

Use and Users of the Paint Creek Trail

Introduction

The Paint Creek Trail (PCT) is a multiple use, non-motorized rail-trail of eight and a half miles, running from Rochester to Lake Orion, Michigan. It parallels meandering Paint Creek, one of the very few cold water streams in southeastern Michigan. The trail is primarily surfaced with crushed limestone except for a short paved stretch in Rochester. It ranges in dressed width from six to ten feet. It also passes through a corner of the Bald Mountain State Recreation Area, linking to additional non-motorized trails and public lands. The trail was selected by researchers from the Department of Community, Agriculture, Recreation and Resource Studies at MSU as one of a number of study sites to examine the tourism, transportation, recreation and exercise benefits of Michigan multiple use trails. The project is funded by the Michigan Department of Transportation's Non-Motorized Enhancement Program and the Michigan Agricultural Experiment Station. On-site trail use observation, coupled with a self-administered survey of selected trail users, was conducted from June 15 through October 8, 2004 to provide assessment data. The authors thank Kristen Meyers (PCT Commission), Marge Gatliff and Larry Filardeau (Oakland County), Pete Ferency (PCT Ranger and survey administrator), Brad Edelson and Christina Egeler (survey administrators) and Nancy Krupiarz (Michigan Rails-to-Trails Conservancy) for their assistance.

Methods

Trail use was observed at five different points on the PCT on systematically selected days and times during the study. Each sample day/time, a trained survey administrator was positioned adjacent to the trail. He/she counted all individuals going in one direction, classifying them as adults or children and noting their mode of travel (bicycle, foot, etc.). The authors then extrapolated these observations to estimate use for May-September 2004. At ten-minute intervals during three-hour observation periods, the survey administrator would select the next passing adult and ask him/her to respond to a self-administered, one-page questionnaire. The minimum number of surveys distributed per observation period was zero (severe weather day) and the maximum was 18. During the study, there were 61 observations periods in which 3,630 trail uses were observed. A total of 890 surveys were distributed, with 604 (68%) completed and returned. Non-respondents were most likely to cite a lack of time, training and couldn't stop, or already doing a survey and declining to do a second.

Survey data provides two important measures. When considering respondents this information provides accurate information about uses, but it is not representative of distinct individual users, as those who visit more frequently are more likely to be sampled and to be asked to complete a survey. However, when the data are weighted to account for this frequent use bias, the characteristics of distinct users/visitors can be appropriately assessed. This report is organized by first describing levels of use based on observations, then characteristics of uses based on unweighted survey data and finally, characteristics of distinct users based on weighted survey data.

Observation Highlights

- The PCT had 66,420 estimated uses May 1- Sept. 30, 2004, with 56% on weekdays and 44% on weekends.
- Adults (19 and over) accounted for 86% of the uses and children for 14%. Of the adult uses, 56% were bicycling and 44% were walking/running. For child uses, 65% were bicycling and 35% walking/running.

Use Highlights from Surveys

- Ninety percent of PCT uses were by Oakland county residents or workers.
- For adults, males accounted for 53% of PCT uses and females 47%. Of these uses, 16% were by those 61 and over, 46% by those 41 through 60, 29% by those 25 through 40 and 8% by those 19 through 24.
- Most PCT use (55%) was done without driving a vehicle to it. Almost half (48%) of the uses were by people living two miles or less from the trail.
- Eighty-four percent of uses were for two hours or less and 93% were rated as satisfactory experiences.

Distinct User Highlights from Surveys

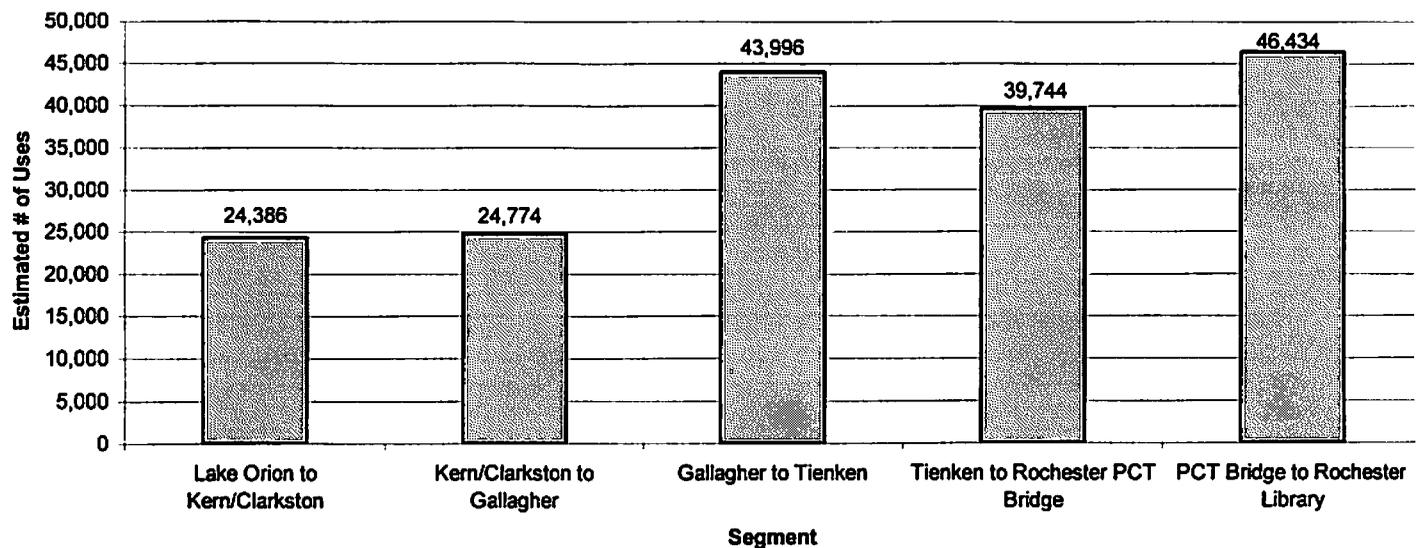
- On average, distinct visitors used the PCT 11 times per year, with almost half their uses during June – August.
- Three percent were disabled (had an impairment that seriously limits their participation in work or recreation).
- Seventy-three percent of distinct users were residents and/or workers in Oakland County.
- When asked an open-ended question about the one most important PCT improvement needed, the top four suggestions were: no suggestion/doing fine (39%), provide bathrooms (12%), improve trail surface without paving by leveling, smaller crushed stone, etc. (7%) and improve road crossings especially at Tienken (7%).

Trail Use Estimate and Characteristics

PCT Use Estimate

The segments (observation points) were: Lake Orion to Kern/Clarkston Rd. (1/2 mile NW of Clarkston Rd. looking south); Kern/Clarkston Rd. to Gallagher (Southeast of Clarkston/Kern Crossing at Conservation marker/bench looking north); Gallagher to Tienken (NW of Gallagher parking lot at Oak Leaf monument looking north); Tienken to Paint Creek Bridge in Rochester (North side of parking lot on Livernois just north of Tienken Rd. looking north); and Rochester downtown to Library (just north of Paint Creek Trail Bridge in Rochester looking north). Adding the use estimated for each segment based on observations provides a total estimate of 179,334 uses from May 1st through September 30th, 2004. Use by segment is shown in Figure 1. However, based on survey data, the typical use involved 2.7 segments of the five segments. Hence, this use of multiple segments (2.7) is divided into the total estimate (179,334) providing a more conservative and realistic estimate of 66,420 total PCT uses May – September 2004. Of those 37,014 were weekday uses and 29,405 were weekend uses. Adults (18 and over) accounted for 86% of the uses and children for 14%. Unlike many other multiple use trails, due to a lack of paved surface, there was no appreciable in-line skating.

Figure One. PCT Estimated Uses by Segment May-Sept. 04



Purpose of PCT Use and Trail Access

Survey data suggest the primary purpose of most PCT uses was either for normal exercise (48%) or recreation (37%). Training level exercise accounted for 11% of uses and 4% had a primary purpose of transportation to work, school, or other locations. The vast majority (98%) of PCT uses were rated satisfactory by the participants (6-9 on a scale of 1-9 with "9" being highly satisfied and "1" being highly dissatisfied), with 76% being rated "9" and 14% "8." Less than one percent of uses were rated as neutral ("5") and 1% as being unsatisfactory ("1-4"). Slightly more than half (59%) of PCT uses were by those who drove a vehicle to reach the trail. While more than half (62%) lived three miles or less from the trail, the challenge of linking to the trail by crossing busy state and county roadways limits safe access for many. The two ends of the PCT (Rochester and Lake Orion) are each the starting point for approximately 20% of the trail uses. The remaining 60% entered the trail along its length with the cross roads of Tienken, Dutton, Gallagher and Clarkston as the most common entry points. Almost half (43%) of the PCT uses were for one hour or less and over four-fifths (82%) were for two hours or less.

Most (55%) PCT uses were by solo trail participants, with those in parties of two or more accounting for 45% of the uses. For all uses (solo and group), the average party size was 1.7. Few parties (11%) contained children. Of the children uses, 51% were by males and 49% were by females. Parties that included children typically had one or two children. For adult uses, males accounted for 53% and females for 47%. Sixteen percent of adult uses were

by those who were 61 and over, 46% were by those 41 through 60, 29% by those 25 through 40 and 8% by those 19 through 24. Those defined as disabled under the Americans with Disabilities Act accounted for 3% of the uses.

Tourist Data

Tourist uses, use by those who do not live or work in Oakland County, accounted for 10% of the PCT uses. Tourist uses were more likely to be for recreation (47% vs. 37%), somewhat less likely to be for normal exercise (44% vs. 48%), training level exercise (7% vs. 11%) or transportation (2% vs.4%) than all uses. Sixty-six percent of tourist uses involved a vehicle driven to the trail. One hundred percent of tourist uses were rated as satisfactory, with 83% receiving the highest rating (“9”) and 11% receiving the next highest rating (“8”). Tourist uses tended to last longer than non-tourist uses with 27% lasting longer than two hours and an average of over three segments traversed per tourist use. The largest proportion of tourist uses (46%) was by those 41 through 60 years. Only 9% of tourist parties had children (18 and under). Thirteen percent of tourist uses involved eating in a restaurant during their trail use. The majority of those citing a primary reason for their PCT visit noted bicycling (46%), walking (33%) and running/jogging (18%).

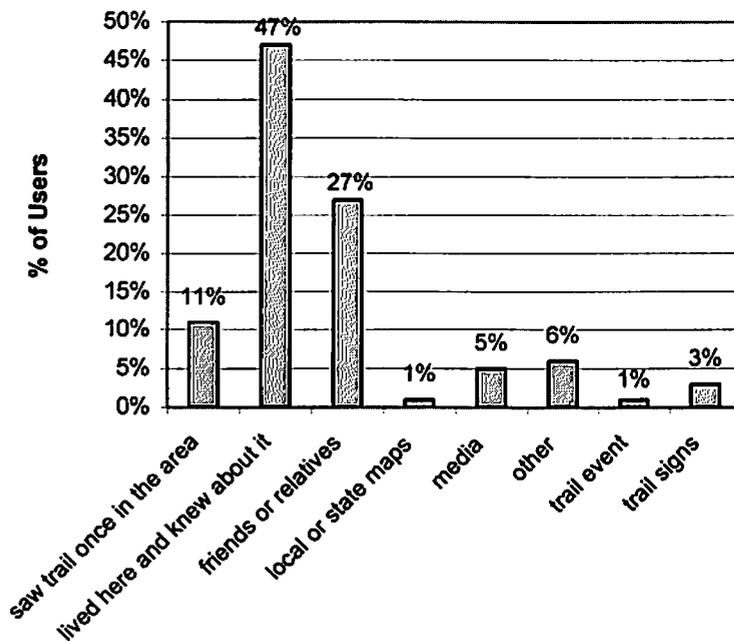
An additional postage paid postcard questionnaire was distributed to all those who completed a survey and were identified as tourists. Of the 56 provided a postcard, 20 (36%) completed the additional questionnaire and returned it by mail. Of these tourist respondents, 70% were from Michigan and 30% resided elsewhere. When asked if the main purpose of their visit was to use the PCT, 58% responded yes. This suggests that approximately 6% of all PCT uses are by tourists who primarily visit Oakland County to use the PCT. Of the tourists surveyed who visited Oakland County primarily to use the PCT, 9% stayed overnight in Oakland County and 91% were on day visits. During their trip to Oakland County primarily to use the PCT, 9% spent money on lodging, 54% on restaurant food/drink, 18% on groceries, 18% on their vehicle and 9% on all other items.

Distinct Trail User Characteristics

Source of Discovery of the PCT

The largest proportion (47%) of distinct trail users first learned of the PCT by living here and knowing about it. Another 27% learned of the trail by word of mouth from friends or relatives lived here and knew about it. Eleven percent of the users saw the trail once they lived in the area. The remainder of users surveyed learned of the trail from the media (5%), from trail signs (3%), from local or state maps (1%), from a trail event (1%) or by a variety of other means (6%) including the Internet, Rails-to-Trails Conservancy, Clinton Valley Trout Unlimited, Trails Atlas of Michigan and bicycle salespersons. Seventy-three percent of distinct trail users lived and/or worked in Oakland County.

How Users Learned of the PCT



Distinct PCT Users' Trail Activities during the Past Twelve Months

Of those who had previously used the trail, the average use the previous 12 months was 11.1 times with 43% occurring during June – August. Recreation was the most common motivation for PCT use by distinct trail users (51%), followed by normal exercise (38%), training level exercise (7%) and transportation (5%).

Distinct User Suggestions for PCT Improvement

Users were asked in an open-ended format to suggest one, most important improvement to the PCT. Suggestions noted by 3% or more of distinct users were: no suggestion/doing fine (39%), bathrooms for trail users (12%), improve trail surface other than paving through filling puddles, better crushed limestone fines, etc. (7%), improve road crossings especially at Tienken (7%), keep the trail environment natural/rustic (6%), widen the trail (5%), drinking fountains (5%), pave the trail (4%), extend the trail (3%), improved signage/mileage markers (3%) and all others (9%).

Distinct User Suggestions for PCT Extension

When asked if they had specific suggestions on where they would prefer the PCT be extended, 34% provided a suggestion. Of those providing a suggestion, ideas mentioned by 5% or more include: 15% in any direction just provide more, 13% supported extension to the Polly Ann Trail, 11% in a general northerly direction, 9% in a general southerly direction, 8% to the Macomb-Orchard Trail, 8% to the Clinton River Trail and 5% into Lake Orion.

Distinct Tourist Users

Tourists first learned of the PCT primarily through friends or relatives (57%), living in the general area and knowing about it (17%) and seeing the trail once in the area (13%). Other sources of first knowledge of the PCT were the internet, bicycle shops, Michigan Trail Atlas and Clinton Valley Trout Unlimited.

Management Implications of the Study

The PCT serves residents, workers and visitors to the Rochester/Lake Orion community. Considered as a single trail, not segments, on average it receives 434 uses per day from May – September. Of those uses, 6% are by tourists that make a specific trip to the area to use the PCT, with most spending money in the area at one or more of the following: restaurants, filling stations, convenience stores, sporting goods outlets, etc.

Most PCT trail users are highly satisfied. This is especially true for tourists. Across all users, this is evidenced by the highest proportion of respondents having no suggestion for trail improvement or requesting it to stay as it is (39%). However, some key sources of dissatisfaction have been identified and many valuable suggestions for improvements made by respondents. The greatest source of dissatisfaction is the PCT's lack of comfort facilities. Twelve percent suggested the need for bathrooms and another 5% supported drinking fountains as the single most important improvement for the PCT. This is all the more important in the middle sections of the trail as there are very few businesses that trail users can patronize to gain access to bathrooms while enjoying a drink, snack or shopping. Besides influencing enjoyment, lack of access to drinking water on a hot day is a safety issue, especially for the elderly and young children.

The surface of the PCT is another source of concern. While a relatively small proportion suggested paving (4%), more (7%) suggested leveling (grading), adding additional, well crushed limestone fines, removing large stones and improving bridges/boardwalks and their approaches. A smaller proportion (2%) specifically stated their opposition to paving the trail, many citing concerns about maintaining naturalness and a desire to exclude in-line skating. Another 5% suggested widening the trail. As one rides toward the middle sections of the trail, the visibly dressed width narrows as turf has encroached on what was once a dressed limestone fines surface. Resurfacing of the PCT with crushed limestone began October 18, 2004 and was completed in early November, 2004. It is important to note that respondents were not asked to state their preference in the survey for paving or limestone fines. Comments related to paving, limestone fines, etc. were only made in the context of the survey question "what is the single most important improvement you would suggest for the PCT?"

Surface maintenance, regardless of the surface, is also necessary. This may include regular grading and restriction of turf encroachment from the margins of the trail. Another trail surface challenge is the emerald ash borer. As it

becomes more prevalent in Oakland County, the many green and white ash trees along the PCT are all likely to succumb (as many already have) and are likely to present a hazard to the surface through fallen limbs or entire trees across the trail. Removal of ash trees prior to their demise in a single step rather than as on-going ash removal may be more financially practical and enhance public safety. Winter is an excellent time to accomplish this task when trail use is minimal and the ground is frozen limiting the impacts of necessary wheeled equipment. However, education of trail users on the rationale of such a move (public safety, control of emerald ash borer, cost containment) will be critical, as many highly value the perceived naturalness of the PCT corridor and 6% specifically mentioned maintaining or enhancing naturalness as their one most important suggestion for improvement.

Three percent of trail users advocated extension as the most important trail improvement. In addition, when all survey respondents were asked in an open-ended question about what they felt was the most important extension of the PCT, a third (34%) provided specific suggestions. Support appeared strongest for expanding northward, with a link to Lake Orion (currently in progress in cooperation with residential development in Lake Orion), the Polly Ann Trail and north as a general direction most commonly mentioned. Unlike more rural locations where potential links may not exist, there are many potential links to the PCT if one includes sidewalk systems in towns and road shoulders. However, the serenity, naturalness and quiet of the current PCT are difficult to find in the area outside of public lands such as Bald Mountain, especially as one travels south from Rochester.

One linkage to stress is better connection to nearby residential areas. This may be accomplished by sidewalks, bicycle lanes on municipal, county or state roadways or through additional trails. This has the potential to boost trail use for transportation and economic purposes as businesses (both as places of employment and consumer spending) are better connected to workers and shoppers. It can also be valuable in efforts to promote safe routes to schools that enhance the physical fitness of youth. Perhaps the most challenging direction for trail extension is west, where M24 creates a significant safety barrier to trail users unless a bridge or tunnel provides a safe way to cross this busy thoroughfare. As with other trails across Michigan, linking with other jurisdictions including cities, townships and counties will enhance the prospects for trail extension as will working with interested citizens and organizations.

Improved signage and mileage markers, while noted by fewer people (3%) than the above concerns, also merit consideration. While signs or maps for regular resident users showing directions, distance and "you are here" may be unneeded, such visible information is important to help a first visit by a tourist, new resident or new worker be an enjoyable one. Also, providing signs directing people to the PCT will provide a welcome to visitors and direct them to appropriate trail access locations, including parking areas.

Conclusion

The PCT is a prominent and valued asset of the region. Its already high standing in the community can be enhanced and strengthened by listening to this representative cross-section of trail users and prudently acting on their suggestions.

November 2004 by Christine A Vogt Ph.D., Charles Nelson Ph. D. and Joshua Pedersen.

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