

Sustainable Trail Design

EUS 305: EUS Practicum

Sustainable Trail Design:

Jot down a summary of Last Class

- Write these on the same paper you wrote the homework on (5+ problem areas for pedestrians/ cyclists in the Tivoli, Bard, and Red Hook areas).
- What was one new concept for you last class?
- What's one objective of the course?
- How did the activities from last class meet that course objective?
- **BLACKOUT BINGO!**

BLACKOUT BINGO

Someone with the trail name "Tree Beard"	Someone who has studied a parking lot	Someone whose trail name would be "Dewlap"	A film major (FREE!)	Someone with the trail name "Trail Mix"
Someone interested in the ecological aspects of trails	Someone with the trail name "Chipmunk"	A cross country runner	An EUS major	Someone interested in the economic aspects of trails
Someone who runs from Tivoli to campus on the Tivoli Bays trails	Someone who has spent a lot of time in Burlington, VT	FREE!	A dance major	Someone who wants to bring their dog on our field trips
Someone interested in the construction/maintenance aspects of trails	Someone whose trail name comes from Lord of the Rings	Someone who likes critter-friendly trails	A chemistry major	Someone interested in the social/psychological aspects of trails
Someone with the trail name "Trial Trail"	Someone with the trail name "One More Mile"	Someone with the trail name "Cool Cat"	A biology major	Someone who hiked all summer with Jasper

BLACKOUT BINGO

Jasper (Francois)	Wendi	Isaiah	-our film major opted out-	Avery
(many!)	Nikita	Hannah	(many!)	(many!)
Olivia	Ella, Tom	FREE!	Miguel	(many!)
(many!)	Tom	Rock, Tom	Vita	(many!)
Duncan	Nick	Clara	Rock	Xaver

Review Last Class

- Sustainable (the 3- or 4-legged stool):
 - Ecological (Planet)
 - Economical (Profit)
 - Equitable (People)
 - *Enduring (Permanent)*



Review Last Class

- Trail (“solvitor ambulando”)
 - Foot/Pedal Transportation (Pedestrian)
 - Hiking Trails vs. Herd Paths and Social Trails
 - Bike Lanes vs. Multi-Use Trails
 - Rail Trails vs. Rails w/ Trails
 - Leisure vs. Commute

Review Last Class

- Design
 - Intention
 - Invention
 - Planning
 - Drawing
 - Mapping
 - Modeling
 - Creating
 - Constructing (architects, engineers, planners)

Your Experience/Knowledge

- Walking/Running/Hiking/Biking Experience
- Volunteering/Gardening Experience
- Types of trails: Rural/Urban, Bike/Hike
- Interested in Conservation/Design

Exciting?

- Yes/Yes for an introductory day; 7/10
- Photos of trails
- Hearing people's/professor's interests/participation/sharing!
- Learning about the class
- Prospect of being in nature; Future hikes/explorations! Places we can go/things we can do
- Prospect of learning about trails

Confusing?

- Not much/Nothing/No/Not; 0/10
- A little worried about how little I know
- Assignments
- Structure of semester
- Slides we didn't get to see
- Terms used
- How to use a level

Want to learn more about?

- Trails in the area
- Philosophy of trail building
- Ecological impact/environmental cost of trails
- Wildlife surrounding trails
- Trails: process & policies & placement & funding
- Environmental Psychology
- Trail building techniques
- Getting out and actually work on trails
- All different types of sustainable trails
- Design/Designing Trails

Assignments - Overview

To achieve the course goal and objectives, each student will complete the following:

1. Case Study
 2. Field Study
 3. Volunteer for a sustainable trail organization
 4. Final Project
- Students will also complete various in-class and homework assignments and readings to satisfy the participation requirement (free-writes, group/individual quizzes, charrettes, etc.).

Assignment 1: Case Study

- Pick a hiking trail, rail trail, or multi-use trail to study
- Analyze its layout, design, construction, maintenance, wayfinding, interpretation
- Analyze its impacts on the economy, environment, and society
- Make a slide show of 5-10 slides, with captions, to present to the class

Assignment 1: Case Study

- Tom has a list OR choose one from a list of the “[world’s best hikes](#)” (VIRTUAL) OR a hike from your hometown
- 5-10 Photos: preferably at least one showing each:
 1. Layout/design
 2. Construction
 3. Maintenance
 4. Wayfinding
 5. Interpretation
 6. Economic impact
 7. Environmental impact
 8. Societal impact
 9. Something/someone cool that has been on the trail
 10. Bonus: Selfie on trail! OR: Surprise me
- Captions have to explain each photo in 2-3 sentences

CITE YOUR SOURCES!

(In the captions. Photos/info.)

O’Dowd, Tom. Lecture Slides.
Bard College. Retrieved from
the web 9/2/2015.

Assignment 2: Field Study

- Pick a hiking trail, rail trail, or multi-use trail to visit
- Observe its layout, design, construction, maintenance, wayfinding, interpretation
- Take 5-10 photos of the trail, capturing your observations
- Make a slide show of 5-10 slides, with captions, to present to the class

Assignment 2: Field Study

- Tom has a list OR choose one from the [Hudson River Valley RAMBLE list](#) OR choose your own
- 5-10 Photos: preferably at least one showing each:
 1. Layout/design
 2. Construction
 3. Maintenance
 4. Wayfinding
 5. Interpretation
 6. Economic impact
 7. Environmental impact
 8. Societal impact
 9. Something/someone cool you saw on the trail
 10. Selfie on trail!
- Captions have to explain each photo in 2-3 sentences

Assignment 3: Volunteer

- Pick a hiking, rail trail, or transportation organization to assist
- Arrange for 8 hours of volunteering
- Take 5-10 photos of your work (you w/supervisor, w/tools, & in action, etc.)
- Make a slide show of 5-10 slides, with captions, to present to the class

Assignment 3: Volunteer

- Tom has a list OR find your own (1-3 organizations depending on your schedule); Plan travel w/Tom
- 5-10 Photos: preferably at least one showing each:
 1. You with supervisor
 2. Supervisor evaluation form (checkboxes & signature)
 3. You with other employees/volunteers, clients/passersby
 4. You with tools (hammers, levels, clipboards, maps, etc.)
 5. You doing work (digging, drawing, tabling, etc.)
 6. Something else related to layout/design
 7. Something else related to construction/maintenance
 8. Something else related to wayfinding/interpretation
 9. Something else related to how the trail is sustainable
 10. Something cool you saw/experienced
- Captions have to explain each photo in 2-3 sentences

Assignment 4: Final Project

- Pick a hiking trail, rail trail, or transportation problem to address
- Work with the org. to define the problem
- Write chapters on layout/design, construction, maintenance, wayfinding, interpretation, as well as the econ., envi., and social implications
- Include maps+other images (photos/drawings)
- Critiques will lead to a final document.
- Make a slide show of 5-10 slides, with captions, to present to the class

Assignment 4: Final Project

- Tom has a list of projects OR you can propose your own
- Produce a document with 5-10 Chapters covering each of the following:
 1. Layout/design
 2. Construction
 3. Maintenance
 4. Wayfinding
 5. Interpretation
 6. Economic impact
 7. Environmental impact
 8. Societal impact
 9. Photos/drawings (before/after, specifications, aerial, etc.)
 10. Map(s)—GIS? Google Earth? Other?
- Create a 10-minute/10-slide Final Presentation

Assignments - Overview

Choose a Trail for Case Study:	9/8
Choose a Trail for Field Study:	9/10
Volunteer Proposal Due:	9/22
Case Study Due (15%):	9/29
Field Study Due (20%):	10/1
Case Study Presentations:	10/6
Field Study Presentations:	10/8
Final Project Proposals Due:	10/27
Volunteer Projects Due (25%):	11/3
Final Project chapters Due:	11/5-11/17
Volunteer Project Presentations:	11/10
Final Project 2 nd Draft Due:	11/19
Final Project Final Draft Due (30%):	12/8
Final Project Presentations:	12/8-12/10

Participation (10%)

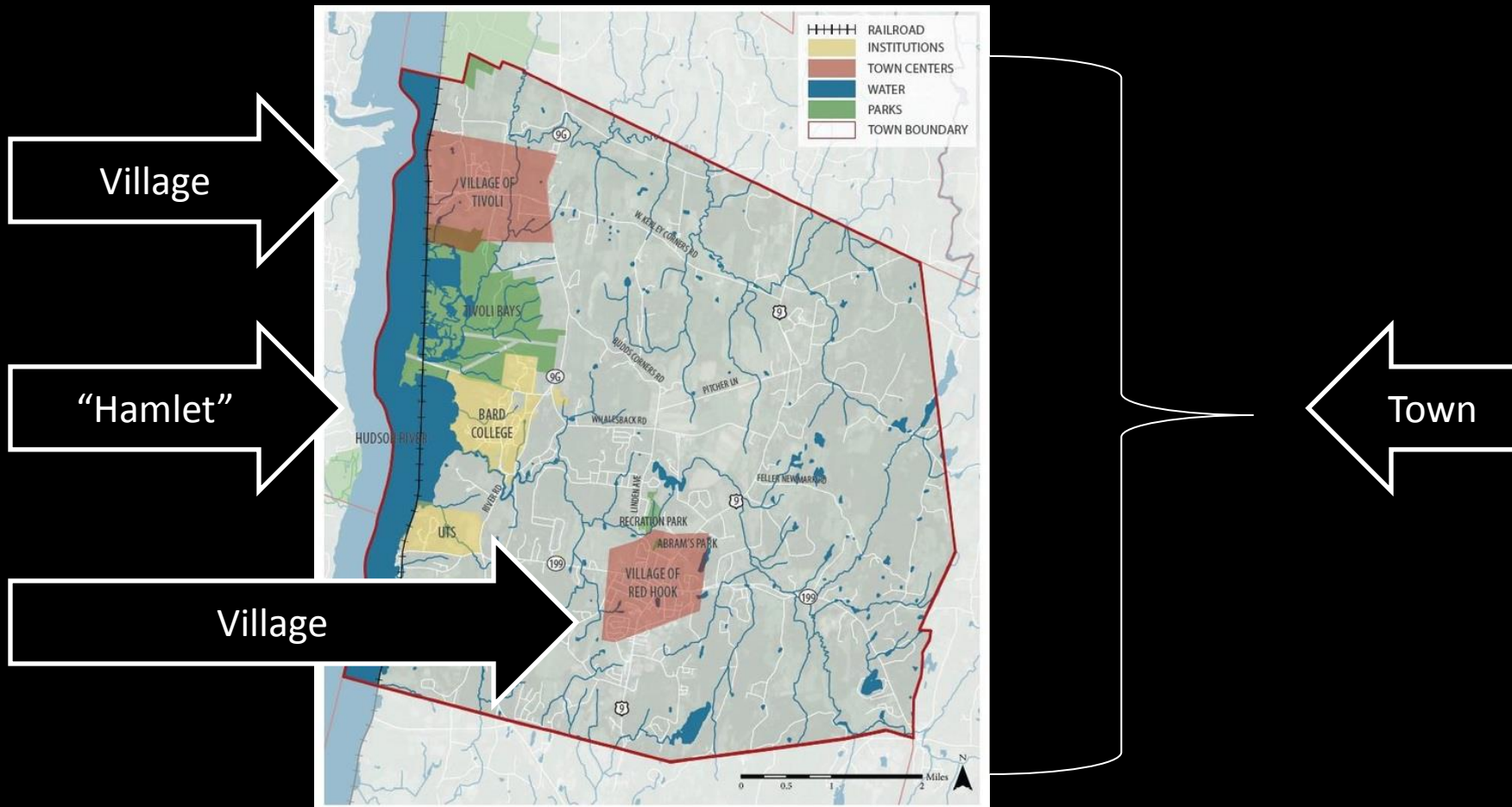
- Students will also complete various in-class and homework assignments and readings to satisfy the participation requirement (free-writes, group/individual quizzes, charrettes, etc.).
 - Ex: I wrote this several times in the syllabus:
“List & Define Top 10 concepts from reading”
 - List: Will there always be ten? Try to find them.
 - Define: in your own words. 1-3 sentences.
 - Bonus: draw the concept/technique/tool!

Red Hook Town-Wide Trail Plan

Represent Bard student perspectives
on trails from Tivoli to Bard
to the Village of Red Hook

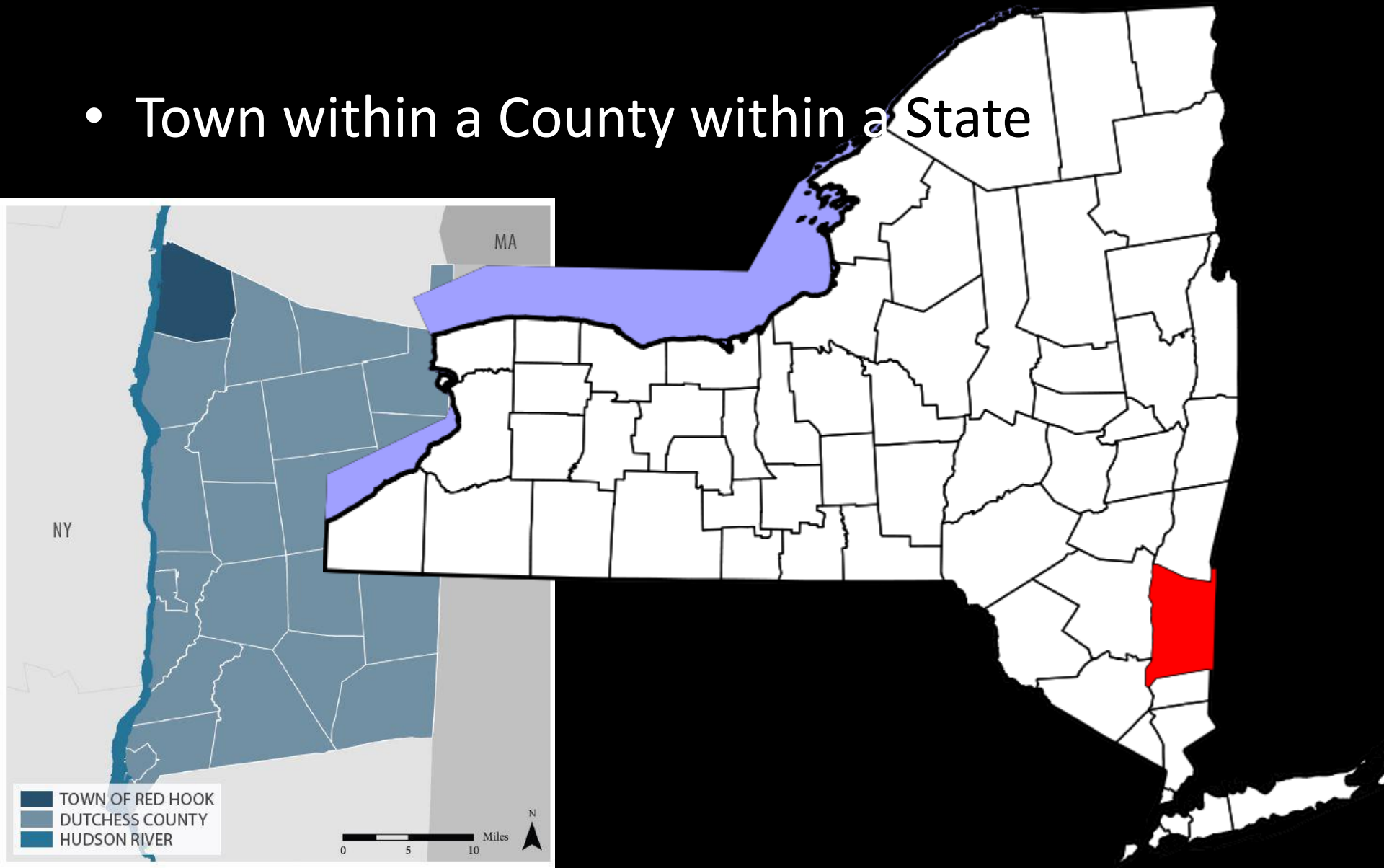
Red Hook Town-Wide Trail Plan

- Town of Red Hook vs. Village of Red Hook



Red Hook Town-Wide Trail Plan

- Town within a County within a State



Red Hook Town-Wide Trail Plan

- Town of Red Hook Greenway & Trails Committee

SMCCANN@REDHOOK.ORG

TOWN OF RED HOOK GREENWAY AND TRAILS COMMITTEE
RED HOOK TOWN HALL, RED HOOK, NY monthly report – June, 2015

MEETING MINUTES --- 7:30 PM, Thursday, June 4, 2015

Committee members: Howie Callies, Bruce Cuttler, John Kuhn, Ana Sanjuan,
Doug Strawinski, liaison Brenda Cagle

--- We collaborated with the Bike Rodeo on Sat., May 16, 1-4 PM, for the
Tour de Red Hook bike ride. Approximately 100 people attended the event.

--- We installed and placed stone on another 50 ft. of the Aspinwall Access
Trail.

The next meeting is scheduled for 7:30 PM, Thurs., July 2, 2015, at Red Hook
Town Hall.

SMCCANN@REDHOOK.ORG

TOWN OF RED HOOK GREENWAY AND TRAILS COMMITTEE
RED HOOK TOWN HALL, RED HOOK, NY monthly report – July, 2015

MEETING MINUTES --- 7:30 PM, Thursday, July 2, 2015

Committee members: Howie Callies, Bruce Cuttler, John Kuhn, Ana Sanjuan,
Doug Strawinski, liaison Brenda Cagle

--- We installed and placed stone on the final 20 ft. of the Aspinwall Access
Trail. We also placed crushed item 4 gravel as a topping on 70 ft. of the trail.
We are planning the installation of trail drainage culverts.

The next meeting is scheduled for 7:30 PM, Thurs., Aug. 6, 2015, at Red Hook
Town Hall.

Red Hook Town-Wide Trail Plan

- Greenway Grant to hire ALTA Planning+Design

- Greenway Criteria

(based on 1991 Greenway Act)

- Natural and Cultural Resources Protection
- Economic Development
- Public Access
- Regional Planning
- Heritage & Environmental Education



Red Hook Town-Wide Trail Plan

- Greenway Grant to hire ALTA Planning+Design

A screenshot of the ALTA Planning + Design website. The browser address bar shows "altaplanning.com". The page features a grid of six service categories, each with a teal circular icon, a title, a brief description, and a "Learn More" button.

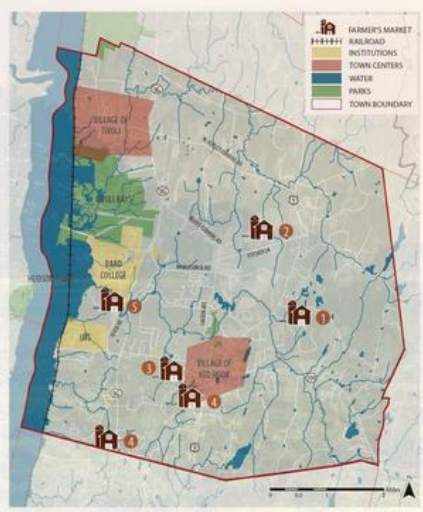
Service Category	Icon Description	Brief Description
Planning	Teal circle with a white grid pattern	Developing implementable plans for your active community
Design and Engineering	Teal circle with a white pencil icon	Leading innovative bikeway and pedestrian facility design and construction
Complete Streets	Teal circle with a white bus, bicycle, and pedestrian icon	Safe, accessible, and green streets for all users
Greenways	Teal circle with a white landscape icon (trees, hills, water)	Creating trails, parks, and green spaces for recreation and transportation
Education and Encouragement	Teal circle with a white thumbs-up icon	Reaching people, transforming behavior
Bike Share	Teal circle with a white bicycle icon	Determining how bike share can work in your community

Red Hook Town-Wide Trail Plan

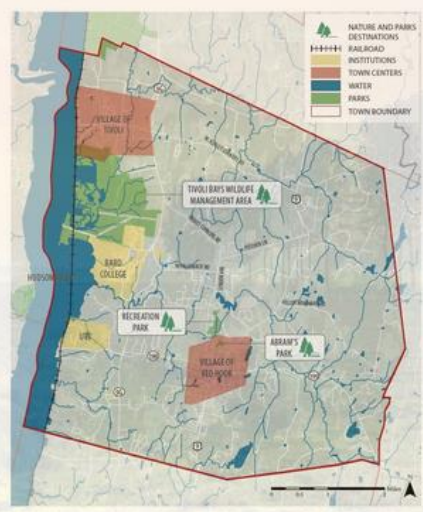
- Building on existing trails

KEY DESTINATIONS

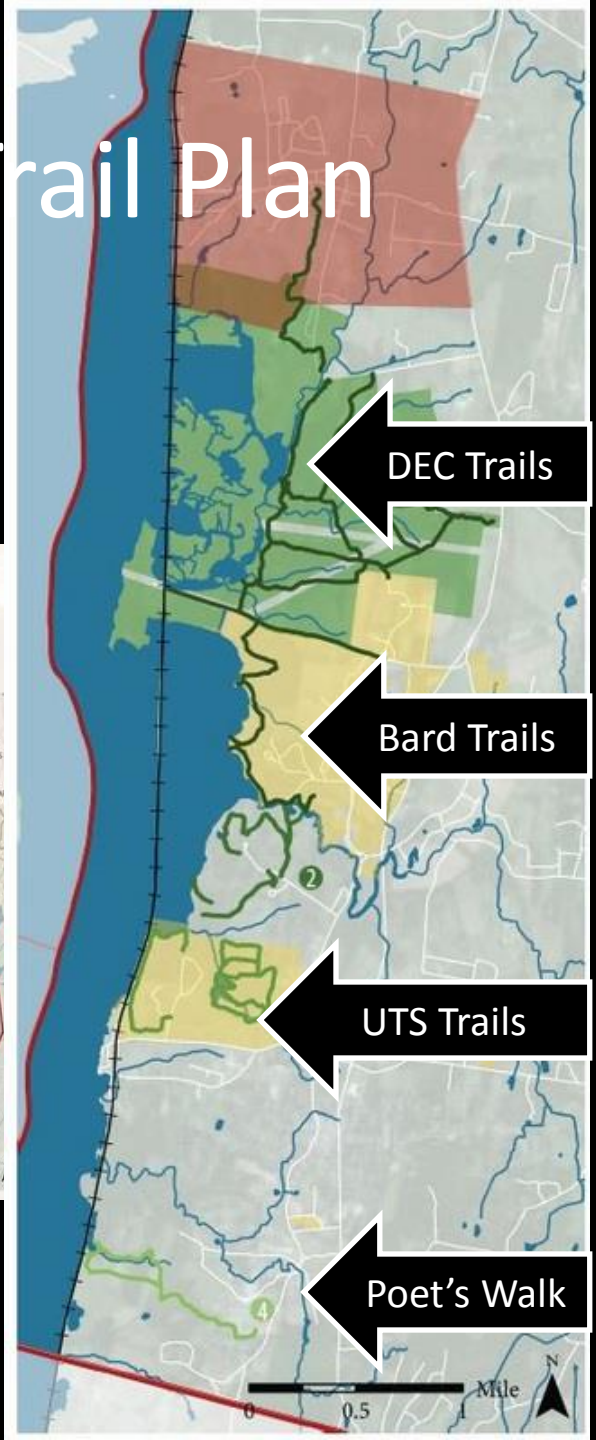
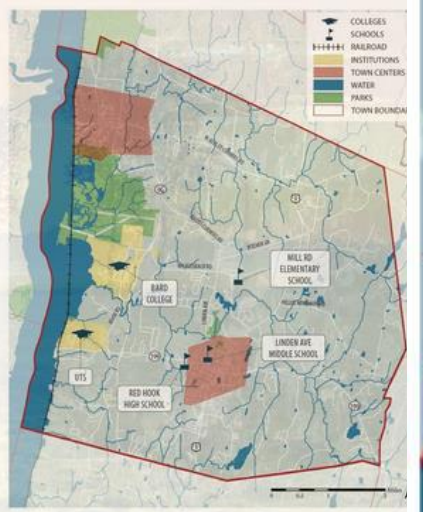
Farmer's Markets



Nature and Parks



Institutions



Red Hook Town-Wide Trail Plan

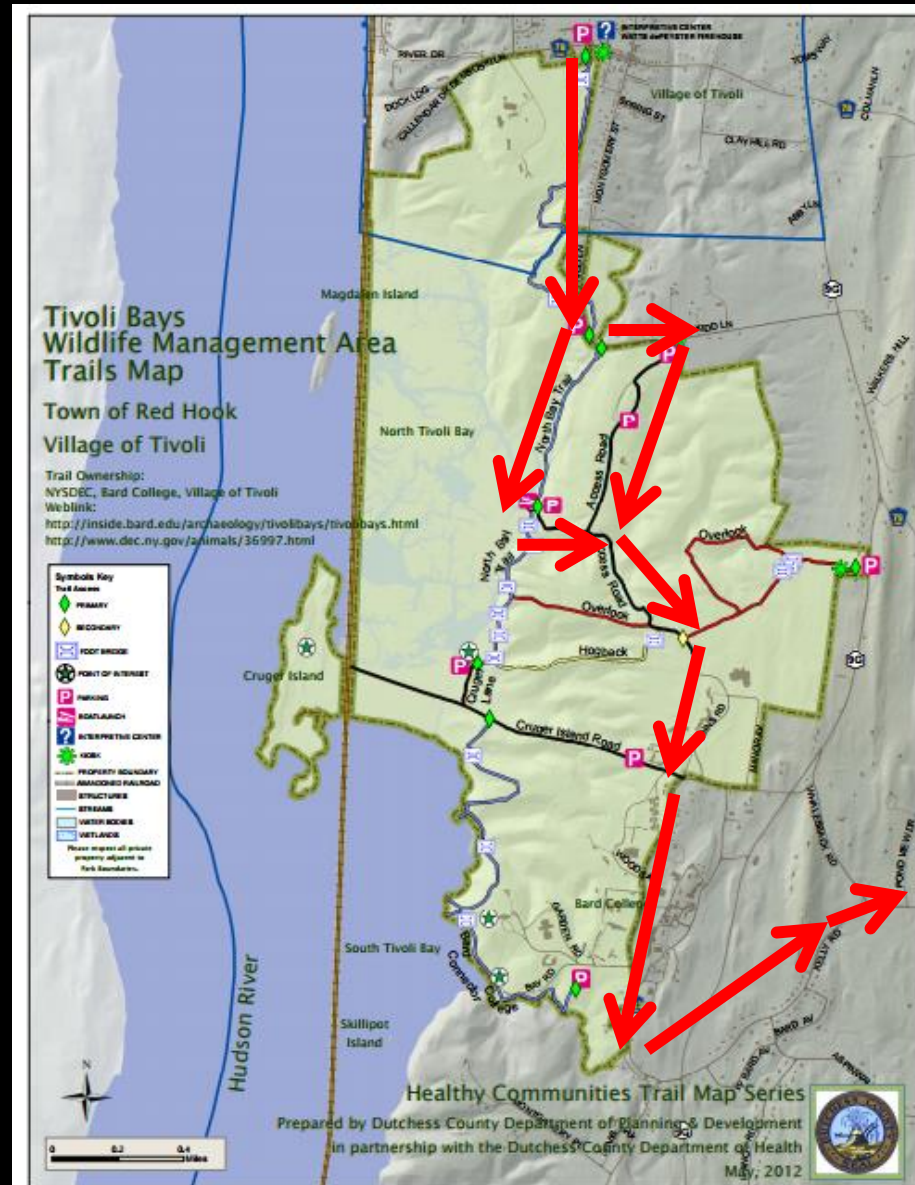
- Building on existing trails
 - HRNERR
 - DEC
 - Bard paths
 - Bard roads



http://www.dec.ny.gov/docs/remediation_hudson_pdf/tivoli.pdf

Red Hook Town-Wide Trail Plan

- Building on previous efforts
 - Village to Village Trails



Red Hook Town-Wide Trail Plan

- Building on previous efforts
 - Hook Trail: <http://www.hooktrail.com>

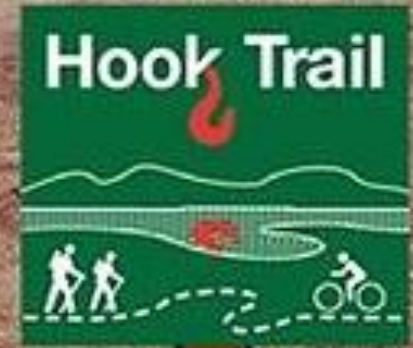
The Hills Are Alive?



ROBERT GEORGE DESIGN GROUP
OUTSIDE INSIDE EXTERIORS ENVIRONMENTS



Route 9G Just North of Route 199



<http://www.robertgeorgedesigngroup.com/>

Red Hook Town-Wide Trail Plan

- Building on previous efforts
 - Hook Trail: <http://www.hooktrail.com>



Red Hook Town-Wide Trail Plan



Route 9G & Kidd Lane in Tivoli

Red Hook Town-Wide Trail Plan



Entrance To Red Hook High School on Route 199



Route 9G Near Montgomery Farm Stand

Red Hook Town-Wide Trail Plan



Route 9G Just North of Route 199 at Night

Red Hook Town-Wide Trail Plan

- Connected to other current efforts
 - Upper 9G Corridor Management Plan

The screenshot shows a web browser displaying the website www.upperroute9g.com. The page features a green header with navigation links for Home, Search, Sign Up, and Sign In. Below the header is a main banner for the 'Upper Route 9G Corridor Management Plan' by Dutchess County, NY, with options to Like, Share, and Visit Website. The main content area includes a post from Poughkeepsie-Dutchess County Transportation Council (PDCTC) about a federally-funded project to complete a Corridor Management Plan (CMP) for a section of NYS Route 9G from CR 78 (Broadway/West Kerley Corners Road). A 'Filter Topics' button is visible. A sidebar on the left offers navigation for Posts (7), About, People, and Impact. A green call-to-action box asks 'Want more ways to weigh in?' and encourages exploring other profiles and projects. A recent post from May 19 is titled 'How do you typically travel along the Route 9G Study Corridor?' with hashtags #Transportation, #Sustainability, and #Livability in Dutchess County, NY, Red Hook, NY, Tivoli, NY.

Red Hook Town-Wide Trail Plan

<http://www.upperroute9g.com/>



Upper Route 9G Corridor Management Plan



Red Hook Town-Wide Trail Plan

- Facts from the 9G Corridor Public Meeting at Bard in the Spring:
- Crashes (2009-2013): 260
- Fatalities (2009-2014): 7
- Typical 2-lane highway
 - 0.5% of crashes → fatalities
- This section of 9G:
 - 1% of crashes → fatalities
- 30 vs. 40 MPG
 - means life vs. death in car-person crash

Homework

- Choose a trail for Case Study
- Read
 - AMC's Complete Guide: Chapters 1 and 10
 - Trail Design Slide Show:
<http://trailbuilders.org/wordpress/wp-content/uploads/2013/02/IntroToSustainableTrails.pdf>
- List & Define Top 10 concepts from reading(s)

Exit Survey

- What are the main assignments due this semester?
- What are some of the trail/transportation initiatives in Red Hook?
- What do you hope comes from your participation in the Red Hook trails planning process today?