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Research Report

The Mount Redington Wind Farm Visual Analysis Survey

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Prepared for

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Methodology

The Sample

The Mount Redington Wind Farm Visual Analysis Survey is based on in-person interviews conducted from October 3rd to 13th, 2003 with 93 hikers at the Saddleback Mountain, Crocker Mountain, and Sugarloaf Mountain trailheads, then again from August 25 to 31, 2004, with 108 hikers at the Saddleback Mountain and Crocker Mountain trailheads.

The sampling approach used during the course of this research was designed to target only those hiking along the trails and to exclude those using the areas for other purposes (such as picnics). Interviewers were positioned so they could intercept those hiking along the trail as well as those who parked at the trailhead and then began their hike. Interviewers identified hikers and approached them to conduct the interview.

In order to minimize the burden on hikers (since the survey took approximately 12-15 minutes to administer) and to maintain a sampling process to insure a representative sample, interviewers did not approach every hiker. Instead, the interviewers identified "groups" of hikers. A group was defined as hikers that were traveling together. The interviewer would determine the number of hikers in a group and then randomly select respondents to participate. Up to two hikers per group were approached and asked to participate in the research depending on group size. If the selected respondent refused to participate, another person was not selected from the same group to replace this respondent. Rather, the interviewers noted this respondent as refusing to participate and then waited for the next group of hikers. When a respondent agreed to participate, the interviewer took them to a table that had been set up to administer the survey so that only the respondent would provide answers (this was done to avoid other members of the group who were not selected from adding their input to that of the respondents). The interview was administered in full to every respondent.

Over the course of data collection during October 2003, a total of 327 hikers passed interviewers at the trailheads in a total of 102 groups. Group sizes varied from one hiker to nine hikers. The average group consisted of 3.2 hikers. Among those approached to complete the survey, 45 respondents refused to be interviewed, and 12 respondents were in groups that had been previously interviewed at another trailhead. Ninety-three respondents completed the interview.

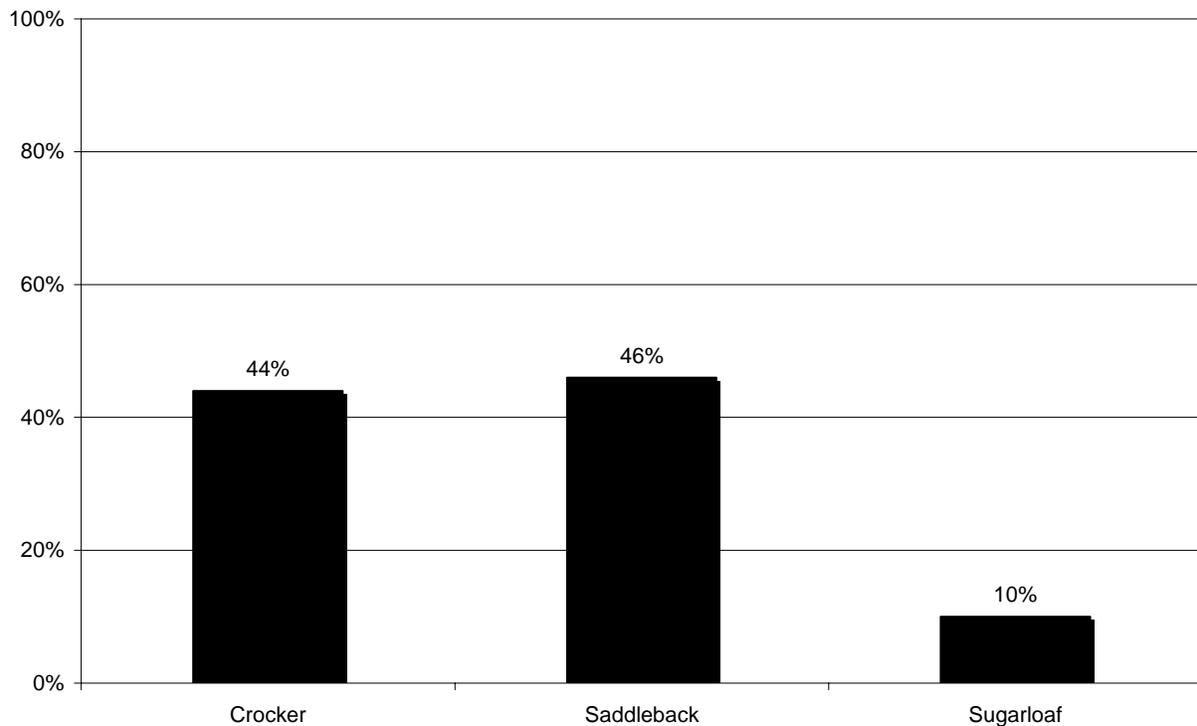
Over the course of data collection during August 2004, a total of 391 hikers passed interviewers at the trailheads in a total of 184 groups. Group sizes varied from one hiker to ten hikers. The average group consisted of 2.1 hikers. Among those approached to complete the survey, 27 respondents refused to be interviewed, and 9 respondents were in groups that had been previously interviewed at another trailhead. One hundred eight respondents completed the interview.

The table below provided a summary of the target population and outcome of the interviewing process:

	October 2003	August 2004
Total Population	327 (in 102 groups)	391 (in 185 groups)
<i>Previously Participated in the Research</i>	12	9
Eligible Population	315	382
Refused to participate	45	27
Completed surveys	93	108

Among the 93 completed interviews in October 2003, 53% were completed at the Saddleback Mountain trailhead, 26% at the Crocker Mountain trailhead and 22% at the Sugarloaf Mountain trailhead. Among the 108 completed interviews in August 2004, 42% were completed at the Saddleback Mountain trailhead and 58% at the Crocker Mountain trailhead. The interviewers were positioned directly at the trailhead to allow them to intercept through hikers as well as those parking in the lot and doing a day hike.

Location of Interview



Response Rate

In October 2003, a total of 138 hikers were approached and asked to participate in the research. Among these respondents, 45 refused to participate in the research and 93 completed the survey. The response rate among hikers was 67% in October 2003.

In August 2004, a total of 135 hikers were approached and asked to participate in the research. Among these respondents, 27 refused to participate in the research and 108 completed the survey. The response rate among hikers was 81% in August 2004.

Overall the response rate was 74% across both administrations.

The Survey

The survey instrument was designed to assess hikers' attitudes about the visual impact of the proposed wind farm and their views of wind power as a source of energy. The survey questions included in the survey covered the following topics:

- Respondent characteristics
- Participation in outdoor activities in the Carrabassett Valley/Rangeley area
- Factors that contribute to the quality of the hiking experience
- Impacts of human activity on the hiking experience
- Assessment of the appropriateness of wind power for Maine
- Assessment of the visual impact of the proposed Redington wind farm
- Impact of the Redington wind farm on the hiking experience
- Assessment of the appropriateness of the Redington wind farm

The Visualizations

In evaluating their views, respondents were shown a series of visualizations and asked to evaluate their scenic value. The survey methodology used these visualization to assess the respondents' perceptions of the scenic value in a before view and a view of the area with the proposed Redington wind farm. The visualizations were all 30" by 9" and were prepared by Terrance J. Dewan and Associates. This size was chosen to optimize viewing conditions. The visualization provided before and after views from a number of locations at varying distances (from approximately 6 miles to 1.5 miles). The visualizations shown were those that would be seen from Mount Abraham, Saddleback Mountain, North Crocker Mountain, and from the Sugarloaf Ski Area. Respondents evaluated the existing view and the view with the proposed Redington wind farm.

Sampling error

The percentages reported for the entire sample are within plus or minus 6.9% that would be found if all hikers in the area during the period of data collection were interviewed. For example, if our survey showed that 50% of the sample favored the development of wind power, then the comparable figure for the population would be somewhere between 43.1% and 56.9% with a confidence level of 95%.

Key Findings

Respondent Characteristics

- Seven in ten respondents were male.
- The ages of respondents varied from 18 to 81.
- Almost four in ten respondents (36%) lived in Maine.
- Twenty-two percent (22%) of respondents belonged to a club that helps maintain the Appalachian Trail.
- Sixteen percent (16%) of respondents were members of the Appalachian Trail Conference.

Participation in Outdoor Activities

- Nine out of ten respondents had hiked in the area at least once before
- Most respondents had hiked sections of the Appalachian Trail at least once
- Half of the respondents characterized themselves as day hikers
- Respondents participated in a variety of outdoor activities during the past 12 months in the Carrabassett Valley/Rangeley area, including hiking, camping, canoeing or kayaking, cross-county skiing, and downhill skiing.
- Respondents had participated in outdoor activities in the Carrabassett Valley/Rangeley area 10 times on average during the past year. The median number of times respondents participated in these activities was 3.

The Hiking Experience

- Many hikers had hiked in the area in the past couple of years.
- Respondents rated natural sights and sounds and long distant views of mountain scenery as very important to the quality of their hiking experience. The physical challenge and meeting other hikers were rated as significantly less important.
- Respondents indicated that human activity has a negative impact on the quality of their hiking experience, with views of industrial facilities having the greatest negative effect.

Assessment of Visual Impact of the Proposed Redington Wind Farm

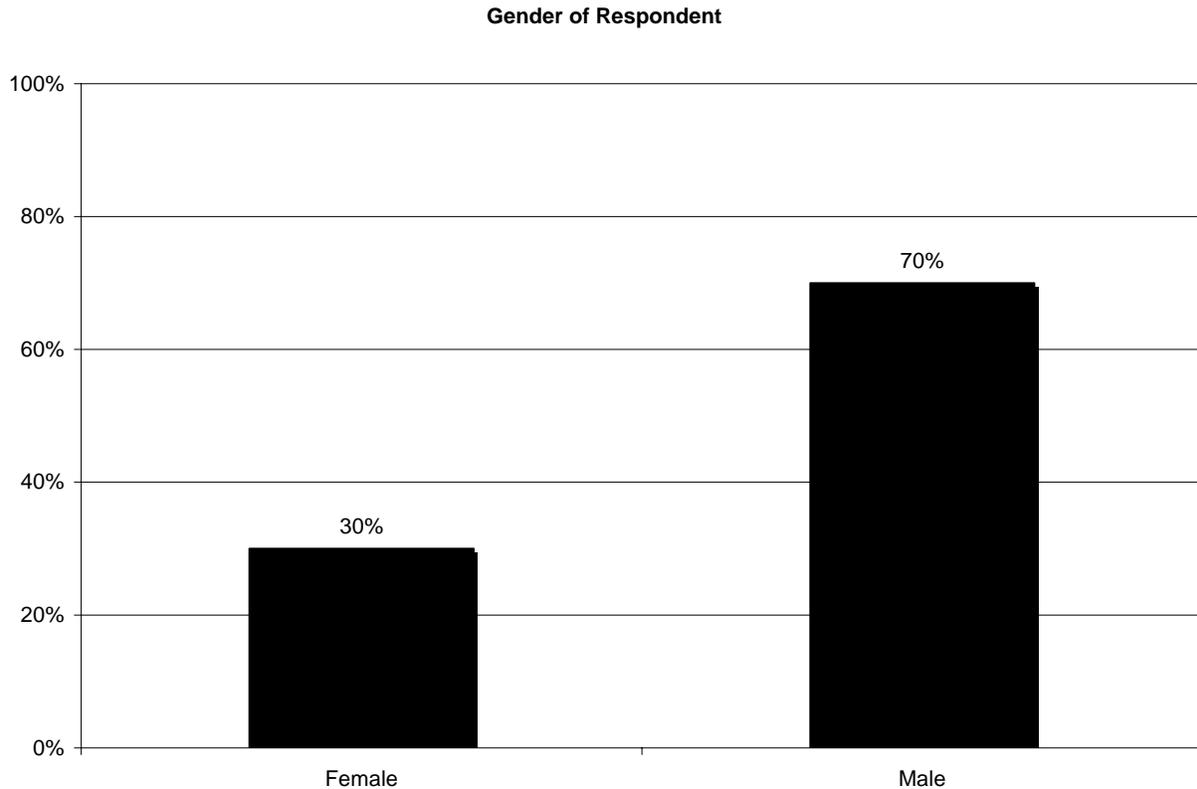
- The scenic value of the existing view from Saddleback Mountain is rated very high. The scenic value of the view with the proposed wind farm is rated neither low nor high.
- The scenic value of the existing view from Mount Abraham is rated very high. The scenic value of the view with the proposed wind farm is rated neither low nor high.
- The scenic value of the existing view from North Crocker Mountain is rated very high. The scenic value of the view with the proposed wind farm is rated neither low nor high with or without black blades.
- The scenic value of the existing view from North Crocker Mountain in cloudy conditions is rated high to very high. The scenic value of the view with the proposed wind farm is rated neither low nor high in cloudy conditions.
- The scenic value of the existing view from Sugarloaf is rated slightly high. The scenic value of the view with the proposed wind farm is rated as neither low nor high.
- The impact on the scenic value of views with the proposed wind farm is moderated by distance and by the presence of other man made features.
- Overall, respondents assess the visual impact of the Redington wind farm as slightly negative.
- Overall, respondents indicated that the proposed wind farm would have a slightly negative to no impact on the quality of their hiking experience.
- In comparison to other evidence of human activity, the impact of the proposed Redington wind farm on the quality of the hiking experience is not as negative.

Views of Wind Power in General and Views Towards the Proposed Redington Wind Farm

- Respondents consider wind power fairly appropriate for Maine.
- After considerations of the visual impacts, respondents view the proposed Redington wind farm as somewhat appropriate.
- Given potential benefits, respondents are more likely to consider the Redington wind farm as appropriate.

Respondent Characteristics

Seven in ten respondents were male.



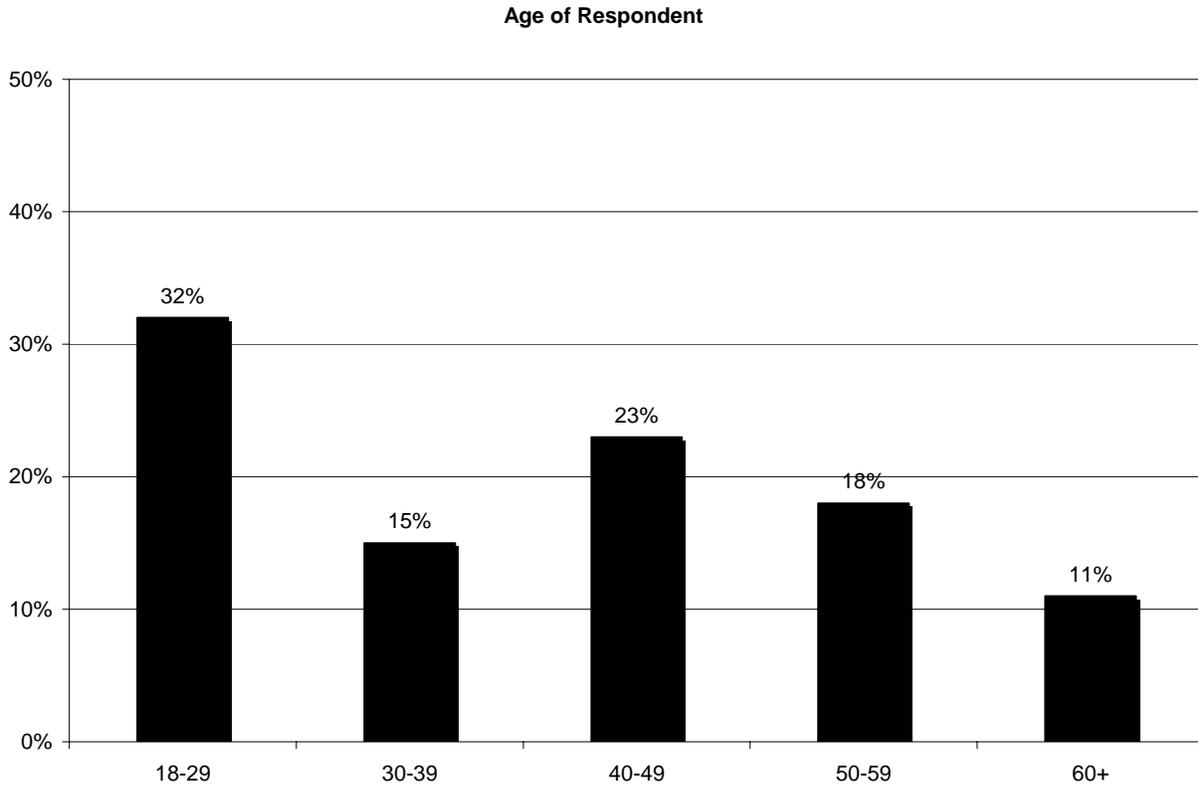
Comments:

Overall, seventy percent of respondents were male while 30% were female. This ratio was similar in both October 2003 and August 2004.

Gender of Respondent

	Oct-03	Aug-04	Total
Female	33%	28%	30%
Male	67%	72%	70%
Total	100%	100%	100%

The ages of respondents varied from 18 to 81.



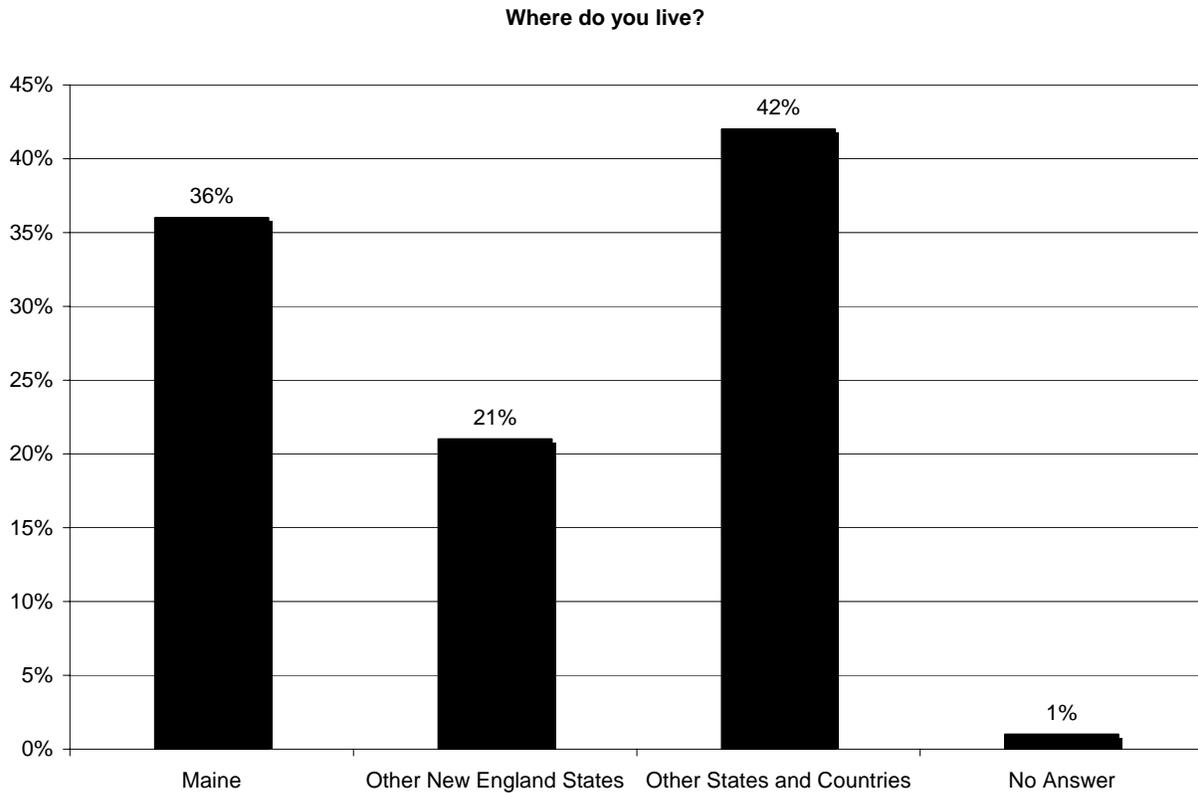
Comments:

Respondents' ages ranged from 18 to 81. Thirty-two percent (32%) were between the ages of 18-29, 15% were between 30 and 39, 23% between 40 and 49, 18% between the ages of 50 and 59 and 11% of respondents were 60 years of age or older.

Age of Respondent

	Oct-03	Aug-04	Total
18-29	22%	42%	32%
30-39	23%	8%	15%
40-49	26%	21%	23%
50-59	22%	15%	18%
60+	9%	14%	11%
Total	100%	100%	100%

Almost four in ten respondents (36%) lived in Maine.



Comments:

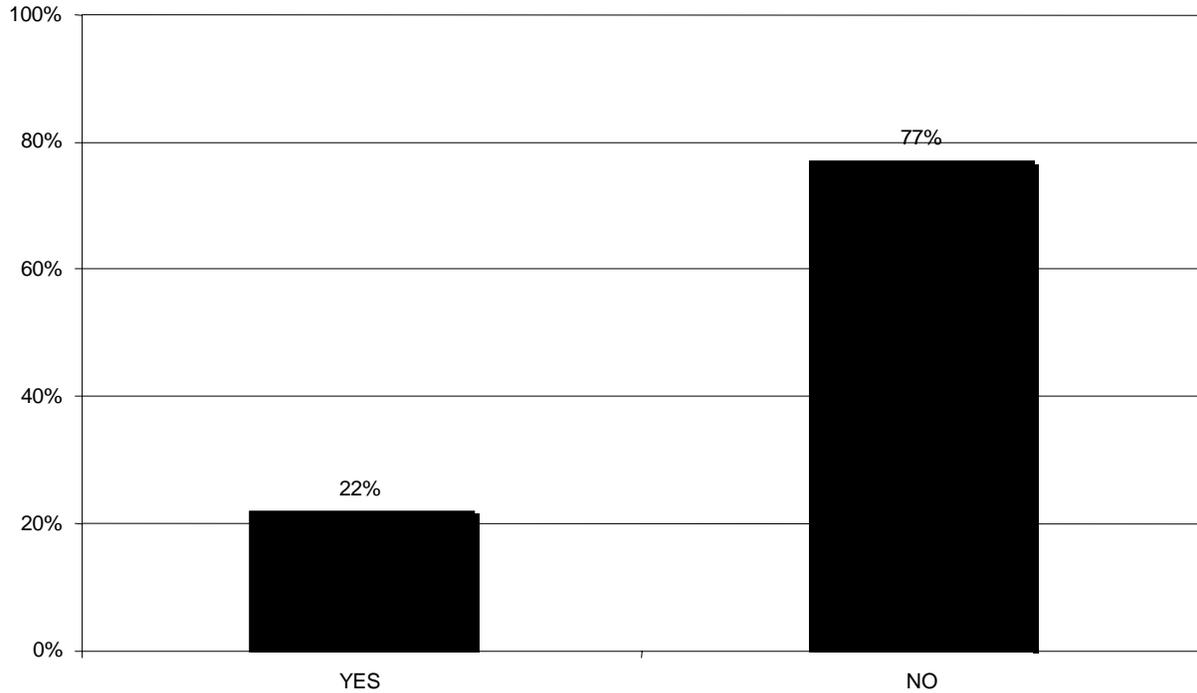
Thirty-six percent (36%) of respondents lived within the state of Maine. Twenty-one percent (21%) of respondents lived in other New England states (Massachusetts, Connecticut, New Hampshire, and Vermont) and 42% of respondents lived in states outside of New England or in another country (England, Germany, France, or Canada). Not surprisingly, the percentage of respondents from outside the state if Maine was greater in August (82%) than in October (41%).

Where do you live?

	Oct-03	Aug-04	Total
Maine	58%	18%	36%
Other New England States	14%	27%	21%
Other States and Countries	27%	55%	42%
No Answer	1%	1%	1%
Total	100%	100%	100%

Twenty-two percent (22%) of respondents belonged to a club that helps maintain the Appalachian Trail.

Q43 Are you a member of a club that maintains the Appalachian Trail (such as the Maine Appalachian Trail Club)?



Comments:

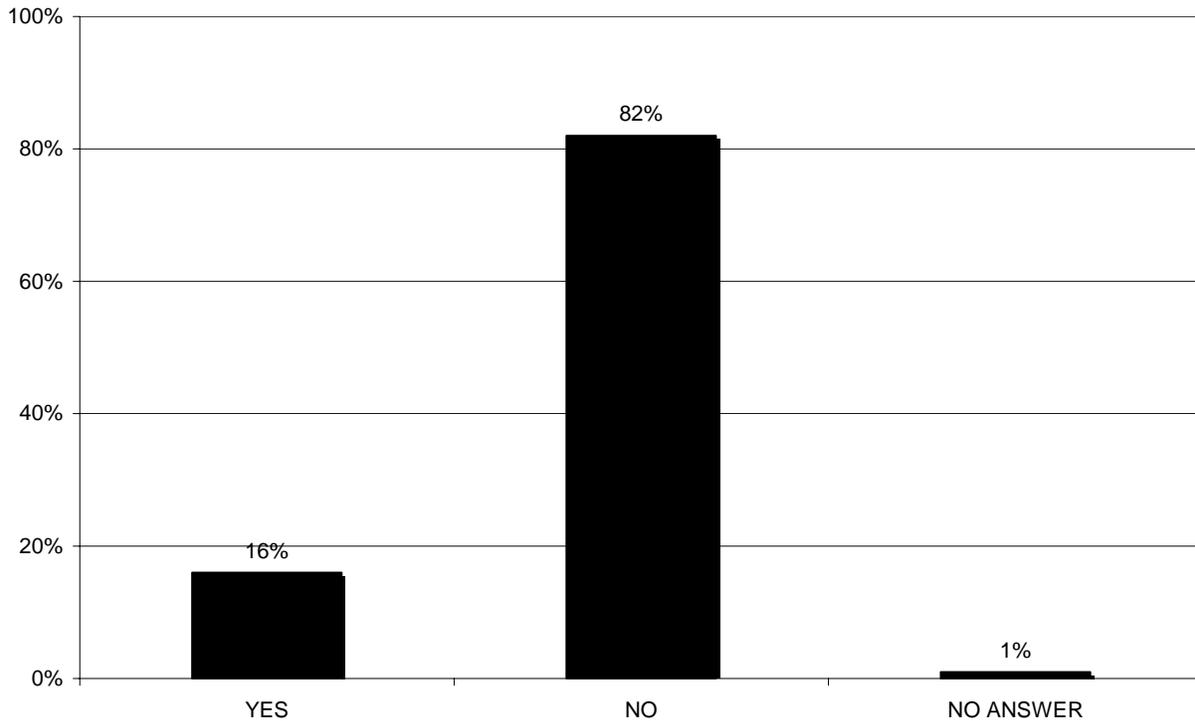
Twenty-two percent (22%) of respondents indicated they belonged to a club that helps to maintain the Appalachian Trail, while 77% of respondents did not belong to such a club. Clubs that respondents belonged to included the Maine Appalachian Trail Club, various chapters of the Appalachian Mountain Club (commonly Boston), and the Sierra Club.

Q43: Are you a member of a club that maintains the Application Trail?

	Oct-03	Aug-04	Total
YES	16%	28%	22%
NO	83%	72%	77%
NO ANSWER	1%		0%
Total	100%	100%	100%

Sixteen percent (16%) of respondents were members of the Appalachian Trail Conference.

Q44 Are you a member of the Appalachian Trail Conference?



Comments:

Sixteen percent of respondents reported they were members of the Appalachian Trail Conference while 82% reported they were not members. The August time period saw a 16% increase in Appalachian Trail Conference members over October.

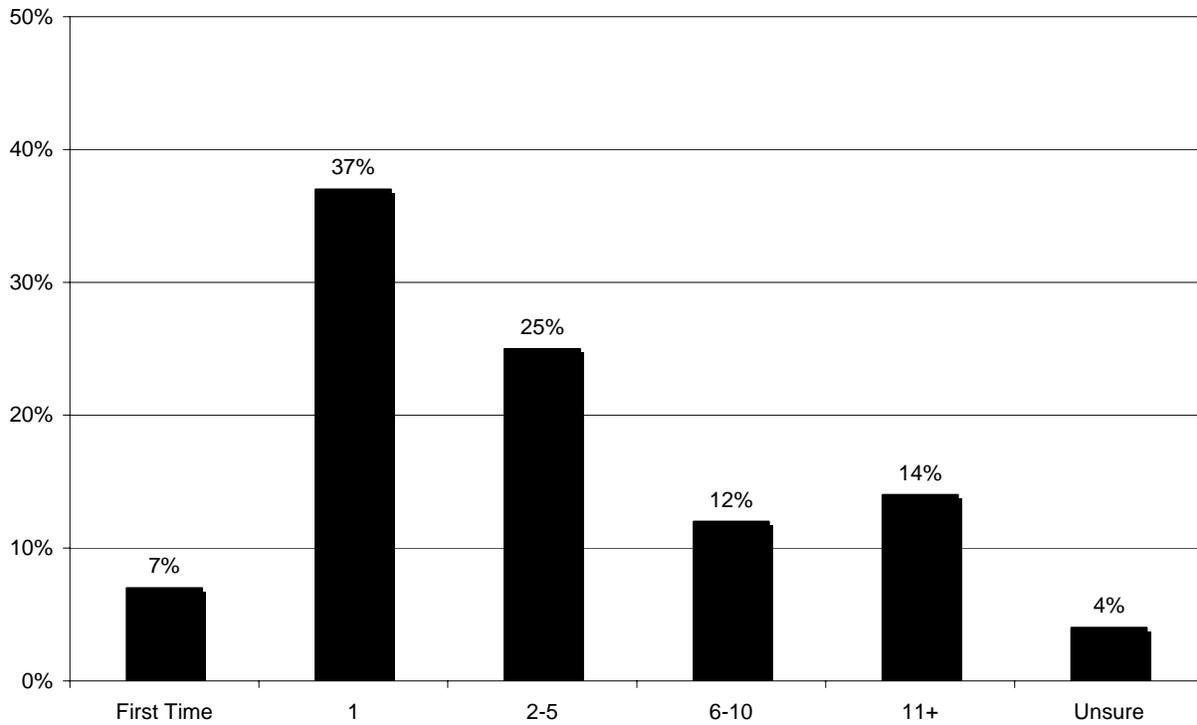
Q44: Are you a member of the Appalachian Trail Conference?

	Oct-03	Aug-04	Total
YES	8%	24%	16%
NO	90%	75%	82%
NO ANSWER	2%	1%	1%
Total	100%	100%	100%

Participation in Outdoor Activities

Nine out of ten respondents had hiked in the area at least once

Q01 How many times have you hiked in this area?



Comments:

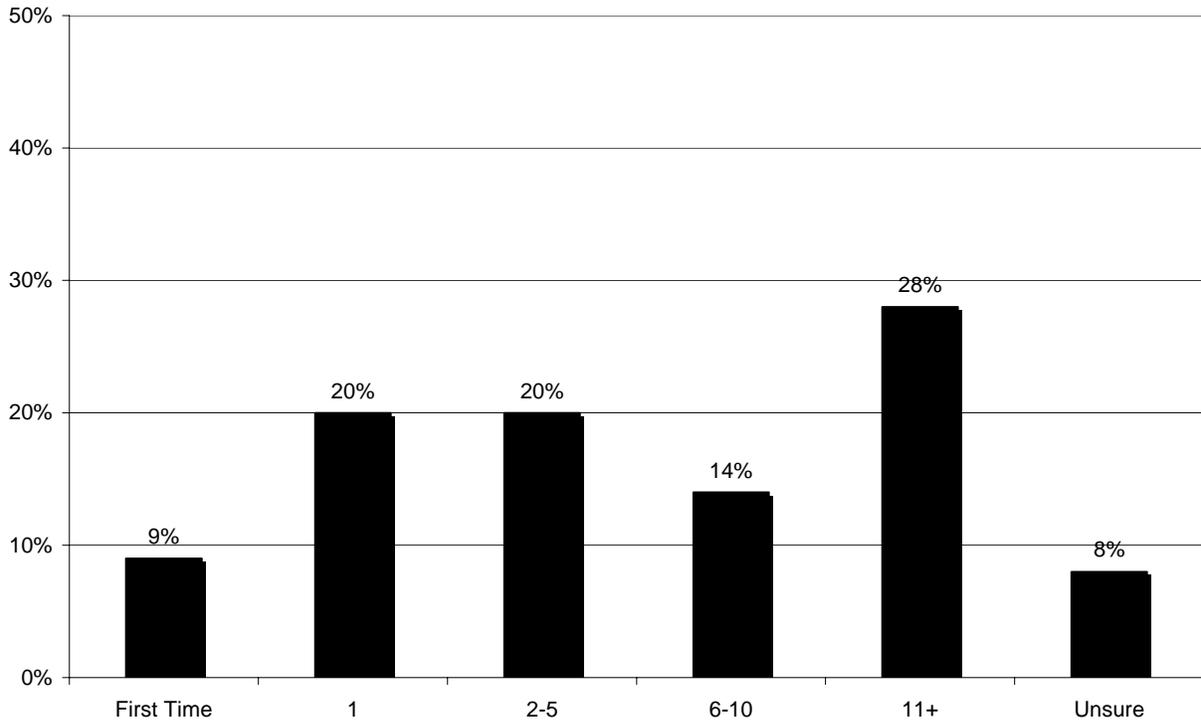
Seven percent of respondents were hiking in the area for the first time, while 37% had been once before and 25% had been 2 to 5 times previously.

Q01: How many times have you hiked in this area?

	Oct-03	Aug-04	Total
First Time	11%	5%	7%
1	25%	48%	37%
2-5	23%	27%	25%
6-10	16%	9%	12%
11+	18%	10%	14%
Unsure	8%	1%	4%
Total	100%	100%	100%

Most respondents had hiked sections of the Appalachian Trail at least once

Q02 How many times have you hiked sections of the Appalachian Trail?



Comments:

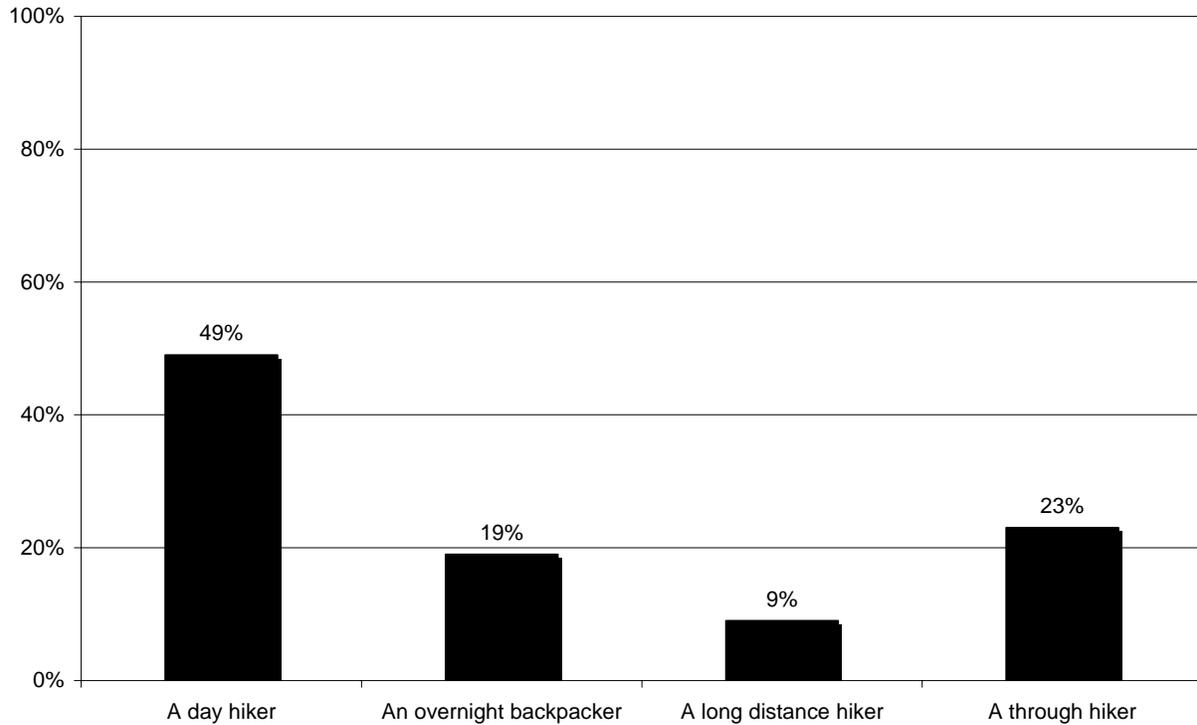
Most respondents had hiked sections of the Appalachian Trail at least once. Nine percent were hiking the Appalachian Trail for the first time and 28% had hiked it more than 10 times.

Q02: How many times have you hiked sections of the Appalachian Trail?

	Oct-03	Aug-04	Total
First Time	15%	4%	9%
1	19%	21%	20%
2-5	18%	21%	20%
6-10	9%	19%	14%
11+	28%	29%	28%
Unsure	11%	6%	8%
Total	100%	100%	100%

Half of the respondents characterized themselves as day hikers

Q03 Which of the following best characterizes your hiking status?



Comments:

While close to 50% of respondents characterized themselves as day hikers, only 30% did so during the August time period. August saw more long distance hikers (14%) and through hikers (35%).

Q03: Which of the following best characterizes your hiking status?

	Oct-03	Aug-04	Total
A day hiker	71%	30%	49%
An overnight backpacker	16%	21%	19%
A long distance hiker	4%	14%	9%
A through hiker	9%	35%	23%
Total	100%	100%	100%

Respondents participated in a variety of outdoor activities during the past 12 months in the Carrabasset Valley/Rangeley area, including hiking, camping, canoeing or kayaking, cross-county skiing, and downhill skiing.

Q04 Have you participated in any of the following activities in the Sugarloaf/Carrabasset Valley/ Rangeley area in the past 12 months?

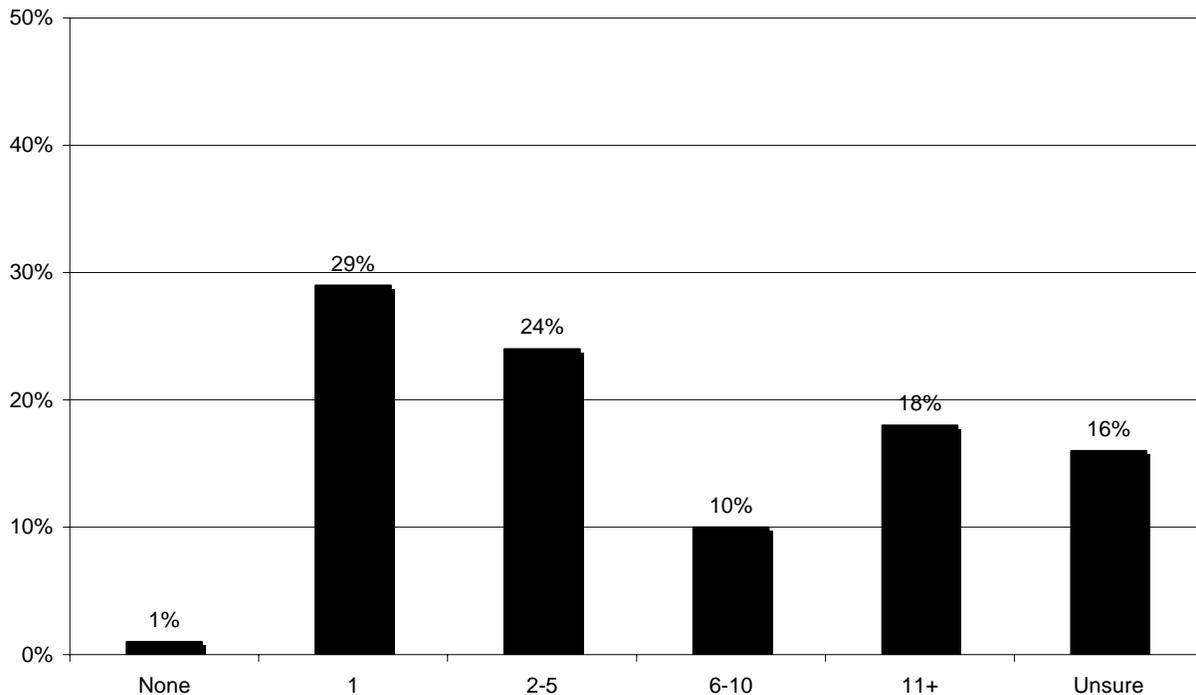
	Oct-03	Aug-04	Total
Hiking	71%	94%	83%
Camping	38%	59%	49%
Canoeing or kayaking	27%	21%	24%
Cross-country skiing	33%	12%	22%
Downhill skiing	32%	12%	21%
Bicycling/mountain biking	25%	13%	18%
Bird watching	16%	12%	14%
Fishing	11%	10%	10%
Hunting/Trapping	8%	2%	4%
White water rafting	4%	5%	4%
Snowmobiling	3%	4%	3%
NO ANSWER	24%	5%	13%
Total	100%	100%	100%

Comments:

Respondents were asked whether they had participated in several outdoor activities in the Carrabasset Valley/Rangeley area during the past 12 months. Eighty-three percent (83%) of respondents indicated they had participated in hiking. Forty-nine percent (49%) of respondents had camped in this area during the past 12 months, 24% canoed or kayaked, 22% participated in cross country skiing, and 21% went downhill skiing in the area during the past 12 months. Other activities mentioned by respondents were bicycling or mountain biking (18%), bird watching (14%), fishing (10%), hunting or trapping (4%), white water rafting (4%), and snowmobiling (3%). Thirteen percent of respondents indicated they had not participated in any of these activities in the area during the past 12 months.

Respondents had participated in outdoor activities in the Carrabassett Valley/Rangeley area 10 times on average during the past year. The median number of times respondents participated in these activities was 3.

Q05 How many times in the past 12 months have you participated in these kinds of outdoor activities in this area?



Comments:¹

The average number of times respondents had participated in outdoor activities in the area during the past 12 months was 9.7. This average was quite high due to a small number of respondents who participated in outdoor activities 40 or more times during the past 12 months. The median number of times in which respondents participated in outdoor activities in the area was 3.

The average number of outdoor activities differed between respondents in October and those in August. Respondents had participated in an average of 14.5 (with a median of 5) outdoor activities in October compared to 5.8 activities on average (with a median of 2) for those respondents interviewed in August.

¹ In the charts and tables in this report, the category “Unsure” represents respondents who were unsure or who refused to answer the specific question.

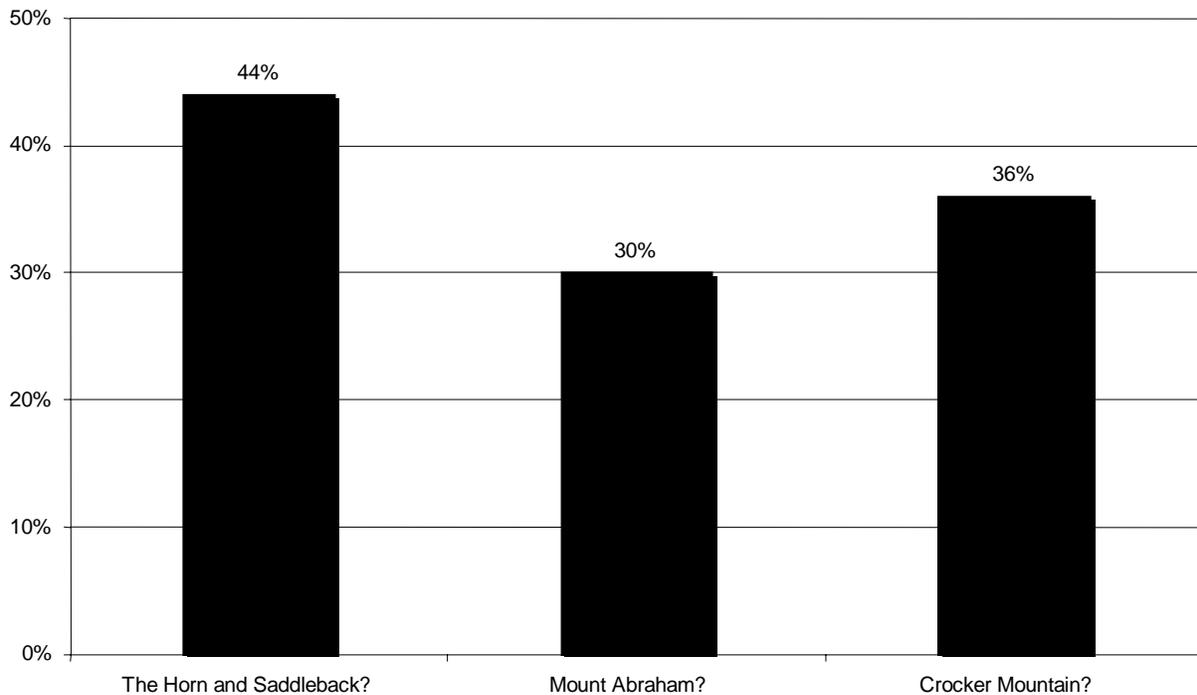
Q05: How many times in the past 12 months have you participated in these kinds of outdoor activities in this area?

	Oct-03	Aug-04	Total
None		3%	1%
1	14%	42%	29%
2-5	14%	33%	24%
6-10	12%	9%	10%
11+	29%	9%	18%
Unsure	31%	4%	16%
Total	100%	100%	100%

The Hiking Experience

Many hikers had hiked in the area previously.

Q45 - Q45b During the past couple of years have you ever hiked in the area around...
(% indicating yes)



Comments:

Forty-four percent (44%) of respondents indicated they had hiked in the area around the Horn and Saddleback Mountain. Thirty percent (30%) of respondents had hiked Mount Abraham and 36% had previously hiked in the area around Crocker Mountain.

Q45 During the past couple of years have you ever hiked in the area around...
(% indicating yes)

	Oct-03	Aug-04	Total
The Horn and Saddleback?	40%	47%	44%
Mount Abraham?	35%	26%	30%
Crocker Mountain?	38%	34%	36%

Respondents rated natural sights and sounds and long distant views of mountain scenery as very important to the quality of their hiking experience. The physical challenge and meeting other hikers were rated as significantly less important.

Q06 – Q14. Now I'd like you to think about what contributes to the quality of your hiking experience. I'm going to read you a list of factors, and I'd like you to rate how important each factor is to your overall recreation experience as a hiker. Please rate each factor on a scale of 1 to 7 where 1 is not at all important and 7 is very important.

Question	Oct-03	Aug-04	Total
Natural sights and sounds	6.3	6.4	6.4
Long distance views of mountain scenery.	6.1	6.3	6.2
Spatial separation from development	6.0	6.1	6.0
A remote, backcountry experience	5.4	5.9	5.7
Solitude	5.6	5.2	5.4
A well-maintained trail footpath	5.0	5.3	5.1
Hiking to the top of a 4,000 foot peak	4.9	5.0	5.0
Physical challenge	4.7	4.9	4.8
Meeting other hikers on the trail	3.6	4.4	4.0

Comments:

Respondents were asked to evaluate nine characteristics and to assess how each contributed to the quality of their hiking experience. Each was evaluated on a seven-point scale from 1 being not at all important to 7 being very important. Natural sights and sounds were the characteristics rated as most important of the nine (an average of 6.4). Long distance views of mountain scenery (6.2) and spatial separation from development (6.0) were also thought of as very important in contributing to the quality of their hiking experience. A remote backcountry experience (5.7) and solitude (5.4) and were rated as somewhat to very important. A well maintained trail footpath (5.1), hiking to the top of a 4,000 foot peak (5.0), and the physical challenge (4.8) were rated by respondents as somewhat important to the quality of their hiking experience. Meeting other hikers on the trail (4.0) was rated as neither important nor unimportant to the quality of their hiking experience.

Respondents indicated that human activity has a negative impact on the quality of their hiking experience, with views of industrial facilities having the greatest negative effect.

Q15 – Q20. Hikers on the Appalachian Trail see evidence of human activity. I'm going to read you a list of things hikers may see from the trail. Please rate the impact of each factor on the quality of your hiking experience. Again, we'll use the 1 to 7 scale where 1 means the factor will have a very negative impact and 7 means a very positive impact on your hiking experience.

Question	Oct-03	Aug-04	Total
Views of industrial facilities such as a biomass generator, paper mill or landfill	1.7	1.6	1.6
Views of large clear cuts	2.6	2.2	2.4
Views of developed areas.	2.4	2.4	2.4
Views of power lines	2.7	2.9	2.8
Views of roads	3.2	3.3	3.2
Views of ski trails and facilities	3.5	3.3	3.4

Comments:

Respondents were asked to evaluate six types of human activity and to assess how each impacted the quality of their hiking experience. Each was evaluated on a seven-point scale from 1 being very negative to 7 being very positive. For all six activities, respondents indicated each would have a negative impact on the quality of their hiking experience. Views of industrial facilities were viewed as having the most negative impact on the quality of the hiking experience (an average score of 1.6 on the seven point scale), indicating a very negative impact. Views of large clear cuts (2.4), views of developed areas (2.4), and views of power lines (2.8) have a very to somewhat negative impact on the quality of the hiking experience. Respondents indicated that views of roads (3.2) and views of ski trails and facilities (3.4) would have a somewhat to slight negative impact on the quality of their hiking experience.

Assessment of Visual Impact of the Proposed Redington Wind Farm

Respondents looked at a series of 11 pictures and were asked to evaluate the scenic value of each of the pictures. The pictures presented the view of the site for the proposed Redington Wind Farm from several locations at varying distances:

- The view from Saddleback Mountain
- The view from Mount Abraham
- The view from North Crocker Mountain
- The view from Sugarloaf Ski Resort.

The charts are presented in the order asked in the survey from most distant (Saddleback Mountain which is located 5.7 miles away from the proposed location) to most proximal (North Crocker Mountain which is located 1.5 miles away). The views from Sugarloaf (3.8 miles distant) were presented since these were designed to assess the effect of other human activity.

Respondents were asked to rate the scenic value of the existing view from each of these locations and then asked to rate the scenic value of the view with the proposed wind farm. In most pictures, the sky was presented as clear. To assess the potential impact of weather, one set of pictures was presented with a cloudy sky. The view from Sugarloaf was presented in order to assess the impact of other man made features on the assessment of the scenic value of the view with the proposed wind farm. The charts below provide a comparison of the current view compared to the view with the proposed Redington Wind Farm. In general, the view including the proposed wind farm is rated lower than the existing view. Further, these differences become greater as one views the proposed wind farm from more proximal sites. The presence of other man made features has a strong moderating effect on the rating of the value of the scenic view including the proposed wind farm.

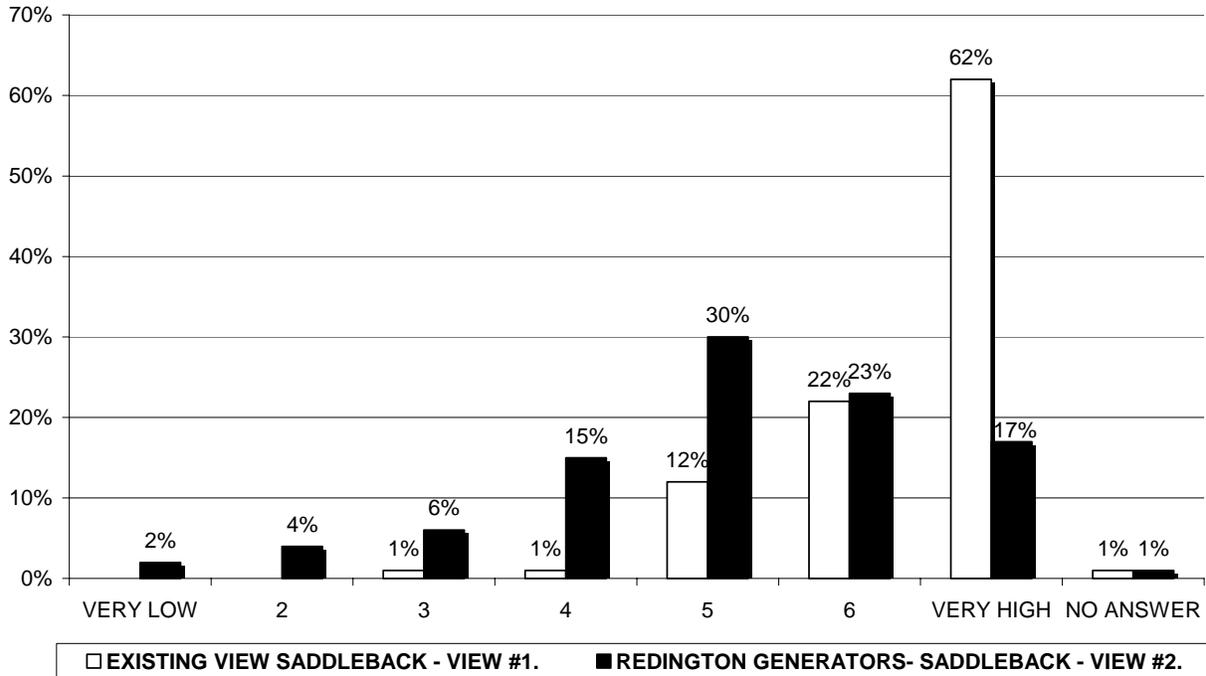
Respondents were asked to evaluate the scenic value of each view on a 7-point scale from 1, or very low scenic value, to 7, or very high scenic value:

I'd like to have you look at some pictures of views from some locations along the Appalachian Trail and other nearby mountains and get your impressions. I will show you several sets of pictures and ask you to rate the scenic view.

I'd like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.

The scenic value of the existing view from Saddleback Mountain is rated very high. The scenic value of the view with the proposed wind farm is rated neither low nor high.

I would like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.
(comparing view #1 and view #2)



Total	Average (1-7)	Difference
Saddleback Mountain Existing View	6.4	
Saddleback Mountain with View of Redington Wind Farm	5.1	1.4

Comments:

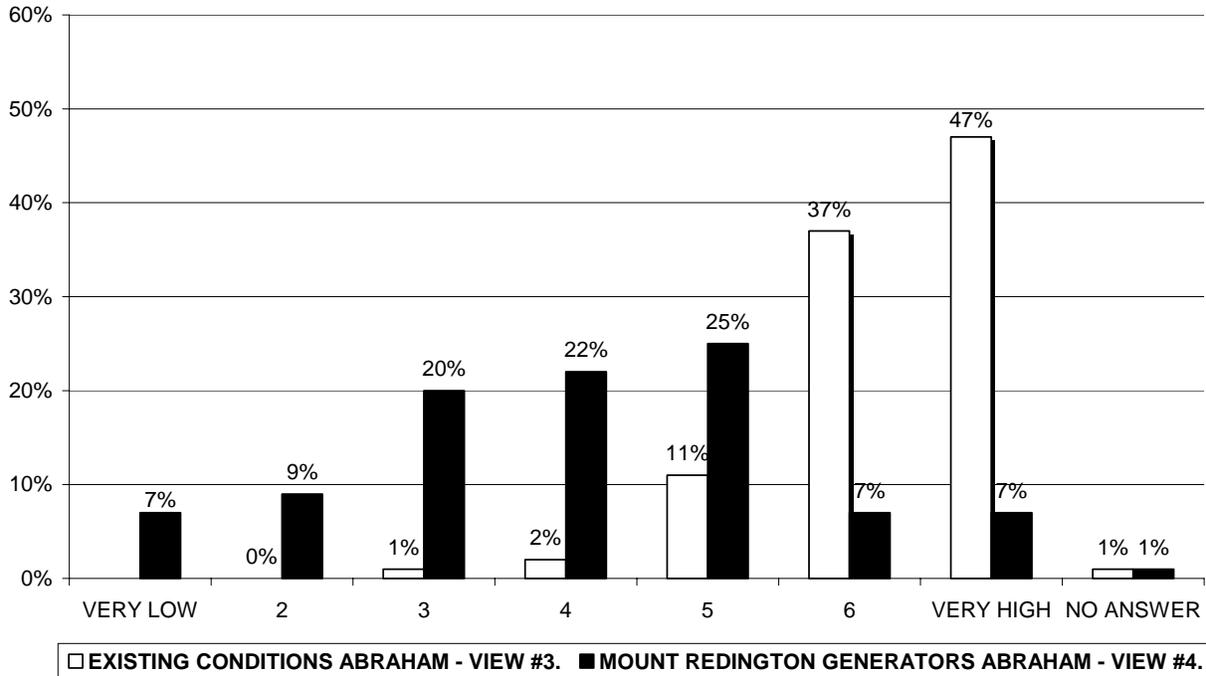
This view is 5.7 miles from the site of the proposed wind farm.

On average, respondents rated the existing view from Saddleback Mountain as very high (an average of 6.4). Sixty-two percent (62%) of respondents rated the view as a “7” on the seven point scale, 22% as a “6” on the scale and 12% as a “5” on the seven point scale. In all, 96% rated the view positively (a score greater than 4).

The Saddleback Mountain view that included the proposed wind farm was rated, on average as 5.1 on this seven-point scale, indicating a fairly high scenic value. The rating was lower than the existing view, though still viewed positively, on average. Seventeen percent (17%) of respondents rated the view with the proposed wind farm as a “7” on the seven point scale, 23% as a “6” and 30% as a “5” on the seven point scale. In all, 70% rated the view positively and only 12% rated it negatively (a score lower than 4). Fifteen percent (15%) rated scenic value of the view as neither low nor high (a scale score of 4).

The scenic value of the existing view from Mount Abraham is rated very high. The scenic value of the view with the proposed wind farm is rated neither low nor high.

I would like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.
(comparing view #3 and view #4)



	Average (1-7)	Difference
Mount Abraham Existing View	6.3	
Mount Abraham with View of Redington Wind Farm	4.0	2.2

Comments:

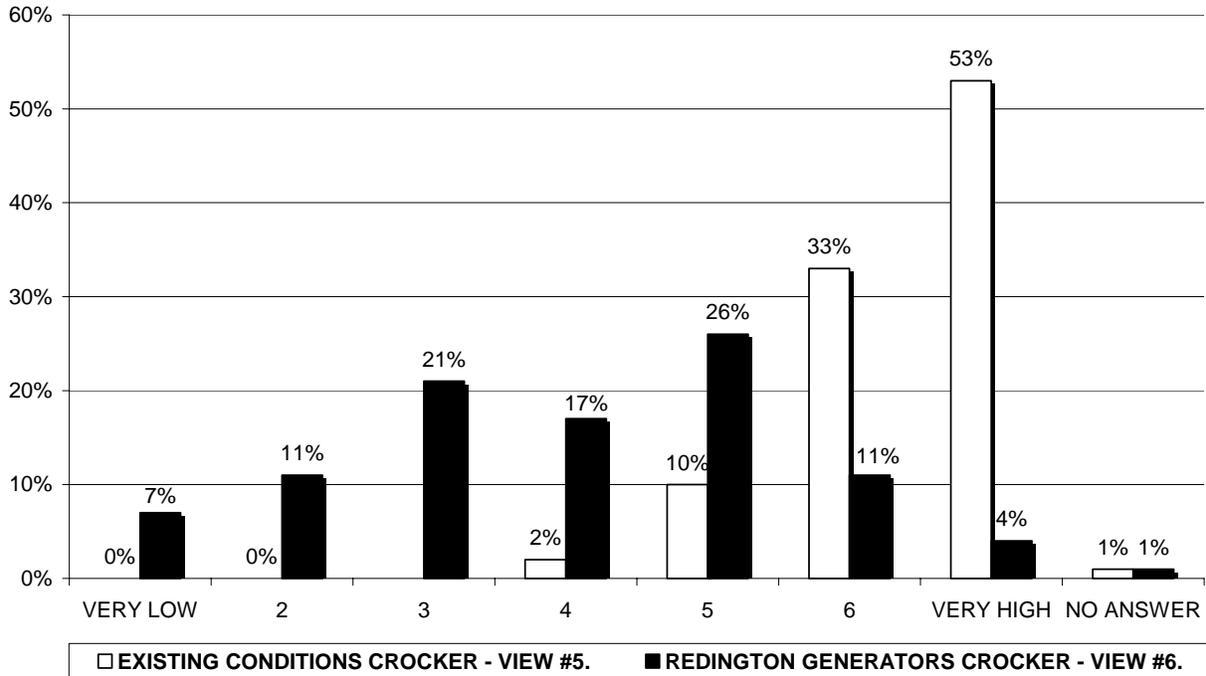
This view is 4.0 miles from the site of the proposed wind farm.

On average, respondents rated the existing view from Mount Abraham as high to very high (an average of 6.3). Forty-seven percent (47%) of respondents rated the view as a “7” on the seven-point scale, 37% as a “6” on the scale and 11% as a “5” on the seven-point scale. In all, 95% rated the view positively (a score greater than 4). Two percent (2%) rated the view as neither low nor high (4) and 1% rated the view as being low to some degree (1-3).

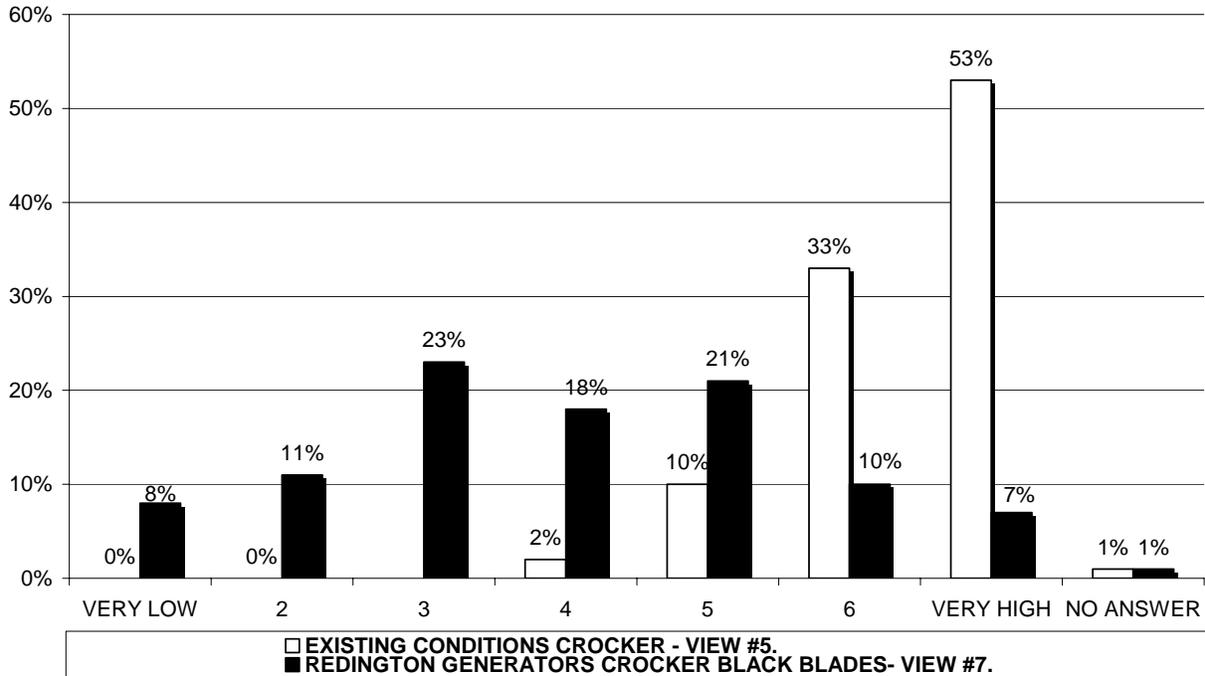
The view that included the proposed wind farm was rated, on average, as 4.0 on the seven-point scale, indicating neither low nor high scenic value. The average was lower than the existing view by 2.2 points. Seven percent (7%) of respondents rated the view with the proposed wind farm as a “7” on the seven point scale, 7% as a “6” and 25% as a “5” on the seven point scale. In all, 39% rated the view positively and 36% rated it negatively (a score lower than 4). Twenty-two percent (22%) rated scenic value of the view as neither low nor high (a scale score of 4).

The scenic value of the existing view from North Crocker Mountain is rated very high. The scenic value of the view with the proposed wind farm is rated neither low nor high with or without black blades.

I would like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.
(comparing view #5 and view #6)



I would like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.
(comparing view #5 and view #7)



	Average (1-7)	Difference
Crocker Mountain	6.3	
Crocker Mountain with View of Redington Wind Farm	3.9	2.4
Crocker Mountain with View of Redington Wind Farm (Black Blades)	3.9	2.4

Comments:

This view is 1.5 miles from the site of the proposed wind farm.²

On average respondents rated the existing view from North Crocker Mountain as very high (an average of 6.3). Fifty-three percent of respondents rated the view as a “7” on the seven point scale, 33% as a “6” on the scale and 10% as a “5” on the seven point scale. In all, 96% rated the view positively (a score greater than 4). Two percent (2%) rated the view as neither low nor high (4).

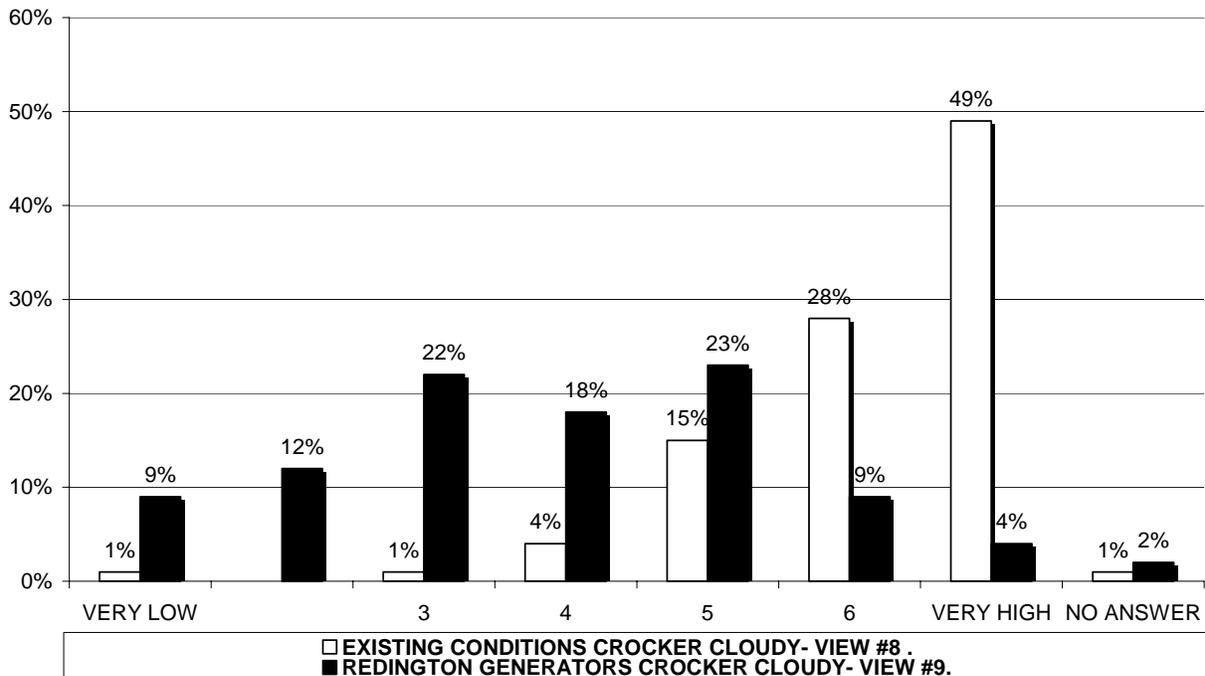
² Note this not a view from the Appalachian Trail but the view from a clearing near the Appalachian Trail.

The view that included the proposed wind farm was rated, on average, as 3.9 on this seven-point scale, indicating neither low nor high scenic value. The average was lower than the existing view by 2.4 points. Four percent (4%) of respondents rated the view with the proposed wind farm as a “7” on the seven-point scale, 11% as a “6” and 26% as a “5” on the seven-point scale. In all, 41% rated the view positively and 39% rated it negatively (a score lower than 4). Seventeen percent (17%) rated scenic value of the view as neither low nor high (a scale score of 4).

Respondents were also asked to evaluate the scenic value of a view of the proposed wind farm from North Crocker Mountain in which the blades of the windmills were black. This had no impact on the average assessment of the scenic value of the view, though it did slightly increase the percentage of those assessing the scenic value negatively. The view that included the proposed wind farm (with black blades) was rated, on average as 3.9 on this seven point scale, indicating neither low nor high scenic value. The average was lower than the existing view by 2.4 points. Seven percent of respondents rated the view with the proposed wind farm as a “7” on the seven point scale, 10% as a “6” and 21% as a “5” on the seven point scale. In all, 39% rated the view positively and 42% rated it negatively (a score lower than 4). Eighteen percent (18%) rated scenic value of the view as neither low nor high (a scale score of 4).

The scenic value of the existing view from North Crocker Mountain in cloudy conditions is rated high to very high. The scenic value of the view with the proposed wind farm is rated neither low nor high in cloudy conditions.

I would like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.
(comparing view #8 and view #9)



	Average (1-7)	Difference
Crocker Mountain Existing View (Cloudy Sky)	6.2	
Crocker Mountain with View of Redington Wind Farm (Cloudy Sky)	3.8	2.4

Comments:

This view is 1.5 miles from the site of the proposed wind farm.

To assess the potential effects of other environmental factors of the perceived value of the scenic view, respondents were asked to again rate the scenic value of the existing view from North Crocker Mountain and the view including the proposed wind farm, both in cloudy conditions. The average scenic value of the view of existing conditions dropped slightly while the view with the proposed wind farm was comparable to that in sunny conditions.

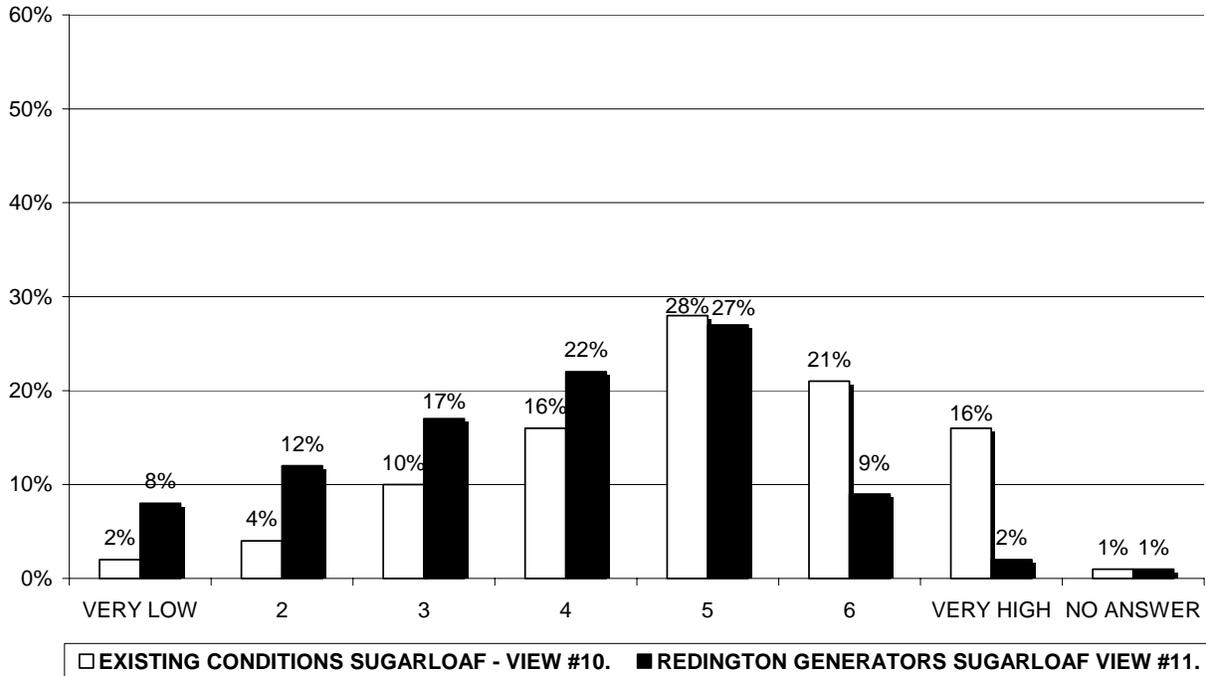
On average, respondents rated the existing view from North Crocker Mountain as high to very high (an average of 6.2). Forty-nine percent of respondents rated the view as a “7” on the seven-point scale, 28% as a “6” on the scale and 15% as a “5” on the seven-point scale. In all, 92% rated the view positively (a score greater than 4). Four percent (4%) rated the view as neither low nor high (4), 1% rated the view as a “3” on the seven point scale and 1% rated the view as “1” on the seven point scale.

The view that included the proposed wind farm was rated, on average, as 3.8 on the seven-point scale, indicating neither low nor high scenic value. The average was lower than the existing view by 2.4 points. This difference was the same as was observed when respondents rated the views showing sunny conditions. Four percent (4%) of respondents rated the view with the proposed wind farm as a “7” on the seven-point scale, 9% as a “6” and 23% as a “5” on the seven-point scale. In all, 36% rated the view positively and 43% rated it negatively (a score lower than 4). Eighteen percent (18%) rated scenic value of the view as neither low nor high (a scale score of 4).

While the differences between the scenic values of North Crocker Mountain were the same, these results show that environmental factors will play a role in how respondents assess the scenic value of a view. Both the assessment of the existing view and the assessment of the view with the proposed wind farm experienced a decrease of a tenth of a point on average from sunny to cloudy conditions.

The scenic value of the existing view from Sugarloaf is rated slightly high. The scenic value of the view with the proposed wind farm is rated as neither low nor high.

I would like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.
(comparing view #10 and view #11)



	Average (1-7)	Difference
Sugarloaf Existing View	4.9	
Sugarloaf with View of Redington Wind Farm	3.9	1.1

Comments:

This view is 3.8 miles from the site of the proposed wind farm.

To assess the potential effects of other man made features of the perceived value of the scenic view, respondents were asked to rate the scenic value of the existing view from Sugarloaf Mountain. In these views there were other man made features (chairlift, chairlift tower, small buildings in the picture's foreground). The rated value of the scenic view (existing conditions) from Sugarloaf is significantly lower than the values of the views (existing conditions) from the other locations. However, the rating of the scenic value of the view with the proposed wind farm is on par with the ratings of the scenic value from the Mount Abraham and Crocker Mountain locations with the proposed wind farm.

On average, respondents rated the existing view from Sugarloaf Mountain as fairly high (an average of 4.9). Sixteen percent (16%) of respondents rated the view as a “7” on the seven-point scale, 21% as a “6” on the scale and 28% as a “5” on the seven-point scale. In all, 65% rated the view positively (a score greater than 4). Sixteen percent rated the view as neither low nor high (4). Sixteen percent rated the scenic value negatively (a score lower than 4).

The view that included the proposed wind farm was rated, on average, as 3.9 on the seven-point scale, indicating a scenic value that was neither low nor high. The average was lower than the existing view by only 1.0 point. Two percent (2%) of respondents rated the view with the proposed wind farm as a “7” on the seven point scale, 9% as a “6” and 27% as a “5” on the seven point scale. In all, 38% rated the view positively and 37% rated it negatively (a score lower than 4). Twenty-two percent (22%) rated scenic value of the view as neither low nor high (a scale score of 4).

These results show that the presence of other man made features will impact the assessment of scenic value. It is not surprising that the existing view of Sugarloaf has the lowest average scenic view (since it contains man made features) when compared to other existing views. What is more unexpected is that the scenic value of the view of the proposed wind farm on Sugarloaf is not the lowest among the different wind farm views. This would suggest that there isn't a linear relationship between the “number” of man made features and the assessed scenic value. The presence of any man made feature may cause the assessed value of a scenic view to drop by a certain degree. The addition of other man made features will also cause the rated scenic value to drop but not by the same degree.

The impact on the scenic value of views with the proposed wind farm is moderated by distance and by the presence of other man made features.

I'd like to have you look at some pictures of views from some locations along the Appalachian Trail and other nearby mountains and get your impressions. I will show you several sets of pictures and ask you to rate the scenic view.

I'd like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.

	Oct-03	Aug-04	Total	Difference (Totals)
Saddleback Mountain Existing View	6.5	6.4	6.4	
Saddleback Mountain with View of Redington Wind Farm	5.2	4.9	5.1	1.4
Mount Abraham Existing View	6.3	6.2	6.3	
Mount Abraham with View of Redington Wind Farm	4.0	4.0	4.0	2.2
Crocker Mountain	6.5	6.2	6.3	
Crocker Mountain with View of Redington Wind Farm	4.0	3.9	3.9	2.4
Crocker Mountain with View of Redington Wind Farm (Black Blades)	4.0	3.9	3.9	2.4
Crocker Mountain Existing View (Cloudy Sky)	6.2	6.1	6.2	
Crocker Mountain with View of Redington Wind Farm (Cloudy Sky)	3.9	3.7	3.8	2.4
Sugarloaf Existing View	5.1	4.8	4.9	
Sugarloaf with View of Redington Wind Farm	3.8	3.9	3.9	1.1

Comments:

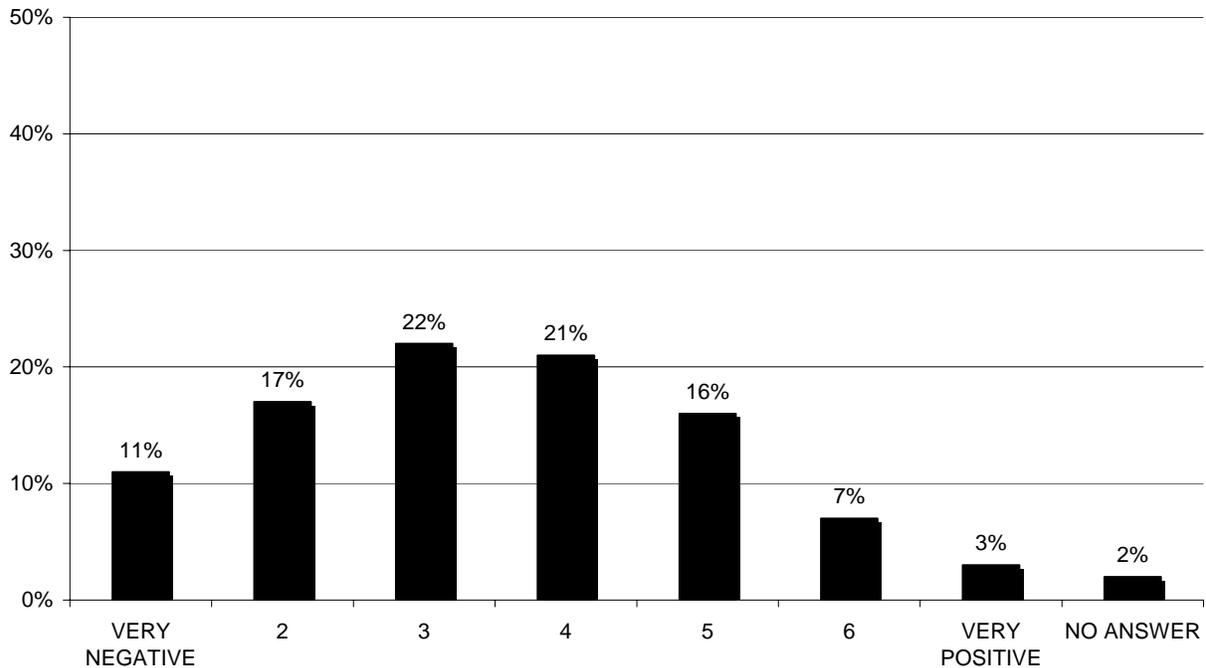
In assessing the impact of the proposed wind farm on ratings of the scenic value of a view, the results suggest that distance from the proposed wind farm and the presence of other man made features moderates the negative impact on ratings of scenic value. Weather also has a similar effect on the rating of the scenic value of the existing view and the scenic value of views containing the proposed wind farm.

The presence of the wind farm will decrease the value of the scenic view from Saddleback Mountain, but it is important to note that even with the wind farm, respondents still rate the scenic value as high. The impact from Mount Abraham (4 miles) and North Crocker Mountain (1.5 miles) are comparable and significantly larger than that observed in the view from Saddleback Mountain. This suggests that there is somewhat of a threshold distance to the effect and the threshold is about 4 miles. That is, the impact on the scenic value of a view should be approximately the same from all distances of four miles or less.

The presence of any man made features will impact the perceived scenic value of a view as shown in the evaluation of the views from Sugarloaf. The impact on the rating of scenic views caused by the addition of the proposed wind farm to a view where other man made features are already present is not as great as observed in cases where no other man made features are present. There is a reduction in rating, but not to the same degree. The impact is less than that observed in the view from Saddleback Mountain, seven miles distant.

Overall, respondents assess the visual impact of the Redington wind farm as slightly negative.

Q33 Comparing these "before" views with their after counterpart(s), and thinking about the overall visual change that will result, please rate the visual impact of the Redington wind farm.



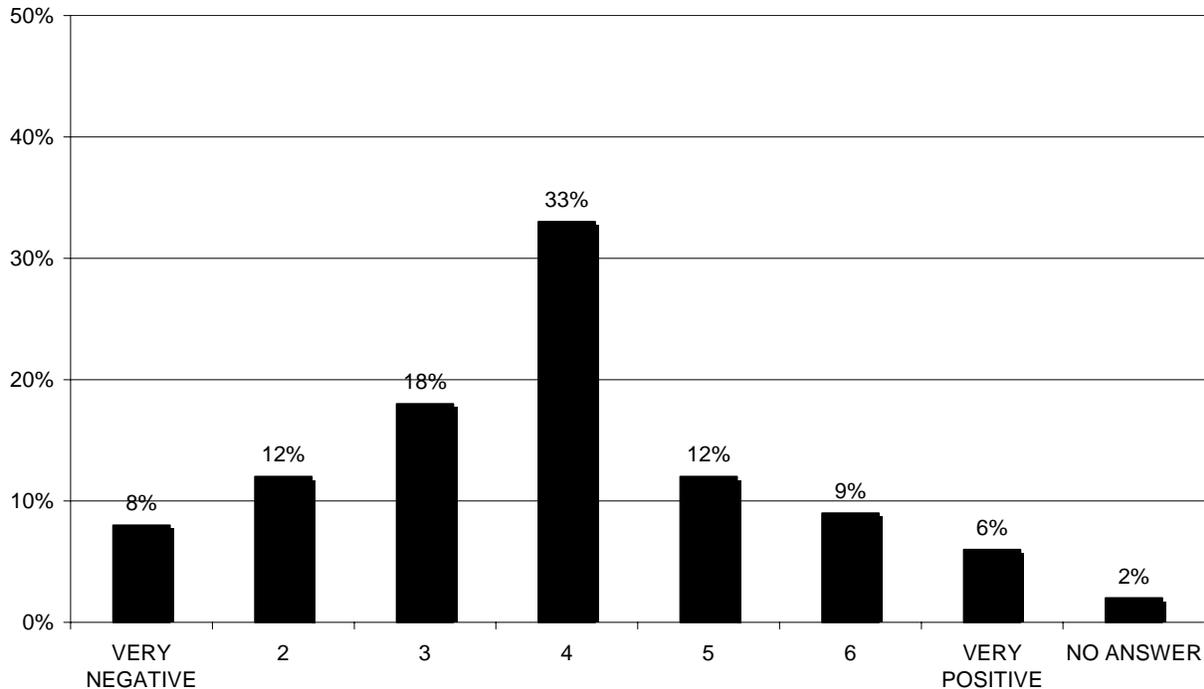
	Oct-03	Aug-04	Total
Visual impact of Redington wind farm	3.4	3.5	3.5

Comments:

Respondents were asked to evaluate their overall feeling of the visual impact of the proposed Redington wind farm from very negative to very positive. On average, respondents rated the visual impact as 3.5 on this seven point scale, or slightly negative. Twenty-six percent of respondents rated the visual impact as positive while 21% rated the visual impact as neither positive nor negative. Thus, 47% of respondents felt that the proposed Redington wind farm would not have a negative visual impact. Fifty percent of respondents indicated the proposed Redington wind farm would have a negative visual impact (rating as a score of less than 4).

Overall, respondents indicated that the proposed wind farm would have a slightly negative to no impact on the quality of their hiking experience.

Q34 Now, thinking about the quality of your hiking experience here on the Appalachian Trail, how will the Redington wind farm impact on your hiking experience.



	Oct-03	Aug-04	Total
Impact of Redington wind farm on quality of hiking experience	3.8	3.8	3.8

Comments:

Respondents were asked to rate the overall impact of the proposed Redington wind farm on the quality of their hiking experience on a seven-point scale from 1 being very negative and 7 being very positive. On average, respondents rated the impact on the quality of their hiking experience as 3.8, indicating no impact to a slightly negative impact. Twenty-seven percent (27%) of respondents indicated the proposed wind farm would have a positive effect on their hiking experience (a rating of 5, 6, or 7). Thirty-three percent (33%) of respondents indicated that it would have no effect on the quality of their hiking experience. Thus, 60% of respondents indicated that the proposed Redington wind farm would have no effect or a positive effect on their hiking experience. Only 38% of respondents indicated the proposed wind farm would have a negative effect on the quality of their hiking experience (a rating of 1, 2, or 3).

Among those indicating it would have a negative impact on the quality of their hiking experience, 48% indicated that it would alter the scenic view, 11% said that it would have no real affect and that they would tolerate it, 7% indicated it would lessen their enjoyment of the area, and 7% indicated it would disturb the solitude of the area.

Respondents who indicated it would have a negative impact on the quality of their hiking experience were also asked what could be done to reduce the visual impact. Thirty-one percent (35%) mentioned coloring or camouflaging the towers and blades to match the surrounding scenery (coloring them green or coloring them blue to match the sky). Eighteen percent (18%) of these respondents indicated that nothing could be done to reduce the visual impact. Other suggestions included moving the towers to another location where they would not be as visible (13%), painting the blades (5%), and installing the towers closer together (5%).

**Q35: How will your hiking experience be impacted by the proposed wind farm?
(of those rating the Redington wind farm as having a negative impact on their hiking
experience)**

	Total
Alter the scenic view	48%
No real affect, would tolerate	11%
Lessen enjoyment of area, less appealing	7%
Disturb solitude	7%
Would hike elsewhere	5%
Ruin the natural experience	5%
Don't like affect on view but support wind energy	5%
Have a negative impact on the land, area	4%
Show more development	2%
Need to limit development, human activity	0%
Would be a positive change, good idea	0%
Other	5%
DK	0%
Total	100%

Q36: Assuming the Redington wind farm were built, what would you say could be done to reduce the visual impact? (of those rating the Redington wind farm as having a negative impact on their hiking experience)

	Total
Color match to scenery or sky (green, blue), camouflage	35%
Move to another location where not as visible	13%
Paint the blades	5%
Install them closer together	5%
Remove impacts of construction once complete (roads, etc.)	2%
Minimize blade size	2%
Other	15%
Nothing	18%
DK	3%
No Answer	3%
Total	100%

In comparison to other evidence of human activity, the impact of the proposed Redington wind farm on the quality of the hiking experience is not as negative.

Q15 – Q20. Hikers on the Appalachian Trail see evidence of human activity. I’m going to read you a list of things hikers may see from the trail. Please rate the impact of each factor on the quality of your hiking experience. Again, we’ll use the 1 to 7 scale where 1 means the factor will have a very negative impact and 7 means a very positive impact on your hiking experience.

Compared to impact of proposed Redington wind farm

	Oct-03	Aug-04	Total
Views of industrial facilities such as a biomass generator, paper mill or landfill	1.7	1.6	1.6
Views of large clear cuts	2.6	2.2	2.4
Views of developed areas.	2.4	2.4	2.4
Views of power lines	2.7	2.9	2.8
Views of roads	3.2	3.3	3.2
Views of ski trails and facilities	3.5	3.3	3.4
<i>Impact of Redington wind farm on quality of hiking experience</i>	3.8	3.8	3.8

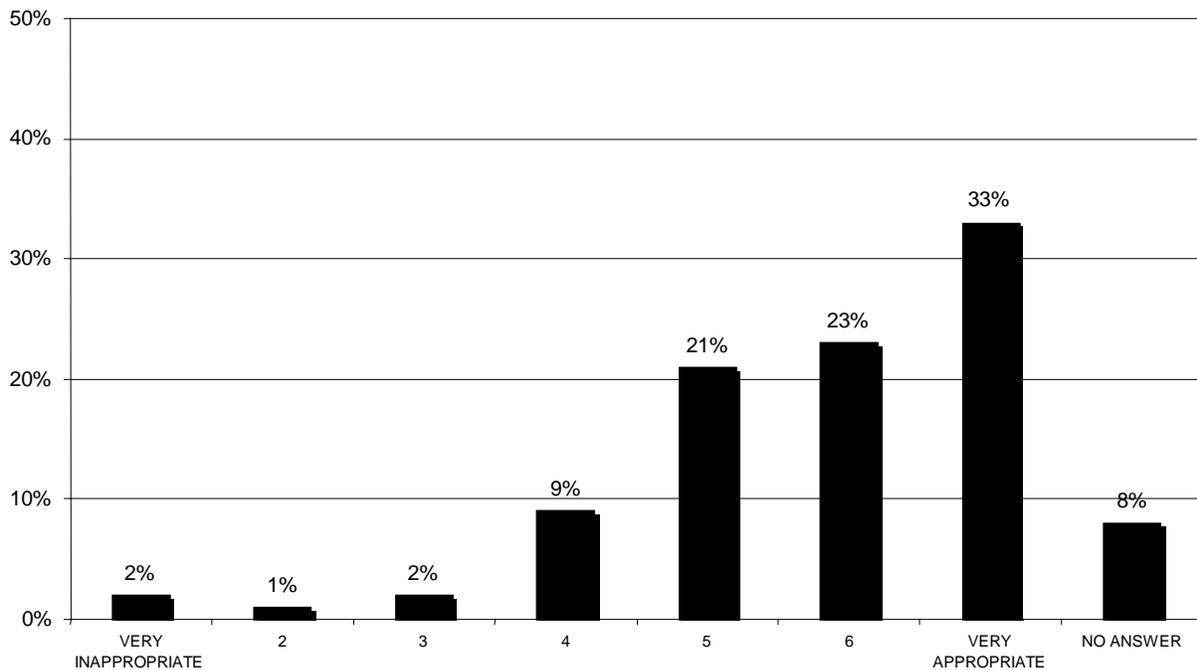
Comments:

As noted, respondents indicated, on average, that the proposed wind farm would have only a slightly negative to no impact on the quality of their hiking experience. These respondents rated other evidence of human activity as causing a greater negative impact on the quality of their hiking experience. Those with a significantly greater negative impact include views of industrial facilities, views of large clear cuts, views of developed areas, and views of power lines. The negative impact of views of roads and views of ski trail and facilities were somewhat greater than the visual impact of the proposed Redington wind farm.

Views of Wind Power in General and Views Towards the Proposed Redington Wind Farm

Respondents consider wind power fairly appropriate for Maine.

Q21 Thinking about wind power development in general, please rate how appropriate it is for Maine on a scale of 1 to 7, where 1 means wind power is generally very inappropriate and 7 means it is generally very appropriate.



	Oct-03	Aug-04	Total
How appropriate is wind power for Maine	5.5	5.9	5.7

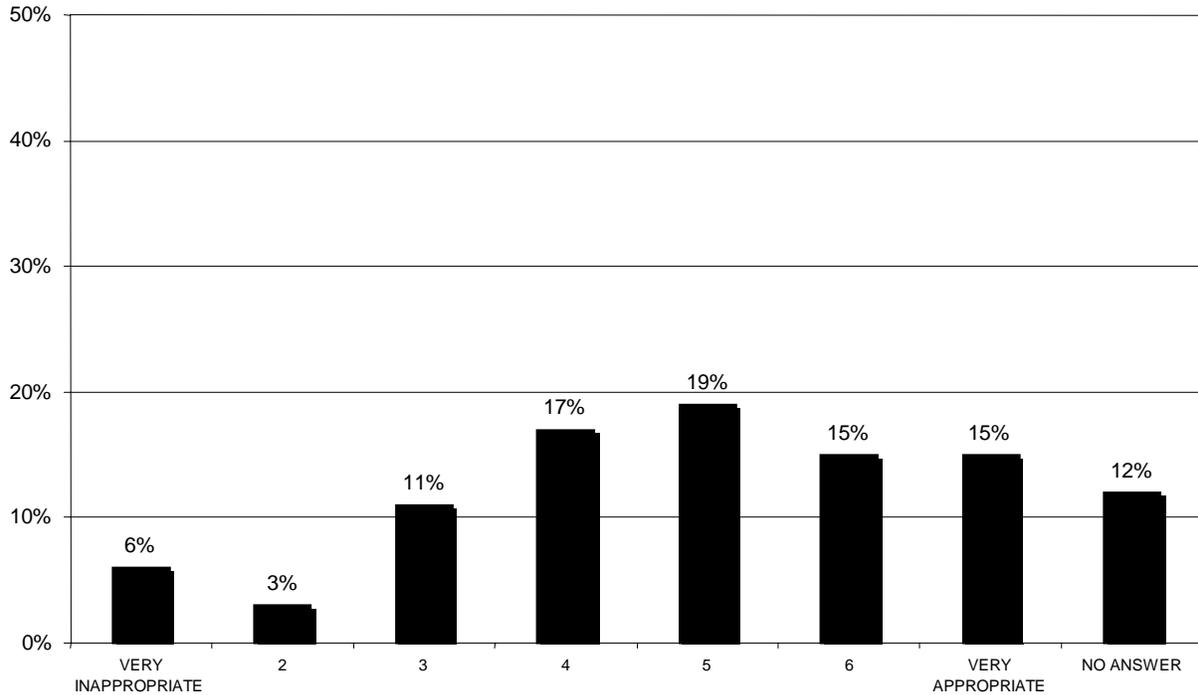
NOTE: this question was asked prior to respondents evaluating visualizations of the proposed wind farm.

Comments:

Respondents were asked how appropriate they felt wind power was for the state of Maine on a seven-point scale with 1 being very inappropriate and 7 being very appropriate. On average, respondents rated the appropriateness of wind power for Maine as 5.7 on this seven-point scale, or somewhat appropriate. Thirty-three percent of respondents indicated they felt it was very appropriate (a score of 7), 23% rated it as “6” on the scale and 21% rated the appropriateness as “5” on this scale. In all, 77% rated wind power as appropriate to some degree for the state of Maine. Nine percent rated wind power for Maine as neither appropriate nor inappropriate. Only 5% of respondents indicated that wind power was inappropriate to some degree for Maine (rating it as 1, 2, or 3).

After considerations of the visual impacts, respondents view the proposed Redington wind farm as somewhat appropriate.

Q37 Now thinking specifically about the Redington Wind Farm proposal, how appropriate do you feel it is on a scale where 1 is very inappropriate and 7 is very appropriate.



	Oct-03	Aug-04	Total
How appropriate is wind power for Maine	5.5	5.9	5.7
How appropriate is Redington wind farm	4.8	4.6	4.7

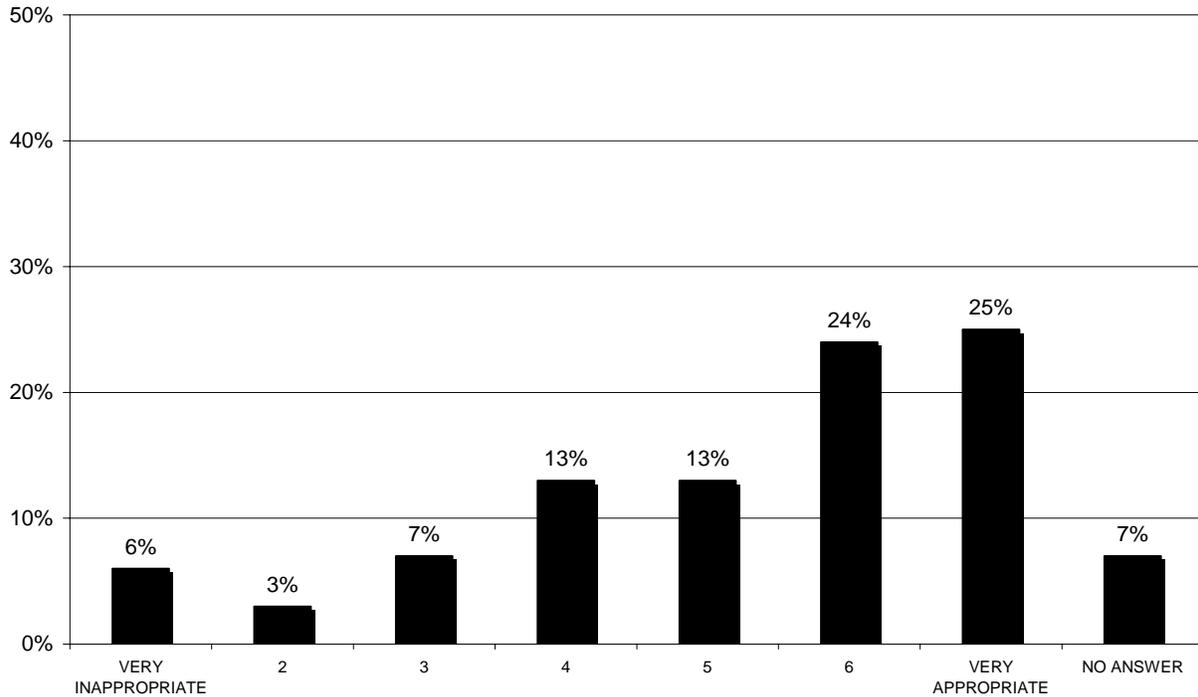
NOTE: this question was asked after respondents evaluated visualizations of the proposed wind farm.

Comments:

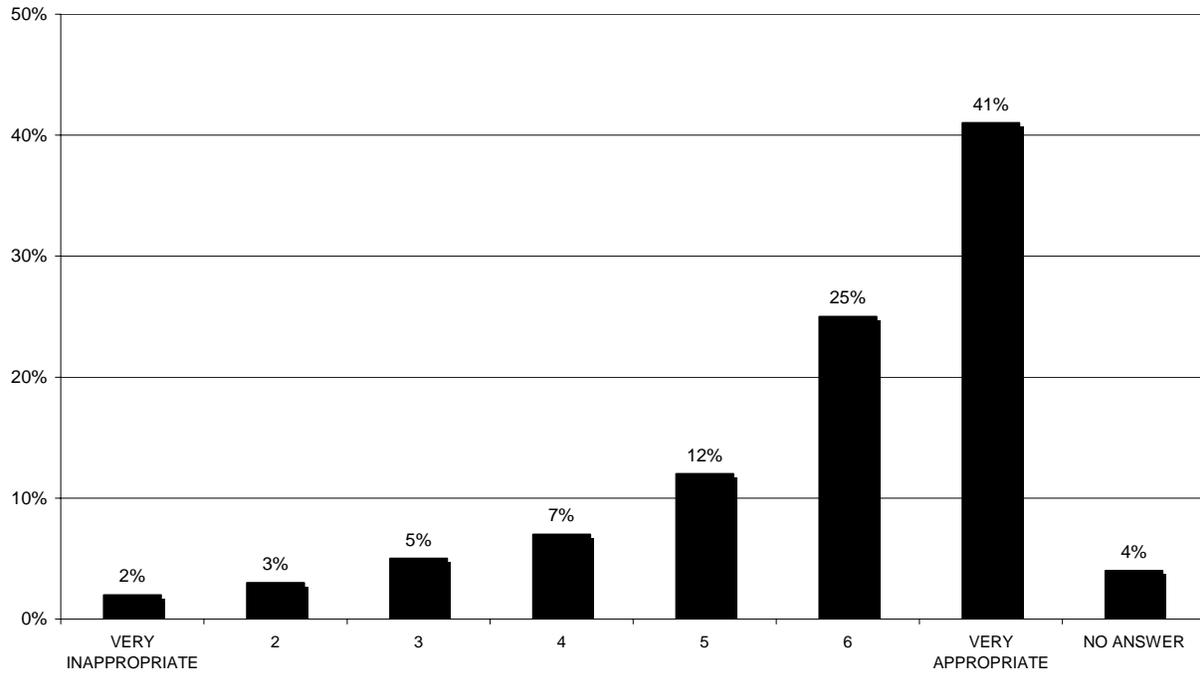
After assessing the visual impacts, respondents were asked about the appropriateness of the proposed Redington wind farm on a seven-point scale with 1 being very inappropriate and 7 being very appropriate. On average, respondents rated the appropriateness of the Redington wind farm as 4.7 on this seven-point scale, or slightly appropriate. Fifteen percent of respondents indicated they felt it was very appropriate (a score of 7), 15% rated it as “6” on the scale and 19% rated the appropriateness as “5” on this scale. In all, 49% rated the proposed Redington wind farm as appropriate to some degree (a rating of 5, 6, or 7). Seventeen percent rated the Redington wind farm as neither appropriate nor inappropriate. Only 20% of respondents indicated that the proposed Redington wind farm is inappropriate to some degree (rating it as 1, 2, or 3).

Given potential benefits, respondents are more likely to consider the Redington wind farm as appropriate.

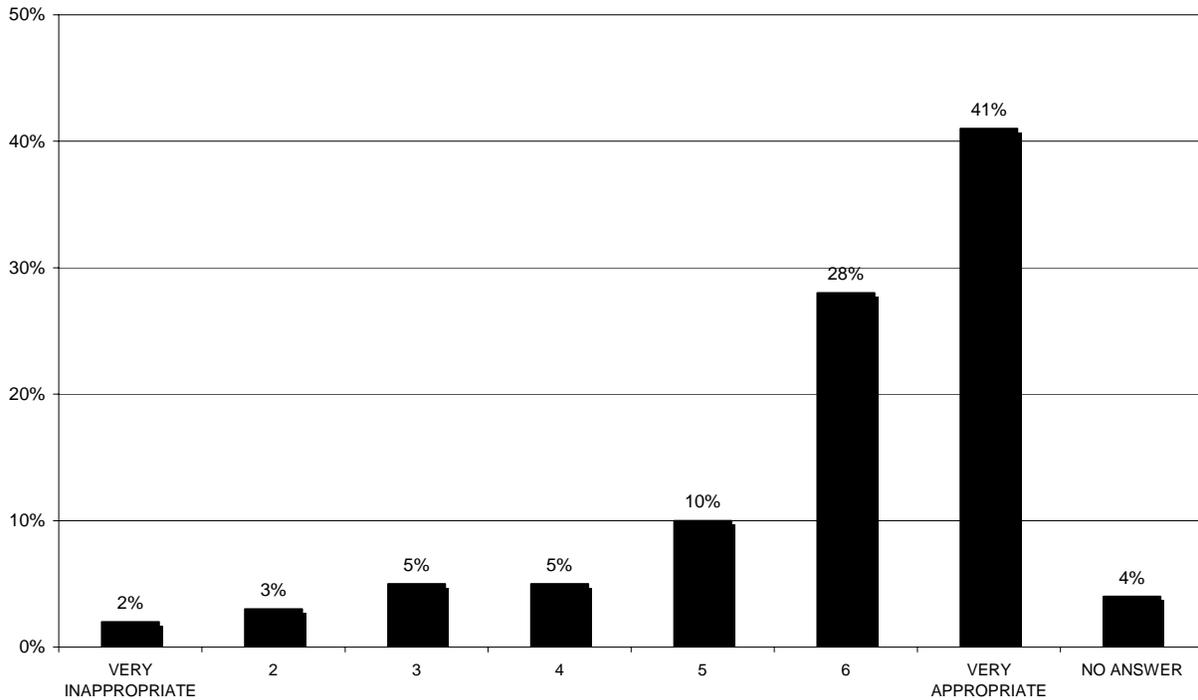
**Q38 The Redington wind farm would generate enough power to supply 33,000 households.
Knowing this, how appropriate is the Redington wind farm proposal?**



Q39 The Redington wind farm would reduce pollution by 600,000 pounds EVERY DAY since its energy would replace that generated by other sources. Knowing this, how appropriate is the Mount Redington Range wind farm proposal?



Q40 The wind farm could save the equivalent of 39,000 gallons of oil EACH DAY. Knowing this, how appropriate is the Redington wind farm proposal?



Now I would like you to think about the possible impact, but factoring in some possible benefits to the Redington wind farm. I am going to read a list of factors, after each please rate how appropriate the Redington Wind Farm would be on this same seven point scale where 1 is very Inappropriate and 7 is very appropriate. (Knowing this, how appropriate is the Redington wind farm?)

Question	Oct-03	Aug-04	Total
<i>How appropriate is Redington wind farm</i>	4.8	4.6	4.7
The Redington wind farm would generate enough power to supply 33,000 households.	5.3	5.0	5.1
The Redington wind farm would reduce pollution by 600,000 pounds every day, the same amount as taking 19,000 cars off the road.	5.8	5.7	5.8
The wind farm could save the equivalent of 39,000 gallons of oil EACH DAY	5.8	5.8	5.8

Comments:

After their initial assessment of the appropriateness of the proposed wind farm, respondents were asked to reassess their views taking into consideration some potential benefits of the wind farm. The benefits tested were the wind farm would generate enough power for 33,000 households, it would reduce pollution (since it would replace power generating capacity that would require fossil fuels), and that it would reduce fossil fuel consumption equivalent to 39,000 gallons of oil each day. Respondents evaluated the appropriateness of the proposed Redington wind farm on the same seven-point scale as their initial assessment (from very inappropriate to very appropriate). In all cases, there was a significant increase in the average scale score and the percentage of respondents viewing the proposed wind farm as appropriate. The messages that seem to resonate most strongly are reduction in pollution and in the consumption of fossil fuels.

The average scale score given by respondents, knowing that the wind farm would produce electricity to power 33,000 homes, was 5.1 or somewhat appropriate. This was an increase of almost half a point from the average of respondents' initial assessment; a slightly positive impact on their perceptions. Sixty-two percent of respondents rated the proposed wind farm as appropriate knowing this (a score of 5, 6, or 7). Thirteen percent rated the proposed wind farm as neither appropriate nor inappropriate. Only 16% of respondents rated the proposed wind farm as inappropriate (a score of 1, 2, 3) knowing it would provide power for 33,000 homes.

The average scale score given by respondents, knowing that the wind farm would reduce pollution by an equivalent of 600,000 pounds every day was 5.8 or appropriate. This was an increase of over one point from the average of respondents' initial assessment; a positive impact on their perceptions. Seventy-eight percent of respondents rated the proposed wind farm as appropriate knowing this (a score of 5, 6, or 7). Seven percent rated the proposed wind farm as neither appropriate nor inappropriate. Only 10% of respondents rated the proposed wind farm as inappropriate (a score of 1, 2, 3) knowing it would reduce pollution by 600,000 pounds each day.

The average scale score given by respondents, knowing that the wind farm could save the equivalent of 39,000 gallons of oil every day was 5.8 or appropriate. This was an increase of over one point from the average of respondents' initial assessment; a positive impact on their perceptions. Seventy-nine percent of respondents rated the proposed wind farm as appropriate knowing this (a score of 5, 6, or 7). Five percent rated the proposed wind farm as neither appropriate nor inappropriate. Only 10% of respondents rated the proposed wind farm as inappropriate (a score of 1, 2, 3) knowing it could save the equivalent of 39,000 gallons of oil each day.