

Appendix G—Results from North Campus Subcommittee Public Meetings

North Campus Planning Subcommittee Scoping Meetings April 5 to April 7, 2003

Results

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July 8, 2003

Executive Summary

The North Campus Planning Subcommittee is charged with developing a management plan for the University of Alaska Fairbanks' (UAF) North Campus Area (NCA). As part of the development of the plan, three public meetings were held during early April 2003. The meetings were an opportunity to exchange information between committee members and those attending meetings. In addition, surveys were distributed to those attending meetings.

This report provides meeting and survey results, and analysis of the results. Analyses include:

- Content analysis of written comments,
- Response analysis of surveys, and
- Cluster analysis of surveys.

The meetings were attended by approximately 100 people, resulting in 338 written comments. One hundred and twenty eight individuals completed the survey. Key findings from the verbal testimony, written comments and surveys are as follows.

- A diversity of viewpoints regarding the appropriate uses of the NCA was expressed.
- Use limitations appear to have a low level of support.
- A majority of attendees indicated the area could, and should, be managed for multiple values and uses.

As indicated by both the written comments, and the survey responses, the trail system was the most important factor to the respondents. Approximately 23% of the written comments were about the trails specifically, while other categories, such as research, had lower response rates. Cluster analysis indicated three groups; a group focused on recreation (44%), a group more favorable toward walking and dogs (12%), and a group protective of research interests (44%). Although each of the three cluster groups had a recreational component, they differed in a few key areas with management implications. Given the hypothetical situation of an increase in research activity, the recreation cluster group was more accepting of restricting research activities, whereas the research cluster found this less acceptable. Given a hypothetical scenario of widening a trail into a research area, the recreation cluster group found not allowing the trail widening to be highly unacceptable, while the research cluster group found it to be acceptable to not allow the trail widening. The walking / dog cluster group found it unacceptable to restrict walkers and dogs on groomed ski trails. This group also found it the most acceptable to expand the network of winter walking trails.

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Background

The North Campus Planning Subcommittee (NCPS) has been meeting every other week from August 2002 to April 2003 to develop a plan for the North Campus Area (NCA).¹ As part of the plan development, it was imperative to involve the UAF and Fairbanks communities. Three public meetings were held to seek input from these communities. The meetings were held at different locations to facilitate representation from different segments of the public. The meeting locations and times were:

1. April 1, 2003, University of Alaska (UAF) Wood Center. The target of this location was faculty, staff, and students with home departments on UAF's main campus. This location was also felt to be well suited to gather input from the UAF student population. This meeting was held from 11:00 a.m. to 4:00 p.m., when traffic through the Wood Center is at its peak.
2. April 2, 2003, Fairbanks' Noel Wien Library. The target of this location was community members of Fairbanks. This meeting was held from 4:00 p.m. to 7:30 p.m. allowing individuals with differing work schedules to attend.
3. April 3, 2003, the Globe Room in the Geophysical Institute. The target of this location was faculty, staff, and students with home departments on UAF's West Ridge. The meeting was held from 4:00 p.m. to 6:00 p.m., which was felt to be most convenient for this target audience.

The media for the meetings consisted of seven 4' x 6' posters displaying information regarding the NCA that was gathered through meetings of the NCPS. Four posters related to value statements that were developed for the NCA, and three posters related to specific issues of concern in the NCA.

- Poster 1: Value Statement 1, Preserve the natural integrity of the North Campus Area
- Posters 2 & 3: Value Statement 2, Ensure access for research, education, outreach and recreation.
- Poster 4: Value Statement 3, involve the community in the North Campus Area
- Posters 5, 6, & 7: Specific issues of concern on the North Campus Area, e.g., trail width, dogs on ski trails, walking trails, lights, and trail improvements.

Methods

During each meeting, those attending were allowed to walk through and read the posters. Post-it notes were available for attendees to post written comments on the posters. Members of the NCPS were at each meeting to answer any questions and record verbal testimony. NCPS members asked attendees if they had any questions or if they would like to make comments. The comments on the Post-it notes were entered into a database as were any verbal testimony. Content analysis was conducted on the written statements and verbal testimony.

¹ Details of the North Campus Area or North Campus Planning Subcommittee are not presented here. For information regarding either, please see the University of Alaska Master Planning section of their website at www.uaf.edu/mastplan

An eight-page self administered survey and printouts of the posters were distributed to those attending the meetings. The survey consisted of 40 questions with a Likert Scale response format, i.e., a response scale ranging from strongly agree to strongly disagree or highly acceptable to highly unacceptable. The Likert Scale response format allows for systematic tabulation of results and comparisons across questions.

The survey had several subcomponents. The first section of the survey presented hypothetical scenarios and asked a series of questions regarding each hypothetical scenario. The next sections asked a series of specific questions about walking on ski trails, issues revolving around permafrost, maintenance acceptability of different ski trail allocations, the T-Field Road and lighting ski trails.

It is important to note that those who completed the survey were self-selected. The sampling frame consisted of only those who attended the meetings and was given or took a survey, or was given a survey by someone who attended the meeting. Therefore, while the surveys represent those who attended the meetings, statements generalizing these results back to the broader population of UAF faculty, staff and students or the Fairbanks community cannot be made.

The data were analyzed in the Statistical Package for the Social Sciences (SPSS). The data analysis consisted of frequencies of responses, reliability analysis and scale construction where appropriate, and cluster analysis.

Results

Content Analysis of Written Comments

There were 338 comments written on the Post-it notes and attached to the posters at one of the meeting locations, written on the survey posters and returned to the committee, or written on the survey and returned to a committee member (Table 1).

Table 1. Where the Written Comments were Obtained

	Frequency	Percent
Comments on poster handout	32	9.5
Globe	73	21.6
Survey	121	35.8
Wien	50	14.8
Wood Ctr	62	18.3
Total	338	100.0

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These comments were distributed across various locations on the posters, poster handouts, or surveys (Table 2). The specific issues 1 poster prompted the most comments, followed by specific issues 2 and 3.

Table 2. Area on Poster or Survey that Prompted Written Comment

<u>Comment Location</u>	<u># comments</u>	<u>%</u>	<u>Comment Location</u>	<u># comments</u>	<u>%</u>
SI-1 ^a	58	17.2	VS-1	9	2.7
SI-2	38	11.2	Scenario 4	7	2.1
SI-3	36	10.7	T-Field	7	2.1
General	33	9.8	Permafrost	6	1.8
VS-2 ^b	27	8.0	Scenario 3	6	1.8
PSH Oral	16	4.7	Ski Trails	6	1.8
Skiers / Walkers	14	4.1	Box	4	1.2
VS - 2 Rel	14	4.1	Erosion	4	1.2
VS-3	13	3.8	Scenario 1	4	1.2
Dogs on Trails	11	3.3	Scenario 2	3	.9
Lights	10	3.0	Comments	1	.3
Winter / Summer	10	3.0	PF Oral	1	.3
			Total	338	100.0

a. SI refers to specific issues, of which there were three posters related to specific issues (e.g., 1, 2, & 3).

Refer to Appendix B to see the content of the Specific Issues posters.

b. VS refers to Value Statements, of which there were three value statements with four posters (there were 2 posters for Value Statement 2). Refer Appendix B to see the content of the Value Statement posters.

- The specific issues posters prompted 39% of the comments

It is also possible to examine the area on the poster or survey that prompted the written comment and how the written comment was obtained (Table 3).

- Specific Issues 1, which was concerned with conflicts within and between broad categories of activities, prompted the most comments at the Globe room.
- The comments at Noel Wien library were prompted by Specific Issues 1 & 2.
- Comments at the Center were prompted by all three Specific Issues posters and the Value Statements Posters.

Table 3. Comparison of area that Prompted Comment and how Comment was Obtained

	<i>How Written Comment was Obtained</i>					
	Comments on poster handout	Globe	Survey	Wien	Wood Ctr	Total
Box	0	0	0	0	4	4
Comments	0	0	0	0	1	1
Dogs on trails	0	0	11	0	0	11
Erosion	0	0	4	0	0	4
General	0	0	33	0	0	33
Lights	0	0	10	0	0	10
Permafrost	0	0	6	0	0	6
PF Oral	0	1	0	0	0	1
PSH oral	0	7	0	9	0	16
Scenario 1	0	0	4	0	0	4
Scenario 2	0	0	3	0	0	3
Scenario 3	0	0	6	0	0	6
Scenario 4	0	0	7	0	0	7
SI-1	0	32	0	11	15	58
SI-2	2	10	0	16	10	38
SI-3	10	14	0	0	12	36
Ski trails	0	0	6	0	0	6
Skiers / walkers	0	0	14	0	0	14
T-field	0	0	7	0	0	7
VS - 2 rel	14	0	0	0	0	14
VS-1	0	0	0	1	8	9
VS-2	0	9	0	9	9	27
VS-3	6	0	0	4	3	13
Winter / summer	0	0	10	0	0	10
Total	32	73	121	50	62	338

The 338 written comments could be placed in 733 categories with different topic areas (i.e., some comments could be placed in more than one topic area). Comments related to trails made up the largest category (24% of comments) followed by comments related to skiing, research, trees, access, walkers, dogs, parking and lights (Table 4).

Table 4. Category of Written Comments

Category	Count	Percent	Category	Count	Percent
Trails	175	23.9	Wildlife	5	.7
Ski	74	10.1	Fire Management	4	.5
Research	50	6.8	Permits	4	.5
Trees	36	4.9	Runners	4	.5
Access	33	4.5	Ski Hut	4	.5
Walkers	29	4.0	Volunteers	4	.5
Dogs	28	3.8	Buildings	3	.4
Parking	28	3.8	Erosion	3	.4
Lights	24	3.3	Skijoe	3	.4
Vehicles	21	2.9	Events	2	.3
Smith Lake	19	2.6	Races	2	.3
Loop Road	15	2.0	Road	2	.3
Outreach	14	1.9	T-Field	2	.3
Signs	12	1.6	Thermokarst	2	.3
Trails Maintenance	12	1.6	Trail Maintenance	2	.3
Ballaine Lake	11	1.5	Tree Plantation	2	.3
Education	11	1.5	Shooting Range	2	.3
Boardwalk	9	1.2	Arboretum	1	.1
Campground	8	1.1	Bike Path	1	.1
Wood Chips	8	1.1	Gates	1	.1
Bikes	7	1.0	Historic Preservation	1	.1
Fence	7	1.0	Maps	1	.1
Recreation	7	1.0	Permafrost	1	.1
Trash	7	1.0	Security	1	.1
Entire Area	6	.8	Thanks	1	.1
Planning	6	.8	Vandalism	1	.1
Power Lines	6	.8	Viewing Platform	1	.1
Fishing	5	.7	Total	733	100
Trailhead	5	.7			

The comments were also analyzed by including a subcategory for each broad category and the direction – stating a favorable or unfavorable position – of the comments. The results for the categories that had an n > 10 are presented below.

Table 5. Subcategories of Comments Regarding Access

<u>Subcategory</u>	<u>n</u>	<u>Unfavorable</u>	<u>Favorable</u>
Development	12	7	5
Motorized vehicles	4	4	0
Permits	4	0	4
Well marked trailheads	2	1	1

Table 6. Subcategories of Comments Regarding Ballaine Lake

<u>Subcategory</u>	<u>n</u>	<u>Unfavorable</u>	<u>Favorable</u>
Erosion	5	3	2
Fishing	5	3	2
Trash can size	1	1	0

Table 7. Subcategories of Comments Regarding Dogs

<u>Subcategory</u>	<u>n</u>	<u>Unfavorable</u>	<u>Favorable</u>
Limits on dogs	15	1	14
More dog trails	6	2	4
Responsible pet ownership	3	0	3

Table 8. Subcategories of Comments Regarding Lights

<u>Subcategory</u>	<u>n</u>	<u>Unfavorable</u>	<u>Favorable</u>
General	7	4	3
Increased lighting	15	5	10

Table 9. Subcategories of Comments Regarding Tanana Loop Road

<u>Subcategory</u>	<u>n</u>	<u>Unfavorable</u>	<u>Favorable</u>
Installing a road crossing	5	0	5
General	11	8	3

Table 10. Subcategories of Comments Regarding Parking

<u>Subcategory</u>	<u>n</u>	<u>Unfavorable</u>	<u>Favorable</u>
General	4	0	4
Smith Lake	17	3	14

Table 11. Subcategories of Comments Regarding Research

<u>Subcategory</u>	<u>n</u>	<u>Unfavorable</u>	<u>Favorable</u>
General	9	0	9
Limits / restrictions on research ¹	34	5	29

1. Limitations does not imply no research allowed, but refers to limitation or restrictions on certain types of research, or restrictions on clearing research sites after completion of research project.

Table 12. Subcategories of Comments Regarding Skiing

<u>Subcategory</u>	<u>n</u>	<u>Unfavorable</u>	<u>Favorable</u>
Increased grooming	4	2	2
Sharing	31	23	8

Table 13. Subcategories of Comments Regarding Trails

<u>Subcategory</u>	<u>n</u>	<u>Unfavorable</u>	<u>Favorable</u>
Boardwalk	5	2	3
Development	4	0	4
Limits in summer	10	2	8
New trails	4	1	3
Tree cutting	24	15	9
Wheel vehicles in winter	10	9	1
Widening	7	4	3
Wood Chips	11	2	9

A few notable trends in the open ended comments:

- Those commenting on dogs on ski trails seemed favorable toward limiting dogs on ski trails.
- With respect to increased lights on ski trails, 2 to 1 favored increasing lighting.
- Several comments were received on the need to install a road crossing if the Tanana Loop road extension is built, however several comments unfavorable to the Tanana Loop road extension were received.
- Comments regarding Smith Lake Parking were generally favorable.
- Most of the comments regarding research were favorable toward ensuring research is compatible with values of the north campus area.
- A majority of comments regarding skiing indicated a desire for skiing only trails in the winter, and
- With regards to tree cutting, the majority of comments were unfavorable.

Survey

One hundred and twenty eight individuals completed the survey. Since the respondents were self-selected, the response rate cannot be calculated. Because the results were not based on a probability sample of the population, confidence intervals for population parameters cannot be computed and caution must be used when generalizing the results.

Although most questions included a seven point response scale, ranging from highly acceptable or strongly agree to highly unacceptable or strongly disagree, the following figures show the responses collapsed into acceptable / neither / unacceptable categories. The results across all response categories appear in Appendix A.

Hypothetical Future Scenario 1

Research use has increased dramatically in the North Campus Area, and many of the projects require the area to be free from human disturbance. There are now many signs stating that use is restricted and more fences to keep people from research sites. While most of North Campus is still available for outreach and recreation, it is becoming more difficult for users to know where they can and cannot pursue their activities, and some feel the visual appeal of the area has been diminished.

Solutions may include restricting additional research activity in certain areas of North Campus, restricting additional research activity in the North Campus Area in general, requiring additional research projects in North Campus to be more compatible with other uses, or taking no action.

In the situation described in hypothetical future scenario 1, how acceptable would it be to:

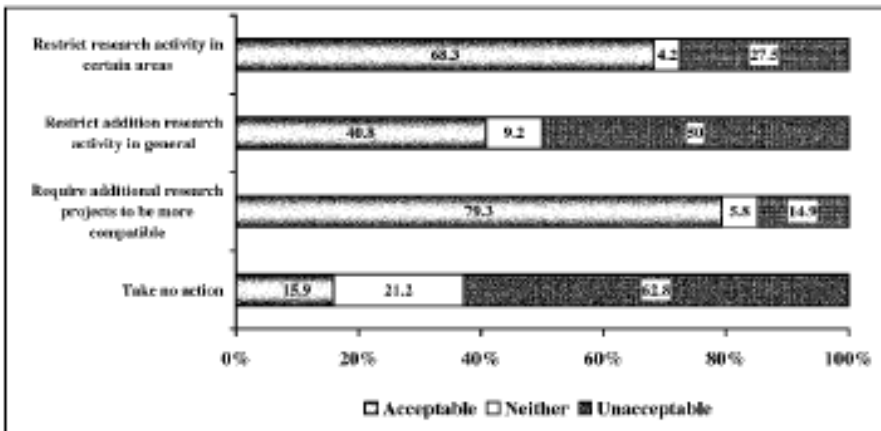


Figure 1. Responses to Hypothetical Future Scenario 1

Note, although there was less response, all n's vary around 109-128. See Appendix A for individual n's.

- The majority of respondents felt taking no action to reduce conflicts between research and outreach and recreation is unacceptable.
- The approach to reduce these conflicts with the most acceptance was requiring research to be more compatible with other uses.
- Respondents were relatively divided on restricting research in general.

Hypothetical Future Scenario 2

It has been proposed to widen a one-mile segment of an existing trail. The wider trail will allow skate skiing in the winter. However, widening the trail would encroach on several areas that are highly desirable for future research projects.

Under the conditions described in hypothetical future scenario 2, please indicate your level of agreement with the following statement.

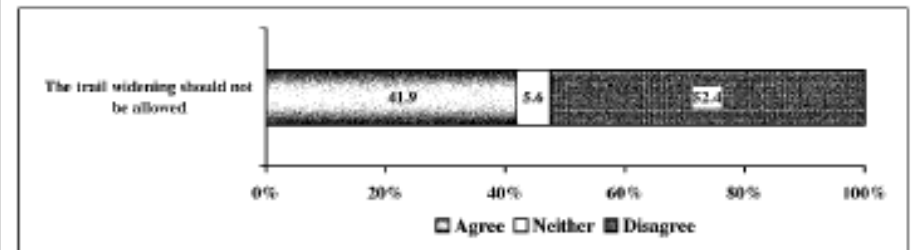


Figure 2. Responses to Hypothetical Future Scenario 2

- Respondents were split with respect to allowing the trail to be widened.

Hypothetical Future Scenario 3

Outreach and recreation use has increased in North Campus and is starting to encroach on research activities. Research equipment has been tampered with, resulting in expensive repairs and missing data. In addition, outreach and recreation users have accidentally trampled research plots, essentially ruining long-term research efforts.

One potential solution would be to restrict outreach and recreation use. Restricting outreach and recreation use may be accomplished by closing certain trails, closing certain parking areas, or closing off certain sections of the North Campus Area to outreach and recreation. Another potential solution would be to take no action.

In the situation described in hypothetical future scenario 3, how acceptable would it be to:

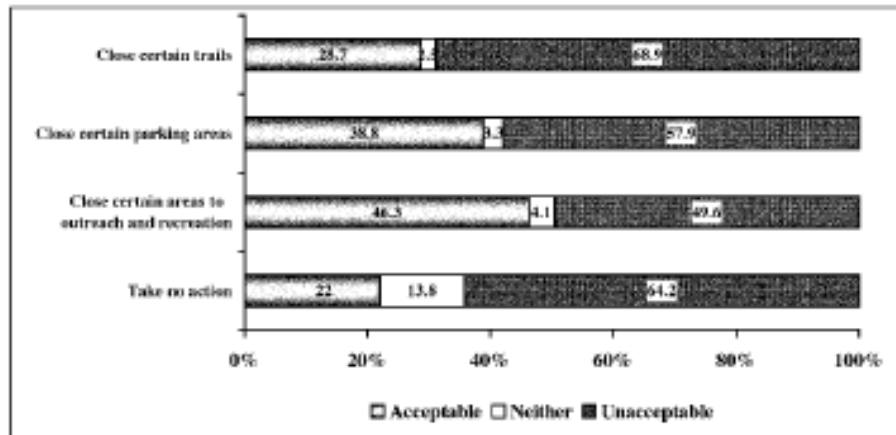


Figure 3. Responses to Hypothetical Future Scenario 3

- The majority of respondents felt taking no action to alleviate conflicts between outreach and recreation and research was unacceptable.
- Of the potential solutions, closing certain areas to outreach and recreation had the highest level of support.

Hypothetical Future Scenario 4

A research project is proposed that would require a specific research site in North Campus to be free of any direct human disturbance for a period of three years. There is a trail adjacent to the area that is used as a multi-use trail in the summer and as an ungroomed ski trail in the winter. The researchers propose fencing the site to ensure the area remains free from direct human impacts. While current uses would continue, a fence would be visible.

Under the situation described in hypothetical future scenario 4, please indicate your level of agreement with the following statements.

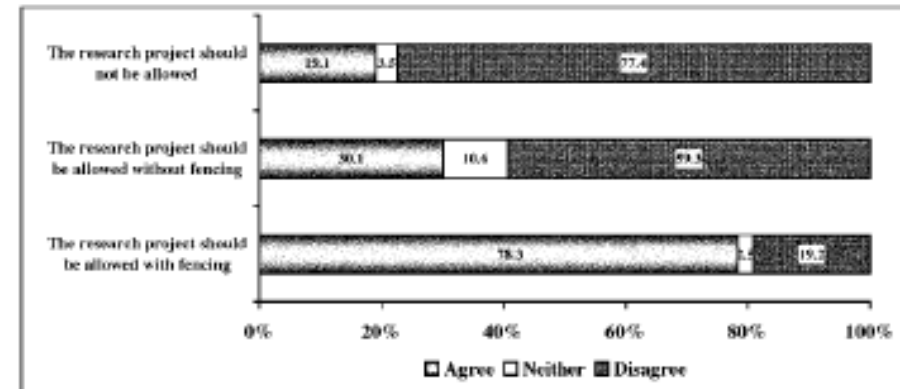


Figure 4. Responses to Hypothetical Future Scenario 4

- The majority of respondents agreed that the research project should be allowed with fencing.
- Only two of 10 respondents agreed that the research project should not be allowed.

Questions Regarding Branches / Tree Removal

Some trees lining the trails in North Campus have branches that hang over the trail, preventing snow from reaching the trails in some areas and causing safety concerns (such as falling branches) in both summer and winter. Overhanging branches or entire trees can be removed to allow more snow to reach the ski trails in the winter and improve safety of the trails. However, this can impact the aesthetics of the trails, and not all may agree that removing branches or trees along the trails is appropriate for management of the North Campus.

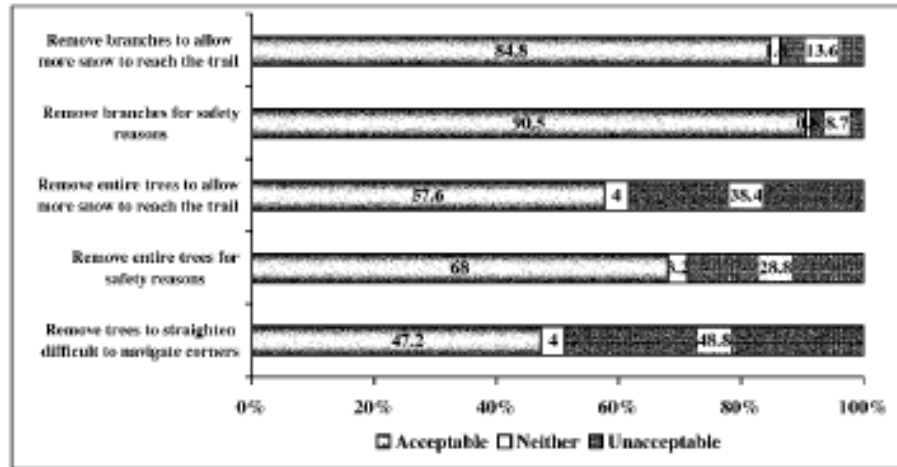


Figure 6. Responses to Questions Regarding Branches / Tree Removal

- Respondents found it more acceptable to remove branches to allow more snow to reach the trail and for safety than removing entire trees for the same reason.
- Respondents were split on the acceptability of removing trees to straighten difficult to navigate corners.

Questions Regarding Trail Surfaces, Permafrost Issues, and Damage to Roots

Some North Campus trails are in areas of permafrost. While this is not an issue in the winter, they sometimes remain wet throughout most of the summer. Summer use of these trails may cause erosion and damage to the vegetation. The damaged vegetation may, in turn, stimulate melting of the permafrost. One potential solution would be to limit summer use. Another potential solution would be to install surface insulation materials such as wood chips to prevent the permafrost from melting. An additional solution may be building boardwalks to prevent erosion and damage to the vegetation.

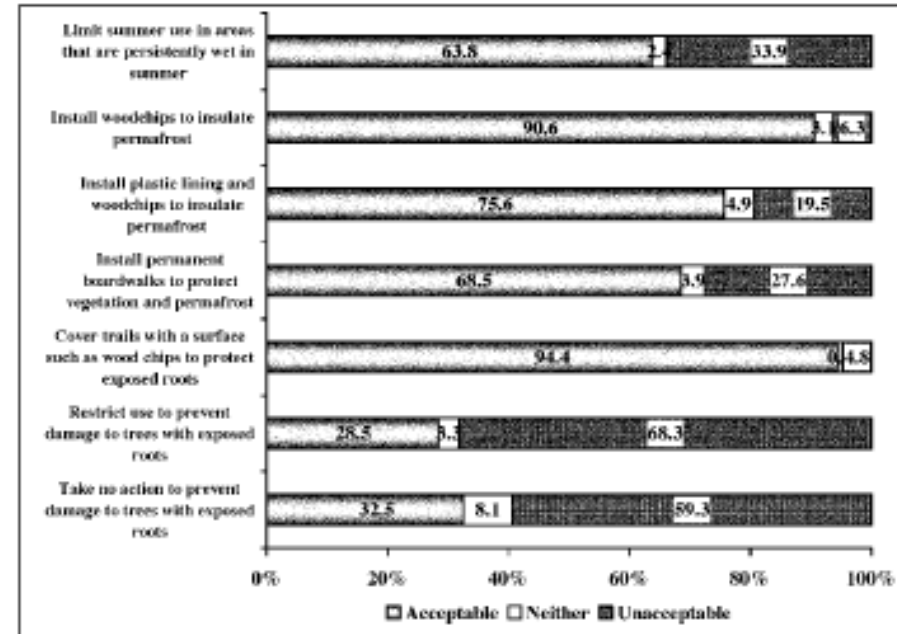


Figure 7. Responses to Questions Regarding Trail Surfaces, Permafrost Issues, and Damage to Roots

- Approximately 9 out of 10 respondents felt it was acceptable to cover trails with woodchips to insulate permafrost and to protect exposed roots.
- Installing permanent boardwalks to protect vegetation was acceptable to approximately 7 out of 10 respondents.
- Approximately 7 out of 10 respondents felt restricting use was unacceptable.

Questions Regarding T-Field Road

The T-field Road is one area where a relatively high amount of conflict seems to occur. There is a high concentration of research along the road, and it is used to access many other research projects. The road is also excellent for skiing due to flatness and lack of overhanging branches. In the winter, researchers desiring access by wheeled motorized vehicles can be in conflict with those desiring to use the road for skiing. The management difficulty is maintaining access to research sites along the T-field Road, while preserving its value as a ski trail.

Prohibiting wheeled motorized access in the winter is one potential solution. Another potential solution is to require advance notice from the researcher interested in wheeled motorized access to be provided to the NCA manager. The trails could then be groomed after the wheeled motorized access.

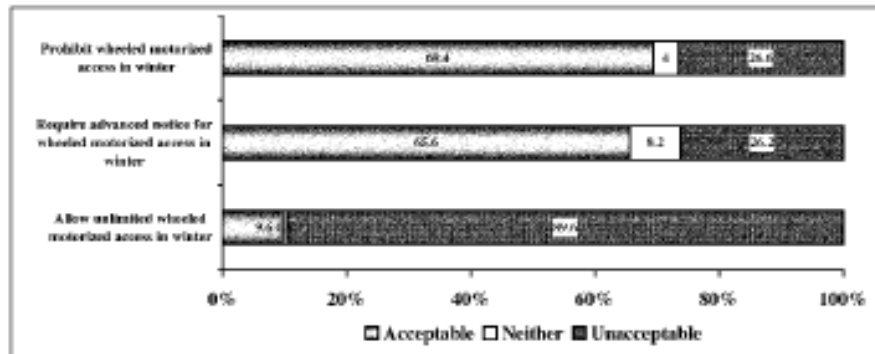
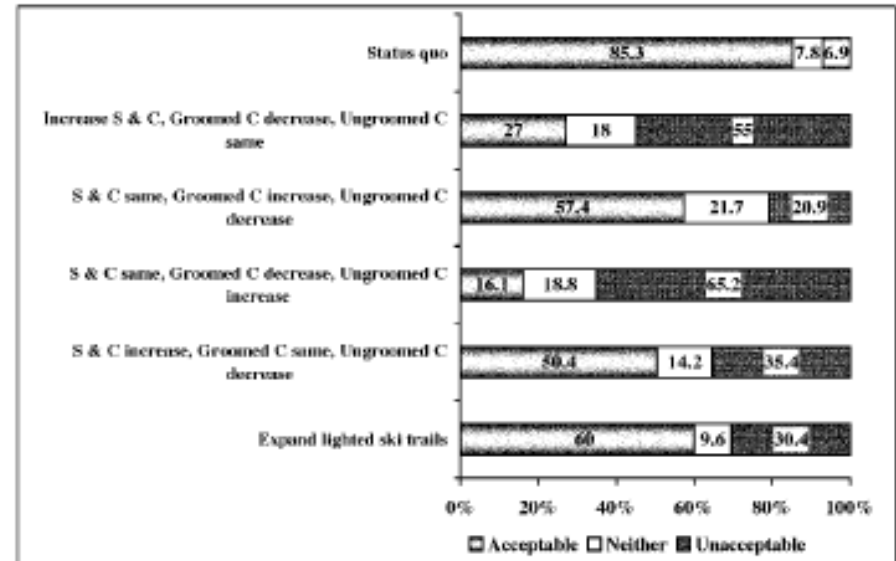


Figure 8. Responses to Questions Regarding T-Field Road

- 9 of 10 respondents felt it was unacceptable to allow unlimited wheeled motorized access in winter.
- Approximately 7 of 10 respondents found it acceptable to limit motorized wheel access in winter and require advanced notice for wheeled access.

Questions Regarding Ski Trails

Currently in the North Campus Area, there is a mix of winter trails groomed for skate and classic skiing, groomed for classic skiing only, and ungroomed for classic skiing. Different people may have different perspectives on the appropriate mix of ski trails in the North Campus Area. The current allocation of ski trails is: Groomed skate and classic = 68%, Groomed classic only = 12%, Ungroomed classic skiing = 20%.

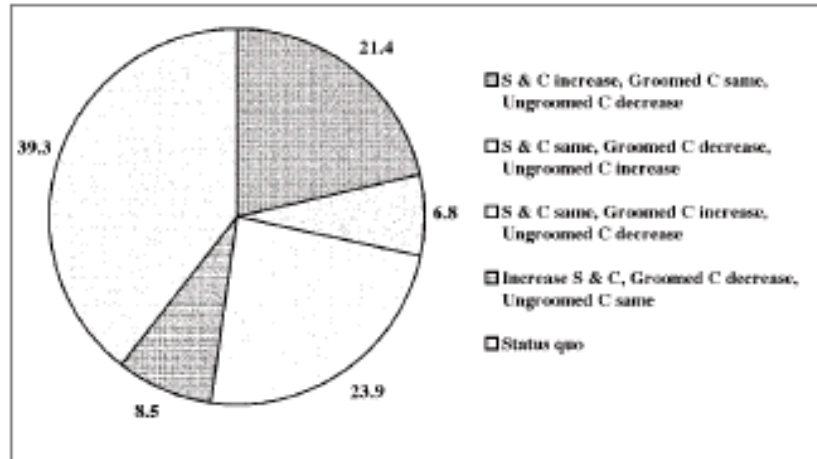


Note: S & C = groomed skate and classic, Groomed C = Groomed classic only, Ungroomed C = Ungroomed classic only

Figure 9. Responses to Questions Regarding Ski Trails

- Keeping the proportions of ski trails at status quo had the highest level of acceptability.
- Approximately one-half of respondents found the alternative that kept groomed skate and classic trails the same, but increased groomed classic only trails and decreased ungroomed classic trails acceptable.
- Approximately one-half of respondents found the alternative that increased groomed skate and classic trails, kept groomed classic only trails the same and decreased ungroomed classic trails acceptable.
- Approximately 6 of 10 respondents felt expanding the lighted ski trails was acceptable.

Most Preferred Ski Trail Alternative



Note: S & C = groomed skate and classic, Groomed C = Groomed classic only, Ungroomed C = Ungroomed classic only

Figure 10. Most Preferred Ski Trail Alternative

- Status quo was the most preferred alternative.

If the respondents felt the amount of lit ski trails should be expanded, they were asked to indicate where on a map the lights should be located (Figure 11).

- The most cited location for additional ski trail lights was the T-Field.
- The second most cited locations for additional ski trail lights were midnight express, Big Whizzy, and the Smith Lake Connector.

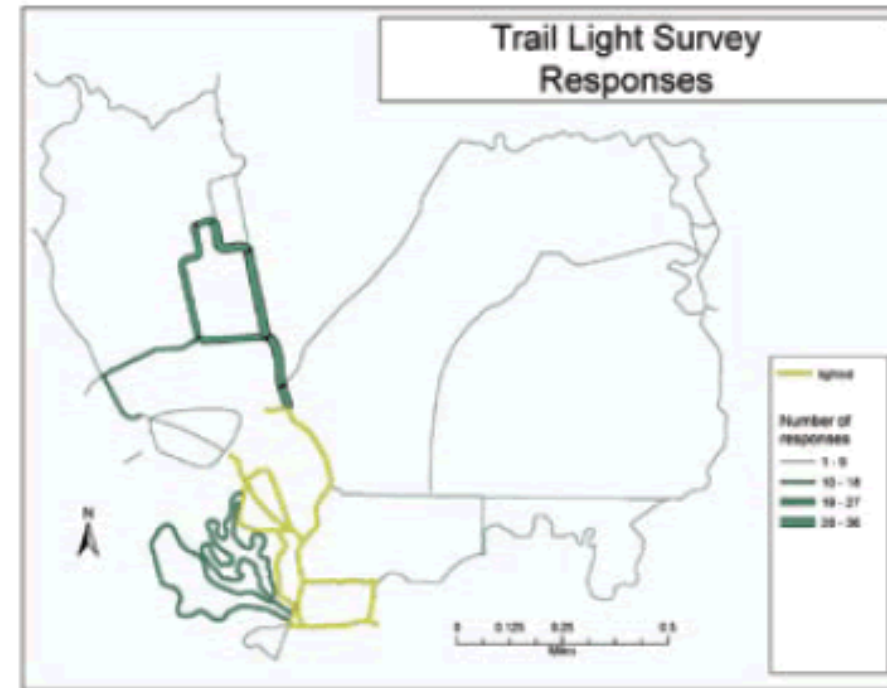


Figure 11. Responses to Where Additional Ski Trail Lights Should be Located

Cluster Analysis

While the frequencies provide an indication of the acceptability or agreement of specific management issues, it does not give an overall indication to different segments of the respondents. Cluster analysis groups the respondents into groups based on similar response patterns. This provides a segmentation of respondents who hold similar views toward management.

Reliability analysis / scaling

Cluster analysis groups respondents by response patterns to questions. It is advantageous to have a diversity of questions to group respondents. However, too many questions and it may be difficult to make meaningful distinctions between groups. This survey consisted of 40 questions, however some questions measured similar concepts. To simplify the analysis, the questions that measure similar concepts can be averaged together to form one score, or scale, for the concept the questions are measuring.

The first step to constructing a scale is to ensure the questions are measuring the same concept. One way to determine this is through reliability analysis. One such reliability analysis is Cronbach's Alpha, which computes the average of all possible correlations among items to be included in the scale. Typically an Alpha value of .6 or higher is taken as an indication the items are measuring the same concept. To be more stringent, an alpha value of .7 was used as the cut off for this analysis. In other words, if the items had a Cronbach's Alpha of .7 or higher, they were combined into a scale. The following items were combined into scales.

Table 14. Results of Reliability Analysis

Items	Cronbach's Alpha	n
Restrict additional research activity in certain areas of North Campus	.83	119
Restrict additional research activity in the North Campus in general		
Close certain trails	.79	121
Close certain parking areas		
Close certain areas of outreach and recreation use		
The research project should not be allowed ^a	.85	114
The research project should be allowed with fencing the research site		
Remove branches to allow more snow to reach the trail	.82	125
Remove branches for safety reasons		
Remove entire trees to allow more snow to reach the trail		
Remove entire trees for safety reasons		
Install woodchips to insulate permafrost	.70	119
Install plastic lining and woodchips to insulate permafrost		
Line the trails with woodchips to protect exposed roots		

a. reverse coded

A cluster analysis was conducted on the scale items and the following items.

Table 15. Results of K-Means Cluster Analysis

	Cluster		
	1 n=50 (44%)	2 n=13 (12%)	3 n=50 (44%)
Restrict research activity*	2.50	4.08	4.64
The trail widening should not be allowed	6.46	2.77	2.50
Allow research project along trail*	3.24	2.19	1.91
Walkers should not be allowed on groomed ski trails	1.12	5.23	1.64
Dogs should not be allowed on groomed ski trails	1.38	4.46	1.24
The network of winter walking trails in the North Campus Area should be expanded	2.72	2.08	3.30
Close area to outreach and recreation*	5.95	3.69	3.93
Remove trees or branches for snow and safety*	2.09	3.75	2.76
Install woodchips on trails*	1.94	2.49	2.11
Prohibit wheeled motorized access in winter	1.76	4.23	2.86

* Scale items – see above for items in scale

1 = Highly Acceptable or Strongly Agree; 7 = Highly Unacceptable or Strongly Disagree

Cluster 1 could be labeled as skiers / recreationists. This group, which comprised 44% of the respondents, considered it to be most acceptable to restrict research activity, least acceptable to no allow the trail widening, found in less acceptable to allow the research project along the trail, strongly agreed that walkers and dogs should not be allowed on groomed ski trails, found it unacceptable to close area to outreach and recreation, and had the highest level of acceptability for removing trees of branches for snow and safety.

Cluster 2 might be labeled walkers / researchers / natural. This group (12% of respondents) had less acceptability than cluster 1 toward restricting research activity, found not allowing the trail widening acceptable. This group found not allowing walkers or dogs on the trails to be more unacceptable than the other groups and felt it was acceptable to expand the network of winter walking trails. This group also had the least acceptability toward removing trees and installing woodchips on trails.

Cluster 3 seems to represent researchers / skiers. This group (44% of respondents) rated restricting research activity with the highest level of unacceptability and found it acceptable to allow the research project along the trail and restrict the trail widening. Yet this group found it to be acceptable to not allow walkers and dogs on groomed ski trails and found it acceptable to remove branches for snow and safety reasons and to prohibit wheeled motorized access in winter.

Interestingly no group found it highly acceptable to close the area to outreach and recreation.

APPENDIX A – ALL RESPONSE CATEGORIES

Hypothetical Scenario 1*

	n	Highly acceptable	Moderately acceptable	Slightly acceptable	Neither	Slightly unacceptable	Moderately unacceptable	Highly unacceptable
...restrict additional research activity in certain areas of North Campus?	120	28.8	23.3	19.2	4.2	6.7	10.8	10
...restrict additional research activity in the North Campus Area in general?	120	10.8	13.3	16.7	9.2	10	18.3	21.7
...require additional research projects in North Campus to be more compatible with other uses?	121	45.3	18.2	14.9	5.8	4.1	6.6	4.1
...take no action?	113	2.7	7.1	6.2	21.2	10.6	14.2	38.1

a. n = number of responses for each item, all other cell entries are percent of respondents in each category

Hypothetical Scenario 2*

	n	Strongly agree	Moderately agree	Slightly agree	Neither	Slightly disagree	Moderately disagree	Strongly disagree
The trail widening should not be allowed.	124	22.6	15.3	4	5.6	9.7	13.7	29

a. n = number of responses for each item, all other cell entries are percent of respondents in each category

Hypothetical Scenario 3*

	n	Highly acceptable	Moderately acceptable	Slightly acceptable	Neither	Slightly unacceptable	Moderately unacceptable	Highly unacceptable
...close certain trails?	122	6.6	10.7	11.5	2.5	5.7	18	45.1
...close certain parking areas?	121	10.7	16.5	11.6	3.3	7.4	19.8	30.6
...close certain areas to outreach and recreation use?	123	10.6	17.1	18.7	4.1	3.3	12.2	34.1
...take no action?	109	10.1	3.7	8.3	13.8	14.7	14.7	34.9

a. n = number of responses for each item, all other cell entries are percent of respondents in each category

Hypothetical Scenario 4*

	n	Strongly agree	Moderately agree	Slightly agree	Neither	Slightly disagree	Moderately disagree	Strongly disagree
The research project should not be allowed.	115	7.8	4.3	7	3.5	12.2	20.9	44.3
The research project should be allowed, but without fencing.	113	11.5	8.8	9.7	10.6	16.8	20.4	22.1
The research project should be allowed with fencing the research site.	120	45.8	20	12.5	2.5	5	6.7	7.5

a. n = number of responses for each item, all other cell entries are percent of respondents in each category

Skiers and walkers*

	n	Strongly agree	Moderately agree	Slightly agree	Neither	Slightly disagree	Moderately disagree	Strongly disagree
Walkers should not be allowed on groomed ski trails.	123	72.4	8.9	6.5	.8	4.1	2.4	4.9
The network of winter walking trails in the North Campus Area should be expanded.	127	29.1	21.3	26.8	3.9	2.4	7.9	8.7

a. n = number of responses for each item, all other cell entries are percent of respondents in each category

Dogs on ski trails*

	n	Strongly agree	Moderately agree	Slightly agree	Neither	Slightly disagree	Moderately disagree	Strongly disagree
Dogs should not be allowed on groomed ski trails.	127	77.2	7.9	5.5		3.1	3.1	3.1
Dogs should not be allowed on maintained walking trails.	126	11.1	4.8	7.9	11.1	7.9	24.6	32.5
The designated winter dog use trails should be expanded.	124	22.6	17.7	17.7	12.1	4	8.9	16.9

a. n = number of responses for each item, all other cell entries are percent of respondents in each category

Winter / summer trails*

	n	Highly acceptable	Moderately acceptable	Slightly acceptable	Neither	Slightly unacceptable	Moderately unacceptable	Highly unacceptable
...remove branches to allow more snow to reach the trail?	125	52.8	18.4	13.6	1.6	4	4	5.6
...remove branches for safety reasons?	126	68.3	15.9	6.3	.8	5.6	.8	2.4
...remove entire trees to allow more snow to reach the trail?	125	29.6	12.8	15.2	4	8	7.2	23.2
...remove entire trees for safety reasons?	125	42.4	16	9.6	3.2	9.6	10.4	8.8
...remove trees to straighten difficult to navigate corners on ski trails?	125	28	10.4	8.8	4	5.6	16.8	26.4

a. n = number of responses for each item, all other cell entries are percent of respondents in each category

Permafrost*

	n	Highly acceptable	Moderately acceptable	Slightly acceptable	Neither	Slightly unacceptable	Moderately unacceptable	Highly unacceptable
...limit summer use in areas that are persistently wet in summer?	127	22	26	15.7	2.4	11.8	11	11
...install woodchips to insulate permafrost?	127	47.2	29.1	14.2	3.1	1.6	3.1	1.6
...install plastic lining and woodchips to insulate permafrost?	123	37.4	25.2	13	4.9	7.3	5.7	6.5
...install permanent boardwalks to protect vegetation and permafrost?	127	29.9	17.3	21.3	3.9	8.7	10.2	8.7

a. n = number of responses for each item, all other cell entries are percent of respondents in each category

Ski trails*

	Types of ski trails			Please indicate your acceptability of each scenario					
	Groomed skate and classic	Groomed classic only	Un-groomed classic	n	Highly acceptable	Slightly acceptable	Neither	Slightly unacceptable	Highly unacceptable
Status quo	same	same	same	116	61.2	24.1	7.8	5.2	1.7
Scenario A	increase	decrease	same	111	14.4	12.6	18	29.7	25.2
Scenario B	same	increase	decrease	115	35.7	21.7	21.7	11.3	9.6
Scenario C	same	decrease	increase	112	10.7	5.4	18.8	30.4	34.8
Scenario D	increase	same	decrease	113	31.9	18.6	14.2	14.2	21.2

a. n = number of responses for each item, all other cell entries are percent of respondents in each category

Erosion / exposed roots*

	n	Highly acceptable	Moderately acceptable	Slightly acceptable	Neither	Slightly unacceptable	Moderately unacceptable	Highly unacceptable
...cover the trails with a surface such as wood chips to protect exposed roots?	124	60.5	25	8.9	.8	.8	2.4	1.
...restrict use to prevent damage to trees with exposed roots?	123	4.1	6.5	17.9	3.3	14.6	20.3	33
...take no action to prevent damage to trees with exposed roots?	123	8.1	13	11.4	8.1	16.3	16.3	26

a. n = number of responses for each item, all other cell entries are percent of respondents in each category

T-Field Road*

	n	Highly acceptable	Moderately acceptable	Slightly acceptable	Neither	Slightly unacceptable	Moderately unacceptable	Highly unacceptable
... prohibit wheeled motorized access in winter?	124	51.6	9.7	8.1	4	10.5	10.5	5.6
... require advance notice for wheeled motorized access in winter?	122	38.5	16.4	10.7	8.2	6.6	8.2	11.5
... allowed unlimited wheeled motorized access in winter?	125	4.8	2.4	2.4	.8	4.8	8.8	76

n = number of responses for each item, all other cell entries are percent of respondents in each category

Lights Along Ski trails*

	n	Highly acceptable	Moderately acceptable	Slightly acceptable	Neither	Slightly unacceptable	Moderately unacceptable	Highly unacceptable
... expand the amount of lighted ski trails in North Campus?	125	32	15.2	12.8	9.6	6.4	8.8	15.2

n = number of responses for each item, all other cell entries are percent of respondents in each category