York River P90 Scores

2016

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std	Min_Date
WB020.00	P	30	30	3.8	0.41	52	13.1	31	163	2/27/2012
WB021.00	P	30	30	3.8	0.5	140	17	31	163	2/27/2012
WB023.00	CA	30	30	2.3	0.26	40	5	31	163	1/9/2012
WB026.00	CA	30	30	4.8	0.53	78	23.1	31	163	1/9/2012
WB026.50	CA	30	30	3.1	0.63	1320	20.2	31	163	12/14/2009
WB027.00	CA	30	30	2.2	0.23	26	4.5	31	163	1/9/2012
WB029.00	P	30	30	2.7	0.34	38	7.7	31	163	2/27/2012

2015

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std	Min_Date
WB020.00	P	30	30	3.5	0.4	52	11.7	31	163	1/31/2011
WB021.00	P	30	30	3.5	0.49	140	15.4	31	163	1/31/2011
WB023.00	CA	30	30	2.6	0.37	82	7.8	31	163	1/3/2011
WB026.00	CA	30	30	4.1	0.49	78	17.7	31	163	1/3/2011
WB026.50	CA	30	30	3.5	0.63	1320	23	31	163	4/14/2008
WB027.00	CA	30	30	2.2	0.23	26	4.4	31	163	1/3/2011
WB029.00	P	30	30	2.4	0.26	26	5.2	31	163	1/31/2011

2014

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std	Min_Date
WB016.00	P	30	30	4.3	0.41	42	14.7	31	163	2/24/2010
WB020.00	P	30	30	4.5	0.54	220	22.3	31	163	2/24/2010
WB021.00	P	30	30	3.3	0.46	140	13.2	31	163	2/24/2010
WB023.00	CA	30	30	2.9	0.48	130	12.2	31	163	1/5/2010
WB026.00	CA	30	30	4.4	0.54	122	22.1	31	163	1/5/2010
WB026.50	CA	30	30	3.4	0.64	1320	23	31	163	11/19/2007
WB027.00	CA	30	30	2.1	0.21	26	3.9	31	163	1/5/2010
WB029.00	P	30	30	2.7	0.46	300	10.9	31	163	2/24/2010

2013

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std	Min_Date
WB016.00	P	30	30	5.2	0.51	158	23.7	31	163	3/16/2009
WB020.00	P	30	30	5	0.56	220	27	31	163	3/16/2009
WB021.00	P	30	30	3.5	0.41	82	12	31	163	3/16/2009
WB023.00	CA	30	30	3.8	0.56	130	20.3	31	163	3/31/2008
WB026.00	CA	30	30	3.5	0.42	122	12.5	31	163	3/31/2008
WB026.50	P	30	30	3.5	0.61	1320	21.9	31	163	1/5/2010
WB027.00	CA	30	30	2.1	0.21	26	4.1	31	163	1/7/2008
WB029.00	P	30	30	3.2	0.51	300	14.9	31	163	3/16/2009

P90 Table Key

Station: Station ID

Class: Classification of sample location

A = Approved

CA = Conditionally Approved

CR = Conditionally Restrict

R = Restricted

P = Prohibited

X = Not Applicable

Count: Total number of samples used in calculation

MFCount: Number of samples that used the Membrane Filtration method

GM: Geometric Mean. The geometric mean, or geomean, is a type of averaging calculation. Unlike a simple average or arithmetic mean, the geomean takes into account the way bacteria grow. During bacterial growth, each bacterium doubles and reproduces itself i.e. one bacterium becomes two, two bacteria become four, four become eight, and so on. There are low values at first and the rate of growth increases as the number of colonies increases. This is called exponential growth. This growth pattern means a fecal coliform dataset may have a few high scores and many low scores. The calculation for the geometric mean takes exponential growth into account by transforming the data into logarithms, taking the mean and then converting the number back to a log base 10 number. For example, the arithmetic mean of a fecal coliform score of 300, 150, 23 and 2 CFU/100ml is 119 CFU/100ml. Calculating the geomean, the result is 38 CFU/100ml.

SDV: Standard Deviation

MAX: The highest score within the sample set used to calculate the P90

P90: The 90th percentile (P90) is the variability standard, meaning this value takes into account the variability of test readings. In any test measurement, successive readings of the same sample would produce slightly different scores each time due to precision of the equipment, human error, etc. This type of variability is a factor of the test method and equipment used and is true of all testing methods. To account for the variability in the fecal coliform test, a standard has been established. Here again, since bacteria grows exponentially, the calculations are performed on a logarithmic scale. The P90 is based on the distribution of fecal coliform scores and means that 90% of scores are at/or below the P90 and 10% scores are above. As long as most of the other scores are low, a few high scores will not have a large impact on the P90 value. The P90 standard is the acknowledgment by the NSSP that a few high scores in data set may be due to the variability of the test method. If the area shows high fecal coliform scores intermittently due to pollution events such as rainfall, this may cause water quality to exceed the P90 standards because the shellfish are intermittently subject to polluted waters.

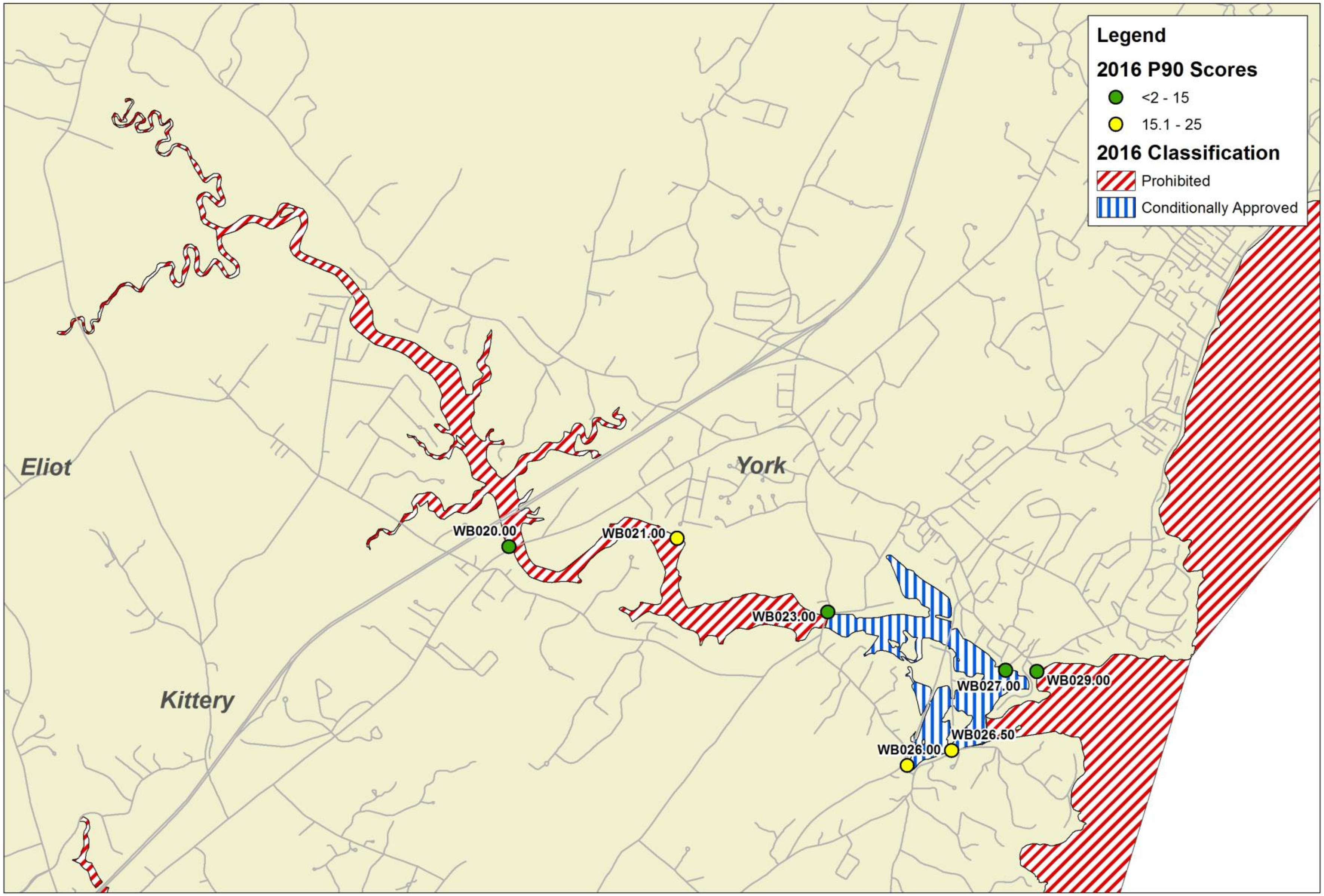
Appd_Std: Approved standard

Restr_Std: Restricted standard

Min_Date: Minimum Date – oldest date included in sample set for P90 and GM calculations

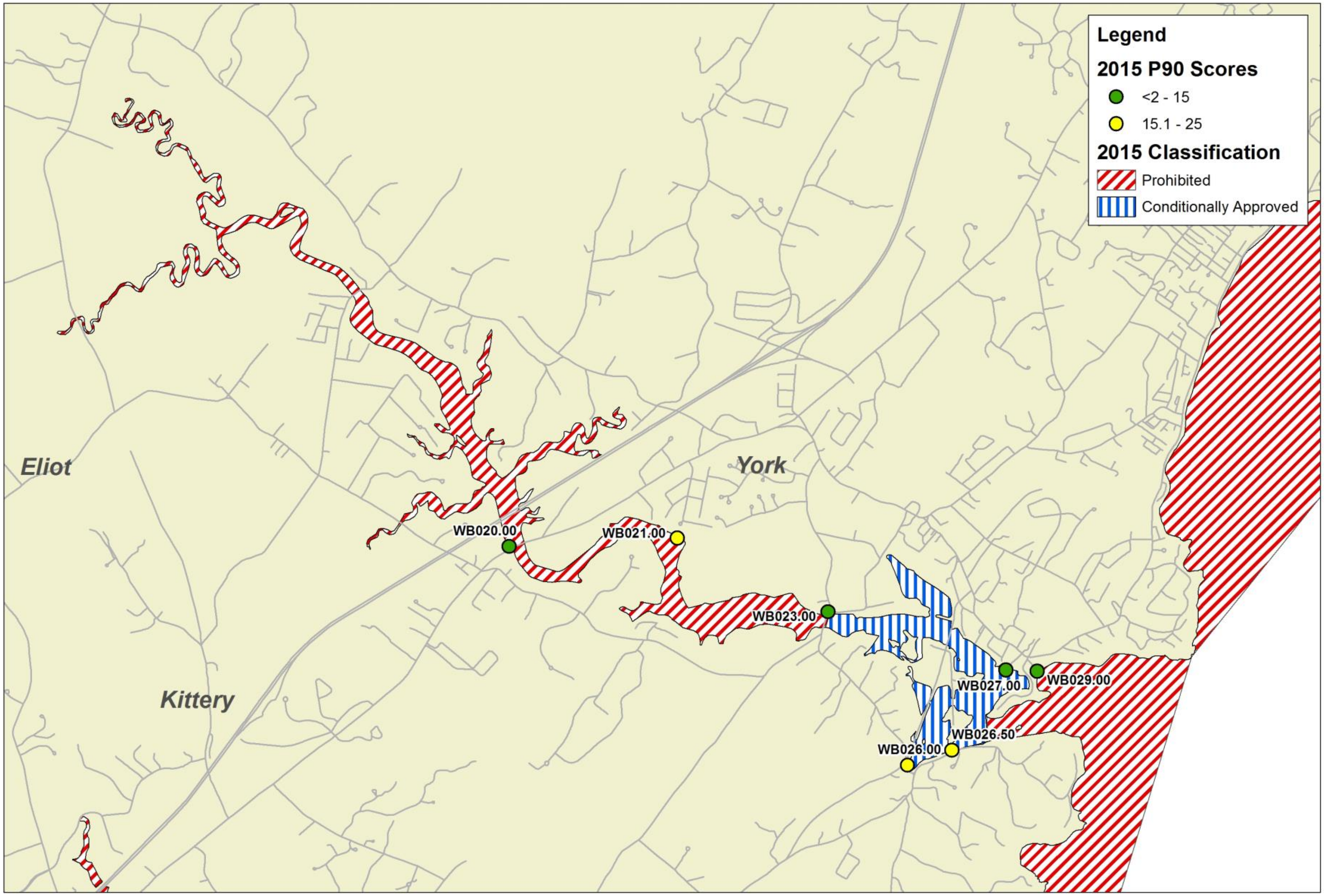
Maine Department Marine Resouces

York River - York



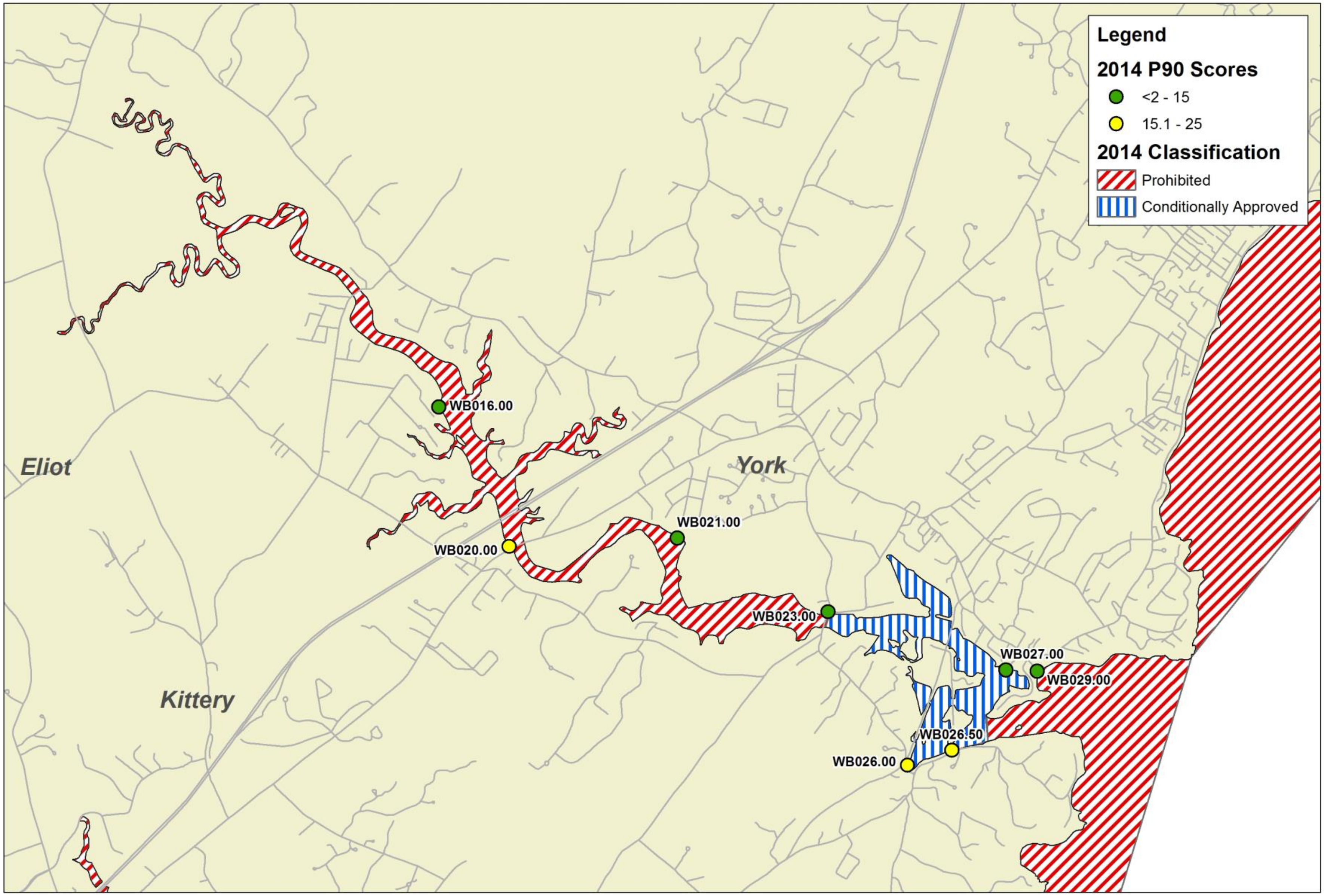
Maine Department Marine Resouces

York River - York



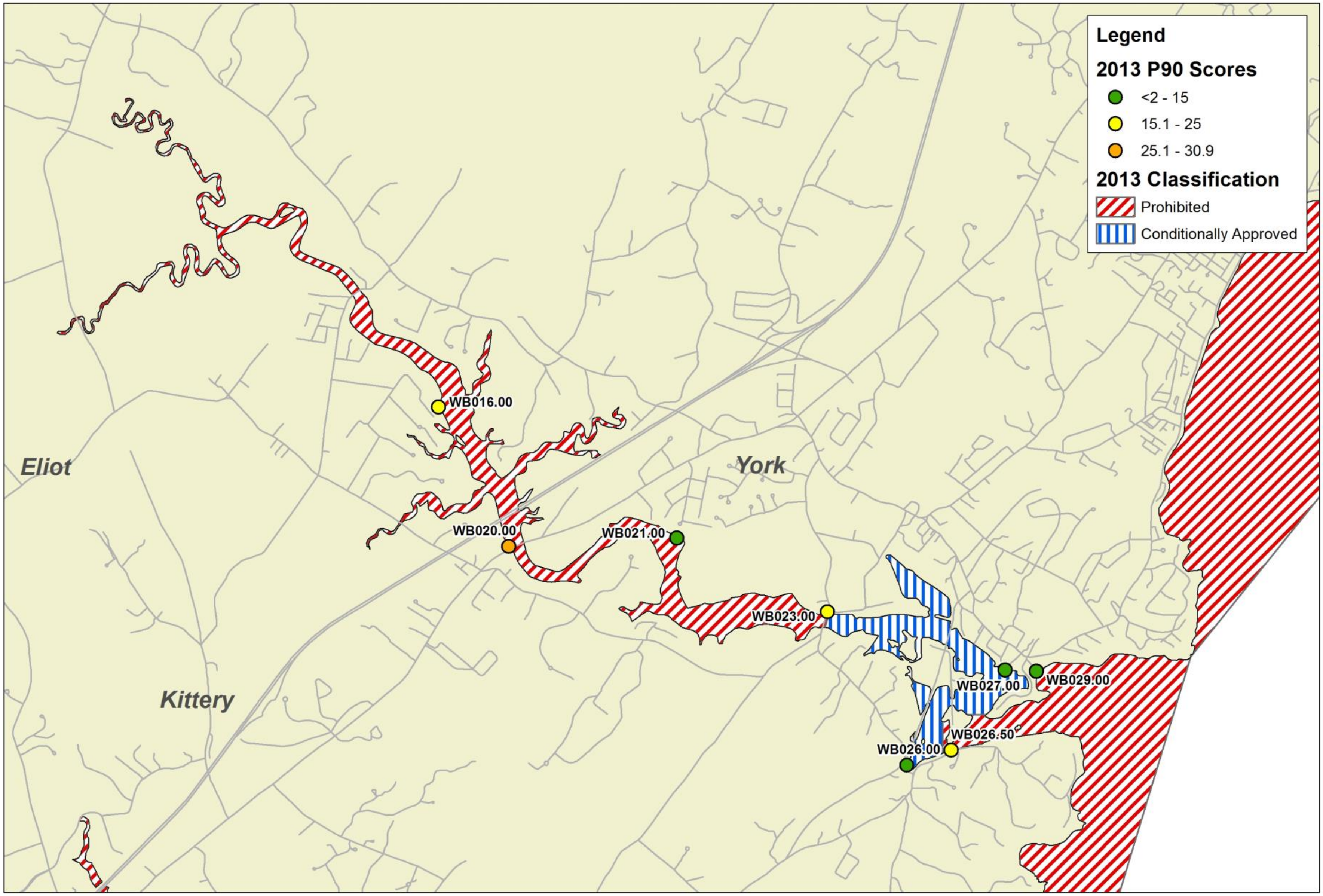
Maine Department Marine Resouces

York River - York



Maine Department Marine Resouces

York River - York



Maine Department Marine Resouces

York River - York