

Protecting the Campus Ecosystem and Watershed

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Introduction

The University of New Hampshire's Landscape Master Plan was last updated in 2004 for the purpose of "establishing design guidelines and landscape standards that foster sustainable design and management practices." This was done with a focus on opportunities for landscape preservation, restoration and enhancement practices across campus.

The UNH Ecosystem Task Force has been reevaluating the landscape management practices and policies on campus through the lens of climate change impacts, considering the value of ecosystem services as they relate to landscape and grounds best management practices.

Objectives

The primary objective of the 2018 update to the Landscape Master Plan is to systemically reframe UNH's approach to landscape planning, design and management practices in order that it may reflect industry and academic standards for resiliency and sustainability. Specifically, this includes but is not limited to:

- Comprehensive Stormwater Management Plan
- Comprehensive Landscape Management Plan
- Establishment of Ecosystem Taskforce as LMP Steward
- Resource Allocation Advocacy

What is IPM?

Integrated Pest Management is a science-based approach that combines a variety of techniques. By studying their life cycles and how pests interact with the environment, IPM professionals can manage pests with the most current methods to improve management, lower costs, and reduce risks to people and the environment.

IPM tools include:

- Alter surroundings
- Add beneficial insects/organisms
- Grow plants that resist pests
- Disrupt development of pest
- Prevention of pest problem developing
- Disrupt insect behaviors
- Use pesticides

1 IDENTIFY/MONITOR

Determine the causal agent and its abundance (contact your local extension agent for help).

2 EVALUATE

The results from monitoring will help to answer the questions: Is the pest causing damage? Do we need to act? As pest numbers increase toward the economic threshold, further treatments may be necessary.

3 PREVENT

Some pest problems can be prevented by using resistant plants, planting early, rotating crops, using barriers against climbing pests, sanitation, and sealing cracks in buildings.

4 ACTION

IPM uses multiple tools to reduce pests below an economically damaging level. A careful selection of preventive and curative treatments will reduce reliance on any one tactic and increase likelihood of success.

5 MONITOR

Continue to monitor the pest population. If it remains low or decreases, further treatments may not be necessary, but if it increases and exceeds the action threshold, another IPM tool should be used.

WHERE CAN YOU PRACTICE IPM?



Buildings and Homes:
Inspect, identify pests, keep pests out, clean to deny pests food and water, vacuum, trap, or use low-risk pesticides.



Farms:
Check for pests/pest damage regularly, identify accurately, choose pest-resistant plant varieties, encourage/introduce beneficial insects, time planting to avoid pests, and if needed use low-risk pesticides.



Managed Natural Systems:
Identify the pest and use management options that have minimal risks to pollinators, humans, and pets.

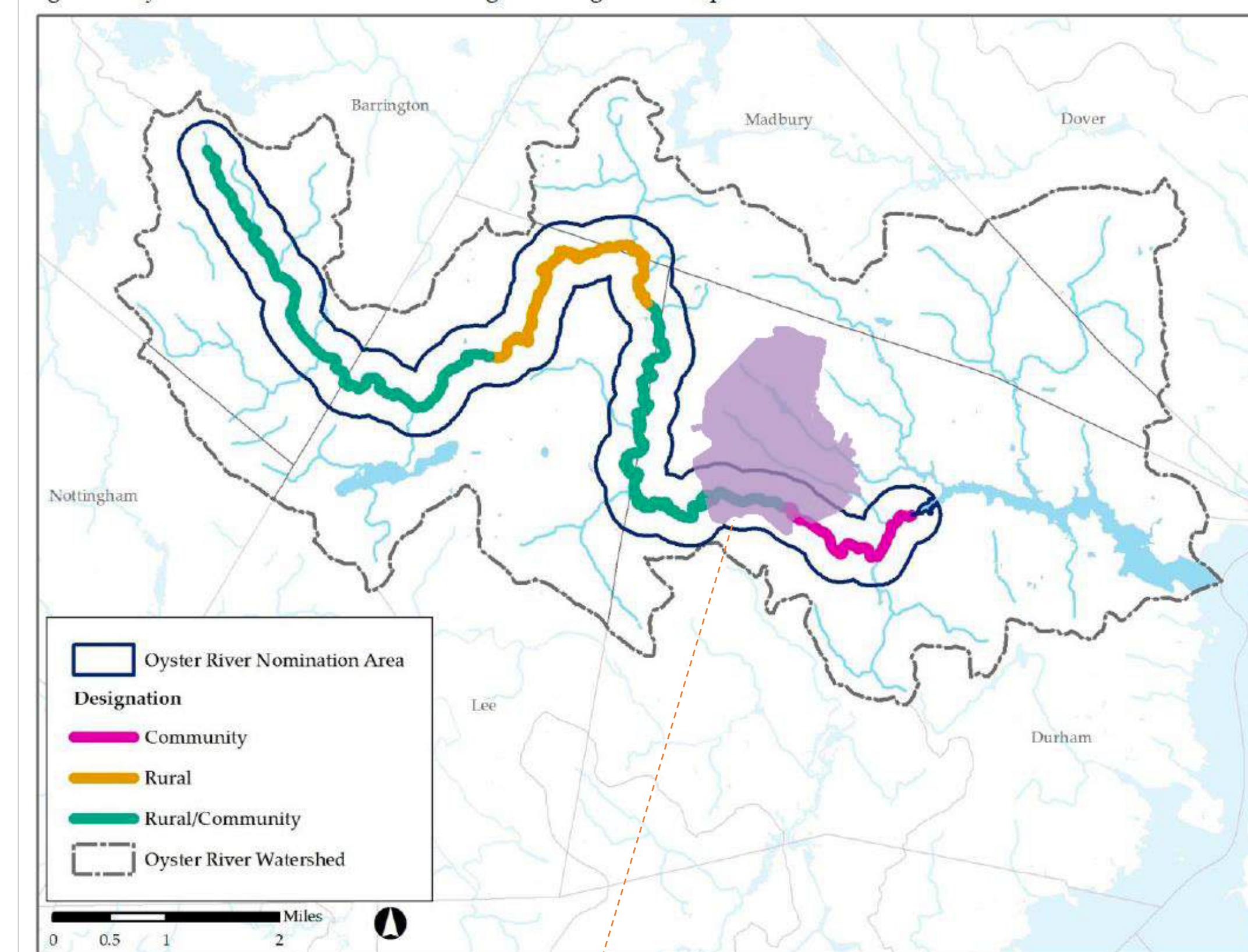


The Entomological Society of America is the largest organization in the world serving the needs of entomologists and other insect scientists. ESA stands as a resource for policymakers and the general public who seek to understand the importance and diversity of earth's most diverse life form— insects. Learn more at www.entsoc.org.

UNH and the Oyster River Basin

Stormwater Management and Watershed Health

Figure 1: Oyster River Watershed and Designated Segments Map



[Source: Strafford Regional Planning Commission, 2014]



- UNH footprint encompasses a large portion of the Oyster River Basin and Watershed, which feeds into Great Bay
- Campus must be assessed in terms of its systems, water being the most prominent one
- On-campus expertise is well poised to make planning, design, management and policy recommendations
- Grant funding has been utilized in the past and can be leveraged to create real change in the future

Approach

I have spent the summer meeting with a variety of stakeholders on campus, including experts from the UNH Stormwater Center, UNH Cooperative Extension, Grounds and Facilities, Campus Planning, as well as the prominent landscape architect who has done much of the landscape design work at UNH.

Additionally, I have worked alongside the Sustainability Institute in concert with these stakeholders at Ecosystem Task Force meetings to brainstorm around barriers to implementation.

Findings

- 10-15 years of annual budget cuts for Grounds and Facilities
- Damaged relationships amongst in house experts
- Lack of shared vision for ideal campus landscape
- Loss of dedicated EcoTF members
- General acceptance of stagnation regarding resource allocation
- Missing mechanisms for transfer of information
- Lack of stewardship and governance consensus

Ongoing Considerations

For an updated Landscape Master Plan to function as a living and dynamic document, there must be a dedicated interdisciplinary group of in house experts committed to its stewardship. The EcoTF is well poised to fill this need as the primary steward, developing governance mechanisms to hold relevant parties accountable, advocate for sufficient resource allocation, and create a cultural shift from one that views the campus landscape as a stage for campus life to one that understands it as a highly valuable asset to the University requiring serious planning, design and management considerations.

