

Presentation Title: Tiers of Permit Review

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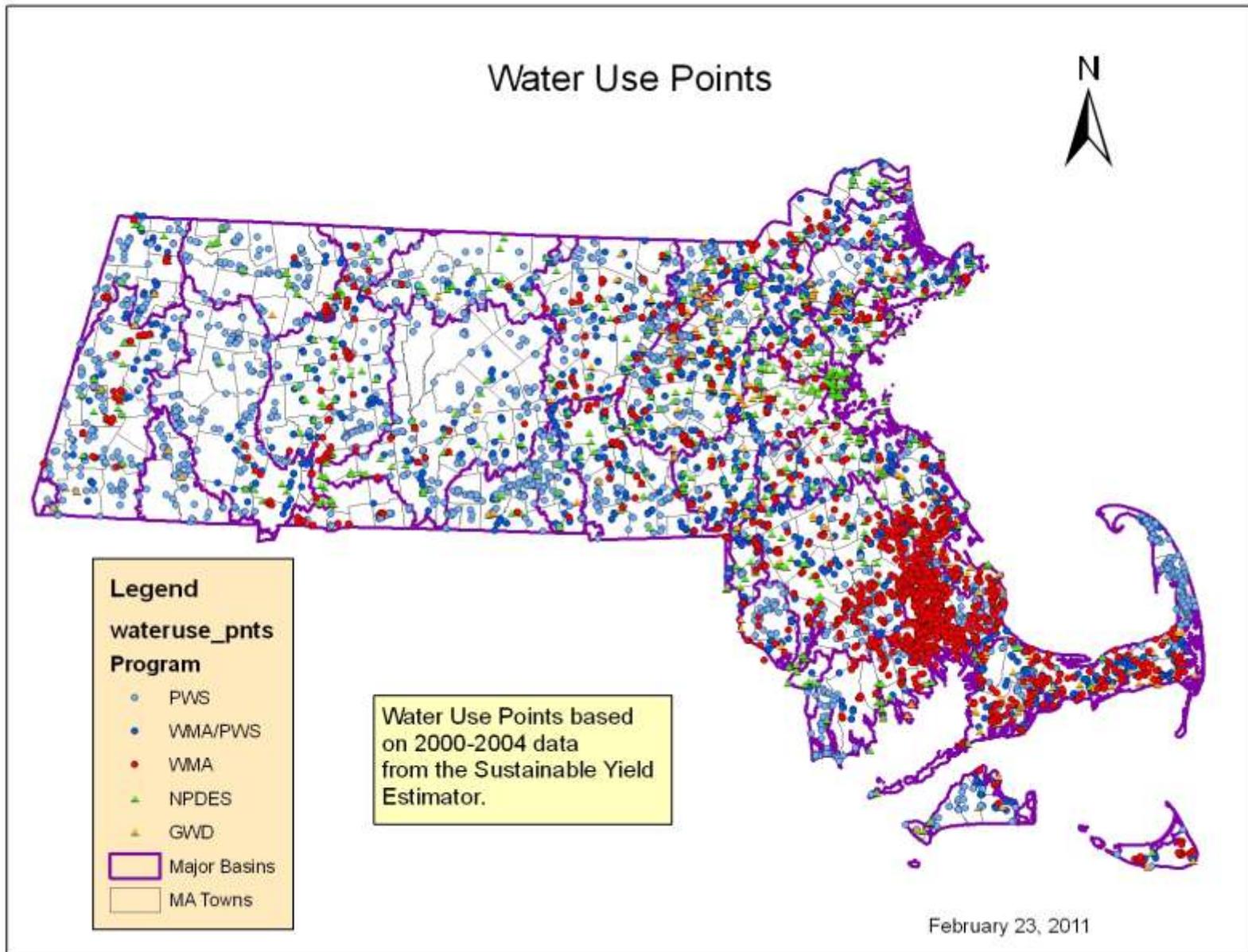
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WMA Existing Permit Conditions

1. Surface water and groundwater source protection
2. Firm yield analysis for PWS surface water impoundments
3. Wetlands and vernal pool monitoring
4. Performance standard: 65 residential gallons/capita/day
5. Performance standard: 10% unaccounted-for-water
6. Seasonal limits on nonessential outdoor water use
 - Calendar or stream flow trigger
7. Water conservation requirements
 - Water audits, leak detection, metering, pricing, residential and public sector including municipal buildings
8. Water withdrawal increases that exceed baseline
 - Offset Feasibility Study



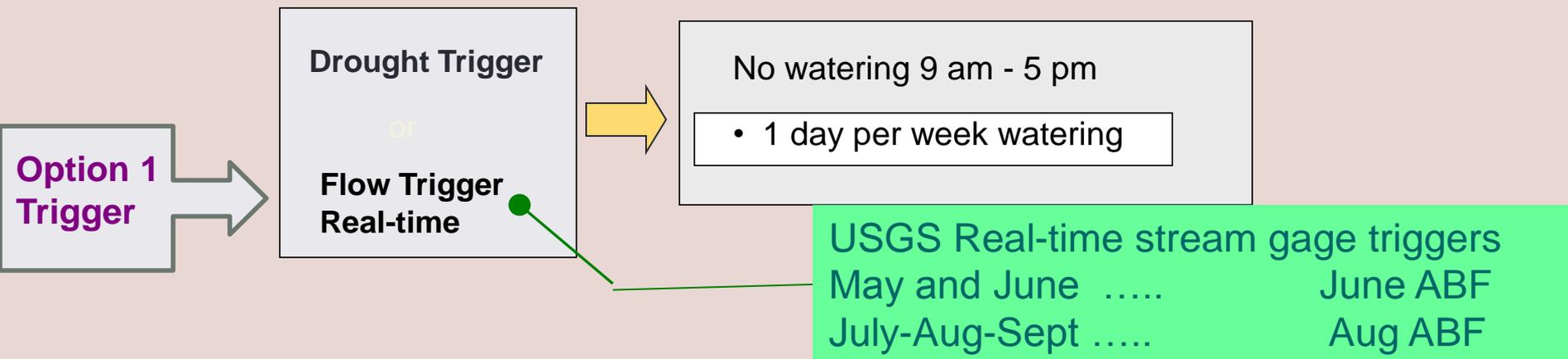
Limits on Nonessential Outdoor Water Use

Permit Requirement

Water Use Restriction Allowance on Withdrawals

May thru September

> 65 rgpcd



- If below 65 RGPCD, permittee implements their own plan with DEP minimums of nonessential outdoor water use from 9 am to 5 pm.
- Exemptions may apply to communities with seasonal populations and/or water supply reservoirs.

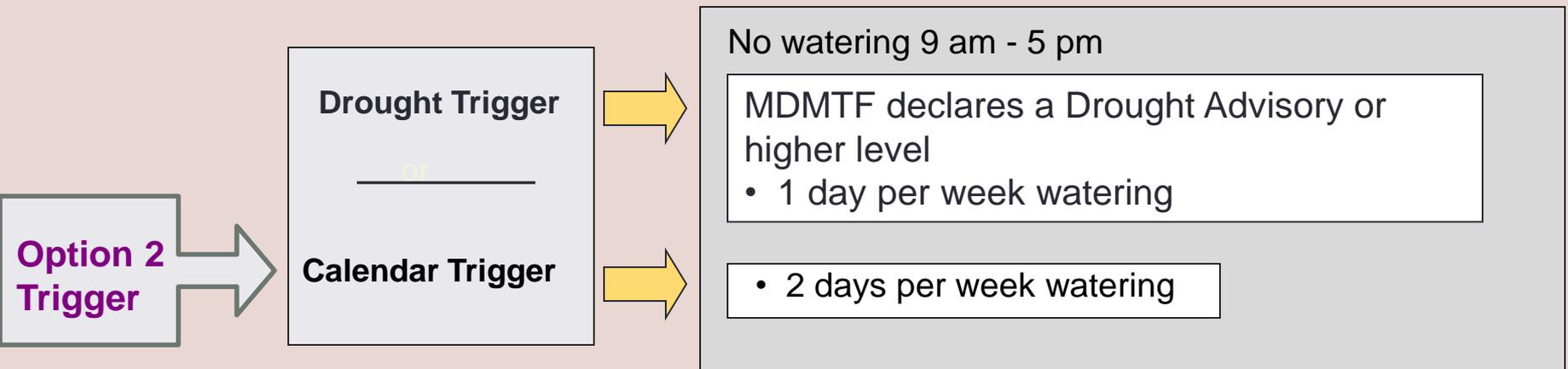
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Baseline Water Use

Whichever is greatest:

- 2005 water use
- 2003 – 2005 average water use, or
- registered withdrawal

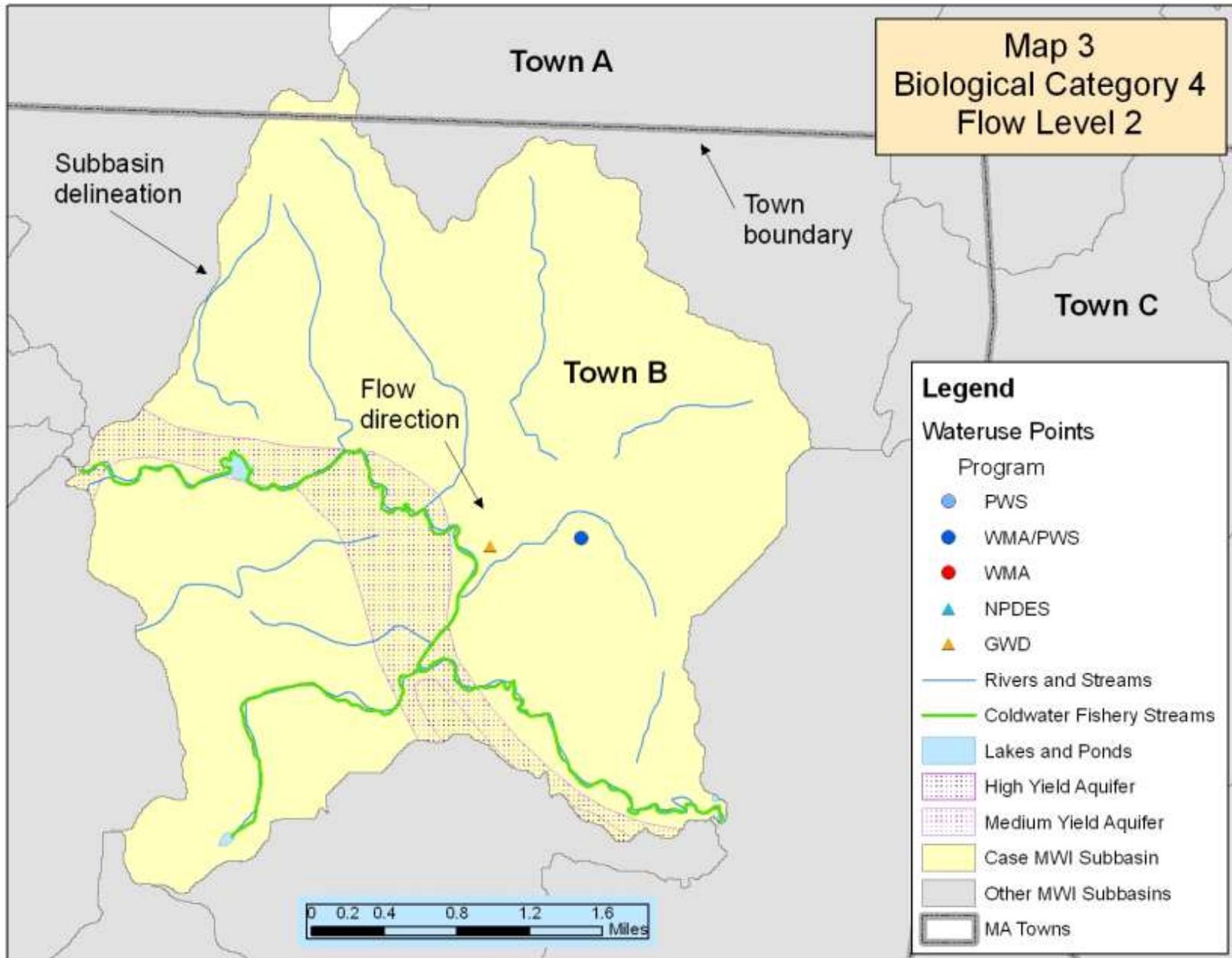
- First year exceeding baseline, permittee must develop an Offset Feasibility Study and conduct an analysis of the cost effectiveness of mitigations
- Second year exceeding baseline, permittee must implement selected mitigations

Stream Flow Criteria

Fluvial Fish Relative Abundance		% allowable alteration of estimated unimpacted median flow*				
Biological Category (BC)	August Percent Alteration	Flow Level (FL)	AUG	OCT	JAN	APR
1	< 5%	1	< 5%	< 5%	< 5%	< 5%
2	< 15%	2	< 15%	< 5%	< 5%	< 5%
3	< 35%	3	< 35%	< 15%	< 15%	< 15%
4	< 65%	4	Feasible mitigation and improvement			
5	> 65%	5				

- Existing PWS with alteration levels higher than those shown on the chart will be required to maintain and where feasible improve their flow level.

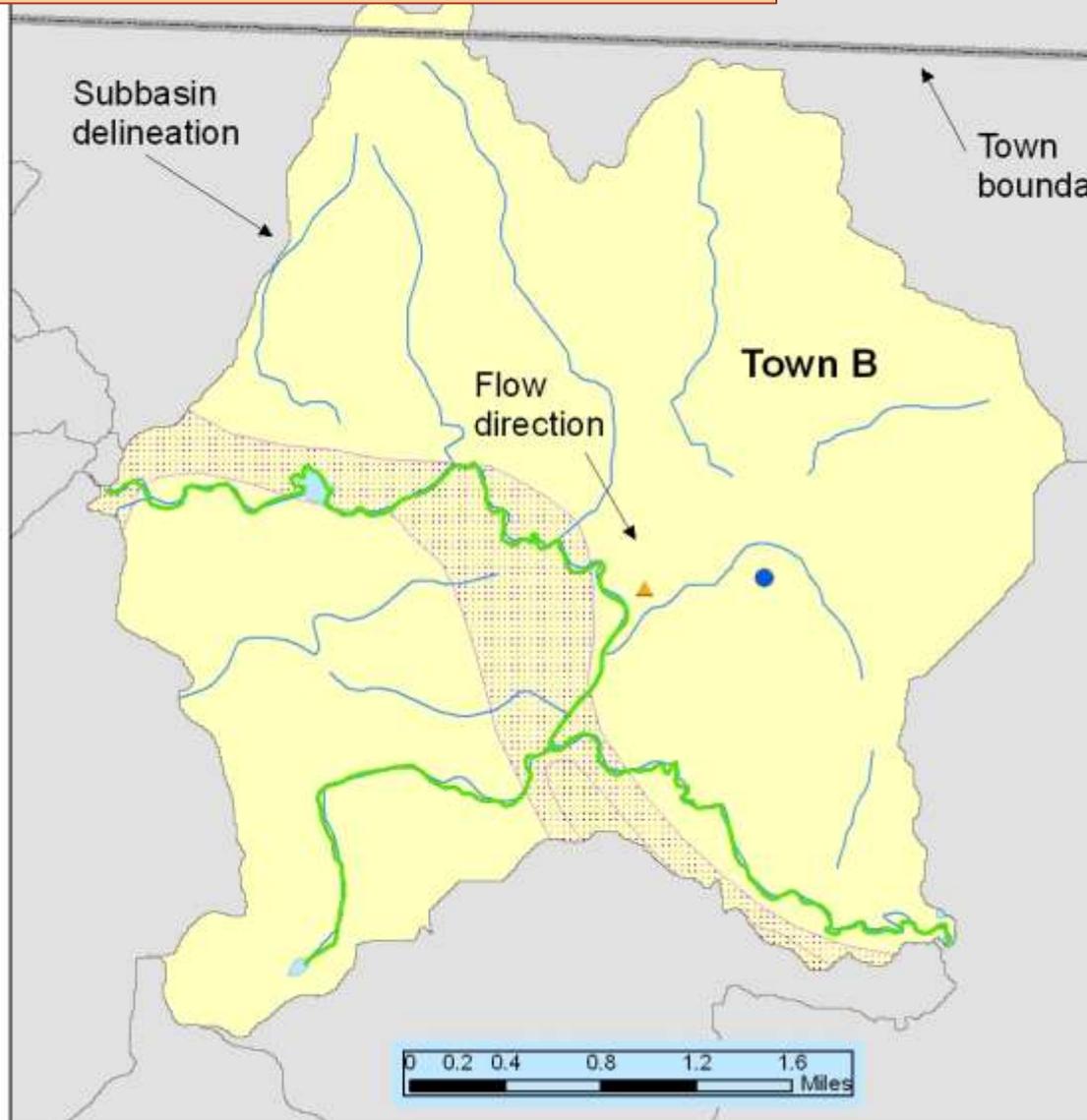
- *Surface water supplies will be evaluated through a separate metric.



Tier 1

No increase in withdrawal

- Permit conditions 1 – 8
- Conduct a pumping optimization evaluation



Case Example

BC/FL: 4/2

Local Drainage area: 11.09 sq.mi.

Nested Drainage area: 53.32 sq.mi.

Local Impervious cover: 6.05%

Nested Impervious cover: 4.79%

Estimated August percent alteration: -5.73%

Coldwater Fishery Resource present**Flow thresholds:**

- 0.47 mgd remaining in BC/FL category
- 0.44 mgd within 5% unaffected August median flow

Tier 2

Increase in withdrawal is above baseline but does not exceed either flow threshold

- + Consult with DEP/other agencies
- + Conduct an Offset Feasibility Study

Tier 3

Increase in withdrawal is above baseline and exceeds a flow threshold

- + Conduct an Alternative Analysis