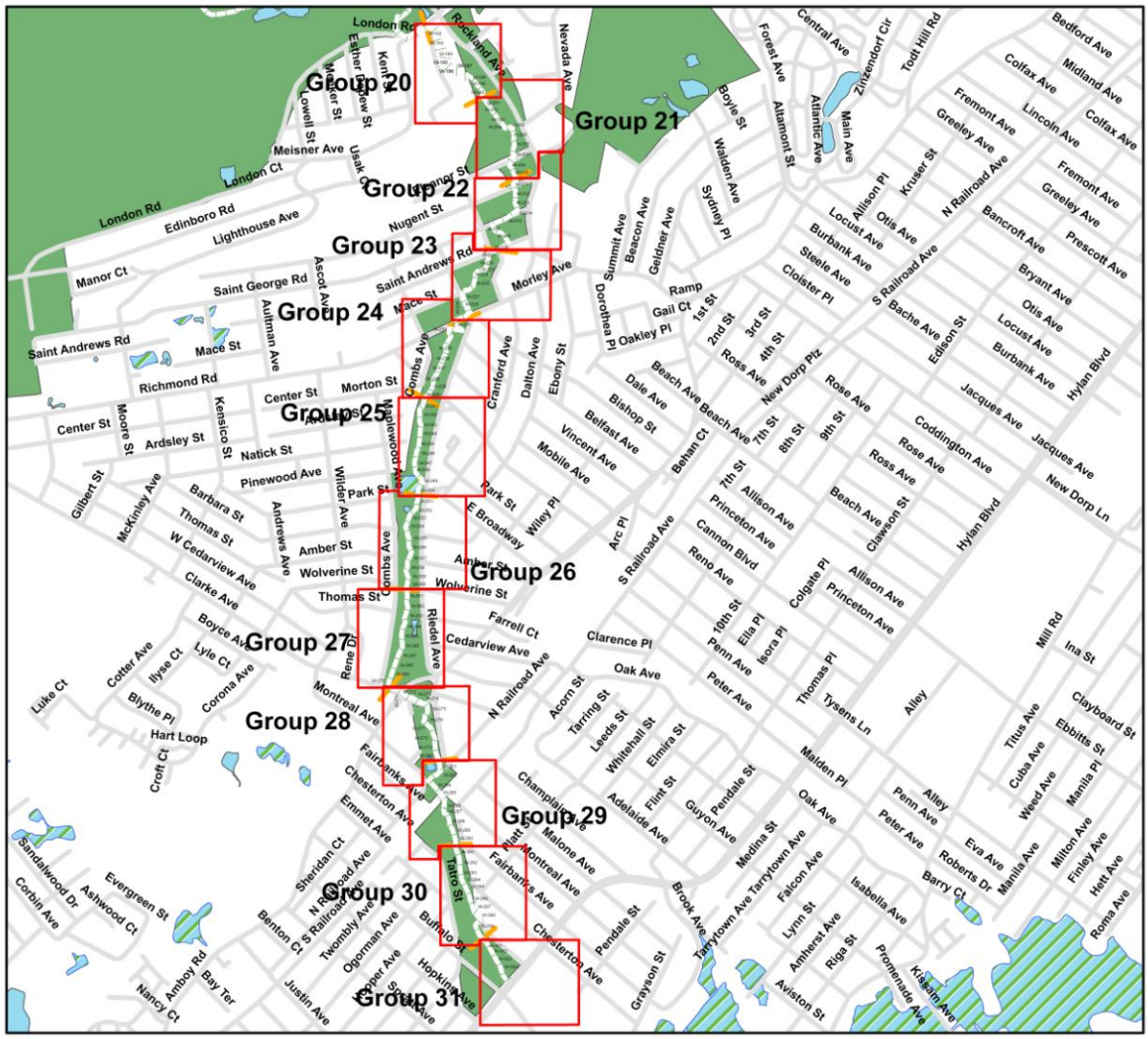
Map 53: Map of Willowbrook Parkway with the White Trail

TRAILS - Willowbrook Parkway - White Trail

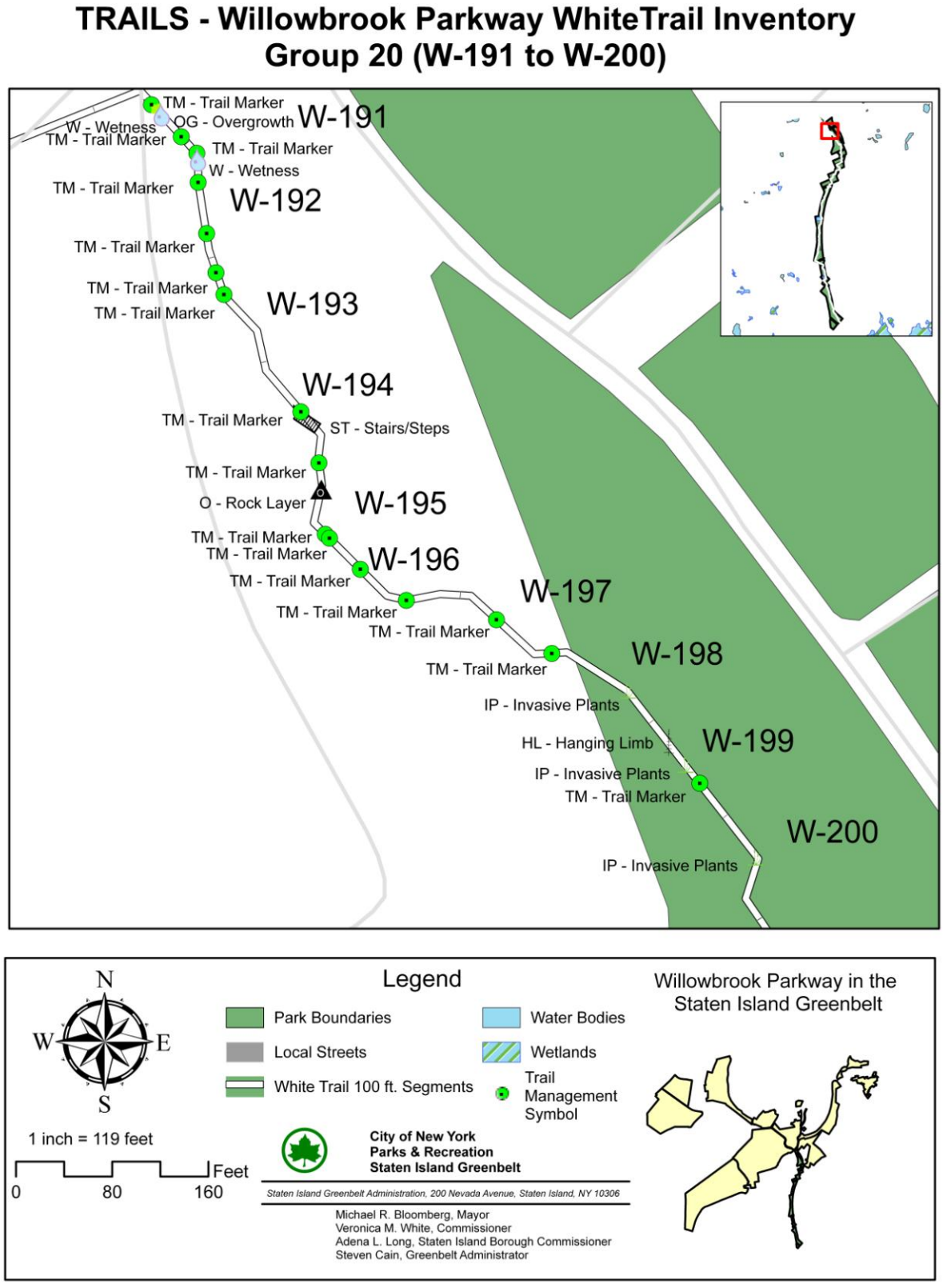


Map 54: Map of Willowbrook Parkway with White Trail Delineation and Grouping

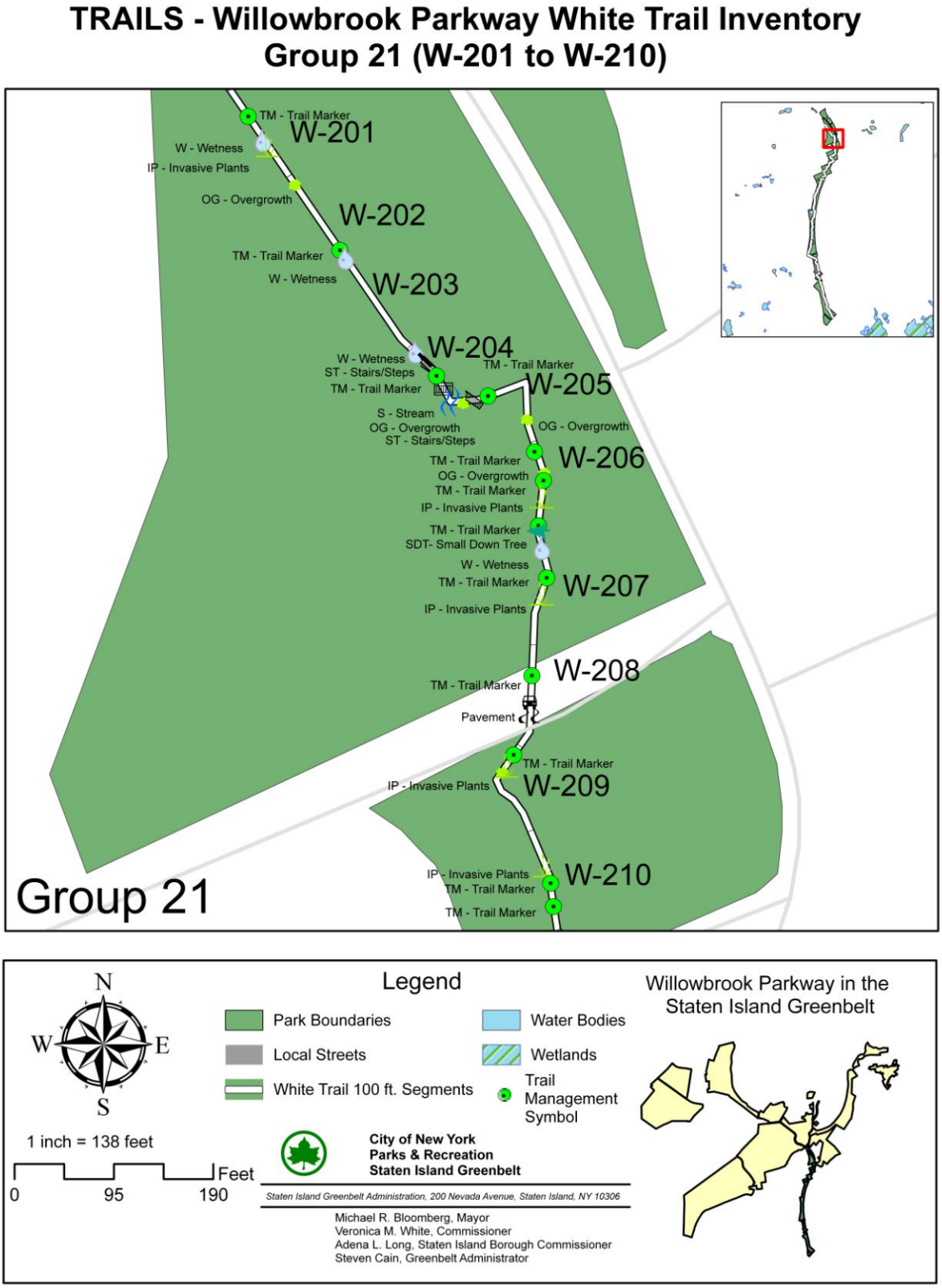
TRAILS - Willowbrook Parkway - White Trail Delinations



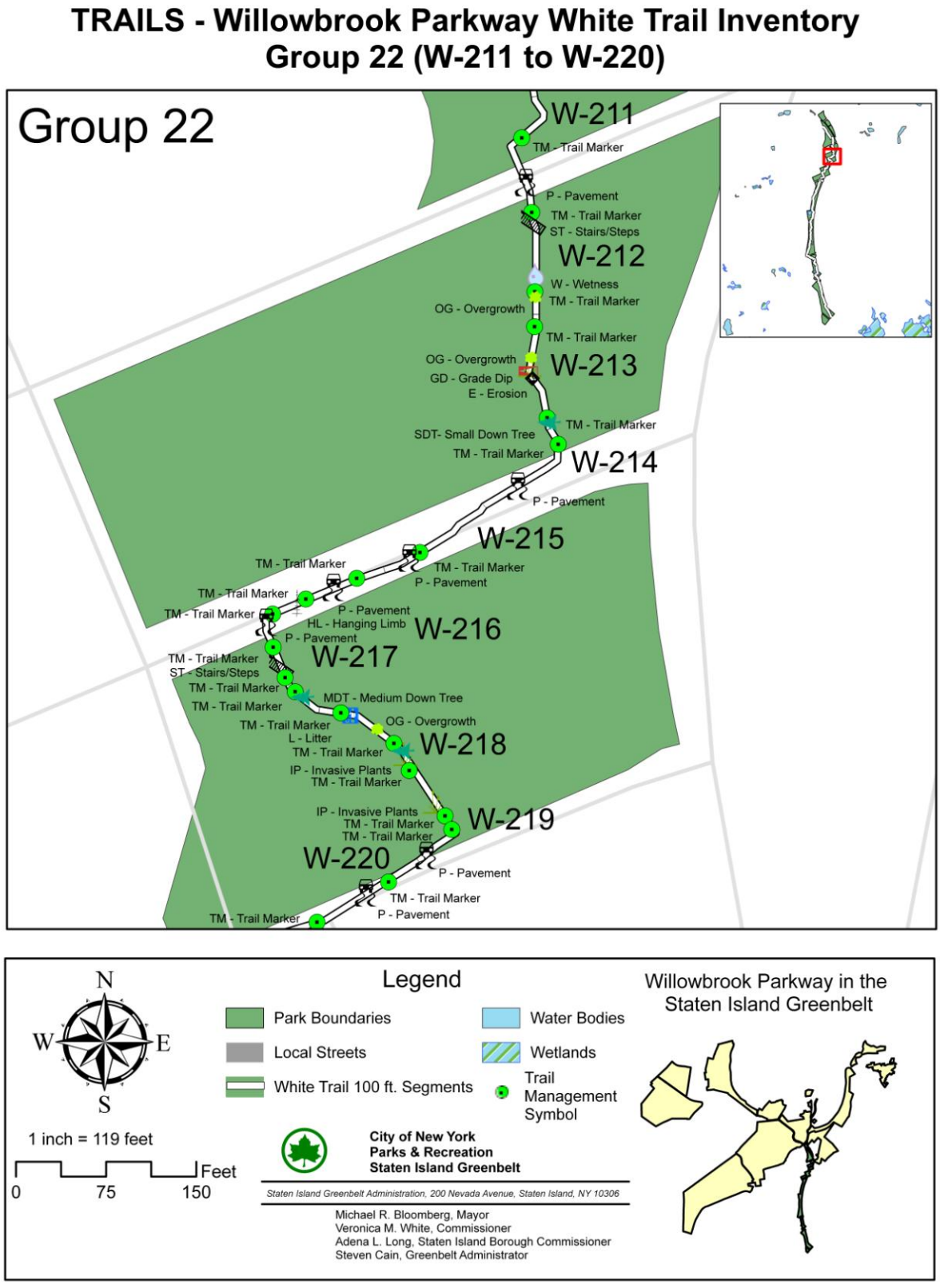
Map 55: Map of Willowbrook Parkway with White Trail Segment (W191 to W200) Assessed, Inventoried and Mapped



Map 56: Map of Willowbrook Parkway with White Trail Segment (W201 to W210) Assessed, Inventoried and Mapped

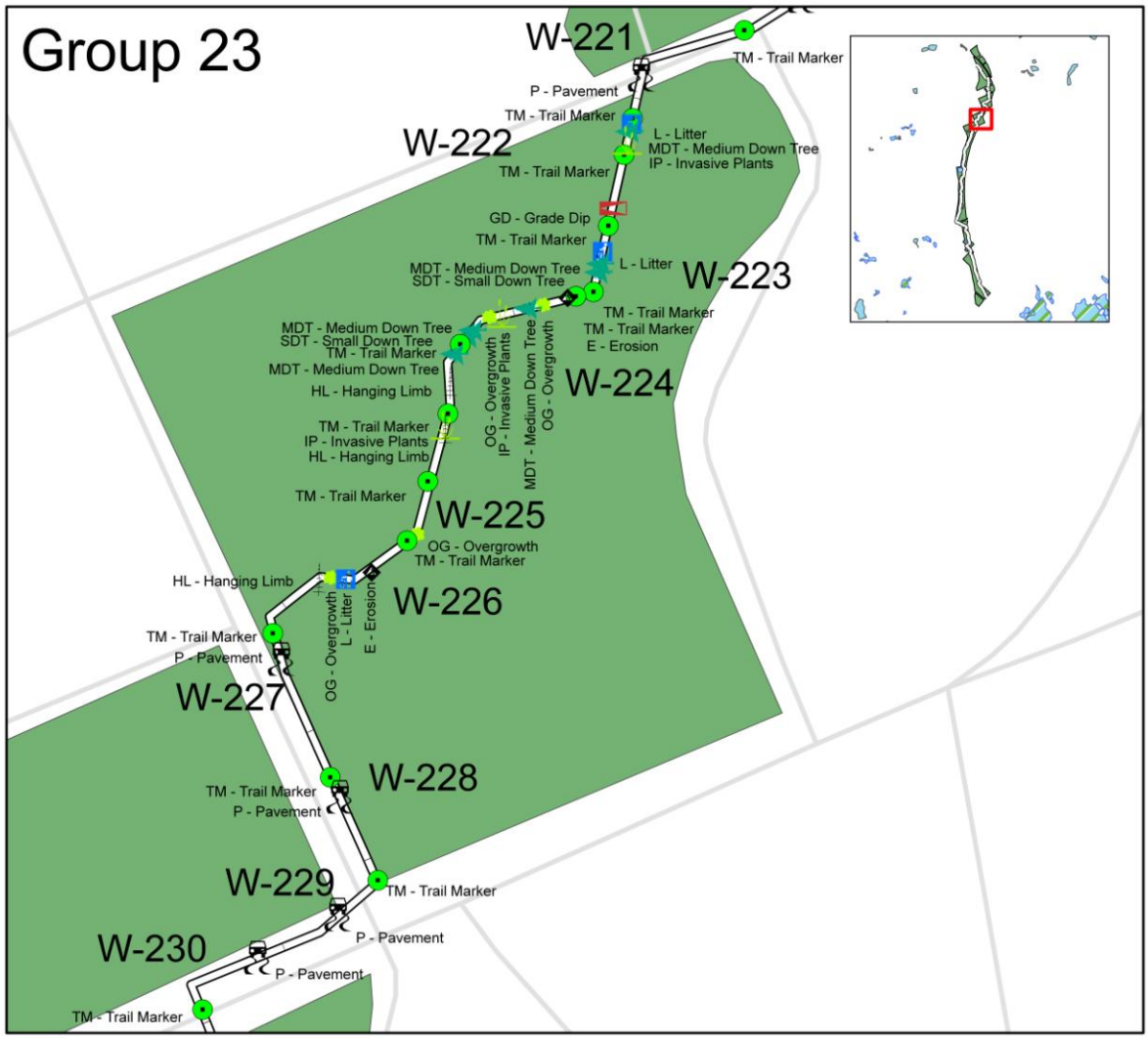


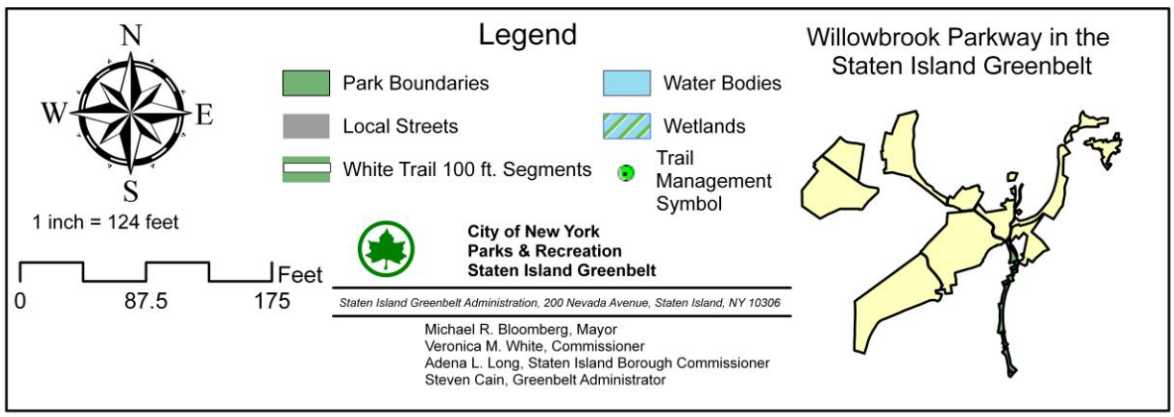
Map 57: Map of Willowbrook Parkway with White Trail Segment (W211 to W220) Assessed, Inventoried and Mapped



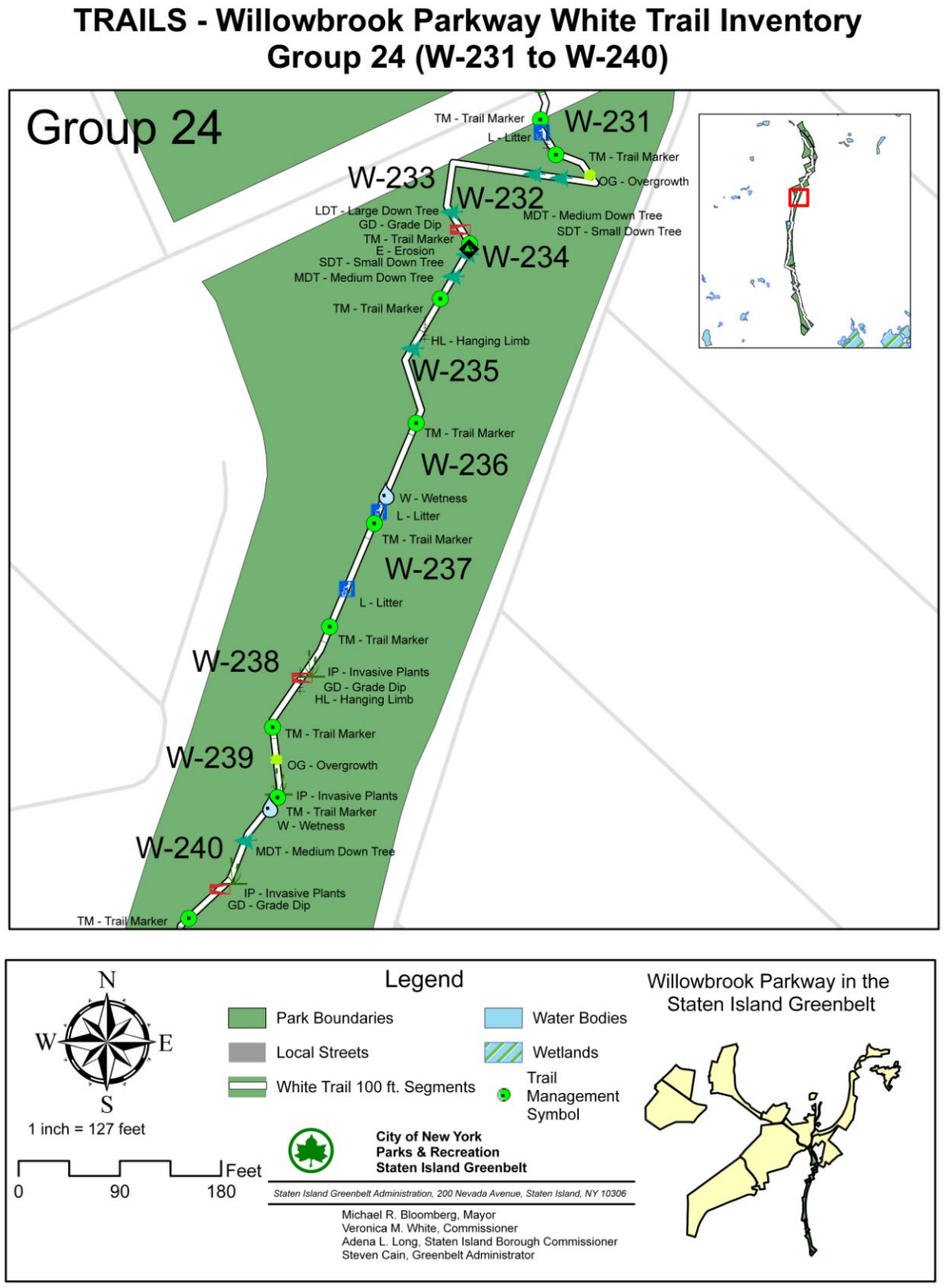
Map 58: Map of Willowbrook Parkway with White Trail Segment (W221 to W230) Assessed, Inventoried and Mapped

TRAILS - Willowbrook Parkway Trail Inventory
Group 23 (W-221 to W-230)

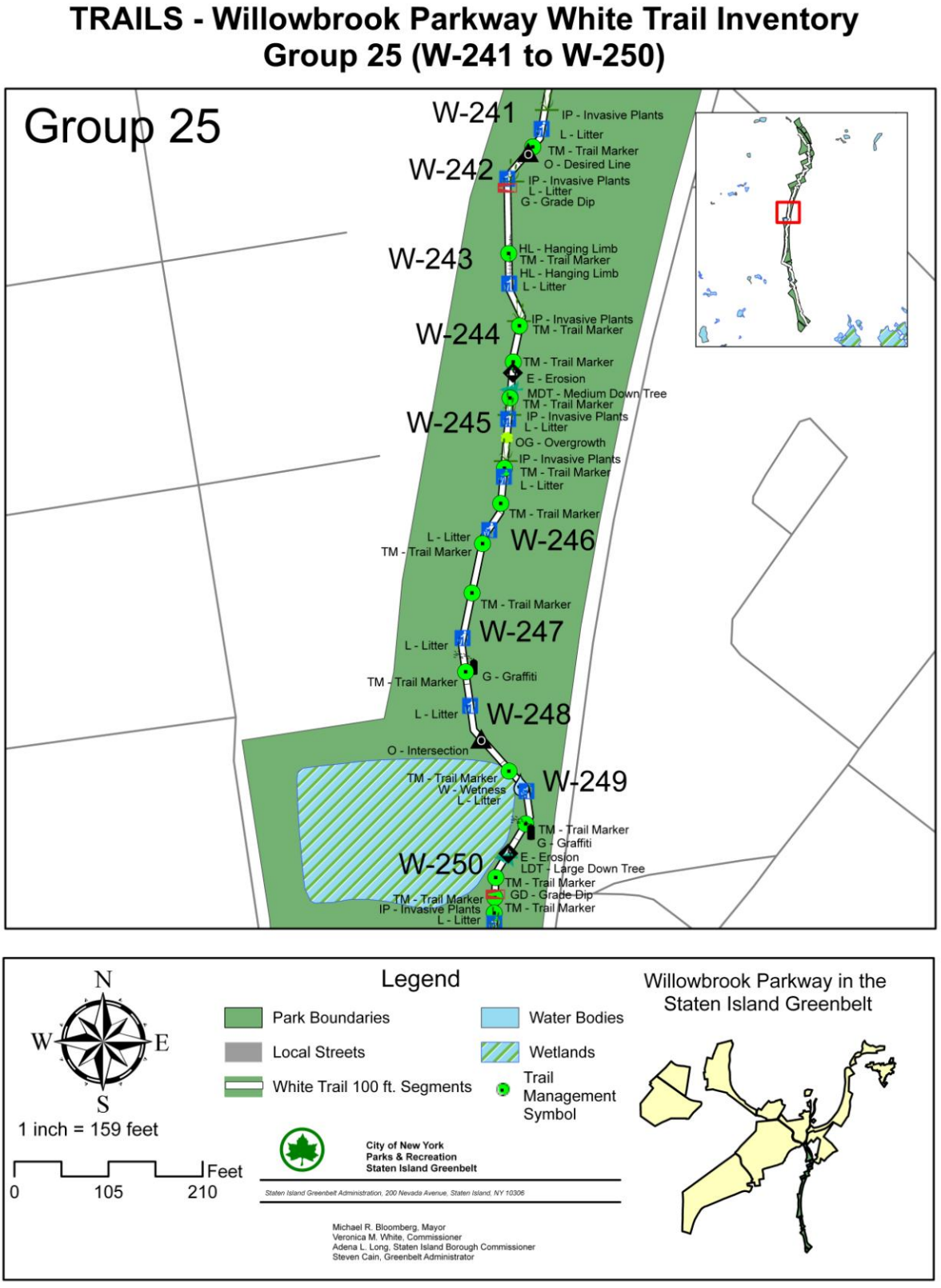




Map 59: Map of Willowbrook Parkway with White Trail Segment (W231 to W240) Assessed, Inventoried and Mapped

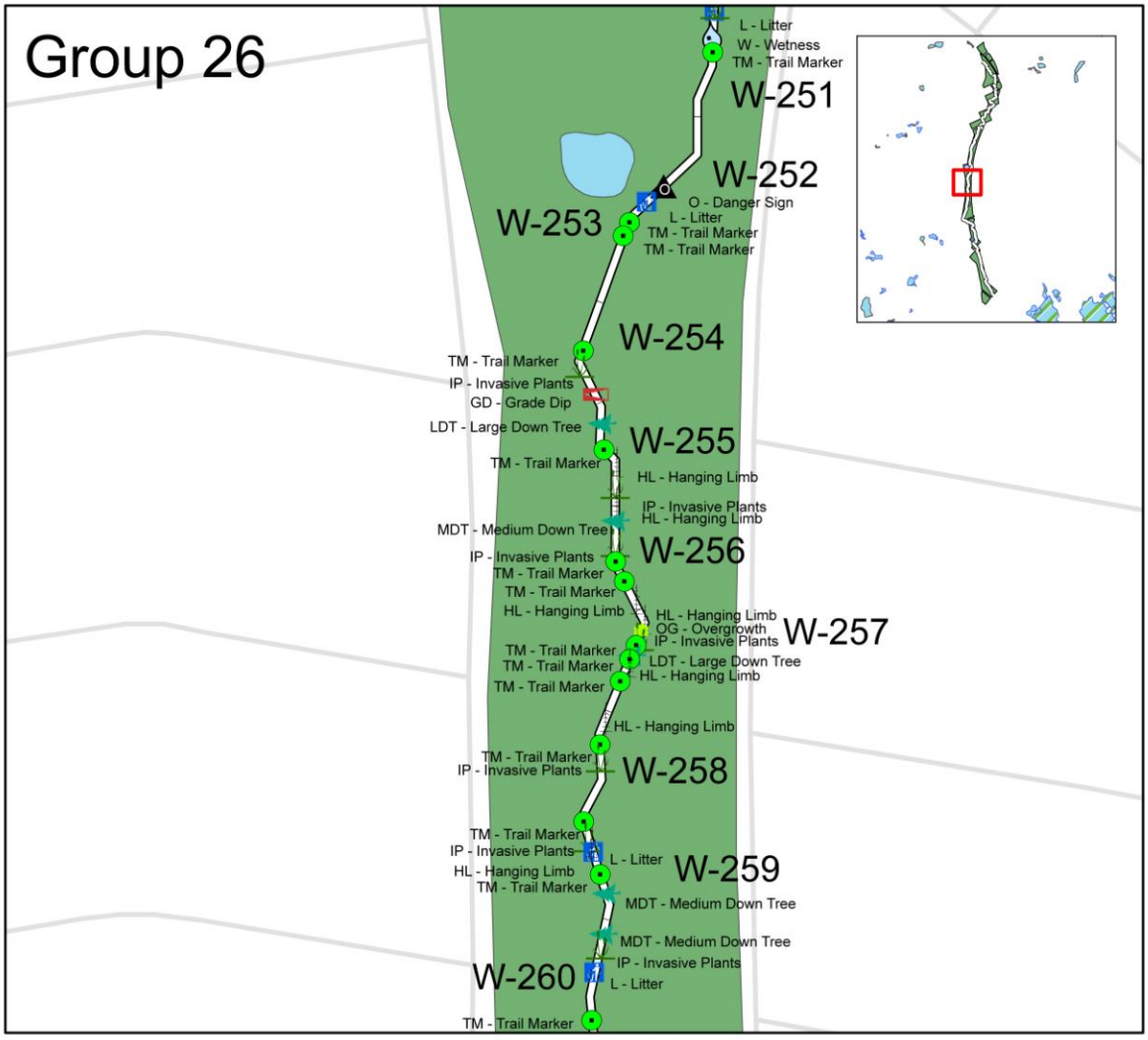


Map 60: Map of Willowbrook Parkway with White Trail Segment (W241 to W250) Assessed, Inventoried and Mapped

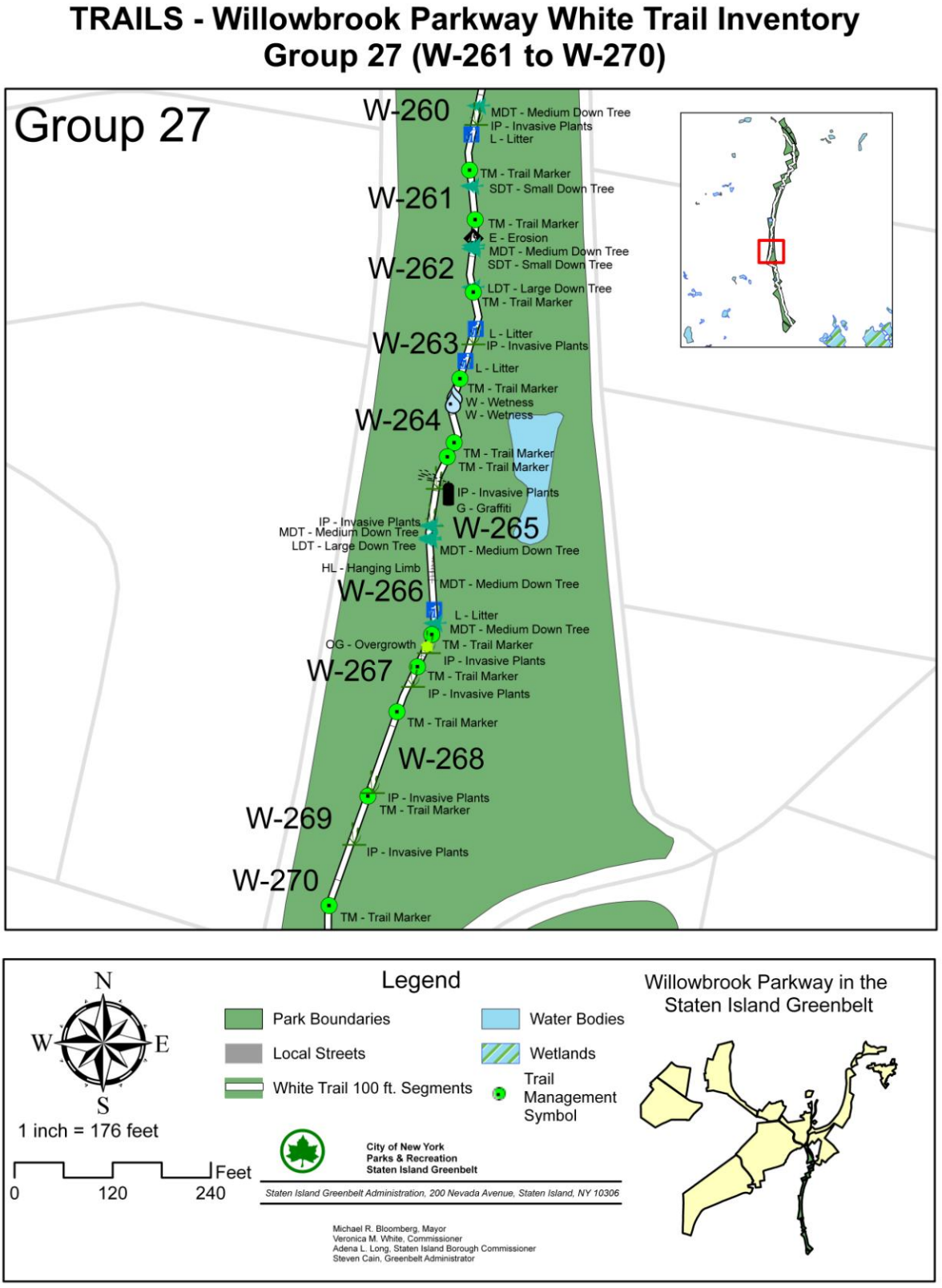


Map 61: Map of Willowbrook Parkway with White Trail Segment (W251to W260) Assessed, Inventoried and Mapped

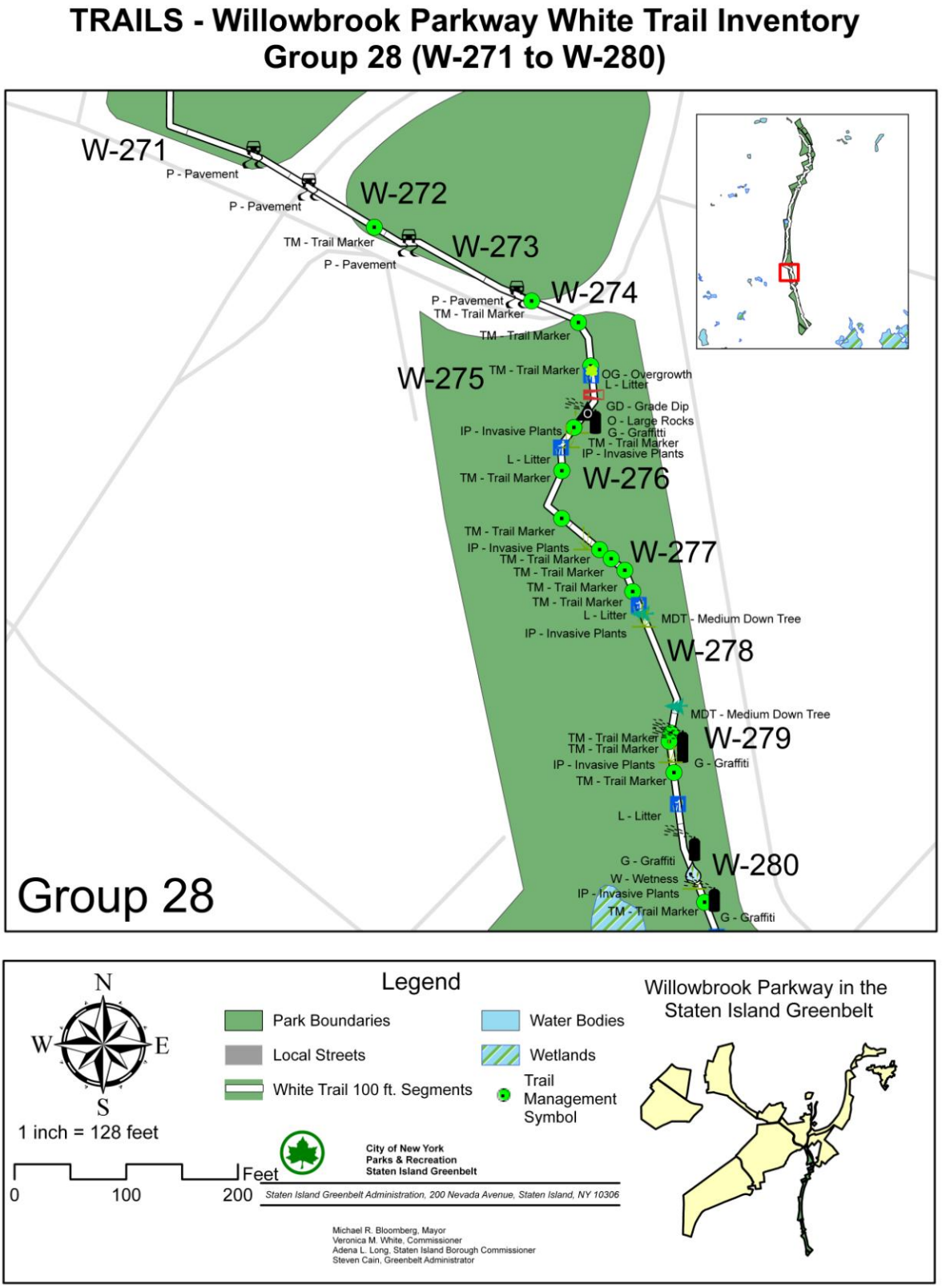
TRAILS - Willowbrook Parkway White Trail Inventory
Group 26 (W-251 to W-260)



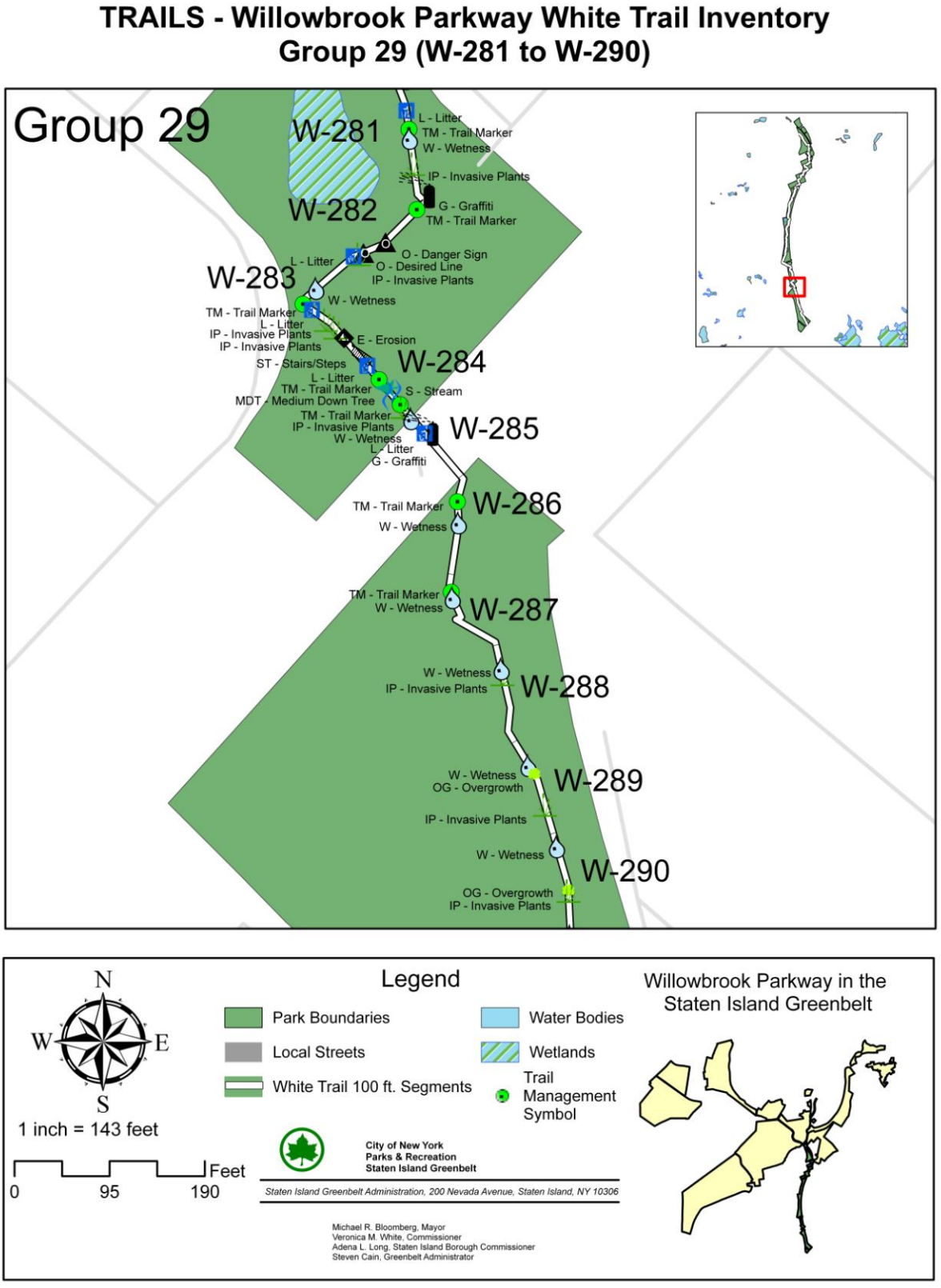
Map 62: Map of Willowbrook Parkway with White Trail Segment (W261 to W270) Assessed, Inventoried and Mapped



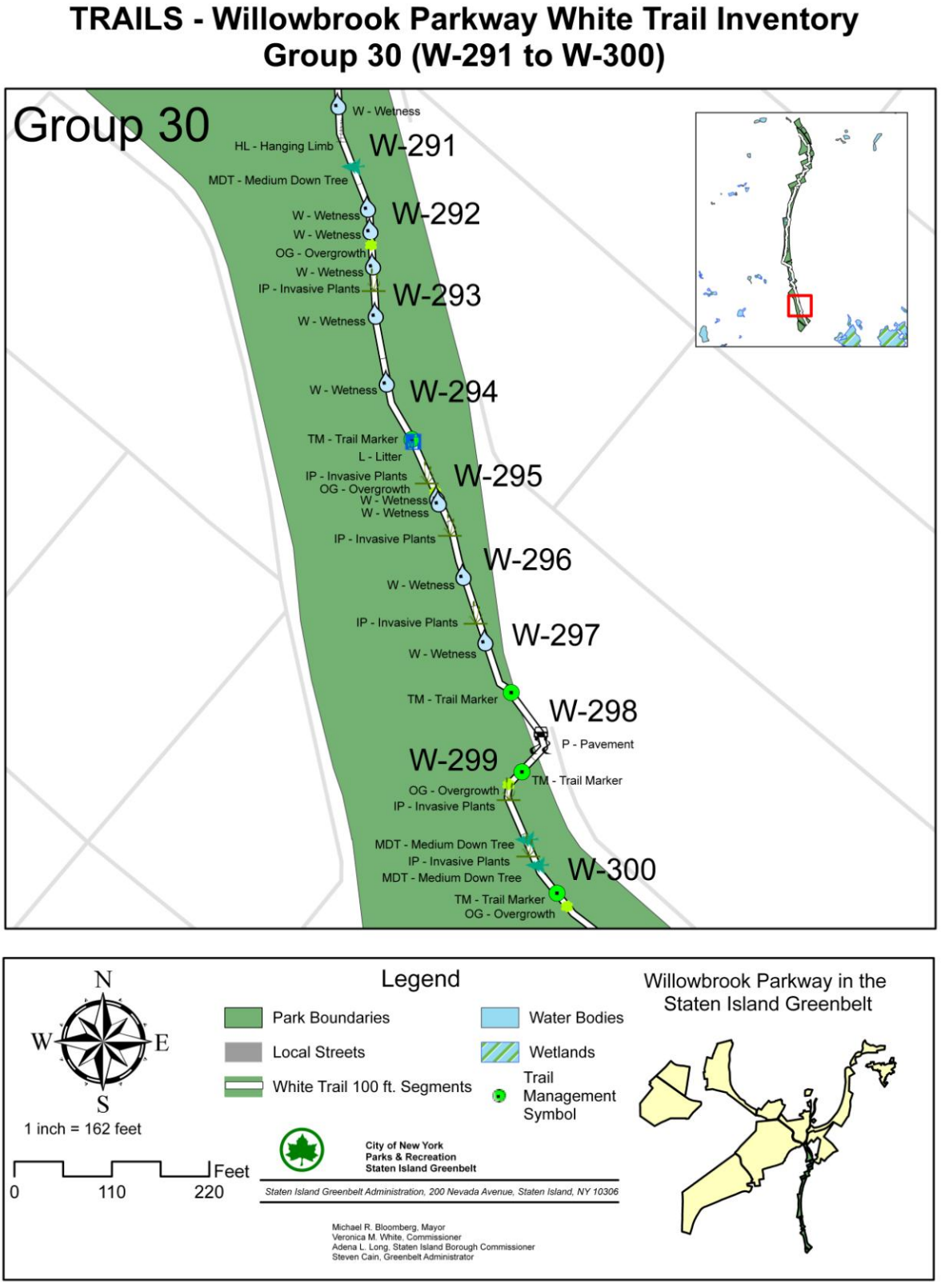
Map 63: Map of Willowbrook Parkway with White Trail Segment (W271 to W280) Assessed, Inventoried and Mapped



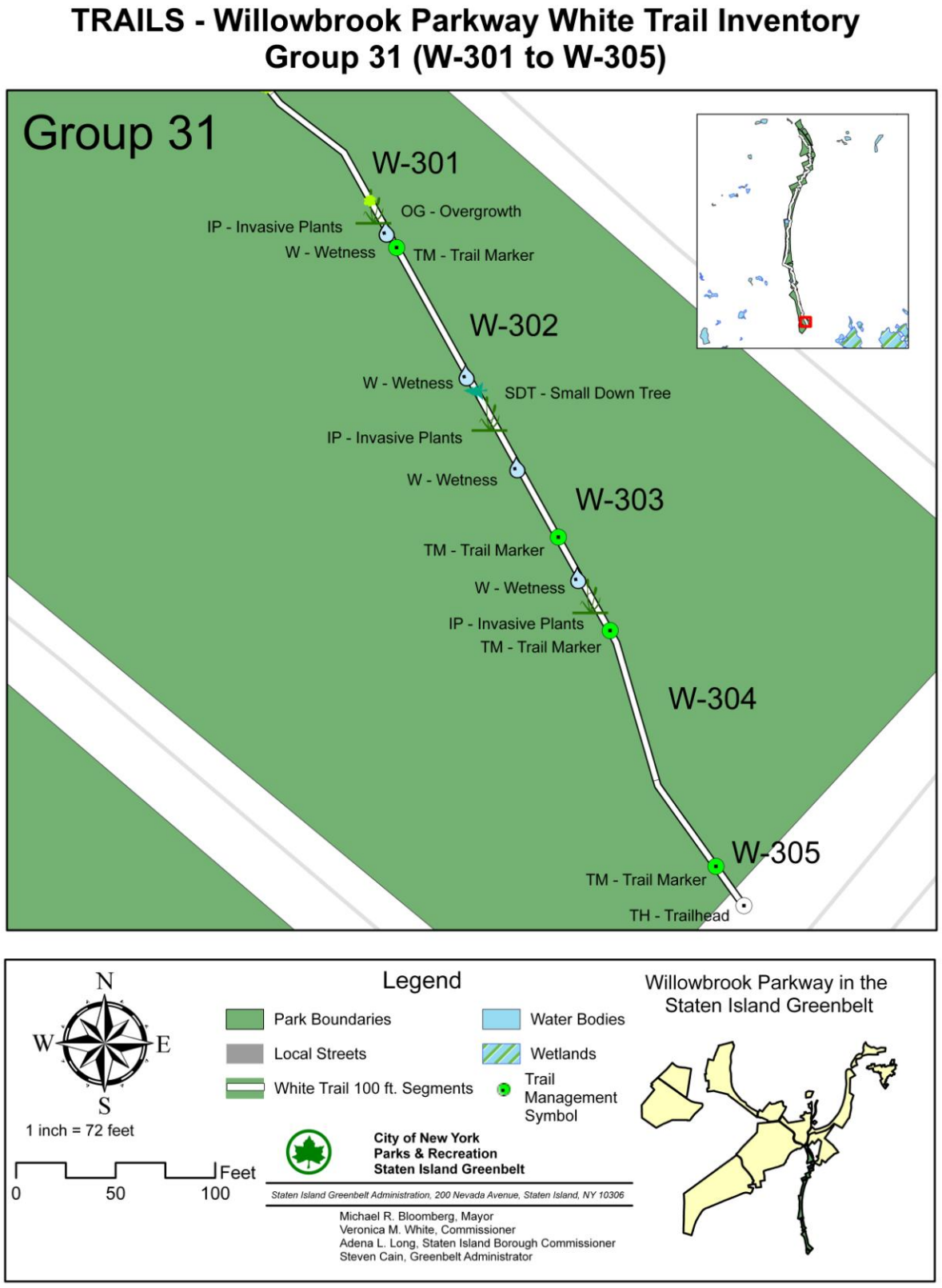
Map 64: Map of Willowbrook Parkway with White Trail Segment (W281 to W290) Assessed, Inventoried and Mapped



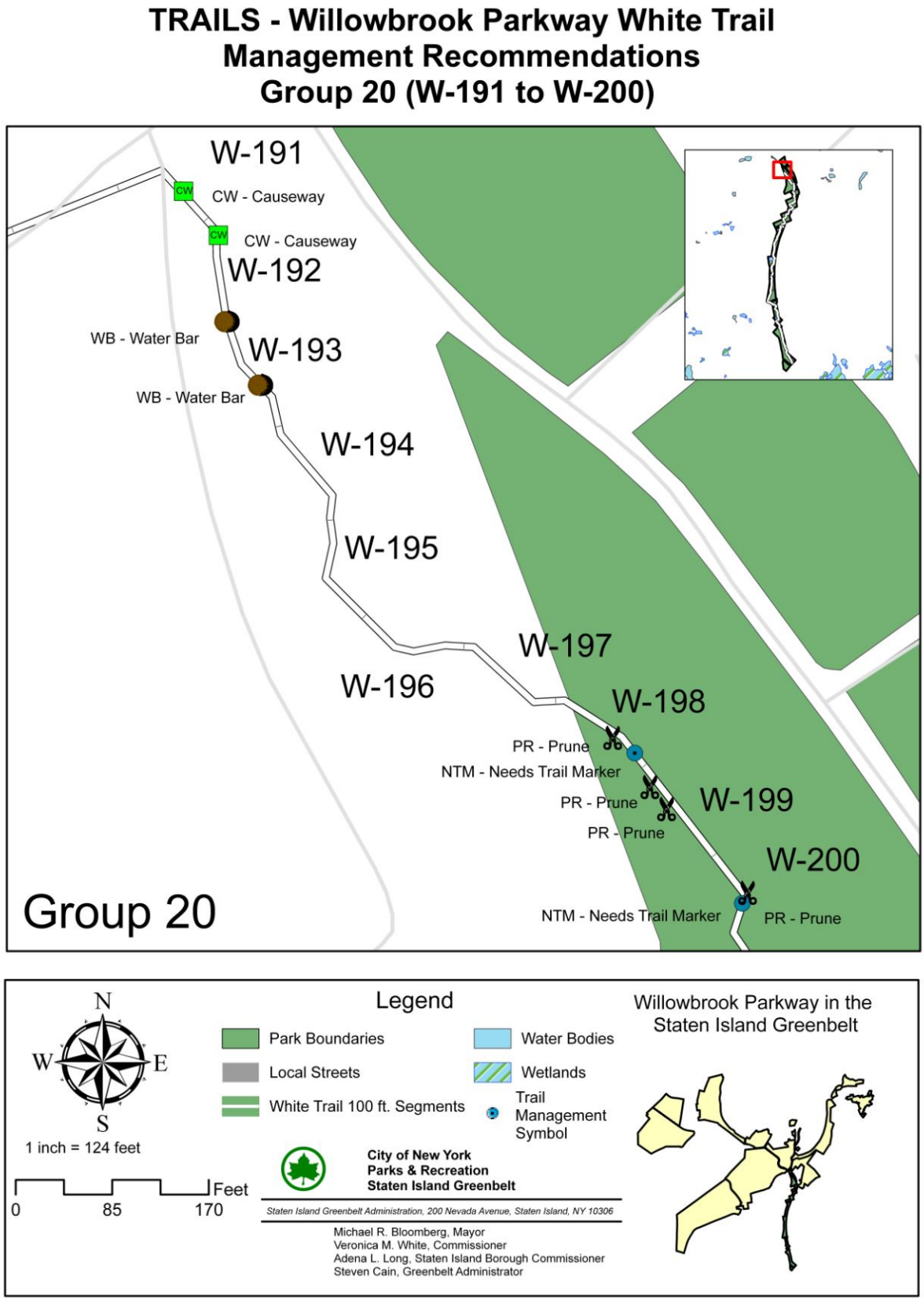
Map 65: Map of Willowbrook Parkway with White Trail Segment (W291 to W300) Assessed, Inventoried and Mapped



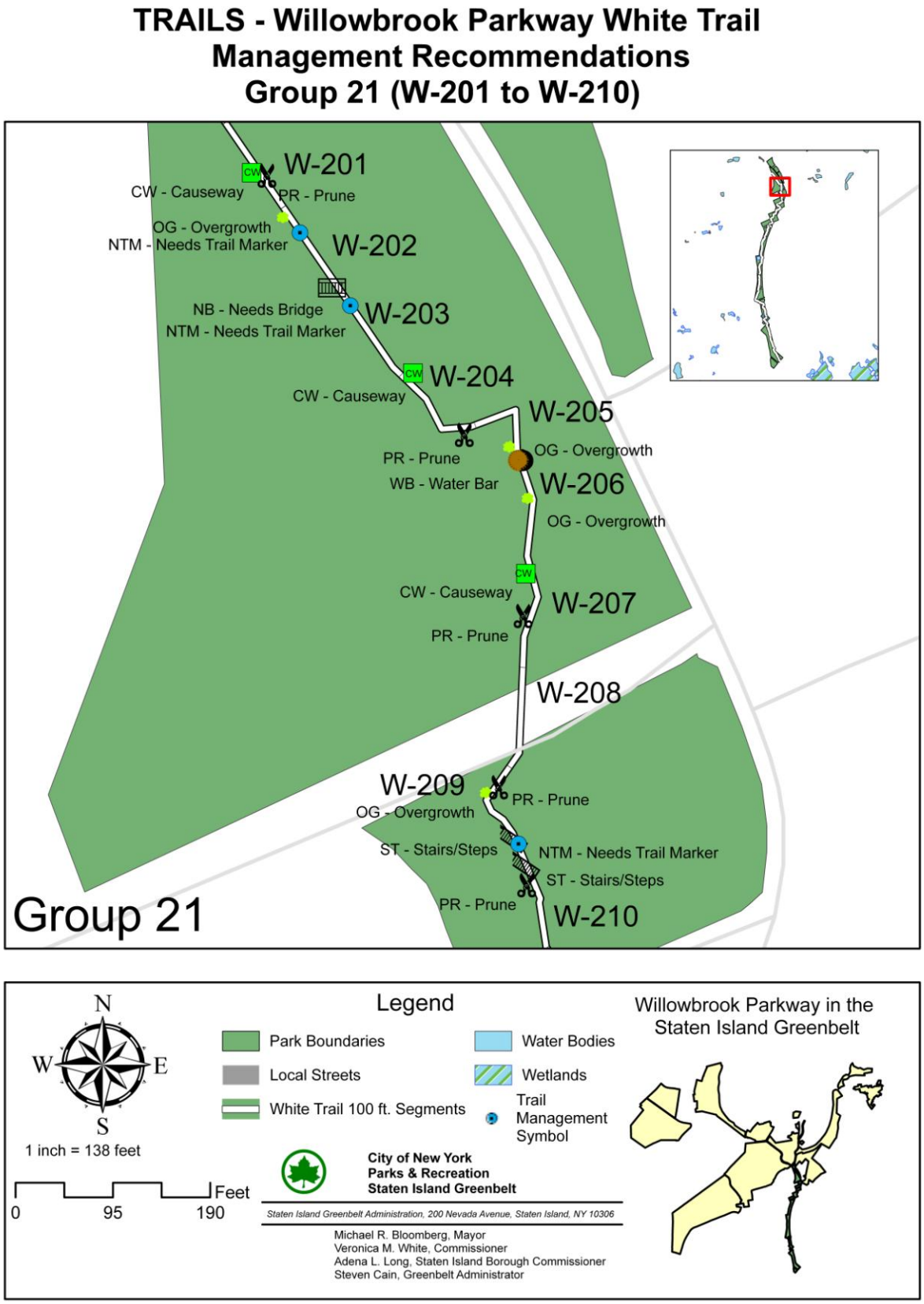
Map 66: Map of Willowbrook Parkway with White Trail Segment (W301 to W305) Assessed, Inventoried and Mapped



Map 67: Map of Willowbrook Parkway with White Trail Management Recommendations (W191 to W200)

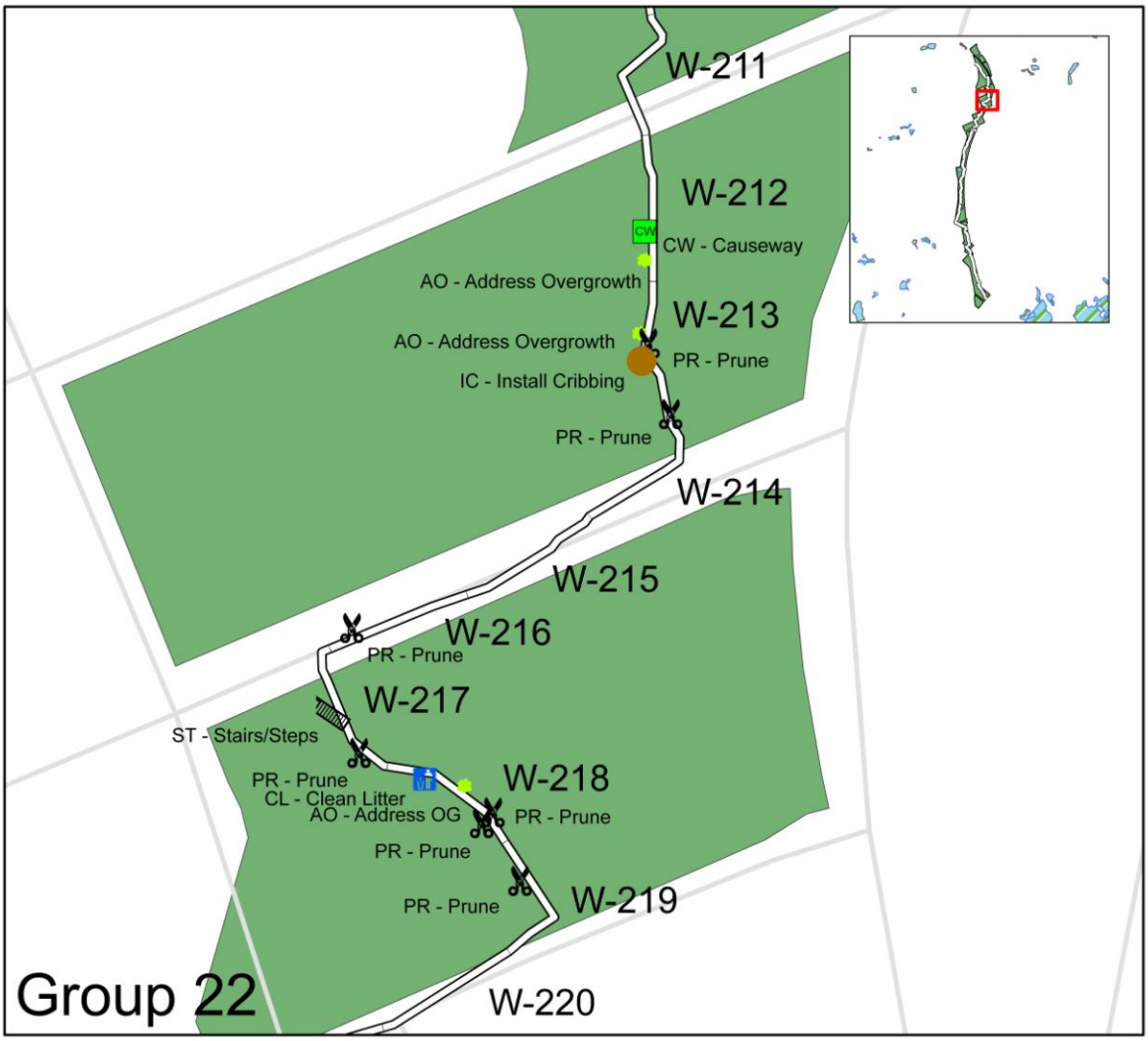


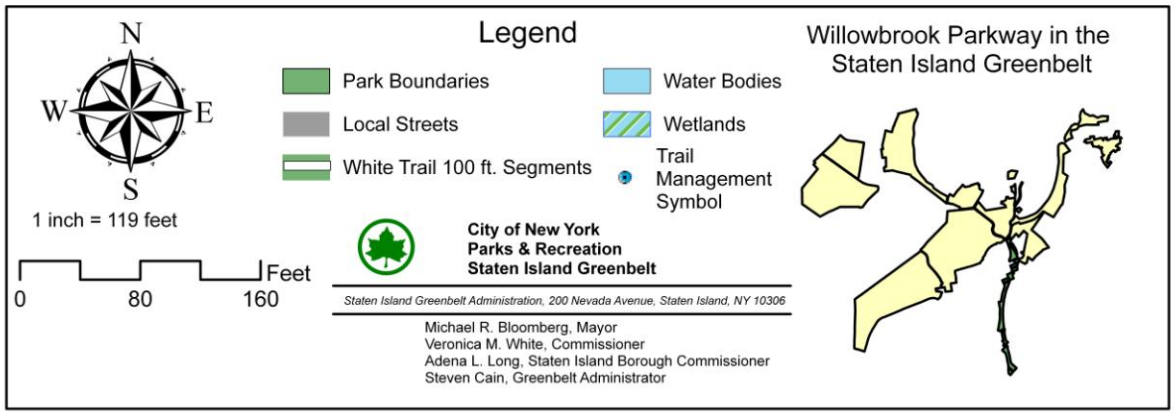
Map 68: Map of Willowbrook Parkway with White Trail Management Recommendations (W201 to W210)



Map 69: Map of Willowbrook Parkway with White Trail Management Recommendations (W211 to W220)

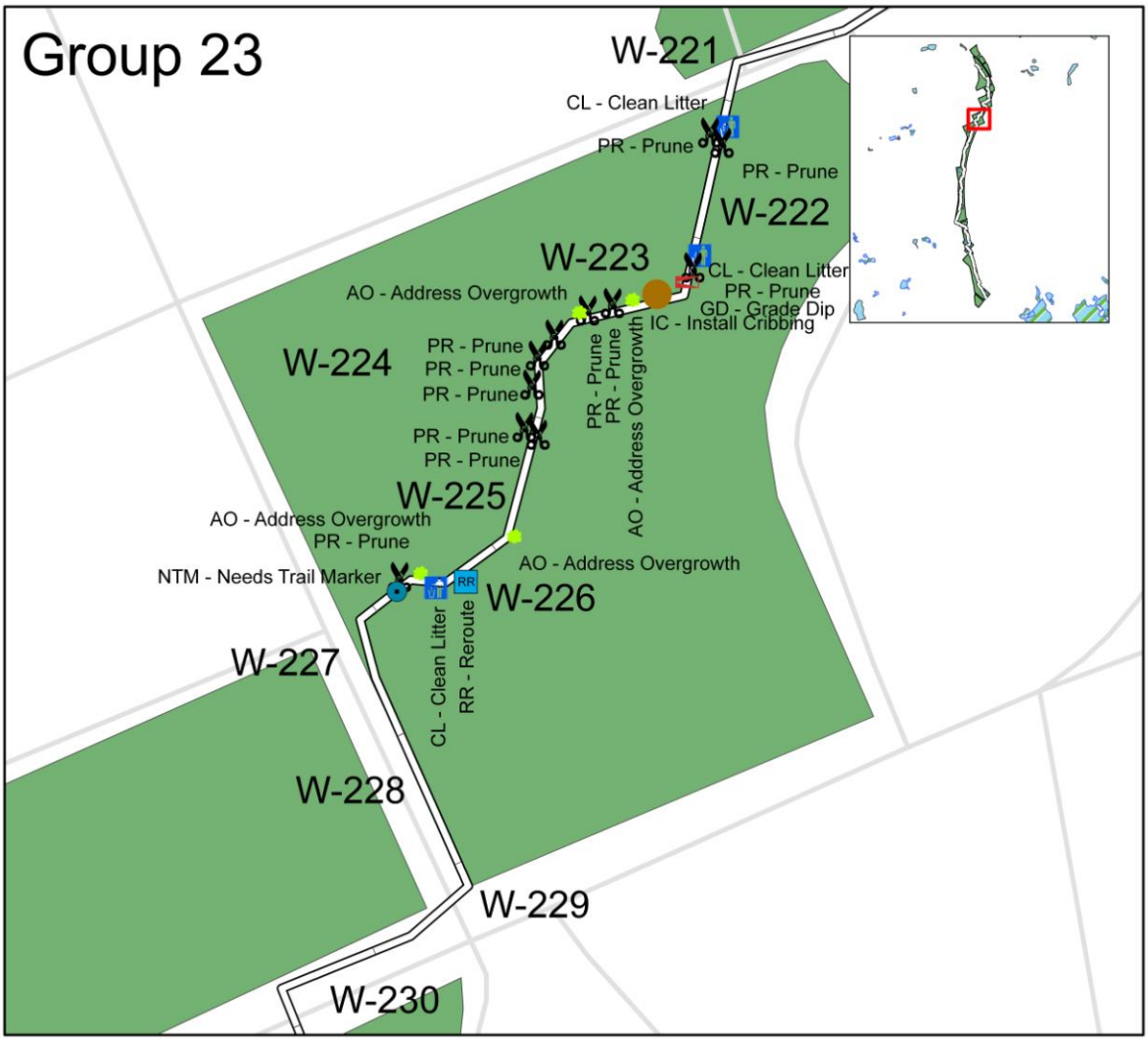
TRAILS - Willowbrook Parkway White Trail Management Recommendations Group 22 (W-211 to W-220)

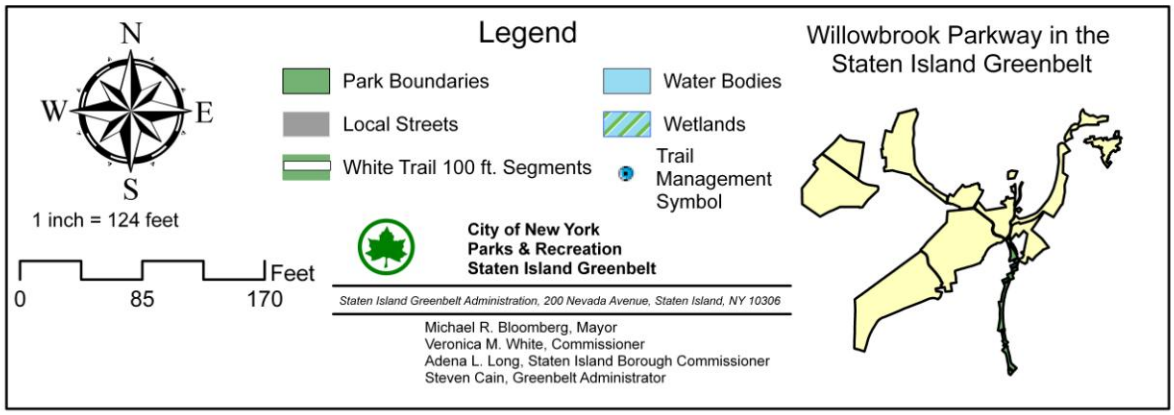




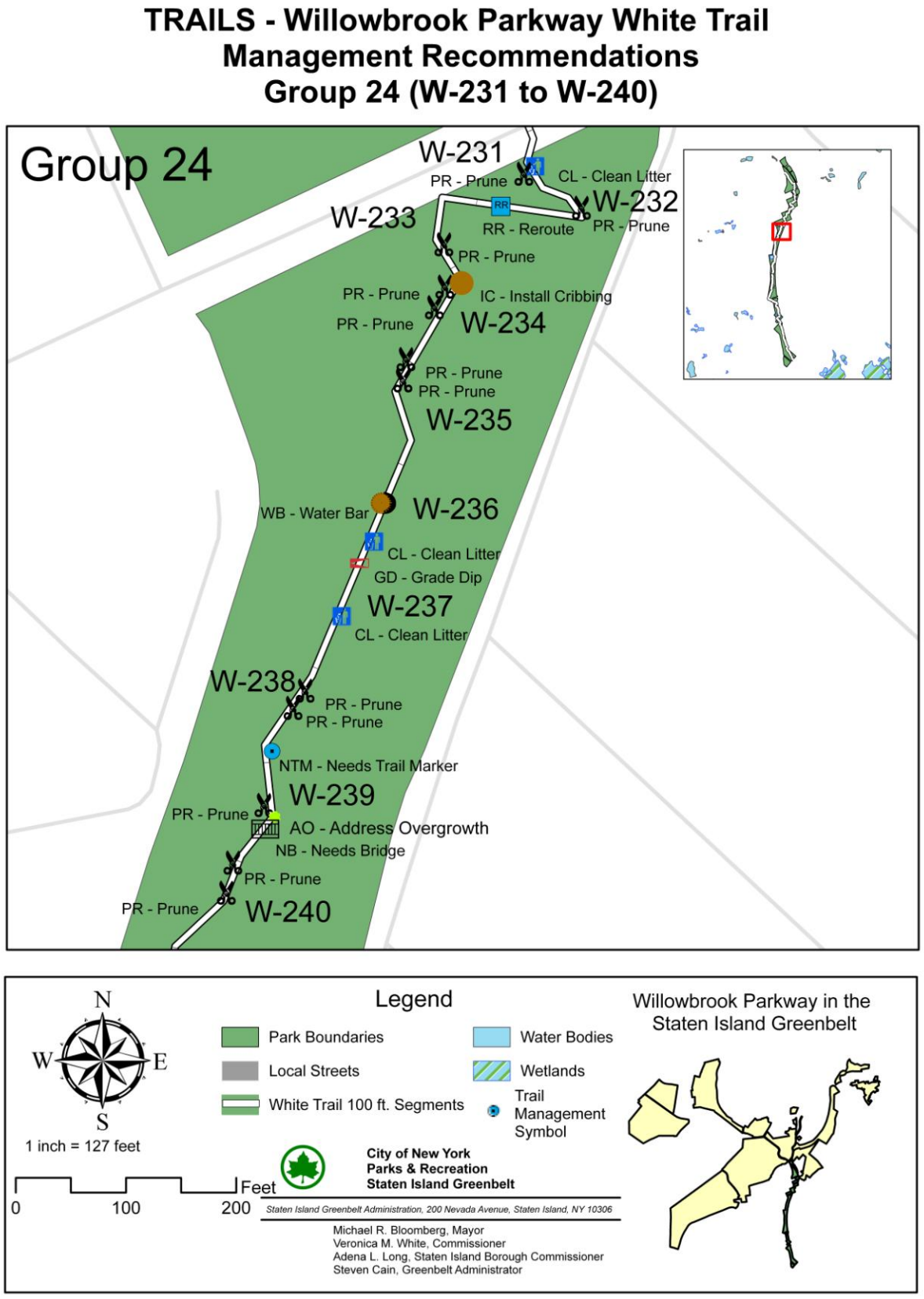
Map 70: Map of Willowbrook Parkway with White Trail Management Recommendations (W221 to W230)

TRAILS - Willowbrook Parkway White Trail Management Recommendations Group 23 (W-221 to W-230)

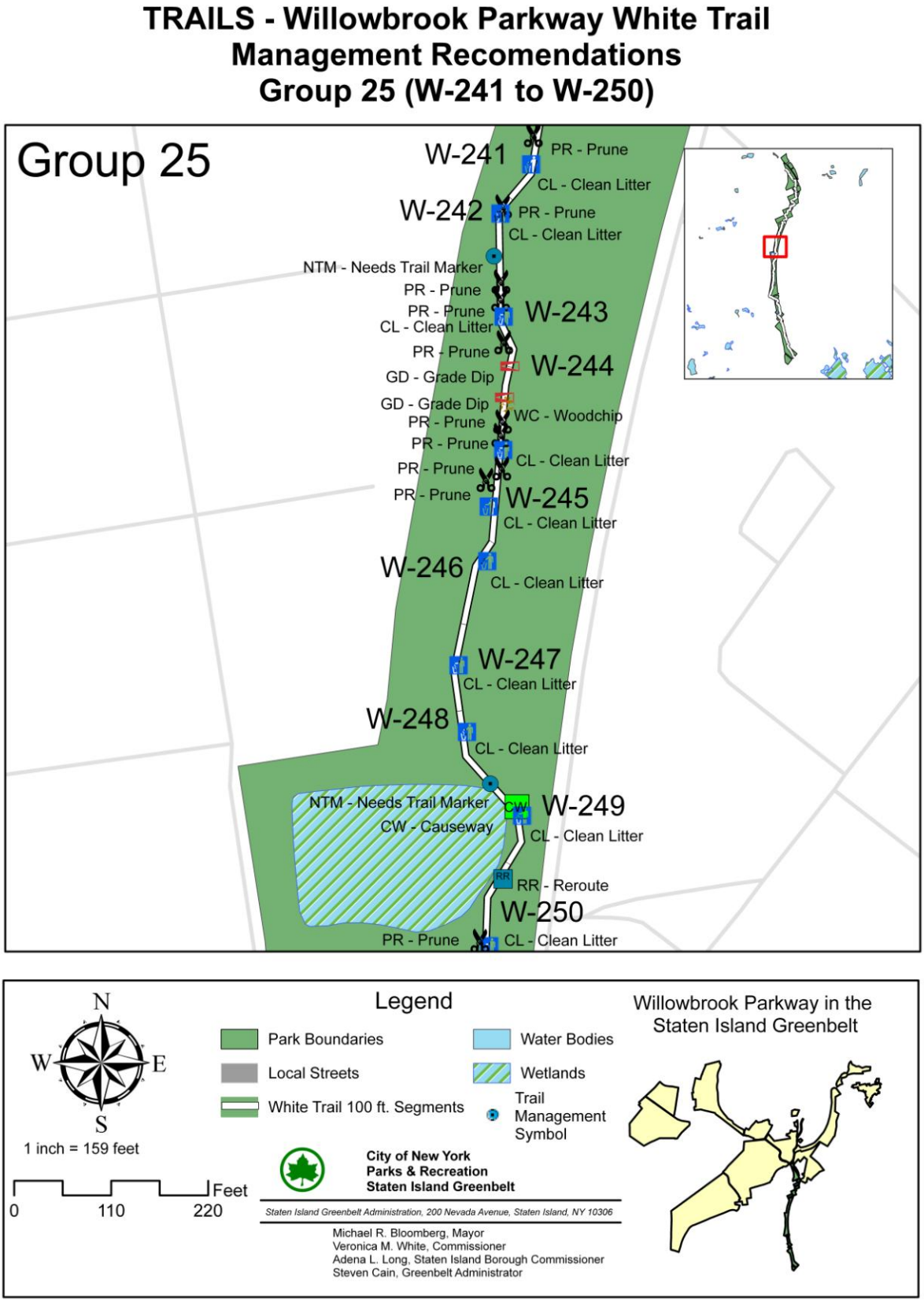




Map 71: Map of Willowbrook Parkway with White Trail Management Recommendations (W231 to W240)

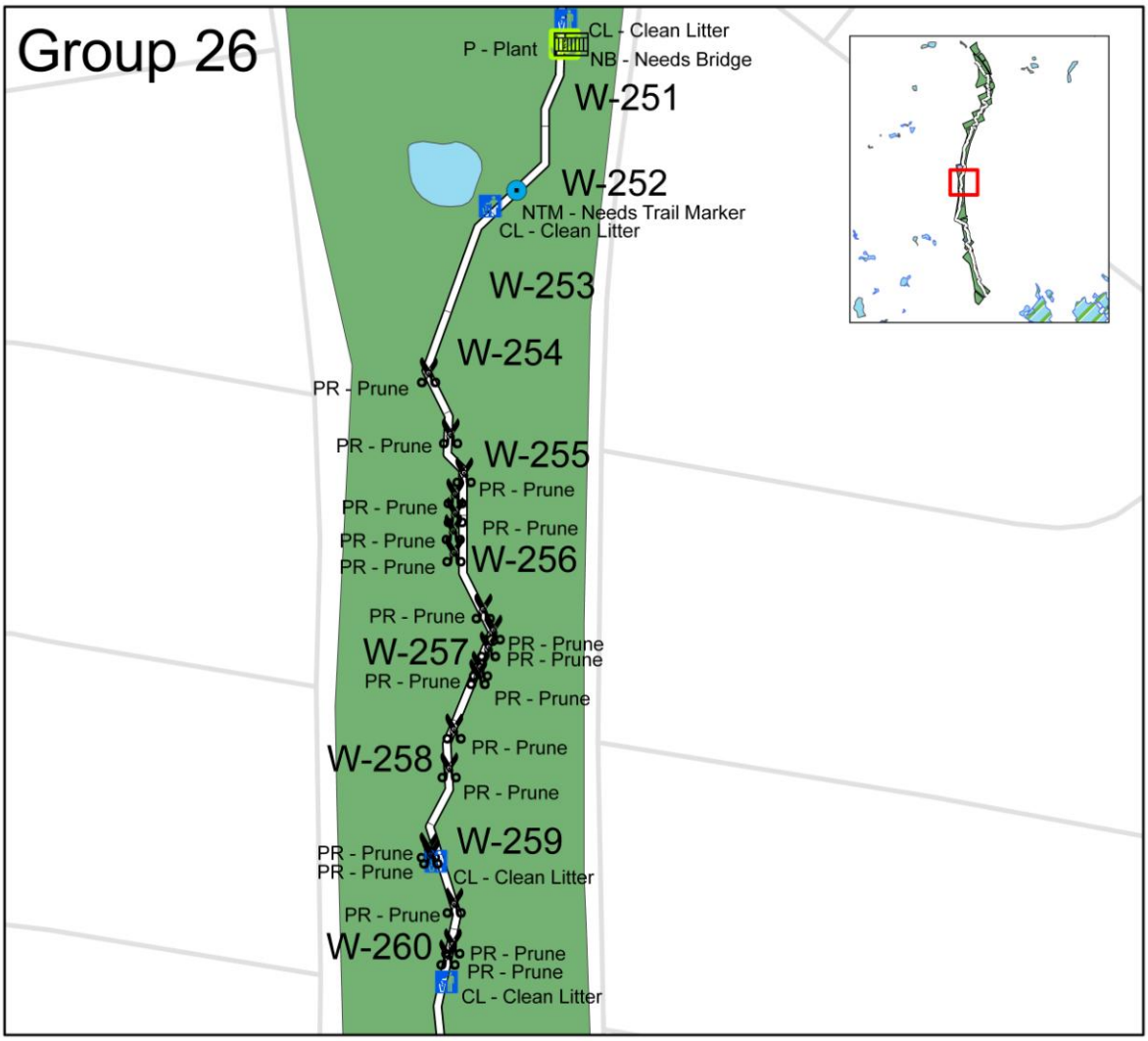


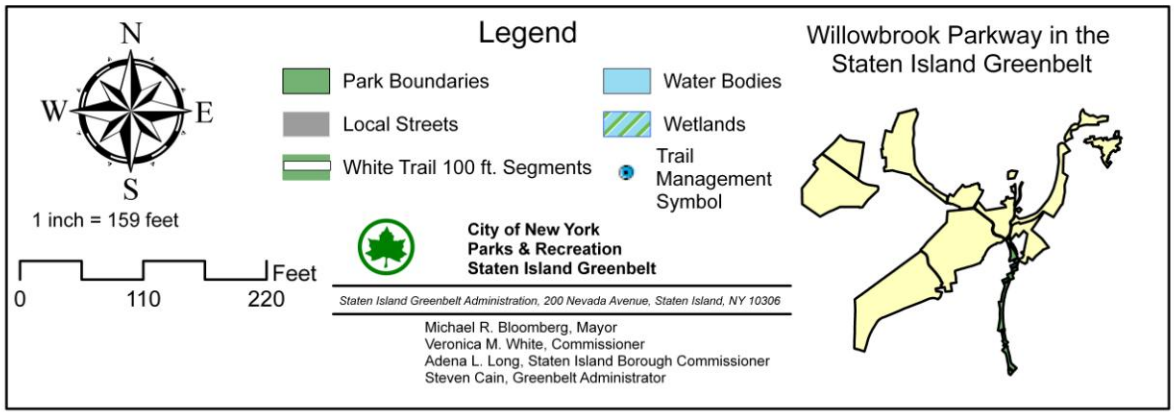
Map 72: Map of Willowbrook Parkway with White Trail Management Recommendations (W241 to W250)



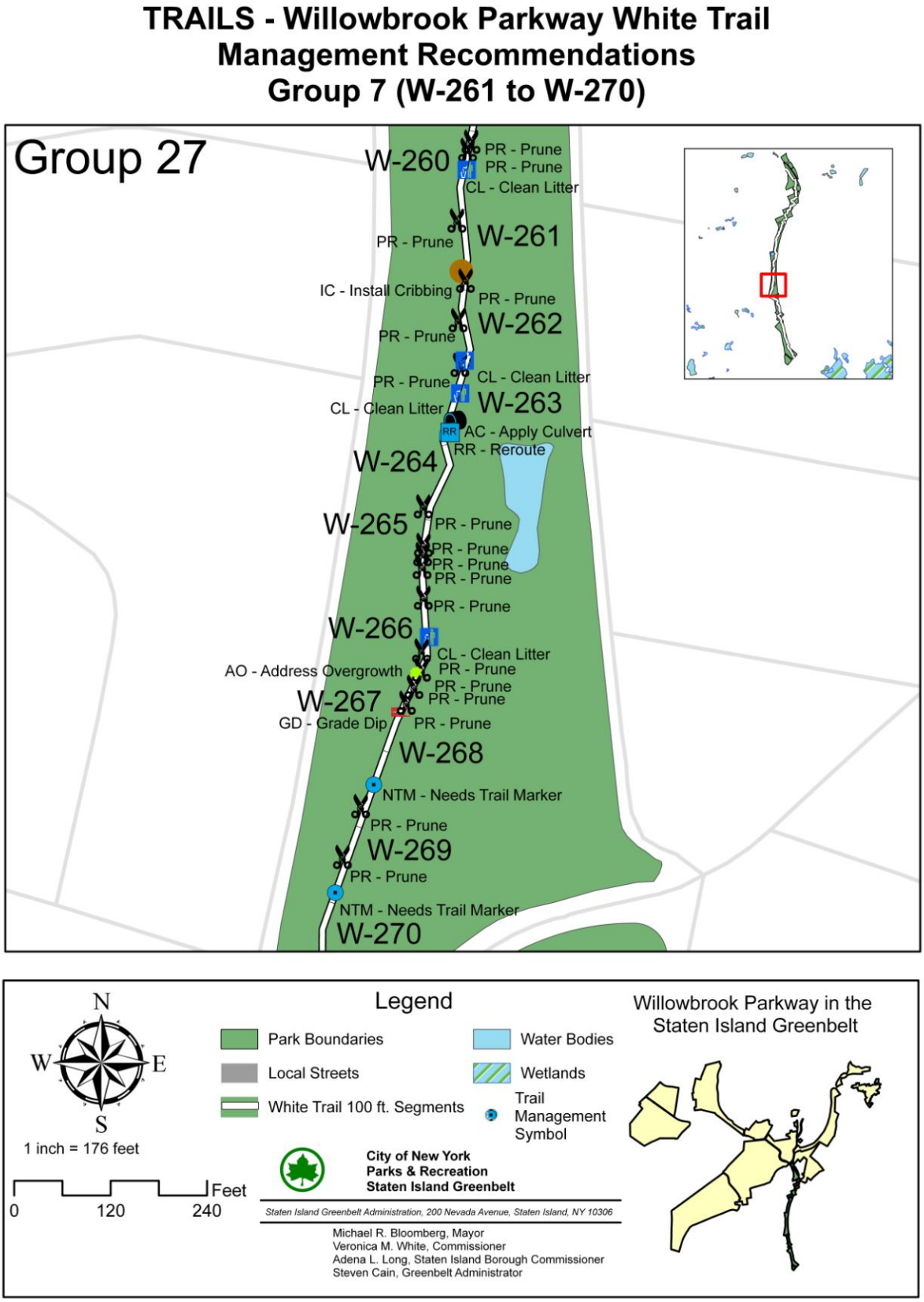
Map 73: Map of Willowbrook Parkway with White Trail Management Recommendations (W251 to W260)

TRAILS - Willowbrook Parkway White Trail Management Recommendations Group 26 (W-251 to W-260)

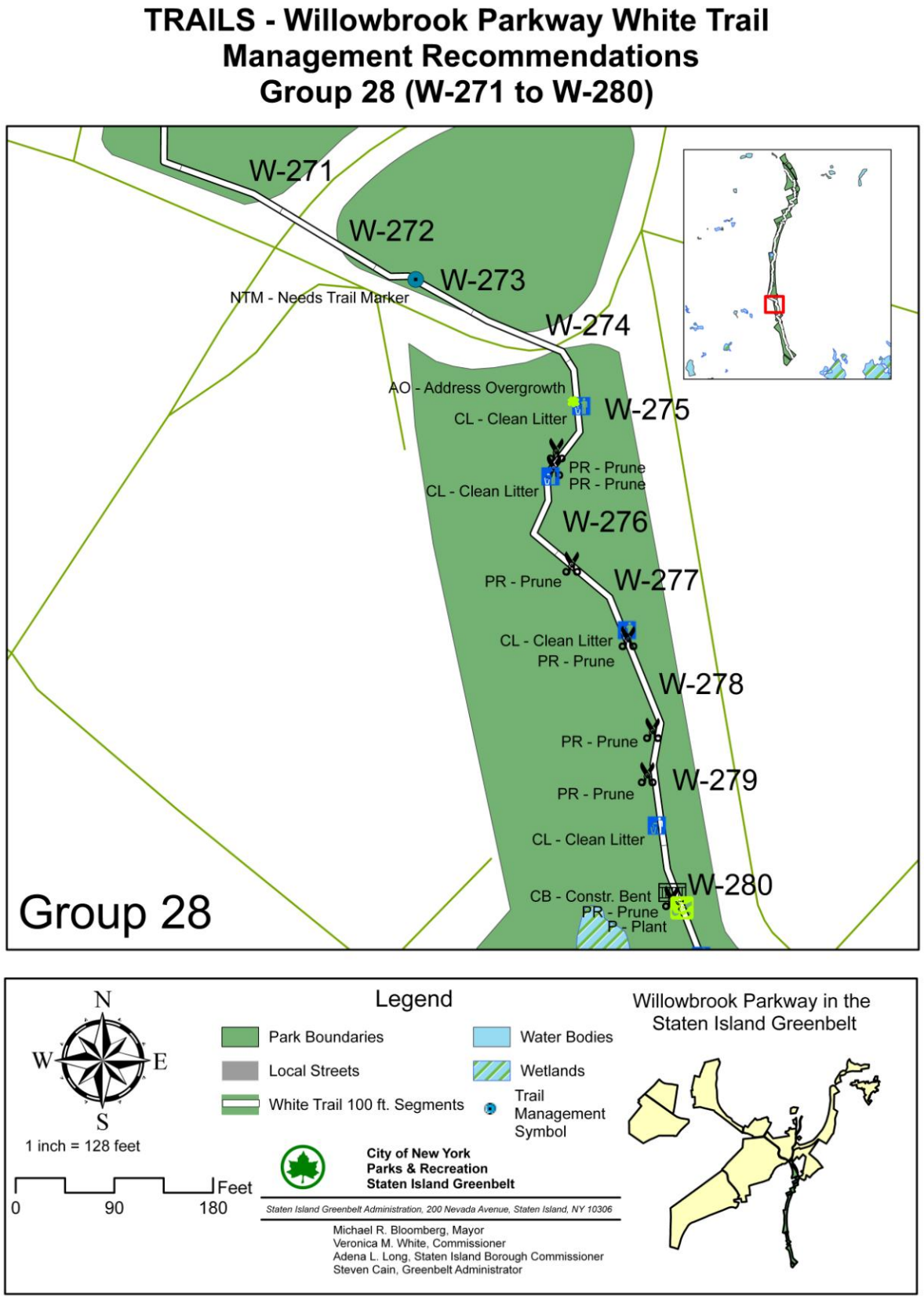




Map 74: Map of Willowbrook Parkway with White Trail Management Recommendations (W261 to W270)

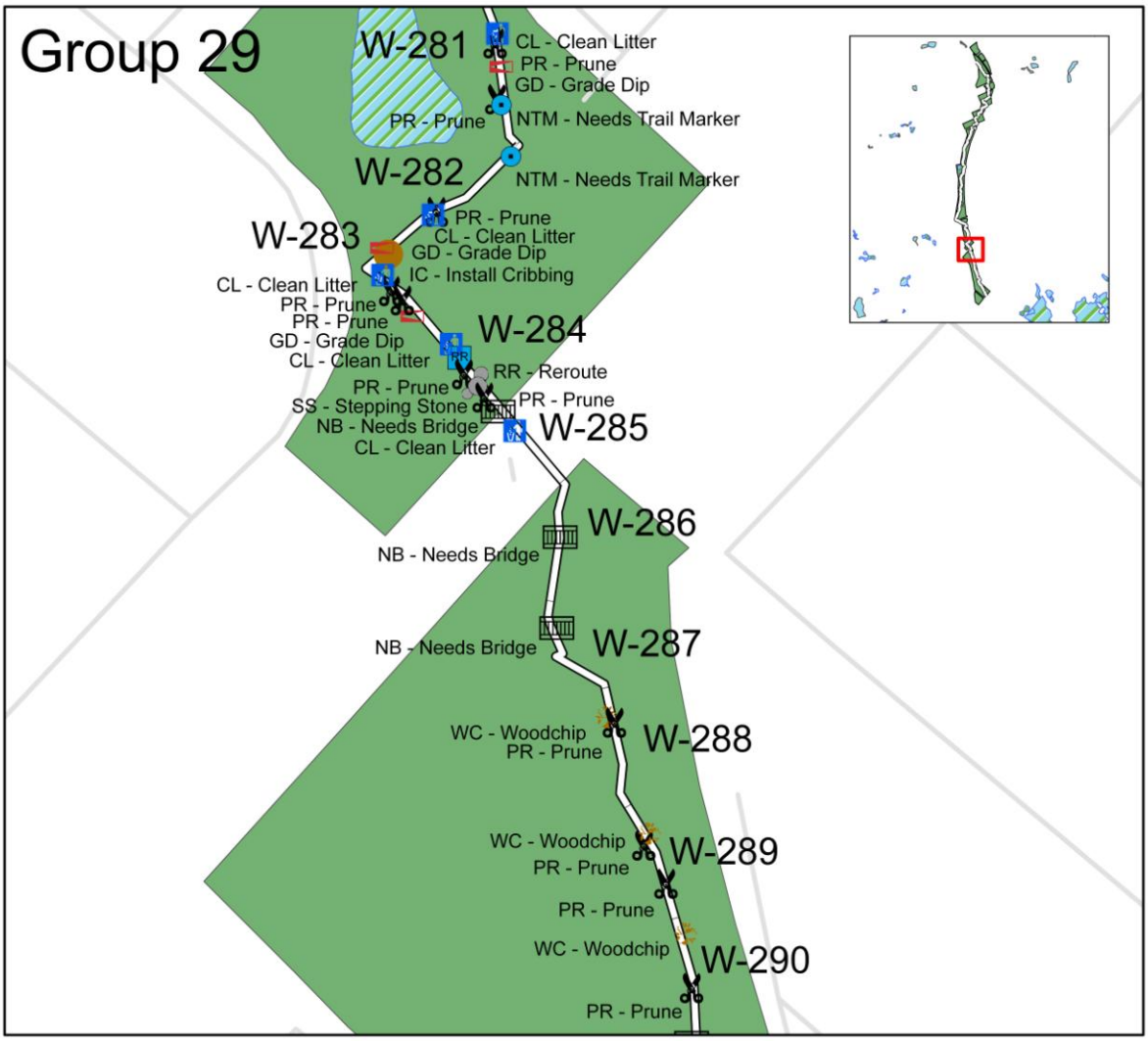


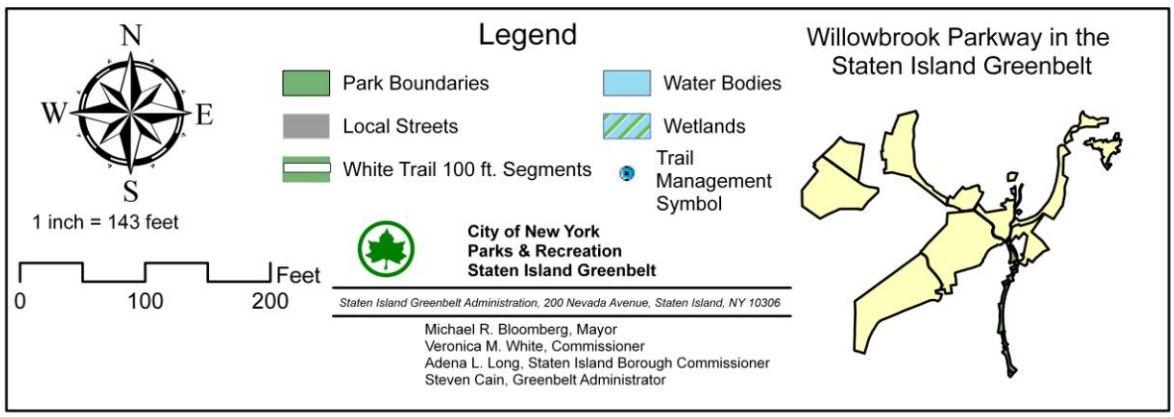
Map 75: Map of Willowbrook Parkway with White Trail Management Recommendations (W271 to W280)



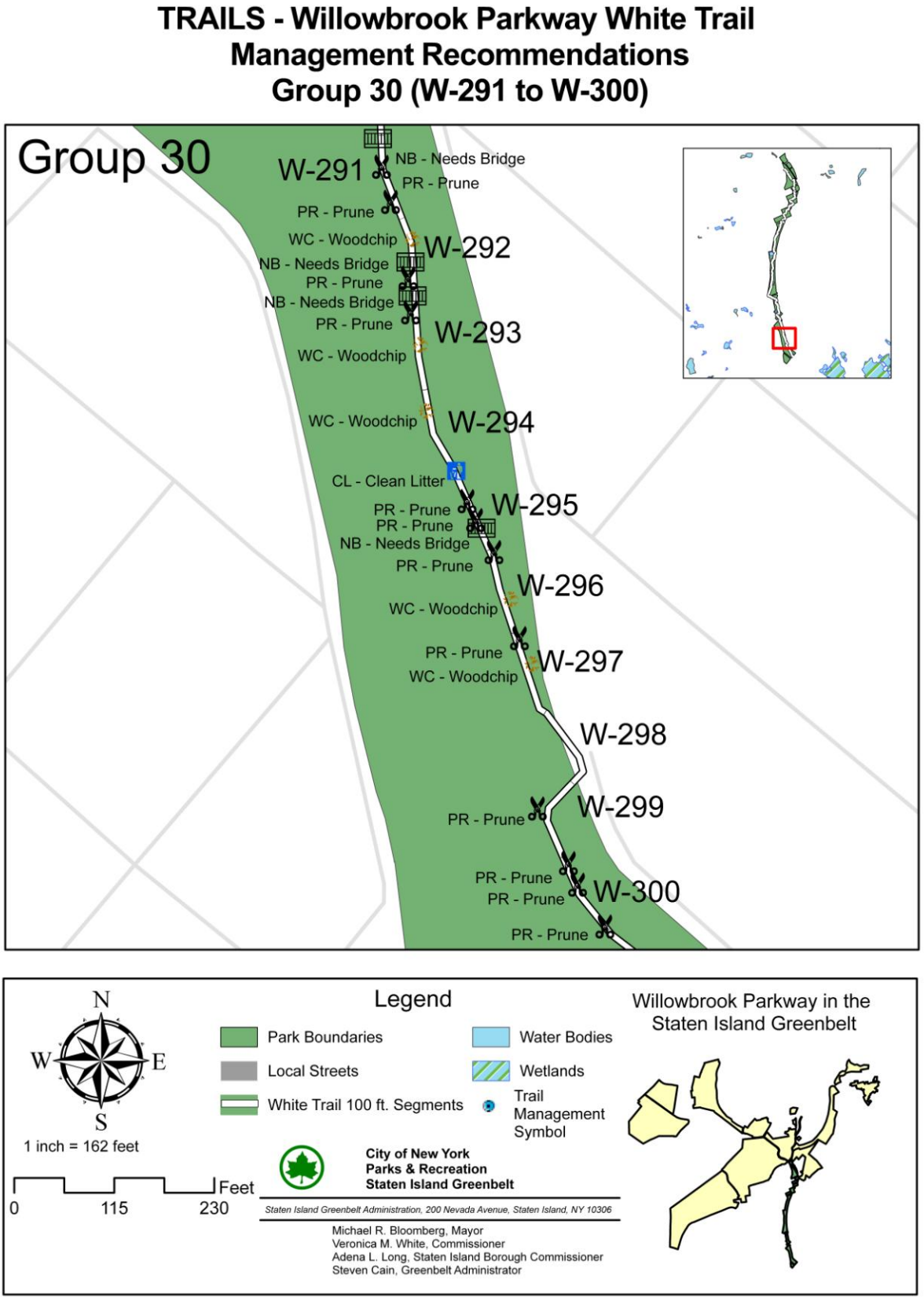
Map 76: Map of Willowbrook Parkway with White Trail Management Recommendations (W281 to W290)

TRAILS - Willowbrook Parkway White Trail Management Recommendations Group 29 (W-281 to W-290)

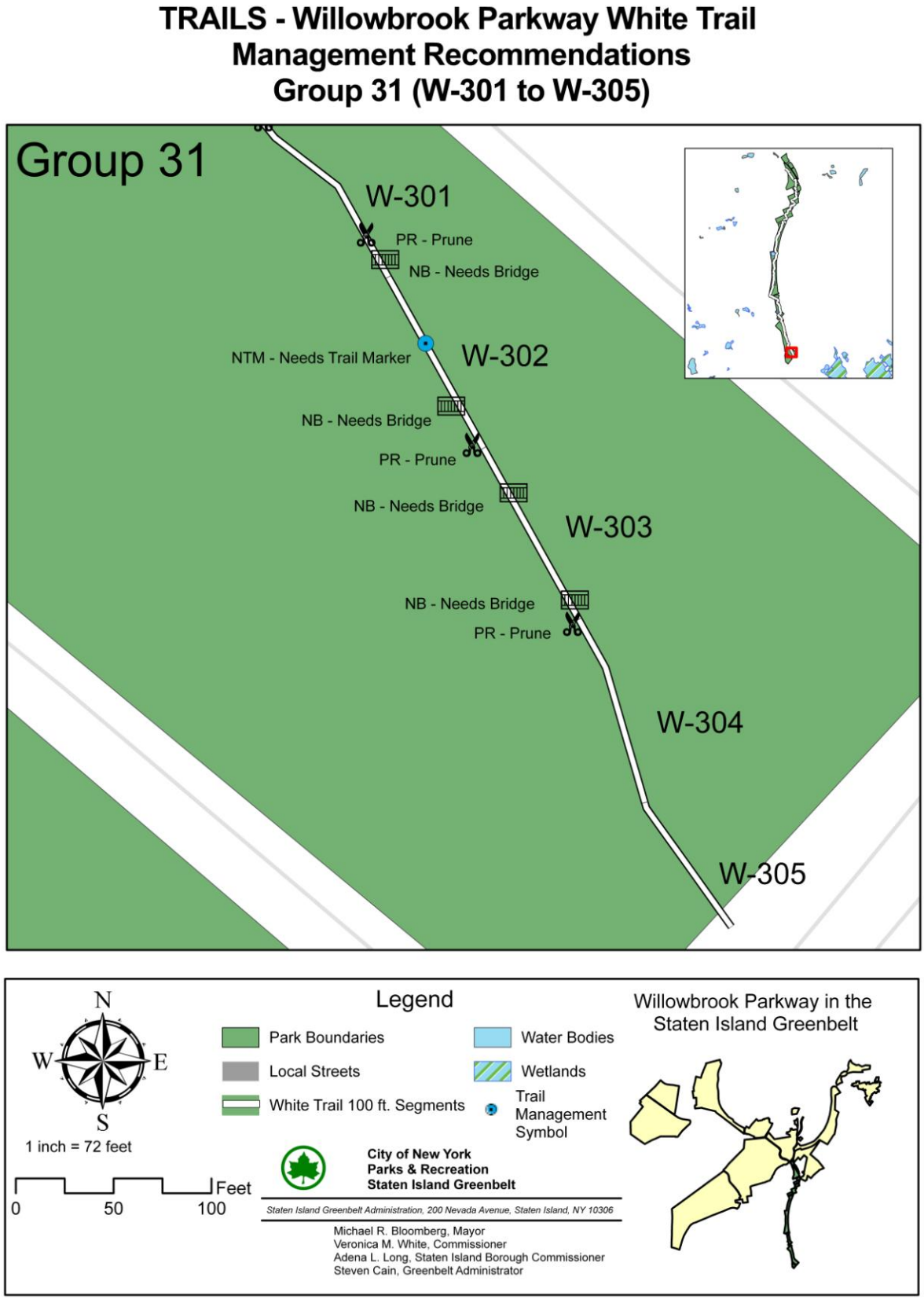




Map 77: Map of Willowbrook Parkway with White Trail Management Recommendations (W291 to W300)



Map 78: Map of Willowbrook Parkway with White Trail Management Recommendations (W301 to W305)



Section III. White Trail Descriptions, Surveyed 2012-2013

White Trail Descriptions, Surveyed 2012-2013

Trail Segment Group Number(s): W1 to W10
Park Name: Willowbrook Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 9/11/2012
Trail Name: White
Group: Group 1

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Woodland Level Dry Multi-Use Paved	0-100'	0	TH, TM	IK
	100'-200'	1		NTM
	200'-300'	1	TM	
	300'-400'	0		NTM
	400'-500'	1		NTM
	500'-600'	0	TM	
	600'-700'	0	TM	
	700'-800'	0	TM	AC, NTM
	800'-900'	1	TM	
	900'-1,000'	0	HL, WM, TM, TM2, HL2	PR, PR2

Comments and Observations

This is the W1 to W10 segment of the White trail. It starts by Victory Boulevard and Morani Street. It is east of Willowbrook Lake and west of the baseball fields. Parts of the trail are landscaped and open lawn.
Trail Management Concerns are: WM, HL
Trail Management Recommendations are: AC, NTM, IK, PR

Trail Segment Group Number(s): W11 to W20
Park Name: Willowbrook Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 9/11/2012
Trail Name: White
Group: Group 2

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest Level	0-100'	0	TM, TM2, C, TM3, TM4, HL, C2	PR
Moist Hiking	100'-200'	0	TM, TM2	NTM
Gravel	200'-300'	0	TM, TM2, TM3, TM4	
	300'-400'	1	C, TM, TM2, OG, C2	IC
	400'-500'	0	OG, HL, MDT, TM, TM2	IC, PR, PR2
	500'-600'	0	TM, TM2, TM3, TM4	
	600'-700'	1	TM, TM2	
	700'-800'	1	TM, TM2, TM3	
	800'-900'	0	TM, TM2	
	900'-1,000'	0	TM, SDT	NTM

Comments and Observations

This is the W11 to W20 segment of the White trail. It starts east of Willowbrook Lake and west of a closed forest.
Trail transitions into soil from gravel and passes by the Carousel.
Trail Management Concerns are: MDT, HL, OG
Trail Management Recommendations are: IC, PR, NTM

Trail Segment Group Number(s): W21 to W30
Park Name: Willowbrook Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 9/13/2012
Trail Name: White
Group: Group 3

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest Level Moist Hiking Soil	0-100'	1	TM, TM2, TM3	
	100'-200'	1	HL, TM, TM2, CR, OG, GD, TM2, TM3	PR, PR2
	200'-300'	0	TM	
	300'-400'	0	TM, HL	PR
	400'-500'	1	TM, TM2	
	500'-600'	2	TM, TM2, TM3	
	600'-700'	1	TM, TM2, TM3	
	700'-800'	1	OG, TM, TM2	PR
	800'-900'	0	TM, TM2, TM3, HL, TM4	PR
	900'-1,000'	2	TM, HL, OG, TM	PR, IC

Comments and Observations

This is the W21 to W30 segment of the White trail. This segment of the trail is located east of the Carousel and south of the playground. The trail segment enters into the closed forest from the open barbeque picnic area. This trail segment loops around and ends by the archery field.
Trail Management Concerns are: HL, OG
Trail Management Recommendations are: PR, IC

Trail Segment Group Number(s): W31 to W40
Park Name: Willowbrook Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 9/20/2012
Trail Name: White
Group: Group 4

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest	0-100'	0	HL, W, TM	PR, NB
Undulating				
Moist	100'-200'	1	TM, TM2, TM3	
Hiking				
Soil	200'-300'	1	TM, TM2, TM3	
	300'-400'	0	TM, TM2	
	400'-500'	1	TM, TM2	
	500'-600'	1	W, TM, TM2, TM3	
	600'-700'	0	TM, HL, OG	PR1, PR2
	700'-800'	0	TM, TM2	
	800'-900'	0	TM, TM2, TM3, TM4, TM5	
	900'-1,000'	0	TM	

Comments and Observations

This is the W31 to W40 segment of the White trail. Group 4 continues through the closed forest loop before heading southwest towards the archery field at the intersection of the park entrance.
Trail Management Concerns are: W, HL, OG.
Trail Management Recommendations are: PR, NB

Trail Segment Group Number(s): W41 to W50
Park Name: Willowbrook Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 9/20/2012
Trail Name: White
Group: Group 5

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest Undulating Moist Hiking Soil	0-100'	0	TM, TM2	
	100'-200'	1	HL, TM, TM2, OG, TM3, O, CW	PR, PR2
	200'-300'	1	TM, TM2, L, TM3, TM4	CL
	300'-400'	0	TM, L, G, TM2	CL
	400'-500'	0	TM, TM2	
	500'-600'	0	TM, TM2, TM3	
	600'-700'	1	TM, L, TM2, TM3	CL
	700'-800'	0	TM, TM2, L, TM3, TM4	CL
	800'-900'	0	TM, TM2, TM3	
	900'-1,000'	0	TM, CW, FB, TM2	

Comments and Observations

This is the W41 to W50 segment of the White trail. This segment begins after the loop beneath the Carousel and next to the archery field. There is litter along the sides of the trail segment. Towards the right of the trail is a small wetland. The trail passes through an elevated causeway bounded by small wetlands on both sides.
O represents ineffective water bar rock.
Trail Management Concerns are: HL, OG, G, L
Trail Management Recommendations are: CL, PR

Trail Segment Group Number(s): W51 to W60
Park Name: Willowbrook Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 10/2/2012
Trail Name: White
Group: Group 6

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest Level	0-100'	0	FB, TM	
Compacted Hiking	100'-200'	1	FB, TM, FB2	
Gravel	200'-300'	0	TM	NTM
	300'-400'	0	TM, TM2	
	400'-500'	1	TM	NTM
	500'-600'	0	TM, TM2	NTM
	600'-700'	0	TM	NTM
	700'-800'	1	TM, HL	PR
	800'-900'	2	TM	NTM
	900'-1,000'	0	TM, TM2	

Comments and Observations

This is the W51 to W60 segment of the White trail. Group 6 begins after passing the causeway that is surrounded by small wetlands. The trail goes along muddy terrain with small footbridges placed in various places. Due to the stream and surrounding wetlands, this area is susceptible to high wetness.
Trail Management Concerns are: HL
Trail Management Recommendations are: NTM, PR

Trail Segment Group Number(s): W61 to W70
Park Name: Willowbrook Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 10/4/2012
Trail Name: White
Group: Group 7

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest	0-100'	0	TM	
Undulating				
Wet	100'-200'	1	FB, TM	
Hiking				
Soil	200'-300'	0	TM, TM2	
	300'-400'	1	TM, TM2	
	400'-500'	1	TM, OG, TM2	PR, P
	500'-600'	0	TM, OG, TM2	PR
	600'-700'	0	TM, I, OG	PR, PR2
	700'-800'	2	OG, TM, IP, O1, TM2	PR
	800'-900'	0	OG, O2, WM, ST, TM	PR
	900'-1,000'	2	O3, IP, L, HL, OG, TM	PR, CL

Comments and Observations

This is the W61 to W70 segment of the White trail. This trail segment goes along the footbridge before you reach the ruins further north. This trail segment intersects a path to the Nature trail (previously the White trail) that goes along the edge of Willowbrook Park and the College of Staten Island (CSI). Group 7 ends by the stepping stones over the stream next to the ruins.
O1 represents rocks. O2 represents trail overlap with Nature trail. O3 represents ruins.
Trail Management Concerns are: IP, L, WM, OG
Trail Management Recommendations are: PR, CL, P

Trail Segment Group Number(s): W71 to W80
Park Name: Willowbrook Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 10/4/2012
Trail Name: White
Group: Group 8

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest Level Moist Hiking Soil	0-100'	0	OG, MDT, TM, HL	NTM, PR
	100'-200'	1	TM, OG, IP	PR
	200'-300'	0	TM, L, IP, TM2	CL
	300'-400'	1	TM, OG, IP	PR
	400'-500'	2	TM, TM2, IP	PR
	500'-600'	1	TM, OG, IP, TM2, TM3	PR
	600'-700'	1	TM, IP, TM2, OG	PR
	700'-800'	1	IP, HL, TM, TM2, TM3	PR
	800'-900'	2	L, TM, TM2, TM3	CL
	900'-1,000'	1	OG, TM, IP, TM2	PR

Comments and Observations

This is the W71 to W80 segment of the White trail. This trail segment is located adjacent to the NYS Mental Institute by Forest Hill Road. To the right side when facing south there are desired lines going into the forest. The trail encounters a desired line that may mislead trail users and skips 200’ off the White trail. The trail segment is surrounded by invasive species such as Japanese angelica tree, garlic mustard, and multiflora rose.
Trail Management Concerns are: L, OG, IP, HL
Trail Management Recommendations are: PR, CL, NTM

Trail Segment Group Number(s): W81 to W90
Park Name: Willowbrook Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 10/16/2012
Trail Name: White
Group: Group 9

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest Level Moist Hiking Soil	0-100'	2	TM, OG	AO
	100'-200'	1	GD, TM, TM2, TM3	
	200'-300'	2	TM, TM2, TM3	
	300'-400'	1	TM, TM2, TM3	
	400'-500'	1	OG, TM, TM2	AO
	500'-600'	1	TM, TM2	PR
	600'-700'	2	TM, TM2	PR
	700'-800'	1	OG, TM	AO, NTM
	800'-900'	3	TM	
	900'-1,000'	2	HL, TM, TM2	PR

Comments and Observations

This is the W81 to W90 segment of the White trail. The trail segment starts after the bend that is east of the NYS Mental Institute parking lot. There are large stones throughout Group 9 within the trail and adjacent areas. The trail segment is surrounded by invasive species, mainly Japanese angelica tree.
Trail Management Concerns are: AO, HL
Trail Management Recommendations are: NTM

Trail Segment Group Number(s): W91 to W100
Park Name: Willowbrook Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 10/18/2012
Trail Name: White
Group: Group 10

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest Undulating	0-100'	3	TM, OG, HL, TM2, TM3, IP	AO, PR
Moist Hiking	100'-200'	1	TM, E, IP	WB
Soil	200'-300'	3	TM, TM2, IP, TM3	WB
	300'-400'	2	TM, IP, TM2, TM3	
	400'-500'	1	IP, TM, HL, TM2	PR
	500'-600'	0	TM, TM2, IP	
	600'-700'	2	CW, TM, IP, OG, TM2	
	700'-800'	0	HL, TM, TM2, IP, TM3	
	800'-900'	2	TM, OG, IP, TM2	AO
	900'-1,000'	0	TM, TM2	

Comments and Observations

This is the W91 to W100 segment of the White trail. Towards the left is the NYS Mental Institution parking lot and on the right is Ashworth Avenue. Group 10 is covered by poison ivy, multiflora rose, and arrowwood viburnum. Some trail markers are along dead trees and the trail segment goes along hazardous dead trees. Group 10 ends before the fence area by the entrance to the White trail from Ashworth Avenue.
Trail Management Concerns are: HL, OG, IP, E
Trail Management Recommendations are: WB, PR, AO

Trail Segment Group Number(s): W101 to W110
Park Name: Willowbrook Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 10/23/2012
Trail Name: White
Group: Group 11

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Vineland	0-100'	1	IP, TM, L, TM2, HL	AO, CL, PR
Slope				
Moist	100'-200'	2	E, L, IP, OG	ST, PR, AO, NTM
Hiking				
Soil	200'-300'	2	TM, HL, IP, TM2, TM3	PR
	300'-400'	2	TM, IP	
	400'-500'	1	TM, TM2, TM3, W	WB
	500'-600'	1	IP, TM	PR
	600'-700'	0	CW, IP, LTD	PR, NTM
	700'-800'	1	IP, TM, L, TM2	CL
	800'-900'	3	ST, TM, L, IP, TM2	CL, PR
	900'-1,000'	2	L, TM, IP, GD, FB	CL, AO

Comments and Observations

This is the W101 to W110 segment of the White trail. The trail is to the right of Ashworth Avenue. This segment begins by the entrance in Lowell Avenue. The trail goes through a vineland on both sides. American Pokeweed is heavily present along the trail boundary. Many large stones are along the trail path. The end portion of this trail segment crosses Forest Hill Road and heads towards Blood Root Valley (segment: W110).
Trail Management Concerns are: IP, HL, OG, W, E, LTD, L
Trail Management Recommendations are: CL, AO, WB, NTM, PR

Trail Segment Group Number(s): W111 to W120
Park Name: Blood Root Valley
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 10/23/2012
Trail Name: White
Group: Group 12

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest	0-100'	1	S, TM, TM2, IP	PR
Undulating				
Moist	100'-200'	0	W, TM, TM2	NB
Hiking				
Soil	200'-300'	0	TM, IP, TM2, TM3	PR
	300'-400'	2	TM, FB, E	T, NTM, AC
	400'-500'	1	IP, FB, TM, OG	PR
	500'-600'	0	TM, TM2, TM3, IP	PR
	600'-700'	1	IP, TM, FB	PR, NTM
	700'-800'	1	FB, HL, TM, IP	PR
	800'-900'	5	FB, TM	
	900'-1,000'	5	FB, HL, SDT, MDT	PR, NTM

Comments and Observations

This is the W111 to W120 segment of the White trail. Group 12 starts off about 100 feet into the White trail as it crosses Forest Hill Road. A footbridge going over a stream meets it. The trail goes through some muddy patches and ends by a long footbridge path east from a residential development.
Trail Management Concerns are: W, IP, E, OG
Trail Management Recommendations are: PR, NTM, T, AC

Trail Segment Group Number(s): W121 to W130
Park Name: Blood Root Valley
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 11/20/2012
Trail Name: White
Group: Group 13

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest	0-100'	3	TM, FB, LDT	PR
Slope				
Moist	100'-200'	3	TM, E	CW, ST
Hiking				
Soil	200'-300'	0	TM, FB, TM2	
	300'-400'	7	TM, TM2, TM3	
	400'-500'	6	TM, TM2	
	500'-600'	2	TM, TM2	
	600'-700'	1		NTM
	700'-800'	5	TM, TM2	
	800'-900'	0	TM	
	900'-1,000'	2	LDT	PR

Comments and Observations

This is the W121 to W130 segment of the White trail. This part of the trail crosses Rockland Avenue by Brielle Avenue. It is at the end of Blood Root Valley and the beginning of La Tourette Park (segments: W123-W130).
Note: Segments W121 to W122 are within Blood Root Valley. Segments W123 to W130 are within La Tourette Park.
Trail Management Concerns are: LDT, E
Trail Management Recommendations are: PR, CW, ST, NTM

Trail Segment Group Number(s): W131 to W140
Park Name: La Tourette Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 11/20/2012
Trail Name: White
Group: Group 14

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest	0-100'	3	TM, LDT, TM2	PR
Slope				
Moist	100'-200'	1	TM	NTM
Hiking				
Soil	200'-300'	2	TM	
	300'-400'	6	TM, TM2, TM3	
	400'-500'	0	TM, TM2	
	500'-600'	1	TM, O1, TM2	
	600'-700'	1	TM	
	700'-800'	1	TM, TM2	
	800'-900'	0	TM, TM2	IC
	900'-1,000'	1	TM, TM2	

Comments and Observations

This is the W131 to W140 segment of the White trail. There is a noticeable grade dip before encountering a large fallen tree adjacent to the path. Towards the left facing up the slope is a wooden bench that is part of the Nature Center trail. Eventually the White and Nature Center trails overlap nearby this segment.
O1 Represents bench.
Trail Management Concerns are: LDT
Trail Management Recommendations are: PR, NTM, IC

Trail Segment Group Number(s): W141 to W150
Park Name: La Tourette Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 11/20/2012
Trail Name: White
Group: Group 15

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest Undulating Moist Hiking Soil	0-100'	1	TM	IC
	100'-200'	0	O1, TM	
	200'-300'	0	TM, HL, TM2	PR
	300'-400'	1	TM	
	400'-500'	0	TM, TM2, TM3, TM4	
	500'-600'	1	TM, TM2	
	600'-700'	1	TM	
	700'-800'	2	TM	
	800'-900'	1	TM	
	900'-1,000'	5	CR, TM	

Comments and Observations

This is the W141 to W150 segment of the White trail. West of the trail is a depression. The trail segment overlaps with the Blue and Nature Center trails. The White trail eventually splits from the Nature Center trail. Towards the end of Group 15 exists the first set of check dams (Cribbing) going downhill.
O1 represents bench.
Trail Management Concerns are: HL
Trail Management Recommendations are: IC, PR

Trail Segment Group Number(s): W151 to W160
Park Name: La Tourette Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 11/20/2012
Trail Name: White
Group: Group 16

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest	0-100'	3	CR, TM	NTM
Level				
Moist	100'-200'	1	TM, O1, TM	
Hiking				
Soil	200'-300'	7	TM, TM2	WB, WB2
	300'-400'	9	TM	WB
	400'-500'	7	TM	WB
	500'-600'	5	TM, TM2	WB
	600'-700'	5	E, TM	NB
	700'-800'	2	TM, W	WB, WB2
	800'-900'	2	TM	
	900'-1,000'	3	TM, O2, E	

Comments and Observations

This is the W151 to W160 segment of the White trail. It starts along check dams (Cribbing) and continues towards where the White trail overlaps with the Red trail. The whole group remains on high elevation.
O1 represents a desired line, O2 represents a desired line.
Trail Management Concerns are: E, W
Trail Management Recommendations are: WB, NTM

Trail Segment Group Number(s): W161 to W170
Park Name: La Tourette Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 11/29/2012
Trail Name: White
Group: Group 17

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest Level Moist Hiking Soil	0-100'	2	TM, TM2	
	100'-200'	1		NTM
	200'-300'	1	TM, TM2	
	300'-400'	1	TM	NTM
	400'-500'	0	TM, TM2	
	500'-600'	0	W, TM	CW
	600'-700'	1	TM, W	CW
	700'-800'	0	W	CW, NTM
	800'-900'	1	TM, W, HL	CW, PR
	900'-1,000'	0	TM, W, HL, TM2	CW, PR

Comments and Observations

This is the W161 to W170 segment of the White trail. This segment begins right at the end of the slope once it levels out. Main issue concerning this segment is muddy tread. The trail segment crosses an intersection path that leads to the Red trail. Adjacent to the trail segment are hanging limbs and leaners. Trail segment finishes adjacent to a wetland.
Trail Management Concerns are: W, HL
Trail Management Recommendations are: NTM, CW, PR

Trail Segment Group Number(s): W171 to W180
Park Name: La Tourette Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 11/30/2012
Trail Name: White
Group: Group 18

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest Level Moist Hiking Soil	0-100'	0	W, TM, O1	NB
	100'-200'	2	W, HL	CW, NTM, PR
	200'-300'	1	TM	NTM
	300'-400'	2	TM, MDT	PR
	400'-500'	1	TM, TM2	
	500'-600'	1	TM, W	CW
	600'-700'	1	TM, TM2, W	NB
	700'-800'	2	TM, TM2	
	800'-900'	1	TM	
	900'-1,000'	1	TM	

Comments and Observations

This is the W171 to W180 segment of the White trail. It starts off adjacent to the wetland and passes through the "danger keep off" sign in front of the White trail marker. The topography is flat and Group 18's main concern throughout the area is wetness. The trail segment ends alongside Rockland Avenue close to Meisner Avenue.
O1 represents "danger keep off" sign
Trail Management Concerns are: W, HL, MDT
Trail Management Recommendations are: NB, CW, NTM, PR

Trail Segment Group Number(s): W181 to W190
Park Name: La Tourette Park
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 11/30/2012
Trail Name: White
Group: Group 19

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest Undulating Moist Hiking Soil	0-100'	1	TM, TM2	AO, CW
	100'-200'	1	TM, TM2	CW, WB
	200'-300'	2	TM, W	CW
	300'-400'	0	TM, TM2, W, TM	CW
	400'-500'	1	TM	
	500'-600'	2	TM, FB, TM2, HL, TM3	PR
	600'-700'	7	TM, HL, E, TM2	PR, IC
	700'-800'	5	TM, P	
	800'-900'	5	TM, P	
	900'-1,000'	3	TM, P	

Comments and Observations

This is the W181 to W190 segment of the White trail. The segment continues adjacent to Rockland Avenue eventually crosses a footbridge over a stream before going uphill onto the pavement. It ends on the pavement ground by Meisner Avenue and Rockland Avenue.
Trail Management Concerns are W, HL, E
Trail Management Recommendations are PR, IC, CW

Trail Segment Group Number(s): W191 to W200
Park Name: Willowbrook Parkway
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 12/11/2012
Trail Name: White
Group: Group 20

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest Undulating Moist Hiking Soil	0-100'	1	TM, OG, W, TM2	AO, CW
	100'-200'	1	TM, W, TM2	CW, WB
	200'-300'	3	TM, TM2	WB
	300'-400'	1	ST, TM	
	400'-500'	6	TM, O1, TM2, TM3	
	500'-600'	5	TM, TM2	
	600'-700'	5	TM, TM2	
	700'-800'	3	IP	PR, NTM
	800'-900'	2	HL, IP, TM	PR, PR2
	900'-1,000'	2	IP	NTM, PR

Comments and Observations

This is the W191 to W200 segment of the White trail. This segment of the White trail starts by the entrance of the Egbertville Ravine at Meisner Avenue and Rockland Avenue. The trail segment overlaps with the Blue trail. There are fallen trees throughout the vicinity due to hurricane Sandy.
O1 represents rock layer
Trail Management Concerns are: W, OG, IP, HL
Trail Management Recommendations are: AO, CW, WB, PR, NTM

Trail Segment Group Number(s): W201 to W210
Park Name: Willowbrook Parkway
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 12/11/2012
Trail Name: White
Group: Group 21

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest Undulating Moist Hiking Soil	0-100'	3	W, TM, IP	CW, PR
	100'-200'	2	OG, TM, W	AO, NTM, NB
	200'-300'	3		NTM
	300'-400'	7	W, WB, ST, FB, S, TM, OG, ST	CW, PR
	400'-500'	7	TM, OG	AO, WB
	500'-600'	0	TM, OG, TM2, IP, TM3, SDT	AO
	600'-700'	0	W, TM, IP	CW, PR
	700'-800'	2	TM, OG, IP	
	800'-900'	6	TM, OG, IP	AO, PR, ST, NTM
	900'-1,000'	0	IP, TM, TM	ST, PR

Comments and Observations

This is the W201 to W210 segment of the White trail. It overlaps with the Blue trail. It is adjacent to the Rockland and Nevada Avenues intersection. The trail segment ends 50 feet away from Nugent Street.
Trail Management Concerns are: W, IP, OG, SDT
Trail Management Recommendations are: CW, PR, NTM, AO, WB, ST

Trail Segment Group Number(s): W211 to W220
Park Name: Willowbrook Parkway
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 12/11/2012
Trail Name: White
Group: Group 22

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest Level Moist Hiking Soil	0-100'	1	TM, P	
	100'-200'	1	TM, ST, W, TM2, OG	CW, AO
	200'-300'	3	TM, GD, IP, OG, E, TM, MDT	AO, PR, IC, PR2
	300'-400'	3	TM, P	
	400'-500'	5	TM, P	
	500'-600'	2	TM, P, HL, TM2, TM3	PR
	600'-700'	5	P, TM, ST, TM2, TM3, MDT	ST, PR
	700'-800'	5	L, TM, OG, TM2, IP, SDT, TM3	CL, AO, PR, PR2
	800'-900'	0	IP, TM, TM2, P	PR
	900'-1,000'	1	TM, P, TM2	

Comments and Observations

This is the W211 to W220 segment of the White trail. The trail segment begins 50 feet before crossing Nugent Street. The trail segment crosses St. George Road by Rockland Avenue. The trail segment ends at the intersection of Nadine Street and St. Andrews Road by Rockland Avenue.
Trail Management Concerns are: L, W, HL, MDT, SDT, IP, OG, E
Trail Management Recommendations are: PR, IC, ST, CL, CW, AO

Trail Segment Group Number(s): W221 to W230
Park Name: Willowbrook Parkway
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 12/13/2012
Trail Name: White
Group: Group 23

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest Undulating Moist Hiking Soil	0-100'	2	P	
	100'-200'	0	TM, L, MDT, TM2, IP, GD TM3	CL, PR, PR2
	200'-300'	6	L, SDT, MDT, GD, TM, TM2, E, OG, MDT	CL, PR, IC, AO, PR2
	300'-400'	2	IP, OG, MDT, SDT, TM MDT2, HL, TM2	PR, AO, PR2, PR3, PR4
	400'-500'	5	IP, HL, TM, OG, TM2	PR, PR2, AO
	500'-600'	2	E, OG, L, HL	RR, AO, CL, PR, NTM
	600'-700'	1	TM, P	
	700'-800'	2	TM, P	WB, WB2
	800'-900'	2	TM, P	
	900'-1,000'	1	P, TM	

Comments and Observations

This is the W221 to W230 segment of the White trail. This segment begins at the intersection of Nadine Street and St. Andrews Road. It passes through multiple patches of Japanese angelica tree on both sides. It has noticeable grade dips. This trail segment ends at Richmond Road by Riedel Avenue.
Trail Management Concerns are: L, MDT, SDT, E, OG, IP, HL
Trail Management Recommendations are: CL, PR, IC, AO, RR, NTM

Trail Segment Group Number(s): W231 to W240
Park Name: Willowbrook Parkway
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 12/14/2012
Trail Name: White
Group: Group 24

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Woodland Slope Moist Hiking Soil	0-100'	1	TM, L, HL, TM2, OG	CL, PR, PR2
	100'-200'	1	SDT, MDT	RR
	200'-300'	5	LDT, GD	PR
	300'-400'	2	SDT, TM, E, MDT, TM2, HL	PR, IC, PR2, PR3
	400'-500'	3	MDT, TM	PR
	500'-600'	3	W, L, TM	WB, CL, GD
	600'-700'	2	L, TM	CL,
	700'-800'	6	IP, GD, HL, TM	PR, PR2, NTM
	800'-900'	1	IP, OG, TM, W, MDT	PR, AO, NB, PR2
	900'-1,000'	3	IP, GD, TM	PR

Comments and Observations

This is the W231-W240 segment of the White trail. The trail starts by Riedel Avenue and Richmond Road. This segment of the White trail is within Willowbrook Parkway. There are multiple entrances or desire lines. There is a lot of litter throughout this segment of the White trail. The trail segment transitions periodically from a woodland to grassland habitat.
Trail Management Concerns are: OG,HL,LDT,MDT,SDT,E,IP,W,L
Trail Management Recommendations are AO, IC, PR, NB, NTM, CL

Trail Segment Group Number(s): W241 to W250
Park Name: Willowbrook Parkway
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 12/17/2012
Trail Name: White
Group: Group 25

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Woodland Undulating Moist Hiking Soil	0-100'	1	IP, L, O1, TM	PR, CL
	100'-200'	3	IP, L, GD, HL	PR, CL, NTM, PR2
	200'-300'	0	TM, HL, L, IP, TM2	PR, CL, PR2, GD
	300'-400'	7	TM, E, MDT, TM2, IP, L	GD, WC, PR, PR2, CL
	400'-500'	3	OG, IP, TM, L, TM2	AO, PR, CL
	500'-600'	2	L, TM, TM2	CL
	600'-700'	2	L, G, TM	CL
	700'-800'	1	L, O2	NTM
	800'-900'	0	TM, W, L, TM2, G, IP, CL	CW, CL
	900'-1,000'	0	LDT, E, TM, TM2, GD, TM3	RR, CL, PR

Comments and Observations

This is the W241 to W250 segment of the White trail. This segment continues adjacent to Riedel Avenue. It crosses at Park Street and Riedel Avenue. Initially, the slope undulates and then continues to level off.
Trail Management Concerns are: IP, L, E, MDT, W, G, HL, OG
Trail Management Recommendations are: PR, CL, NTM, GD, RR, CW, AO, WC

Trail Segment Group Number(s): W251 to W260
Park Name: Willowbrook Parkway
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 12/18/2012
Trail Name: White
Group: Group 26

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Woodland Undulating Moist Hiking Soil	0-100'	0	W, TM, L	P, NB, CL
	100'-200'	2	O1, L	NTM, CL
	200'-300'	0	TM, TM2	
	300'-400'	1	TM, IP, GD	PR
	400'-500'	0	LDT, HL, TM, IP, HL2	PR, PR2, PR3, PR4
	500'-600'	1	MDT, IP, TM, TM2, HL	PR, PR2, PR3
	600'-700'	1	HL, OG, IP, TM, LDT, TM2, HL, TM3	PR, AO, PR2, PR3, PR4
	700'-800'	2	HL, TM, IP	PR, PR2
	800'-900'	3	TM, IP, L, HL, TM2, MDT	PR, CL, PR2, PR3
	900'-1,000'	1	MDT, IP, L, TM	PR, PR2, CL

Comments and Observations

This is the W251 to W260 segment of the White trail. This segment of the White trail starts adjacent to Riedel Avenue and Park Street. The trail segment passes along a wetland, which was full during the assessment. The trail segment traverses through a huge patch of Japanese angelica tree.
O1 is "Danger" sign
Trail Management Concerns are: W, L, IP, MDT, HL, LDT, OG
Trail Management Recommendations are: P, NB, NTM, CL, PR, AO

Trail Segment Group Number(s): W261 to W270
Park Name: Willowbrook Parkway
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 12/19/2012
Trail Name: White
Group: Group 27

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Closed Forest	0-100'	1	SDT, TM, E, MDT, SDT2	PR, IC, PR2
Undulating				
Moist	100'-200'	2	LDT, TM, IP, L	PR, PR2, CL
Hiking				
Soil	200'-300'	2	L, TM, W, W2	CL, AC, CW
	300'-400'	2	TM, TM2, IP, G	PR
	400'-500'	1	IP, MDT, TM, IP, OG	PR, PR2, PR3, PR4
	500'-600'	0	L, MDT, TM, IP, OG	CL, PR, PR2
	600'-700'	5	HL, TM, IP, TM2	PR, GD, PR2
	700'-800'	0	TM, IP	NTM, PR
	800'-900'	1	IP	PR, NTM
	900'-1,000'	2	TM	

Comments and Observations

This is the W261 to W270 segment of the White trail. This trail segment starts by the entrance of Combs Avenue and Wolverine Street. Trail segment also includes parts of Riedel Avenue and Thomas Street nearby a wetland. Trail segment ends across the street from Amundsen Circle.
Trail Management Concerns are: SDT, E, MDT, LDT
Trail Management Recommendations are: PR, IC, AC, CW, CL, NTM, GD

Trail Segment Group Number(s): W271 to W280
Park Name: Willowbrook Parkway
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 12/19/2012
Trail Name: White
Group: Group 28

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Vineland Undulating Moist Hiking Soil	0-100'	3	P	
	100'-200'	2	P, TM	
	200'-300'	0	P	NTM
	300'-400'	1	P, TM, TM2	
	400'-500'	1	TM, L, OG, GD, IP, TM2, G, O1	CL, AO, PR
	500'-600'	1	IP, L, TM, TM2	PR, CL
	600'-700'	2	IP, TM, TM2, TM3, TM4, L	PR, CL
	700'-800'	1	MDT, IP, MDT2	PR, PR2
	800'-900'	2	TM, G, TM2, G2, IP, TM3, L, G3	PR, CL
	900'-1,000'	0	W, G, W, IP, TM, G2	CB, PR, P

Comments and Observations

This is the W271 to W280 segment of the White trail. This trail segment starts on the street crossing towards Amundsen Circle. At the 400' mark of Group 28, the trail makes its way inside the park. A very vivid grade dip is present with litter and invasive species along the perimeter.
O1 represents Large Rocks
Trail Management Concerns are: L, OG, IP, G, MDT, W
Trail Management Recommendations are: CL, AO, PR, CB

Trail Segment Group Number(s): W281 to W290
Park Name: Willowbrook Parkway
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 12/21/2012
Trail Name: White
Group: Group 29

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Wetland	0-100'	1	L, HL, TM, W, IP, G	CL, PR, GD, PR2, NTM
Undulating				
Wet	100'-200'	2	TM, O1, O2, IP, L	NTM, PR, CL
Hiking				
Soil	200'-300'	0	W, TM, IP, L	IC, GD, PR, CL
	300'-400'	7	E,IP,TM,MDT,S,ST,L	GD,PR,RR,PR2,SS,CL
	400'-500'	6	TM, IP, W, G, L	PR, NB, CL
	500'-600'	5	TM, W	NB
	600'-700'	2	TM, W	NB
	700'-800'	0	W, IP	WC, PR
	800'-900'	1	W, OG, IP	WC, PR, PR2
	900'-1,000'	1	W, OG, IP	WC

Comments and Observations

This is the W281 to W290 segment of the White trail. It passes through the entrance of Riedel Avenue and the MTA Staten Island Railway line. After it passes underneath the train tracks, the trail segment was observed to be very wet.
O1 represents "Danger" sign, O2 represents a desired line.
Trail Management Concerns are: L, HL, W, IP, G, MDT, OG
Trail Management Recommendations are: PR, IC, WC, CB, GD, IC2, NTM

Trail Segment Group Number(s): W291 to W300
Park Name: Willowbrook Parkway
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 12/21/2012
Trail Name: White
Group: Group 30

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Wetland Level Wet Hiking Soil	0-100'	0	W, HL, MDT	NB, PR, PR2
	100'-200'	2	W, W2, OG, W3	WC, NB, PR, NB2
	200'-300'	1	IP, W	PR, WC
	300'-400'	1	W, TM	WC
	400'-500'	0	L, IP, OG, W, W2	CL, PR, PR2, NB, NB2
	500'-600'	1	IP, W	PR, WC
	600'-700'	2	IP, W	PR, WC
	700'-800'	2	TM, P	
	800'-900'	0	TM, IP, OG	PR
	900'-1,000'	2	MDT, IP, MDT, TM, OG	PR, PR2, PR3

Comments and Observations

This is the W291 to W230 segment of the White trail. The trail segment continues adjacent to Currie Avenue. The mid-section of Group 30 is along Currie Avenue and Chesterton Avenue. Throughout Group 30, the trail is muddy until passing the concrete pavement. It becomes wet again while going through a grove of willow trees.
Trail Management Concerns are: W, HL, MDT, OG, IP, L
Trail Management Recommendations are: CL, PR, CB, WC

Trail Segment Group Number(s): W301 to W305
Park Name: Willowbrook Parkway
Trail Segment Group Number(s) Distance (Feet): 1,000
Date: 12/21/2012
Trail Name: White
Group: Group 31

Site	Trail Delineation	Grade (%)	Analysis and Inventory	Mgt. Recommendation
Scrubland	0-100'	0	OG, IP, W	PR, NB
Level				
Wet	100'-200'	0	TM, W, IP, SDT	NTM, NB, PR
Hiking				
Soil	200'-300'	0	W, TM, W2	NB, NB
	300'-400'	1	IP, TM	
	400'-500'	1	TM, TH	
	500'-600'			
	600'-700'			
	700'-800'			
	800'-900'			
	900'-1,000'			

Comments and Observations

This is the W301 to W305 segment of the White trail. The segment is slightly less muddy due to grasses however there is still a significant amount of wetness on the tread. This is the final segment of the White trail which ends at the 500' mark within this group. It is within Currie Avenue and finally ends at Hylan Boulevard across from Great Kills Park.
Trail Management Concerns are: OG, IP, W, SDT
Trail Management Recommendations are: PR, NB, PR

Section IV. Appendix: Glossary

Covertype

Closed Forest: Formed by trees at least 15ft tall with their crowns interlocking. At least 80% canopy closure.

Woodland: Formed by trees at least 15 ft tall, with most of their crowns not touching each other, but at least 30% canopy closure (and no more than 79% - see closed forest)

Scrubland: Shrubland or thicket mainly composed of woody plants 1.5 to 15 ft tall. [Note: Though the lifeform of brambles, marsh elder, and rose may be referred to as chamaephytes (remaining perennially 100 in above ground) in describing the understory in forests and woodlands, their ecology has been classified as scrub when dominating an area].

Meadow: Grasses, graminoid and other herbaceous plants are predominant in the cover, but woody plants may be present (though covering not more than 30%).

Vineland: Characterized by at least 30% lianas (e.g. *Lonicera japonica*. Vitis spp., Toxicodendron radicans). Vinelands are often on the forest or shrub borders. Vines are usually supported by artificial means or ground structures.

Wetland: Characterized by fresh/saltwater aquatic areas, (e.g. streams, wet areas, lakes, ponds, salt marsh).

Topography

Knoll: A small, isolated hillock.

Undulating: The area has a wavy surface. It is neither a slope, a level area, nor a depression, but rather a combination of all three.

Slope: Ground that forms a natural or artificial incline.

Level: The ground is smooth and straight; it has no point significantly higher than another.

Depression: A hollow or low point, as compared to the surrounding topography. May or may not contain water.

Soil Conditions

Dry: Water is not retained by the soil (e.g. sandy soils or shallow soils on ridges) or is repelled by the surface material (e.g. asphalt or rock).

Moist: Water is retained by soil.

Wet: Soil is saturated.

Surface Water: Water is present on the surface of the soil.

Current Use

Equestrian: Bridle path, hoof prints, or any indication of use by horses.

Biking: There is evidence of bicycle tire tracks on the trail.

Hiking: Evidence of pedestrian (e.g. path, trampling, opening in understory).

Multi-use: Blue stone trail path or paved path designed for hiking, running, bicycling, etc….

Other: Cross-country running, nature tours, ATV tire marks, dog walking, vehicle access path, ADA accessible, etc…

Trail Surface Material

Soil: Trail surface is natural or soiled.

Gravel: Surface is covered with rocky material such as stone or crushed rocks.

P/Pavement: Asphalt trail tread present when crossing streets.

Woodchipped: Mulch or woodchipped materials line the trail.

Vegetated: Trail path shows evidence of vegetation, usually grasses or ground cover type plants.

Bridge: Trail path passes over a bridge-like structure (e.g. foot bridge, corduroy, culvert, sleepers, bog bridge, puncheon, decks, boardwalks, etc….).

Other: Unforeseen types of trail surface materials.

Inventory Management and Management Recommendation Keys

AC/Apply Culvert: Place drainage pipe to allow for water flow underneath trail path.

AO/Address Overgrowth: Address overgrowth by means of specialized tools.

C/Culvert: Water drainage structures underneath a trail, e.g. pipes, rock/wooden drains.

CB/Construct Bent: Elevated pile with ledger and plank over wetlands to allow for passing.

CL/Clean Litter: Cleanup trash along the trail.

CO/Corduroy: Small to medium sized logs laid side by side to form a travel surface across muddy terrain.

CR/Cribbing: Structures (wood, rock, logs, etc…) used to stop soil erosion or gullying.

CW/Causeway: Elevated hardened tread path to cross wet areas.

D/Dumping: Large amounts of debris or waste objects on or near the trail.

E/Erosion: Extensive amount of soil wasting or gullies present along trail.

FB/Footbridge: Bridge type made of natural material that allows for crossing.

G/Graffiti: Spray painting or markings on parks property, trees, rocks, etc….

GD/Grade Dip: Dip or lowered elevation of trail section to drain wet areas.

HL/Hanging Limb: Trail overpass has a hanging or dead tree limb.

HP/Hitching Post: Structure to secure horses on bridle paths.

IC/Install Cribbing: see CR/Cribbing

IK/Install Kiosk: Construct or install informational kiosk for trail users.

IP/Invasive Plants: Non-native exotic plants introduced to the area that are recognized to be prolific and harmful to the natural area.

K/Kiosk: Standing structure to provide trail or program information of the park.

L/Litter: Trash and/or small amount of garbage on trail.

LDT/Large Down Tree: Large sized tree fallen on trail path. At least 13-24" or greater in DBH.

MDT/Medium Down Tree: Medium sized tree fallen on trail path. At least 7-12" in DBH.

NB/Needs Bridge: bridge type structure to allow for crossing over stream or water body.

NTH/Needs Trailhead: Construct a trailhead and/or kiosk usually by the entrance of trails.

O/Other: Unforeseen items of interest not described in the key section.

OG/Overgrowth: Trail pathway is obstructed due to overgrowth of woody vegetation.

P/Plant: Plant trees, shrubs or ground cover (native species is recommended) to re-vegetate undesired trail path.

PR/Prune: Means of cutting overgrowth and invasive plants with specialized tools.

RR/Reroute: Change trail route to desired location for optimal benefits.

RW/Rock Wall: Rock structure used to retain soil around switchbacks, gullies or rugged terrain.

S/Stream: Flowing body of water perpendicular to trail.

SB/Seating Bench: Install seating bench for trail hikers to rest.

SDT/Small Down Tree: Small sized tree fallen on trail path. At least 1-7" in DBH.

SS/Stepping Stone: Flat boulders/rocks positioned for stream crossing.

ST/Stairs or Steps: Step like structures made from natural materials such as rocks, wood or lumber to hike through steep junctions.

T/Turnpike: A structure used to crossover a trail with saturated soil.

TH/Trailhead: The beginning or entrance point of the trail.

TM/Trail Marker: Painted navigation symbols on trees or other objects for direction.

V/Vandalism: Painted walls, rocks, plants; felled trees; hacked branches or bark.

W/Wetness: Surface of trail shows extensive degree of moisture leading to muddy wet soil conditions or pooling.

WB/Waterbar: Similar to cribbing but angled to channel water away from trail.

WC/Woodchip: Scattered woodchips for mulch or temporarily fixing soil compacted trail sections.

WM/Wrong Marker: Incorrect trail navigation maker placed on tree or object.