

NEWEA 2018 Annual Conference & Exhibit

Promoting Sustainable Land Use Development: A Case Study

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Building Strong Client Relationships Through Engineering Excellence

NEWEA 2018 Annual Conference & Exhibit

- Why is a Sustainable/Resilient Design Important?
- What is a Sustainable/Resilient Design?
- What is Green Infrastructure and Low Impact Development?
- Case Study: Yentile Farm Recreational Facility

Why is a Sustainable/Resilient Design Important?

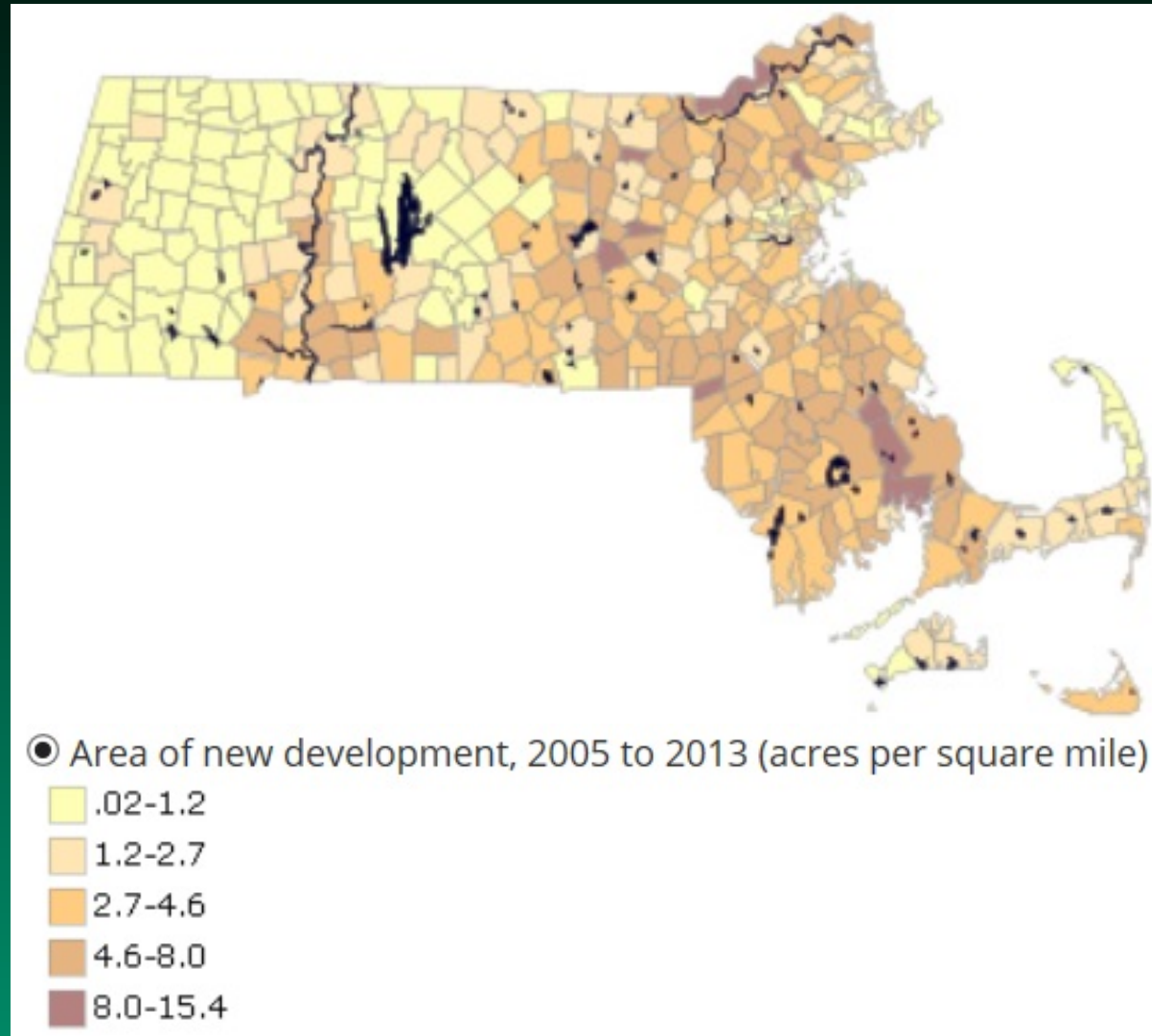


Photo from: Mass Audubon

What is a Sustainable/Resilient Design (also called Conservation Design)?

A Sustainable design first begins by looking at the triple bottom line (or the 3 P's).



What is a Sustainable/Resilient Design (also called Conservation Design)?

A Sustainable design looks at the following:

- Existing characteristics
- Zoning requirements
- Concentrating the development away from environmentally sensitive features
- Implementing Green Infrastructure (GI) and Low Impact Development (LID) techniques in the design

What is Green Infrastructure (GI) and Low Impact Development (LID)?

Green Infrastructure (GI) includes both natural features (forests and wetlands) as well as engineered landscapes that mimic these natural processes (i.e. rain garden)

Low Impact Development (LID) works to preserve the natural landscape and minimize impervious surfaces to keep stormwater close to the source and use it as a resource.

Case Study – Wilmington Yentile Farm



Case Study – Wilmington Yentile Farm

The Town purchased the parcel in 2012



Case Study – Wilmington Yentile Farm

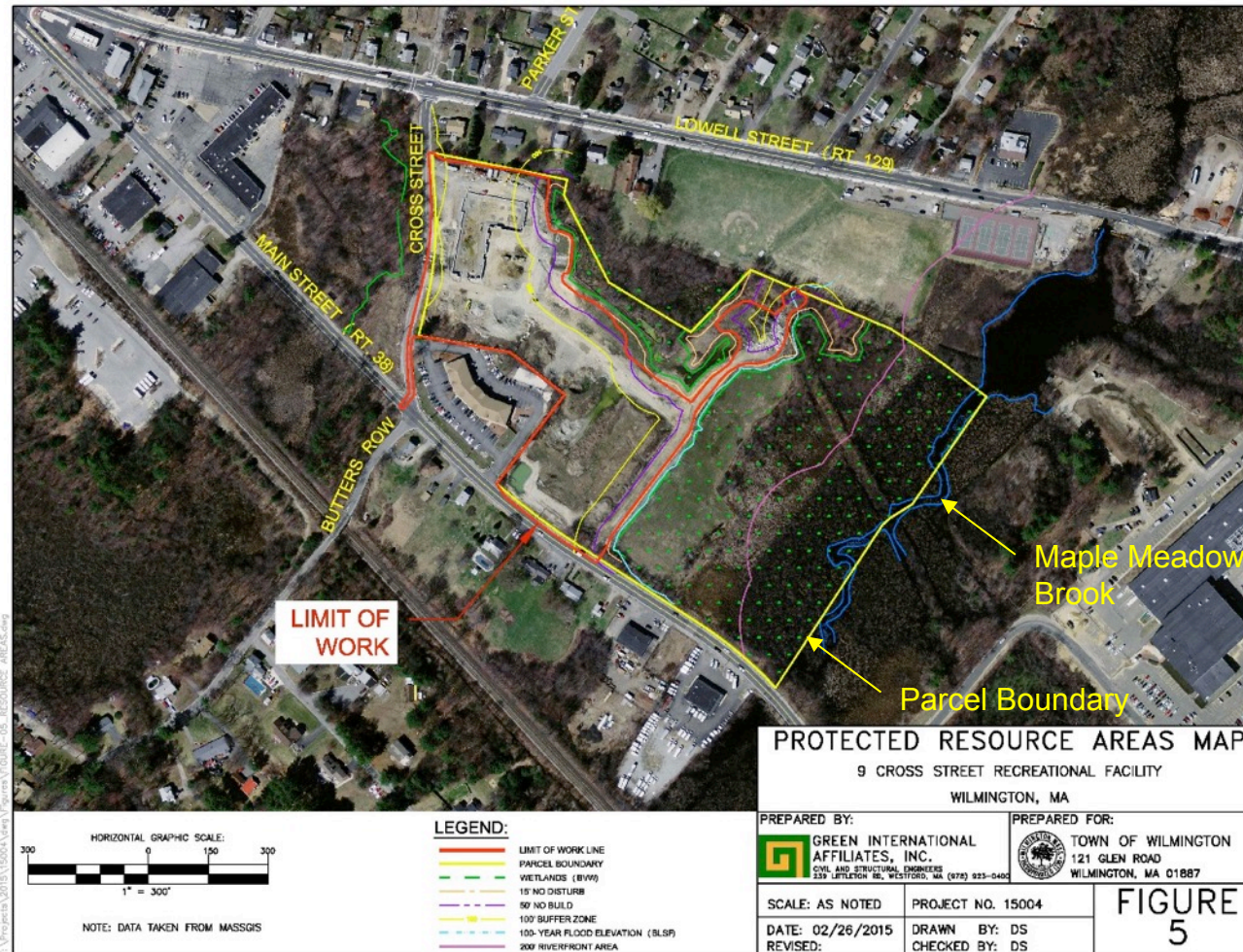
Environmental Sustainable principles incorporated with the design:



1. Protecting Land and Ecosystems
2. Include LID stormwater management systems
3. Landscape the site appropriately
4. Creating Habitat
5. Removing Invasive Species

Case Study – Wilmington Yentile Farm

Protecting Land and Ecosystems:



Case Study – Wilmington Yentile Farm

Include LID stormwater management systems:



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Include LID stormwater management systems:



Case Study – Wilmington Yentile Farm

Landscape the site appropriately & Creating Habitat:



Drought tolerant plants within Rain Garden



Swamp milkweed (*asclepias incarnate*) –
Monarch Butterfly

Case Study – Wilmington Yentile Farm

Economic Sustainable Principles:



Case Study – Wilmington Yentile Farm

Economic Sustainable Principles:



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Economic Sustainable Principles:



Case Study – Wilmington Yentile Farm

BSCES Sustainability in Civil Engineering Award 2017



Case Study – Wilmington Yentile Farm



Questions?

