

Environmental planning on UW-Madison campus Case study of the Lakeshore Nature Preserve

Report from a service-learning course
Environmental planning, adaptive management & participatory methods
(ENVST400)

Fall 2007

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FOR ENVIRONMENTAL STUDIES
University of Wisconsin-Madison

EXECUTIVE SUMMARY

Students in the Fall of 2007 “Environmental Planning, adaptive management and participatory methods” took on the challenge of applying classroom lessons to a real site and to real environmental issues. Eleven graduate and undergraduate students spent hours studying the Lakeshore Nature Preserve on the campus of the University of Wisconsin-Madison.

The students observed users, environmental components, and threats to the Preserve and measured selected attributes of each. The reports that follow are the independent, creative work of three student teams. The first team observed users of the Preserve and conducted interviews of 57 such users with a structured questionnaire. The second team focused on user security and supplemented the survey mentioned above with observations of use after dark and other investigation of security measures. The third team focused on users’ creation of unofficial paths and ensuing erosion and safety issues.

See the next pages for concise, one-page summaries of student teams’ work and appendices of data and presentations. We offer these in hopes our work will serve the managers and decision-makers charged with responsibility for the Preserve.

The goal of our project was to evaluate how off-trail (or creation of unofficial trails) use in the Lakeshore Nature Preserve was impacting the nature and aesthetic integrity of the Preserve. Our rationale was that trail users are creating new footpaths in areas of particular aesthetic or use value, and that those footpaths in turn are potentially detracting from the visitor experience at the Preserve as well as damaging the habitat.

We walked the Preserve shoreline counting and mapping the number of illegal paths and assigned a value to the level of erosion on each path, from 1-5, with 1 having little erosion and 5 being the most severe. We also identified the type of vegetation existing on the path from 1-5, with one being dense vegetation capable of stabilizing the slope and preventing erosion, and 5 being a site with mostly bare soils and very little vegetation. If we saw any users on the path, we noted the number of users and their activity (e.g., fishing). Also as part of the survey, we qualitatively noted the degree to which the path impacted the user, for instance if it was a safety concern.

In all, we identified 73 paths off the main trail, leading to the water, with an average severity of 3.2. In analyzing our results we looked for areas with the highest density of footpaths and high severity of erosion as being sites most in need of interventions. To do so, we divided the lakeshore into 3000-foot sections and averaged the severity of erosion. Along the path near the Lakeshore dorms and on the path east of Frautschi Point we found the highest density of paths, 16 and 13 respectively. The severity of erosion, however was highest along the north shore from Picnic Point and on the northwestern most section of the lakeshore.

These results are not all that surprising as the dorms are an area where we might expect high traffic due to the number of students living adjacent to the lake. Severity of erosion appears to be closely linked with the slope of the site. Both Picnic Point and along the northwestern edge have steep banks in areas with desirable locations. For instance, the view from Picnic Point is a unique vantage point. Safety is not a serious concern, but in at least one location (north of the BioCore Prairie) an illegal path leads suddenly to a very steep drop that could be dangerous. Whereas this trail also provides a grand overlook to the lake, it is the type of dangerous path that managers may want to target for interventions. What the results do indicate is that users will make paths to the water in desirable areas, regardless of the terrain.

We feel that Preserve managers have an opportunity to address this problem through a series of simple interventions.

1. Blocking illegal footpaths. Some trail users are more inclined to follow a side path that is well worn, rather than one that appears to be an unofficial trail. By blocking the well-worn paths with natural material or official fencing, those trails may be abandoned. This intervention would directly stop the activity that is a threat.
2. Signs to "stay on the trail." Again, many users will follow the rules if reminded of those rules. Educational reminders at kiosks and a limited number of signs on the trails will likely keep many users on the main paths. Signs are relatively inexpensive and easy to implement.
3. Creation of new "desirable paths." Areas with a high number of paths most likely indicate that users will continue to try to access the lake in that area. Managers may consider establishing an official to reduce the temptation for the unofficial use.
4. Designated viewing areas or fishing platforms. Similar to creation of new paths, designated use sites allow managers to control the impact to the site by concentrating use in a particular area and leaving other areas to recover.

We feel these interventions will not significantly detract from the aesthetic experience at the Preserve, while being relatively simple and cost-effective to implement. Lastly, we recommend managers resurvey the unofficial paths during warmer months to identify the types of use where unofficial paths are at high-density, so as to best match the intervention (blocking the path or installing a viewing platform) to the most common uses at that location.

User Survey Group: Drew Gavic, Kelsy Martin, Marie Vicksta

OBJECTIVE

The user-survey group sought to determine the overlap between Preserve managers' priorities and user visions for the future of the Lakeshore Nature Preserve. According to the LNP website, manager priorities include: water runoff/soil erosion, invasive species removal, aesthetic value and maintenance of ecosystem diversity.

METHOD

Our preliminary work included observing the preserve users and collaborating with the security team to look at safety issues from a user point of view. We conducted a daytime survey of 57 people, ages 19 to mid-60's, between October and mid-November 2007. We interviewed students, alumni, community members, campus visitors and staff members. Our survey aimed to determine who was using the path, why they were using it, what time they were using, their vision for the Preserve's future and any perceived threats they saw.

RESULTS

Our results indicate two types of use: the majority of our respondents used the Preserve for recreation, a minority used the preserve to commute only (judged by travel with a book-bag of some sort). Recreational uses included running, biking, and walking without book-bags. [For further breakdown, see pie graphs in Appendix 2.] Our observations of use at different times of day showed that the preserve was most frequently used during the afternoon.

Regarding respondents' vision for the future of the Preserve, the majority said they would like to see more lights and security along the path, as well as preservation and restoration activities. Among other hopes for the future were: installing trash-cans, increasing awareness of the Preserve and adding educational benefits. The most frequently identified threats included over-use of the Preserve, trash on the Preserve and invasive species. However, surprisingly, the majority of those surveyed did not see any threats to the Preserve. Also, we found that half of those we surveyed were aware the "path on the lake" was a Preserve, but half did not know this. Almost none of our respondents knew where the Preserve started.

IMPLICATIONS

After conducting, analyzing, and discussing the survey in class, we considered potentially effective interventions that would be cost-efficient as well. These interventions include increasing awareness of the Preserve by distributing flyers in the dorms or providing occasional nature walks on the path, installing lights, water fountains and garbage cans, and increasing security (all based on user requests). Lastly, a possible intervention to raise funds for the preserve would be to hold some type of food or drink stand during hours of high use or when there are events held on the preserve or at Memorial Union.

RECOMMENDATIONS

We think it would be worthwhile to survey users each season to capture greater diversity and different types of use. Throughout the whole process, there seemed to be an overarching lack of awareness of the Preserve, which led us to think that one possible solution would be to put up another sign, possibly located at either end of the Lakeshore path.

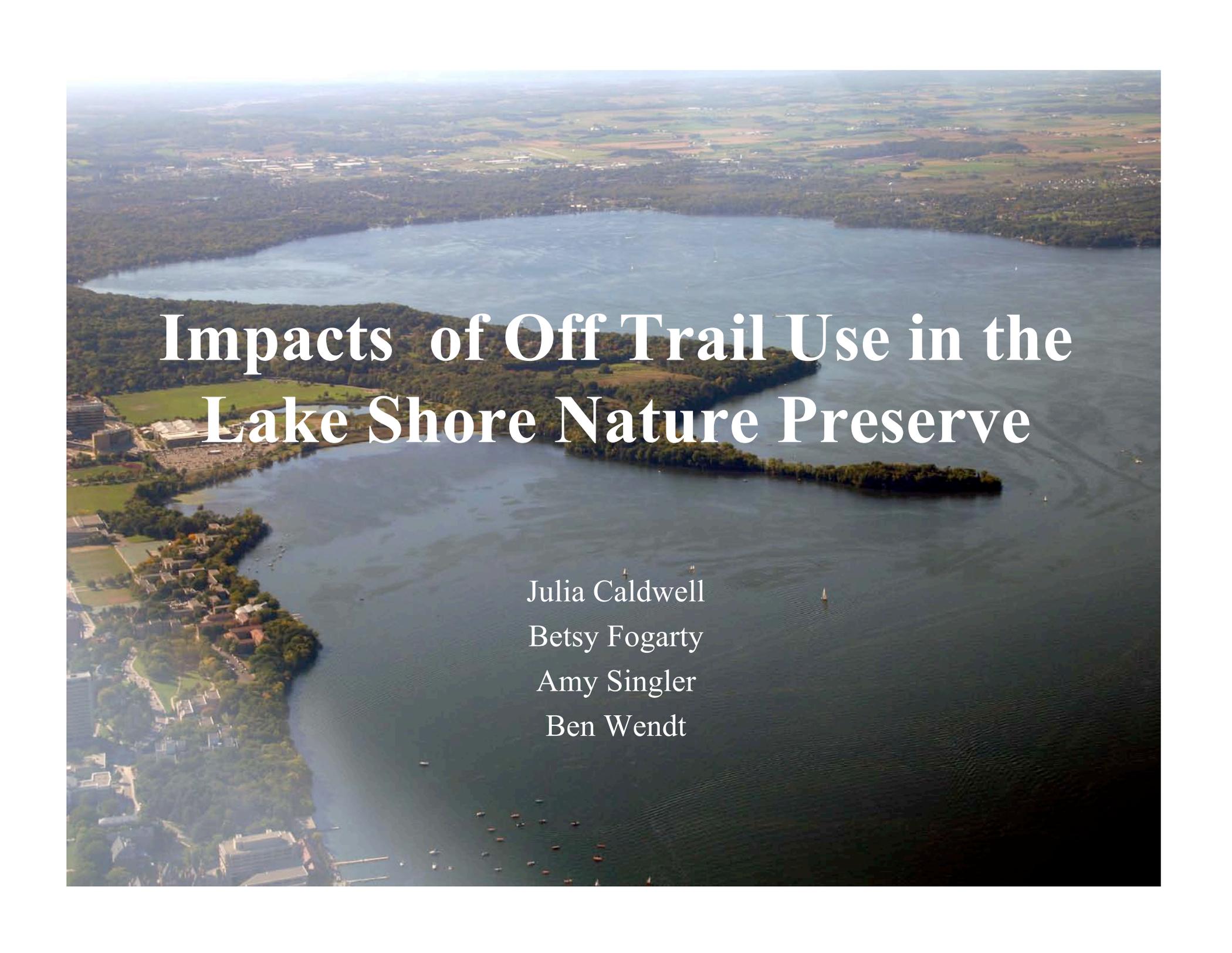
The user-security team was a part of a larger team that surveyed and identified the users of the Lakeshore Nature Preserve. The user-security team focused specifically on the use of the lakeshore path, beginning at the Limnology building and ending at the Lakeshore Dorms, between mid-October and mid-November, 2007. We concerned ourselves with any potential security issues that may arise from the night-time use of the lakeshore path. In order to study the usage of the lakeshore path we considered three questions. The first was whether security had been a problem in the past. The second question we considered was whether or not individuals used the path after dark. Finally, we considered it important to understand why people use the lakeshore path after dark.

The answer to the first question, referring to the security history of the path, was clear. There have indeed been security issues on the lakeshore path in the past. We searched the records of the Capitol Times for stories about the Lakeshore path and violence. We discovered three incidents of violence or injury on the path since the ban on car traffic was implemented in 1991. It is our opinion that the negative impression this conveys of campus security and of the Preserve itself can last for many years after such an incident.

To determine who was using the path at night and why, we used several methods. First, as a part of a larger survey group, we included two security and use questions on a general user survey. The general survey was distributed haphazardly to available users on the path during daytime hours. Second, we conducted face-to-face interviews with users we encountered on the path at or after sunset. In both the survey and the interviews we asked why individuals were using the path, whether or not they used the path at night, whether or not they felt safe using the path and finally whether or not they would increase their use at night given certain increased security measures (we alluded specifically to the installation of lights on the path). The raw data can be found in Appendix 1 with this document.

As a brief summary, we found people indeed used the path after dark (38 in one 15-minute observation period), primarily to commute between campus buildings. We observed this directly including single women walking after dark, lone individuals wearing headphones and cyclists traveling at high speeds without lights (more often than cyclists using lights). Of students, 36/52 reported feeling unsafe when using the path after dark.

Finally, we found no consensus among surveyed and interviewed respondents as to the best security intervention. However, we conclude that given the persistent use of the path by students after dark--despite Preserve managers' hopes that users would avoid such use--some security action may be needed to avoid accidents such as bike-pedestrian collisions or criminal assaults and robberies. We recommend convening students and other users of the Lakeshore path in a semi-annual meeting to raise awareness of the risks of path use after dark, and build consensus for behavior change by users and widespread dissemination of warnings and safety tips. We believe this can be done at low cost with student volunteer support and some support from the university administration. Such a meeting would also provide a way to raise student awareness that the Preserve is a managed, natural area.

An aerial photograph of a large, dark blue lake. The shoreline is a mix of dense green forest and residential buildings. In the foreground, there are several small boats on the water. The background shows a vast, flat landscape with scattered buildings and fields under a clear sky.

Impacts of Off Trail Use in the Lake Shore Nature Preserve

Julia Caldwell

Betsy Fogarty

Amy Singler

Ben Wendt

The University of Wisconsin-Madison Lakeshore Nature Preserve permanently protects the undeveloped lands along the shore of Lake Mendota where members of the campus community have long experienced the intellectual and **aesthetic benefits of interacting with the natural world**....It contributes to a **powerful sense of place and fosters an ethic of stewardship** to **promote mutually beneficial relationships between humans and the rest of nature.**

Lakeshore Nature Preserve Mission Statement, June 7, 2005

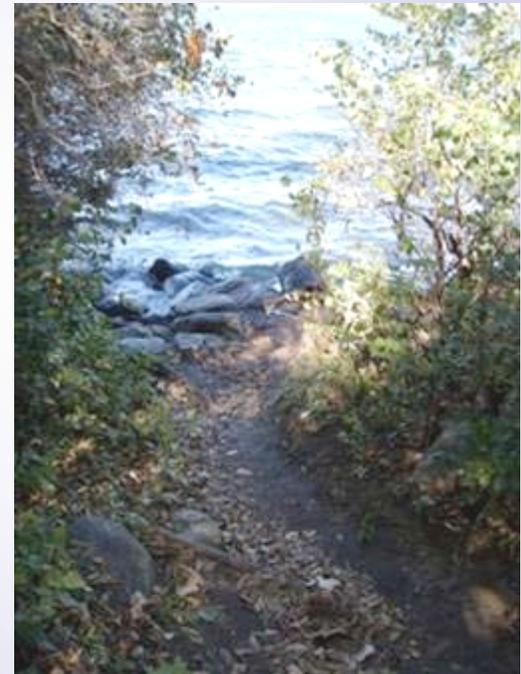
Water Quality and Stormwater Impacts to the Preserve

- Well known problem
- Requires community-based social marketing survey
- Extensive work by the city engineering and highway department



Threats

- Footpath contributing to erosion, degrading water quality and trampling native vegetation
- Impact to the visitor's use of the path and the preserve
- Impact to the experience of the user



Defining Desired Outcomes

The Lakeshore Nature Preserve Committee sustains the integrity of the Lakeshore Nature Preserve with policies, guidelines, planning, stewardship, and management designed to ensure that these natural communities and cultural landscapes will pass *unimpaired* to future generations.



Photo from Preserve website

Assessing Threats and Obstacles

- **Identify direct and indirect threats and obstacles**
 - *Based on observations from initial trail walks*
- **Develop methods for assessing threats**
 - *Trail walks to assess the severity of off trail use*
- **Analysis of data collection - to guide interventions**
 - *Identifying high density areas of foot paths*
 - *Identifying areas of highest impacts*

What environmental outcomes do people seek and why?

- Paths that allow the user to enjoy all of the aesthetic and ecological qualities that the preserve has to offer.
 - *Protection of degraded foot paths*
 - Erosion: From user and water runoff
 - *Ecological and Use restoration on foot paths*
 - What paths will ultimately be most important for the user yet maintain ecological integrity?

Defining and Measuring Our Desired Outcomes

- General Measures
 - *Aesthetic appeal*
 - Importance/Value of path
 - *Navigable for all*
 - *Ecosystem*
- Specific Measures
 - *Slope, erosion, vegetation*
 - *Success in use of the official trails and non-use of unofficial trails*
 - Determining what improvement is



Direct Threat

- **Footpaths (Off trail use)**

- *Erosion Effects*

- Sediment into the lake
 - Vegetation impacts (exposing roots)
 - Appearance of shoreline (aesthetics)

- *Vegetation Trampling*

- Loss of native plants
 - Increase direct runoff, reduces infiltration
 - Appearance of shoreline



Indirect Threats / Obstacles

- **Users**

- *Lack incentive to stay on trail*
- *Lack of awareness to the impacts of off trail use*
- *Lack of alternative shoreline access*

- **Managers**

- *Lack resources to communicate rules*
 - Funding and labor
- *Lack ability to intervene*
 - Funding

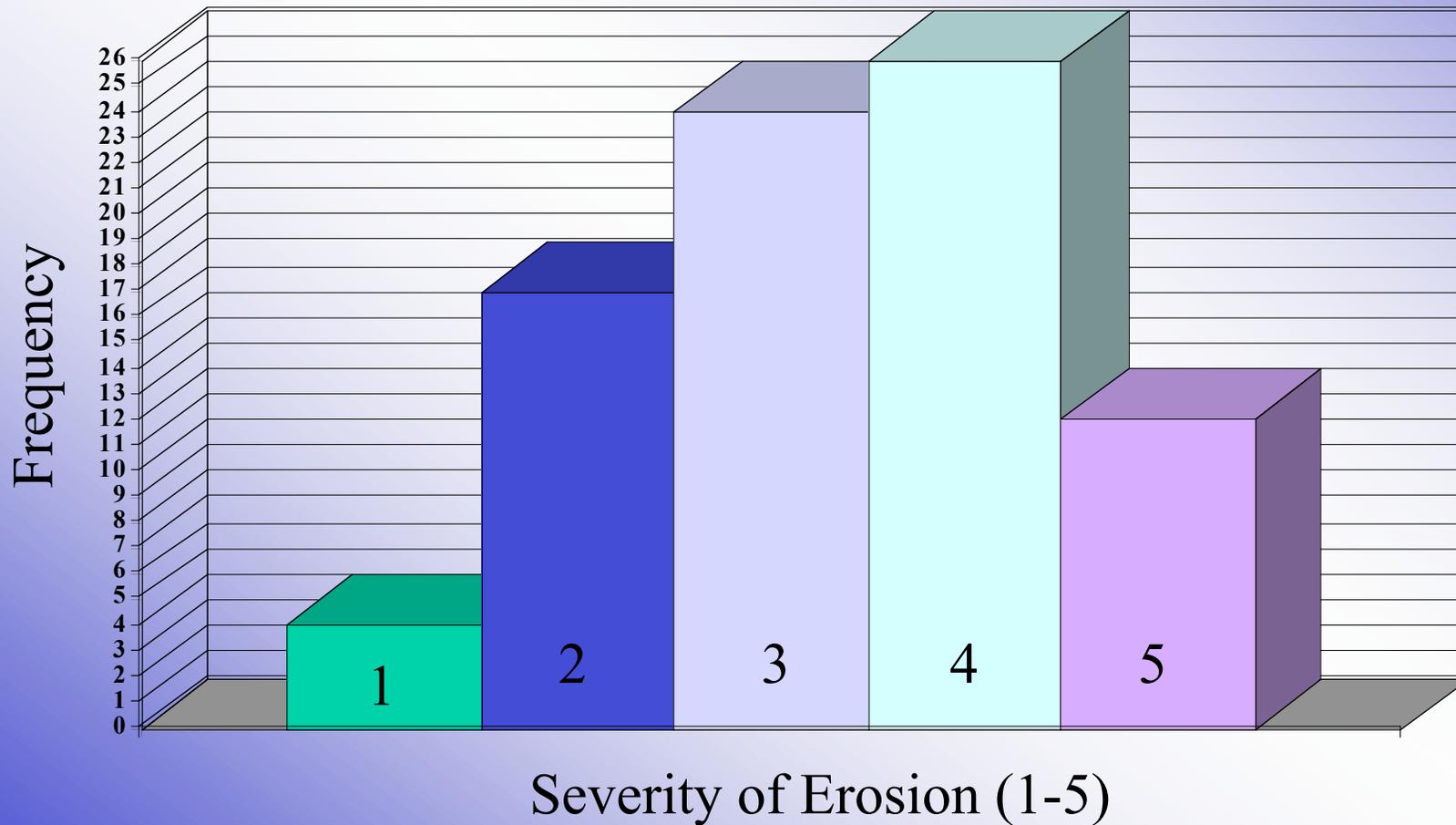
Methods of Assessing Threats

- *Number of foot paths to lake shore*
- *Do foot paths impact user, for instance safety*
- *Severity of Erosion from each path*
 - 1 to 5 Scale
- *Vegetation Cover surrounding foot paths*
 - 1 to 5 Scale

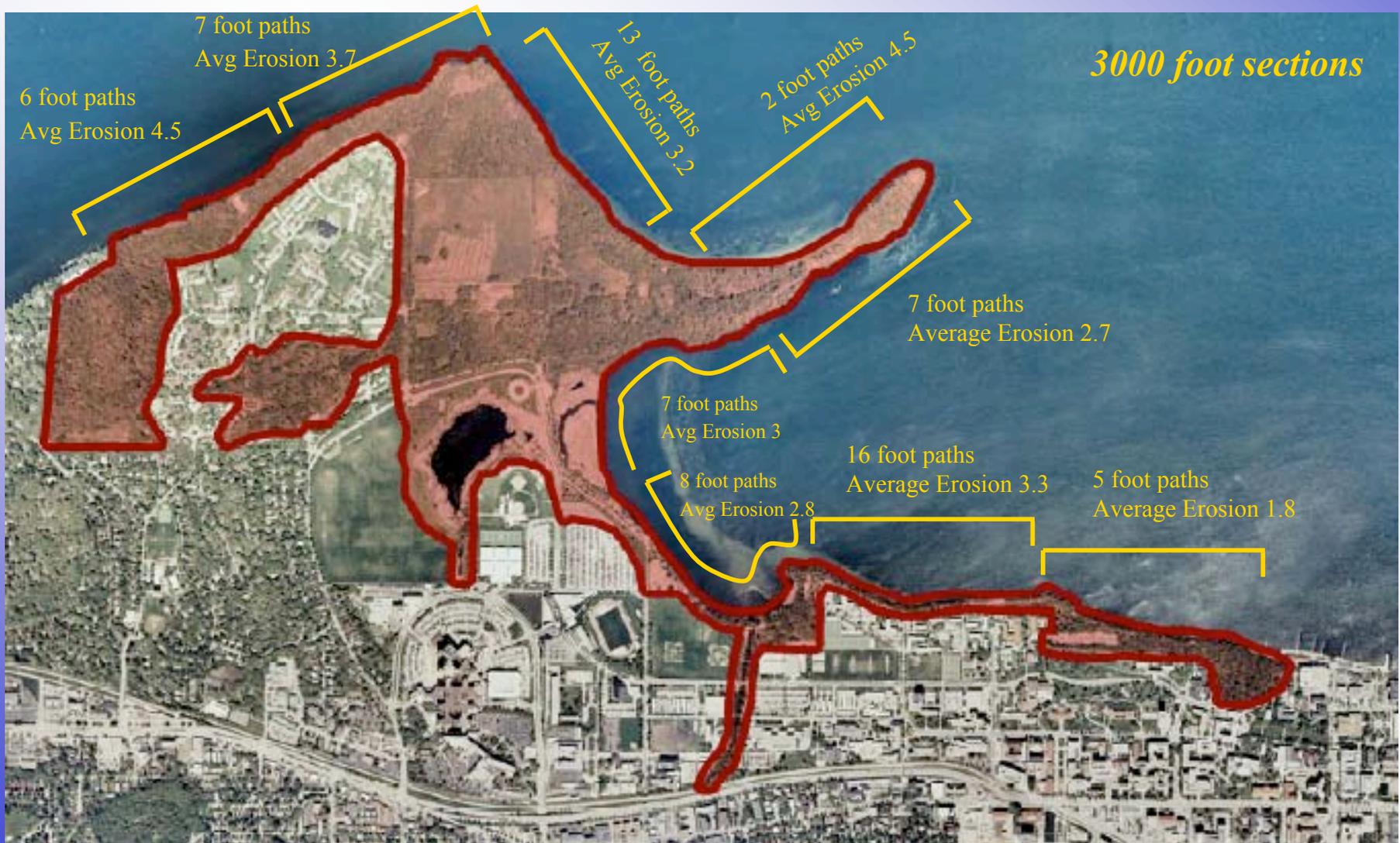
Results of Assessment

Total # of Footpaths: 73

Average Severity: 3.2



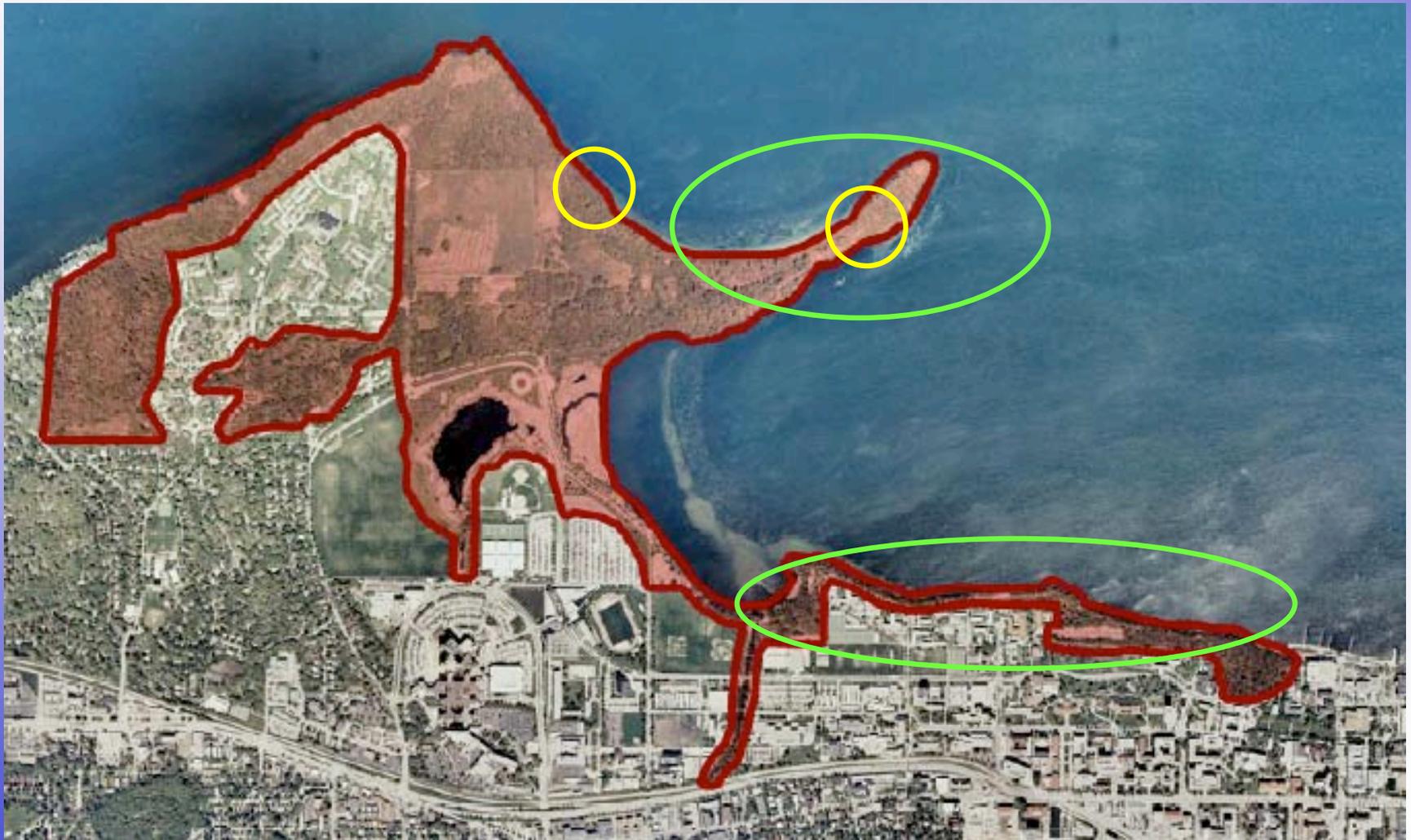
Density of Footpath



Vegetation Results

- Vegetation directly on the foot path
 - *Little to no vegetation*
 - *Caused by trampling and velocity of water*
- Vegetation in vicinity
 - *Varied at points along the trail*
 - *Shrubs and Mature Trees*
 - *Fallen trees help protect soil from erosion*

Observations of Safety Issues and Use



Why Should We Reduce the Quantity of Off-trail Foot Paths?

- Ecological disturbance
- Aesthetics
- Safety
- Size of scale:
 - at *Preserve* level
 - easy to implement vs. time and \$
 - relatively undemanding and straightforward monitoring potential
- No cooperation necessary with Policy Makers or UW authority



Interventions and Communication

- **DIRECT** Interventions
 - *Blocking off unwanted footpaths*
- **INDIRECT** Interventions
 - *“Stay on the trail” signs*
 - *Creation of official (desired) footpaths*
 - *Designate viewing areas and fishing platforms*

Why These Particular Interventions?

- **Barriers:**
 - physically help eliminate/discourage direct user threats
 - visibility
 - manageable in only a few volunteer work days
- **Signs:**
 - raises awareness
 - easy to implement



More Interventions...



- **Official footpaths:**
 - desired by users
 - concentration of footpaths
 - reduce temptation to go off trails into unwanted areas
- **Platforms:**
 - desired by users
 - safety
 - aesthetics and user friendliness
 - reduce temptation to go off trails into unwanted areas

General Locations of Interventions



Potential Consequences of Interventions

1. Barriers:
 - creation of new paths
 - obstacles in acquiring materials
2. Signs:
 - complaints of aesthetic loss
 - more opportunities for vandalism, graffiti, and theft
3. Official Paths:
 - increased need for maintenance
4. Platforms:
 - increased need for maintenance - liability issues

Monitoring

1. Annually/biannually surveying
 - foot paths counts and density calculations
 - visual gauging: erosion, soil compaction, and vegetation re-growth
2. Survey user awareness and opinion regarding off-trail issues and implemented interventions



Trail Use Erosion Results

Measurement parameters

Paths are listed from the Limnology building moving north and west along the path.

Erosion is rated on a scale of 1-5, 1= little/none, 5= deep gully with roots exposed

Vegetation rated 1-5 where 1=none, 2=grass, 3=tall grasses, 4=shrubs, 5=dense trees with tall grasses

Note: sites with two numbers indicate a site with both factors. The numbers were averaged for the results.

Path	Erosion	Vegetation	Notes on the site
<i>Limnology to dorms</i>			
1	3	4	steep
2	4	4	sand deposition
3	3	4	
4	2	4,5	mature trees
5	4	4	rock platform
<i>Dorms to canoe launch</i>			
6	3	4	
7	2	2,4	dorms, light bank erosion
8	2	4	dorms, steep
9	3	4	dorms, steep, wooden platform
10	5	4	dorms, steep
11	4	4	dorms, moderate slope
12	4	4	dorms, moderate slope
13	3	4	dorms
14	2	4	dorms, moderate slope
15	4	4	dorms, moderate slope
16	3	4	dorms, steep
17	3	4	dorms, moderate slope
18	4	4	dorms, steep
19	3	4	dorms
20	4	3,4	dorms
21	4	2,4	dorms
<i>Canoe launch to midpoint in bay</i>			
22	3	4	
23	3	4	
24	1	4	canoe launch, sand deposition
25	3	4	
26	2	4	
27	2	4	bridge, fishing spot
28	2	2	bridge, fishing spot
29	1	4	leg stretch area
<i>Midpoint in bay to picnic sites</i>			
30	3	4	culvert to stand on, fishing spot
31	1	1,2	
32	3	2,4	Entrance to Picnic sites
33	3	2,4	high density use
34	3	2,4	high density use
35	3	2,4	high density use
36	3	2,4	high density use
<i>Picnic sites to Picnic Point (inclusive)</i>			

37	3	1 picnic sites	high density use
38	3	1 picnic sites	high density use
39	1	2 picnic sites to Picnic Point	high density use
40	2	1,5	high density use
41	2	1,5	high density use
42	2	1,5	high density use
43	5	1,5	high density use
44	5	1,5	high density use
45	2	1,5	high density use

Picnic Point to northern edge of the peninsula

46	4	1 Opposite side of Picnic Point	high density use
47	5	1	high density use

Edge of the peninsula to Frautschi Point

48	2	? End of Peninsula to Frautschi Point	
49	2	?	
50	2	?	
51	2	?	
52	2	?	
53	2	?	
54	3	1 large path, moderate slope, moderate use, nice vantage point	
55	5	1 deep gulley	
56	5	1 deep gulley	
57	5	1 deep gulley	
58	3.5	4,5 steep slope, leads to vantage point	
59	4	1 gentle slope, large grate near path	
60	5	1 steep slope, some down trees helped keep soil in place	

Frautschi Point to Tent Colony Woods

61	3	2 Frautschi Point, one large path	
62	4	1 large area of impact	
63	4	4 West of Frautschi Point	
64	3	1,4	
65	4	1,4	
66	5	1,4	
67	3	1,4	

Tent Colony Woods to the end of the path

68	4	1,4	
69	4	1,5	
70	5	1,5	
71	4	1,5	
72	5	1,5	
73	5	1	

234.5

Average 3.212329



Users Survey Group

Drew Gavic

Kelsy Martin

Marie Vicksta

Research Question:



**Do Manager Priorities Include
User Visions?**



Manager Priorities

- Water Runoff / Soil erosion
- Invasive species removal
- Aesthetic value
- Maintenance of ecosystem diversity



Describing Our Method

- Preliminary Work
 - Observation
 - Collaboration
- Survey
- Implementation
- Compilation of Data
- Results
 - Aspects of Preserve Planning



Aspects of Preserve Planning

- Vision for the Preserve
- Defining Desired Outcomes
- Assessing Threats
- Planning Interventions
- Monitoring



User Information

□ Who are the Users?

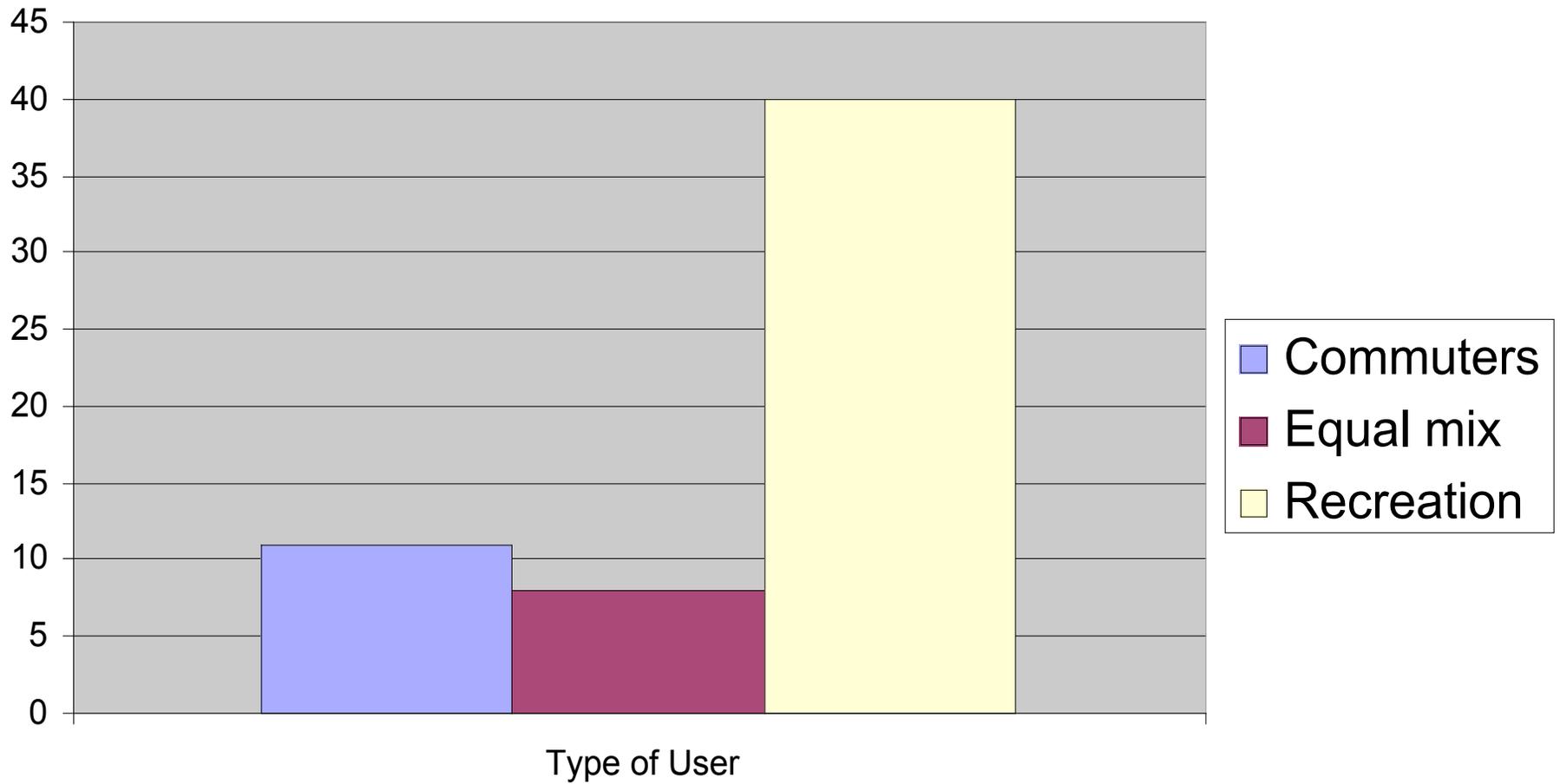
- Bikers
- Runners
- Walkers
- Commuters

□ Main times of use?

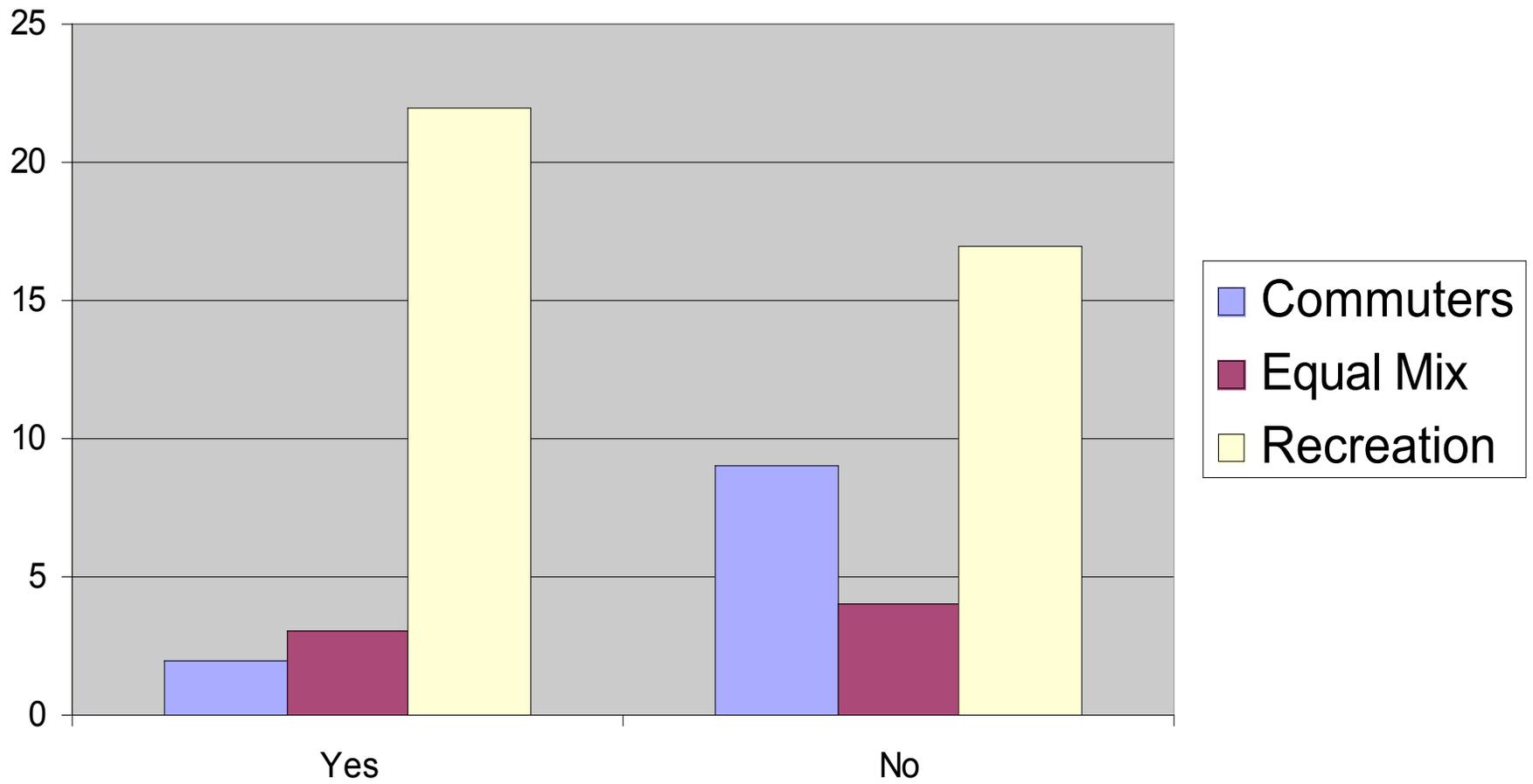
- Morning
- Afternoon
- Evening

N=57

Breakdown of Users

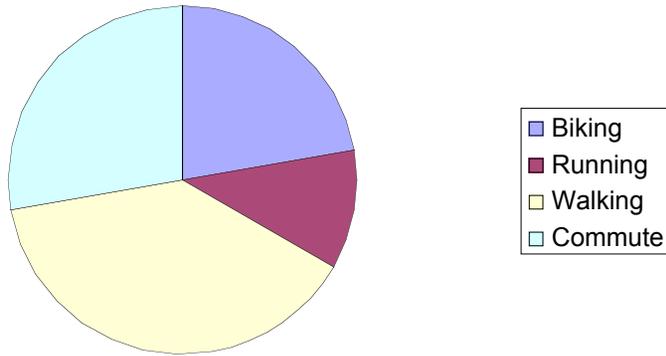


Are you aware this is a Preserve?

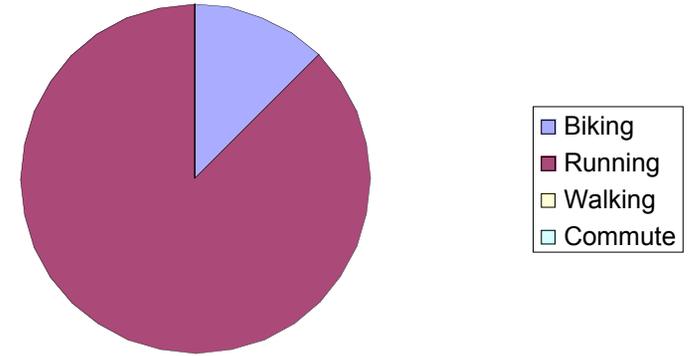


Division of Users and Uses

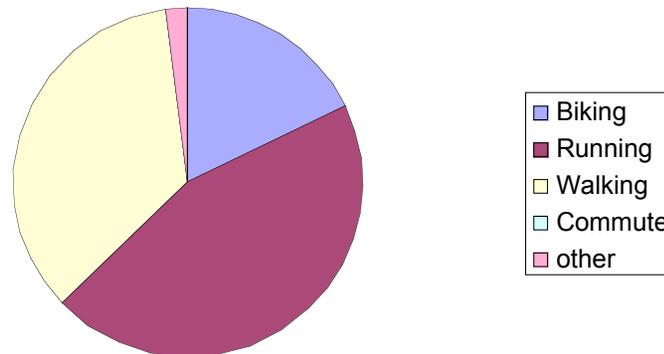
Commuter uses of path



Equal Mix Uses of Path

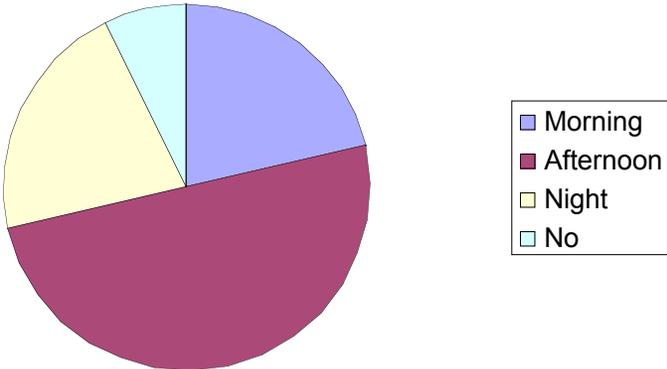


Recreation Uses of Path

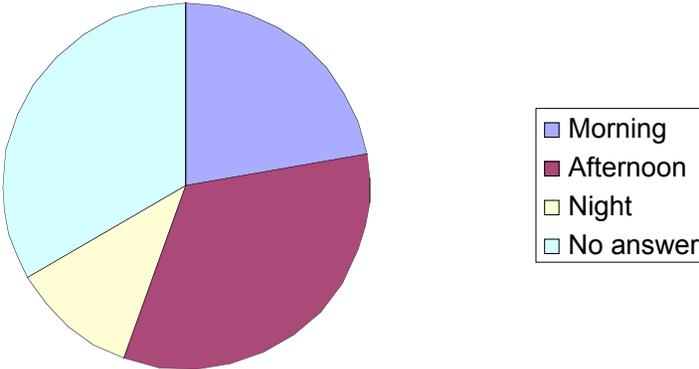


Division of Users and Time of Use

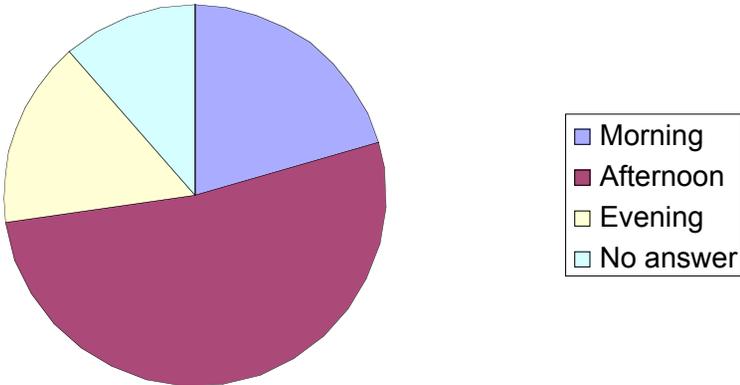
Commuters Main Time of Use



Equal Mix Main Time of Use



Recreation Main Time of Use



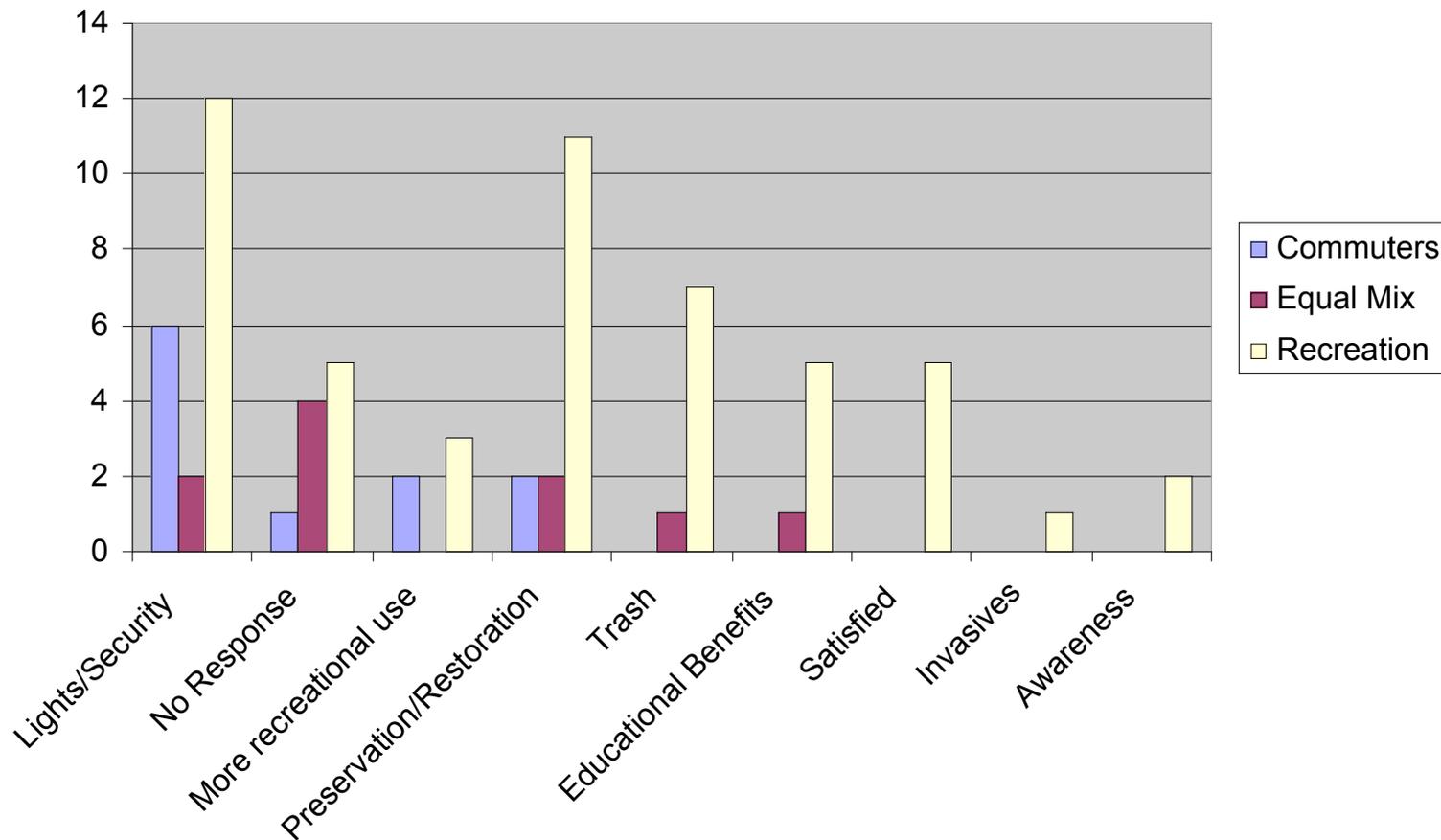


Users Vision for the Future

□ Survey Responses:

- “Restoration of plant and animal communities”
- “Maximize educational benefits”
- “Protect signature views of landscape”
- “Garbage cans”
- “Some security so people feel safer, i.e. Lights”
- “More recreational use”
- “More security so users feel safe”

Users' Vision for the Future



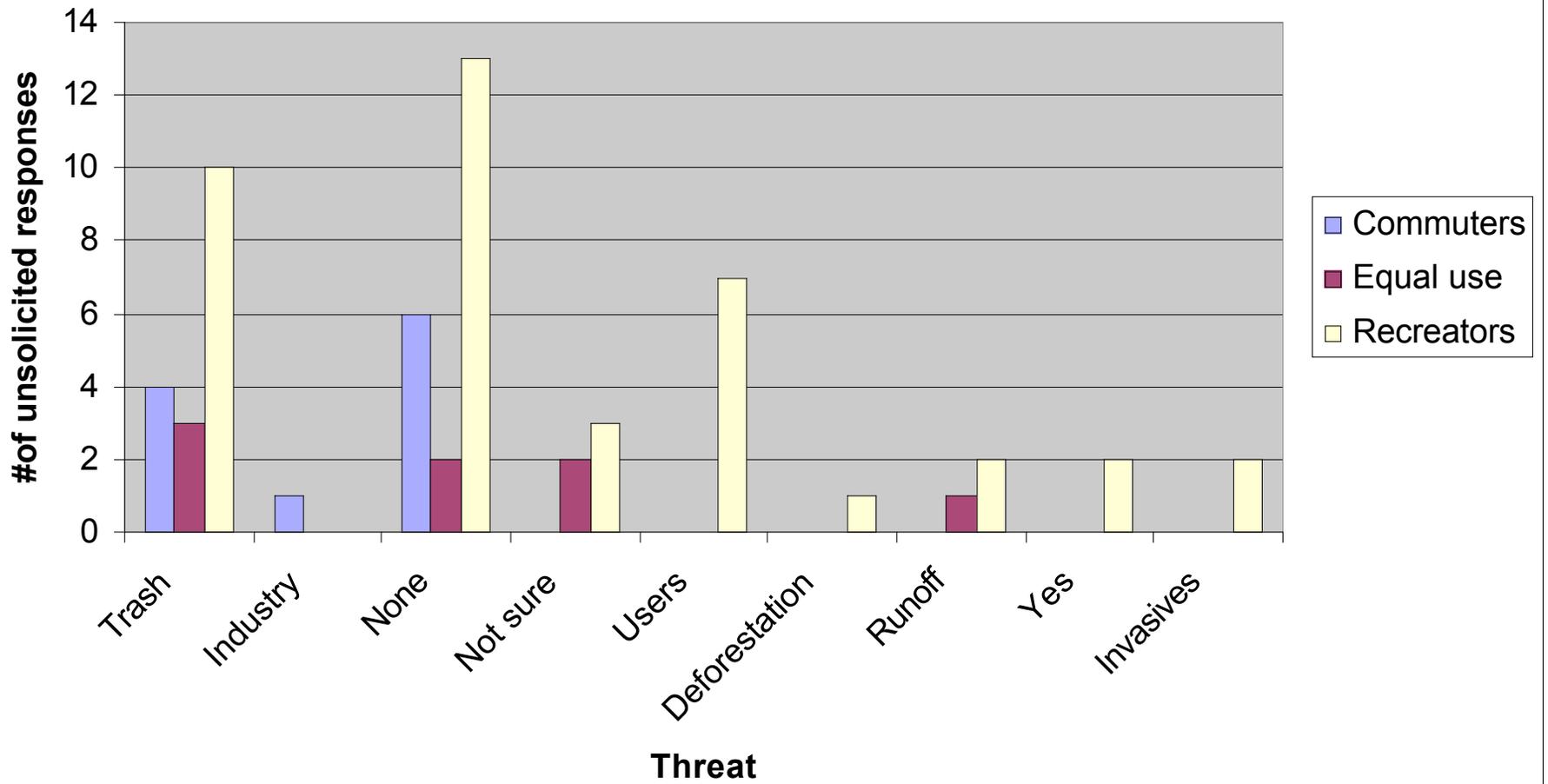


Users' Responses to Open-Ended Threat Question

- “Are we a threat to wildlife?”
- “Water pollution and trash along the path poses a threat to wildlife.”
- “Not that I know of.”... “I don't know”
- “Deforestation, if they are deforesting because of a disease then that disease is a threat too.”



User Identified Threats





Where do you think the Preserve starts?

- ❑ Varied Responses - Indicating Lack of Awareness
 - ❑ “Where the row shed ends”
 - ❑ “UW Hospital”
 - ❑ “Picnic Point”
 - ❑ “About halfway between the union and the hospital”
 - ❑ “Where the pavement ends, before picnic point”
 - ❑ “Just past Lakeshore dorms”
 - ❑ “After the Nat?”



Our Proposed Interventions

- Increase Awareness of Preserve
 - Flyers in Dorms
 - Nature Walk on Path
- Attention to Users' Requests
 - Lights and Security
 - Water Fountain
 - Garbage Cans
- Fundraiser
 - Ex: Lemonade / Hot Dog Stand near Union or Picnic Point during Summer



Limitations of Survey

- Number/Diversity of Participants
- Lack of Depth
- Time Limitation
- Seasonal Use
 - Switch from Fall to Winter Affects Use

LNP PROJECT
Users Survey

Tentative plan:

- Make timeline
 - Start observing/surveying
-
- Bring a map of LNP area.
 - Sample Size = at least 40
 - Try to catch "rare users"
 - Stand at beginning or end of path
-

*make note of gender. Ethnicity?175

1. Age?
2. Are you a student? Faculty? Resident? Visitor?
 - a. If student, do you live on the preserve?
3. Do you use the path most during the morning, afternoon, or evening?
4. What are your main uses/activities in reference to this path?
 - a. Biking
 - b. Running
 - c. Walking
 - d. Commuting
 - e. Other → _____
5. Do you primarily use this path to commute or for recreational purposes?
Commute-----Evenly split between the two uses-----Recreation
6. **Do you see any threats to the wildlife on this preserve?**
 - a. **How would you remedy these threats?**
7. Do you feel safe using the path after sunset?
 - a. Yes
 - b. No —Why not? _____
 - c. No because it is technically closed after 9PM
 - d. Not sure
8. How would lights affect your use of the path?
 - a. Increase
 - b. Decrease
 - c. No effect at all
9. Where do you think the nature preserve starts?
10. This area is a preserve, which is commonly unknown. Were you aware it is a preserve? [using map, point out area of the preserve]
 - a. Yes
 - b. No
11. What would you like to see for the future of this path? [use the goals of the LNP vision as multiple choice, offering our own ideas, and giving an option for OTHER]
 - a. ...
 - b. ...

Commuters

	Male	Female			threats	Trash	industry	none	not sure	users	deforestati	runoff	yes	Invasives
Sex	5	5			Commuter:	4	1	5	0	0	0	0	0	0
Live on the path?	Yes	No			equal use	2	0	2	2	0	0	0	0	0
Usages	Biking	Running	Walking	Commute	Recreators	9	0	13	2	5	1	2	2	2
Time of usage	Morning	Afternoon	Night	No										
Do you feel safe?	Yes	No												
Would lights affect useage?	increase	decrease	none											
Aware of preserve?	Yes	No												

Equal mix

Sex	M	F												
Live on the path?	Y	N												
Time of usage	Morning	Afternoon	Night	No										
Usages	Biking	Running	Walking	Commute										
Do you feel safe?	Yes	No												
Would lights affect useage?	increase	decrease	none											
Aware of preserve?	Yes	No												
Awareness of preserve	Yes	No												

Recreation

User type	student	alum	visitor	resident	faculty
	30	1	1	3	1
Sex	M	F			
	15	21			
Live on the path?	Yes	No	no answer		
	3	24	9		
Time of usage	Morning	Afternoon	Evening	No answer	
	8	22	5	5	
Usages	Biking	Running	Walking	Commute	other
	8	21	17	0	1
Do you feel safe?	Yes	No			
	11	25			
Would lights affect useage?	increase	decrease	none		
	14	5	17		
Aware of preserve?	Yes	No			
	20	15			

Are you afraid of the Dark?

A survey of Lake Shore Nature
Preserve users and security

The Initial Questions

Do individuals use the Lakeshore Nature Preserve's lakeshore path at night? If so, is it safe?



History Repeats Itself

In reference to past experiences, the answer to our initial question is that yes, people use the path at night; and no, they are not always safe on the path...day or night.



Tragedy on the Lakeshore Path

Willow Drive car ban pushed

By Joe Schoenmann

The Capital Times

A short stretch of road where a bike-to-bike collision took the life of a woman last fall should be closed to vehicles, a university panel believes.

A subgroup of the University of Wisconsin-Madison Campus Planning Committee will recommend closing Willow Drive to motorized vehicles, except those used for safety or maintenance.

Thomas Vale, a geography professor and member of the committee, said bicyclers, walkers and joggers would have more room to roam if vehicular traffic were banned from the narrow road.

"By eliminating one type of user, cars, there is more room to better serve the other users," he explained.

Sigrid Leirna, 34, a UW-Madison bicyclist, died of head injuries after she collided with another biker, Gerald Paulson, 50, on Willow Drive last Oct. 26.

Police reports said both bicy-

Biker's death prompts call

clers zigzagged, but ended up slamming into each other. Leirna was not wearing a safety helmet; Paulson was.

Willow Drive borders Lake Mendota, stretching from the lakeshore dormitories to Picnic Point. A barrier blocks most of the road to vehicular traffic. The accident occurred on an unblocked section which winds around a point near Willow Beach.

Vale's subcommittee talked to campus police and those who have used Willow Drive recreationally. Leirna died on a piece of road that has historically caused problems, they discovered.

"This has been talked about in the past not because of safety

concerns, but aesthetics. It's at the point now, however, where all the users are concentrated into a single piece of pavement," Vale said.

Vale anticipates resistance to the idea from those who have enjoyed driving on the road in the past — "especially people who remember a time when they were in school here and think of it as a place to drive by and reminisce," he said.

But the time has come, he suggests, when too many people are looking for that same feeling in too small a space.

"There's just no way we can figure out how bikers and pedestrians and automobiles can be adequately separated on that piece of pavement," he said.

The full Campus Planning Committee will meet at 8 a.m. Thursday on the 14th floor Conference Room of the Wisconsin Alumni Research Foundation building.

- Bicycle crash leads to prohibition of cars on path and to a separation of pedestrian and bicycle paths

Tragedy on the Lakeshore Path

More Stories from

THE CAPITAL TIMES

- ◎ “UW STUDENT STABBED NEAR LAKESHORE PATH”
- ◎ “STUDENT ROBBED NEAR LAKESHORE DORMS”

Our Vision

We believe that if the path is used during night time hours and raises questions of personal safety for users, then the personal safety interventions and non-interventions of the Lakeshore Nature Preserve and University of Wisconsin Police must be considered in reference to the amount of night time traffic and the opinions of users

Methods of Data Collection

- Observations
- Surveys
- Interviews

What's Missing from the LNP's Mission?

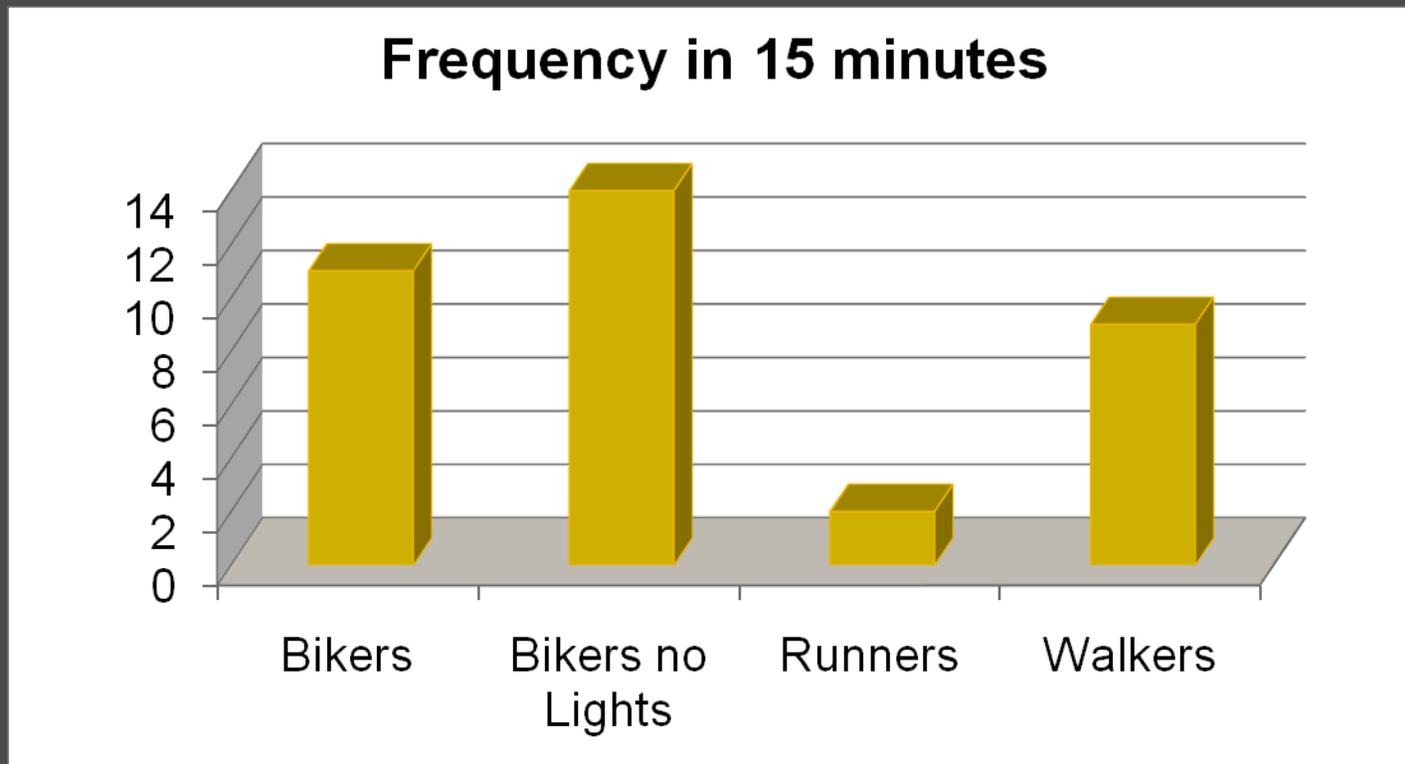
- LNP mission statement lacks objectives that protect personal safety
- Responses to safety issues have thus far been reactionary

Results of Lakeshore Nature Preserve and UW Police Interviews

- ⦿ Lights are false security
- ⦿ Avoidance and group safety are stressed
- ⦿ Parking lots close as a means to regulate users after certain hours

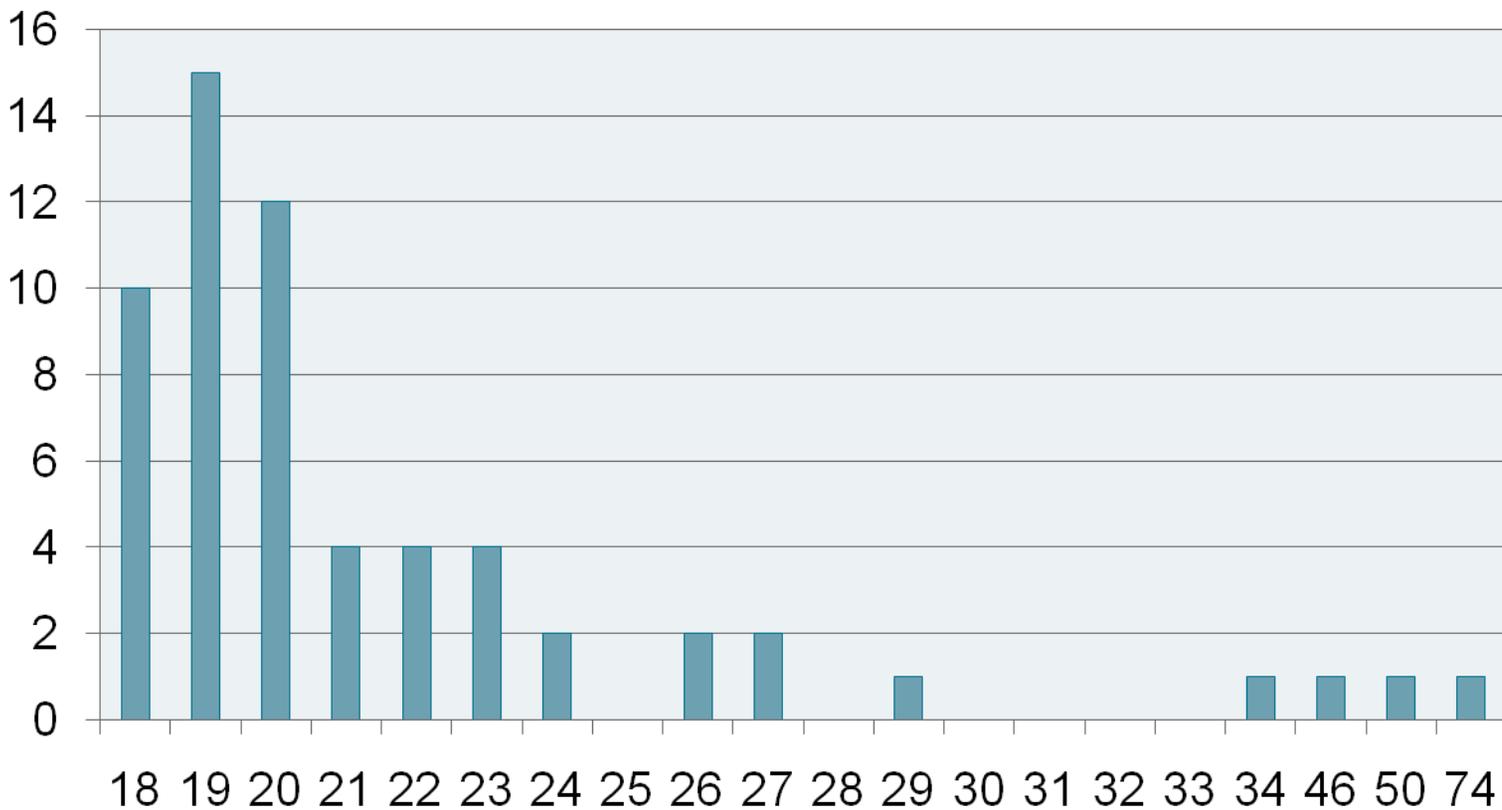
Results of Observations

Quantitative observations of night time usage



Results of Surveys

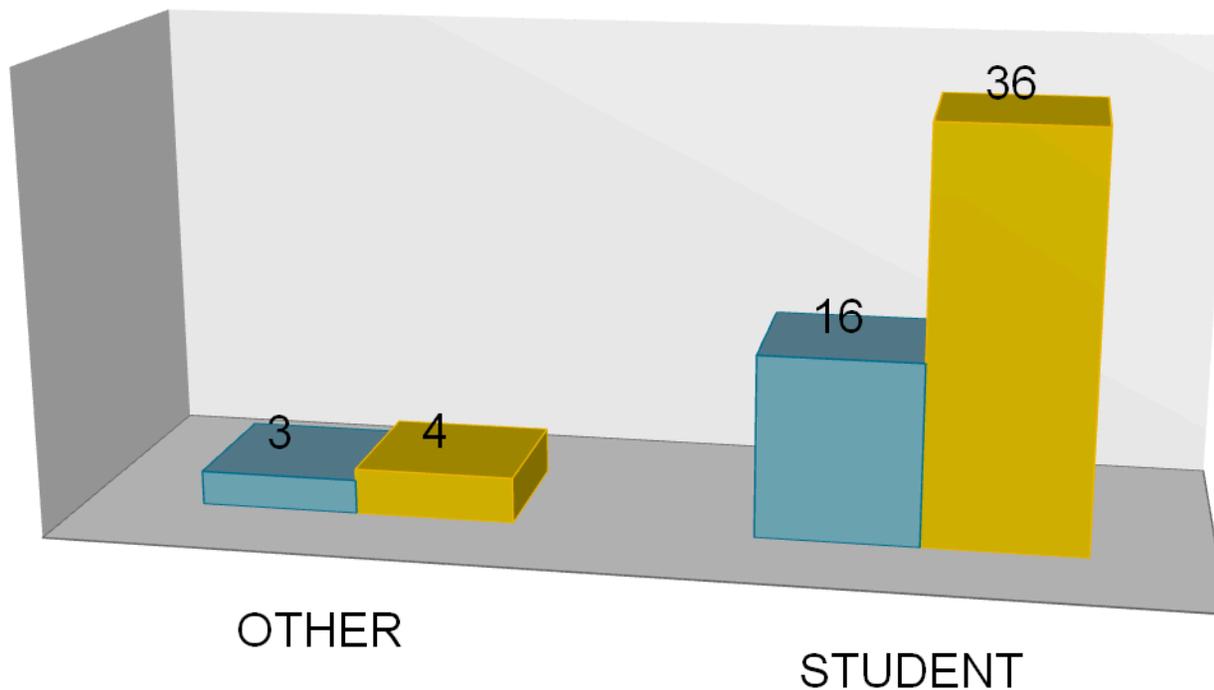
Frequency of Ages



Results of Observations

Do you feel safe after sunset?

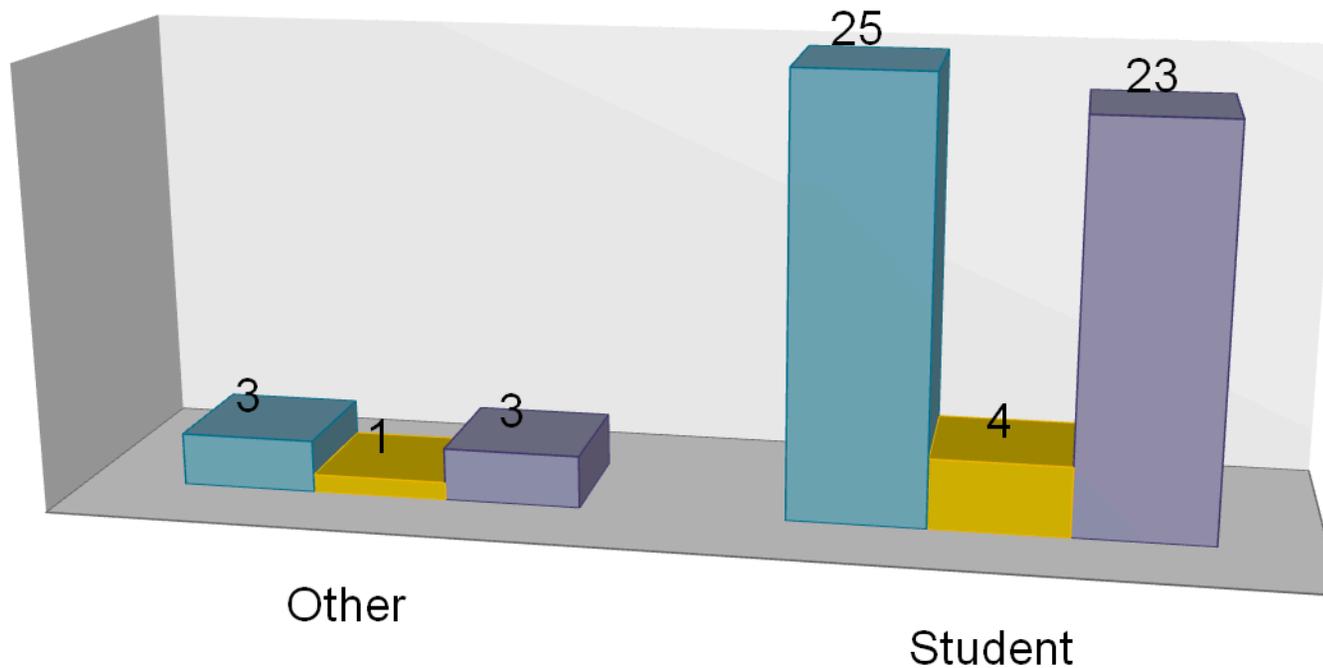
■ SAFE ■ NOT SAFE



Results of Observations

How would a security intervention such as lights affect your use?

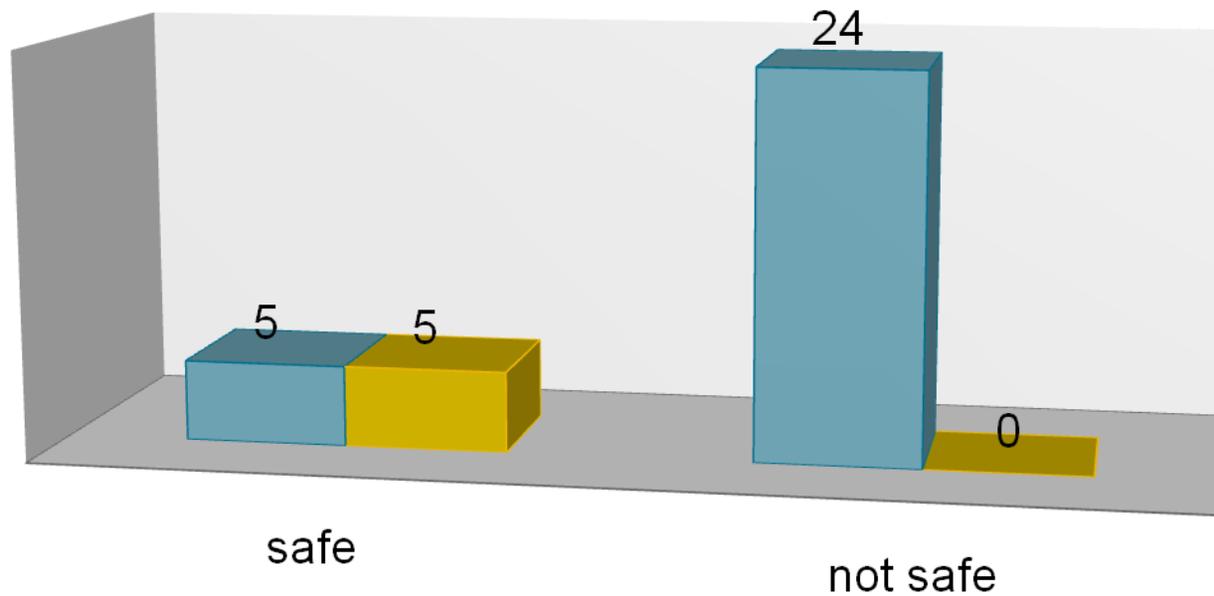
■ Increase ■ Decrease ■ No effect



Results of Observations

Safe opinion vs Intervention needs

■ increase ■ decrease



Results of User Interviews

- ◎ User opinions:
 - “rapeshore”
 - “many young girls walk alone in the dark...closing it is a cop out”
 - “I would not use the path any more or less with lights on it.”

Conclusion

- There is no consensus on the matter of security intervention. However, our data suggests that security is a concern and that individuals do use the path at night.

Our Recommended Interventions

Direct

- Safety campaigns which make information on path safety more available
- Increased patrol of the path
- Requiring bicycles on path have lights after sunset and enforcing this law

Indirect

- Conduct an information session for users/managers/community to discuss personal safety on the lakeshore path
- Conduct town-hall meeting in order to discuss and build consensus on further safety interventions