



Greenbelt Parcel Prioritization Project: Final Report, City of Gloucester

Introduction

With financial support from a 2019 Coastal Resiliency Grant from the MA Office of Coastal Zone Management, Greenbelt shared our most recent work to prioritize climate resilient parcels with the City of Gloucester. While a number of different analyses were performed as a part of the overall prioritization project, this partnership focused on the results of Coastal Flood Mitigation, Inland Flood Mitigation, and Drinking Water modules. Over the past 6 months, Greenbelt and the City of Gloucester have met together to share these results, provide feedback on methods, discuss conservation tools, and explore ways to continue to partner in protecting climate-resilient land.

Recap of First Meeting



The first meeting was held at Greenbelt's Cox Reservation on Tuesday, January 28th, 2020. Greenbelt presented on the prioritization project, and provided printed maps of results, parcel boundaries, and input data for representatives of the city to respond to.

January Meeting Attendees:

Essex County Greenbelt:

Chris LaPointe, Director Land Conservation Abby Hardy-Moss, Conservation Planner & GIS Manager Maggie Brown, Project Manager David Heacock, Geographic & Technical Support Specialist

Office of Coastal Zone Management:

Kathryn Glenn, North Shore Regional Coordinator

City of Gloucester:

Gregg Cademartori, Planning Director Adrienne Lennon, Conservation Agent Michael Hale, Public Works Director Joe Aiellow, Emergency Management Charles Crowley. Open Space Chair Noel Mann, Open Space Member

Among the feedback that the attendees provided the two following observations stood out: 1) the combination of inland and coastal Flood Mitigation results as a single analysis was confusing, and 2) that evaluating parcels only for their current flood risk without factoring in future flood risk in the event of development was too limited. The City of Gloucester noted the watershed lands in the western part of the city, which did not score well for flood mitigation in the results, would likely create significant new flood risk if developed into impervious surface land cover.

This feedback was incorporated both into the analysis methods and mapping products of the prioritization. Through a revision process, Greenbelt modified analysis methods to better prioritize forested land cover for its flood mitigation benefits, and split the coastal and inland portions of the analysis into two separate models. The second revision of maps for the city (included in this document) reflects these updates. These changes are incorporated into our county wide results and will be a part of this project going forward throughout the county.

Final Meeting with Open Space Committee

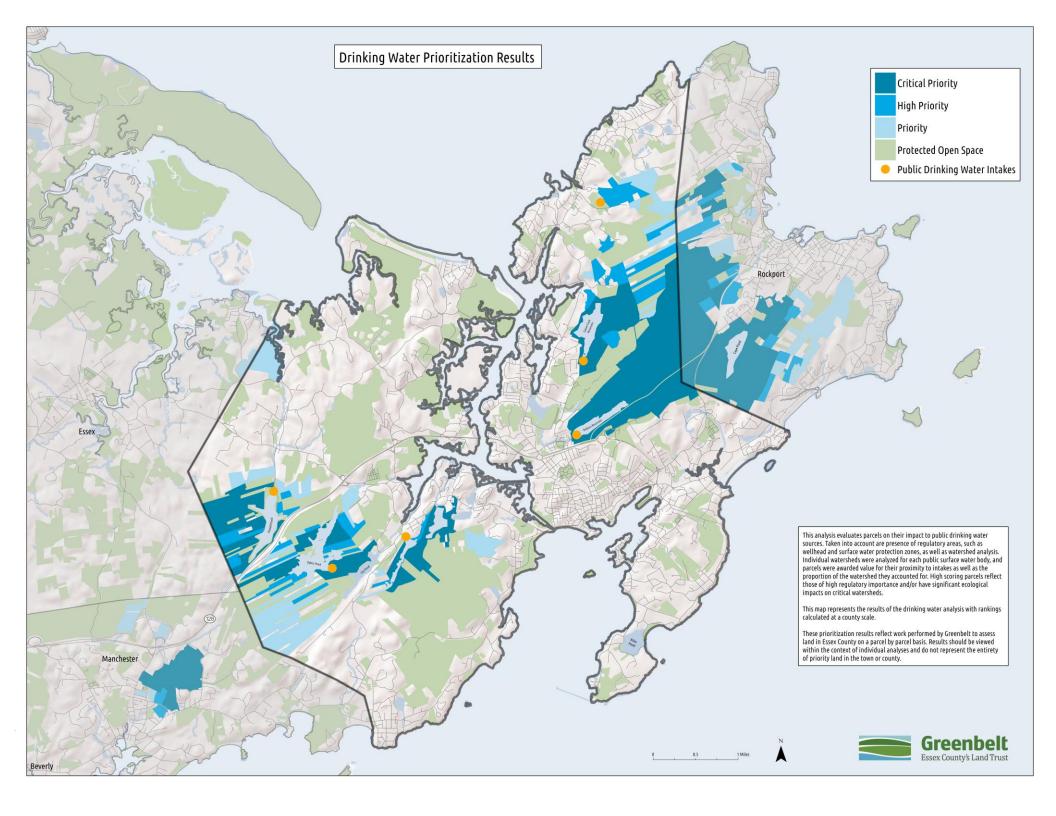
On Monday, June 22nd, 2020, Greenbelt presented at Gloucester's Open Space Committee meeting which, given the COVID-19 restrictions, was held virtually using Zoom. Greenbelt provided additional context for the use of prioritization results, demonstrated updates to the methodology, and provided an example of a conservation project that utilized prioritization data to increase its grant eligibility. Greenbelt and the committee also discussed the city's upcoming open space planning process and how climate resiliency can be incorporated.

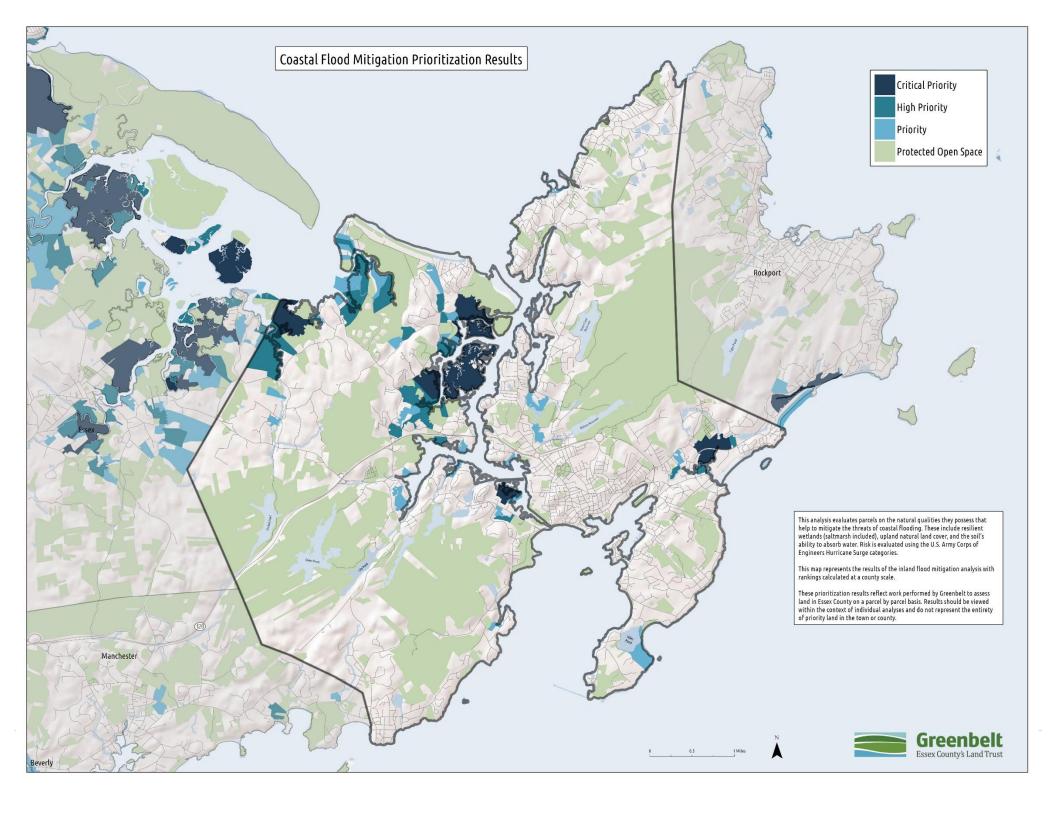
Final Maps and Table

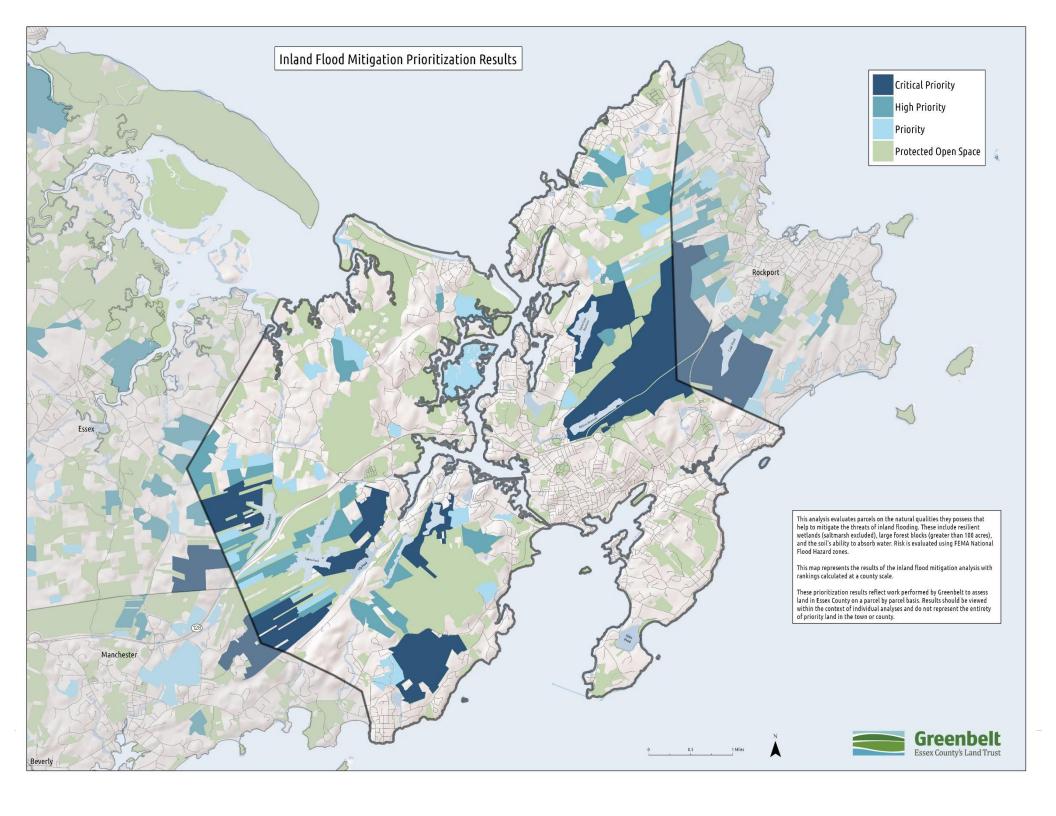
The maps and table below represent the results of the final prioritization analysis completed by Greenbelt to evaluate parcels for drinking water and flood mitigation value. The maps symbolize these priority levels through a graduated color symbolization. The table refers to these same results by referencing the LOC_ID's and MAP_PAR_ID's of parcels as distributed from MassGIS and the Gloucester Assessors' office.

Conclusion

Greenbelt would like to thank the City of Gloucester for their participation in this process. We are appreciative of the time and effort that went into the collaboration and for the valuable feedback that improved the quality of the final results. We look forward to partnering on future open space planning and conservation project opportunities.







Tabular Data:

LOC_ID	Map Par ID	Drinking Water	Coastal Flooding	Inland Flooding	Address	Owner	Acres
M_261191_930023	225_6			High Priority	MT HUNGER	PENNOYER CECILY & NADAI DEIRDRE TRS	38.12
M_261278_930541	225_7			High Priority	65 WOODMAN ST	HERSEY RICHARD & MANSFIELD PAMELA	52.74
M_261717_928934	210_1	High Priority		Priority	NEAR HASKELL PD	GLOUCESTER CITY OF	19.05
M_261734_929059	223_4	High Priority			R HASKELL PD	GLOUCESTER CITY OF	6.43
M_261736_930299	226_2			Priority	81 WOODMAN ST	GLEASON ELEANOR E & TIMOTHY	15.39
M_261759_930569	237_16			Priority	30 WOODMAN ST	HERMSDORF CARL W & HERMSDORF	15.96
M_261794_928515	210_6	High Priority		Priority	ESSEX LINE	GLOUCESTER CITY OF	13.30
M_261835_929477	223_2	Critical Priority		Critical Priority	NEAR HASKELL PD	GLOUCESTER CITY OF	180.64
M_261950_928833	210_3	Critical Priority		High Priority	NEAR HASKELL PD	GLOUCESTER CITY OF	30.14
M_261983_928497	210_9	Critical Priority		High Priority	NEAR HASKELL PD	GLOUCESTER CITY OF	30.49
M_262122_930143	226_6	Priority		High Priority	R WOODMAN ST	GLOUCESTER CITY OF	43.20
M_262146_928059	209_14			Priority	ESSEX LINE	GLOUCESTER CITY OF	16.98
M_262158_929044	210_2	High Priority			NEAR HASKELL PD	GLOUCESTER CITY OF	7.13
M_262299_930382	226_12			Priority	21 FOREST LN	JANES JOHNATHAN E R	23.27
M_262401_927713	208_9	Priority			NEAR DYKES PD	GLOUCESTER CITY OF	5.63
M_262455_928435	211_13	High Priority		Priority	DYKES PD	GLOUCESTER CITY OF	17.49
M_262465_932398	240_1	Priority	High Priority		337 CONCORD ST	ROBERTS JEFFREY W TR	91.09
M_262570_927635	208_12	Priority		High Priority	NEAR MANCHESTER LINE	GLOUCESTER CITY OF	20.24
M_262571_931147	237_63		Priority		23 LINCOLN ST	GLOUCESTER CITY OF	7.38
M_262592_931668	239_15		Priority		7R WALKER ST	MASSACHUSETTS ELECTRIC CO	10.18
M_262596_928049	208_3	High Priority			NEAR DYKES PD	GLOUCESTER CITY OF	10.12
M_262605_928322	209_15	Critical Priority		High Priority	SOUTH RTE 128	GLOUCESTER CITY OF	51.82
M_262619_928105	208_2	High Priority			NEAR DYKES PD	GLOUCESTER CITY OF	9.49
M_262634_928645	211_7	Priority			NEAR HASKELL PD	GLOUCESTER CITY OF	7.95
M_262661_929531	222_2	High Priority			R FOREST LN	GLOUCESTER CITY OF	5.71
M_262668_928711	211_6	Priority			HASKELL PD	GLOUCESTER CITY OF	6.30
M_262686_928493	211_14	Priority			THOMPSON MT	GLOUCESTER CITY OF	5.90
M_262699_927986	208_6	High Priority			NEAR DYKES PD	GLOUCESTER CITY OF	7.22
M_262706_928806	211_3	High Priority			THOMPSON MT	GLOUCESTER CITY OF	9.56
M_262763_927879	208_30	Priority			NEAR DYKES PD	GLOUCESTER CITY OF	5.60
M_262775_932591	249_6		High Priority		299 CONCORD ST	SMITH MICHELLE M	18.83
M_262777_929775	222_7	High Priority			R FOREST LN	GLOUCESTER CITY OF	6.04
M_262803_927818	208_26	Priority			NEAR DYKES PD	GLOUCESTER CITY OF	5.94

LOC_ID	Map Par ID	Drinking Water	Coastal Flooding	Inland Flooding	Address	Owner	Acres
M_262846_927981	208_8	Priority			NEAR DYKES PD	GLOUCESTER CITY OF	5.50
M_262861_929466	222_4	High Priority			R FOREST LN	GLOUCESTER CITY OF	6.75
M_262913_929884	227_56	Priority		Priority	42 FOREST LN	GLOUCESTER CITY OF	20.36
M_262924_927052	197_5	Priority		Critical Priority	200R MAGNOLIA AV	DENORMANDIE PHILIP Y ET AL	191.11
M_262958_932992	251_7		Critical Priority		TOMMY'S IS	GUTIERREZ ARTURO J	73.08
M_262995_929037	211_27	Priority			NEAR HASKELL PD	GLOUCESTER CITY OF	5.87
M_263046_928214	208_33	High Priority			NEAR DYKES PD	GLOUCESTER CITY OF	6.74
M_263074_928862	211_24	Critical Priority		High Priority	NEAR DYKES PD	GLOUCESTER CITY OF	32.57
M_263098_929766	222_8	Priority			R FOREST LN	GLOUCESTER CITY OF	6.65
M_263172_929971	227_64	Priority			44C FOREST LN	GLOUCESTER CITY OF	12.78
M_263231_927904	208_21	High Priority		Priority	NEAR LILY PD	GLOUCESTER CITY OF	13.39
M_263274_929141	222_13	High Priority			NEAR MT ANN PK	GLOUCESTER CITY OF	5.37
M_263289_927842	208_19	Priority			NEAR LILY PD	GLOUCESTER CITY OF	5.47
M_263339_932096	240_40			Priority	THOMPSON ST OFF	HUBBARD ROBIN J	22.57
M_263384_927701	197_2			Priority	200R MAGNOLIA AV	GLOUCESTER CITY OF	19.79
M_263404_933127	251_3		Priority		6 TOTTEN LN	ROBERTS LEE M & POPE LESLIE L	7.27
M_263422_927598	207_4			High Priority	R MAGNOLIA AV	GLOUCESTER CITY OF	23.87
M_263450_930160	228_1			Priority	8A LAWRENCE MOUNTAIN RD	GLOUCESTER CITY OF	14.84
M_263715_929048	221_7	Critical Priority		High Priority	NEAR DYKES PD	GLOUCESTER CITY OF	36.30
M_263765_928846	212_1	High Priority			NEAR DYKES PD	GLOUCESTER CITY OF	6.10
M_263767_928799	212_2	High Priority			NEAR DYKES PD	GLOUCESTER CITY OF	7.60
M_263774_928754	212_3	High Priority			NEAR DYKES PD	GLOUCESTER CITY OF	6.51
M_263812_932411	248_12			High Priority	260 CONCORD ST	PARK LOTHIAN K	27.12
M_263813_933459	252_16		Priority		15 JEBEKA LN	STEVENS SYLVIA L TR	6.79
M_263817_928639	212_7	High Priority			R LILY PD	GLOUCESTER CITY OF	5.89
M_263822_928678	212_6	High Priority			NEAR DYKES PD	GLOUCESTER CITY OF	7.23
M_263924_928463	212_10	Critical Priority		Critical Priority	37 LAUREL ST	GLOUCESTER CITY OF	77.75
M_263932_933706	259_7		Priority		132 COLE'S ISLAND RD	PATRICAN BRIAN J TR	17.31
M_263956_934554	260_25		High Priority	Priority	33 TWO PENNY LN	RUDOLPH JAMES L TR	9.63
M_263956_934644	260_24		Priority		21 TWO PENNY LN	AMERI SHAPU A	7.79
M_263959_934455	260_26		Priority		39 TWO PENNY LN	GOLDLUST JERRY A	7.80
M_263962_934263	259_3		Priority		55 TWO PENNY LN	MARKS ALFRED L ET AL	5.15
M_263968_932585	248_13			Priority	250 CONCORD ST	FRYKLUND PAMELA J TR	31.62
M_263986_933181	252_40		High Priority		9 LAWRENCE CT	COVINGTON CHRISTOPHER & BONNIE	19.26
M_263991_929123	221_8	High Priority		High Priority	60 NEW WAY LN	GLOUCESTER CITY OF	27.68

LOC_ID	Map Par ID	Drinking Water	Coastal Flooding	Inland Flooding	Address	Owner	Acres
M_263992_929327	221_9	Priority			56 NEW WAY LN	PERRY JOHN	5.25
M_263997_932089	241_9			High Priority	88 BRAY ST	GLOUCESTER CITY OF	25.13
M_263999_929713	221_11	Priority		High Priority	25 NEW WAY LN	GLOUCESTER CITY OF	26.67
M_264016_933842	259_6		Priority		135 COLE'S ISLAND RD	PATRICAN BRIAN J TR	14.36
M_264131_933447	252_19		High Priority		126 COLE'S ISLAND RD	COVINGTON CHRISTOPHER & BONNIE	28.54
M_264156_933954	259_5		Priority		133 COLE'S ISLAND RD	PATRICAN BRIAN J TR	5.90
M_264233_927511	198_20			High Priority	171 MAGNOLIA AV	MAGNOLIA CO LIM. PARTNERSHIP	29.12
M_264266_933990	252_20		High Priority		125 COLE'S ISLAND RD	JOSTROM KAREN H TR	35.32
M_264277_932332	248_14			Priority	186 CONCORD ST	CARRIGAN DEVELOPMENT LLC	21.40
M_264433_927883	207_17	Priority			247 MAGNOLIA AV	STONELEIGH GARDENS LLC	5.34
M_264443_929347	220_162			Critical Priority	12 NEW WAY LN	GLOUCESTER CITY OF	103.02
M_264525_933933	253_23		Priority		97 COLE'S ISLAND RD	PATRICAN HERMAN A JR TR	15.30
M_264571_928291	206_1	Priority			291 MAGNOLIA AV	DESISTO RONALD G & MARY F	5.49
M_264591_928086	206_5	High Priority			281R MAGNOLIA AV	GLOUCESTER CITY OF	5.20
M_264603_927239	199_13			High Priority	R MAGNOLIA AV	MAGNOLIA COMPANY LIMITED PRTNRSP	32.76
M_264629_927633	206_9			High Priority	281R MAGNOLIA AV	HOW-MAG LLC	25.14
M_264632_933753	253_26		Priority		93 COLE'S ISLAND RD	PATRICAN HERMAN A JR	7.36
M_264670_933409	253_22		High Priority		75 COLE'S ISLAND RD	COVINGTON CHRISTOPHER & BONNIE	18.65
M_264696_933663	253_27		High Priority		89 COLE'S ISLAND RD	PATRICAN HERMAN A JR	18.58
M_264797_926291	193_90			Priority	10A KENNEDY RD	DENONCOUR JEFFREY M & LAURA	47.37
M_264810_928290	213_37	Critical Priority		High Priority	351 MAGNOLIA AV	GLOUCESTER CITY OF	43.38
M_264889_932628	247_50		Priority		162 BRAY ST	TALIADOROS THOMAS & GOMM ALISON	9.97
M_264895_930956	234_38		High Priority	Priority	71 CONCORD ST	DSM MB II LLC	12.74
M_264974_929739	220_10		Priority		6 EVELETH RD	LONDON GREG S & TIRZAH LEA	21.14
M_264977_928164	206_20	Critical Priority		High Priority	281R MAGNOLIA AV	GLOUCESTER CITY OF	23.44
M_264999_927304	199_19			High Priority	555 WESTERN AV	RUBERTI PATRICIA A & DANIEL J TBYE	21.72
M_265101_930159	229_68		Priority		21 PRESSON POINT RD	TIBBETTS N SCOTT & ELAINE M	5.43
M_265137_931295	234_99		Priority		19 ESTUARY WY	THE MCNIFF COMPANY LLC	16.80
M_265152_932840	247_6		High Priority		166 BRAY ST	MCCARTHY CHRISTOPHER J TR	11.48
M_265167_931701	242_138		High Priority		1 ATLANTIC ST	GLOUCESTER CITY OF	15.46
M_265252_931480	242_140		High Priority		131 CONCORD ST	UNKNOWN	16.89
M_265325_929012	214_2	High Priority			8R LYNWOOD AV	GLOUCESTER CITY OF	9.96
M_265340_931232	234_100		High Priority		15 ESTUARY WY	THE MCNIFF COMPANY LLC	16.14
M_265455_926533	200_28			Critical Priority	472 WESTERN AV	GLOUCESTER CITY OF	277.25

LOC_ID	Map Par ID	Drinking Water	Coastal Flooding	Inland Flooding	Address	Owner	Acres
M_265492_931601	242_185		High Priority		25 ATLANTIC ST	SWICKER SCOTT O	15.57
M_265502_931119	233_68		High Priority		70 CAUSEWAY ST	GLOUCESTER CITY OF	8.91
M_265555_931869	243_7		Critical Priority		45 ATLANTIC ST	YMCA	48.14
M_265635_933895	257_167		Priority		30 ATLANTIC AV	GOODHUE F A III TR & FIFTY ATLANTIC LLC	17.90
M_265749_930775	233_2		High Priority		1 CRAFTS RD	NICHOLS WILLIAM E & WALSH JANE	8.62
M_265753_933407	254_3		High Priority	High Priority	162 ATLANTIC ST	GOODHUE F A III TR & FIFTY ATLANTIC LLC	10.83
M_265787_929220	213_32	Critical Priority		Critical Priority	351R MAGNOLIA AV	GLOUCESTER CITY OF	126.92
M_265817_931359	233_44		High Priority		RUST IS	GLOUCESTER CITY OF	7.90
M_265817_933107	254_9		High Priority		161 ATLANTIC ST	MORSE ELSIE F	5.91
M_265842_932504	246_46		High Priority		99 ATLANTIC ST	WEITZMAN MARTIN L	15.44
M_265933_932632	246_45		Priority		113 ATLANTIC ST	GLOUCESTER CITY OF	18.10
M_265992_933137	254_7		Priority		167 ATLANTIC ST	JAREMA MARY R ESTATE OF	8.31
M_266013_930155	230_17		Priority		20 KING PHILIP RD	RAY JUDITH M	7.06
M_266127_929299	218_38			Priority	160 ESSEX AV	UPPER BANJO LLC	28.76
M_266192_930629	232_2		Priority		19 BISKIE HEAD PT	CROWLEY CHARLES & SANFORD CLAIRE	6.70
M_266305_931975	244_1		Critical Priority	Priority	PEARCES IS	LARSON RICHARD TR	126.76
M_266328_933263	255_1		Critical Priority	Priority	187 ATLANTIC ST	JAREMA MARY R ESTATE OF	55.77
M_266363_932890	245_1		Critical Priority		RAM IS	GLOUCESTER CITY OF	34.12
M_266501_928844	215_34	Priority		High Priority	31R OLD SALEM RD	GLOUCESTER CITY OF	56.27
M_266670_927882	204_6			Priority	32 STILLINGTON DR	CAREY SARAH BURCHFIELD TR	25.67
M_266783_927233	201_160		Priority		32 DOLLIVER NECK DR	PICKARD JON K & CASSY D POLLACK	5.59
M_266871_929414	218_94		Priority		88 ESSEX AV	TARR BRIAN TR	5.57
M_266985_929289	218_99		High Priority	Priority	52 ESSEX AV	TARR BRIAN ET AL	7.27
M_267013_929766	218_17		Critical Priority		18 STUART RD	BEAUPORT GLOUCESTER LLC	24.33
M_267078_930391	87_10		Priority		2 WOLF HILL LN	MCKECHNIE DAVID S ET AL	5.11
M_267184_929668	217_25		Priority		R JULIAN RD	BOSTON GAS CO	6.59
M_267536_931481			Priority				12.21
M_267577_930957	105_41		Priority		17 DR OSMAN BABSON RD	GLOUCESTER CITY OF	6.79
M_267665_930834	105_18		Priority		22 POPLAR ST	GLOUCESTER CITY OF	5.26
M_267729_931504	105_35		Priority		27 REYNARD ST	DEACON ARCHIBALD K	5.39
M_267938_935514	165_4		Priority		45 CART TRACK DR	AMES ADELBERT III ETAL TR	7.46
M_268231_931541	107_A_1			Priority	57 CHERRY ST	CAPE ANN SPORTSMANS CLUB	19.06
M_268518_933950	115_47	Priority			84 DENNISON ST	HARRIS HUGH B HARRIS CAROLYN	7.05
M_268534_933511	123_31	High Priority			89 DENNISON ST	CUTLER BRIAN A & KRISTEN	11.82

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M_268693_935732	157_15			High Priority	16 NORTH KILBY ST	O'GORMAN JEAN B	25.05
M_268720_934033	115_85	High Priority		Priority	126 DENNISON ST	CUNNINGHAM JOHN D IV & JANE STEWART	18.21
M_268806_932999	310_10	Critical Priority		Critical Priority	COMMON RD	GLOUCESTER CITY OF	264.27
M_268860_934523	125_88	High Priority			83 REVERE ST	RITCHIE SARAH WEST & DAVID A IV	13.17
M_268964_935974	155_8			High Priority	1007 WASHINGTON ST	GLOUCESTER CITY OF	49.69
M_268965_932740	294_1	High Priority		High Priority	COMMON RD	GLOUCESTER CITY OF	19.59
M_268999_935085	157_57			Priority	57 QUARRY ST	NATTI MATTHEW S & JANET M	12.09
M_269017_936208	155_4			Priority	15 HICKORY ST	GLOUCESTER CITY OF	16.94
M_269044_935495	157_52	High Priority			20 COLBURN ST	GRAY JEFFREY K & MARY KATHRYN	54.60
M_269075_933953	115_39	High Priority		High Priority	125 DENNISON ST	MARSTON J BROOKS & AINLEY C J	29.44
M_269247_935756	155_18	Priority			1007R WASHINGTON ST	GLOUCESTER CITY OF	7.64
M_269313_935057	308_4			High Priority	85 QUARRY ST	CARR RANDOLPH C & BARZAGHI GABRIELLE	21.35
M_269367_935561	163_3	High Priority			107 HIGH ST	NATTI SUSANNA M	11.63
M_269400_935300	163_1	Priority			93 QUARRY ST	NATTI ERIK & THERESA Z	8.45
M_269425_935721	163_4	Priority			105 HIGH ST	NATTI SUSANNA M	16.15
M_269459_934211	309_5	Priority			R DENNISON ST	GLOUCESTER CITY OF	7.20
M_269593_926682	135_2		Priority		37 NILES POND RD	REV MCFARLAND MICHAEL ET AL	34.18
M_269640_933336	310_5	Priority			COMMON RD	GLOUCESTER CITY OF	5.74
M_269644_933873	309_14	High Priority			R DENNISON ST	GLOUCESTER CITY OF	10.56
M_269661_933752	309_16	High Priority		Priority	R DENNISON ST	GLOUCESTER CITY OF	9.91
M_269665_933202	310_2	Priority			COMMON RD	GLOUCESTER CITY OF	6.79
M_269672_935798	164_49	Priority		Priority	111 HIGH ST	FRENCH DEANE H & CALLAHAN WILLIAM G	22.90
M_269684_933697	309_17	High Priority			COMMON RD	GLOUCESTER CITY OF	9.82
M_269690_933633	310_8	High Priority			COMMON RD	GLOUCESTER CITY OF	9.36
M_269704_933575	310_7	High Priority			COMMON RD	GLOUCESTER CITY OF	8.95
M_269720_934288	309_7	High Priority		Priority	R DENNISON ST	GLOUCESTER CITY OF	14.52
M_269727_934170	309_9	High Priority		Priority	R DENNISON ST	GLOUCESTER CITY OF	14.67
M_269734_932461	296_1	Critical Priority		Critical Priority	19 RUSSELL AV	GLOUCESTER CITY OF	735.63
M_269749_934714	308_6	High Priority		Priority	R REVERE ST	GLOUCESTER CITY OF	14.93
M_269793_934266	309_20	High Priority			R DENNISON ST	GLOUCESTER CITY OF	11.79
M_269810_934888	308_5	Priority		Priority	R REVERE ST	GLOUCESTER CITY OF	16.36
M_269912_934704	308_7	Priority			R REVERE ST	GLOUCESTER CITY OF	6.47
M_269914_934655	308_8	Priority			R REVERE ST	GLOUCESTER CITY OF	6.82
M_269937_934623	308_12	Priority			R REVERE ST	GLOUCESTER CITY OF	5.14

LOC_ID	Map Par ID	Drinking Water	Coastal Flooding	Inland Flooding	Address	Owner	Acres
M_270016_934503	325_6	Priority			R REVERE ST	GLOUCESTER CITY OF	5.12
M_270027_935505	163_17			High Priority	STONY BK	QUINN LISA ET AL	22.42
M_270037_934831	325_2	Priority			R REVERE ST	GLOUCESTER CITY OF	5.18
M_270047_935244		Priority		High Priority			34.52
M_270225_930173	185_23		High Priority		3R WISE PL	GLOUCESTER CITY OF	5.85
M_270302_930436	185_127		Priority		107 EASTERN AV	FOSTER SUSAN L TR	7.76
M_270735_930218	185_22		High Priority		THATCHER RD	GLOUCESTER CITY OF	7.72
M_270975_930725	160_4		Critical Priority		10 OLD NUGENT FARM RD	EGAN CHRISTOPHER E & MARY P	54.71
M_271333_930755	184_9		High Priority		74 THATCHER RD	BRIERNECK REALTY LLC	5.45