

Fertilizer Management

DCPC

District of Critical Planning Concern



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COMMISSION

Fertilizer Management

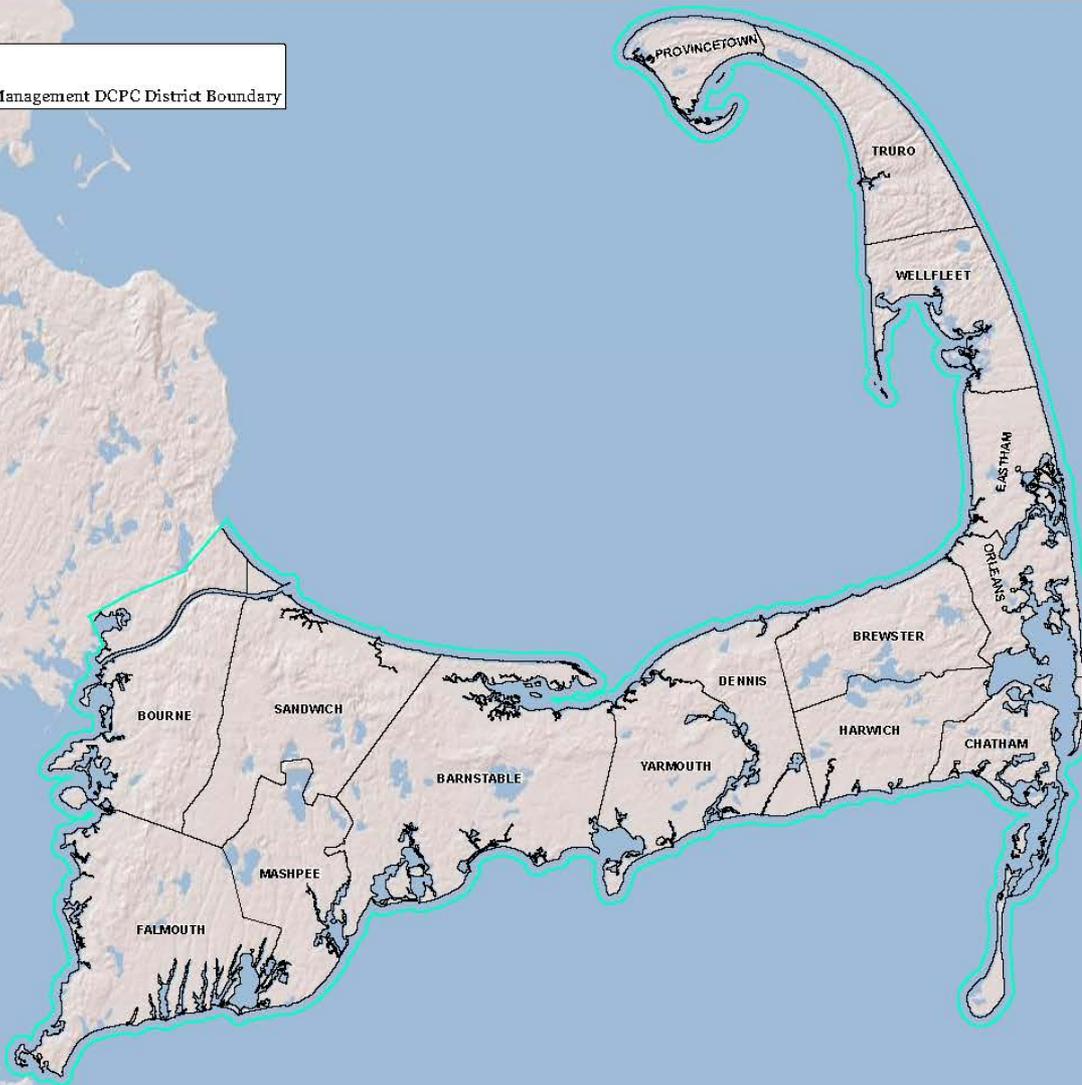
District of Critical Planning Concern



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- Self-Nominated by the Cape Cod Commission
- Proposed as a Cape-Wide DCPC
- Regulations in Falmouth & Orleans

Legend
 Fertilizer Management DCPC District Boundary



Document Path: P:\Data\FertilizerManagement\Barnstable\Year_2020\DCPC_District_Boundary.mxd

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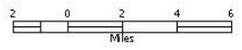
Fertilizer Management DCPC District Boundary

View: standard

Credits
 Esri, Inc. Copyright © 2013
 Esri, USGS, NOAA
 Data provided by: USGS

Note: The Fertilizer Management DCPC District Boundary includes the fifteen (15) towns which comprise Barnstable County.

Date: 7/17/2013



This information is general in nature and is not intended for planning purposes only. It is not adequate for legal boundary definition, regulatory, site preparation, or parcel data analysis. It should not substitute for actual on-site survey, or registered data research.



What is a DCPC?

- Unique Planning & Regulatory Tool
- DCPC Designation Protects & Promotes Resources or Values of Local or Regional Significance
- Administered by a Town or Towns through Implementing Regulations

Why is a Fertilizer DCPC Needed?



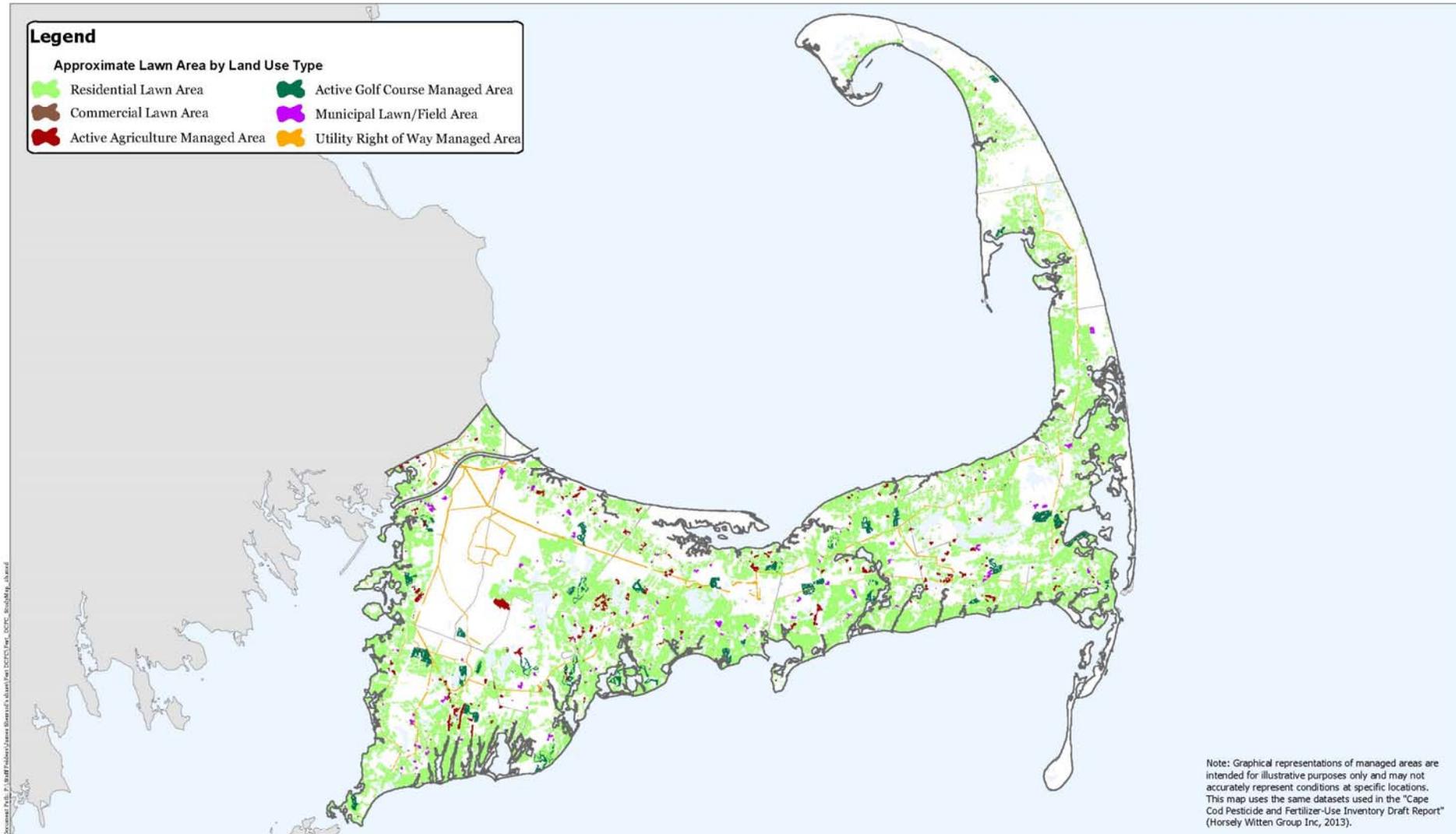
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- Excess Nitrogen has Impaired Water Quality, Caused Ecological Damage & Threatened Drinking Water
- Fertilizer (especially residential) is an Important & Controllable Source of Nitrogen

Legend

Approximate Lawn Area by Land Use Type

- Residential Lawn Area
- Commercial Lawn Area
- Active Agriculture Managed Area
- Active Golf Course Managed Area
- Municipal Lawn/Field Area
- Utility Right of Way Managed Area



Note: Graphical representations of managed areas are intended for illustrative purposes only and may not accurately represent conditions at specific locations. This map uses the same datasets used in the "Cape Cod Pesticide and Fertilizer-Use Inventory Draft Report" (Horsely Witten Group Inc, 2013).

Approximate Managed Lawn Areas by Land Use Type

The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel level analysis. It should not substitute for actual on-site surveys, or supersede field research.

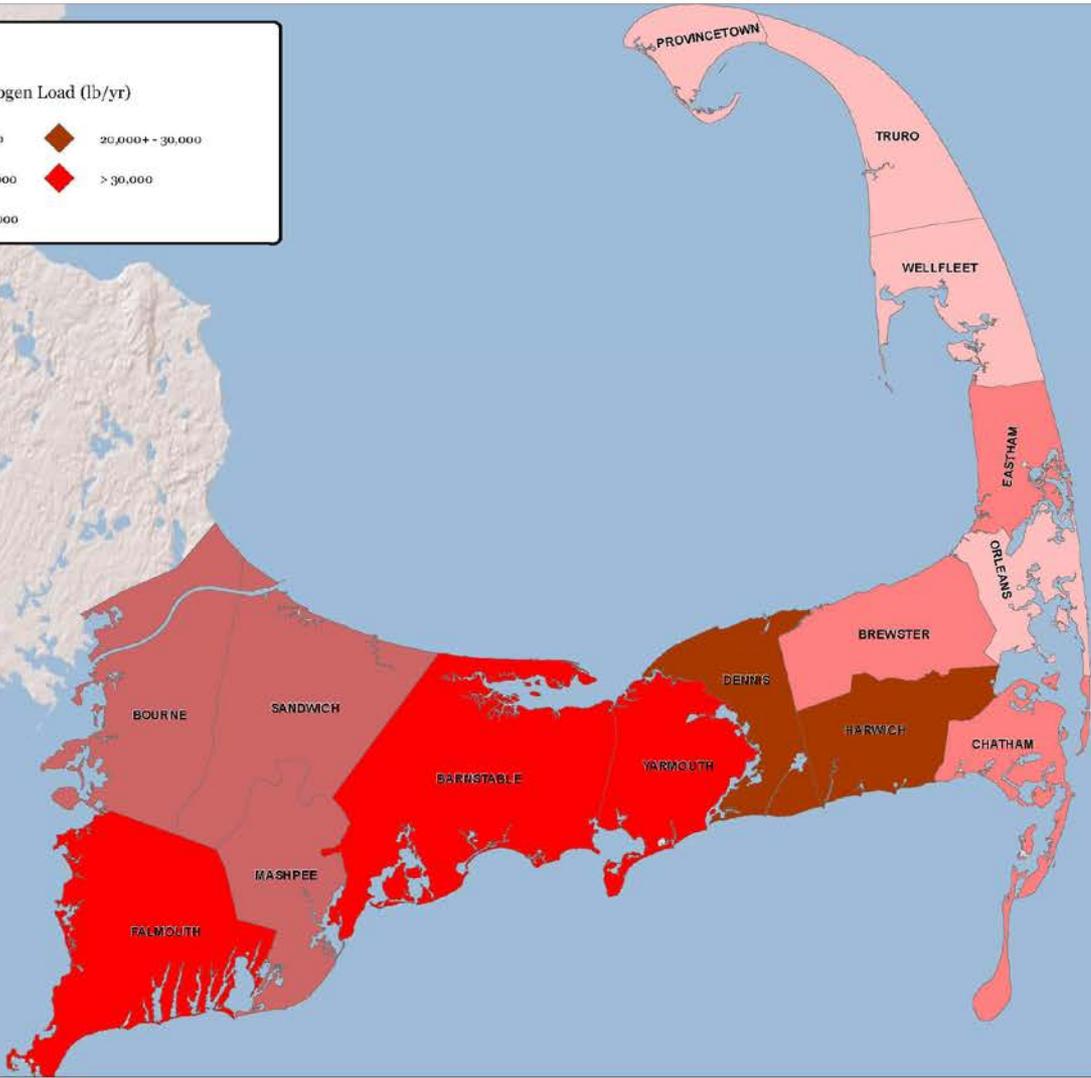
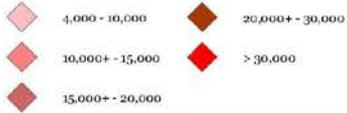
Scale: 1:50,000 Date: 12/07/2013

Credits: Datasets were developed by EDC (Harwich) with data from the CCCC, MA and DR, and the Cape Cod Cooperative Extension (Sue French, Trip Lenzel Cape Cod)



Legend

Total Fertilizer Nitrogen Load (lb/yr)



Note: This map uses data from the "Cape Cod Pesticide and Fertilizer-Use Inventory Draft Report" (Horsely Witten Group Inc, 2013).

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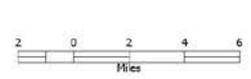
Total Fertilizer Nitrogen Load (lb/yr)

The information depicted on these maps is for planning purposes only. It is not adequate for legal boundary definition, regulatory decision-making, or parcel-level analysis. It should not substitute for actual on-site survey, or independent field research.

Scale: 1:50,000

City of
Brewster, Copyright © 2013
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Digitized by: MapInfo (C)

Date: 7/16/2013



Legend

Annual Nitrate Concentration Averages (mg/L)

- 0 - 0.5
- 1 - 2.5
- 0.5 - 1
- 2.5 - 5



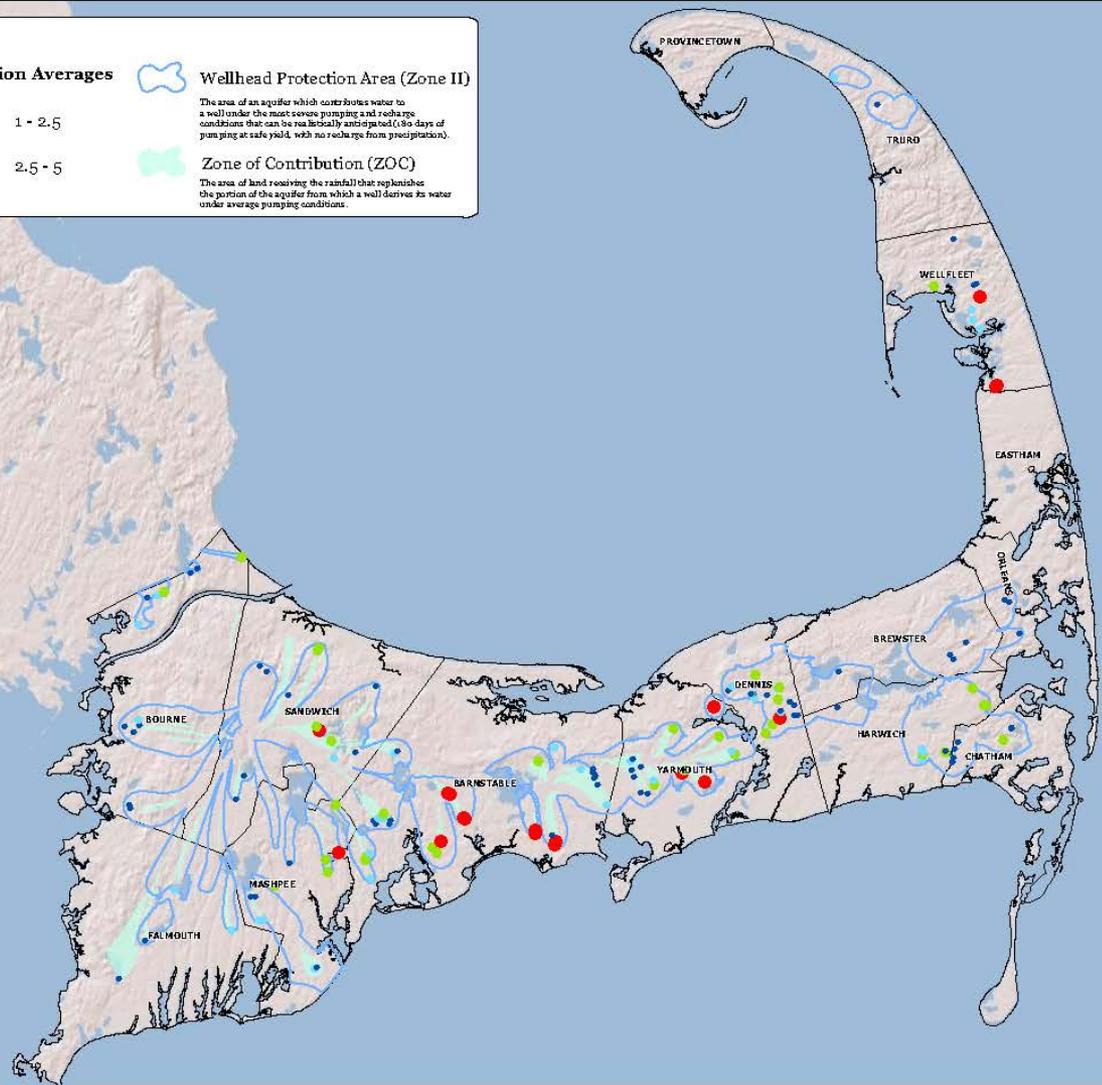
Wellhead Protection Area (Zone II)

The area of an aquifer which contributes water to a well under the most severe pumping and recharge conditions that can be realistically anticipated (100 days of pumping at safe yield, with no recharge from precipitation).



Zone of Contribution (ZOC)

The area of land receiving the rainfall that replenishes the portion of the aquifer from which a well derives its water under average pumping conditions.



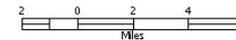
Note(s): More than one well from the same wellfield may be represented at a single sample location. Coordinates for a well may not be the exact location where the sample location exists.

Nitrate Concentrations in Cape Cod Public Supply Wells

Water: aquifer

Service Layer Credits: Copyright © 2012 Esri
Sources: Esri, DELO, NOAA
Data source: MassGIS, USGS, CDC

Date: 7/18/2012



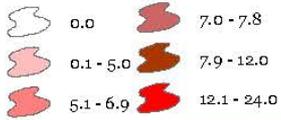
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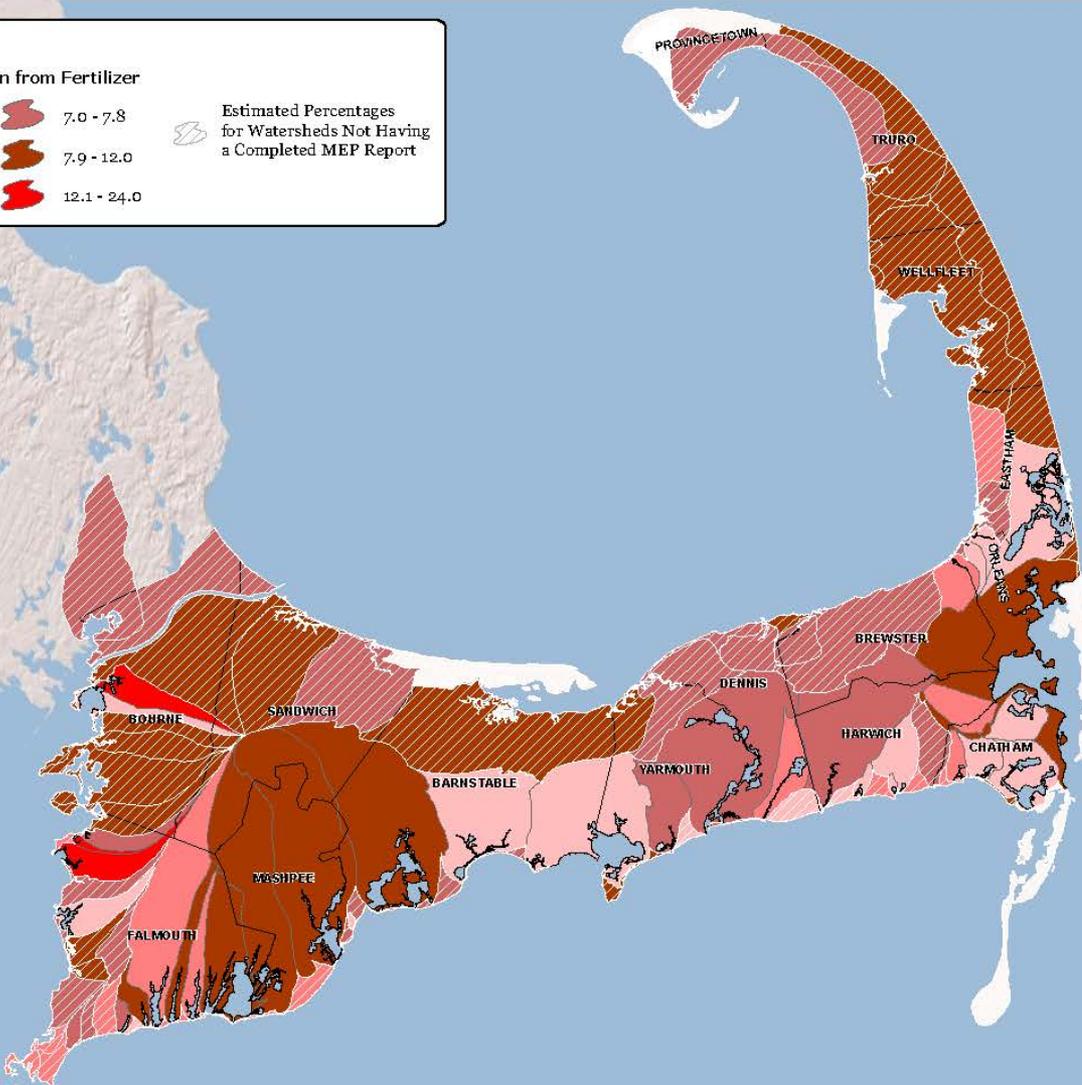
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Legend

Percent Nitrogen from Fertilizer



Estimated Percentages for Watersheds Not Having a Completed MEP Report



Note: Estimated fertilizer use is watershed based and is not parcel specific. Fertilizer data shown has been obtained from the Massachusetts Estuaries Project (MEP) Watershed Technical Reports. The data is available at <http://www.oceanscience.net/estuaries/reports.htm>. Values for watersheds without a MEP report were extrapolated from known data within completed reports.

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Document Path: P:\Data\Fisheries\James Stenhardt\New Year Data\2012\2012 Year_2012_StudyArea_1.mxd

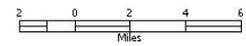
Total Nitrogen Load to Watershed from Fertilizer

This information is provided as a service to the public and is not intended for legal, boundary, or regulatory purposes. It should not substitute for actual on-site surveys, or represent the most current data.

Year: 2012

Credits:
 Base map: Copyright © 2012 Esri, Inc., USGS, NOAA
 Data layers: MeaGIS, ODC

Date: 9/12/2012



How Will a Fertilizer DCPC Help?



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Cost Effective & Efficient Nitrogen Reduction

- Education
- Best Management Practices
- Enforceable Regulations



Why Now?

- Recent Amendments to Chapter 128 of the Massachusetts General Laws
 - Massachusetts Department of Agricultural Resources has Exclusive Jurisdiction
 - Exception for Cape Cod Commission Act
 - January 1, 2014 Deadline

How Will a Fertilizer DCPC Work?



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- Approval of DCPC Designation
- Draft Model Bylaw – drafted by Cape Cod Commission Staff with input from Towns, UMass Extension Program & MA Dept. of Agriculture
- Voluntary Opt-In By Towns to Adopt Implementing Regulations



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Draft Model Bylaw

- Appropriate time, place & manner restriction on applications
- Exemptions
 - Agricultural & Horticultural Uses
 - Establishment of New Turf

If the Nomination is Accepted – Next Steps



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- CCC Public Hearing
- CCC Will Vote on Proposed DCPC Designation
- AOD Adoption of Designation by Ordinance
- Town Adoption of Implementing Regulations
- CCC Certification of Implementing Regulations