



State of the Mystic

Mystic River Watershed Association

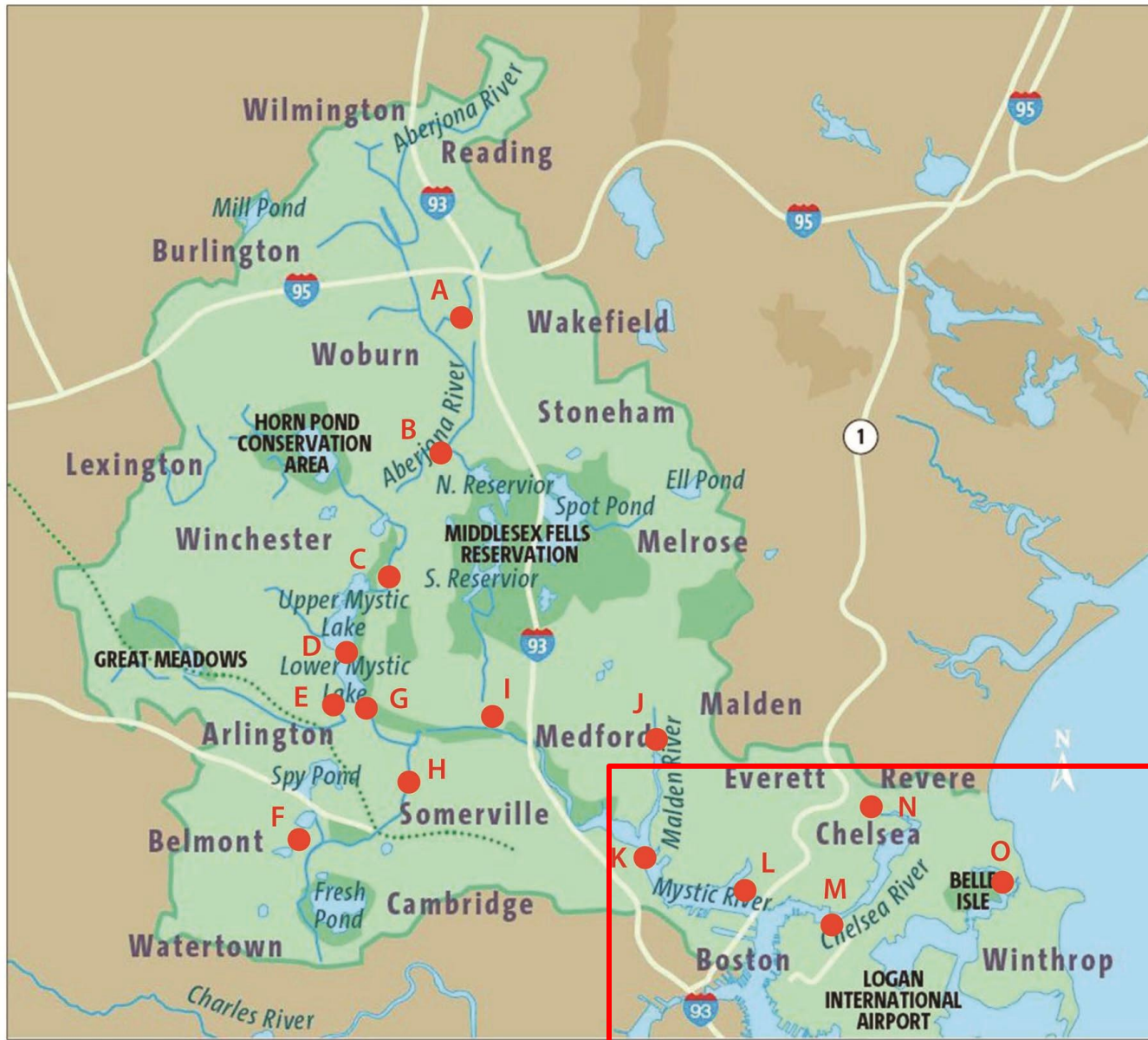


MASSACHUSETTS
ENVIRONMENTAL
TRUST



Mystic River Monitoring Network

Baseline Sites



Bacteria

E. coli

Enterococcus

Calculating compliance based on bacteria



Days site below
235 E. coli/100 ml
365 Days

= %

Time safe
for
Swimming



Days site below
1,260 E. coli/100 ml
365 Days

= %

Time safe
For
Boating

% of days safe for recreation - 2012

Dry

Wet



84%

45%

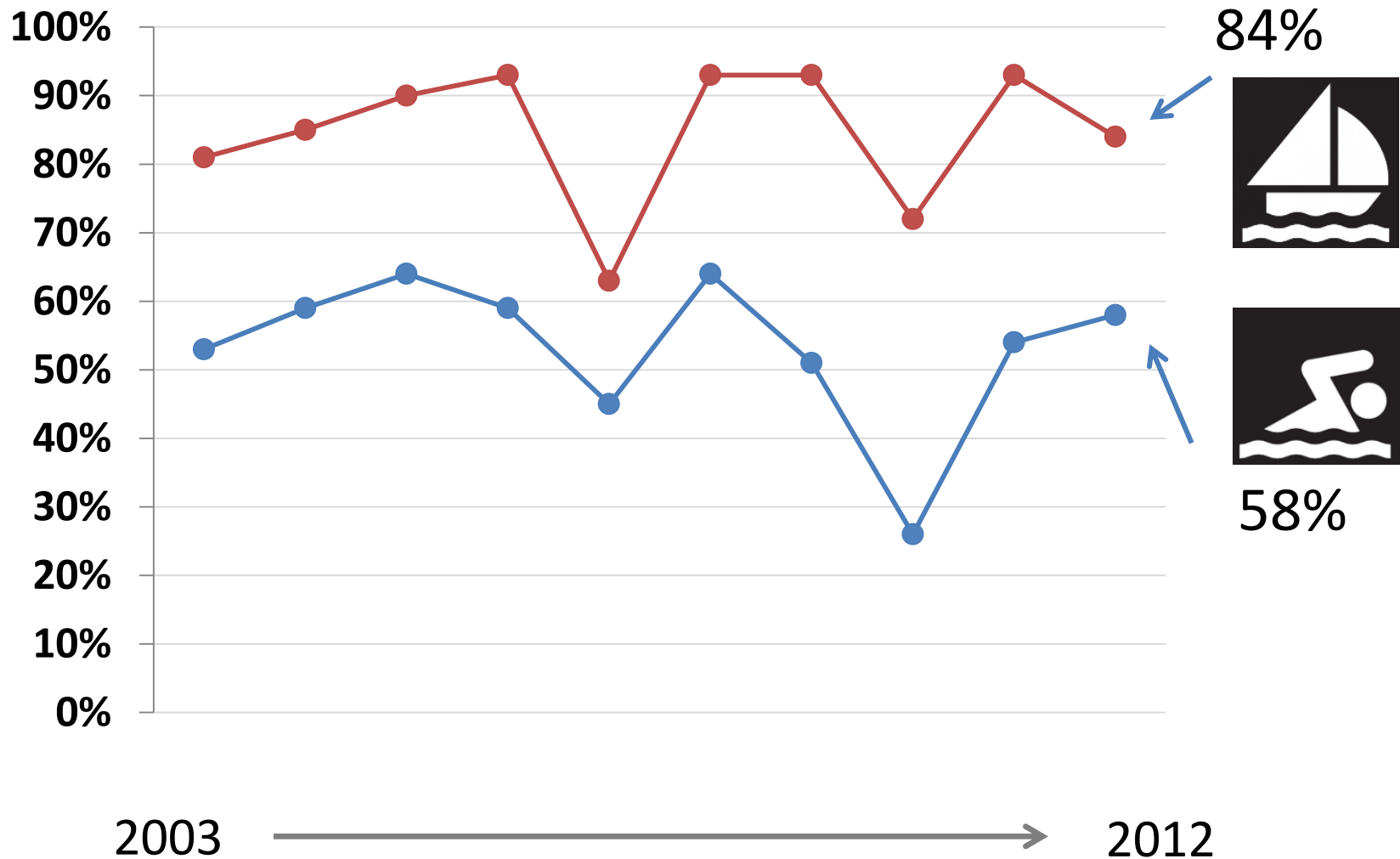


58%

14%

Dry Weather

% Days Safe for Recreation Each Year



Wet Weather

% Days Safe for Recreation Each Year

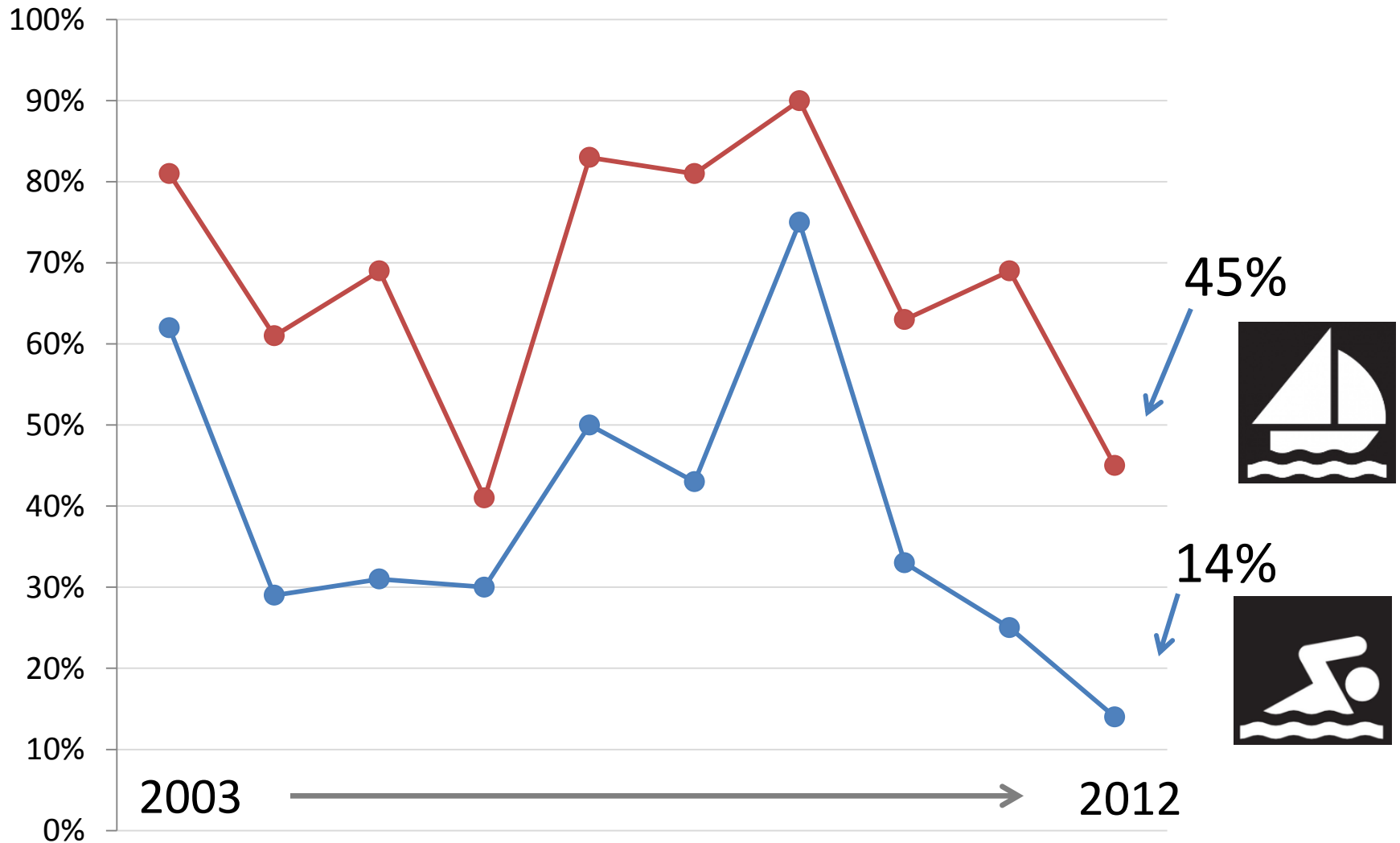


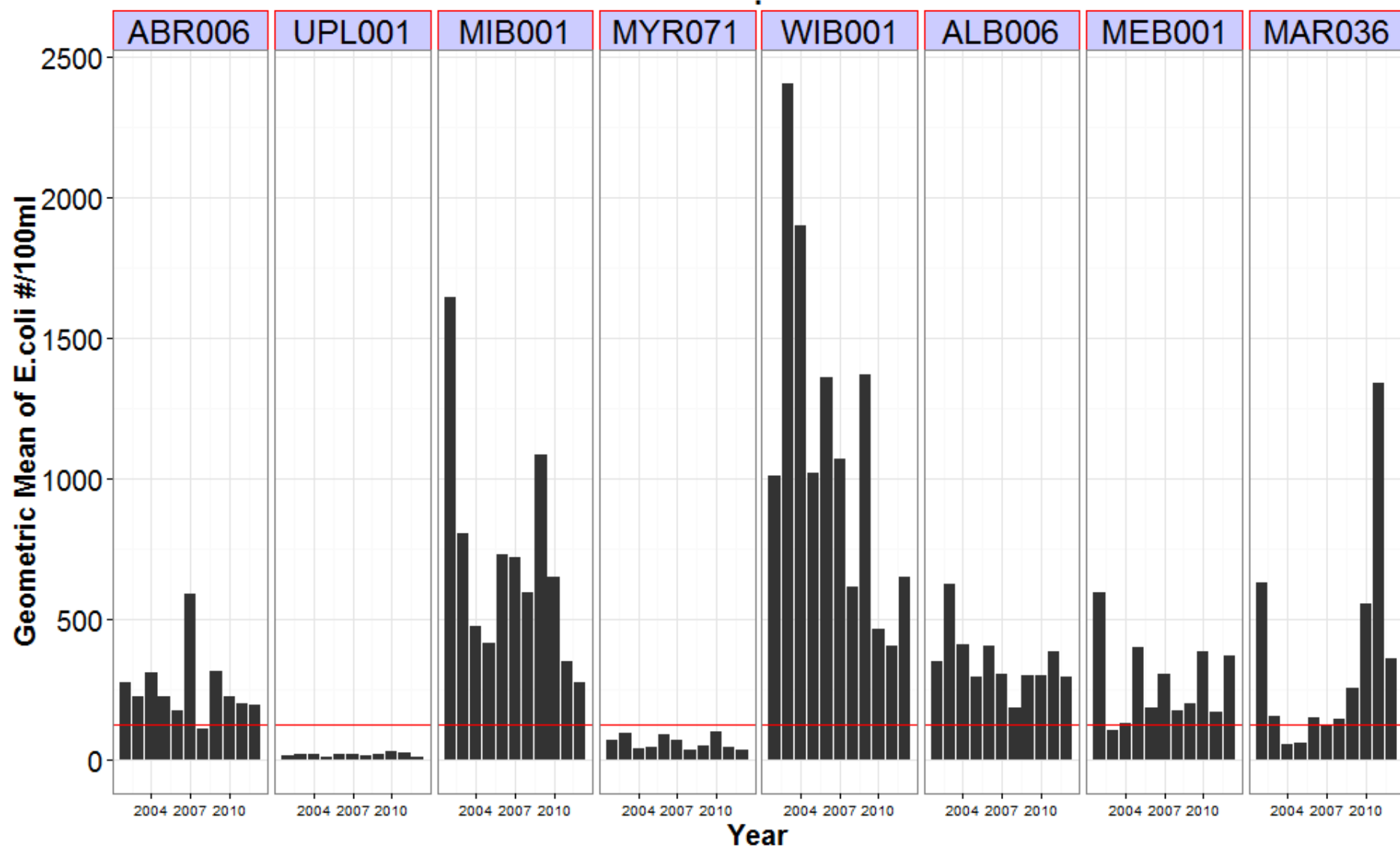
Table of Upper Mystic Bacteria Results

Date

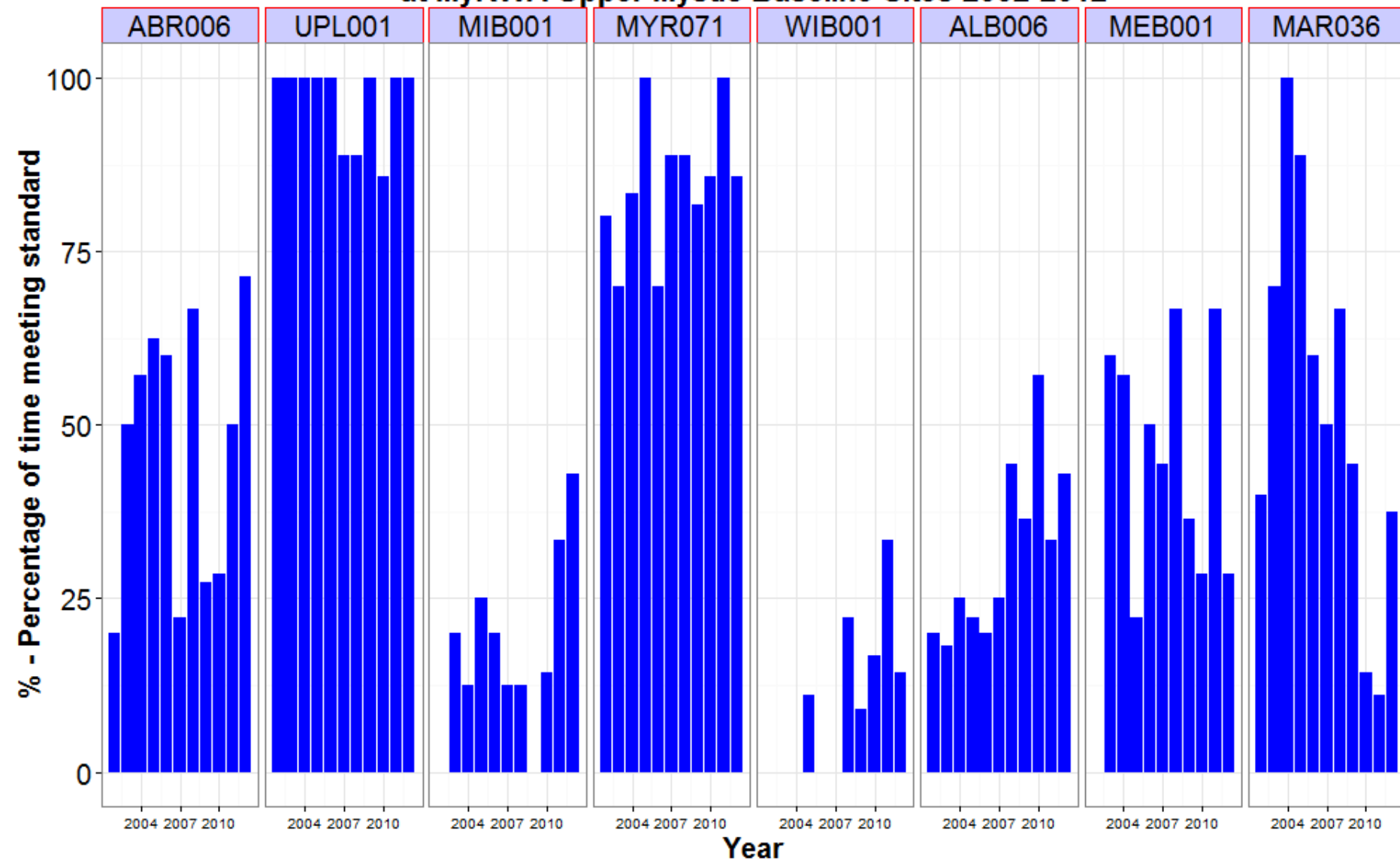
Site

	DRY	DRY	DRY	DRY	WET	DRY	DRY	DRY	WET	DRY	DRY	WET
	1/18	2/15	3/21	4/18	5/16	6/20	7/18	8/15	9/19	10/17	11/14	12/19
Alewife Brook @ Broadway Bridge, Somerville	605	281	327	327	1780	211	213	295	24200	231	1660	1040
Mystic River @ High St. Bridge, Medford	419	10	10	10		110	31	41	275	41	63	285
Mill Brook @ Mt. Pleasant cemetery, Arlington	20	197	121	364	379	932	1870	1420	24200	408	620	1280
Aberjona River @ USGS Gaging Station, Winchester	738	145	63	226	1660	496	158	131	24200	98	1300	1040
Aberjona River @ Washington St., Winchester	1560	754	52	173	1220	244	528	295	14100	350	1020	663
Aberjona River @ Salem St., Woburn	288	216	31	73	1350	246	906	118	24200	228	341	816
Malden River @ Medford St. bridge, Malden	1310	1290	41	253		134	399	148	24200	2140	2250	1560
Meetinghouse Brook @ Mystic R., Medford	173	63	557	5480	496	272	250	481	9800	413	2480	1610
Upper Mystic Lake @ dam, Medford	10	10	10	10	41	10	31	52	74	10	10	10
Winn's Brook @ Little Pond, Belmont	305	2280	10	278	631	1040	2480	521	10500	9800	1790	529

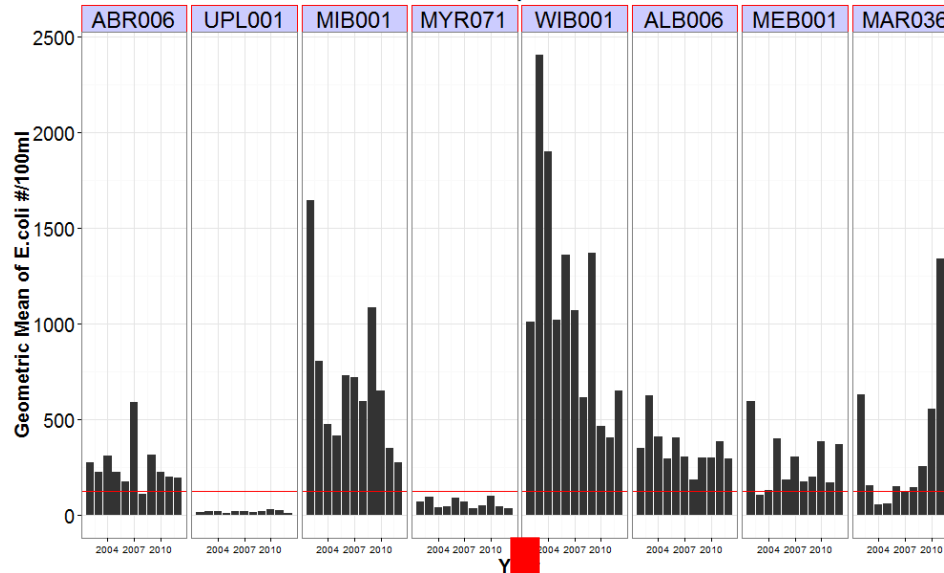
**Geometric mean of *E. coli* concentrations in dry weather
at Upper Mystic MyRWA Baseline Sites 2002-2012**



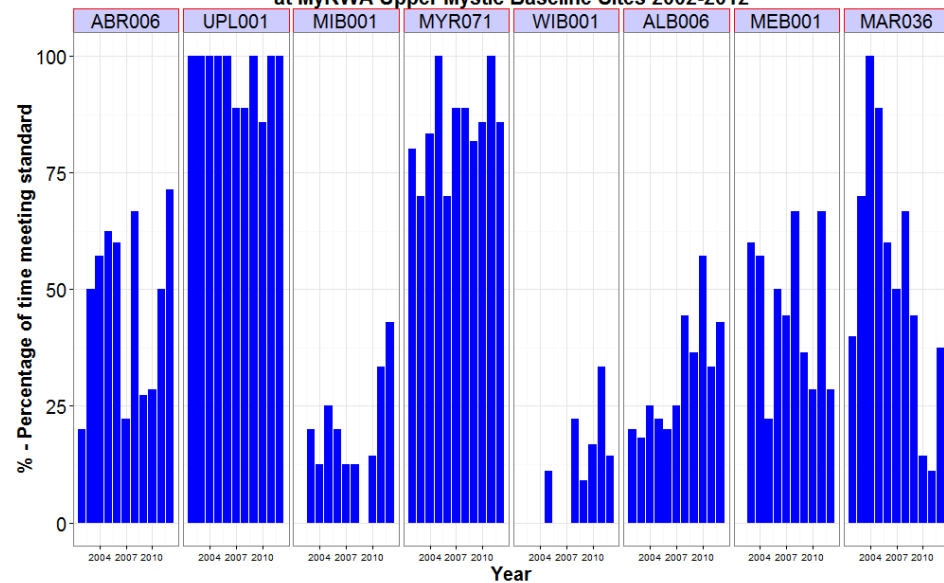
**Percentage of time that site meets 'Swimming Standard'
at MyRWA Upper Mystic Baseline Sites 2002-2012**



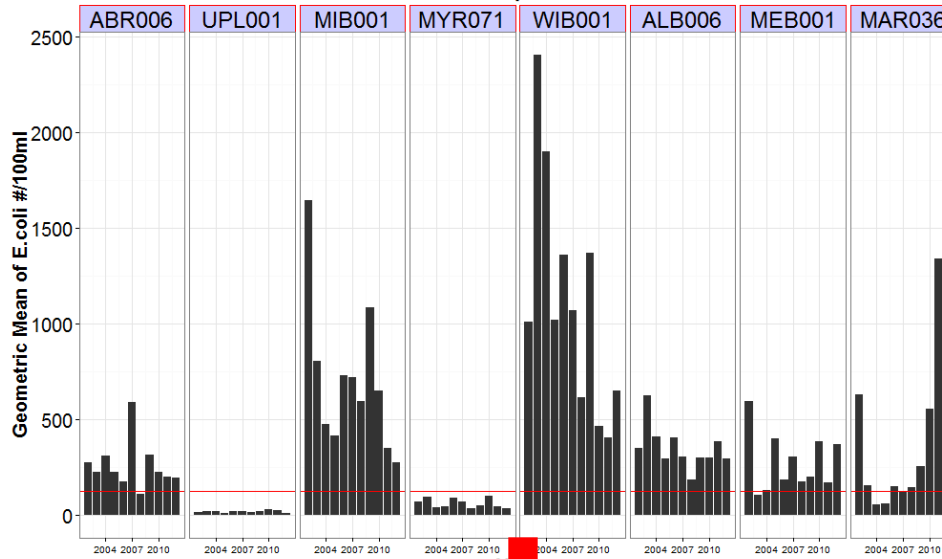
**Geometric mean of *E. coli* concentrations in dry weather
at Upper Mystic MyRWA Baseline Sites 2002-2012**



**Percentage of time that site meets 'Swimming Standard'
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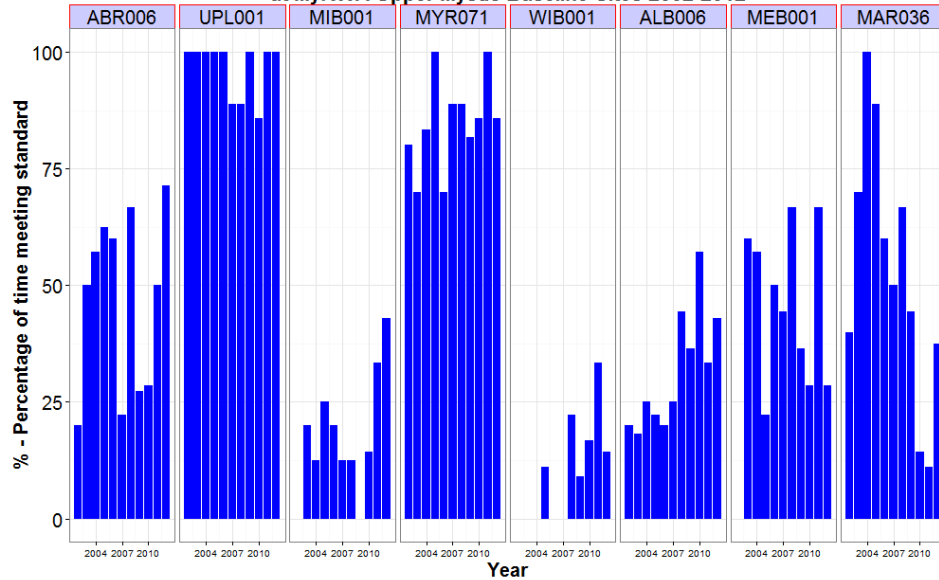
Geometric mean of *E. coli* concentrations in dry weather
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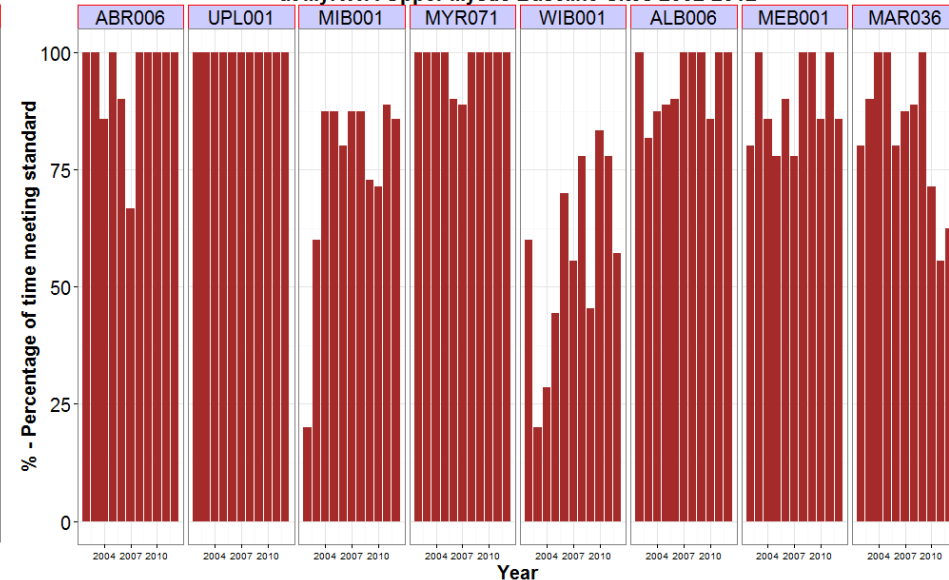
Swimming

Boating

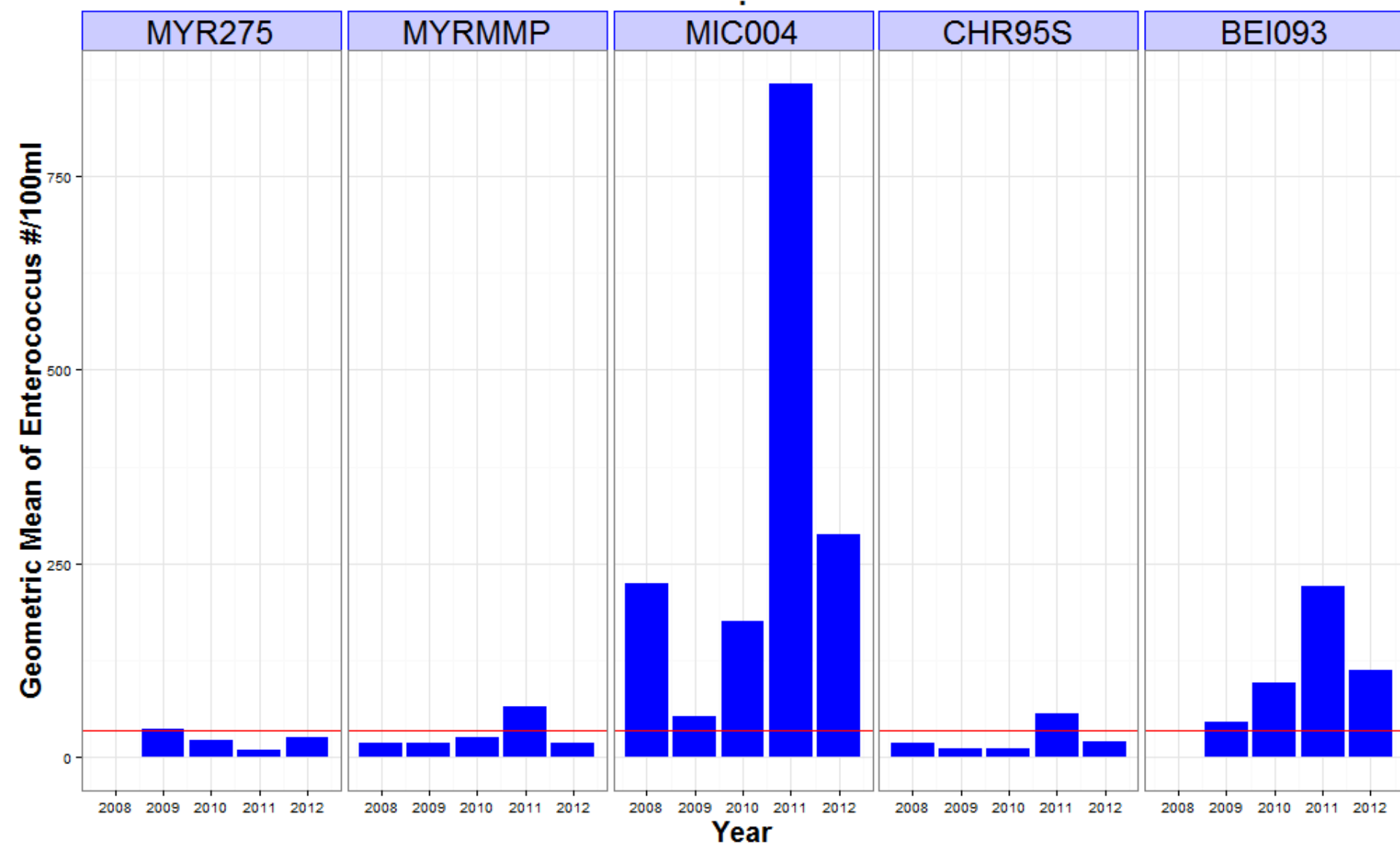
Percentage of time that site meets 'Swimming Standard'
at MyRWA Upper Mystic Baseline Sites 2002-2012



Percentage of time that site meets 'Boating Standard'
at MyRWA Upper Mystic Baseline Sites 2002-2012



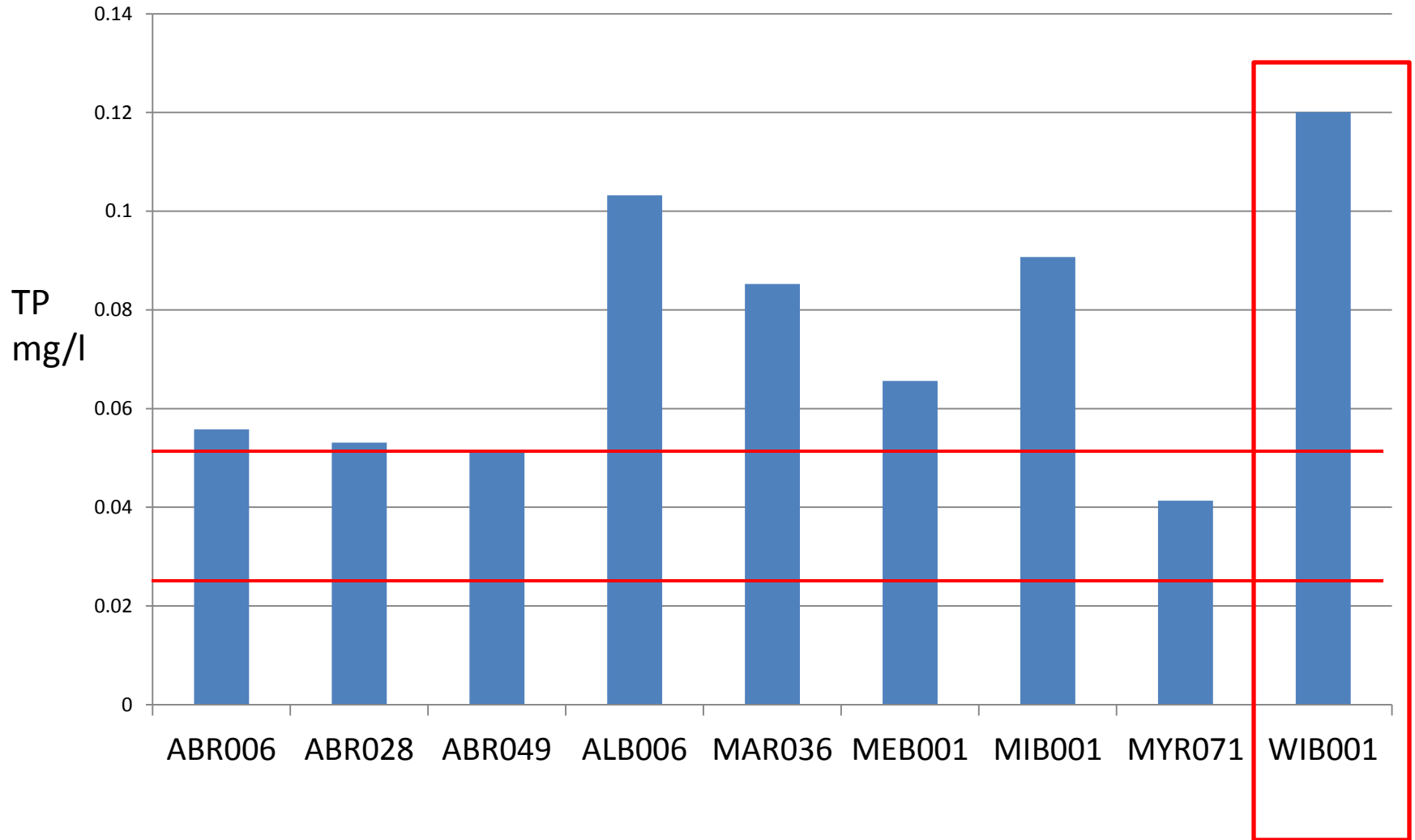
**Geometric mean of Enterococcus concentrations in dry weather
at Lower Mystic MyRWA Baseline Sites 2008-2012**



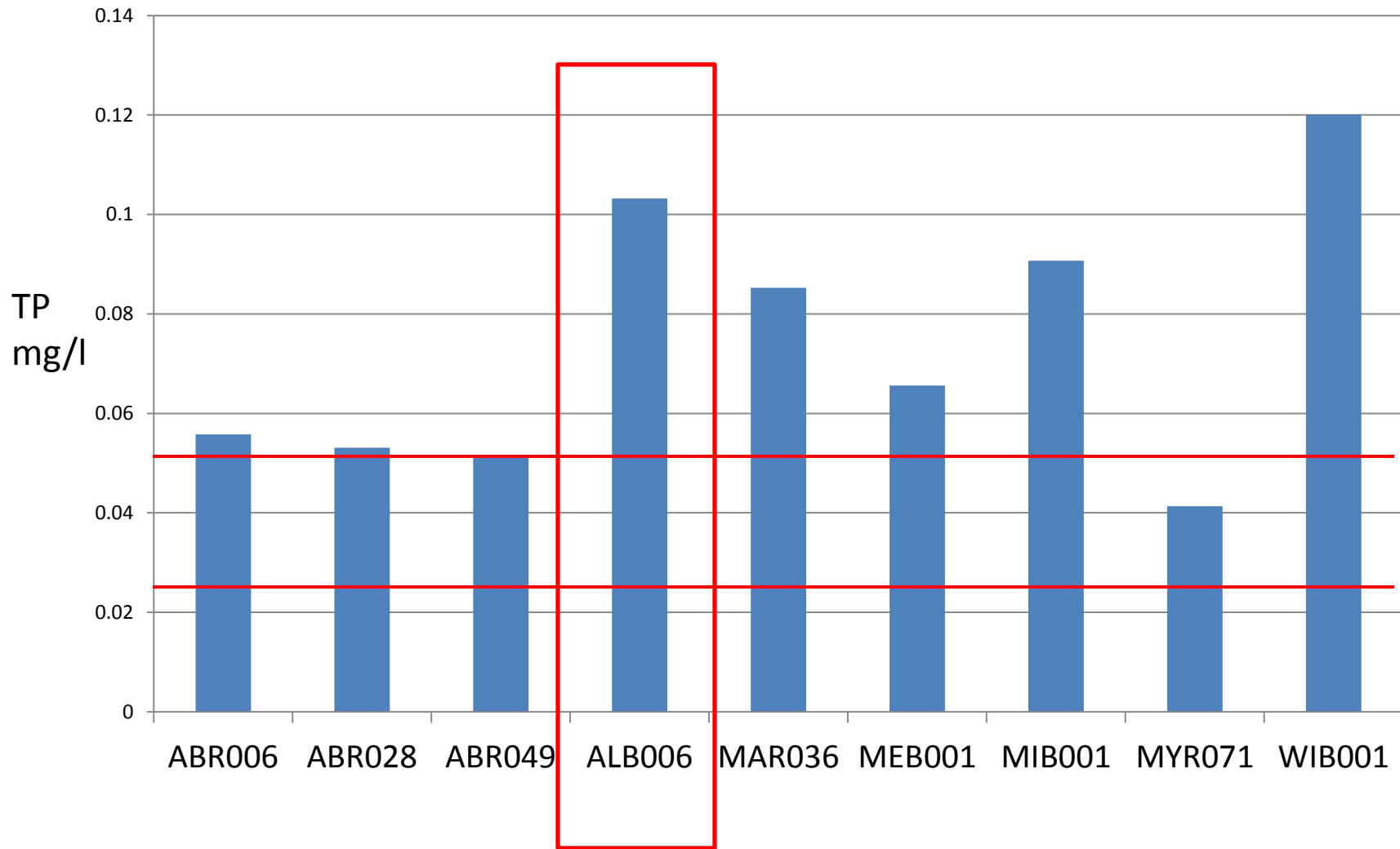
Nutrients

Phosphorus

Mean Phosphorus Levels - 2012



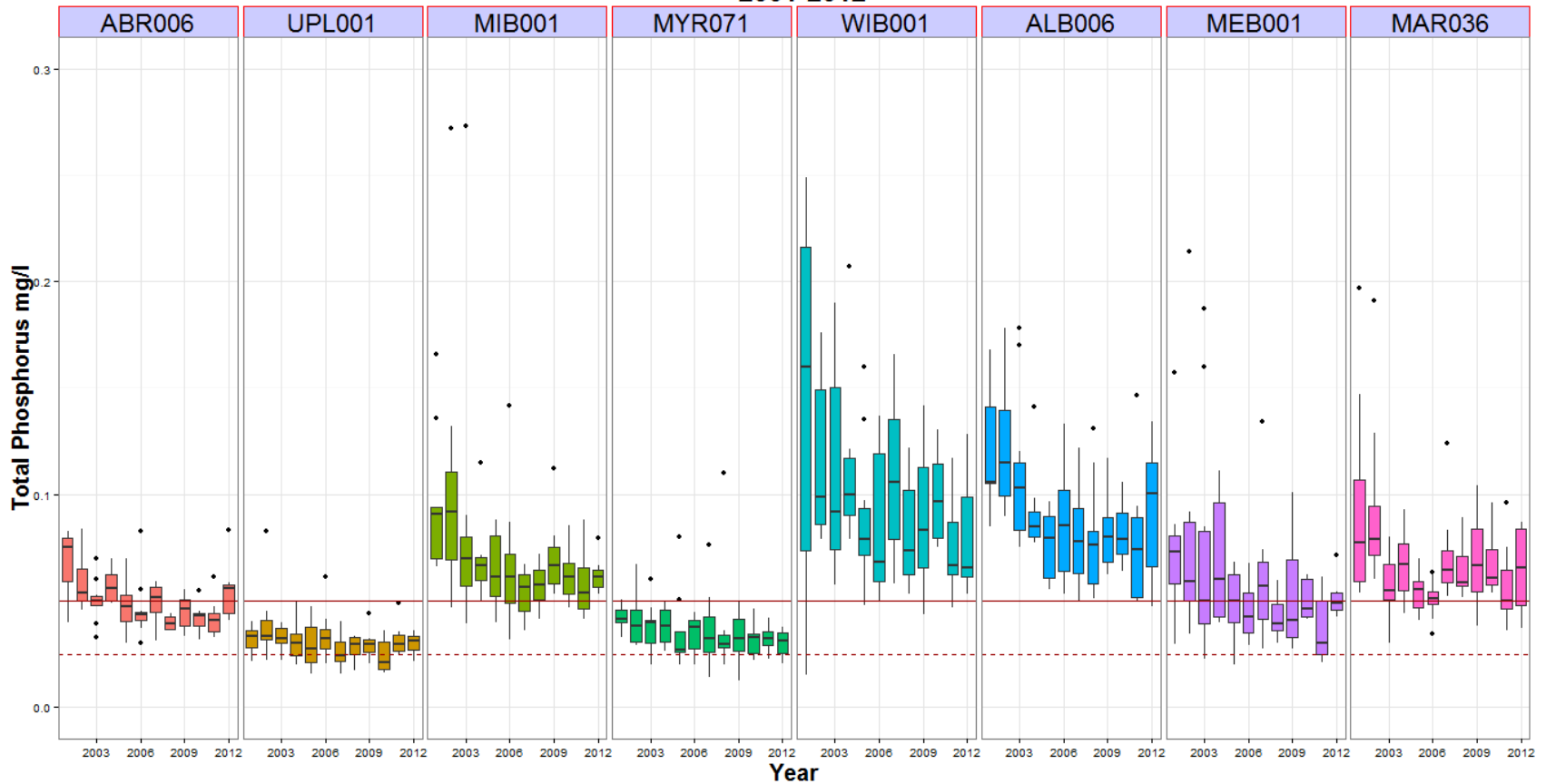
Mean Phosphorus Levels - 2012



Aberjona River



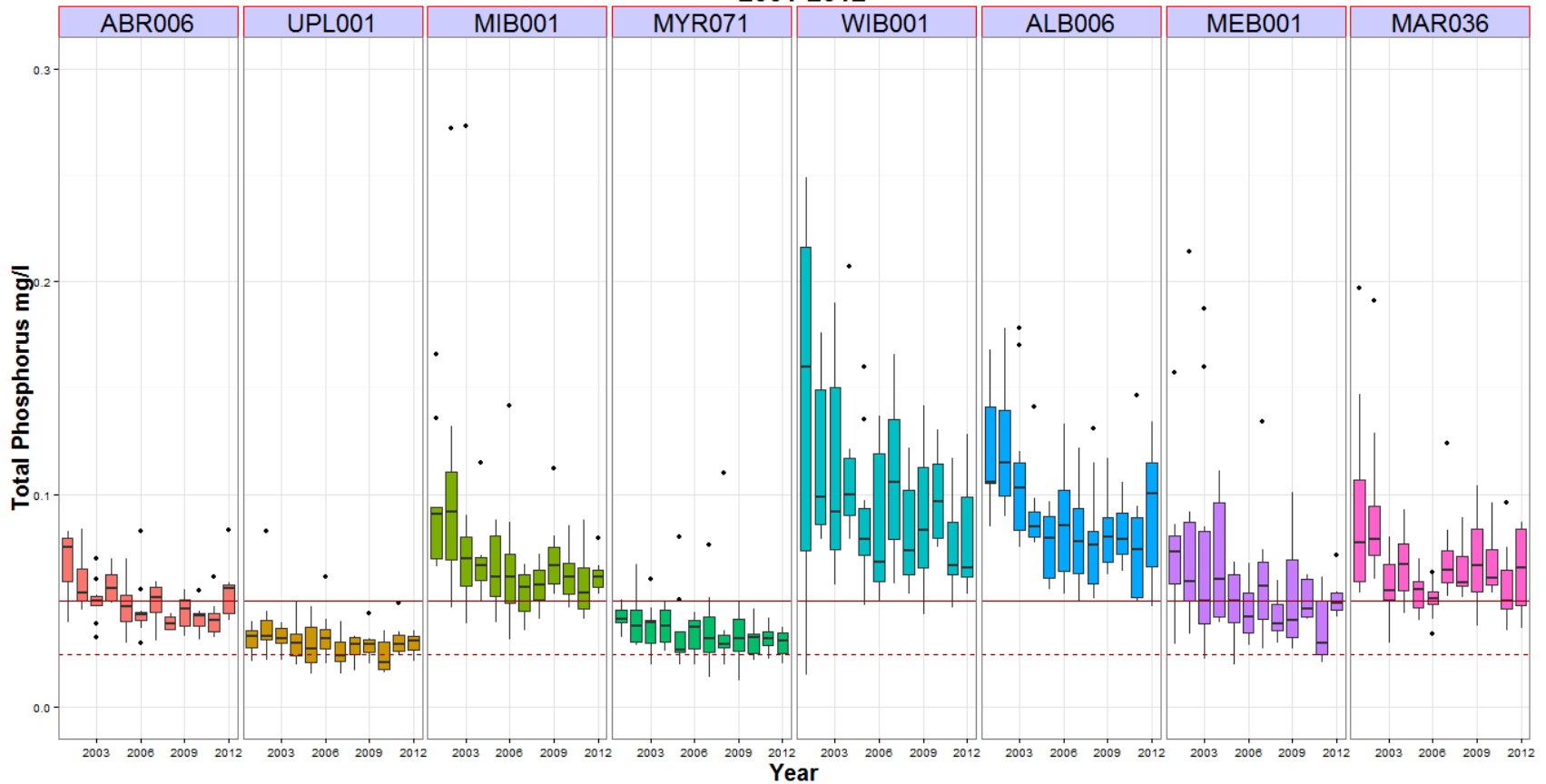
Phosphorus levels at Upper Mystic Baseline Sites
2001-2012



Upper Mystic Lake

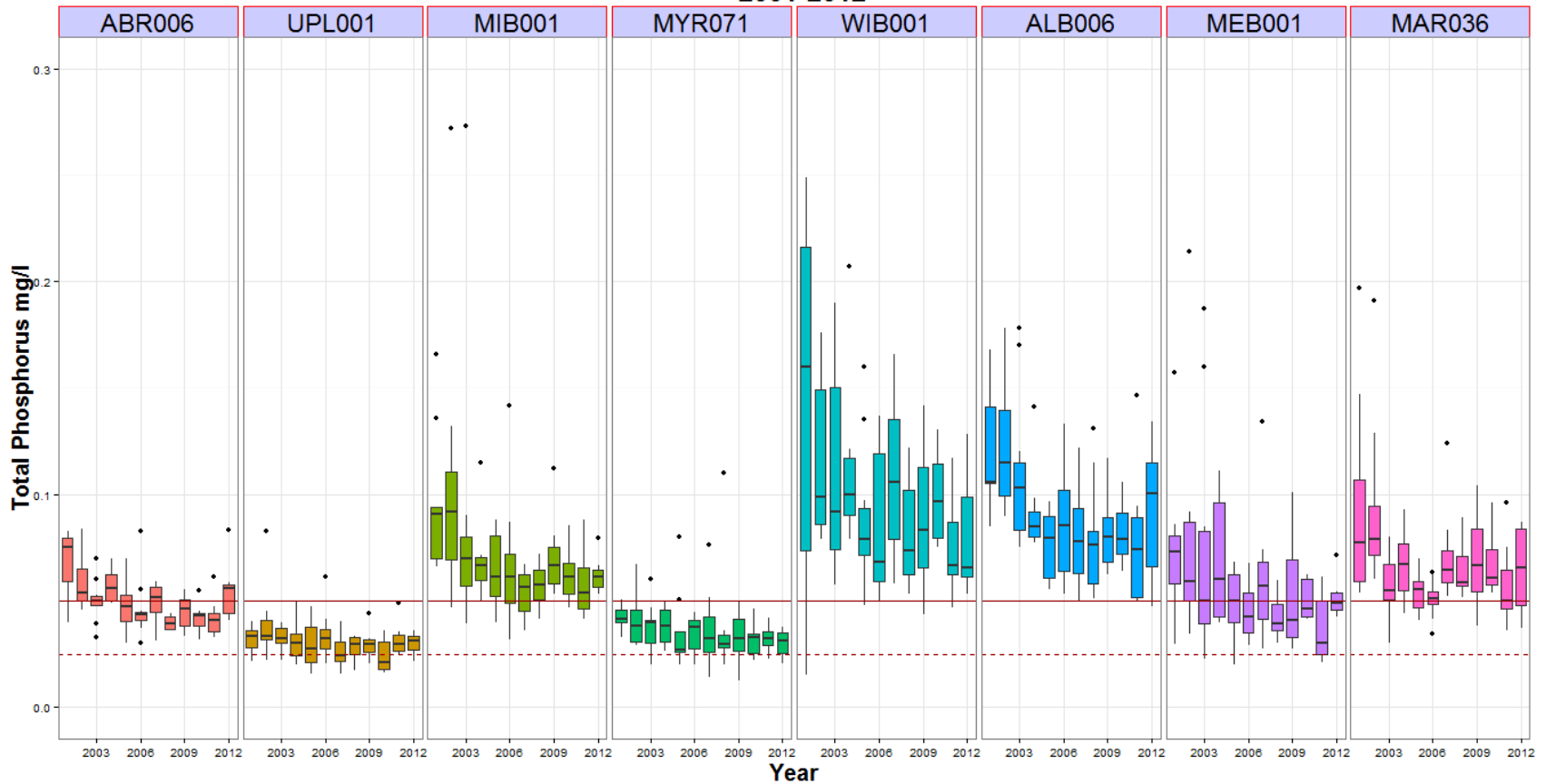


Phosphorus levels at Upper Mystic Baseline Sites
2001-2012



Mill Brook

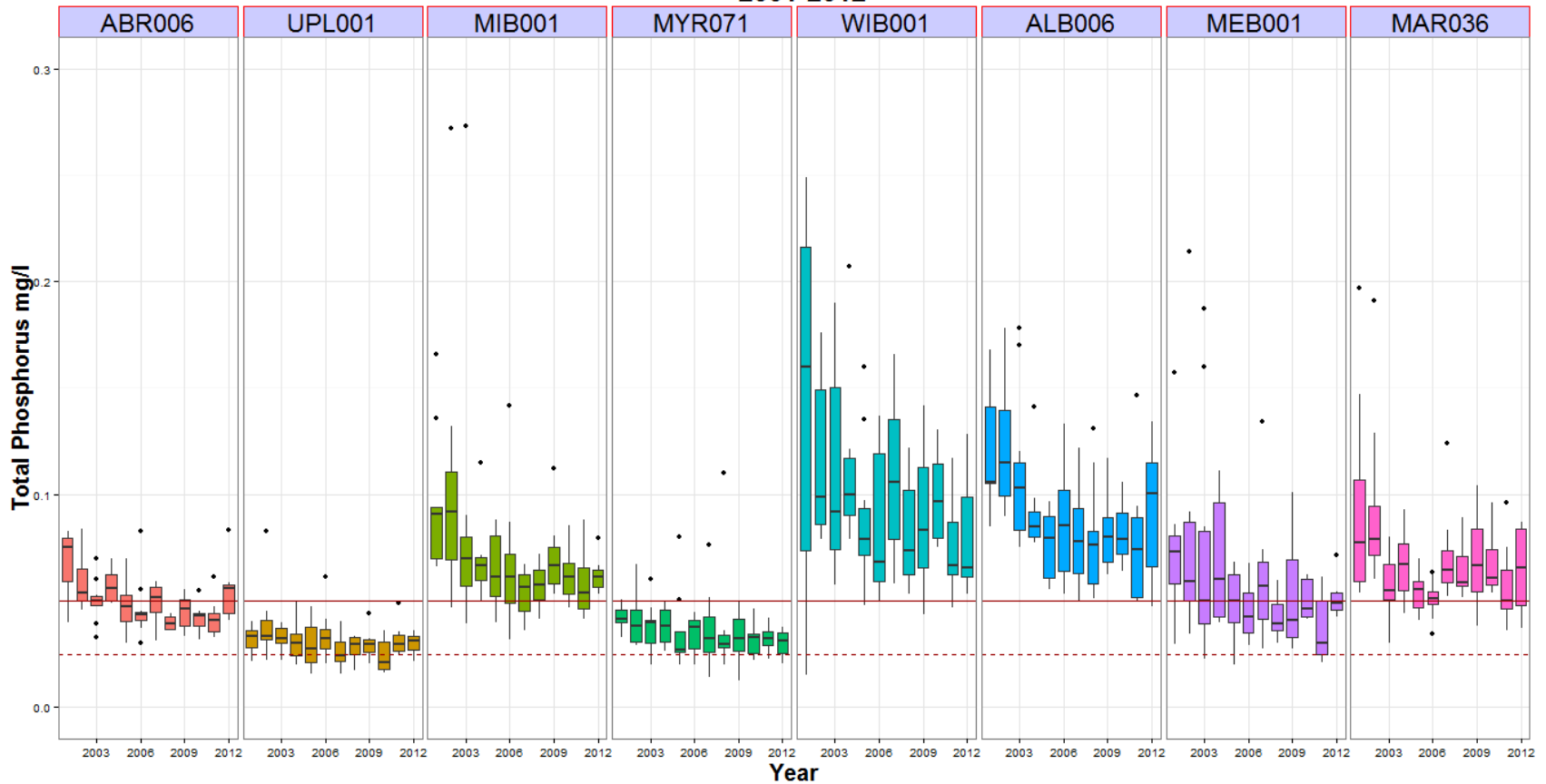
↓
Phosphorus levels at Upper Mystic Baseline Sites
2001-2012



Mystic River



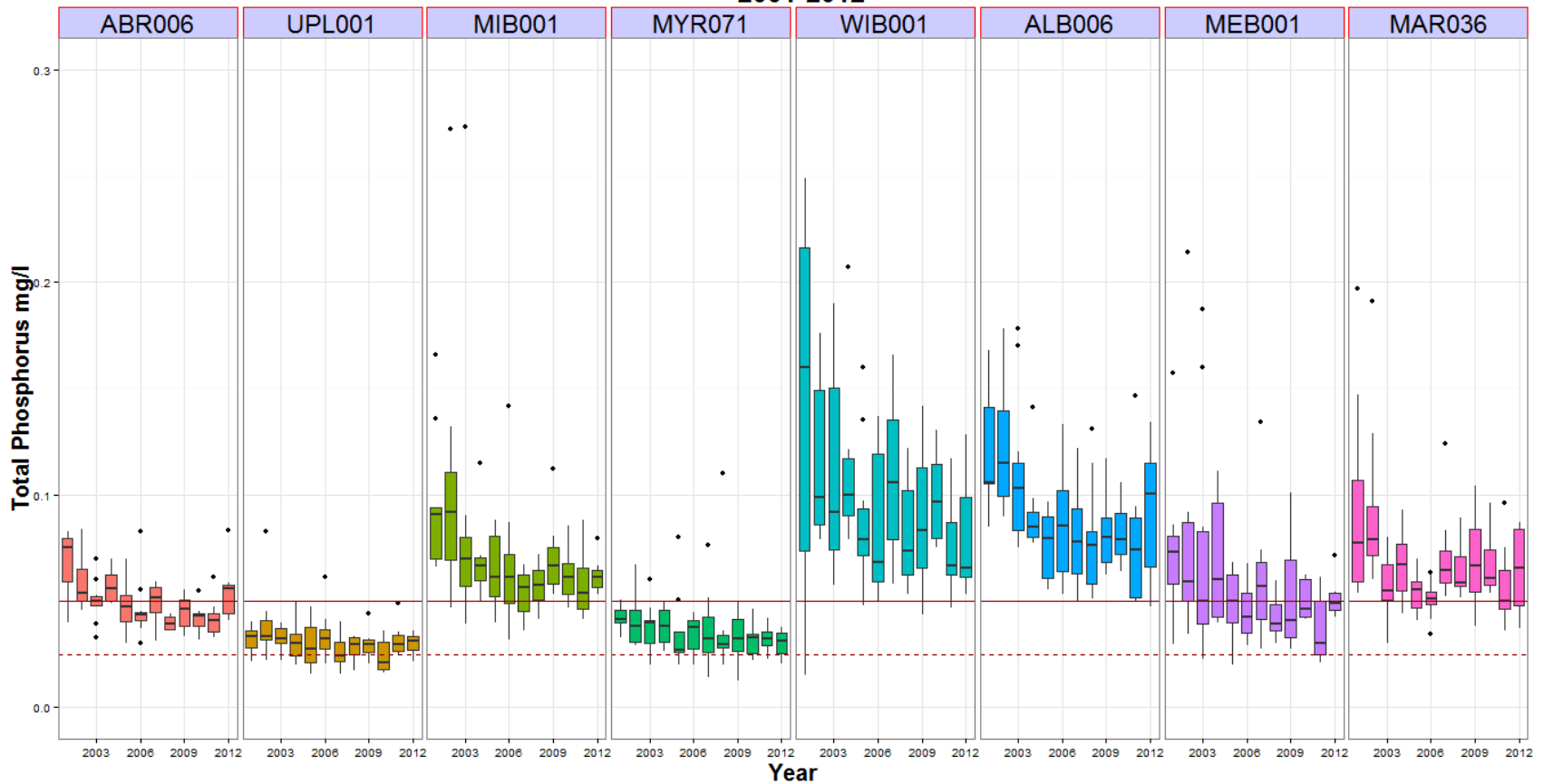
Phosphorus level at Upper Mystic Baseline Sites
2001-2012



Winn Brook

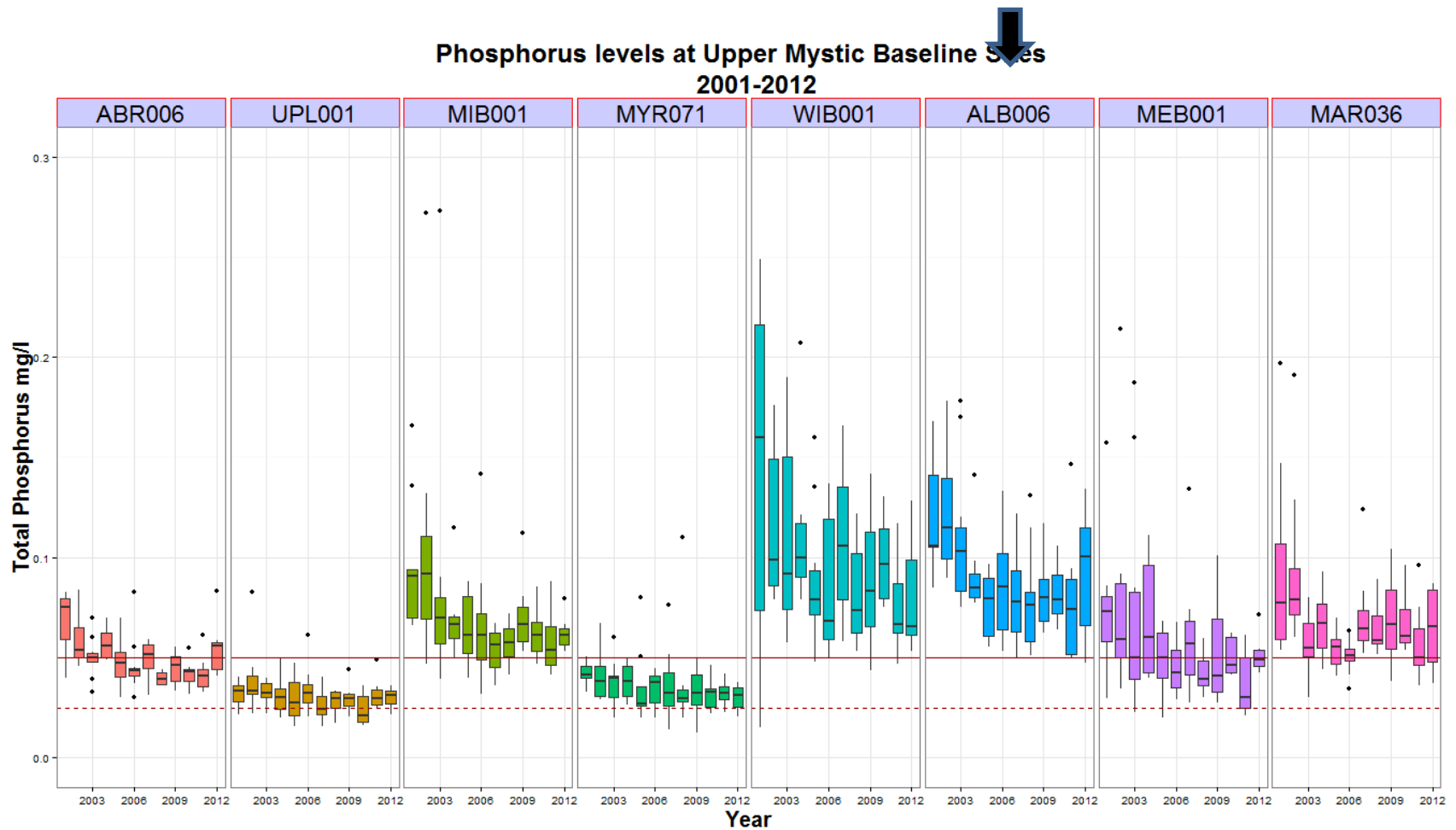


Phosphorus levels at Upper Myonic Baseline Sites
2001-2012



Alewife Brook

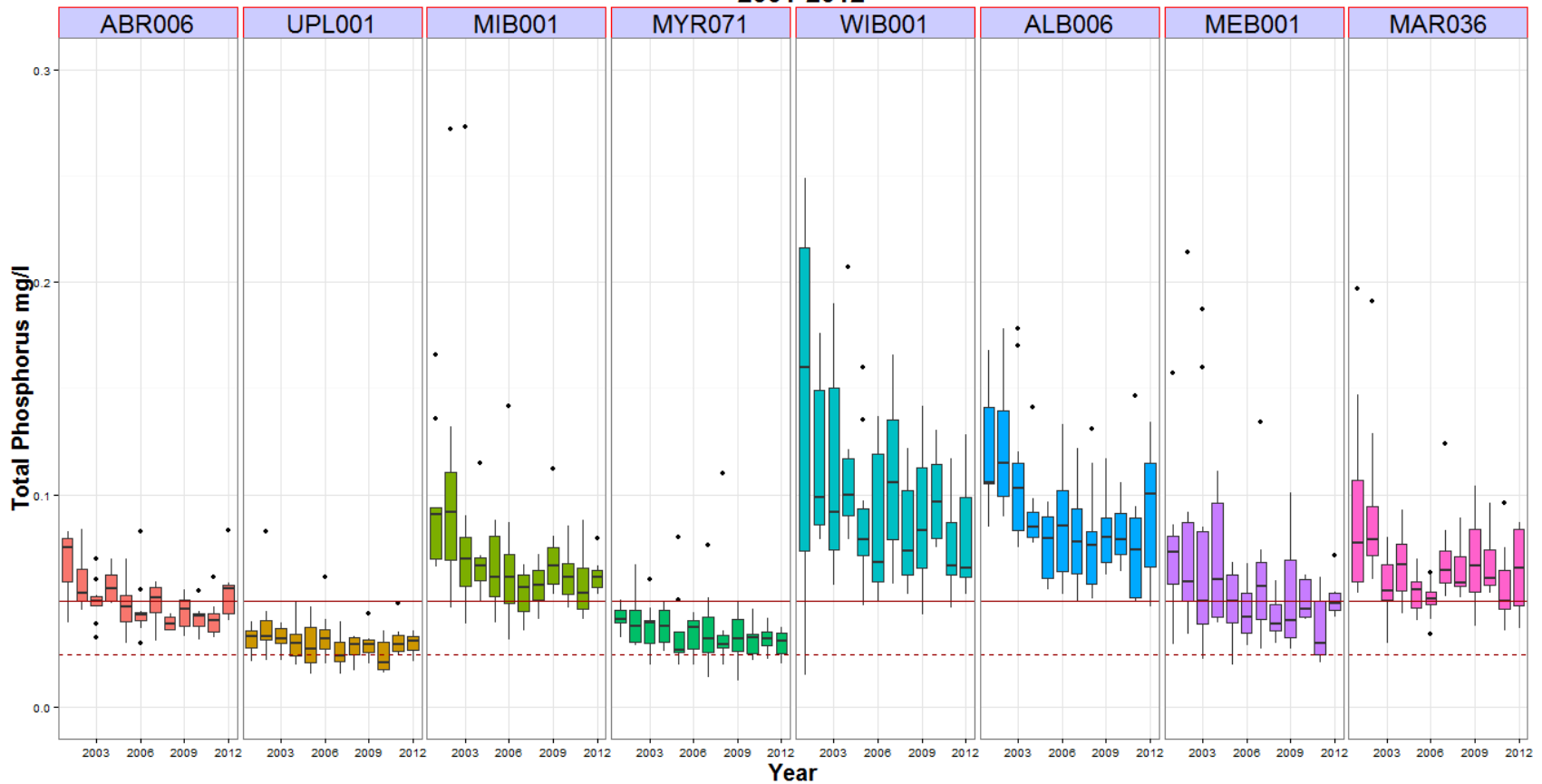
Phosphorus levels at Upper Mystic Baseline Sites
2001-2012



Meetinghouse Brook



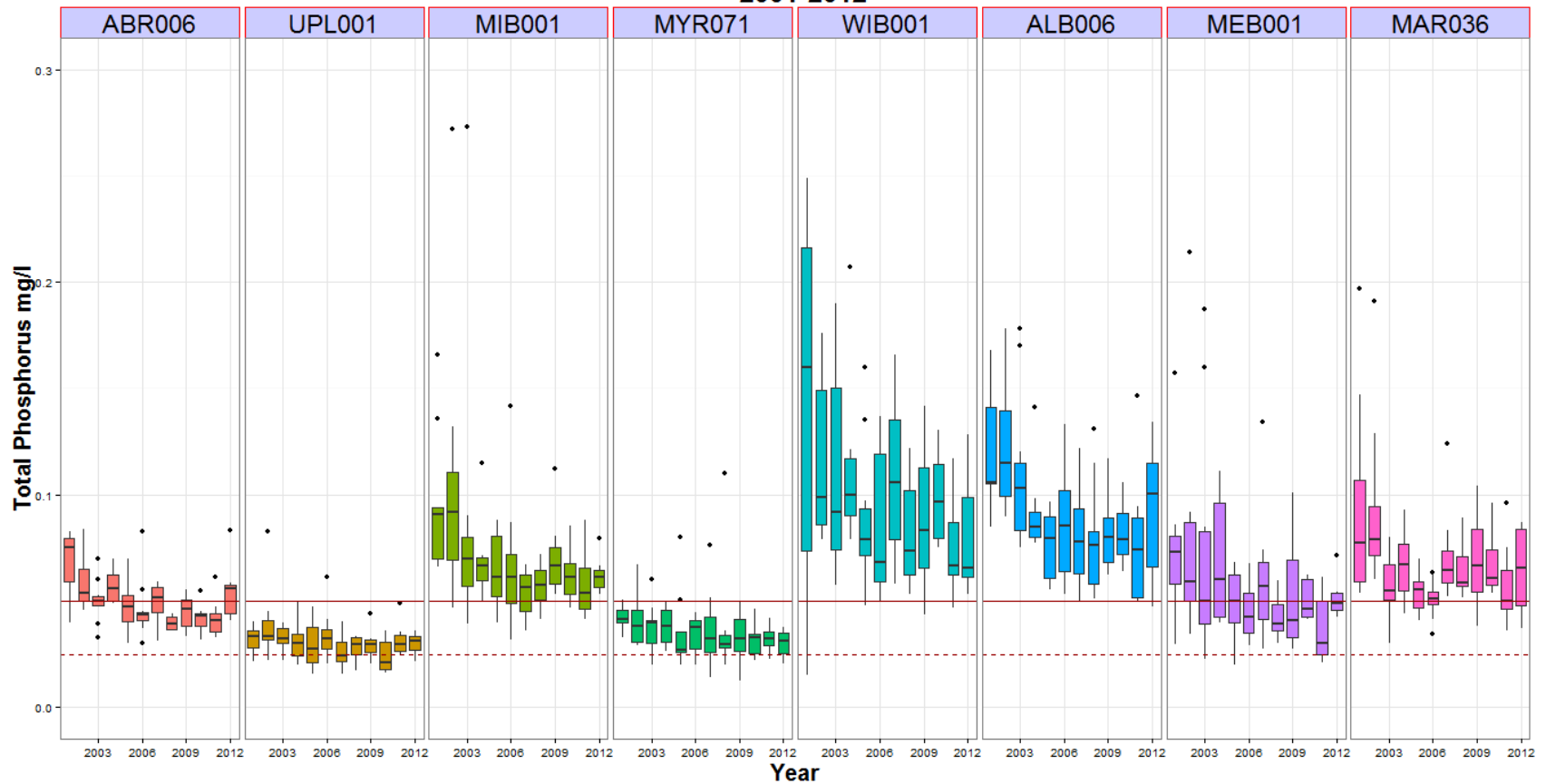
Phosphorus levels at Upper Mystic Baseline Sites
2001-2012



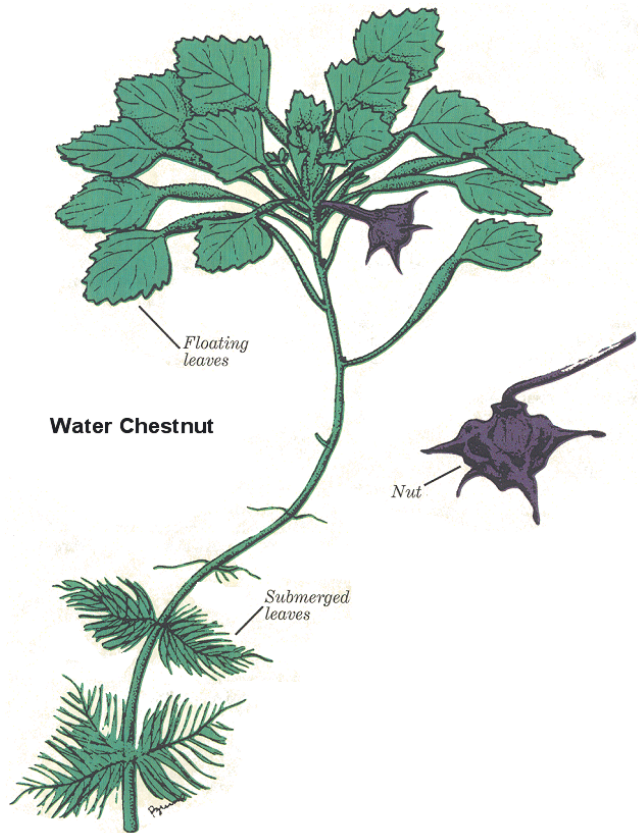
Malden River



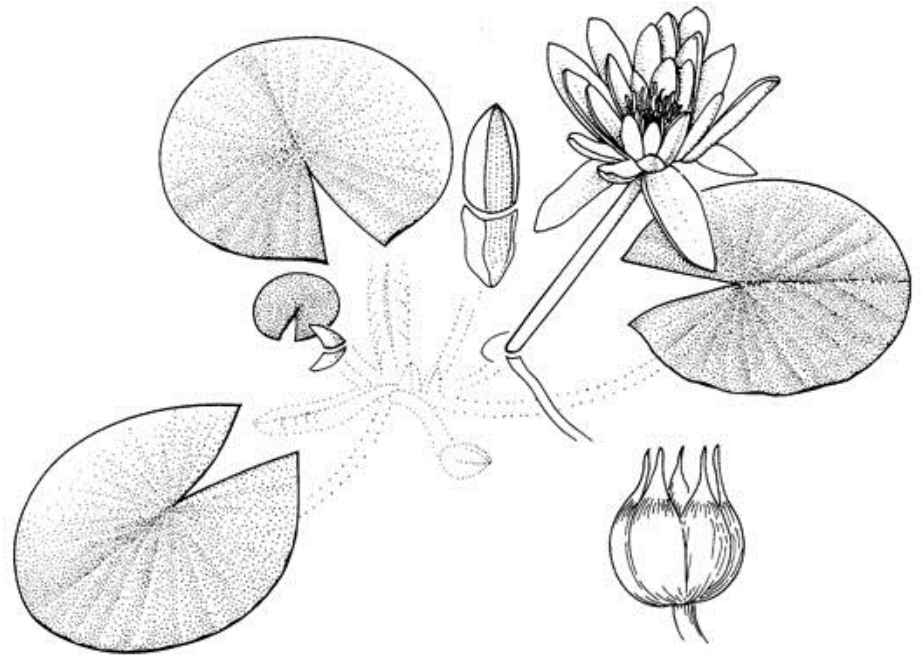
Phosphorus levels at Upper Mystic Baseline Sites
2001-2012



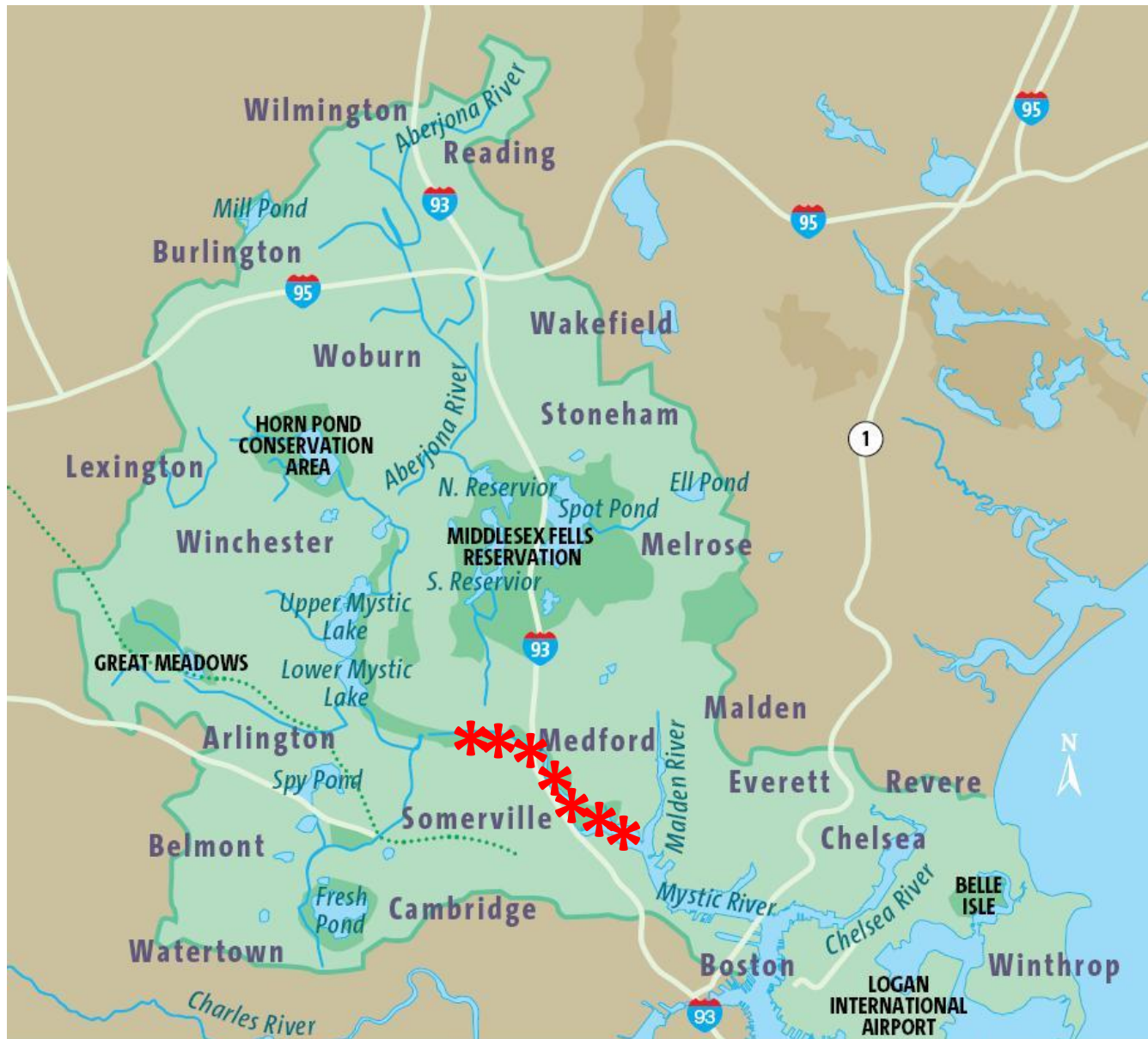
Water Chestnut and Water Lily



Nymphaea spp.
Water lily



Water Chestnut







July 2005

Jul 4, 2005



411 ft

Image © 2011 DigitalGlobe

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July 2006



Image © 2011 DigitalGlobe

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June 2007



411 ft

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June 2010



July 2001

28

Wellington Bridge

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Image © 2011 GeoEye

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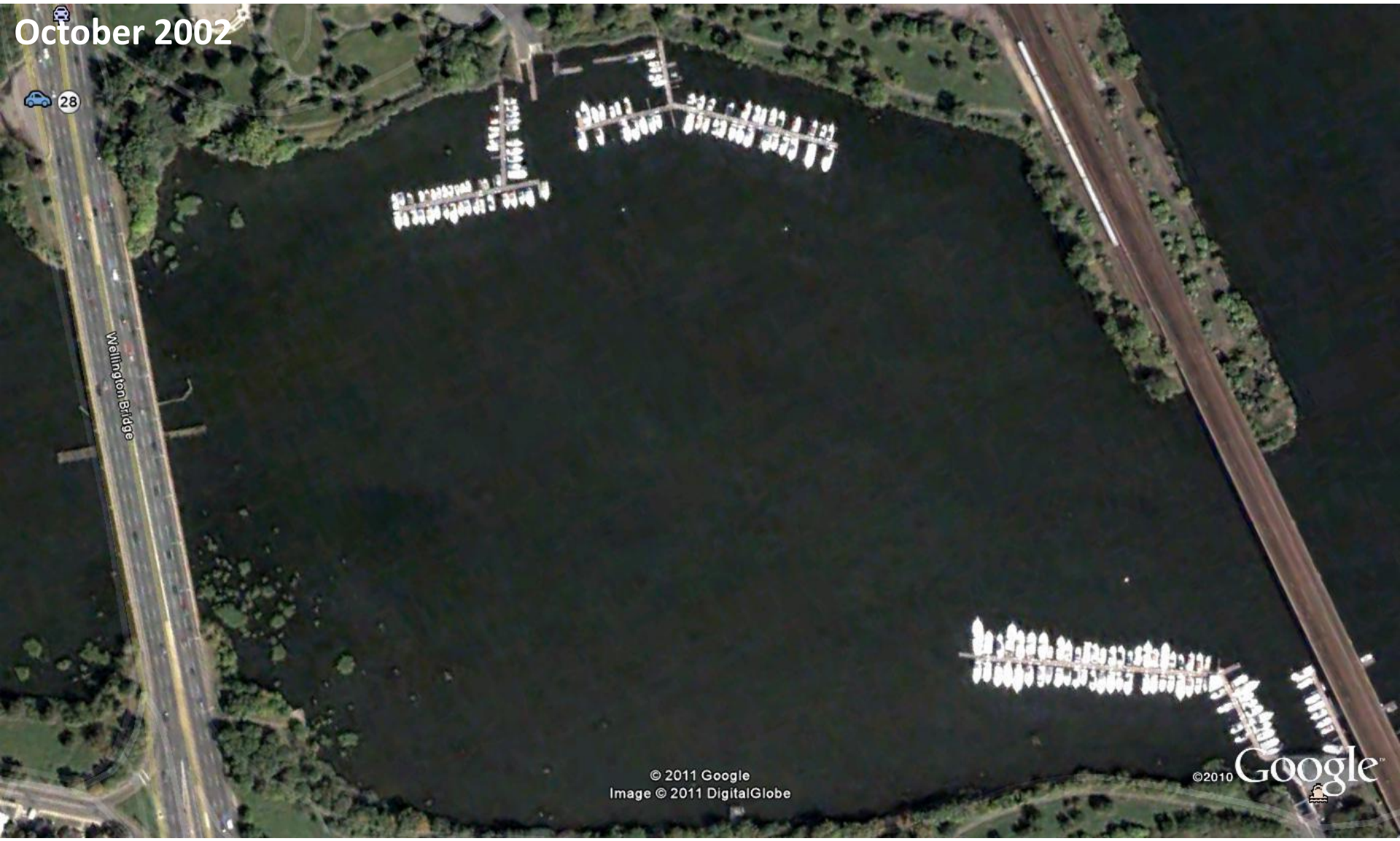
October 2002

28

Wellington Bridge

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July 2004

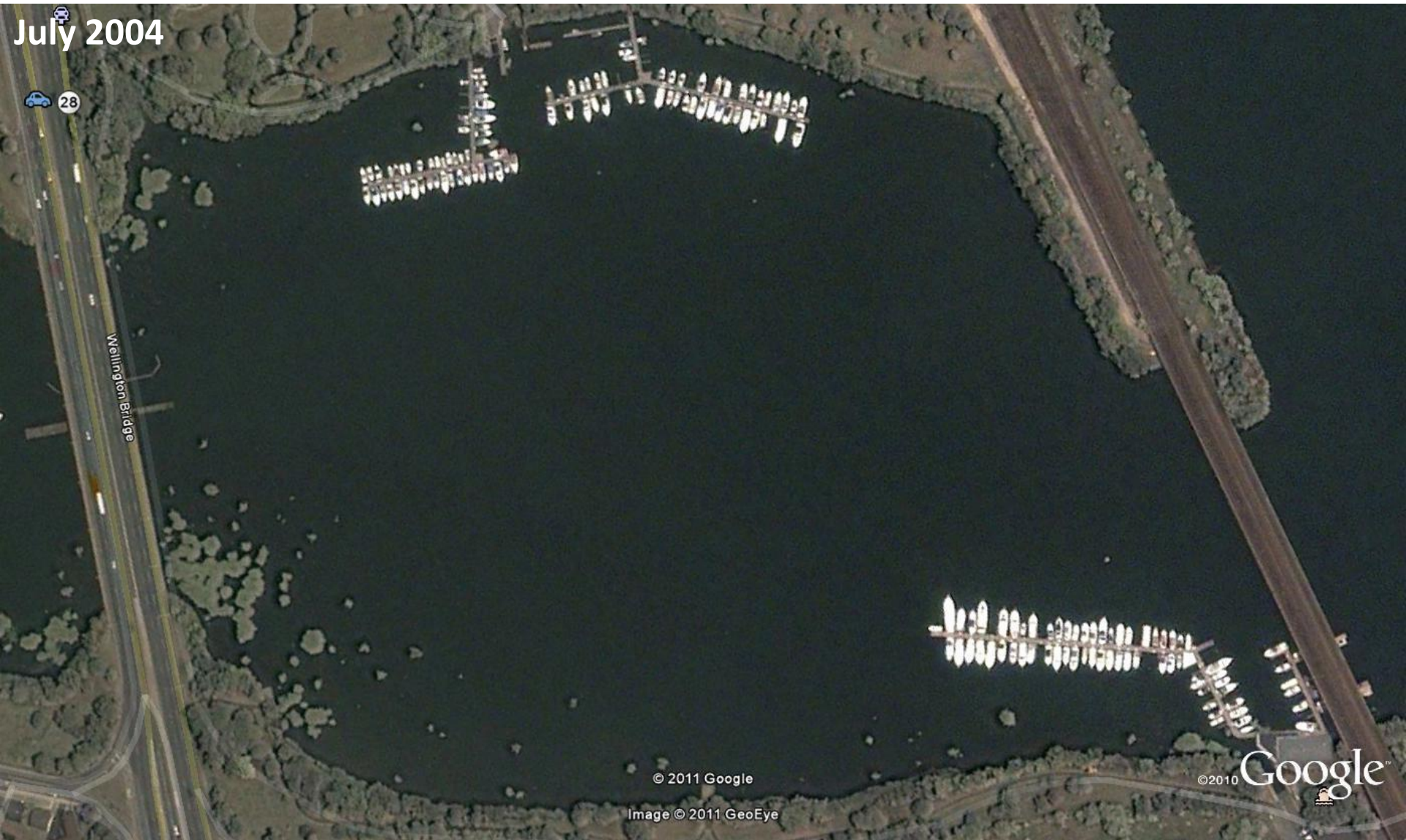
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Wellington Bridge

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July 2005

28

Wellington Bridge

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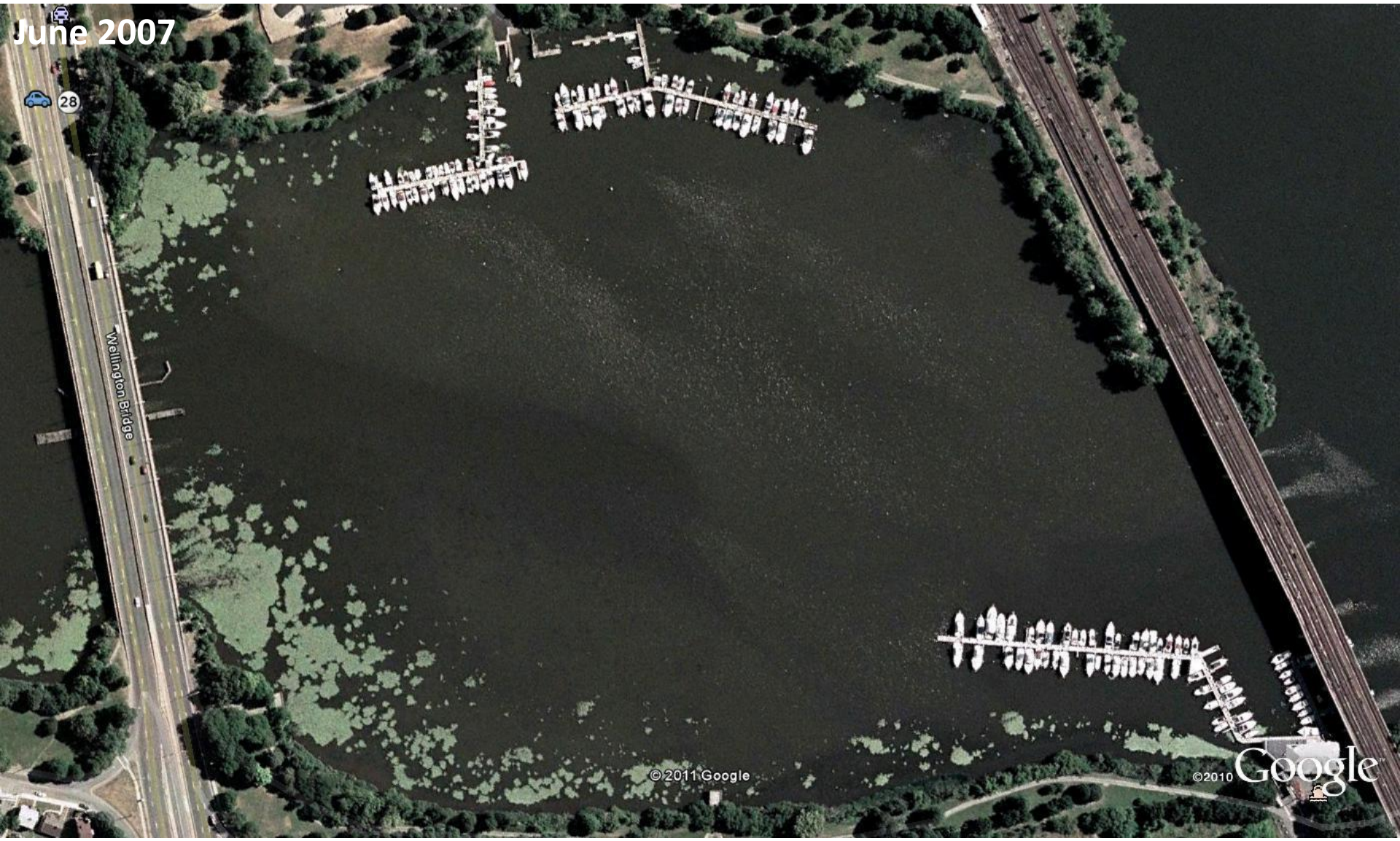
June 2007

28

Wellington Bridge

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June 2010



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Mystic River Water Chestnut Population 2001-2012

