

JUNCTION AND BREAKWATER TRAIL

2011 TRAIL USE STUDY & ECONOMIC ANALYSIS

Prepared for: Delaware Division of Parks and Recreation
Department of Natural Resources & Environmental Control



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Executive Summary

During the peak visitor season of May 1 through August 31, 2011, Delaware Greenways conducted a study to examine the use of the Junction and Breakwater Trail in southern Delaware and related economic impact. A point of contact survey was administered to trail users and user counts were conducted during this period; results from both were then used for analysis.

In total, 1,570 individuals were observed at two strategic trailheads along the six mile corridor that runs between Lewes and Rehoboth Beach. At these locations, 354 survey responses were collected, representing a 39 percent response rate. Additionally, infrared user counts and data collection procedures were designed to estimate the peak season (May 1 – August 31) use of the Junction and Breakwater Trail. An estimated 40,189 individuals use the trail during the peak season.

Findings from data analysis which are presented in this report include: a calculation of the economic impact of the trail on the surrounding community, a profile of the average trail user, and a calculation of annual trail use. These data can inform decision-making regarding infrastructure development, investment of government resources, and business opportunity in the future based on the user profile information. In accordance with these objectives, the following questions were examined by the study:

- How frequently is the Junction and Breakwater Trail used and for what purpose?
- What types of individuals use the Junction and Breakwater Trail and when do they use it?

The user survey asked for information regarding trail use, distances traveled, spending in local communities, and on bikes and equipment. Survey data was coupled with observational data to obtain estimates on trail-related spending. The survey obtained information on small, trail user purchases such as food, hard goods, such as bicycles and clothing, and bicycle rentals. Survey findings include the following information and data:

- The trail directly generated an estimated **\$114,167** from hard goods and an estimated **\$390,645** from soft goods during the peak season.
- 49.6 percent of respondents reported that they had purchased at least one of the four hard good options listed.
- Respondents that purchased hard goods stemming from trail use, an average \$476.63/person annually.
- 53 percent of respondents reported that they had purchased at least one of the five soft goods listed in the survey.
- Respondents that purchased some form of soft good spent an average of \$18.34 in conjunction with their most recent trip.

A profile of the average peak season trail user was created using the survey data:

- The average trail user is between 46 and 65 years old. 61.5 percent of survey participants reported being between 46 and 65. 11 percent reported being 65 or older with the remaining 27.5 percent being younger than 46. Of those observed on the trail, 84 percent of all individuals were adults and 4 percent were seniors.
- The average user utilizes the trail on a daily basis. Nearly 70 percent of survey participants reported using the trail during both the weekend and weekdays.

- The average user spends between 30 minutes and 2 hours on the trail per trip. 85 percent of survey participants fall under this category with just under 11 percent spending more than 2 hours on the trail and the remaining 4 percent spending under 30 minutes per trip.
- The average user traverses the trail via bicycle and access the trail without the use of an automobile. In total, 81 percent of all observed trail users were on bicycles, with the remainder of users split between joggers and walkers at 10.8 percent and 7.9 percent respectively. Less than 24 percent of survey participants reported to driving to the trail.
- The average trail user makes an estimated 13.87 trips to the trail during the course of the year.

These findings provide details which may be useful for additional research or further economic development and business development decisions.

Purpose

This study is intended to identify basic economic impacts of the Junction and Breakwater Trail and consider additional economic implications from data collected through user counts and surveys. The trail use component examines general trends, usage patterns, and user attitudes and habits, which can be used to accommodate existing and potential users of the Junction and Breakwater Trail.

Results

Economic Analysis

This section focuses on the economic impact of the Junction and Breakwater Trail. Total economic impact is measured by the annual out-of-pocket expenditures made by trail users. The number of users of the Junction and Breakwater Trail varies over the course of the year with the peak summer months having the highest trail usage. This study considers the economic impact of the trail only during the peak months; making off-season adjustments to the data is beyond the scope of this study.

Trail Users

The Delaware Division of Parks & Recreation installed infrared counters at three entrances to the trail. These counters record the number of persons passing by the point each day; however, the counters cannot distinguish different recreational trail user types – walkers versus bikers. And, double-counting occurs attributed to individuals that make round trips. During the peak period of May 1, 2011 and August 31, 2011 the counters recorded 70,332 individuals. There is currently no official adjusted number for counts that accounts for the double-counting of trail users. However, assuming that each individual user is making, on average, 1.75 trips¹ on the trail we can estimate the number of peak season trail users at **40,189** individuals.

Trail-Related Expenditures

Economic impact of the trail is made by the consumption of both hard goods² and soft goods³ that occurred as a direct result of the Junction and Breakwater Trail. The methodology used for this report's economic analysis was adapted from the Rails-to-Trails Conservancy calculations of annual direct expenditures on hard and soft goods using a trail use survey and the adjusted infrared counts from above. Since the report only focuses on the peak months the formulae have been adjusted accordingly:

$$\text{Hard Goods Expenditure} = \left[\frac{\text{Percent of Users}}{\text{Purchasing Goods}} \right] * \left[\frac{\text{Average Amount Spent}}{\text{Average Life of Items}} \right] * \left[\frac{\text{Users}}{\text{Trips per User}} \right]$$

$$\text{Soft Goods Expenditure} = \left[\frac{\text{Percent of Users}}{\text{Purchasing Goods}} \right] * [\text{Average Amount Spent}] * [\text{Users}]$$

Based on the survey data on hard goods purchases, the Junction and Breakwater Trail generates an estimated **\$114,167** per year. Hard good purchases such as a bike may be replaced every three to ten years; the Rails-to-Trails Conservancy assumes average life of 6 years. Thus, the amount spent per user

¹ 1.75 trips per user assume that not all users enter and exist at locations with infrared counters. There are two locations where counters are not present.

² Hard goods, as identified on the survey form, include: bikes, bike supplies, footwear, and clothing.

³ Hard goods, as identified on the survey form, include: beverages, candy/snack food, sandwiches, ice cream, and restaurant meals.

must be divided by the life expectancy of the items. In addition, as a user is unlikely to buy a new hard good for every trip they take on the trail, the number of peak season users is divided by the estimated number of trips each user takes on the trail. The estimated trips per user were calculated using the survey data. Data used to calculate total hard goods purchases over the course of one peak season are summarized in Table 1, below.

Table 1: Hard Goods Purchases					
Percent of Users That Purchased Hard Goods	Average Amount Spent Per User	Average Life	Estimated Peak Season Users	Trips Per User	Trail-Related Expenditures
49.6	\$476.63	6 years	40,189	13.87	<u>\$114,167</u>

The Junction and Breakwater Trail generates **\$390,645** in soft good sales during the peak season. Soft goods are essentially used/consumed on a single trip; therefore there is no adjustment to the calculation for durability or trips per user (as seen in the hard goods calculations). Data used to calculate total soft goods expenditures over the course of one peak season are summarized in Table 2, below.

Table 2: Soft Goods Purchases			
Percent of Users That Purchased Soft Goods	Average Amount Spent Per User	Estimated Peak Season Users	Trail-Related Expenditures
53.0	\$18.34	40,189	<u>\$390,645</u>

Location Analysis

The first set of survey questions provides information regarding the current residence of each participant as well as information on their temporary lodgings if they are only visiting the area. Responses include information about permanent zip codes, community names, nearby intersections, and landmarks. Ultimately, the location questions found at the top of the survey template (see Appendix B for complete survey form) answer the following questions⁴:

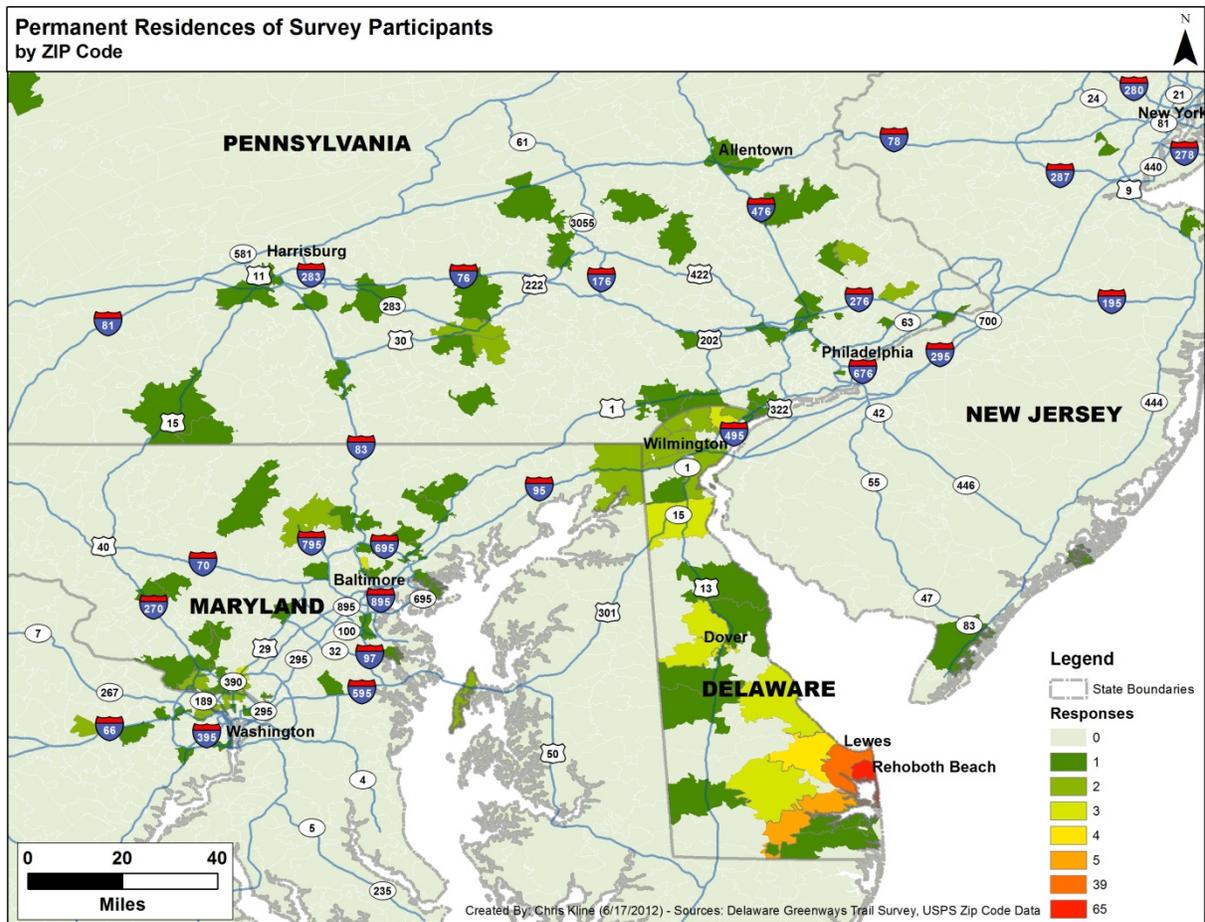
- Where are trail users coming from to access the trail?
- How far do trail users typically travel to access the trail?
- How many trail users are year round residents and how many are seasonal visitors?
- What are the permanent zip codes of trail users and how are they disbursed throughout the area?

ZIP Code Analysis

Respondents were asked to provide the ZIP code of their **permanent** residence on the surveys; 333 persons (of 353) provided the requested information. Overall, nearly one-third of survey respondents

⁴ Survey participants were only asked to provide general information about their location; their permanent residence ZIP code; and where they are staying in the local area. The latter was open-ended and descriptive (for example, “Near Walmart” or “Sandcastle Hotel”). Specific addresses were not collected for privacy reasons and that many visitors do not know the exact address of their lodgings.

(104 persons) were year-round residents of the coastal Sussex area. The remaining participants were dispersed throughout the state of Delaware and the corridor from Washington, D.C. to Philadelphia. Some respondents were from areas not displayed on the map – notably individuals from Montana, Hawaii, and Florida.



Overnight Dwelling Location

The ZIP code response shows where a person considers their permanent home. Although many trail users do reside in the local area on a year-round basis, a large portion of people are only in the area temporarily – thus determining a person’s overnight dwelling location is important. An overnight dwelling is any kind of lodging that serves as the trail user’s home for the duration of their stay in the region (long-term or short-term). Examples of overnight dwellings are rental homes, hotel rooms, campgrounds, a friend’s home, or the user’s permanent home.

Respondents that provided sufficient information on the locational section of the survey were grouped into one of 23 sections of Sussex County. The 23 sections fall into one of three geographical categories: **local areas, nearby beach areas, and western areas.**

Local areas include downtown Lewes and Rehoboth and some areas south of Route 1 that can potentially provide direct access to the Junction and Breakwater Trail via bicycle or by foot. 82.8 percent of trail users have an overnight dwelling in the local area (shown in the colored areas on the map below).

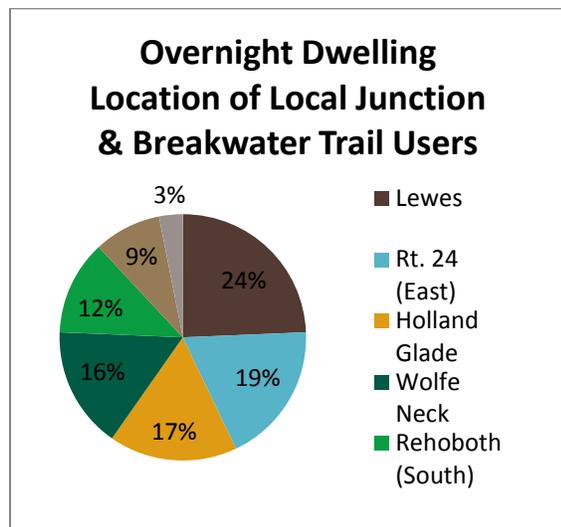
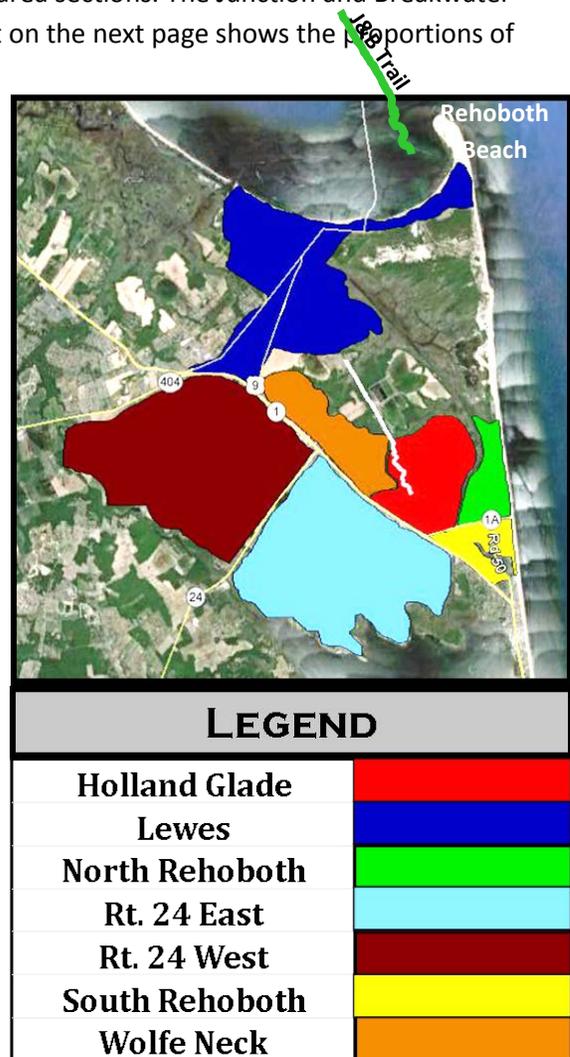
Nearby beach areas include the shoreline to the north of Lewes and to the south of Rehoboth Beach. These areas extend as far north as Slaughter Beach and as far south as Bethany Beach. An automobile is generally necessary to reach the trail from nearby beach areas. 8.8 percent of trail users have an overnight dwelling in nearby beach areas.

Western areas include locations found a number of miles to the west of the trail. Towns such as Georgetown, Milford, Millsboro, and Dagsboro fall under this category. An automobile is also necessary to reach the trail from these locations. Seven percent (7%) of trail users have an overnight dwelling in the western areas.

The remaining 1.4 percent of respondents are assumed to be visiting just for the day and not staying overnight.

In addition, local areas were broken down into seven sections after examining the locational data. Prominent roads such as Route 1, Rehoboth Avenue, Route 24, and the Lewes and Rehoboth Canal were used to define the borders that separate the seven local area sections. The Junction and Breakwater Trail is represented by a green line on the map. The chart on the next page shows the proportions of overnight dwellings, by section, in the local area.

Location	#	Percent of Total	Percent of Region
Lewes	55	20.3	24.3
Rt. 24 (East)	42	15.5	18.6
Holland Glade	38	14.0	16.8
Wolfe Neck	36	13.3	16.0
Rehoboth (South)	28	10.3	12.4
Rehoboth (North)	20	7.4	8.6
Rt. 24 (West)	7	2.6	3.1



Trail User Characteristics

The following results have been drawn from field data (surveys and user counts) that was collected between May 1 and August 31, 2011 along the Junction and Breakwater Trail. During the course of the summer, over one thousand distinct groups of trail users were observed and recorded, and of those observed, over 350 were surveyed (complete summary of results presented in Appendix A). One of the main objectives of data collection was to define an accurate profile of the average trail user. In accordance with this objective, analysis of survey and user count data found that the majority of trail users possess the following characteristics:

They are between 46 and 65 years old.

61.5 percent of survey participants reported being between 46 and 65 years old. 11 percent of participants reported being 65 or older while the remaining 27.5 percent are younger than 46 years. Of those observed on the trail, 84 percent of all individuals were adults under 65 and 4 percent were over 65 years old.

They use the trail throughout the week.

Nearly 70 percent of survey participants reported using the trail during both the weekend and the weekdays, and approximately 50 percent use the trail at least once per week.

They spend between 30 minutes and 2 hours on the trail on an average trip.

85 percent of survey participants fall under this category with just under 11 percent spending more than 2 hours on the trail and the remaining 4 percent spending under 30 minutes on an average trip.

They use the trail for recreation, health and exercise, or a combination of both.

Over 90 percent of survey participants stated they most frequently use the trail for recreation and/or health and exercise. The most popular response was recreation at 47 percent with health and exercise a close second at 43 percent.

They generally believe that the maintenance, safety and security, and cleanliness of the trail is excellent or at the very least in good order.

Less than 3 percent of survey participants found any of the three criteria to be in fair or poor order.

They traverse the trail via bicycle and access the trail without the use of an automobile.

In total, 81 percent of all observed trail users were on bicycles, with the remainder of users either jogging or walking (10.8 percent and 7.9 percent, respectively). Less than 24 percent of survey participants reported driving to the trail.

In addition to revealing characteristics of trail users, data analysis led to identification of the following patterns related to trail user habits:

Over half of trail users purchase some form of soft good in conjunction with using the trail.

52 percent of surveyed trail users disclosed that they purchased a combination of beverages, candy, sandwiches, ice cream, or meals at a restaurant.

Half of the time, knowledge of the trail and its whereabouts is transferred via word of mouth.

51.9 percent of users reported learning of the trail via other users. The remaining 48.1 percent learned of the Junction and Breakwater Trail from roadside signage, newspapers, the DE Division of Parks & Recreation, the Rehoboth Visitors Bureau, the internet, and the local bike shops in relatively equal proportions.

More males use the trail more than females.

The relative proportions are split 56 percent and 44 percent respectively between men and women.

Trail users generally do not rent bicycles at a local shop.

Although the majority of trail users were on a bicycle, only 9% of those surveyed rented a bicycle from a local shop.

Discussion of Results

While the results of the survey and user counts are not statistically significant they provide general indicators of the opportunities where further investment may promote more economic benefit to the local community. The study shows more detailed research is needed to examine the economic impact potential of the trails across the state.

General points of interest from this study:

- Most respondents (82.8 percent) indicated that they used the trail for recreational purposes. This proportion of recreational users is high⁵ compared to other rails-trails surveys conducted by the Rails-to-Trails Conservancy – but the survey period during the peak tourist season should be taken into account. A study with different sampling period and methodology would be required for locations more heavily used by a regular, less transient population.

Opportunities and suggestions for further study in the area:

- Bike rental data could be collected from local shops (rather than on the trail) to access extensive information about expenditures for bike rental.
- Examine the extent to which the Junction and Breakwater Trail is a top reason for visitors to spend time (and money) in the area.
- Would the trail be a factor in deciding to return to the area for a vacation?
- What complementary sectors and activity does the Junction and Breakwater Trail attract to the area and does that create a culture that further attracts visitors and new residents?
- Consider that economic impacts of trails may be the result of diversion of existing discretionary income by visitors. For example, if the trail did not exist then money used to buy soft goods would be spent on other local goods and services.
- Include more in-depth location analysis in combination with economic analysis; economic base analysis would be one way to learn more about the impact the trail has on the local economy by measuring the amount of economic impact that is directly attributable to the trail.

Future economic development research on trails in the state should attempt to:

- Create reliable, year-round, baseline data sets that can be compared with future data collection. Longitudinal analysis of the data will show not only the changes in the number of trail users, but also any changes in user profiles, which can allow decision making regarding trail operations/maintenance, and marketing and promotion.
- Develop a standard survey questionnaire and survey methodology; such standardization will allow fair comparison of data from one trail to another.

Overall, the collected location data offers insights that can help guide government agencies, non-profits, or businesses make investment and strategic decisions until additional data is available. The data shows that people are using the trail and generally for what purpose(s); that information can be used to make better outreach decisions and planning efforts for both the Junction & Breakwater Trail but also other trail projects in the local area that would have similar user profiles.

⁵ Trail User Surveys:

http://www.railstotrails.org/ourwork/trailbuilding/toolbox/informationsummaries/trailuser_surveys.html

Survey Methodology

Study Area

Although the majority of the trail follows one primary corridor, several secondary legs intersect the primary path at its northern and southern boundaries. To ensure the accuracy of user counts, the definition of the Junction and Breakwater Trail corridor excludes all secondary legs that also serve as gateways to/from additional trailheads/destinations. These sections are instead defined as access points. The only secondary legs included in the definition of the trail corridor are those that travel solely from a designated trailhead to the main trail corridor. The 0.2 mile leg that connects to the trail from the Wolfe Neck Trailhead and the 0.4 mile leg that connects to the trail from the Tanger Outlet trailhead are considered part of the trail corridor. Throughout the course of this study, trail use is defined through the 3.7 mile corridor located between the entrance of Hawks Eye residential neighborhood at Gills Neck Road in Lewes and the Tanger Outlet Trailhead just outside and north of Rehoboth Beach. The remaining 2.2 miles of associated trail segments are considered access points that lead to the main corridor of the Junction and Breakwater Rail-Trail.

User Profiles

A secondary goal of the Junction and Breakwater Trail Use Study is to identify the trail users. Data were collected through user counts, demographic profiles, and surveys.

User Counts & Demographic Profiles

User count data includes a measurement of the number of unique groups of individuals⁶ (of any number) that were observed along the trail during a given time period. User count data also includes certain characteristics of each group including:

- Number of Individuals
- Gender
- Age (Infants, Children, Teens, Adults, and Seniors)
- Travel Mode Choice (Walk, Jog, Bike, Other)
- Travel Direction (Northbound: Toward Lewes; Southbound: Toward Rehoboth Beach)
- Pets (if any)

Precautions were used to ensure each unique group was surveyed only once. The individual responsible for documenting user count data would also assign distinctive characteristics to each group. This could include distinctive articles of clothing, a unique bike or bike accessory, or any other number of attributes that could help identify a group if they were to pass by a second time. This method has weaknesses and becomes exceedingly difficult to maintain during periods of heavy trail use. A more involved method involves interacting with every group that passes a check point. Upon sight, every group observed during a given scheduled data collection period is asked, “Have you been asked to participate in a trail use survey today?” upon sight. Each group that responds with a “yes” can be assumed to have been seen at earlier in the day. A response of “no” conversely implies a new unique observation, and user count data is recorded accordingly. Although these measures do allow for error, it was assumed that

⁶ A “unique group of individuals” is a group that uses the trail at least once in a trip. For example, a group that travels from Lewes to Rehoboth Beach and back to Lewes is considered a unique group of individuals. The process was used to eliminate double-counting of users on a single day.

nearly all groups would provide a truthful response, allowing for the accurate collection of user count data.

Surveys

Over the last two decades, implementation of trail use surveys has helped communities formulate strategies to attract investment, boost tourism, protect farms, and safeguard the environment. Rails-to-Trails Conservancy, a non-profit advocate of rail-trails, created their own trail user survey which has become the standard template for most studies. This study's survey was adapted from the Rails-to-Trails Conservancy template consisting of 22 standardized closed-ended questions designed to be completed in less than two minutes. Ultimately, the trail use surveys used for this report were designed to accomplish the following:

- Create a profile of trail users including demographics (age, gender, family status, etc.) and usage patterns;
- Learn what factors encourage trail use in the area.

Two points along the Junction and Breakwater Trail were used to collect survey data: the first was located where the Wolfe Neck Trailhead and parking area connects to the primary trail; while the second was located where the Tanger Outlet Trailhead connects with the primary J&B Trail. Only one point was staffed on a sample day. Groups passing the surveyor were asked to complete a survey if they had not already completed one on the current day. Of the trail users who agreed the surveyor would select one person from the group to independently complete the 22 question template. During peak hours as many as four surveys were administered simultaneously.

Data Collection Schedule

Fifty-five hours of survey and user count data collection was conducted between May 1 and August 31, 2011. The data collection schedule includes a balanced sampling of the various days of the week as well as times of day. It was assumed that peak use occurs between 8:00 a.m. and 6:00 p.m., with times outside of this range seeing little activity. A sampling of non-peak hours confirmed this assumption and the vast majority of data collection took place between peak hours.

The data collection schedule was devised to assure that weekdays, weekends, holidays, and all appropriate hours of the day are accurately represented. Accordingly, three hour shifts were randomly assigned to one of five time slots that together encompass nearly all hours of trail use. The time slots include: 6AM – 9AM, 9AM – 12PM, 12PM – 3PM, 3PM – 6PM. A random generator was used to select the data collection schedule.

Survey and user count data was collected the dates and times outlined below:

Day of the Week	Date	Times	Hours
Saturday	May 14	9am – 3pm	6
Wednesday	May 25	9am – 1pm	4
Friday	June 3	12pm – 6pm	6
Sunday	June 19	9am – 2pm	5
Thursday	June 23	10am – 4pm	6
Friday	July 1	12pm – 6pm	6
Sunday	July 3	9am – 12pm	3
Friday	July 15	12pm – 5pm	5
Friday	July 15	7pm – 9pm	2
Saturday	July 16	7am – 9am	2
Monday	August 1	12pm – 3pm	3
Tuesday	August 9	3pm – 7pm	4
Wednesday	August 17	3pm – 6pm	3
		Total Hours	55

Drawbacks

Budget conditions restricted the methodology for the survey selection process. Only one interviewer would administer the survey on a given day to prevent double-surveying of individuals. The survey was administered to one individual, over the age of 16, selected from a group of trail-users. Selection bias in the surveys may have occurred as in some groups on person would have been more willing to fill out the survey than another. Some groups may have chosen to not fill out the survey at all – therefore the surveys cannot be considered statistically significant. However, the surveys can be used to infer some basic qualities about the persons who use the trail.

Background

The following section outlines previous planning efforts surrounding the Junction and Breakwater Trail; the background, design, and character of the trail itself; and the future plans for the expansion and enhancement of the trail.

Statewide Rail-to-Trail Master Plan

The Delaware Department of Transportation (DelDOT) initiated work in June 2004 on the *Statewide Rails-to-Trails/Rail-with-Trail System Master Plan* in response to an increasing public interest in the development of off-road facilities for bicyclists and pedestrians. The purpose of the study was to create a prioritized list of potential Rail-to-Trail and Rail-with-Trail projects by evaluating Delaware’s abandoned or disused railroad corridors. The study evaluated eleven railroad corridors in detail and recommended six for advanced evaluation and planning studies. The 17.8 mile Georgetown-Lewes Running Track (now called the Georgetown-Lewes-Cape Henlopen Rail-With-Trail) and the 1.7 mile extension of the Junction and Breakwater Trail were among the chosen six.

Junction and Breakwater Trail

The Junction and Breakwater Trail opened in November 2003 after several years of first land acquisition transactions, followed by project design/engineering and construction. The six mile trail provides tourists and local residents with a unique opportunity to bike and hike between Lewes and Rehoboth Beach; it links these major activity centers with residential communities. The initial 3.5-mile stretch of the Junction and Breakwater trail, between Hebron Road and the old Wolfe Glade railroad trestle, opened in 2003. A 2.4-mile trail extension from Wolfe Glade to Gills neck Road was opened in 2007, making the Junction and Breakwater Trail the longest rail-trail in Delaware.

The northern terminus of the Junction and Breakwater Trail is currently located at Gills Neck Road. A spur extends the trail to Route 9 (Kings Highway) across from the Cape Henlopen High School. The primary J&B Trail begins at Gills Neck Road west of the Hawks Eye neighborhood entrance and continues in a southerly direction crossing Holland Glade Road, terminating at Hebron Road. The trail's mid section passes through coastal forests, wetlands, and rolling fields as it continues through the southwestern section of Cape Henlopen State Park – the Wolfe Neck Area. Trail highlights include traversing two natural areas (Wolfe Glade and Holland Glade) over bridges from which trail users are presented with sweeping marsh vistas as well as wildlife and landscape observation opportunities. Interpretive signs placed at key spots along the trail identify some of the plant and wildlife found along the route. The tree canopy is extensive with mature oak, hemlock, and pine trees providing shade to the trail.

Trail Specifications

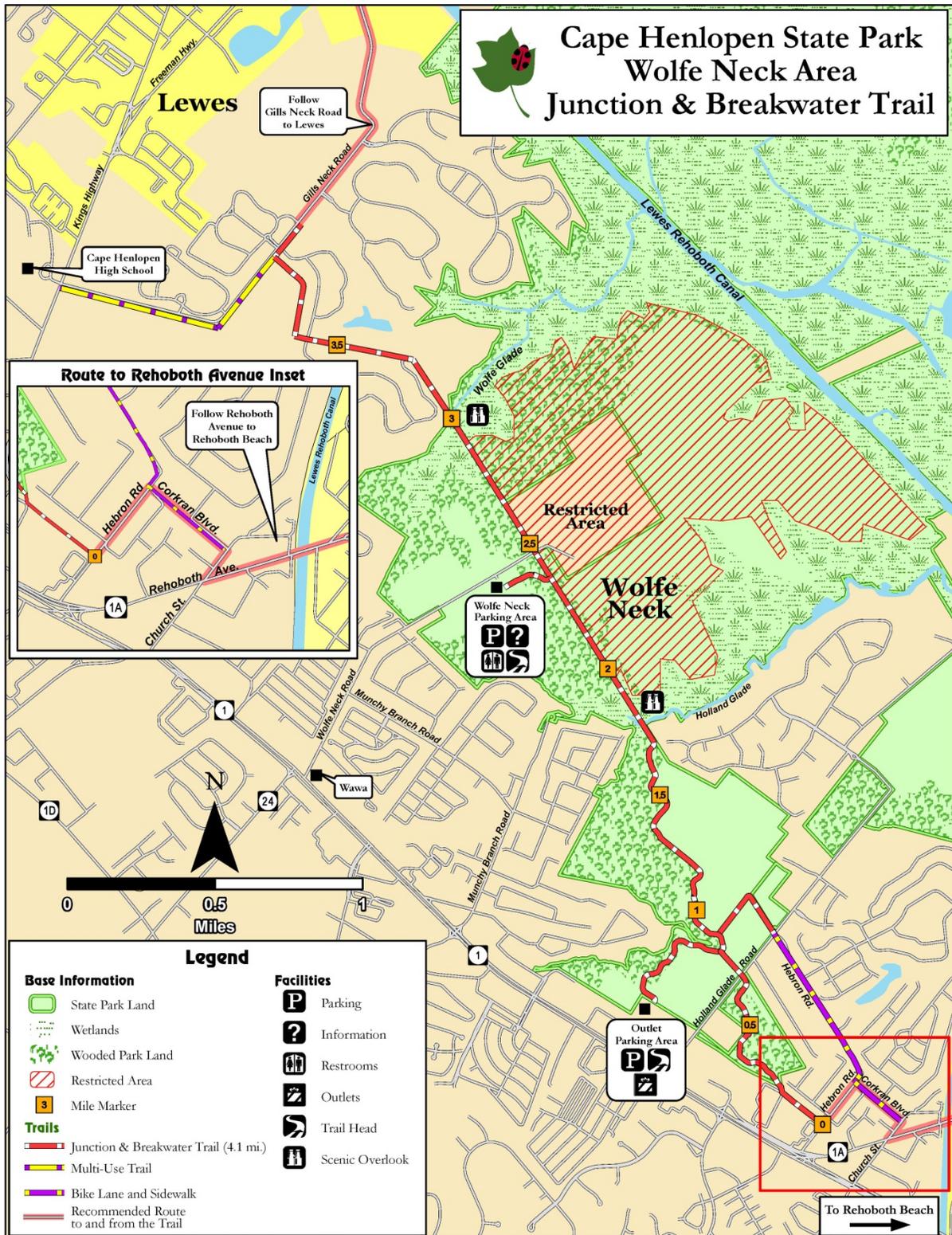
- **Length:** 6 miles
- **Width:** 12 feet in most locations
- **Surface:** Crushed stone suitable for hikers, bicycles, and strollers; some concrete surfaces in residential developments.

Amenities

Trail amenities and ample parking are provided at the Wolfe Neck Trailhead and the Tanger Outlet Trailhead. The Wolfe Neck Trailhead, located between Lewes and Rehoboth on Wolfe Neck Road, includes a 56 car parking lot, BioSun restrooms, information boards and bike racks. A water supply is located on the spur leading to the trail. The Tanger Outlet Trailhead, located at the trail's southern end in Rehoboth, provides similar amenities.

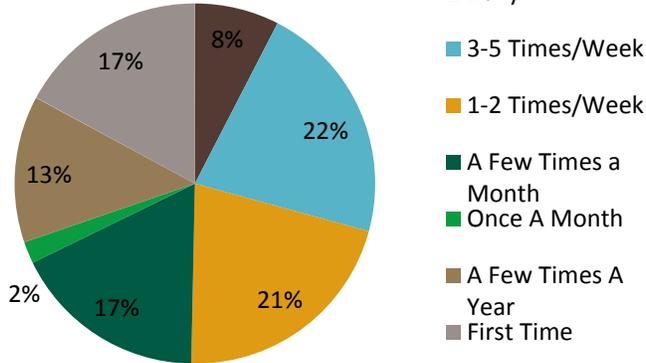
Access Points

There are multiple access points to the Junction and Breakwater Trail. The northern terminus is located at the intersection of Gills Neck Road and Kings Highway, near Lewes; however the surveys were administered with the access point to the main trail in the Hawkseye community. A midpoint access location is located at the Wolfe Neck Trailhead. There are several southern termini on the trail with the two most prominent being at the Tanger Outlets and where the trail meets Hebron Road.

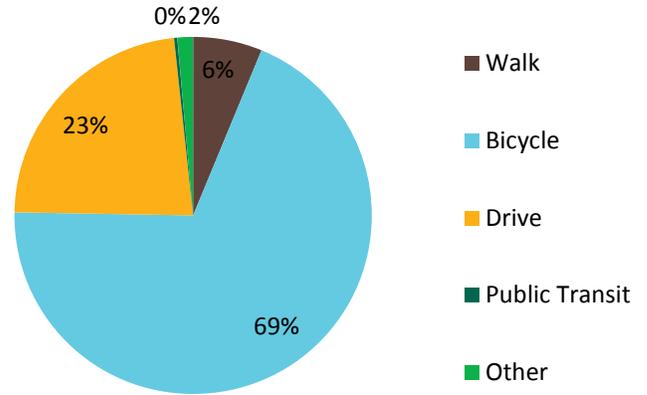


Appendix A: Survey Results

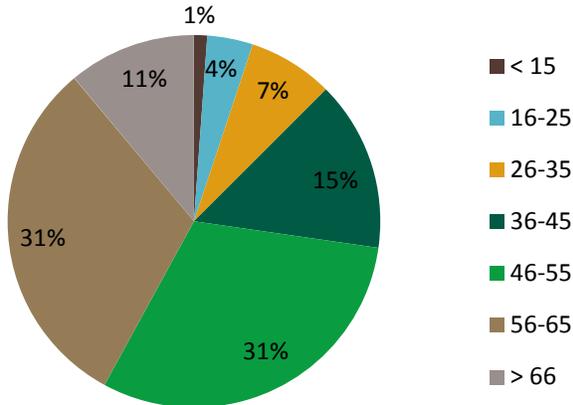
Question #1A
How often do you use the trail?



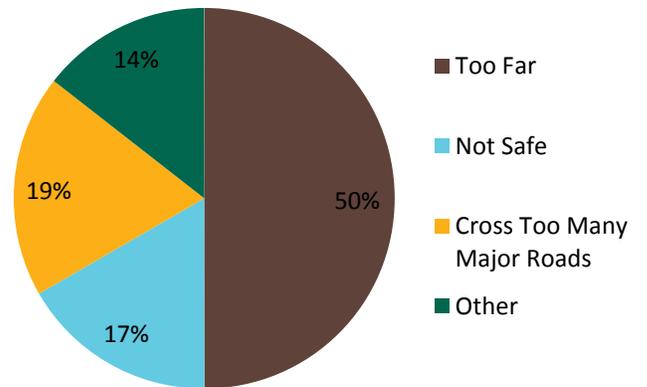
How did you get to the trail today?



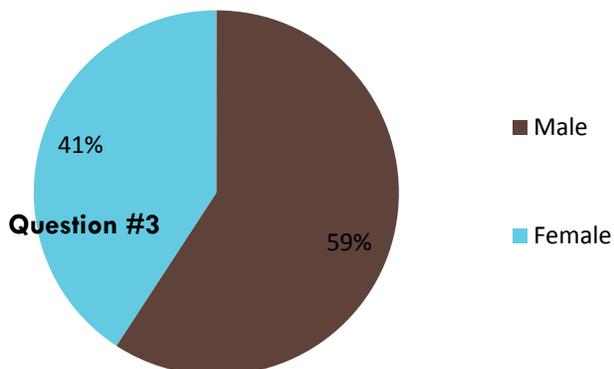
Question #1B
What is your age?



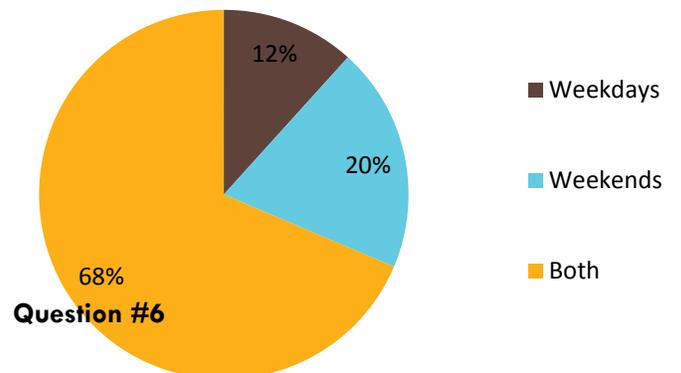
Question #4
If you drove to the trail, what is the reason?



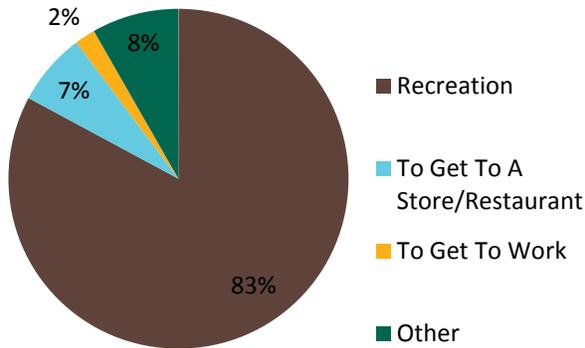
Question #2
What is your gender?



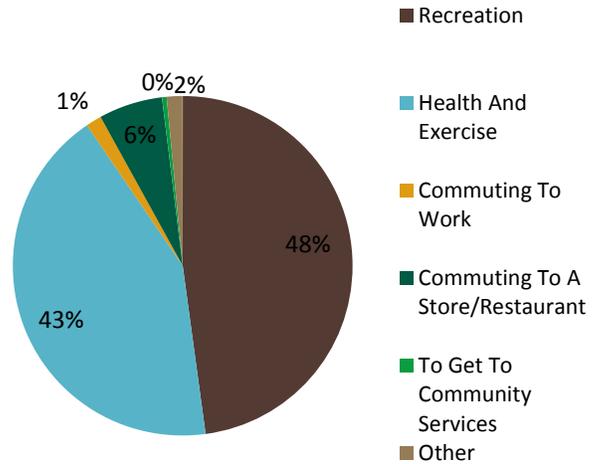
Question #5
Generally, when do you use the trail?



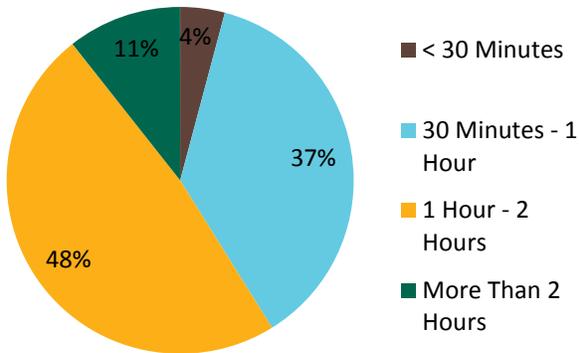
For this visit to the trail, what is your primary purpose?



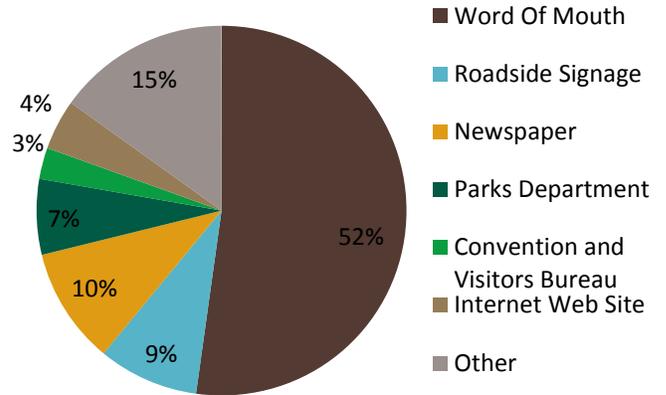
What do you most frequently use the trail for?



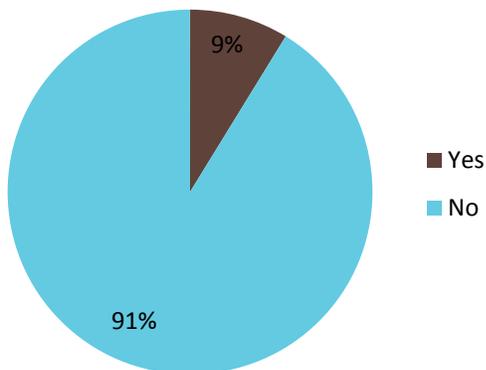
Question #6
How much time do you generally spend on the trail each visit?



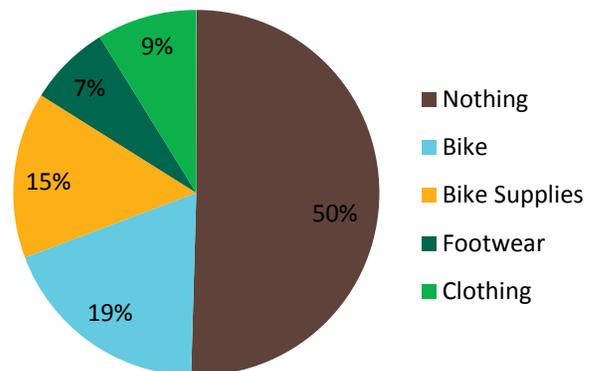
Question #11
How did you find out about the trail?



Question #7
Did you rent a bike from a local bike shop?



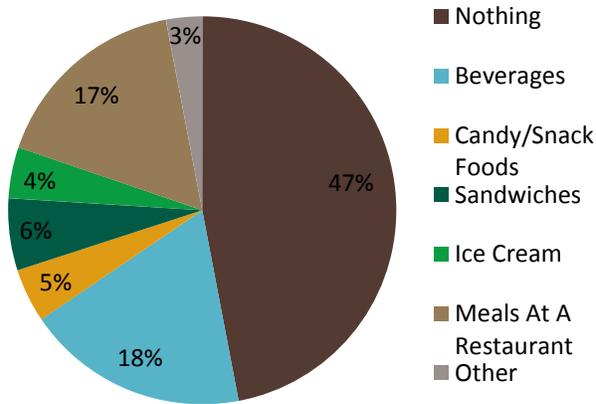
Question #12
Has your use of the trail influenced your purchase of...?



Question #10

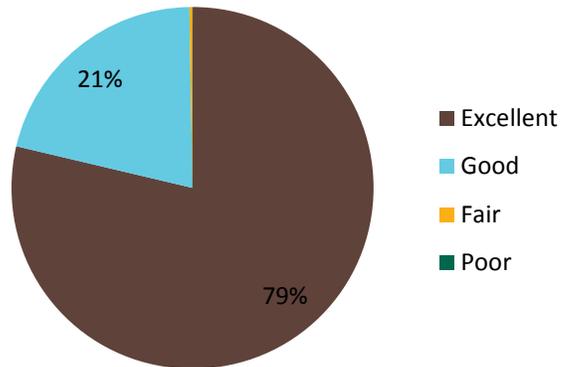
Question #14

In conjunction with your most recent trip to the trail, did you purchase any...?



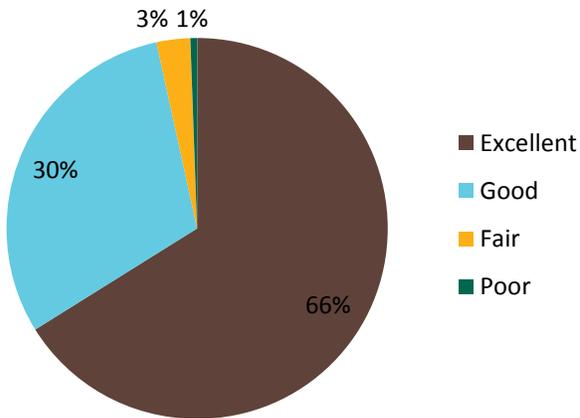
Question #18

In your opinion, the cleanliness of the trail is...?



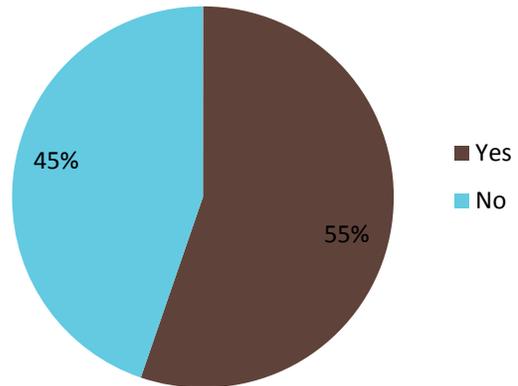
Question #16

In your opinion, the maintenance of the trail is...?



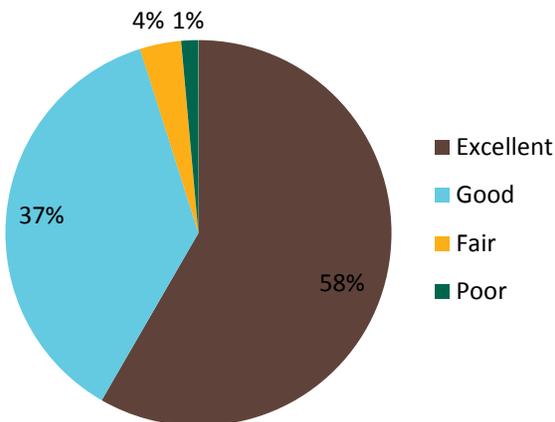
Question #19

Would you be willing to pay an annual user fee to maintain and improve the trail?



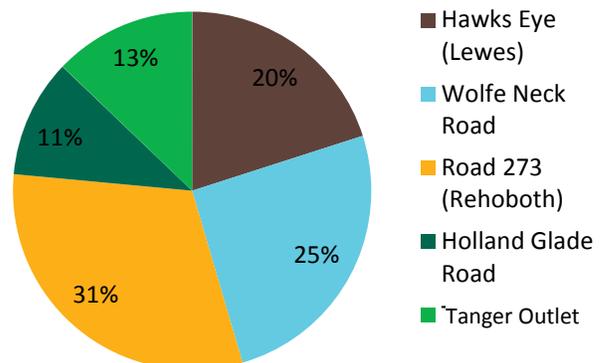
Question #17

In your opinion, the safety and security of the trail is...?



Question #20

Which trail access point do you generally use to enter the trail?



Appendix B: Survey Form

Year-round resident:	Seasonal Resident / Visitor
Zip code _____ Community Name _____ Nearest Intersection to your residence _____	Zip code of permanent residence _____ Are you staying locally? Y/N If Yes, please complete: Hotel Name: _____ Nearest Intersection/Landmark to your Rental/House: _____
How often, on average, do you use the trail? [First time] [Daily] [3-5 times a week] [1-2 times a week] [A few times a month] [Once a month] [A few times a year]	When here, how often do you use the trail, on average? [First time] [Daily] [3-5 times a week] [1-2 times a week] [A few times a month] [Once a month] [A few times a year]

1. What is your age? [15 and under] [16 to 25] [26-35] [36-45] [46-55] [56-65] [66 or older]
2. What is your gender? [Male] [Female]
3. How did you get to the trail today? [walk] [bicycle] [drive] [public transit] [other—please specify _____]
4. If you drove to the trail, what is the reason you drove?
 [too far] [not safe] [cross too many major roads] [other—please specify: _____]
5. What is your primary activity on the trail? [Walking/ Hiking] [Biking] [Jogging/Running] [Other _____]
6. Generally, when do you use the trail? [Weekdays] [Weekends] [Both]
7. For this visit to the trail, what is your primary purpose?
 [recreation] [to get to a store/restaurant] [get to work] [other—please specify _____]
8. How much time do you generally spend on the trail each visit? [less than 30 min] [30 min- 1 hour] [more than 1 hour]
9. Did you rent a bike from a local shop? [Yes] [No] If yes, how much are you spending for rental? _____
10. What do you most frequently use the trail for? [Recreation] [Health and Exercise] [Commuting to Work]
 [Commuting to a Store/Restaurant] [To Get to Stores] [To Get to Community Services] [Other] _____
11. How did you find out about the trail? [Word of mouth] [Roadside signage] [Newspaper] [Parks Department]
 [Convention and Visitors Bureau] [Internet web site] [Other] _____
12. Has your use of the trail influenced your purchase of: [Bike] [Bike supplies] [Footwear] [Clothing] [Nothing]
 Approximately how much did you spend on the items above in the past year? \$ _____
13. In conjunction with your most recent trip to the trail, did you purchase any of the following?
 [Beverages] [Candy/Snack foods] [Sandwiches] [Ice cream] [Meals at a restaurant] Other _____ [None of these]
 Approximately how much did you spend, per person, on the above items on your most recent visit? \$ _____
14. In your opinion, the maintenance of the trail is (circle one) [Excellent] [Good] [Fair] [Poor]
15. In your opinion, the safety and security along the trail is (circle one) [Excellent] [Good] [Fair] [Poor]
16. In your opinion, the cleanliness of the trail is (circle one) [Excellent] [Good] [Fair] [Poor]
17. Would you be willing to purchase a State Park Annual Pass to help maintain the trail? (circle one response) [Yes] [No]
18. Which trail access point do you generally use when you visit the trail? (circle all that apply)
Entering Access Point: [Hawks Eye (Lewes)] [Wolfe Neck Road] [Road 273 (Rehoboth)]
 [Holland Glade Road] [Tangiers Outlet]
Exiting Access Point: [Hawks Eye (Lewes)] [Wolfe Neck Road] [Road 273 (Rehoboth)]
 [Holland Glade Road] [Tangiers Outlet]

Appendix C: ZIP Code Responses from Surveys

ZIP	#	ZIP	#	ZIP	#	ZIP	#
01880	1	18951	1	19958	43	21211	1
01886	1	18966	2	19963	3	21214	1
02124	1	19007	1	19966	5	21218	1
06517	1	19014	1	19968	4	21221	1
07076	1	19015	1	19970	1	21236	1
07748	1	19061	1	19971	65	21244	1
07750	1	19072	1	19973	1	21666	2
08210	1	19075	1	19977	1	21910	1
08401	1	19087	1	19980	1	21921	2
10007	1	19115	1	20002	1	22030	1
10028	1	19146	1	20005	1	22043	1
10526	1	19311	1	20007	2	22150	1
11570	1	19317	1	20008	2	22180	1
12061	1	19341	1	20009	1	22205	2
12484	1	19347	1	20011	2	22207	2
12518	1	19348	1	20015	1	22303	1
13020	1	19422	1	20120	2	22304	1
14850	1	19428	1	20715	1	22311	1
15101	1	19462	1	20781	1	22314	1
15203	1	19506	1	20815	1	23223	1
15650	1	19512	1	20816	1	24060	1
16033	1	19522	1	20817	2	26003	1
16335	1	19608	1	20818	1	28562	1
16828	1	19701	1	20832	1	29024	1
16854	1	19703	1	20852	1	29605	1
17011	1	19707	2	20853	1	32625	1
17022	1	19709	3	20854	1	33950	1
17055	1	19711	2	20855	1	34429	1
17319	1	19713	2	20871	1	43015	1
17325	1	19720	2	20872	1	44107	1
17340	1	19803	3	20895	1	44443	1
17403	1	19804	2	20901	3	45208	1
17532	1	19806	2	20910	1	45424	1
17543	1	19807	2	20912	2	45701	1
17601	2	19808	2	21030	1	46202	1
17602	2	19810	2	21044	1	46220	2
17603	1	19901	1	21047	1	59803	1
17745	1	19904	3	21050	1	60625	1
18103	1	19934	3	21057	1	80031	1
18104	1	19939	1	21061	1	80111	1
18107	1	19943	1	21136	2	91362	1
18411	1	19945	1	21146	1	94115	1
18433	1	19947	3	21157	1	95618	1
18901	2	19952	1	21204	1	96708	1
18914	1	19955	1	21210	3		

