

# O'HARA TOWNSHIP TRAIL FEASIBILITY AND PLANNING PROJECT BRC TAG 9-158

**Prepared for:**  
**Township of O'Hara**  
**325 Fox Chapel Road**  
**Pittsburgh, PA 15238**

***Prepared by:***  
**PBS&J///TRILINE**

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## 1 EXECUTIVE SUMMARY

In 2002, a Comprehensive Parks, Recreation and Open Space Plan was developed for the Township of O'Hara. The Plan identified development of a "Township-wide Trail Plan" as a primary recommendation. In 2004, PBS&J/TriLine was contracted to complete a Trail Feasibility and Planning Study for the Township. Based on the demographics of the study area, existing recreation opportunities, and public opinion and participation, nine (9) trail alignments were determined to be feasible.

Recognizing the need for regional recreation opportunities and trail connections, the Township of O'Hara Trail Steering Committee determined the study area for the feasibility analysis would include several neighboring municipalities. The municipalities included: portions of Shaler Township and the City of Pittsburgh Riverfront, Sharpsburg Borough, Blawnox Borough, Etna Borough, Aspinwall Borough, Harmar Township, Indiana Township, Millvale Borough, and all of Fox Chapel Borough. The study area is primarily a residential suburb or "bedroom" community of Pittsburgh. O'Hara's demographics are similar to other municipalities in the study area. The Township of O'Hara has an aging population similar to the Pittsburgh region. It has been increasing in recent years while other population groups are declining. One primary difference within the study area is per capita income. Fox Chapel Borough's per capita income, property value, and tax base exceed all other study area communities.

Regional recreation and cultural resources include Hartwood Acres, Beechwood Farms, Trillium Trail, Millvale Riverfront Park, and the Allegheny River. Township recreation opportunities include Squaw Valley Park, Meadow Park, Camp Guyasuta, neighborhood parks, and many undeveloped parks, greenways, community centers, and open space.

Public participation in the study included: a public opinion survey, key person interviews, and three public meetings. Survey responses were positive with a majority of respondents (89.0%) in favor of trail system development. Key interviews were positive and provided valuable information. Feasible trail alignments were determined and evaluated based upon public survey comments, key interviews, public meeting comment and interaction, and monthly Trail Study Committee meeting discussion. The alignments and alternatives were also evaluated via field trips and site evaluation.

The nine (9) feasible trail and greenway alignments are Community Connections (eastern and western O'Hara), Bicycle Lane Corridor, RIDC Industrial Park, Riverfront Trail, Squaw Valley Park to Beechwood Farms, Water Trail, Scenic Overlooks, and Shared Roadway Corridors. Each of the alignments was evaluated based on eight (8) criteria such as financial feasibility, purpose, need, and constructability.

A detailed description and evaluation of each trail alignment are provided in the report. Trail alignments connect the Township to regional recreation opportunities, provide recreation and exercise for a variety of users, link and conserve existing natural areas, and utilize undeveloped and open space areas in the Township.



## **2 BACKGROUND**

### **2.1 Purpose**

In 2002, a Comprehensive Parks, Recreation, and Open Space Plan was developed for the Township of O'Hara. The Plan inventoried and assessed recreational and cultural resources within the Township, gathered public insight regarding Township Parks, and provided recommendations and suggested goals to improve and expand existing recreational facilities.

### **2.2 Mission Statement**

The mission was to identify a plan to develop a "Township-wide Trail Plan" based on "public participation combined with a thorough inventory and assessment." In the Plan's February 2002 Public Survey, question no. 18 asked whether there was a need for a system of trails, greenways and open space in the Township. Eighty-four percent of respondents either felt very strongly in support of the idea or at least felt the idea had merit and should be explored further. Nine percent did not support a system of trails, greenways, and open space. Based on public support, it was determined that further study in the form of a Trail Feasibility and Planning Study was necessary.

The purpose of this Trail Feasibility and Planning Study is to determine prudent and feasible trail alignments that provide recreation for Township residents, connect existing recreation facilities, and link regional assets and natural areas. Feasible trail alignments were established and evaluated based upon a public opinion survey, key interviews, monthly progress meeting interaction, public meetings, and site evaluation by the project planner and engineers.

### **2.3 Project Funding**

The Township of O'Hara Trail Feasibility and Planning Project has been partially funded by the Pennsylvania Department of Conservation and Natural Resources (PADCNR), Bureau of Recreation and Conservation (Bureau). PBS&J///TriLine completed the study to meet their requirements and standards. In February 2002, TriLine Associates, Inc. (now PBS&J///TriLine) was contracted to complete this study.

### **2.4 Demographics**

A demographic profile of The Township of O'Hara was compiled in the 2002 Comprehensive Park, Recreation, and Open Space Plan using the year 2000 Census data. Demographical information plays an important role in identifying the need and use of recreation projects. Demographics also help to identify future land use needs and financing requirements. Finally, demographics play a vital role in interpreting the potential impact and reliability of the public opinion survey which was sent to each household in the Township of O'Hara.

### 2.4.1 Study Area

Nestled in the rolling hills of southwestern Pennsylvania, the Township of O'Hara is situated along the Allegheny River, north of Pittsburgh's Golden Triangle. The Township of O'Hara is located in Allegheny County and borders Blawnox Borough, Fox Chapel Borough, Harmar Township, Indiana Township, Shaler Township, Sharpsburg Borough, and the City of Pittsburgh. (Across the Allegheny River, O'Hara shares a river border with the boroughs of Oakmont and Verona and Penn Hills Township.)

The study area is shown in Figure 1. Although the focus of the project is on the feasibility of trails in the Township of O'Hara, there are a few reasons the study area was expanded beyond the Township's boundaries:

- The Township of O'Hara is not contiguous. Eastern and western O'Hara are separated by Fox Chapel Borough. Other smaller pieces of the Township are scattered around Sharpsburg and Aspinwall.
- Although connecting parks and open spaces in the Township with trails is a priority of the study, it is also important to take advantage of regional recreational facilities in adjacent municipalities such as Beechwood Farms (Fox Chapel Borough), Hartwood Acres (Indiana Township), and the Allegheny River.
- The topography of the area is such that valleys and water courses frequently cross municipal boundaries; and therefore, logical termini (end points) may be located outside the Township of O'Hara for some trail options.
- Connectivity, intergovernmental cooperation and support for area trails and greenways is essential for overall success.
- The Township's topography varies. Elevation ranges from 710 ft. to 1,207 ft. While the topography offers spectacular views of the Allegheny River Valley to downtown Pittsburgh, it also creates a challenge for handicapped accessibility to potential trail corridors, routes, and use. Slopes greater than 25% are found throughout O'Hara Township.

### 2.4.2 Natural Resources

#### Hydric Soils

Hydric soils are one indicator of the presence of wetlands. Though there is no hydric soil found in O'Hara Township, an area with hydric soil exists in the center of Fox Chapel Borough along Hunt Road near Squaw Run and Guyasuta Roads. Hydric soil is found in the northwestern part of the Borough in the northern part of the Stony Camp Run Watershed. In the northeastern section of the Borough, hydric soil is found from Woodland Farms Road south to Squaw Run Road East. Soils with hydric inclusions are found throughout O'Hara Township.

### Flood Plains

Flood plains are found along the Allegheny River in southern and eastern O'Hara Township. Flood plains also exist along Little Pine Creek in the west.

### Wetlands

Wetlands are located in the Allegheny River Watershed along the southern part of Fox Chapel Borough. They are found along State Route 28 in O'Hara Township to the east of Squaw Run Creek in the southern part of the Squaw Run Watershed.

Several palustrine scrub/shrub or forested wetlands are located in low lying areas, stream valleys, and wooded hillside spring seeps. Though most are relatively small, those in the stream valleys are hydrologically connected and provide a variety of functions and values, such as food and cover for wildlife, flood desynchronization, groundwater, and recharge.

### Watershed Boundary

Greenways protect wetlands and watersheds. Watersheds in the Township include:

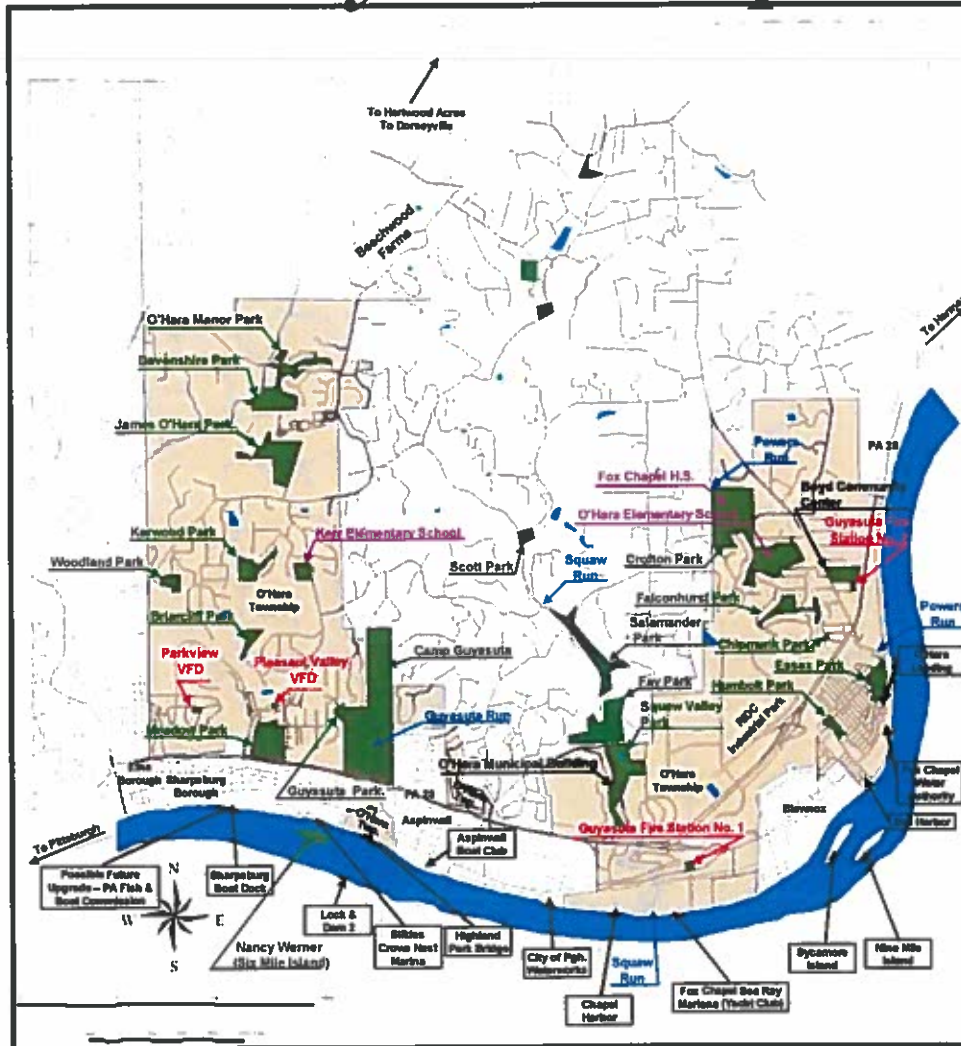
- Little Pine Creek Watershed (part - upper northwest)
- Allegheny River Watershed (most - in west; south, in east; south and east)
- Stony Camp Run Watershed (small part - upper northwest - corner)
- Squaw Run Watershed (eastern - southwest part)
- Powers Run Watershed (eastern - northern)
- Guyasuta Run
- Sitz Run

### BDA (Biodiverse Area)

Biodiversity areas include sites that are recognized as supporting special flora and fauna species, relatively large numbers and kinds of species, or entire communities or ecosystems. Three (3) key areas are identified on the Project Study Map (Figure 1).

- Trillium Trail
- Guyasuta Run Valley
- Campbell Run Valley

## Study Area Map



**Figure 1 - Study Area Map**

## 2.4.3 Community Character

Table 1 - Community Profile - Township of O'Hara	
<b>Founded:</b>	June 8, 1875
<b>Located in:</b>	Allegheny County
<b>Municipal Building Information:</b>	Township of O'Hara 325 Fox Chapel Road Pittsburgh, PA 15238 Phone: 412-782-1400 Fax: 412-782-4530
<b>Office Hours of Operation:</b>	Monday thru Friday, 8:30 AM - 5:00 PM
<b>Government:</b>	Council-Manager/Home Rule
<b>Elected Officials:</b>	7 Council Members 1 Treasurer 3 Auditors 5 Civil Service Commissioners
<b>Square Miles:</b>	7.3
<b>Number of Acres</b>	4,691
<b>Number of Persons:</b>	8,856 in 2000 9,096 in 1990
<b>Number of Households:</b>	3,248 in 2000 3,267 in 1990
<b>Number of Housing Units:</b>	3,381 in 2000 3,377 in 1990
<b>School District:</b>	Fox Chapel Area School District (which includes O'Hara, Aspinwall, Blawnox, Fox Chapel, Indiana, and Sharpsburg)
<b>Municipal Budget:</b>	\$7,067,863 in 2003

## 2.4.4 Demographic Trends and Comparisons

The population of Allegheny County has been declining (-4.1% from 1990 to 2000), much like the population of the Township of O'Hara (-2.6%). The communities of Sharpsburg, Blawnox, Shaler, and the City of Pittsburgh similarly have declining populations. Fox Chapel Borough, Harmar Township, Indiana Township, and Aspinwall Borough have increasing populations.

The median household income in the study area varies widely. Sharpsburg (\$22,828) has the lowest median household income of all contiguous municipalities to the Township of O'Hara, while Fox Chapel Borough (\$147,298) has the highest. The Township of O'Hara has a median household income of \$67,725.

Of all neighboring municipalities, only Blawnox, Sharpsburg, and Harmar have a higher percentage of the population over 65 years of age. In O'Hara, 20.5% of the population is over 65 years of age as compared to 17.8% for the entire county of Allegheny.

All municipalities in the study area, except the City of Pittsburgh, have over 90% of a population that is racially classified as "White."

In summary, the study area has a fairly stable older, not particularly racially diverse population with a widely varying range of incomes. The Township of O'Hara, in comparison with its neighbors, can be classified as a "middle" to "upper-middle" class municipality, demographically similar to other municipalities in the study area.

#### **2.4.5 Existing Transportation Infrastructure**

The study area is primarily a residential suburb of the City of Pittsburgh. The main transportation corridors through the area include:

- PA 28, built in the 1960's and 1970's. Also known as the Allegheny Valley Expressway, it is a limited access highway from Millvale to Kittanning connecting the study area to downtown Pittsburgh to the south and the Allegheny River Valley communities to the northeast. The highway also passes the Pennsylvania Turnpike (I-76) at Harmar which provides further connections to eastern Pennsylvania and Ohio.
- PA 8 intersects with PA 28 at Etna. PA 8 provides a connection across the Allegheny River (via 62<sup>nd</sup> Street Bridge) to the City of Pittsburgh and further to the eastern suburbs. To the north, PA 8 travels to the City of Butler and beyond.
- The Highland Park Bridge spans the Allegheny River between Sharpsburg and Aspinwall. It provides a second connection between PA 28 and PA 8 (Washington Blvd.).
- The main railroad lines through the study area follow the banks of the Allegheny River. On the Township of O'Hara side of the river is an active Norfolk and Southern rail line. Crossing the Allegheny River just upstream of the Highland Park Bridge is a railroad tressel owned by the Allegheny Valley Railroad called the Brilliant Branch Railroad Bridge. Currently it is being rehabilitated for future rail use. Another rail line (CSX) follows PA 8 north along the western edge of the study area.

Other important local roadways include:

- Freeport Road (old PA 28) - Connects to Main Street in Sharpsburg. Provides local traffic connections to Aspinwall, Blawnox, Harmar, Fox Chapel, and O'Hara via Fox Chapel Road.
- Fox Chapel Road - A main transportation corridor into Fox Chapel and parts of O'Hara.

- **Dorseyville Road - Via Kittanning Street, connects Etna to western O'Hara and on to Fox Chapel and Indiana.**
- **Kittanning Pike - Connects Sharpsburg and western O'Hara.**
- **Saxonburg Blvd. - A main transportation corridor in the northwestern part of the study area. It parallels Dorseyville Road from Shaler, through O'Hara, into Indiana.**
- **Guys Run Road - Begins in Harmar and follows Guys Run along the northeastern section of the study area. It intersects with Fox Chapel Road at the northern boundary of Fox Chapel.**
- **Powers Run Road - From its intersection with Freeport Road, outside Blawnox, it follows Powers Run through O'Hara to Fox Chapel Road.**
- **Squaw Run Road - Branches off of Fox Chapel Road. Follows Squaw Run through the center of Fox Chapel Borough past many of the parks and greenways of the study area.**

#### **2.4.6 Economic and Commercial Characteristics**

Although the area is primarily residential, there is some commercial development within the study area. The study area is a northeastern suburb of Pittsburgh, and many residents are employed and commute downtown.

A primary source of employment in the study area is the Regional Industrial Development Corporation (RIDC). RIDC Park, located in the Township of O'Hara, has an exit on PA 28 a mile north of the Blawnox exit. RIDC Park is an industrial park with over 80 businesses and it stretches from the Allegheny River into the Township of O'Hara south of the Crofton residential area.

Another major economic center is the Waterworks Mall. Purchased from the Pittsburgh Water and Sewer Authority (PWSA), the mall was built by the J. J. Gumberg Company in the early 1980's. The mall is located in the City of Pittsburgh between the Township of O'Hara and Aspinwall. Adjacent to the Waterworks Mall is the smaller Fox Chapel Plaza. On the west side of the mall is the new UPMC St. Margaret's Hospital, built prior to the Waterworks Mall.

Commercial businesses are located along Freeport Road (and Main Street) through Sharpsburg, Aspinwall, and Blawnox. Although there is development along the Allegheny River, it does not appear the full economic potential of the riverfront is currently being utilized. Commercial development has also taken place along PA 8 in Etna and Shaler.

Other than these commercial and industrial areas, most of the rest of the study area is residential.

#### 2.4.7 Township of O'Hara Zoning Ordinances

The Township of O'Hara is primarily a residential suburb, with the exception of some suburban manufacturing and commercial zones. The one contiguous commercial area in the Township is located along Freeport Road adjacent to the Waterworks and includes Fox Chapel Plaza, as well as a few other businesses. The suburban manufacturing zones include RIDC, some land along River Road near Blawnox, the land under the Highland Park Bridge, and riverfront property between the river and Old Freeport Road.

Conservation zones are found in the Township both along the river and adjacent to the residential areas. The zones make up the active Township of O'Hara parks and the Township's open spaces.

Planned Residential Developments (PRDs) are required by Township ordinance to provide common space for their residential development. Some of these have been opened to the public, have been zoned conservation, and have become Township parks. Some of these parks have remained undeveloped and currently serve only as public open space.

New riverfront units in the Township of O'Hara must provide public access to the Allegheny River. This ordinance was not always in place and older businesses and developments often do not provide public river access. However, as the riverfront is further developed, this ordinance will assure public access to the river.

#### 2.5 Study Area Recreation Facilities

##### 2.5.1 O'Hara's Community Parks

*Squaw Valley Park*



The Township of O'Hara's two (2) community parks are Squaw Valley Park and Meadow Park. Squaw Valley Park is located along Fox Chapel Road across from the Township Municipal Building in the eastern portion of the Township. Squaw Valley Park is the Township's most popular park. The park is adjacent to Squaw Run and includes a short nature trail (Pleasant Ridge Trail).





*Squaw Valley Park*



*Meadow Park*

Meadow Park is located in the western section of the Township above Pleasant Valley. It includes a picnic shelter, ball fields, and a tennis court.

### **2.5.2 O'Hara's Neighborhood Parks**

The Township of O'Hara's neighborhood parks include Woodland Park (Alsop Park), St. Joseph's Field, Kensington Park, and Boyd Community Center.

Woodland Park is located near Dorseyville Road at the western edge of the Township. It includes a picnic shelter, a ball field, and a basketball court.

St. Joseph's is located along Dorseyville Road midway between its intersections with Sharpshill Road and Kittanning Pike. The fields include baseball and soccer fields.

Kensington Park is located in Montrose Hill at the corner of Central Avenue and Watson Avenue. The park includes a ball field, playground, and a basketball court.

The Boyd Community Center was established in 1982 as a not-for-profit organization. The building is shared by the library. The site also contains a picnic area, a soccer field, basketball courts, a roller blade/hockey court, meeting rooms and classrooms, day care, and regularly scheduled activities. It is located at Powers Run Road and Locust Drive.

### **2.5.3 O'Hara's "Undeveloped" Parks and Open Space**

The Township of O'Hara has a number of "undeveloped" parks, open spaces, and greenways. They are shown in the following table.

Table 2 - Park/Open Space Descriptions

Park or Open Space	Description
O'Hara Manor Park	Green space on northern side of Brownhill Road.
Davonshire Manor Park	Green space across Brownhill Road from O'Hara Manor Park.
James O'Hara Park	Undeveloped park between Fox Hall Developments and Village Drive.
Kerrwood Park	Undeveloped park along Sitz Run behind Kerr Elementary School.
Briar Cliff Park	Undeveloped park behind residences on South Collinwood Drive.
Guyasuta Park	Undeveloped green space between Camp Guyasuta (private) and Alleyne Drive.
Crofton Park	Green space across Field Club Road from Fox Chapel High School which contains education gardens, etc.
Falconhurst Park	Greenway stretching from Powers Run to residences along Cornwall Drive.
Humbolt Park	Greenway on Montrose Hill starting at Central Avenue and following along Boyd Avenue.
Chipmunk Park	Open space along Powers Run and Camberwell Drive.
Essex Park	Green space across from Kensington Park.
Skonojin Road Open Space	Private land donated to the Township of O'Hara - to be kept "undeveloped."
Timberlane Drive	Part of Timberlane Drive has remained uncompleted.
Nancy Werner Park (Six Mile Island)	Six Mile Island is an undeveloped island in the Allegheny River.
Guyasuta Park Addition	Open space along St. Charles Place adjacent to Camp Guyasuta.
Kappa Drive Open Space	Open space in RIDC Park.
Falls Drive Open Space	Open space off of Falls Drive and Bader Street.
Murray Street Open Space	Open space at the end of Murray Street.
Kittanning Pike Open Space	Open space between Ranch Street and Kittanning Pike.
Lawrence Avenue Open Space	Open space adjacent to Lawrence Avenue on Montrose Hill.
Woodshire Drive Open Space	Open space between the Township Municipal Building property and Woodshire Drive.
Saxonburg Blvd. Open Space	Open space along Little Pine Creek and adjacent to Davonshire Park.
Cornwall Drive Open Space	Open space adjacent to Cornwall Drive and behind RIDC Park.
Alpha and Kappa Open Space	Open space near the intersection of Alpha and Kappa Drive in RIDC Park.
Epsilon Drive Open Space	Open space from the end of Epsilon Drive in RIDC Park to PA 28 right-of-way.
Gamma Drive Open Space	Open space in RIDC Park along Gamma Drive Extension.
Zeta Drive Open Space	Open space in RIDC Park between Zeta Drive and Gamma Drive.
Linden Drive Open Space	Open space between Linden Drive and Freeport Road.
Lower Road Open Space	Open space along Lower Road at the upper end of Pleasant Valley.

#### 2.5.4 O'Hara's Recreational Trails



*Squaw Run*

The Township of O'Hara presently has a limited system of nature trails along the hillside above Squaw Run in Squaw Valley Park known as Pheasant Ridge Trail.



*Entrance to Pleasant Ridge Trail*

The trails are completely within Squaw Valley Park. Although unmarked, the Silvan Trail in the western section of the Township of O'Hara is another existing trail. The Silvan Trail follows Sitz Run behind the Kerrwood neighborhood. The trail has been informally maintained by nearby residents.



The Boy Scouts of America own and operate Camp Guyasuta in the western area of the Township of O'Hara. The camp entrance is at 23<sup>rd</sup> Street in Sharpsburg. Among the facilities and programs offered, the camp maintains a system of trails along Guyasuta Run. At the north end of the camp, trails lead to "Wash Board Falls," a picturesque waterfall. An Americans With Disabilities Act (ADA) accessible trail has also recently been constructed in Camp Guyasuta. Trails are of varying difficulty, although they are generally best used for hiking or nature walking. Trails are open to the public; trail users must check in at the ranger station.



*Camp Guyasuta Trails*



### 2.5.5 NRPA Standard Summary

The 2002 Comprehensive Parks, Recreation & Open Space Plan includes a comparison of the Township's recreation facilities with the NRPA (National Recreation and Parks Association) standards. The comparison includes a spatial analysis that examines the type of facility (community park, neighborhood park, etc.), the amenities of the facility, and the location of the parks within the Township. The analysis revealed:

- The Parkview area in the southwest corner of the Township is deficient of neighborhood recreation facilities.
- A deficit of community park recreation facilities exist in the northwest corner of the Township.
- National standards suggest that a municipality requires a population of about 20,000 residents to support a municipal pool. If the need for a public pool is expressed, additional public water activities may be recommended.

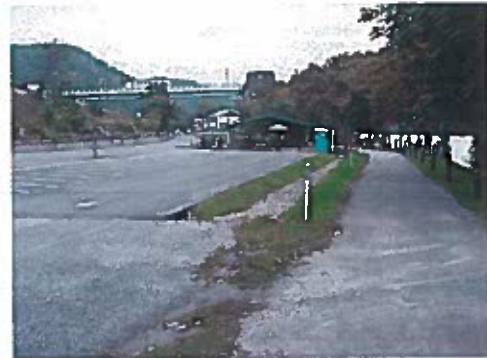


Although a recreational trail is not a substitute for the aforementioned recreational deficiencies, it can be linked with or expanded into a facility that can meet the need, as well as enhancing existing park and recreation facilities.

### 2.5.6 Study Area Recreational Facilities Outside the Township of O'Hara

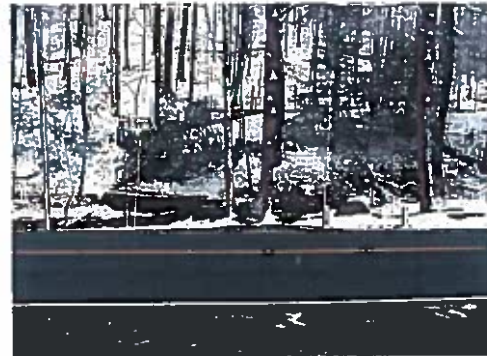
In the study area, outside the Township of O'Hara, there are several nearby important recreational facilities which include:

- Pittsburgh Riverfront Trails - It has become a priority of trail groups (such as Friends of the Riverfront and public recreation agencies), to establish recreational trails along the three (3) rivers of Allegheny County.
- Millvale Borough Riverfront Park - One riverfront trail walking/biking trail extends from the North Side in downtown Pittsburgh through Washington's Landing to the Millvale Riverfront Park. The Millvale Riverfront Park also has a small launch for non-motorized boats.



*Millvale Riverfront Park*

- **Hartwood Acres** - is owned and operated by Allegheny County Parks & Recreation. It is located in Indiana Township and contains an outdoor amphitheater, horse trails, biking, walking, hiking, and the Hartwood Mansion.
- **Beechwood Farms** - is administered by the Audubon Society of Western Pennsylvania. It maintains several miles of trails through a wildlife sanctuary. It is located in Fox Chapel Borough.
- **Trillium Trail** - is a nature walk trail along Squaw Run Road in Fox Chapel Borough. The preserved lands are known for the protected spring flower, Trillium.



*Trillium Trail*



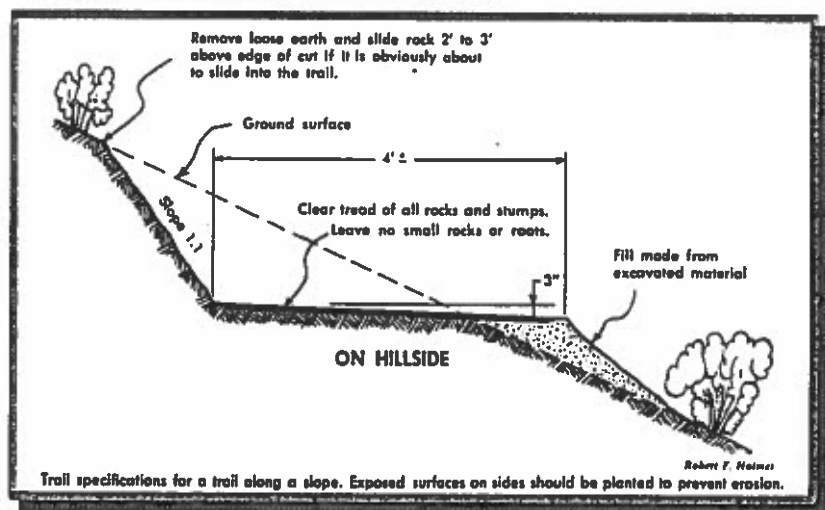
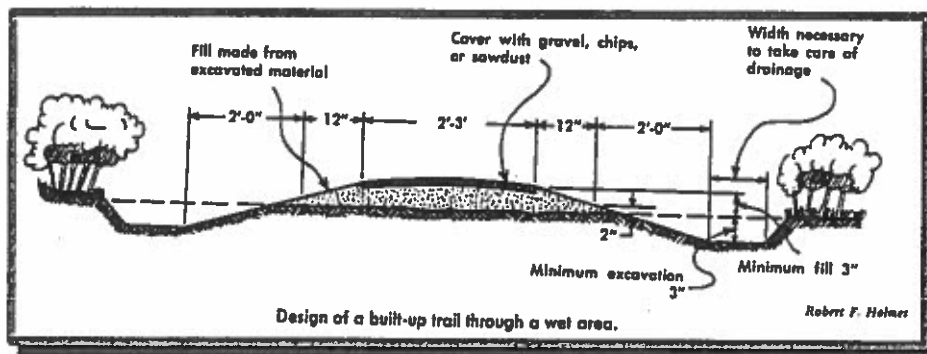
*Salamander Trail*

- **Salamander Park** - is a park owned by Fox Chapel Borough. It is located near the intersection of Squaw Run Road and Fox Chapel Road. Across Fox Chapel Road from the park, the Salamander Trail connects to Fay Park further down Fox Chapel Road.

- **Fay Park** - is owned by Fox Chapel Borough. It is located along Fox Chapel Road and Squaw Run. Fay Park is adjacent to Squaw Valley Park.
- **Scott Park** - is a Fox Chapel Borough park located along Squaw Run Road near its intersection with Squaw Run Road East.
- **The Trillium** - located across from the Trillium Trail, The Trillium is a residential development surrounded by private walking trails.
- **Riding Meadow Park & Trail** - is a Fox Chapel Borough park adjacent to The Trillium along Squaw Run Road East. It is frequently used by residents as a dog park.
- **Old Squaw Trail** - is a public trail in Fox Chapel Borough starting from Old Mill Road and terminating behind a development across from Beechwood Farms on Dorseyville Road. Public access through the development allows the connection to Beechwood Farms.
- **Riverfront Access - Sharpsburg** - The Allegheny River can be publicly accessed at 13<sup>th</sup> Street in Sharpsburg. The Borough of Sharpsburg, in conjunction with the Pennsylvania Fish and Boat Commission, are working on a plan to build a boat launch at the presently vacant site. The plan is subject to budget limitations and adjacent property usage and zoning.
- **Rachel Carson Trail** - is a hiking trail approximately 34 miles long from Harrison Hills County Park in extreme northeastern Allegheny County to North Park in the north-central part of the county. The trail follows a "beaten path" formed along both public and private right-of-way. A spur of the trail connects to Hartwood Acres in Indiana Township.

A typical trail cross-section is shown in Figure 2.

## Typical Trail Cross-Section



*Figure 2 - Typical Trail Cross-Section*

### 3 TRAIL PLANNING AND DEVELOPMENT

Trail development and design recommendations need to consider current State and Federal design criteria. For trailways, trails designed using guidelines for bikeways are generally considered adequate for most recreational uses (except certain uses such as equestrian or water trails.) The following sections will focus on designing a trailway for a bicycle user.

The development and design of bikeways within PENNDOT's right-of-way and/or utilizing State or Federal funds for construction reflects the criteria presented in the 1999 American Association of State Highway and Transportation Officials (AASHTO) "Guide for the Development of Bicycle Facilities" (also referred to as the AASHTO Bicycle Guide). An important factor to consider in the design, especially when utilizing existing roadways and streets, is the safety of bicyclists, pedestrians, and motorists. Safety cannot be compromised.

The following represents the definition of terms applicable to the planning, design, and operation of bicycle and similar facilities. Additional definitions of basic terms are presented in the AASHTO Bicycle Guide:

- **Bicycle Facilities** - A general term denoting improvements and provisions made by public agencies to accommodate or encourage bicycling, including parking facilities, maps, all bikeways, and shared roadways not specifically designated for bicycle use.
- **Bike Lane or Bicycle Lane** - A portion of a roadway which has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists.
- **Bike Path or Bicycle Path** - A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way.
- **Shared Roadway** - Any roadway upon which a bicycle lane is not specifically designated but which may be legally used by bicycles. Signs are the only designation along shared roadways.
- **Non-motorized Vehicle** - Any human-powered or horse-drawn apparatus under the jurisdiction of the PA Vehicle Code. The emphasis for this section is on bicycles, which are regulated by the PA Vehicle Code as a vehicle, subject to the status contained herein.

#### 3.1 Design Considerations

The controlling design feature for all facilities is location; i.e., whether it is on the roadway or on an independent alignment. Roadway improvements such as bike lanes are dependent on the roadway's design. Bike paths are located on independent alignments and their design is dependent on many factors such as the performance capabilities of the bicyclist and the bicycle.

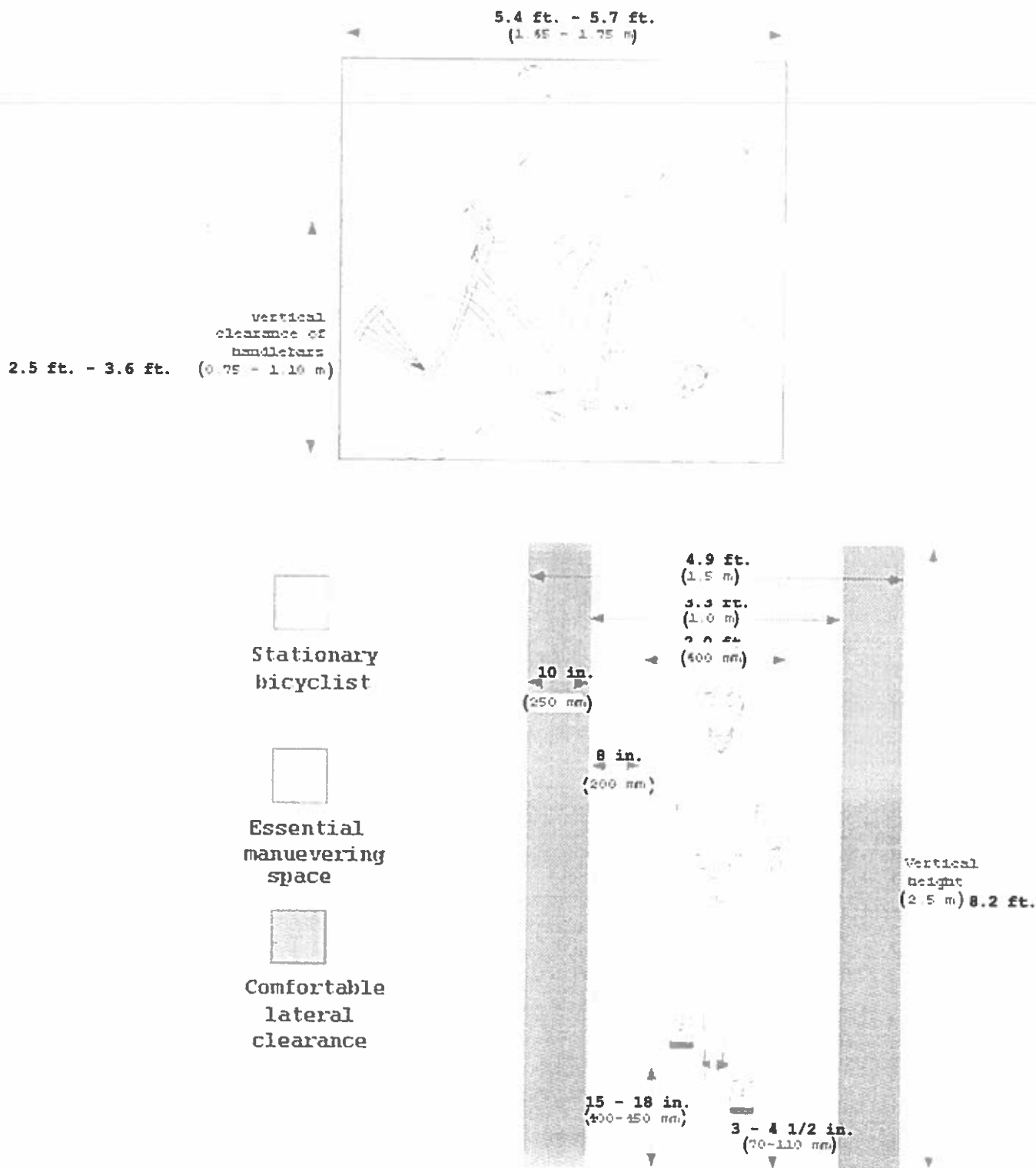


Plans for implementing trailway projects must be consistent with Allegheny County's transportation plan and need to reflect overall community goals. Bicycle parking and land use policies need to keep "park and ride" or "park and bike" locations close to both home and work.

There are many methods to safely improve the roadway to accommodate bicycle traffic while improving safety for motorized road users and pedestrians. Roadway conditions require thorough examination. Where necessary, safe drainage grates, smooth pavement surfaces, and traffic control devices responsive to bicycle traffic are required. The desirability of adding facilities such as bicycle lanes, bicycle route signs, shoulder improvements and wide curb lanes, and pavement makings also need consideration.

### **3.1.1 Bicycle Operating Space**

As Figure 3 shows, bicyclists require at least 3.3 feet (1.0 m) of essential operating space based solely on their profile. An operating space of 4.9 feet (1.5 m) is assumed to be the minimum width for use by bicyclists. For trail design purposes, a minimum width for two-way paved surfaces is 2.4 m (8 ft.).



**Figure 3**  
Bicycle Operating Space

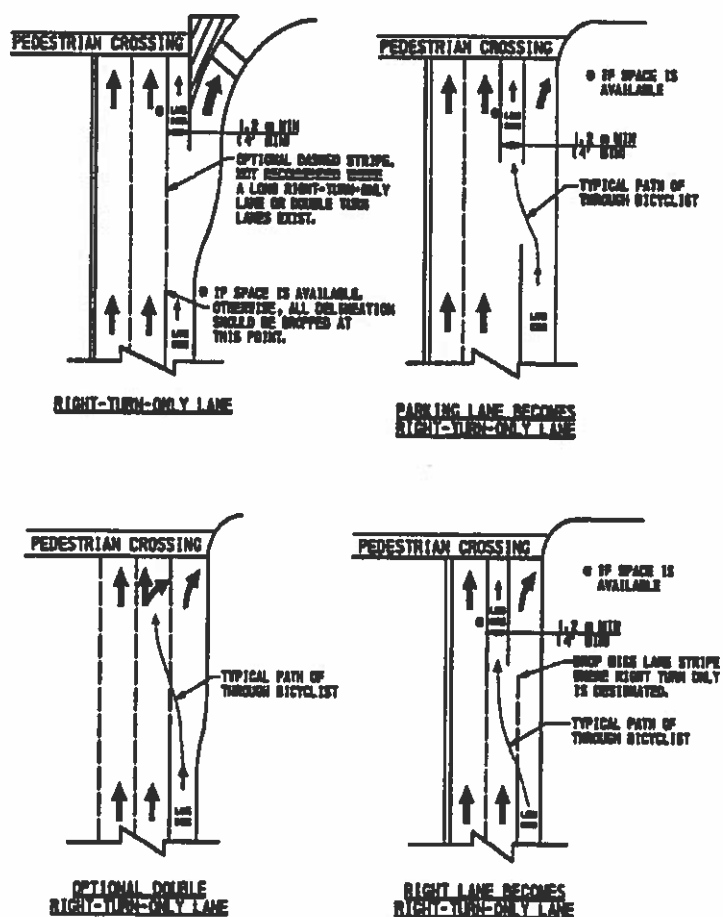
### 3.1.2 The Bicycle User

Although physical dimensions are relatively consistent, the skills, confidence, and preferences of bicyclists vary dramatically. Some riders are confident riding anywhere it is legal to operate and can negotiate busy and high speed roads that have few, if any, special accommodations for bicyclists. Most adult riders are less confident and prefer to use trails and designated roadways with bike routes and are more comfortable with more operating space. This is the advantage of a trail as a shared-use path separated from motor vehicle traffic.

Biking ability categories have one thing in common. They all require smooth riding surfaces.

Figures 2 and 4 show typical cross sections for trail development along a roadway or an independent trail alignment.

# Shared Use and Bike Lanes



Source: PENNDOT Pub. 13M(DM-2)

Figure 4 - Shared Use and Bike Lanes

### 3.1.3 Bicycle Rating and Stress Level

For the O'Hara Trail/Greenway Feasibility Study, rating classifications for bike corridors are done using a Bicycle Safety Index Rating (BSIR) and Bicycle Stress Levels (BSL).

Table 3 - Rating Classifications for the BSIR (Bicycle Safety Index Rating)		
Index Range	Classification	Description
0 to 4	Excellent	Denotes roadway extremely favorable for safe bicycle operation.
4 to 5	Good	Refers to roadway conditions still conducive to safe bicycle operation, but not quite as unrestricted as in the excellent case.
5 to 6	Fair	Pertains to roadway conditions of marginal desirability for safe bicycle operation.
6 or above	Poor	Indicates roadway conditions of questionable desirability for bicycle operation.

Bicycle stress levels are computed and defined as follows:

Table 4 - Suggested Interpretation of BSL (Bicycle Stress Levels)	
Stress Level	Description
1 - Very Low	Street or trail is reasonably safe for all types of bicyclists (except children under 10).
2 - Low	Street or trail can accommodate experienced and casual bicyclists, and/or may need altering or have compensating conditions to fit youth bicyclists.
3 - Moderate	Street or trail can accommodate experienced bicyclists, and/or contains compensating conditions to accommodate casual bicyclists. Not recommended for youth bicyclists.
4 - High	Street or trail may need altering and/or have compensating conditions to accommodate experienced bicyclists. Not recommended for casual or youth bicyclists.
5 - Very High	Street or trail may not be suitable for bicycle use.

### 3.2 Trail User Considerations

As mentioned in the previous section, a trail designed for bicycle users is considered adequate for most other types of uses such as walkers, joggers, roller bladers, etc. Other considerations beyond the needs of bicycle uses are discussed in this section.

#### 3.2.1 Parking/Accessibility

The public opinion survey revealed some trail users may walk to a trail access point, however, 3 out of every 4 users will drive to the trailhead. This is primarily due to topography and lack of sidewalks. Thus, parking availability is an important consideration for trail feasibility and design. Available, trail exclusive parking close to an accessible point of access is key. If a trailhead utilizes existing public parking, impact on other public facilities must be determined.

#### 3.2.2 Water Access

Water trails are basically access points (e.g., a boat launch) and a water course (in the case of the Township of O'Hara, the Allegheny River). Depending upon the skill level and endurance of the user, a user may prefer a longer or shorter travel distance between stops. Closer access points allow less advanced water trail users to travel the shorter distances and more advanced users to make more frequent stops.

A boat launch for non-motorized boats, such as canoes, kayaks, and row boats, can be relatively simple; a concrete dock and possibly a rack for canoes or kayaks. Public parking available near the boat launch is also necessary. The launch at the Millvale Riverfront Park is a close-by example of such a facility.

*Millvale Riverfront Park Boat Launch*



#### 3.2.3 Special Needs Accessibility

The Americans With Disabilities Act (ADA) requires accessibility to recreational facilities for people with special needs. Currently, in regards to trails, final Accessibility Guidelines (ADAAG) have not been completed. However, in general, trails should be ADA accessible if they are to be used as a "pedestrian trail." Such guidelines do not apply to trails primarily designed and constructed for use by equestrians, mountain/dirt bikers, snowmobilers, or off-road vehicle use,

even if pedestrians can use the same trail. A trail to be used by walkers, hikers, and bikers, however, is considered a pedestrian trail and is subject to ADA guidelines. Proposed guidelines for pedestrian trails require a "firm and stable" trail surface, but not necessarily paved. Handrails and edge protection are not required, but should meet appropriate standards if they are provided. There are exceptions, for example, it is not required to provide ADA accessibility if it would substantially alter the nature or purpose of the setting or if it were not feasible due to terrain.

### 3.3 Evaluation Criteria

To determine the feasibility of each potential trail alignment, several factors were taken into consideration, including:

- Purpose and Recreation Need
- Land Use Compatibility
- Conservation
- Recreation Attributes
- Public Support
- Construction Costs
- Financial Feasibility
- Intergovernmental Cooperation

#### 3.3.1 Alignment Evaluations

Each alignment was evaluated based on the following eight (8) criteria:

- **Purpose/Need** - Alignment is compatible with the Needs identified in the 2002 Comprehensive Park, recreation, and Open-Space Plan (e.g., develop trail system, protect natural areas, develop corridors to bike and walk). The alignment connects parks, schools, and community resources. It is compatible with Allegheny County Parks and Recreation recommendation 11-04-RE to promote a comprehensive network of riverfront trails.
- **Land Use** - Alignment is compatible with surrounding land use, zoning, etc., and the goal(s) of each trail segment does not conflict with planned growth (e.g., neighborhoods, parks, commercial property, open-space, etc.). The "Land Use" evaluation also included examination and evaluation of the need to acquire private property.
- **Conservation Attributes** - Alignment offers protection of natural corridors, and walking and biking trails are not intrusive on natural environment.
- **Recreation Attributes** - Alignment offers reasonable connection to recreation facilities, trails, parks, school athletic fields, and community centers. It fosters development of additional outdoor pursuits (biking, hiking), nature activities, and programs.
- **Public Support** - Conforms to demographic trends and projected use. It has wide-range community support based upon public survey results, key person

interviews, public meetings, input from government officials, Park and Recreation Board, and Steering Committee.

- **Constructability** - Design features can be reasonably constructed considering topography and other constraints. Alignment is compatible with current PENNDOT bikeway, "shared use," PADCNr, or National Rail/Trail design standards. The alignment is or can become ADA compliant with reasonable design and construction costs.
- **Financial Feasibility** - Alignment can be prudent and feasibly constructed given the nature of the project, complexity, and design features. Alignment meets guidelines and goals of current state/federal grant programs (PADCNr, PENNDOT "Hometown Grants," and others).
- **Intergovernmental Cooperation** - Alignment involves crossing municipal boundaries, requiring cooperative agreements regarding signage, use, maintenance area, etc. Rating is based on amount of cooperation necessary and number of municipalities involved.

Each alignment criteria was given a rating as follows:

- **Good** - Criteria can be accomplished within reasonable time frame considering design, and challenges.
- ❖ **Fair/Neutral** - Criteria can be accomplished but requires longer time to meet challenges and/or budgeting constraints (i.e., grant funding) and be ADA compliant.
- **Poor** - Criteria type is feasible but requires time to meet challenges, budget constraints, intergovernmental cooperation, or difficulty in becoming ADA compliant.

### 3.3.2 Operation and Maintenance Evaluation

Although operation and maintenance considerations are not a separate feasibility criteria, they are important to the feasibility evaluations. Neglected maintenance renders bicycle facilities unridable, creating a liability rather than a community asset. A smooth surface, free of potholes and debris, must be provided and maintained. Signs and pavement markings need inspection regularly and should be kept in good condition. Any structures should similarly be inspected and properly maintained. For bike paths, attention must be given to maintaining the full paved width. Trees, shrubs, and other vegetation should be controlled by trimming or removal to provide adequate clearances and sight distances. Where snow removal is required, it should be in the form of plowing, since deicing agents and abrasives can damage bicycles and provide environmental concerns with drainage into streams and wetlands.

Operation and maintenance evaluation has been integrated into the eight (8) evaluation criteria. Alignments determined to be significantly difficult to operate or maintain were rated lower for "constructability" and/or "financial feasibility." Where the burden of maintenance may need to be shared with other municipalities, "intergovernmental cooperation" was rated lower.



## 4 PUBLIC PARTICIPATION

### 4.1 Public Opinion Survey

In May 2004, a public opinion survey regarding recreational trails in the Township of O'Hara was sent to each of the 3,396 households in the Township. A copy of the survey form is included in Appendix A.

#### 4.1.1 Survey Response

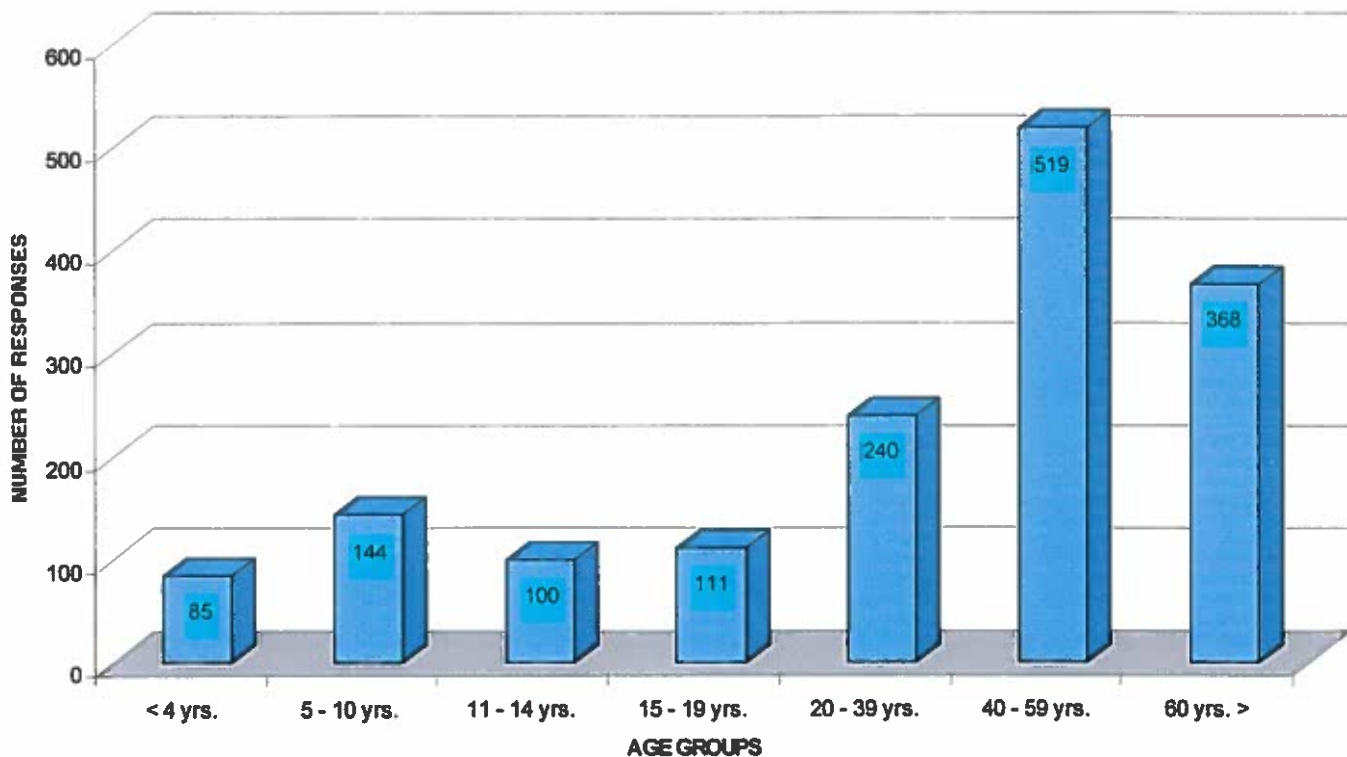
Surveys were addressed to one occupant of each household. Each respondent could submit a response either through the mail or through the Township's website. To prevent duplicate submittals, a "web number" was assigned to each survey. The following table summarizes the survey response:

Table 5 - Survey Response Summaries	
Total Surveys via Township Website	65
Total Surveys via Mail	525
Total Surveys Submitted	590
Total Surveys Sent	3,396
Response Rate	17.4%

#### 4.1.2 Demographics of Respondents

Each respondent was asked to supply the number of people and ages of people living in their household.

**NUMBER OF PEOPLE WITHIN EACH AGE GROUP LIVING IN EACH HOUSEHOLD**

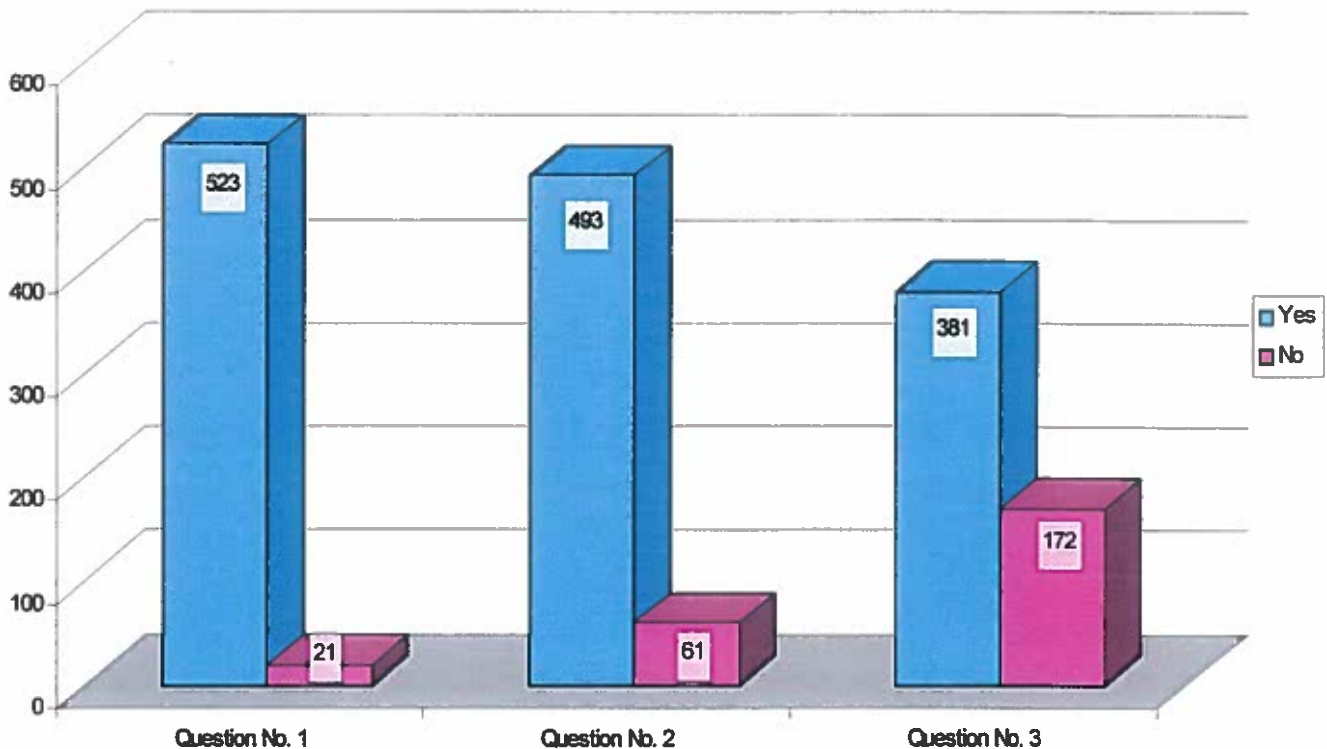


The demographics of the survey respondents closely match the age demographic of the Township of O'Hara from the 2000 Census. For example, both the census and the survey showed that the Township of O'Hara is an older Township (25.6% of population over 59 years of age - 2000 Census, 23.5% over 59 - 2004 Trail Survey), with a fairly large young adult and middle aged demographic (47.4% of population aged 20 - 59 according to the 2000 Census, 48.4% according to Trail Survey), and a smaller younger generation (27.0% of population under 20 according to the 2000 Census, 28.1% of population under 20 according to Trail Survey). Respondents, therefore, represent a typical age distribution of the Township.

#### 4.1.3 Trail System Support Questions

Three questions regarding general support of a trail system were asked.

**TRAIL SYSTEM SUPPORT AND CURRENT TOWNSHIP RECREATION USAGE**



**Question No. 1**

*My opinion is important and I want my Township Officials to know how I feel.*

**Question No. 2**

*I support the development of a trail system.*

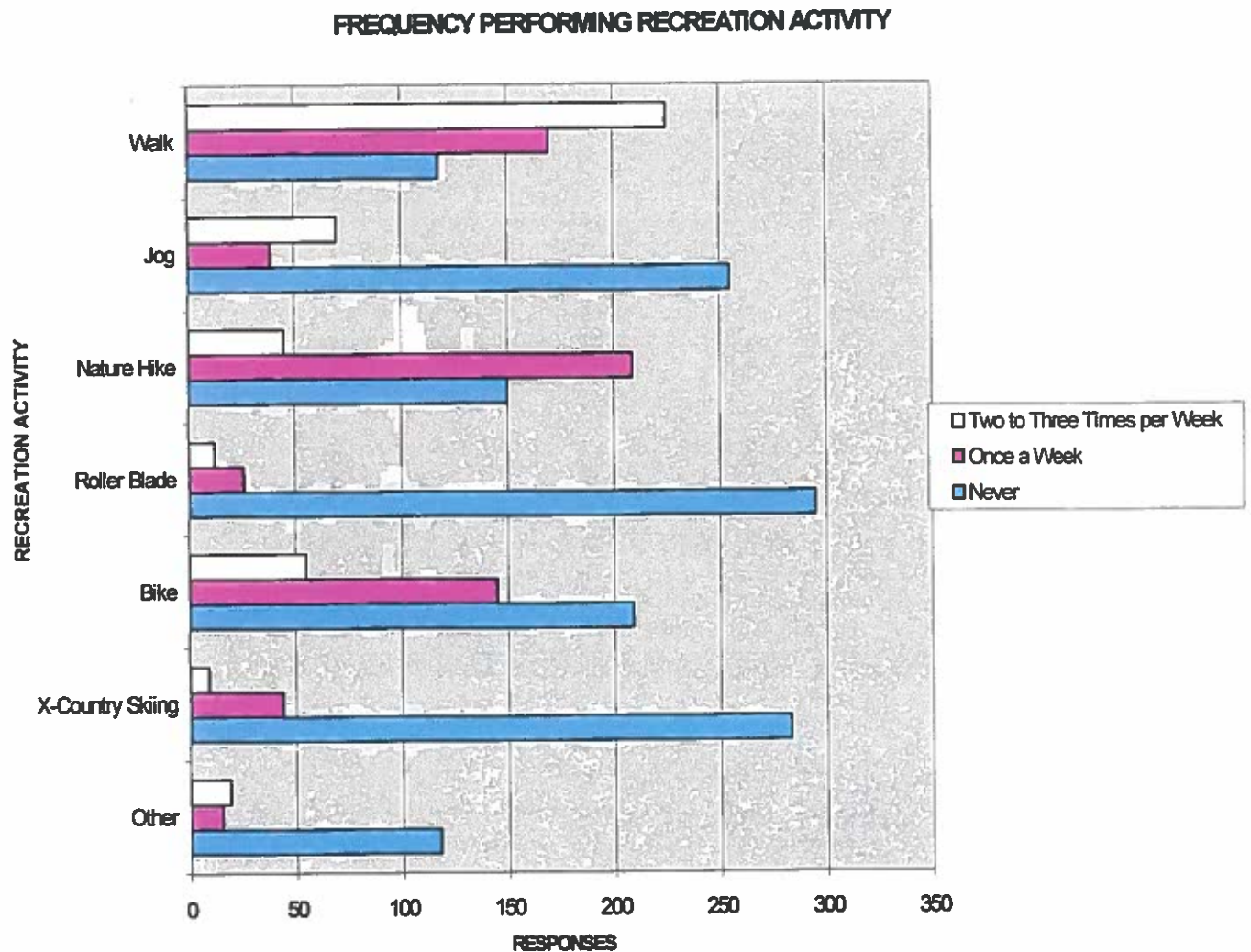
**Question No. 3**

*I currently visit the Township of O'Hara's parks for recreation.*

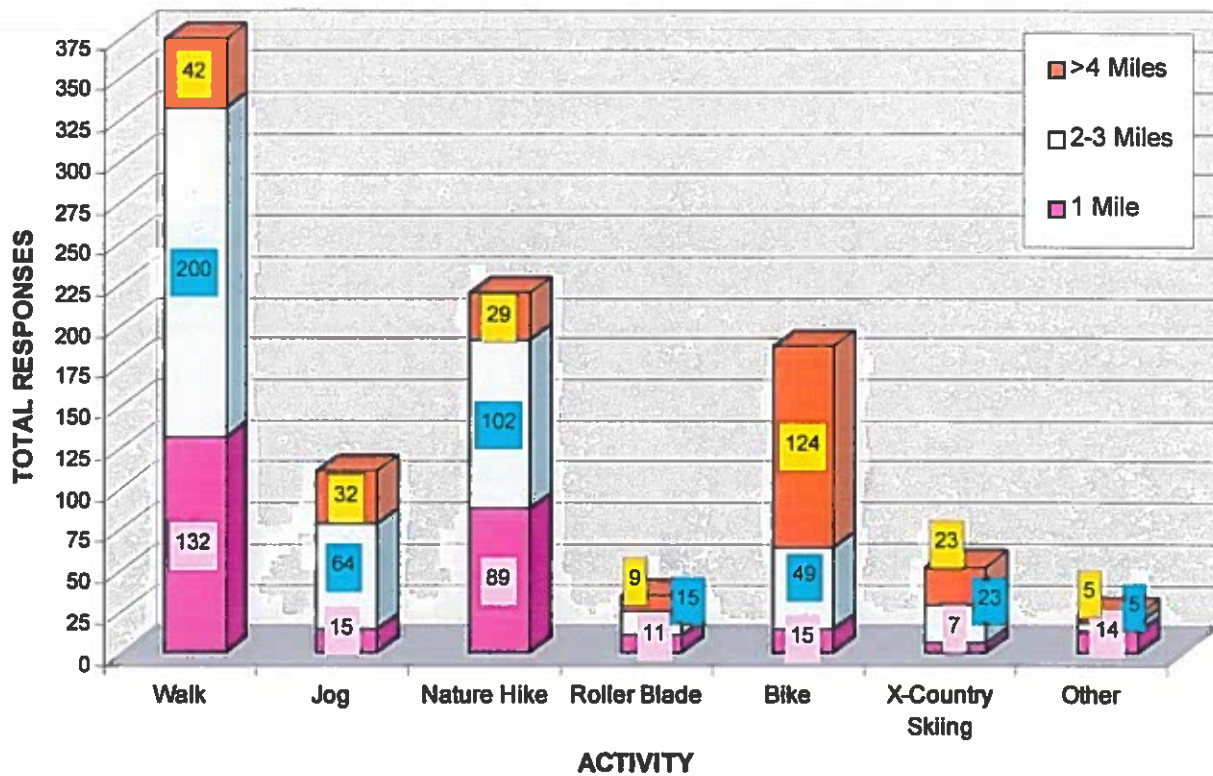
Presently, 68.9% of the respondents currently visit Township parks for recreation. 89.0% of all respondents said they support the development of a trail system.

#### 4.1.4 Recreation Demand Questions

The Trail Survey asked which kind and how often respondents participated in certain recreation activities.



DISTANCE TRAVELED FOR EACH RECREATION ACTIVITY

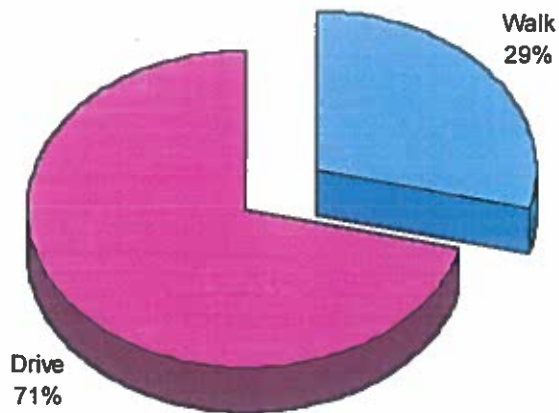


Walking, hiking, and biking were most frequently mentioned as recreation activities. As expected, most walkers and hikers said they walked 2 - 3 miles on average while most bikers said they traveled further.

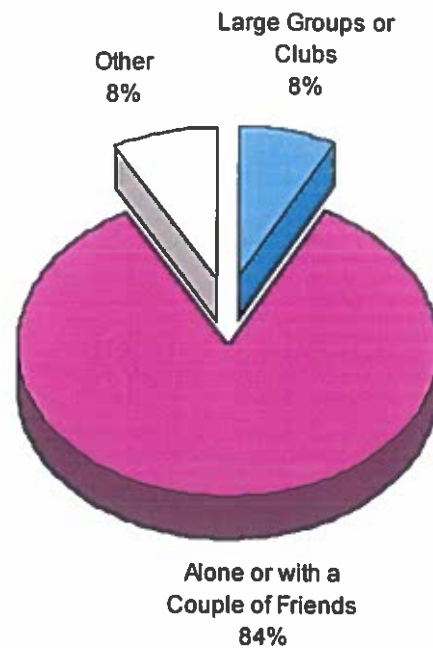
#### 4.1.5 Trail Usage Questions

Several questions in the Trail Survey were asked to get an idea of how a trail system would be used.

How Would You Get to the Trail?

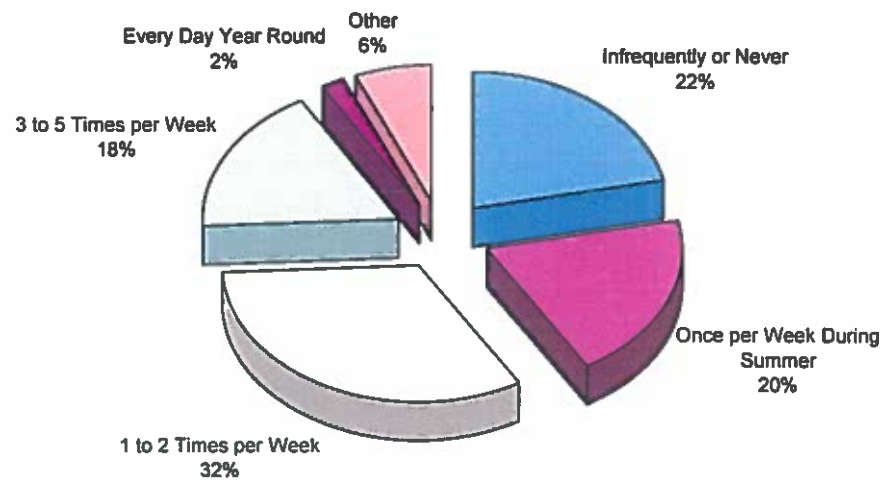


With Whom Would You Use the Trail?



#### TRAIL USER QUESTIONS

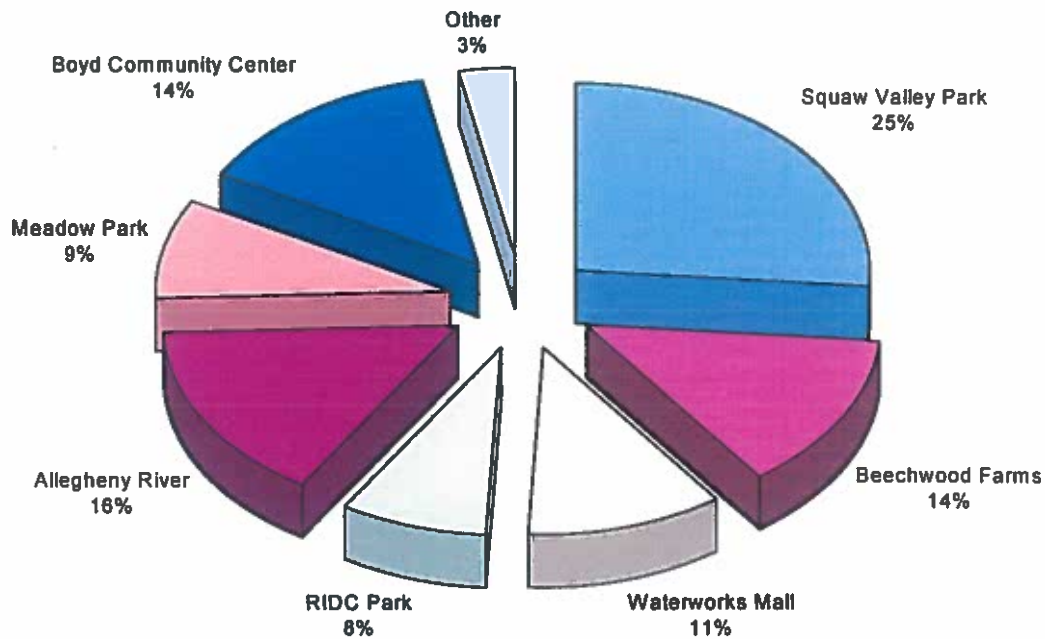
Most trail users would drive to a trailhead and most would use the trail alone or with a few others.

**ANTICIPATED USAGE OF THE PROPOSED TRAIL SYSTEM**

**Of all respondents, over 75% would use a trail system in some capacity and over 50% would use a trail system at least once a week.**

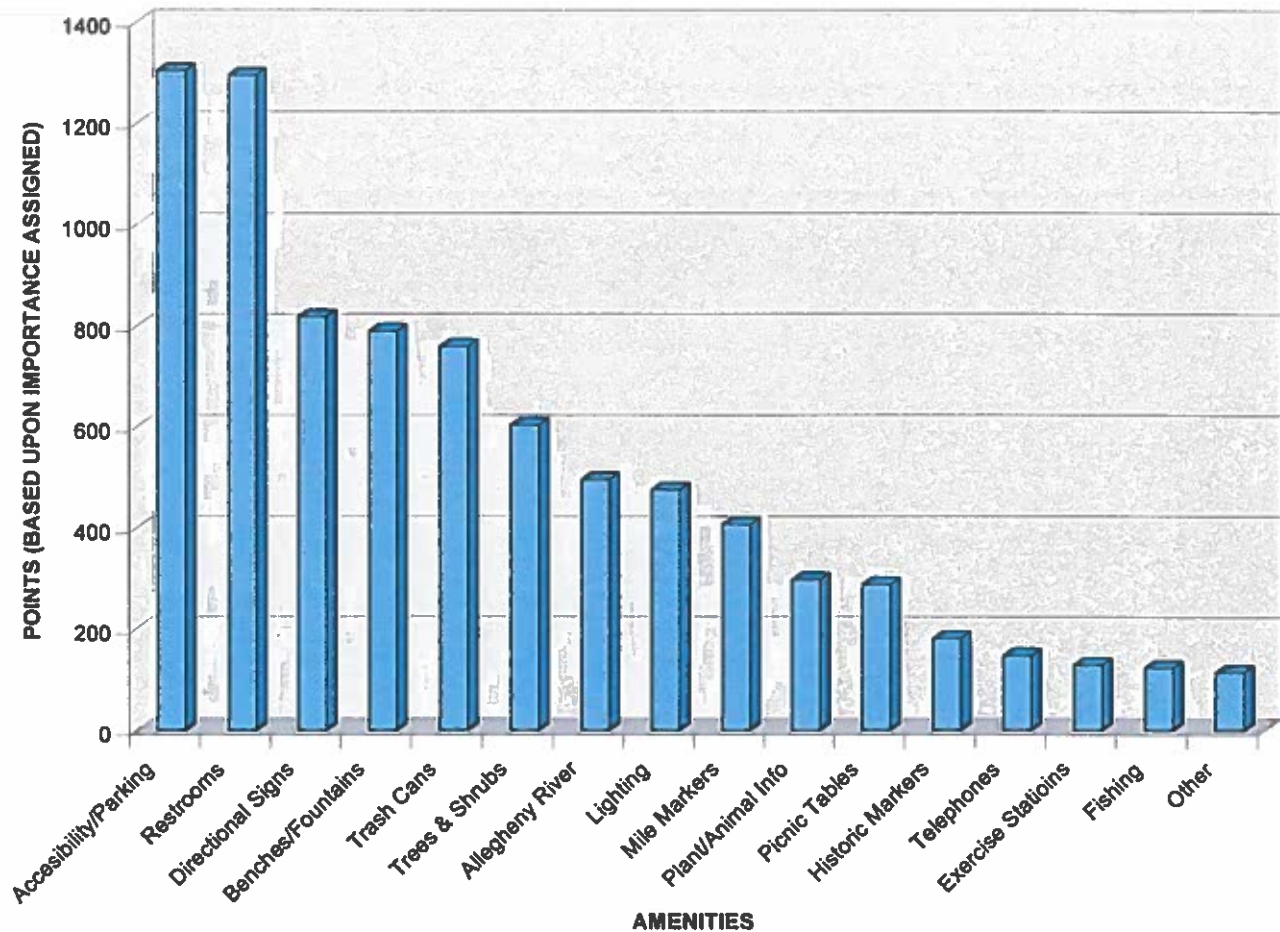


**PREFERRED KEY ACCESS POINTS  
(AS A PERCENT OF TOTAL RESPONSES)**



**Most popular access points were Squaw Valley Park, Beechwood Farm, the Allegheny River, and Boyd Community Center.**

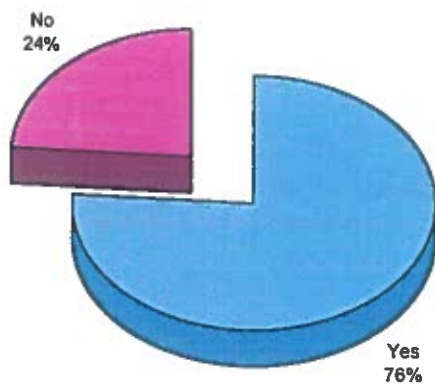


**PREFERRED TRAIL SYSTEM AMENITIES**

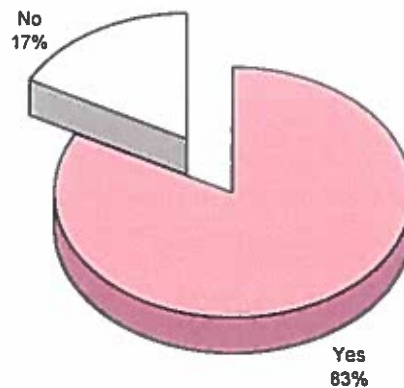
**Restrooms and parking/accessibility were identified as the most important trail amenities.**

## TRAIL SYSTEM CONNECTIVITY USAGE QUESTIONS

Would you use a Trail System more often if it were interconnected (within the community and regionally)?



Would you have a tendency to travel further and use a variety of trails if a Trail System were interconnected (within the community and regionally)?

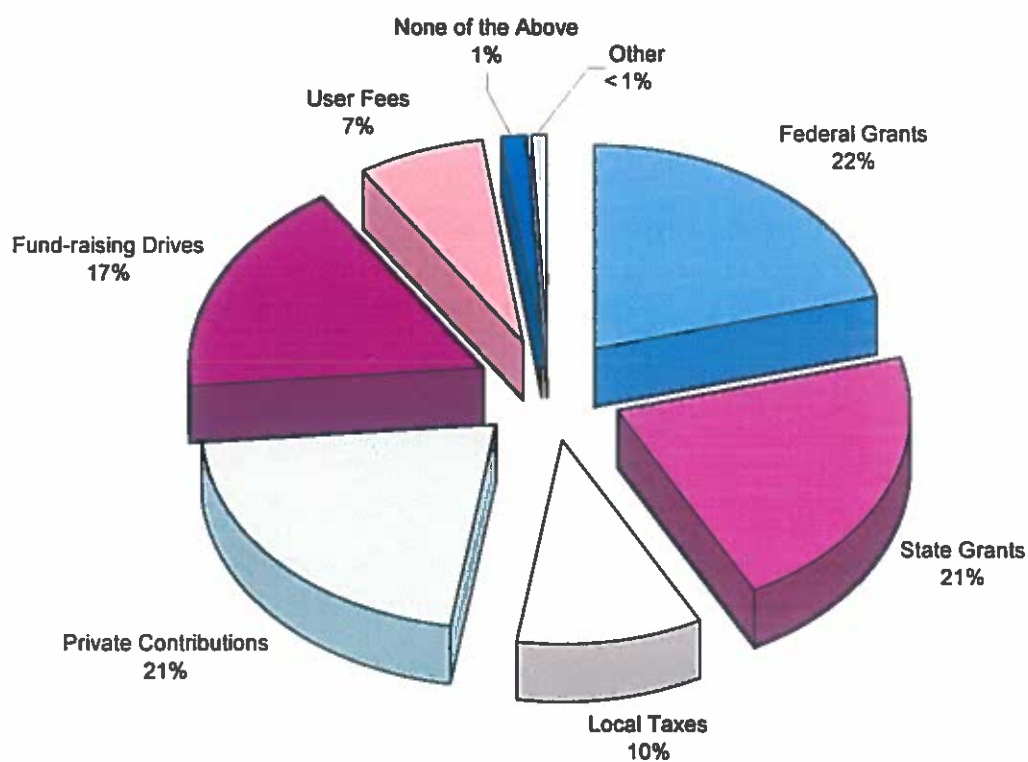


**A majority of respondents felt they would use a trail system more often and for longer distances if it were interconnected within the community and regionally.**

#### 4.1.6 Trail System Funding and Support

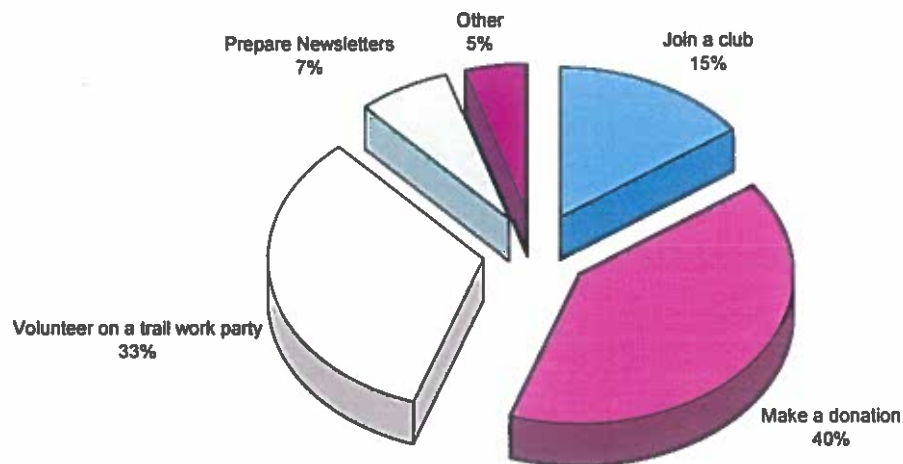
The last section of the survey asked the surveyee to choose a funding method and support activities for a trail system.

##### ACCEPTABLE FUNDING SOURCES FOR TRAIL MAINTENANCE (AS A PERCENT OF TOTAL RESPONSES)



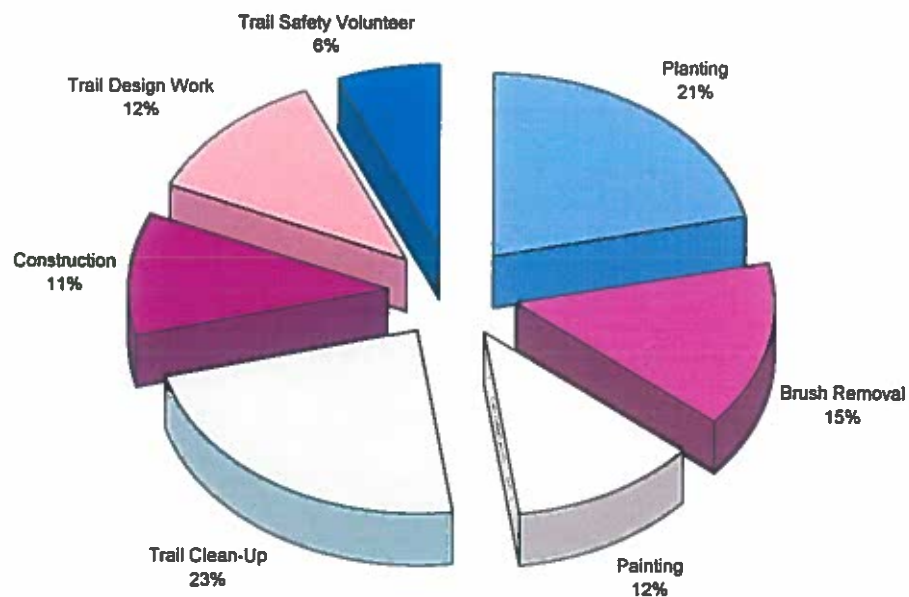
Most respondents chose a variety of potential funding sources. It should also be noted that although "Local Taxes" is only 10% of the responses, such a direct funding method is often found to be a very low percentage in similar studies.

**METHODS IN WHICH SUPPORTERS ARE WILLING TO ADVANCE THE CAUSE  
OF AN O'HARA TOWNSHIP TRAIL SYSTEM  
(AS A PERCENT OF TOTAL RESPONSES)**



**Most respondents were willing to donate either time or money to the cause of the trail system.**

**ACTIVITIES IN WHICH SUPPORTERS ARE WILLING TO PARTICIPATE TO HELP  
MAINTAIN AN O'HARA TOWNSHIP TRAIL SYSTEM  
(AS A PERCENT OF TOTAL RESPONSES)**



**Respondents showed they were willing to perform a variety of activities to assist with construction and maintenance of a trail system.**

#### 4.1.7 Summary of Public Opinion Survey

In addition to the "multiple choice" questions of the survey, respondents were given the opportunity to provide comments regarding safety and security (Question 2.7); as well as any other concerns (Question 2.8) regarding a trail system. 372 respondents provided safety/security and/or other concerns. The following table shows common responses. The "occurrences" were tabulated for the most used term or phrase as shown in Table 6.

Table 6 - Common Responses From Trail Survey Questions 2.7 and 2.8			
Occurrences of:	Question 2.7	Question 2.8	Total
"Patrol"	31	4	35
"Police"	29	2	31
"Light" or "Lighting"	29	1	30
"Security"	23	0	23
"River"	2	21	23
"Taxes"	2	19	21
"Dogs" - Positive	5	14	19
"Crime"	17	0	17
"Good Idea"	0	16	16
"Surface"	12	2	14
"Waterworks" - Don't Connect	10	0	10
"Link"	0	10	10
"Mug"	9	0	9
"Dogs" - Negative	4	2	6
"Private Property"	2	4	6
"Non-resident"	2	2	4
"Steep" or "Cliffs"	3	1	4
"Waterworks" - Do Connect	1	1	2
"Animal" - Wild	2	0	2
"RIDC" - Don't Connect	1	0	1

Finally, space was provided on the trail survey to give contact information for citizens willing to help with a trail system. 188 (32% of the total surveys submitted) provided contact information.

In conclusion, the public opinion survey had a moderate response rate, and respondents seemed to represent the entire age demographic of the Township. Respondents, by a large majority, support the development of a trail system. Although the Township of O'Hara has an older population, the Township also has an active population of walkers, hikers, and bikers who feel they would be more active with a system of interconnected trails. Seventy-nine percent (79%) of trail users would require parking near trailheads, and would like to see restrooms and directional signs. Most respondents see Squaw Valley Park and the riverfront as preferred key access points.

Respondents see federal grants, state grants, and private contributions as the best ways to fund a trail system. For their part, many respondents are willing to donate time and money and perform a variety of activities to further the cause of a trail system.

Many respondents are concerned with safety and security along a trail system while others are concerned with increased taxes. However, overall there was a positive response to the idea of a Township of O'Hara Trail System.

#### **4.2 Key Interviews**

Twenty-eight (28) key interviews were completed for the Township of O'Hara Trail Feasibility Study. (Persons interviewed and organizations represented can be found in the acknowledgments on Page ii.) Key interviewees represented many aspects of the study area.

The list of key interview, provided by Cindy Davis, the Trail Study Committee, and the Parks & Recreation Commission, included regional trail advocacy groups, private and public groups in the study area along potential greenway corridors, civil associations, representatives of neighboring municipalities, existing recreation groups, school officials, and citizens in the study area with knowledge of existing parks and greenways.

The key interviews provided an abundance of information for this report. In addition to the acknowledgments on Page ii, in sections of the report where specific information was given by an interviewee, proper acknowledgment will also be provided. The key interviews provided a wide range of information including (but not limited to), background information, property ownership status, existing recreational patterns, existing recreational opportunities, local related projects, and a general "sense" of public support.

#### **4.3 Public Meetings**

Three (3) public meetings were held at the Township of O'Hara Municipal Building. The purpose of the meetings were as follows:

- May 4, 2004 - Public Kick-off Meeting to introduce the project and to explain to the public the Trail Survey which was mailed out in early May. Comment cards were provided for public input.
- August 3, 2004 - Public Meeting to show the survey results and to gather public input into potential trail alignments. Comment cards were provided.
- September 14, 2004 - Public Meeting at the Township of O'Hara Council Workshop. Presented prudent and feasible alignments based on the public survey, key interviews, public input from previous public meetings, and results of the monthly Trail Study Committee Meetings. Comments were taken outside the workshop following the public presentation.

In addition to the public meetings, PBS&J/TriLine was asked to present an overview of the project to the Fox Chapel Area Rotary Club at its monthly meeting on July 12, 2004. In attendance at the luncheon, in addition to the club members, were members of the Township of O'Hara staff.



#### 4.4 Monthly Progress Meetings

Normally, on a monthly basis, PBS&J/TriLine would meet with the Trail Study Committee to discuss the progress of the project. (See acknowledgments on Page ii for members of the Trail Study Committee.) Discussion would entail specifics of the project. The meetings with the Committee helped to keep the project on schedule and progressing in the proper direction.



*Rotary Club Presentation*

### 5 FEASIBLE ALIGNMENTS

#### 5.1 Alignment Evaluation Matrix

Based upon the public survey, key interviews, public meeting input, and Trail Study Committee discussions, nine (9) alignments were determined to be feasible trail options. The nine alignments are not "alternatives" in that they are not mutually exclusive. Depending upon public and Township support, funding availability and intergovernmental cooperation, it may be possible to construct any number of the nine alignments.

Each alignment has been evaluated according to the evaluation criteria defined in Section 3.3. The results of the evaluation are shown in Table 7 - Alignment Evaluation.

In the following sections, each alignment is described in detail, including appropriate description and mapping, explanation of criteria rating shown in the following table, an alignment summary, a time-frame for completion of the project (short, mid, and long range), and an estimated cost to complete the project. Alignments are listed and described from "most feasible" to "least feasible" based on the Good, Fair, and Poor ratings from Table 7. Estimated costs are expected to be used as planning level cost only. In depth scheduling analysis and detailed cost estimations can be found in Appendix B (Alignment Implementations) and Appendix C (Alignment Cost Estimates). Explanation of the BSIR and BSL (Bike Rating and Stress Levels) shown in the following sections can be found in Section 3.1.3. A study area map displaying all the feasible alignments follows Table 7.



Table 7 - Alignment Evaluation

	Trail Alignment(s) & Descriptions (includes all phases)	Evaluation							
		Purpose/Need	Land Use	Conservation Attributes	Recreation Attributes	Public Support	Constructability	Financial Feasibility	Intergovernmental Cooperation
1.	Community Connections - Western O'Hara	■	■	■	■	■	◆	■	■
2.	Bicycle Lane Corridor	■	■	◆	■	◆	■	■	■
3.	Community Connections - Eastern O'Hara	■	■	◆	■	■	■	■	◆
4.	RIDC Industrial Park	◆	■	◆	◆	◆	■	■	■
5.	Riverfront Trail	■	◆	■	■	■	○	○	○
6.	Squaw Valley Park to Beechwood Farms	■	■	◆	■	◆	◆	◆	○
7.	Water Trail	◆	◆	■	■	◆	◆	◆	◆
8.	Scenic Overlooks	○	■	◆	◆	◆	◆	◆	■
9.	Shared Roadway Corridors	◆	◆	◆	◆	○	■	■	◆

■ - Good    ◆ - Fair/Neutral    ○ - Poor

# Feasible Alignments Map

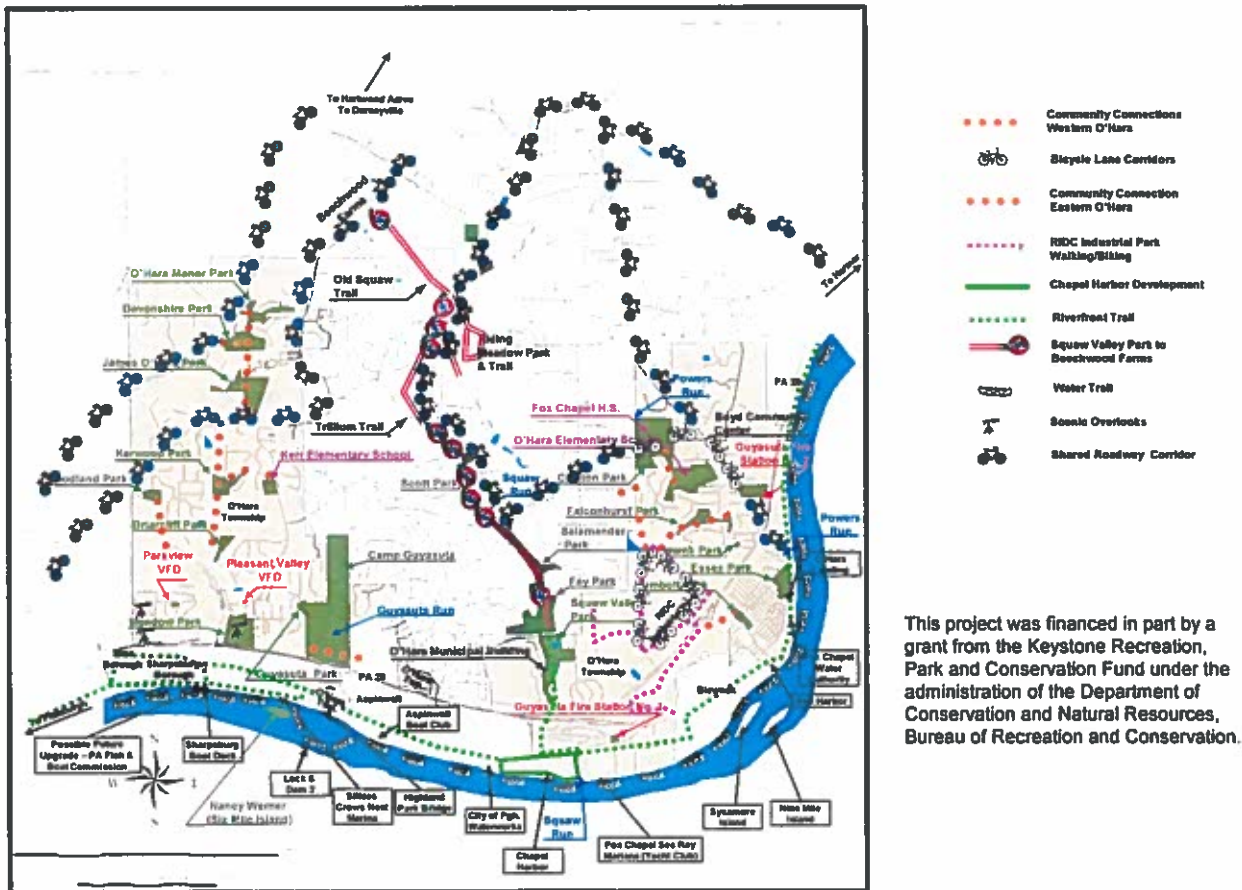


Figure 5 - Feasible Alignments Map

## 5.2 Community Connections - Western O'Hara

The first three alignments (Community Connections - Western O'Hara, Bicycle Lane Corridor, and Community Connections - Eastern O'Hara) are relatively similar in "degree of feasibility." Community Connections involve connecting neighborhoods, recreation centers, parks, natural areas, and schools in the Township of O'Hara. In the western area of the Township of O'Hara, community connections could be made from Kerr Elementary to Kerrwood Road, along Sitz Run involving the extension of the Silvan Trail, from the entrance of Camp Guyasuta to 9<sup>th</sup> Street in Aspinwall, from Woodland Park to relocated Sharpshill Road, and by constructing a trail through James O'Hara Park to Davonshire Park with spurs to the Fox Hall Development and Saxonburg Blvd. See Figure 6 for detailed trail alignment.

- **Purpose/Need: "Good"** - The alignments are compatible with the 2002 Comprehensive Parks, Recreation, and Open-space Plan and the purpose of this study. The trails would be walking/hiking trails; not necessarily most compatible for bicycle users. However, the alignments connect neighborhoods, schools, natural areas, and parks in the western area of the Township of O'Hara and the alignment makes use of two "undeveloped parks" (James O'Hara and Davonshire parks) which presently primarily serve as open space.

- **Land Use: "Good"** - The alignments take advantage of available public land and undeveloped private land (Tax Parcel ID Nos. 0169-K-00300-0000-00, 0167-D-00126-0000-00, 0167-D-00150-0000-00, 0286-S-00100-0000-01, 0222-H-00110-0000-00, 0357-G-00100-0000-00). Sections where private land is required (acquisition or easement) is not expected to be a major concern and/or is not a critical segment of the alignments. Parking availability for the alignment through James O'Hara and Davonshire parks may be the toughest challenge;



*Saxonburg Blvd. along Little Pine Creek facing Davonshire Park.*

acquisition of land or easements along Saxonburg Blvd. is suggested to construct a parking lot for the alignment.



*Entrance to Silvan Trail from Greyfriar Drive.*

- **Conservation Attributes: "Good"** - The alignments will open up natural and open space areas to nearby neighborhoods through the construction of greenway trails.

- **Recreation Attributes: "Good"** - Together the alignments provide a "trail system" through Western O'Hara with trails, natural areas, parks, and schools connected to each other through neighborhood streets and trails. Although not all pieces of the "trail system" connect, each alignment segment connects to a logical terminus.
- **Public Support: "Good"** - The alignment is completely in the western area of the Township of O'Hara. Public support is good.
- **Constructability: "Fair"** - The alignment through James O'Hara and Davonshire parks involves a challenging topography. Extension of the Silvan Trail may involve stream crossings of Sitz Run. Given the steep topography, ADA compliance is difficult without significant environmental impacts. Portions will be ADA compliant with built in trail cul-de-sacs.
- **Financial Feasibility: "Good"** - The alignment involves a basic unpaved trail design. The project goals are compatible with many grant programs (e.g., PADCNr Grants, PENNDOT "Hometown Grants," etc.).
- **Intergovernmental Cooperation: "Good"** - The alignments are completely contained within the Township of O'Hara except the connection from Camp Guyasuta to 9<sup>th</sup> Street in Aspinwall. The connection would be through a wooded area to a residential neighborhood and a neighborhood park, the Aspinwall Firemen Memorial Park, so cooperation with Aspinwall is expected to be positive.



*Existing section of undeveloped trail from Woodland Park to relocated Kirkwood Drive.*



*Aspinwall Firemen Memorial Park*



**Community Connections - Township of O'Hara (Western Area)**

**Goal:** Connect neighborhoods, "undeveloped parks," schools, natural areas, and cultural resources within the Township of O'Hara.

**Type of User:** Walkers, joggers, and hikers.

**Not Recommended For:** Rough terrain may make it difficult for bikers and physically challenging for some walkers. No motorized vehicles.

**BSIR:** Poor (6)

**BSL:** High (4)

**Features:**

- Designated connection from Kerr Elementary School to Kerrwood Road neighborhood.
- Signed designation of the Silvan Trail along Sitz Run. Extension of Silvan Trail to Greyfriar Drive and St. Joseph baseball field.
- Public trail at the entrance of Camp Guyasuta to the upper Aspinwall neighborhood.
- Trail extending from Woodland Park south towards relocated Sharpshill Road.
- Woodland trail from Village Drive through James O'Hara Park, connected to the Fox Hall development and Davonshire Park. Spurs connect to Little Pine Creek along Saxonburg Blvd. and Brownhill Road.
- Township could acquire additional property along Saxonburg Road for future parking and trail extensions.
- Signage suggested for Village Drive and Villa Drive.
- Environmental reconnaissance revealed no concerns.

**Challenges:**

- Terrain may be difficult along sections of Sitz Run and easements or acquisitions will be necessary to reach St. Joseph's property.
- Easements or acquisitions necessary to extend a trail to Woodland Park.
- Terrain is challenging in James O'Hara and Davonshire parks.
- No room for parking on Village Drive.
- Parking area inland along Little Pine Creek requires easements.
- Need to coordinate with Fox Hall Development.

**Time Frame:** Short-range

**Compatibility:** Compatible with 2002 Comprehensive Parks, Recreation, and Open-Space Plan.

**Estimated Cost:** \$342,000 (8 ft. wide trailway)



FIGURE 6: COMMUNITY CONNECTIONS - WESTERN O'HARA





### 5.3 Bicycle Lane Corridor



*Widened shoulder on Powers Run Road.*

The Bicycle Lane Corridor involves designating a bicycle lane along widened the Township of O'Hara roadways. This is an inexpensive way to utilize existing roadways for recreation. Primarily line striping and signage will be necessary to designate the bike lane. "Bicycle-safe" inlet covers will be needed to protect bikers where bike lanes cross drainage inlets. Currently, Powers Run Road from Boyd Community Center to Cabin Lane, the paved section of Timberlane Road at Cabin Lane, Cabin Lane (entire length), Field Club Road from Timberlane Road to the border with Fox Chapel Borough, and the "loop" in RIDC made up of Alpha, Gamma, Kappa, and Zeta drives are wide enough

to be restriped for a bike lane. (See Section 3.1 for bike lane design considerations.) As other roadways are widened in the Township, they can be striped and signed to extend the corridor. Ultimately, the corridors may also be extended into neighboring municipalities. See Figure 7 (RIDC) and Figure 8 (Bike Lane Corridors) for detailed mapping.

- Purpose/Need: "Good"** - The Bicycle Lane Corridors are compatible with the 2002 Comprehensive Parks, Recreation, and Open-space Plan recommendation for a trail system, in this case, a system of bicycle lanes.
- Land Use: "Good"** - All land is within state or local roadway right-of-ways. Proposed bicycle lanes are on roadways that already have widened shoulders.
- Conservation Attributes: "Neutral"** - Bicycle lanes do not add or subtract from the natural environment in the study area.
- Recreation Attributes: "Good"** - The bicycle lanes provide a separate lane that connects Fox Chapel High School, O'Hara Elementary, and Boyd Community Center as well as providing a bike loop in RIDC Park.
- Public Support: "Fair"** - Not all residents of the Township of O'Hara prefer bicycling, although bike lanes could be used by walkers. Bike lanes are concentrated in the eastern area of the Township of O'Hara.
- Constructability: "Good"** - Bicycle Lane Corridors should only require line striping and signage. Some areas may require "bike safe" inlet grates. Crosswalks or bike crossings may also be necessary. The Bicycle Lane



*Gamma Drive - Shoulder could be used for shared use or restriped for a bike lane.*

Corridors will be paved roadway shoulders and although not recommended for wheelchairs, will be ADA compliant.

- **Financial Feasibility: "Good"** - Rather inexpensive, it is possible bike lanes may be completed by the Township without the need for external funding.
- **Intergovernmental Cooperation: "Good"** - Bike lanes are all in the Township of O'Hara. In the future, if lanes are to be expanded into neighboring municipalities, intergovernmental cooperation may be required.

### **Bicycle Lane Corridors**

**Goal:** Designate and expand bike/jogging corridors.

**Type of User:** Biking, walking, jogging.

**Not Recommended For:** None specified.

**BSIR:** Good (4.5)

**BSL:** Moderate (3)

**Features:**

- Designate with signage and line striping existing widened shoulders along Field Club Road, Cabin Lane, Powers Run Road, and throughout RIDC Park.
- Expand biking corridors in the future as other Township roads are widened.
- Consider physical separation from traffic, if necessary.
- Add crosswalks where necessary.
- Relatively inexpensive; possibility for grant funding.
- Connects school facilities, Boyd Community Center.
- No environmental assessment is anticipated.

**Challenges:**

- Coordinate with neighboring municipalities to expand biking corridors.
- Expansion of biking corridors must be coordinated simultaneously with future road widening projects.
- Township terrain and narrow roadways may inhibit expansion.

**Time Frame:** Short-range

**Compatibility:** Compatible with PENNDOT Hometown Grants, "Safe Walks to School Program" and the 2002 Comprehensive Parks, Recreation, and Open-Space Plan.

**Estimated Cost:** \$45,000



FIGURE 7: RIDC

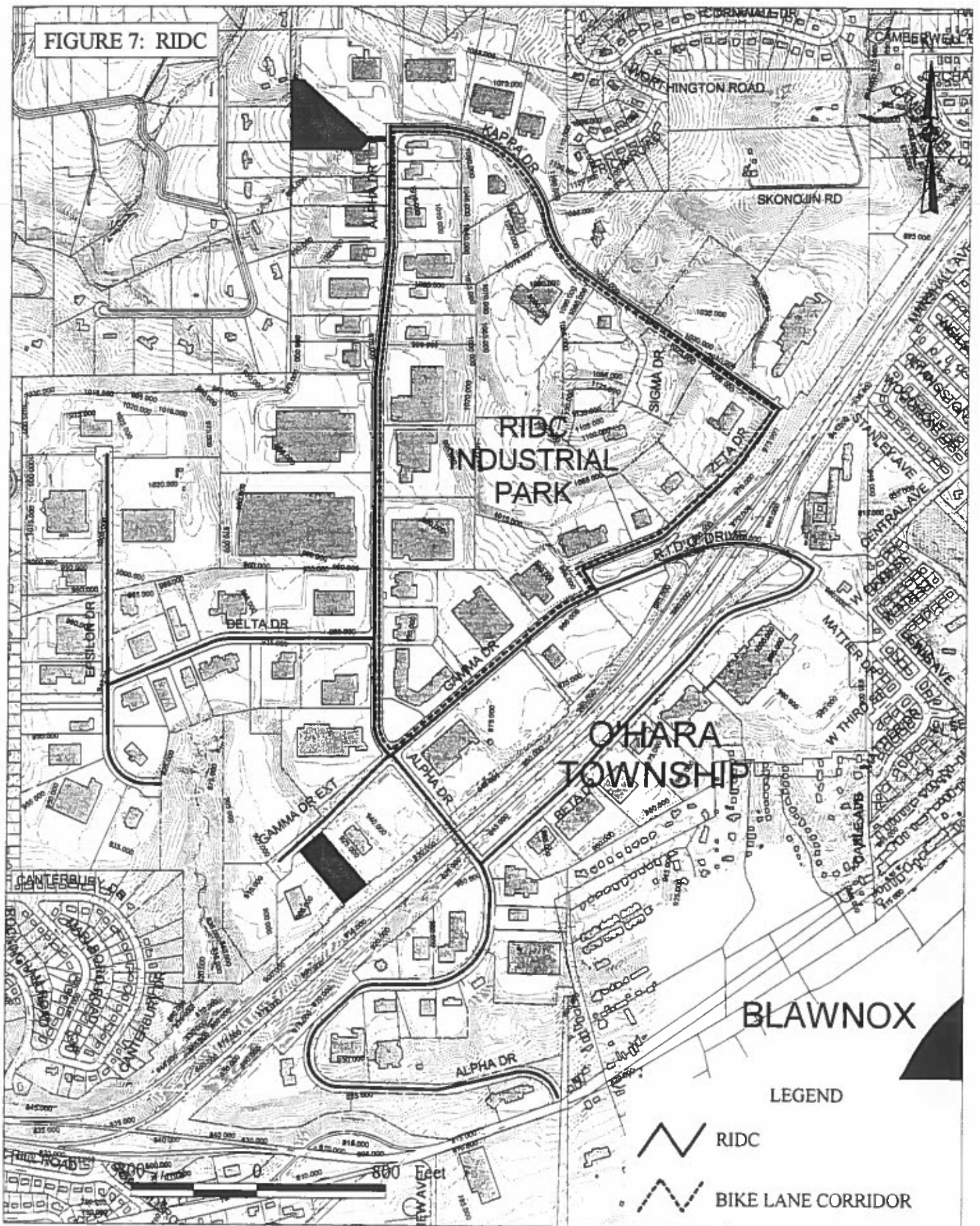
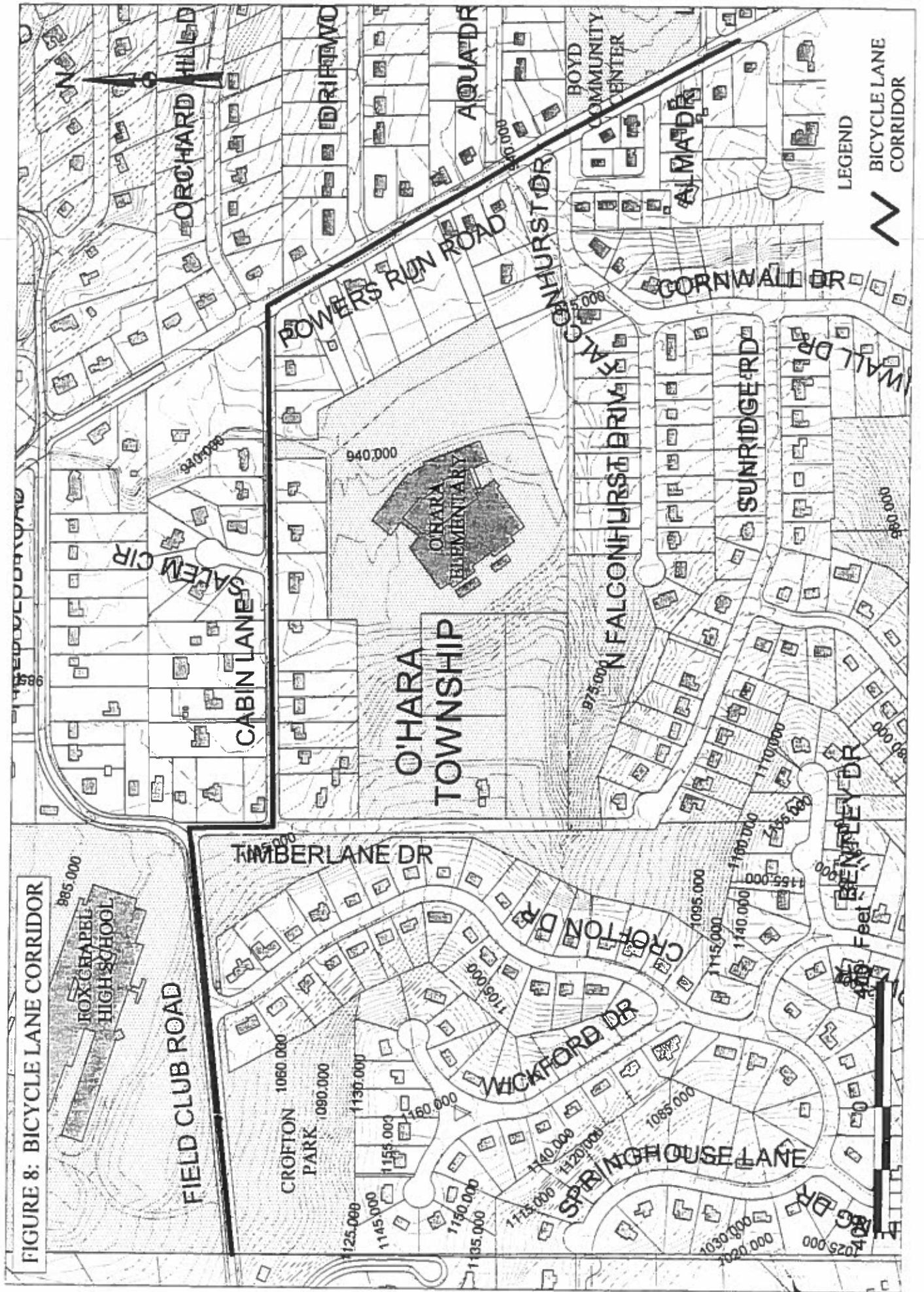


FIGURE 8: BICYCLE LANE CORRIDOR





#### 5.4 Community Connections - Eastern O'Hara

Community connections involve connecting neighborhoods, recreation centers, parks, natural areas, and schools in the Township of O'Hara. In Eastern O'Hara community connections can be made from RIDC (Alpha Drive) to the Crofton and Falconhurst communities, across the Springhouse Lane adjacent cul-de-sacs, along Timberland Drive to Sunridge Road, through Falconhurst Park, and through the Skonojin Road public property. In addition, the existing connection from Montrose Hill to RIDC can be properly designated. See Figure 9 for detailed mapping.

- **Purpose/Need: "Good"** - The alignments are compatible with the 2002 Comprehensive Parks, Recreation, and Open-space Plan and the purpose of this study. The trails would be most compatible for walkers and hikers, but would also be able to accommodate bicycle traffic. The trails connect neighborhoods, schools, and RIDC. The alignments make use of open natural areas in Eastern O'Hara and/or provide a connection to Township facilities (parks or schools).
- **Land Use: "Good"** - The alignments make use of public open space and undeveloped public parks and road right-of-ways. Easements or acquisition of private land will be necessary for all connections into RIDC. (Tax Parcel ID Nos. 0226-D-00100-0000-00, 0226-H-00150-0000-00, 0291-E-00014-0000-00, 0226-C-00015-0000-00, 0291-B-00075-0000-00.)
- **Conservation Attributes: "Fair"** - Community Connections in Eastern O'Hara open up some natural areas, but do not necessarily contribute to conserving them. Most alignments would be constructed through narrow greenways or undeveloped parcels of land.
- **Recreation Attributes: "Good"** - The alignments together with neighborhood streets and RIDC roadways provide connections among Montrose Hill, RIDC, Falconhurst and Crafton neighborhoods, Fox Chapel Area High School, O'Hara Elementary, and Boyd Community Center.



*Timberlane Road - An undeveloped Township Right-of-Way. Right-of-Way is wooded strip from left to right of photo.*



*Falconhurst Greenway*

- **Public Support: "Good"** - The alignment is completely in the eastern area of the Township of O'Hara. Public support is good with broad base support from across the community.
- **Constructability: "Good"** - The community connections are on fairly level terrain with few stream crossings. The Montrose Hill connection to RIDC already exists as a sidewalk. Alignments are, or could become, ADA compliant.
- **Financial Feasibility: "Good"** - The alignment involves a basic unpaved trail design. The project goals are compatible with many grant programs (e.g., PADCNr Grants, PENNDOT "Hometown Grants," etc.).
- **Intergovernmental Cooperation: "Fair"** - Springhouse Lane in O'Hara terminates at a cul-de-sac about 20 yards from the Springhouse Lane cul-de-sac in Fox Chapel. Connecting these cul-de-sacs with a trail would involve cooperation with Fox Chapel Borough. All other alignments are in the Township of O'Hara.



*Springhouse Lane (O'Hara) facing  
Springhouse Lane (Fox Chapel).*

#### **Community Connections - Eastern O'Hara**

**Goal:** Connect neighborhoods, "undeveloped parks," schools, natural areas, and cultural resources within the Township of O'Hara.

**Type of User:** Walkers, joggers, and hikers.

**Not Recommended For:** Rough terrain may make it difficult for bikers and physically challenging for some walkers. No motorized vehicles.

**BSIR:** Poor (6)

**BSL:** High (4)

#### **Features:**

- Connections to RIDC from Crofton and Falconhurst neighborhoods.
- Designated connection to RIDC from Montrose Hill.
- Connection across Springhouse Lane cul-de-sac.
- Connection along Timberland Drive to Sunridge Road.
- Connection through Falconhurst Park.
- Connection through Skonojin Road public property.
- Once connections are in place, signage and crosswalks can be placed to designate safe walkways to Boyd Community Center, O'Hara Elementary School, and Fox Chapel High School.
- No environmental concerns are known.

**Challenges:**

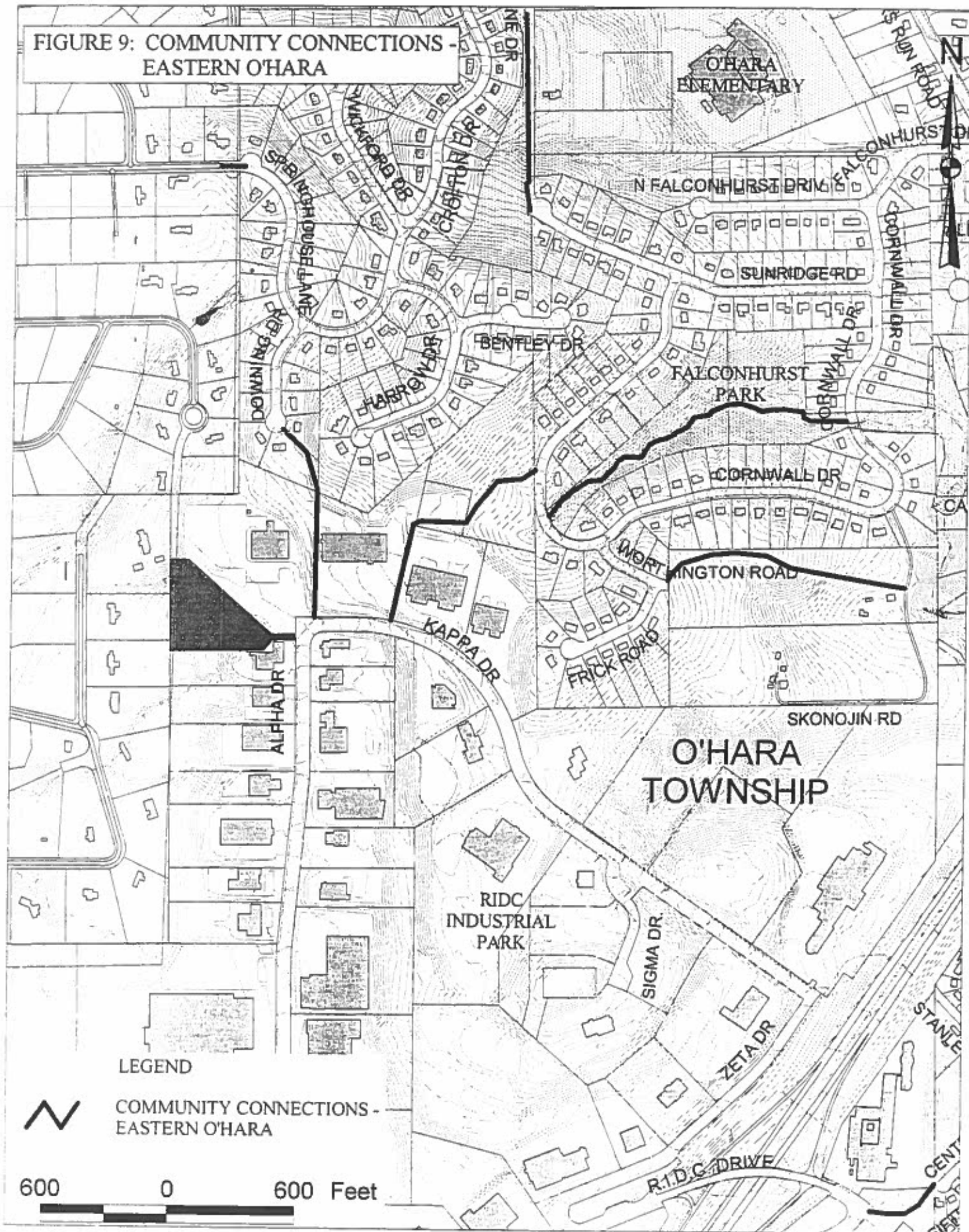
- **Connections to RIDC require coordination with private businesses.**
- **Connections to fragmented neighborhoods and municipalities require additional coordination.**

**Time Frame:**      **Short-range**

**Compatibility:**      **Compatible with PENNDOT Hometown Grants, "Safe Walks to School Program" and the 2002 Comprehensive Parks, Recreation, and Open-Space Plan.**

**Estimated Cost:**      **\$149,000 (8 ft. wide trailway)**

FIGURE 9: COMMUNITY CONNECTIONS -  
EASTERN O'HARA





## 5.5 RIDC Industrial Park

The RIDC alignment involves a separated trail along the roadways of RIDC: RIDC Drive, Alpha Drive, Beta Drive, Gamma Drive, Delta Drive, Epsilon Drive, Kappa Drive, and Zeta Drive. Some paved surfaces currently exist along Alpha Drive. Roadways are presently walked/jogged/biked by RIDC employees and residents alike. See Figure 7 for a detailed RIDC alignment map.



*RIDC Drive under PA 28. Port Authority buses stop on the on/off ramps to pick up commuters.*

- **Purpose/Need: "Fair"** - RIDC was not preferred by residents as an access point for recreational trails; however, it was identified as an important access point during key interviews. Paved or gravel walks would benefit employees of RIDC as much if not more than the Township of O'Hara residents. However, RIDC is typically empty on weekends, so the project alignment would provide a walking "loop" for citizens.
- **Land Use: "Good"** - The roads through RIDC have wide right-of-ways and sufficient room for paved or gravel walks. No natural areas or recreational areas will be disturbed. No use of private property is anticipated.
- **Conservation Attributes: "Neutral"** - RIDC walkways will not affect natural areas.
- **Recreation Attributes: "Fair"** - RIDC walkways do not connect to the rest of the study area, but they provide a walking/jogging loop for RIDC workers and Township residents alike. "Work-out" stations could be added to form an exercise loop.
- **Public Support: "Fair"** - Although not explicitly mentioned by residents as a source of recreation, it is currently used for exercise and commuting (to bus stops). Through community connections, RIDC walkways would be connected to Eastern O'Hara residential neighborhoods.
- **Constructability: "Good"** - Construction entails placement of a walkway (gravel or paved) with little need for extensive excavation. These alignments are ADA compliant.
- **Financial Feasibility: "Good"** - Paved surface would fit best in RIDC, but may be cost prohibitive depending upon the cost of paving compared to an aggregate walkway. The Township of O'Hara may be able to work with private businesses



*Alpha Drive*



in RIDC to get some or all of the funding for the project.

- **Intergovernmental Cooperation: "Good"** - RIDC is entirely in the Township of O'Hara. However, a maintenance issue between the Township and RIDC could involve which party would be responsible for snow removal.

#### **RIDC Industrial Park**

**Goal:** Create walking/biking zone through RIDC.

**Type of User:** Walkers, bikers, etc.

**Not Recommended For:** No limits (exception: no motorized vehicles).

**BSIR:** Good (4.5)

**BSL:** Low (2)

**Features:**

- Relatively level terrain.
- Wide public right-of-way/wide existing roadways.
- Average Daily Traffic (ADT) considerably less on weekends, holidays, and evenings.
- Use signage and paved or gravel surfacing for trailway.
- No environmental concerns appear present along these alignments.

**Challenges:**

- Requires cooperation with existing RIDC businesses.
- Maintenance, snow removal, and upkeep.

**Time Frame:** Mid-range

**Compatibility:** Identified as an important key access point in key interviews. Compatible with 2002 Comprehensive Parks, Recreation, and Open-Space Plan, though not specifically identified in the plan.

**Estimated Cost:** \$234,000 (aggregate trailway); \$736,000 (paved)\*

\*Assumed \$45/cy for paving. For a large project like RIDC, it may be possible to pave a surface for as low as \$20/cy.

## 5.6 Riverfront Trail

The goal of the riverfront trail is to connect the existing riverfront trail (from downtown Pittsburgh to Millvale) through the Township of O'Hara to Harmar Township near the Hulton Bridge. The trail follows the Allegheny River and would involve the following municipalities: Shaler, Etna, Sharpsburg, Aspinwall, Pittsburgh, Blawnox, Harmar, and of course, O'Hara. Evaluation of the alignment is based on the entire alignment, however, because of the size, the riverfront trail has been broken into three phases.

- Phase 1 - Connects Squaw Valley Park to the Waterworks Mall and Chapel Harbor, a riverfront development, using Fox Chapel and Old Freeport roads. A multi-use paved surface exists along Fox Chapel Road from its intersection with Freeport Road to the residential development, MEWS II. Chapel Harbor is a residential and commercial development under construction by Zambrano Corporation. It will include roadways and paved walkways and trails as well as public access to the river. See Appendix D for an architectural drawing of Chapel Harbor. From Chapel Harbor, a trail can be constructed in the shoulder of Old Freeport Road to the existing walkway at Fox Chapel Road. Also, a spur walkway will split off from the Chapel Harbor entrance road (Spine Road) to the riverfront development ("The Docks") along the river and next to the Fox Chapel Yacht Club. The final part of Phase 1 will involve the construction of a new trail from the MEWS II existing surface to Squaw Valley Park along Fox Chapel Road.

Fox Chapel Road is a main arterial in the study area, so a trail separated with a barrier is recommended. In addition, Squaw Run approaches Fox Chapel Road along the alignment making stream relocation or use of a structure a probability. A second option is to acquire an easement through the MEWS II Development and to construct a pedestrian bridge across Squaw Run into Squaw Valley Park. Regardless of the connection between the existing paved surface at the MEWS II and Squaw Valley



*O'Hara's Riverfront seen from across the Allegheny River.*



*Tunnel under existing rail line connecting Chapel Harbor to Old Freeport Road.*



*Shoulder of Fox Chapel Road along Squaw Run.*

Park, it is recommended that the trail split at the park entrance and a loop (preferably aggregate surface) be constructed around the park as a walking/biking loop.

The final part of Phase 1 involves the use of a service tunnel to the Waterworks from the Waterworks Mall. The tunnel provides access from the Waterworks Mall under Freeport Road, the existing rail line (Norfolk Southern) and a Pittsburgh Water and Sewer Authority (PWSA) access road to the PWSA Waterworks facility. The tunnel is owned by PWSA, but proper coordination may help to acquire public access through the tunnel to neighboring Chapel Harbor. Public access from Chapel Harbor (mostly a residential development) to the retail stores and restaurants at Waterworks Mall is considered a positive connection for the riverfront as long as safety can be provided through the tunnel. See Figure 10 for a detailed alignment map of Phase 1.



*Access Tunnel viewed from Waterworks Mall.*

- **Phase 2 - Connect Chapel Harbor to riverfront access at the Sharpsburg Public Boat Dock.** As previously mentioned, a public boat access has been proposed by the Pennsylvania Fish and Boat Commission at 13<sup>th</sup> Street in Sharpsburg. Connecting Chapel Harbor through to Sharpsburg along the riverfront may not be feasible because of physical barriers and private property. Besides the PWSA Waterworks, there is also a private boat launch in Aspinwall, a scrap yard and a development along the narrow stretch between the active rail line and the river above 13<sup>th</sup> Street in Sharpsburg. In lieu of a riverfront trail through this area, it would be feasible to connect Sharpsburg to the Waterworks Mall. This would require upgrades to paved pedestrian surfaces and crosswalks along public roadways through Aspinwall and Sharpsburg. The "trail" could be routed to the back streets in some areas to avoid the heavy traffic corridor along Freeport Road and Main Street. With Phase 1 in place, Phase 2 would connect Sharpsburg's public river access to Chapel Harbor and Squaw Valley Park.
- **Phase 3 - Connect Chapel Harbor to Harmar Township through Blawnox and connect Sharpsburg to Millvale.** The first part of Phase 3 (Chapel Harbor to Harmar) would weave past the Fox Chapel Yacht Club, along private property, through the back streets of Blawnox to River Road in the Township of O'Hara. From River Road (and potential public river access), the trail would need to cross the active rail line and be squeezed between the rail line and Freeport Road to Harmar at the Hulton Bridge. The existing sidewalk on the Hulton Bridge would provide a connection to Oakmont. Keeping the trail between the rail line and the river above River Road is not feasible because there would not be enough room for the trail and a connection to the Hulton Bridge would not be possible. The second part of Phase 3 involves making the connection to the existing riverfront

trail in Millvale from Sharpsburg. From the Sharpsburg Boat Dock at 13<sup>th</sup> Street, it is possible to follow the riverfront to Etna. Under the 62<sup>nd</sup> Street Bridge, the trail would approach the active rail line. A narrow gravel access road for the railroad follows the rail line to Millvale. Acquisition or a public easement for the access road would be key to extend the trail down the river to Millvale.

A second possibility is to keep the trail in the back streets of Sharpsburg (river access would still be available at the tunnel under the rail line at 13<sup>th</sup> Street) and bring the trail between PA 28 and the rail line where a strip of right-of-way may be available. However, this would involve crossing the rail line spur into Etna, and would involve connecting to the Millvale riverfront through busy streets in Millvale.

- **Purpose/Need: "Good"** - The riverfront trail would provide a recreational source for the Township as well as a connection to the riverfront trails of Pittsburgh. The riverfront trail would provide potential commuter access to downtown Pittsburgh. The riverfront trail would connect the Township of O'Hara's most used park, Squaw Valley Park, with downtown Pittsburgh as well as several public river access points.
- **Land Use: "Fair"** - Although the riverfront trail should have a positive economic and recreational impact on towns such as Sharpsburg and Aspinwall as well as O'Hara's riverfront, acquisition of private land to extend the trail along the riverfront in either direction from Chapel Harbor is a major inhibitor. In addition, physical barriers presently exist that prevent the trail from feasibly following the entire riverfront through the study area. In addition to public access at Chapel Harbor, Phase 1 involves the acquisition of some private land or right-of-way (Tax Parcel ID No. 0228-H-00200-0000-00).
- **Conservation Attributes: "Good"** - Current land uses along the riverfront vary widely from industrial and commercial to recreational (both public and private) and residential. The riverfront is changing in the study area, with recent development focused mainly on residential development. A riverfront trail would help to enhance the riverfront as well as provide recreation and protect remaining riverfront greenways.
- **Recreation Attributes: "Good"** - A multi-use trail sufficient for walking and biking and providing a connection to downtown would be a significant recreational gain for the community.
- **Public Support: "Good"** - The riverfront trail has the support of many in the community. The public opinion survey showed that most respondents saw



*O'Hara's Riverfront. The Fox Chapel Yacht Club owns the riverfront down to its docks.*

Squaw Valley Park and the river as top key access points. Almost all of the key interviewees felt it was important to develop a riverfront trail; none felt it would be a negative.

- **Constructability: "Poor"** - There are many inhibitors to constructing the riverfront trail. First, private property will need to be crossed at many points along the trail to complete a connection. The largest private entity along the trail is the active rail line owned by Norfolk and Southern. The rail line runs close to the river at several points making it difficult and potentially not feasible to build the trail along the river at those points. The rail line and a scrap yard provide a physical barrier at the Highland Park Bridge. The rail line and the Sharpsburg Water Plant create another barrier in upper Sharpsburg. Insufficient room between the rail line and the river creates barriers between Etna and Millvale as well as between Blawnox and Harmar. Private property along the river in O'Hara and Blawnox also creates an obstacle. A riverfront trail can be constructed, but it will have to be routed into the towns of Sharpsburg and Aspinwall and along Freeport Road north of Blawnox to complete the connection. Rerouting the trail will most likely require crossings of busy Main Street in Sharpsburg and Freeport Road further north as well as potential crossings of the active rail line. Phase 1 of the riverfront trail will be ADA compliant.

Future planning and coordination among regional municipalities, recreation organizations, etc. may help to obtain private land along the river and to remove physical barriers so that the trail can be routed back along the riverfront.

- **Financial Feasibility: "Poor"** - The riverfront trail is a huge financial undertaking, although with a large benefit upon completion. For this reason, the alignment has been broken into its three phases. The total cost of the project will depend upon where the alignment is constructed. The closer to the riverfront, the more physical barriers to remove and the more private land to traverse, the more expensive the project would become. Conversely, rerouting through Sharpsburg and Aspinwall may be less expensive (utilizing paved surfaces with some upgrades and less new construction), but will also be less biker friendly and will provide less aesthetic value.
- **Intergovernmental Cooperation: "Poor"** - As mentioned in the earlier description, the project (all three phases) would involve eight (8) municipalities. From the key interviews it seems that some municipalities may be more cooperative than others.

Phase 1 of the trail would involve only the Township of O'Hara and the City of Pittsburgh (access to the Waterworks Mall). From the key interview with the Mayor's office, it appears the City is willing to allow public access from the mall to Chapel Harbor (through the service tunnel), as long as usage issues can be worked out with PWSA. Coordination with PWSA is ongoing.

**Riverfront Trail (Phases 1, 2, 3)**

**Goal:** Phase 1 - Connect Squaw Valley Park to the Riverfront. Designate Chapel Harbor as the O'Hara Riverfront Trail. Connect Chapel Harbor to the Waterworks Mall directly (existing tunnel) and/or along existing roadways (Freeport/Old Freeport roads) using crosswalks at traffic lights.

Phase 2 - Connect Waterworks Mall to Aspinwall via a new alignment. Connect through Aspinwall and Sharpsburg (via a new alignment or existing roads/paved walkways) and extend to proposed Sharpsburg Pennsylvania Fish and Boat Commission (PFBC) boat launch at 13<sup>th</sup> Street.

Phase 3 - Connect Chapel Harbor through to Blawnox, onto River Road, along Freeport Road, toward Harmar. Connect PFBC boat launch in Sharpsburg through Etna and Shaler to Millvale boat launch and riverfront trail with new alignment.

**Type of User:** Walkers, hikers, bikers.

**Not Recommended For:** Depending on width, may not be suitable for biking in certain sections, or may have to "walk" bikes.

**BSIR:** Fair (5.5)

**BSL:** High (4)

**Features:**

**Phase 1**

- Connects Squaw Valley Park to the Riverfront.
- Allows passage along Fox Chapel Road from commercial development to Squaw Valley Park.
- Increases accessibility to existing trails/parks along Fox Chapel Road (Squaw Valley Park, Fay Park, Salamander Park, Salamander Trail, Scott Park, Trillium Trail).
- Designates Chapel Harbor as Riverfront Trail.
- Relatively level terrain.
- Possible direct connection between Chapel Harbor and Waterworks Mall.
- No apparent environmental concerns.

**Phase 2**

- Connects to proposed Sharpsburg PFBC boat launch at 13<sup>th</sup> Street.
- Connects Chapel Harbor to Sharpsburg and Aspinwall.

- Uses existing streets where necessary - directs users with signage.
- No apparent environmental concerns.

### Phase 3

- Connects O'Hara to Allegheny Riverfront Trail System.
- Provides a continuous connection through Township along Riverfront.
- Connects study area's commuters to downtown Pittsburgh along riverfront trail system.

### Challenges:

#### Phase 1

- Fox Chapel Road is a high volume traffic connection to Fox Chapel and O'Hara. A new alignment must be separated from roadway and protected from traffic.
- Environmental Issue - Trail would need to be engineered between Fox Chapel Road and Squaw Run.

#### Phase 2

- Narrow right-of-way from Waterworks Mall to Delafield Road in Aspinwall (no existing walkway).
- New alignments from Aspinwall to Sharpsburg would require acquisition of private properties.
- PFBC boat launch project may not occur.

#### Phase 3

- Right-of-way acquisition or easements and/or widening of existing roadways is necessary to connect Chapel Harbor to Harmar (through Blawnox).
- Extension of Riverfront Trail to Millvale from Sharpsburg would be situated along a narrow right-of-way of either a PENNDOT highway (PA 28) or an active railroad.
- Environmental assessment is needed for portions along railroad tracks.

Time Frame: Phase 1 - Short-range  
Phase 2 - Mid-range  
Phase 3 - Long-range

Compatibility: All Phases - Squaw Valley Park ranked first as a key access point in the Public Survey. The second ranked key access

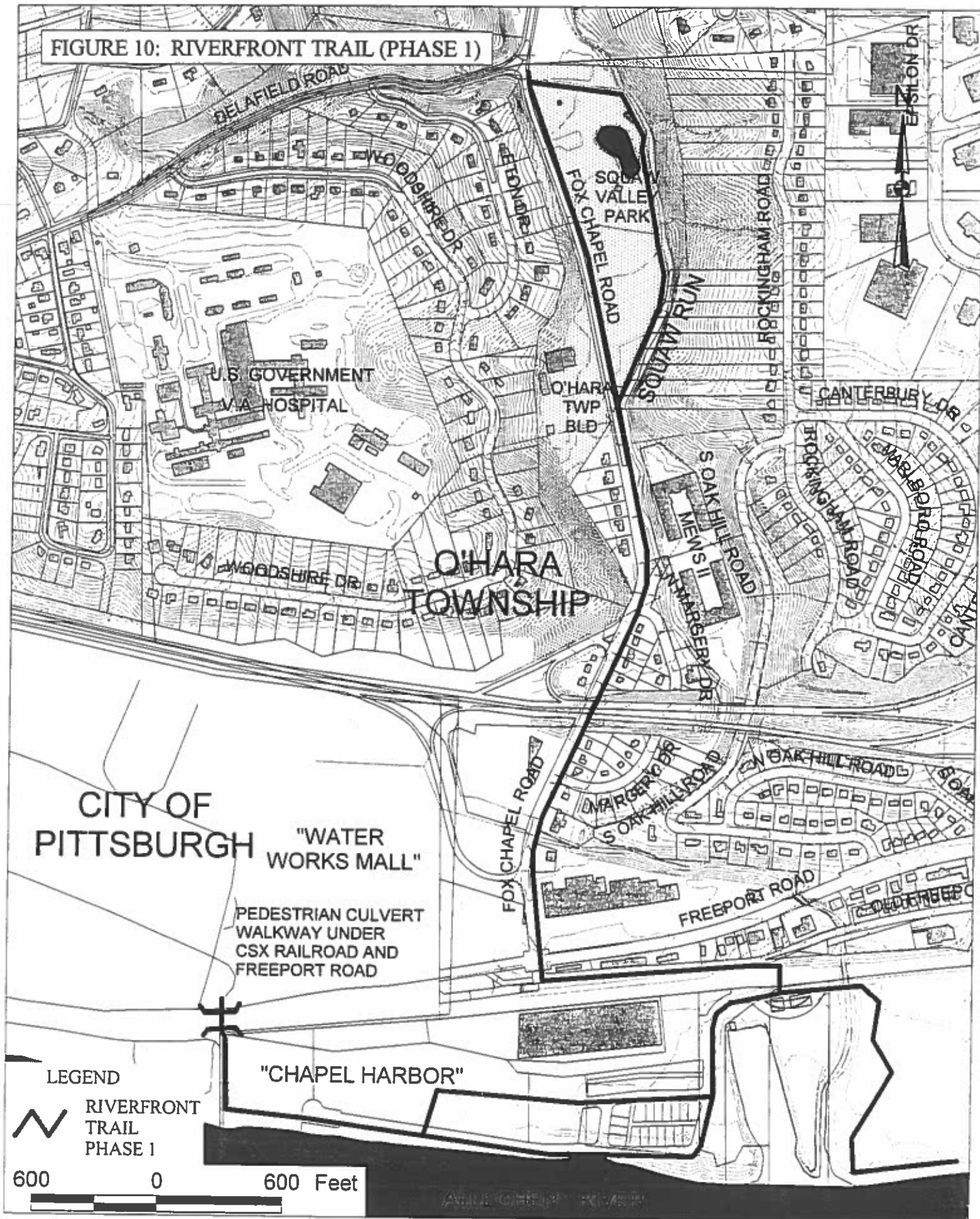


point in the Public Survey was the Allegheny River.  
Compatible with PENNDOT Hometown Grants - "Main Street."  
Compatible with 2002 Comprehensive Parks, Recreation, and  
Open-Space Plan.

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Estimated Cost: \$775,000 (Phase 1 only)  
[Chapel Harbor: \$375,000 of Total Phase 1 Cost]

FIGURE 10: RIVERFRONT TRAIL (PHASE 1)



## 5.7 Squaw Valley Park to Beechwood Farms

This alignment involves a nature/walking trail starting in Squaw Valley Park and terminating at Beechwood Farms. The trail would involve new construction connections to existing trails in Fox Chapel Borough. The completion of the trail will provide an uninterrupted natural greenway connection from Squaw Valley Park to Beechwood Farms. See Figure 11 for a detailed alignment map.

- **Purpose/Need: "Good"** - The alignment is compatible with the 2002 Comprehensive Park, Recreation, and Open-Space Plan and the purpose of this study. The alignment would provide approximately 4.5 miles of connected walking/hiking/nature trails which would begin in the Township of O'Hara with Squaw Valley Park.
- **Land Use: "Good"** - The alignment would follow Fox Chapel Road, Squaw Run Road, and Old Mill Road through residential areas and recreation parks. The new alignment would connect Squaw Valley Park Trails with the Salamander Trail, the Trillium Trail, Riding Meadow Trail, Old Squaw Trail, and the trails at Beechwood Farms. Some acquisitions or easements through private land would be necessary. (Tax parcel identification is not currently available.)
- **Conservation Attributes: "Fair"** - Providing the connection between Squaw Valley Park and Beechwood Farms through the Squaw Valley Biodiverse Area along Squaw Run Road must be balanced with the increased public walking/hiking traffic through this sensitive natural area. Although the connection will help to open up this greenway, it will not enhance the natural aspect of the corridor.
- **Recreation Attributes: "Good"** - The alignment is an excellent connector of several parks (Squaw Valley Park, Fay Park, Salamander Park, Scott Park, Riding Meadow Park) private natural areas (Beechwood Farms), and trails (Squaw Valley Park Trails, Salamander Trail, Trillium Trail, Riding Meadow Trail, Old Squaw Trail, and Beechwood Farms Trails).
- **Public Support: "Fair"** - Most of the alignment is in Fox Chapel Borough. Although no public survey has been completed for Fox Chapel, key interviews seem to indicate that connecting trails in Fox Chapel and making them more accessible to the public may be viewed unfavorably. Surrounding municipalities, including O'Hara, would likely see the connection from Squaw Valley Park to Beechwood Farms as a positive connection.



*Squaw Run Road between Scott and Salamander parks in Fox Chapel Borough.*

- **Constructability: "Fair"** - The construction of a new trail might require bridging Squaw Run along Squaw Run Road. The road and existing bridge shoulders are narrow along Squaw Run Road in places where the new trail would be parallel to the road. The topography would be challenging from Old Squaw Trail to the Trillium Trail. However, many pieces of the alignment already exist and are in good condition. Topography and natural features inhibit ADA compliance. Portions of alignments are not ADA compatible. (Environmental impacts could occur to existing trails, streams, and plant life.)
- **Financial Feasibility: "Fair"** - Although the new parts of the alignment would probably require funding, much of the alignment is in good condition and may only require relatively inexpensive upgrades.
- **Intergovernmental Cooperation: "Poor"** - Almost the entire alignment is in Fox Chapel Borough. Some matching funds for grants would likely need to come from Fox Chapel (if not a significant portion). Presently, connecting these trails is not a priority of the Fox Chapel Park Commission.



*Beginning of the Trillium Trail along Squaw Run Road.*

#### **Squaw Valley Park to Beechwood Farms**

**Goal:** Connect Squaw Valley Park to Beechwood Farms.

**Type of User:** Walkers, hikers.

**Not Recommended For:** Bikers or motorized vehicles.

**BSIR:** Poor (6)

**BSL:** Very High (5)

**Features:**

- Connects existing trails (Squaw Valley Trails, Salamander Trail, Trillium Trail, Riding Meadow Trail, Old Squaw Trail) with the construction of a new alignment.
- Completed trail system provides uninterrupted natural greenway connection from Squaw Valley Park to Beechwood Farms.
- There are no present environmental concerns.

**Challenges:**

- Connects existing trails which are in Fox Chapel Borough. Municipal coordination regarding increased trail traffic, trail maintenance costs, and animal walkers will need to be resolved.

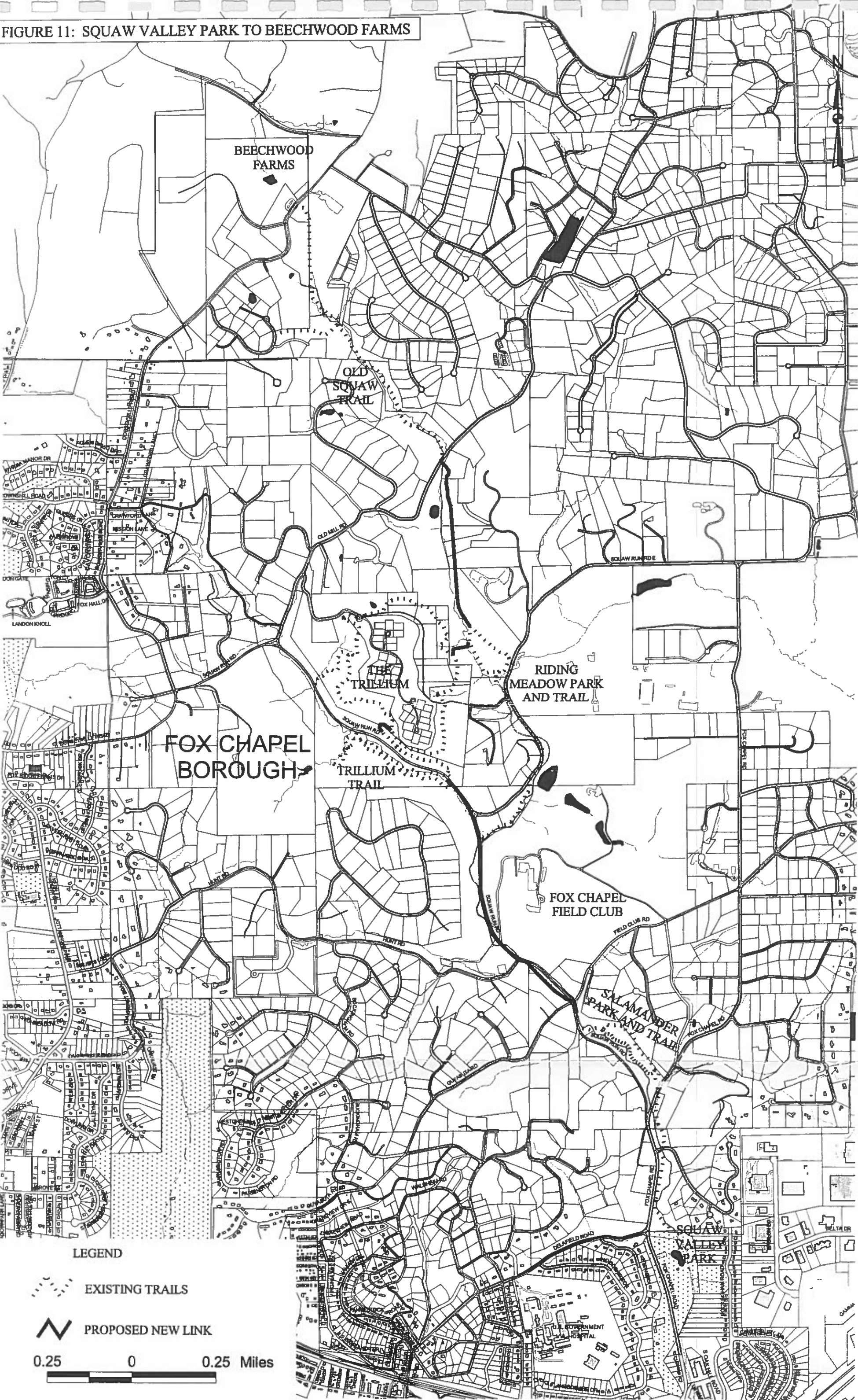
**Time Frame:** Mid-range

**Compatibility:** Squaw Valley Park ranked first as a key access point in the Public Survey. Compatible with 2002 Comprehensive Parks, Recreation, and Open-Space Plan (connecting regional assets).

**Estimated Cost:** \$331,000



FIGURE 11: SQUAW VALLEY PARK TO BEECHWOOD FARMS



## 5.8 Water Trail

This alignment involves the construction of boat launches for non-motorized craft along the study area's riverfront to extend the existing water trail from Millvale's riverfront park. Presently, for canoers and kayakers, the closest public boat launch upstream of Millvale is at Oakmont. However, with the potential construction of a boat launch at 13<sup>th</sup> Street in Sharpsburg, and public river access at Chapel Harbor, there may soon be new opportunities for river users to dock. As discussed in Section 3.2.2, more docks closer together will provide long distance boaters more opportunities to "put in" and more appropriate travel distances for short distance boaters.

Other potential docking locations include Six Mile Island (Nancy Werner Island), the Blawnox riverfront, River Road in the Township of O'Hara, Harmar, and potentially Sycamore Island (Blawnox). Docking locations would provide resting points for a water trail that could extend from Millvale to Harmar and Oakmont. Existing water trails downstream from Millvale connect to downtown and extend up the Monongahela River and down the Ohio River. (See Figure 5 for alignment.)

- **Purpose/Need: "Fair"** - The water trail is compatible with the recreation needs identified in the 2002 Comprehensive Park, Recreation, and Open-Space Plan and this study. However, it only provides one type of recreation activity.
- **Land Use: "Fair"** - Docks for non-motorized boat launches do not require much space. However, it may be difficult to secure off-street or sufficient on-street parking at the potential docking locations. Some private property acquisition may be necessary, however, specific tax parcels cannot be specified at this time.
- **Conservation Attributes: "Good"** - Almost all of the riverfront through the study area has been previously disturbed, some has been abandoned, and river islands are frequently flooded. Thus, proposed docks would enhance existing riverfront property, and could help to preserve riverfront greenways.
- **Recreation Attributes: "Good"** - The alignment would provide points of public riverfront access, a key need in the study area. The water trail would connect important recreation areas on the river. One important inhibitor to a connected water trail is the Lock and Dam No. 2 at the Highland Park Bridge. The lock may be intimidating for less advanced boat users, or simply a convenient "turn-around" since it is the most downstream lock on the Allegheny River. It may affect usage of launches above the lock such as Chapel Harbor since many rowers enter the water near Pittsburgh. One option may involve a portage under the Highland Park Bridge and around the lock to help avoid the obstacle and encourage upstream usage.



*Lock and Dam No. 2.  
(Lock is shown on the far side of the  
Allegheny River.)*



- **Public Support: "Fair"** - Although the public opinion survey and key interviews describe the river as an important key access point, the water trail provides only one aspect of riverfront recreation. Many trail users felt they would use a recreation trail for walking, hiking, or biking over canoeing or rowing.
- **Constructability: "Fair"** - Construction of a boat launch can be fairly simple: a concrete ramp and dock, a canoe rack, etc. However, it may be necessary to acquire private right-of-way to construct some of the aforementioned potential launches and to provide parking. Boat launches are ADA compliant.
- **Financial Feasibility: "Fair"** - Acquisition of private property or easements may be a financial concern. In addition, a launch, being in the flood plain, may need occasional maintenance after high water periods. However, boat launches should be relatively inexpensive to construct.
- **Intergovernmental Cooperation: "Fair"** - Unlike a land trail, a water trail is only made up of a series of access points. Obviously, only river access requires construction. Thus, although many municipalities would potentially be involved in the water trail, each boat launch could be constructed separately without the need for much intergovernmental cooperation.

### **Water Trail**

**Goal:** Identify riverfront access in the study area. Create a water trail that could connect to the boat launch in Millvale.

**Type of User:** Water craft

**Not Recommended For:** Novice canoers or kayakers.

**BSIR:** (Not Applicable)

**BSL:** (Not Applicable)

#### **Features:**

- Use Sharpsburg river access at 13<sup>th</sup> Street; Pennsylvania Fish and Boat Commission (PFBC) project with Borough of Sharpsburg to construct proposed boat launch.
- Water trails that may connect to Six Mile Island (Nancy Werner Park), Chapel Harbor, Blawnox, River Road in the Township of O'Hara, Harmar boat launch, and potentially Sycamore Island.
- Utilization of Allegheny River for recreation and utilization of Six Mile Island.

#### **Challenges:**

- Construction and maintenance of river access points.
- Upgrade to Sharpsburg's river access is still a preliminary PFBC project and may not occur.

- Six Mile Island (Nancy Werner Park) is currently leased to a private entity.
- Lock and Dam No. 2 would need to be used to reach Aspinwall and points upstream. Currents above and below the dam likely require intermediate or advanced skills based upon International Scale of River Difficulty.
- Chapel Harbor has no definite plans for a dock to access to the river. Future coordination is required.
- Sycamore Island is privately owned.
- There is no feasible access to the river near Camp Guyauta in Sharpsburg. Future coordination is required.
- PADEP issues alerts when spills or leaks occur on the Allegheny River that may endanger the public. Locations of points of access or egress from the river may require an environmental assessment to locate docks or boat launches.

**Time Frame:** Mid-range

**Compatibility:** Concurrent with PFBC's policy to increase public access to warm water fisheries and the 2002 Comprehensive Parks, Recreation, and Open-Space Plan.

**Estimated Cost:** \$142,000

## 5.9 Scenic Overlooks

The Township of O'Hara's topography provides scenic "view-sheds" of the Allegheny River Valley from Harmar Township to downtown Pittsburgh. Two potential overlooks exist at Meadow Park and along the abandoned High Street. At Meadow Park, there is a need for a viewing platform or deck with a walkway for access and potentially some clearing and grubbing. A park road provides a widened shoulder for parking.

High Street used to be an active link from the Parkview neighborhood of the Township of O'Hara and Sharpshill (Shaler) to Sharpsburg. Ravine Street became the linking road when High Street was closed to construct the Allegheny Valley Expressway (PA 28). However, the High Street public right-of-way is now unused and with the construction of a trail and platform, and some clearing and grubbing, an overlook could be constructed in the Township of O'Hara with a view of downtown Pittsburgh. See Figure 12 for a detailed overlook location map.

- **Purpose/Need: "Poor"** - Scenic overlooks do not meet the purpose/need of a trail system, but could enhance the Township's recreation opportunities.
- **Land Use: "Good"** - The overlooks would enhance Meadow Park and make use of the abandoned High Street.
- **Conservation Attributes: "Neutral"** - The overlooks have little effect on conservation. Littering is a concern. Litter disposed over the embankment could make it difficult to clean up.
- **Recreation Attributes: "Fair"** - The overlooks would not provide much opportunity for exercise, but would provide and enhance the aesthetics of the Township and the recreation facility involved.
- **Public Support: "Fair"** - Specific questions were not asked during the public opinion survey regarding the overlooks. The overlooks would improve the Township's visual aesthetics and are therefore a positive community enhancement.
- **Constructability: "Fair"** - Meadow Park would require an access walkway and view platform (with fencing, etc.). High Street's view would be a short walk from its access at Ravine Street. Parts of the road exists, but some new construction would be necessary. Parking near High Street may not be sufficient. Fencing



*View of Allegheny River from Meadow Park.*



*Although High Street's view is obscured by vegetation, the view shown is above High Street in Parkview (Downtown Pittsburgh).*

would be necessary along High Street, in fact, the fencing could be used to construct a dog park along the alignment. Scenic overlooks will be ADA compliant.

- **Financial Feasibility: "Fair"** - Although not necessarily expensive, depending upon the amenities, clearing and grubbing, and fencing used, the cost of the overlooks could vary widely.
- **Intergovernmental Cooperation: "Good"** - Both overlooks are entirely within the Township of O'Hara.

#### **Scenic Overlooks**

**Goal:** Enhance, create, designate scenic overlooks where the user can view Downtown Pittsburgh and the Allegheny River Valley.

**Type of User:** Walkers, (bike to overlooks also).

**Not Recommended For:** No limits (exception: no motorized vehicles).

**BSIR:** Good (4)

**BSL:** Moderate (3)

#### **Features:**

- Enhance and designate the Meadow Park overlook.
- Rehabilitate the abandoned High Street on Parkview's hillside and construct an overlook. (Dog park area could be designated.)
- No apparent environmental concerns are associated with the alignment.

#### **Challenges:**

- Limited parking at High Street and Ravine Street.
- For safety, fencing will be required.
- Maintenance and continued clearing and grubbing may be necessary.
- Status of ownership of High Street.

**Time Frame:** Mid-range

**Compatibility:** Compatible with the 2002 Comprehensive Parks, Recreation, and Open-Space Plan.

**Estimated Cost:** \$136,000

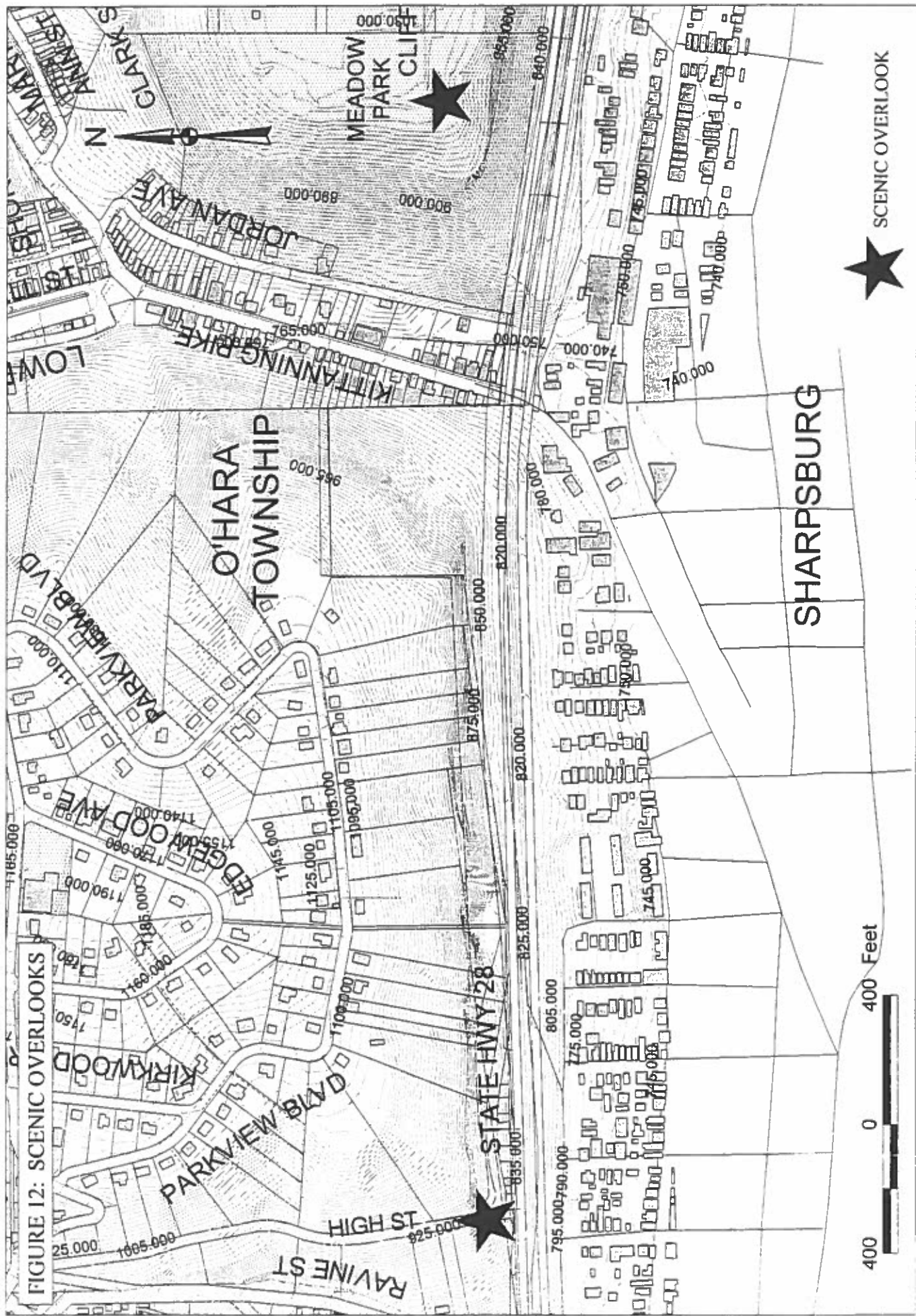


FIGURE 12: SCENIC OVERLOOKS

### 5.10 Shared Roadway Corridors

The shared roadway corridors designate roadways currently used for shared use. The alignment involves little or no roadway improvements or widening, but primarily involves line striping and signage. The goal is to inform the bicyclist that frequently travels on shared use roadways about recreational opportunities and destinations in the study area. In addition, signage would guide bikers away from the most dangerous and busy roadways while making the driver aware of which roadways are shared use. Suggested shared roadway corridors include Guys Run Road, Powers Run Road, Field Club Road, Squaw Run Road (part), Old Mill Road (part), Dorseyville Road, and Saxonburg Blvd. See Figure 5 for shared roadway corridor designations.

- **Purpose/Need: "Fair"** - The corridors inform and assist users to keep them on less dangerous roadways and to guide them to regional recreation opportunities. Bicycle enthusiasts presently ride the roads of the Township and the study area on their own. The corridors do not benefit citizens who do not bike on shared use roadways.
- **Land Use: "Neutral"** - The Shared Roadway Corridors are on existing roadways and have a negligible impact on land use. No property acquisition is necessary.
- **Conservation Attributes: "Neutral"** - The corridors have a negligible impact on conservation of natural areas.
- **Recreation Attributes: "Fair"** - Although the corridors will lead bicyclists to regional recreation destinations, the corridors will not benefit novice or short-distance bikers, walkers, or hikers because the shared use corridors are not appropriate for such users.
- **Public Support: "Poor"** - Other than bike enthusiasts, there is little support for a more "biker-friendly" shared use corridor system. Much of the Township of O'Hara is an older population that is more supportive of walking paths or "lower impact" activities. Drivers sometimes see bikers on shared roadways as an annoyance.
- **Constructability: "Good"** - Only signage and line striping would be needed to establish the corridors. The shared roadway corridors are not recommended for wheelchair usage.
- **Financial Feasibility: "Good"** - Signage and line striping could be completed rather inexpensively.
- **Intergovernmental Cooperation: "Fair"** - Although not expensive, the corridors would need to extend into neighboring municipalities to connect to regional recreation facilities.

#### **Shared Roadway Corridors**

**Goal:** Designate bike tour connection through Township to regional resources.

**Type of User:** Advanced bikers.

**Not Recommended For:** Anyone but advanced bikers.

**BSIR:** Fair (5)

**BSL:** High (4.5)

**Features:**

- Designates corridors with explicit signage.
- Provides important connections to regional resources such as Boyd Community Center, Beechwood Farms, and Hartwood Acres.
- Is inexpensive.
- Expands bike lane corridors as roadways are upgraded.
- No environmental concerns are apparent.

**Challenges:**

- Not safe for all users.
- Corridor connections must be made through neighboring municipalities.
- Expansion of striped bike lanes would be difficult (roadways are too narrow and cannot be widened inexpensively or are in other municipalities).

**Time Frame:** Mid-range

**Compatibility:** Compatible with key interview input and desires of local bike groups and enthusiasts as well as the 2002 Comprehensive Parks, Recreation, and Open-Space Plan.

**Estimated Cost:** \$132,000



## 6 FUNDING SOURCES AND FINANCIAL IMPACTS

Some potential sources for additional funding for the Township of O'Hara Trail System are discussed in this section.

### 6.1 Federal Grants

#### Intermodal Surface Transportation Efficiency Act (ISTEA), the Transportation Equity Act (TEA-21), and the Safe and Flexible Transportation Efficiency Act of 2003 (SAFETEA)

Federal Highway Administration (FHWA) and the Transportation Equity Act for the 21<sup>st</sup> Century (TEA 21) or ISTEA (pronounced "ice tea") was a revolutionary new federal transportation law. Prior to the act, federal transportation legislation funded roads and highways almost exclusively. ISTEA, on the other hand, set national goals for improved air quality and energy conservation and advocated funding for non-traditional projects like trails and greenways.

TEA-21 was enacted June 9, 1998 as Public law 105-178. It replaced and expanded ISTEA. TEA-21 authorized the federal surface transportation programs for highways, highway safety, and transit for the six-year period of 1998 - 2003. The TEA-21 Restoration Act, enacted July 22, 1998, provided technical corrections to the original law. TEA-21 is a critical and lucrative funding source for trails because all types of bicycle and pedestrian projects are specifically identified in the law as activities eligible for funding. In fact, almost half of TEA-21's traditional highway funds can be used for bicycle and pedestrian facilities.

The following major programs in TEA-21 are potential trail funding sources:

- Transportation Enhancements Program
- The Surface Transportation Program (STP)
- The Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- The Recreational Trails Program
- Other Programs

Project sponsors should understand the distinctions between these programs and each program's potential role in an overall funding strategy. While most projects rely on funding from only one TEA-21 source, some may tap two or three.

Transportation Enhancement Program: TEA-21 requires that ten percent (10%) of all Surface Transportation Program funds be set aside for "Transportation Enhancement Activities," which amounted to more than \$3 billion over the six-year life of TEA-21. The legislation identifies ten (10) specific activities as eligible transportation enhancements. There are many programs within TEA-21, one being Transportation Enhancements, which includes bicycle and pedestrian projects. Each state was given a share of Transportation Enhancements funds to distribute on a competitive basis, and local funding was also made available through Metropolitan Planning Organizations (MPOs).

The Surface Transportation Program: The Surface Transportation program (STP), one of the largest programs in TEA-21, included more than \$30 billion over six years.

Transportation projects of all types are eligible for funding, including highways, transit, ride-sharing programs, and bicycle and pedestrian facilities. Competition for these funds is strong, and much of the funding is directed to urban and suburban regions.

**The Congestion Mitigation and Air Quality Improvement Program:** Congress created the Congestion Mitigation and Air Quality Improvement program (CMAQ, pronounced "see mac") specifically to assist states and metropolitan areas in meeting the requirements of the 1990 Clean Air Act. Funds for this program are targeted to non-attainment areas, which are cities and regions that have not met the national standards for clean air.

As with STP funds, expect strong competition for CMAQ money. However, because trail users emit no pollutants, trail project leaders could make a strong case to state and Metropolitan planning Organization (MPO) decision-makers. Assessing the transportation value of your facility is important for receiving CMAQ funding.

**The Recreational Trails Program:** The Recreational Trails Program provides up to \$30 million each year for non-motorized and motorized trails. This program must be funded annually by congress, which did not appropriate any funds in 1992 and only \$7.5 million in 1993. Even with full funding, each state would have access to less than \$1 million. However, private organizations can receive grants under this program for trail development activities. (See: [www.fhwa.dot.gov/environment/rectrails/](http://www.fhwa.dot.gov/environment/rectrails/) for more information.)

**Other Programs:** In certain situations, trail projects may qualify for funding from the National Highway System (NHS), the Federal Lands Highway program, or other highway-related programs in TEA-21 for which bicycle and pedestrian projects are eligible.

TEA-21 expired by its own terms on September 30, 2003. President Bush has proposed a six-year federal highway reauthorization bill - The Safe and Flexible Transportation Efficiency Act of 2003 (SAFETEA). Both the United States' House of Representatives and Senate are proposing different versions of a reauthorization bill. Currently all proposals preserve and/or improve the fundamental structure of TEA-21. The primary difference among the reauthorization proposals is the level and source of funding. It is currently expected that reauthorization funding will meet or exceed current highway funding levels.

#### **Other Federal "Pass-Through" Funding Programs**

In addition to TEA-21, several other federal pass-through funds exist.

**Land and Water Conservation Fund:** This fund, sometimes called LAWCON or abbreviated LWCF, is administered by the U. S. Department of the Interior. This money is usually distributed to state departments of natural resources and can be used as matching funds for trail-corridor purchase. LWCF funds are provided at fifty percent (50%) federal money, which must be matched with fifty percent (50%) local money for trail corridor purchase. In the past, LWCF was a strong source of funding, however, the fund has fluctuated during the past decade, causing increased competition between many qualifying local projects. (See: [www.ncrc.nps.gov/lwcf/](http://www.ncrc.nps.gov/lwcf/) for more information.)

**The Wallop Breaux Fund:** Funded at \$140 million annually for the enhancement of sport fishing opportunity and access, Wallop Breaux is another source of federal pass-through money. The funds are administered by the U.S. Fish and Wildlife Service and are available at seventy-five percent (75%) federal funding, which must be matched with a twenty-five percent (25%) state match. This local match usually comes from a state's fish and game agency.

It is based on value, not cash, and can consist of in kind services as well as money. If a proposed trail provides access to a sport fishery, the State Fish and Game Agency could use Wallop Breaux money for land acquisition and maintenance. (See: [www.wallop-breaux.org/](http://www.wallop-breaux.org/) for more information.)

**The Community Development Block Grant Program (CDBG):** Another federal source of funds is the U.S. Department of Housing and Urban Development (CDBG) program, which directly funds cities and towns for projects with community-wide benefits. Regional greenways and trails, particularly those with documentable economic, cultural, and historic merit, could qualify for CDBG funding. Seattle's Burke Gilman Trail and the Baltimore and Annapolis Trail in Maryland were both funded through this program. It should be known, however, that congressional appropriations to this HUD program have decreased in recent years.

## **6.2 Safe Routes to School (SR2S)**

Safe Routes to School (SR2S) projects rely on a mixture of local, state, and federal funding. One key to a successful SR2S effort is understanding both the policies that make it happen and the funding sources for new construction and training. Doing so requires learning about Safe Routes to School legislation, regulations, and programs at the Federal, State, and Local levels.

There are two types of funds necessary to implement a comprehensive Safe Routes to School effort: 1. Capital funds pay for new facilities like sidewalks, crosswalks, and other changes to the built environment. 2. Program funds pay for administrative and training costs such as hiring a SR2S coordinator, providing safety training to students and increasing traffic law enforcement near schools. Both program funds and capital funds are necessary for most SR2S efforts to succeed, and are available from numerous sources.

1. Capital funds are used to create any infrastructure. Cities and counties are always seeking grants for capital funding to build sidewalks, create bicycle lanes, develop multi-use pathways, and to complete other SR2S-related projects. Cities and counties generally must be the "applicant" for any capital funding projects that relate to changing civic infrastructure. Although the local government often secures capital funds, many of these funds are initially provided from the federal government to state governments, which then distribute them to local governments. Matching funds provided by local governments are often necessary to receive capital funds.

2. As discussed above, program funds pay for the elements of a SR2S effort that go beyond the engineering or infrastructure improvements and are often necessary to support the overall effort. Many federal and state safety-related funding mechanisms allow a portion of the funds to be used for 'non-infrastructure-related' programs, such as hiring a coordinator and providing safety training. Additionally, local governments might choose to fund these efforts on their own or draw support from donors. Some non-profit entities such as a PTA and churches are willing to

fund SR2S because the programs improve the entire community by relieving traffic congestion, improving the environment, creating alternative transportation routes, and improving the health of children and the community.

Although current federal law does not specifically support Safe Routes to School programs, a number of existing safety-related spending programs can provide support to SR2S projects. These spending programs have funds to pay for many infrastructure-related programs, such as new sidewalks, better crosswalks, and safety-related training programs.

According to specific guidance from the Federal Highway Administration (FHWA), current programs fund "Construction of pedestrian walkways and bicycle transportation facilities; non-construction projects for safe bicycle use; modify public sidewalks to comply with the Americans with Disabilities Act. Projects do not have to be within the right-of-way of a Federal-aid highway." (See: [www.fhwa.dot.gov/hep/flexfund.htm](http://www.fhwa.dot.gov/hep/flexfund.htm) for more information.) Although these do not specifically mention programs near schools or for school-age children, SR2S programs would fall within these categories. (More complete information about federal bicycle and pedestrian transportation provisions can be found specifically at: [www.fhwa.dot.gov/environment/bikeped/bp-broch.htm](http://www.fhwa.dot.gov/environment/bikeped/bp-broch.htm).)

TEA-21's highway programs discussed in Section 6.1 also support SR2S projects.

An additional federal funding mechanism that bears exploration are Federal Highway Safety Funds ("402 Funds"), received by states to reduce traffic crashes and resulting deaths, injuries, and property damage. States are required to use 402 funds "only for highway safety purposes," although at least 40 percent (40%) of these funds are to be used to address local traffic safety problems. Some states (including California, Florida, and New York) have applied 402 funds to SR2S projects or programs. Although each state handles this program differently, most funding is available on a competitive basis for projects that increase road safety. Programs are performance based using "Best Practices" of engineering, and human behavioral expertise to improve safety. As SR2S results are better documented, states may become more willing to select SR2S projects as 402 fund grant recipients.

As of early April 2004, both chambers of Congress had passed major transportation funding bills that establish specific Safe Routes to Schools programs and include specific new funds for SR2S. Both generally provide funds for a wide range of SR2S-related construction near schools and require that each state spend at least ten percent (10%) of its SR2S funds on safety education. The Senate bill would provide \$70 million annually, while the House bill provides \$125 million during the first year, increasing to \$250 million over five years. The next step for Congress is to reconcile the two bills, during which the SR2S provisions might stay roughly the same, or might undergo significant change.

Once the new transportation bill becomes law, it may still take nearly a year for funds to actually become available to states. First the U.S. Department of Transportation will need to develop regulations and guidance for distributing the funds and then Congress will need to apportion funds in accordance with the new law. Under both of these proposals, SR2S activities could also still be funded using existing programs, although state Departments of Transportation might limit SR2S disbursements to programs funded under the new legislation.

State Departments of Transportation act as the gatekeepers for federal funds related to Safe Routes to School programs. They are responsible for dispersing funds to local programs in accordance with state policies and any applicable federal law. Currently, demand far exceeds available funds. In Texas, \$3 million in available funds was increased to \$5 million after receiving \$45 million in requests. In its first year, the California program received requests exceeding \$130 million for \$20 million in available funding. In Pennsylvania, "Home Town Streets" project funds are growing in popularity.

### 6.3 "Home Town Streets"

The Pennsylvania Department of Transportation (PENNDOT) combines Safe Routes to School with another new program, "Home Town Streets." Both are intended to improve quality of life in Pennsylvania communities.

As discussed in Section 6.2, the SR2S objective is "To establish, where feasible, safe walking routes for children to commute to school and to promote healthy living." The program is managed by PENNDOT, but is designed to work in conjunction with school districts, local governments, and pedestrian and bicycle safety advocates.

As for the Home Town Streets program, PENNDOT recognizes that the streets that run through the centers of cities and towns provide vital connections. Sprucing up these streets will bring people back to town centers and promote healthy living. PENNDOT can also contribute to the safety of children through SR2S. The combined program has two primary objectives:

- To encourage the reinvestment in and redevelopment of our downtowns; and
- To establish, where feasible, safe walking routes for our children to commute to school and to promote healthy living.

Although PENNDOT manages the program, other agencies have made and will make contributions to community revitalization. The following agencies will play a vital role in this program:

- Metropolitan Planning Organizations (MPOs) and Rural Planning Organizations (RPOs)
- Department of Community and Economic Development
- Department of Conservation and Natural Resources
- Department of Education
- Federal Highway Administration

The Home Town Streets program will include a variety of streetscape improvements that are vital to reestablishing downtown and commercial centers. These projects will include activities undertaken within a defined "downtown" area that collectively enhance the environment and promote positive interactions with people in the area. Projects may include sidewalk improvements, planters, benches, street lighting, pedestrian crossings, transit bus shelters, traffic calming, bicycle amenities, kiosks, signage, and other visual elements. The program will not fund costs related to buildings or other facades or personnel costs related to a "Main Street" manager.

Improvements such as general street paving and storm water management structures will normally need to seek other avenues of funding. Traffic signals are not intended to be funded by this program. However, in some cases, it may be appropriate to combine these types of improvements in a Home Town Streets project with other funding.

The Home Town Streets and Safe Routes to School programs, together will dedicate \$200 million over four years in Pennsylvania. Local projects have a 20% matching fund requirement. The program is not a grant program, but is a federal cost reimbursement program. The project sponsor does not receive a check in advance once the project is approved. Once a project is authorized to advance and begins incurring costs, the project sponsor will receive periodic invoices from those working on the project. The project sponsor reviews and approves these invoices and submits them to PENNDOT for payment. PENNDOT will pay the project sponsor for the amount on the approved invoice. The project sponsor will then pay the service provider. Project sponsors will only be reimbursed for actual approved project expenses, up to the amount approved for the project.

#### 6.4 State Grants

The Pennsylvania Department of Conservation and Natural Resources (DCNR) established cabinet-level status for Pennsylvania's state parks and forests and places conservation and recreation programs dealing with local recreation, heritage parks, rivers conservation, greenways, trails, and open spaces under a single agency. A key priority of this agency is to bring its programs into towns and cities across Pennsylvania and to provide leadership linking agency resources with local conservation efforts.

The Community Conservation Partnerships Program initiative joins DCNR with communities, nonprofit groups and the private sector in conserving Pennsylvania's valuable natural and cultural heritage. DCNR partnerships involve greenways, open spaces, community parks, rail trails, river corridors, natural areas, indoor and outdoor recreation and environmental education. Agency programs are linked with efforts to conserve natural and historic resources, provide recreation, enhance tourism, and foster community development.

#### DCNR Partnership Opportunities

DCNR provides a single point of contact for communities and nonprofit conservation agencies seeking state assistance in support of local conservation initiatives. This assistance can take the form of grants, technical assistance, information exchange and training. These programs are described below:

Heritage Parks Grants promote public-private partnerships to preserve and enhance natural, cultural, historic and recreation resources to stimulate economic development through heritage tourism. Grants are available to municipalities, nonprofit organizations or federally designated commissions acting on behalf of the municipalities in a heritage park area. Grants are awarded for a variety of purposes including feasibility studies; development of management action plans for heritage park areas; specialized studies; implementation projects; and hiring of state heritage park managers. Grants require a 25-50 percent local match.



Community Grants are awarded to municipalities for recreation, park and conservation projects. These include the rehabilitation and development of parks and recreation facilities; acquisition of land for park and conservation purposes; and technical assistance for feasibility studies, trails studies, and site development planning. Grants require a 50 percent match except for some technical assistance grants and projects eligible as small community projects. The small community development projects provide a municipal applicant with a population of 5,000 or less with an alternate method of funding for rehabilitation and development of minor indoor and basic outdoor park, recreation, and conservation areas and facilities. The initial \$20,000 or less in grant funding provided must be used to purchase materials only and approved professional design fees. Additional grant funds of up to \$20,000 may be provided matching the municipal applicant's local cash or non-cash contribution to the project. The additional \$20,000 may be used to cover all other eligible costs and other costs such as labor and/or equipment. The maximum grant under this project type is \$40,000.

Land Trust Grants provide 50 percent funding for acquisition and planning of open space and natural areas which face imminent loss. Lands must be open to public use and priority is given to habitat for threatened species. Eligible applicants are nonprofit land trusts and conservancies.

River Conservation Grants are available to municipalities, counties, municipal and intermunicipal authorities, and river support groups to conserve and enhance river resources. River support groups must be nonprofits which are designated to act on behalf of interested municipalities. Planning grants are available to identify significant natural and cultural resources, threats, concerns, and special opportunities and to develop river conservation plans. Implementation grants are available to carry out projects or activities defined in an approved river conservation plan. Grants require a 50 percent match.

Rails-to-Trails Grants provide 50 percent funding for the planning, acquisition or development of rail-trail corridors. Eligible applicants include municipalities and nonprofit organizations established to preserve and protect available abandoned railroad corridors for use as trails or future rail service.

Pennsylvania Recreational Trails Program Grants provide funds to develop and maintain recreational trails and trail related facilities for motorized and nonmotorized recreational trail use. Eligible applicants include federal and state agencies, local governments and private organizations. Match requirements for Pennsylvania Recreational Trails Program Grants are 80 percent grant money, up to a maximum of \$100,000, and 20 percent project applicant money. However, acquisition projects will require a 50/50 match. "Soft match" (credit for donations of funds, materials, services, or new right-of-way) is permitted from any project sponsor, whether a private organization or public agency. Eligible project categories include: maintenance and restoration of existing recreational trail; development and rehabilitation of trailside and trailhead facilities and trail linkages; purchase and lease of recreational trail construction and maintenance equipment; construction of new recreational trails (with restrictions on new trails on Federal land); and, acquisition of easements or property for recreational trails or recreational trail corridors.

The most common source of state funds includes grants from the DCNR. DCNR receives special park-related appropriations from state legislatures, bond issues, lotteries, and special taxing mechanisms. Within DCNR, the Bureau of Recreation and Conservation awards millions of dollars in grants each year to help communities conserve natural and cultural resources, provide outdoor recreation, enhance tourism, and foster economic development. Such grants give municipalities the funding needed to leverage local dollars.

The grants fund a variety of planning, acquisition, and development projects statewide, including the upgrading or building of playgrounds and parks' athletic fields; acquisition projects resulting in the purchase of community parks, open space, and greenways; construction of amphitheaters, recreation centers, and skate parks; preparation of plans or studies for park or greenway development; projects culminating in the development of trails; and regional and statewide projects.

"While the underlying purpose of these grants remains the same, each year Pennsylvania projects reflect a changing society: greenway plans and development, skate parks, recreation centers, gateway gardens, water trails, commuter bike lanes, and open space protection. All have one thing in common - they enhance our quality of life."

Community Recreation grants are part of the Community Conservation Partnerships Program - an initiative providing technical assistance, training, and grants to help conserve natural and cultural resources, provide outdoor recreation opportunities, enhance tourism, and foster community development. For more information on the grants, visit the Pennsylvania PowerPort at [www.state.pa.us](http://www.state.pa.us), PA Keyword: "DCNR grants."

## 6.5 Local Taxes

In general, Township citizens are not in favor of raising local taxes for any reason, including enhancing recreational opportunities. Based upon the public opinion survey, local taxes were less popular than federal grants, state grants, private contributions, and fund-raising drives as a method to fund a trail system. However, it did get 10% of all responses, so some respondents did feel it was a viable option. Ideally, raising local taxes should be considered for trail funding only once other funding avenues have been exhausted.

On November 23, 2004, the Township of O'Hara Council tentatively adopted the 2005 Township Budget which included \$150,000 needed as matching funds in the event of DCNR approval of a grant application.

## 6.6 User Fees

Levying user fees is useful because it accomplishes two benefits:

- Non-citizens and citizens alike pay directly for use of the Township of O'Hara's trail system.
- "Demand determines return" - if trails are popular, more funds will be raised for upkeep and expansion of the trail system.

However, user fees also have many disadvantages which may outweigh the benefits:

- Enforcement is extremely difficult to enforce. In a public trail setting, where enclosure is not possible, a licensing system (where users would need a license to use the trails) would require an enforcement system of some sort.
- "Demand determines return" - fees that are too high or unpopular trail sections would produce insufficient funds for maintenance, etc.
- If the trail system crosses municipal boundaries, cooperation with other municipalities would be necessary.
- May not benefit occasional or seasonal trail use.

#### 6.7 Private Funding and Other Sources

In the Township of O'Hara, the opportunity exists to obtain private contributions for trail system development. Although the RIDC "business association" no longer exists, based on the key interviews, it is possible to bring the businesses of RIDC together on the issue of a trail system in RIDC. It may be possible to secure private funds to develop a system in RIDC that would benefit employees of the businesses during the work week and Township citizens all week long.

Regional civic organizations have expressed interest in providing funding or construction and maintenance assistance. The formation of a trail group or "friends of the parks" organization will sustain public awareness of the trail system and recreation vehicles upon development. According to the public opinion survey, supporters of the trail system were most willing to make a monetary donation over any other activity (such as donate time or join a club).

A trail group or civic organization could hold fund-raising drives for the trail system to facilitate construction, maintain the trail system, or enhance the system and its amenities.

#### 6.8 Implementation Strategy

A project Implementation Plan is provided in Appendix B in tabular format. The implementation strategy describes the phased approach needed to implement each of the nine (9) projects. The strategy includes the task type, description of task(s) and the potential recreation benefits to be derived.

#### 6.9 Planning Intensity Cost Estimate

Appendix C provides cost estimates to complete the implementation strategy. These costs are planning intensity estimates based upon current prices for design and construction. Costs are based on quantifying cut and fill requirements, distance, culvert or trail bridge type, size, and location based on preliminary plans, not final design. Therefore, costs could change. Inflation is not computed into the phases completed over years. Unit costs were obtained from similar trail projects bid and constructed in 2004 in the project area. Greenway completion can foster environmental education and interpretive services programs.

### 6.10 Financial Impact - Township of O'Hara Park & Recreation Budget

PADCNR require a five (5) year summary of projected fiscal implications on the operating budget. To determine potential impact, a review of the past four (4) years was completed. Table 8 provides the recent financial history of the parks budget. These funds provide for the maintenance of all Township parks, facilities, equipment and open space.

Table 8 - Park and Recreation Budget				
\$250,000				
\$200,000				
\$150,000				
\$100,000				
\$50,000				
	2002	2003	2004	2005

The history shows a stable, conservative budget for the parks department share of 200 acres of park land. Table 9 provides details for the past four (4) years.

Table 9 provides details of park and recreation expenditures over the past three (3) years and the projected 2005 budget.

Table 9 - Parks and Recreation				
Description	2002 Actual	2003 Actual	2004 Budget	2005 Budget
Wages and Salaries	\$86,000	\$62,301	\$92,725	\$85,800
Overtime	\$9,200	\$9,794	\$8,000	\$8,000
F.I.C.A.	\$7,240	\$5,507	\$7,710	\$7,180
Health Insurance	\$16,440	\$18,909	\$27,690	\$28,465
Pension	---	---	\$805	\$540
Workers Compensation Insurance	\$2,545	\$2,841	\$3,800	\$3,245
Unemployment Compensation Insurance	---	---	---	---
Subtotal	\$121,425	\$99,352	\$140,730	\$133,230
Contractual Services				
Description	2002 Actual	2003 Actual	2004 Budget	2005 Budget
Maintenance Equipment	\$14,500	\$10,880	\$14,500	\$10,000
Water	\$950	\$1,311	\$1,400	\$1,450
Electricity	\$3,100	\$3,776	\$3,600	\$3,650
Grass Cutting Services	\$20,000	\$21,585	\$23,000	\$32,000
Equipment Rental	\$1,000	\$514	\$950	\$950
Civic Functions	\$13,500	\$12,787	\$14,000	\$14,000
Subtotal	\$53,050	\$50,853	\$57,450	\$62,050
Supplies and Commodities				
Description	2002 Actual	2003 Actual	2004 Budget	2005 Budget
Office Supplies	\$300	\$192	\$400	\$500
Signs and Signals	\$900	---	\$1,000	\$1,000
Small Tools and Equipment	\$5,700	\$2,694	\$5,000	\$5,000
Membership/Dues/Education	---	---	\$1,000	\$750
Park Supplies	\$4,000	\$5,005	\$5,000	\$5,000
Miscellaneous Expenses/Supplies	\$6,000	\$14,558	\$6,000	\$6,000
Subtotal	\$16,900	\$22,449	\$18,400	\$18,250
TOTAL	\$191,375	\$172,654	\$216,580	\$213,530

Explanation of the budget(s) presented in Table 9, implementation of the trail and greenways could result in modest increases in the areas designated in Table 10.

The services highlighted in Table 10 will increase slightly with the phased trail construction and in implementing the greenway plan. Implementation of the trail and greenway plans have been conceived to not put a burden on the park and recreation budget but show a natural, systematic progression to achieve the goals over a seven (7) year plan.

Table 10 - Trail and Greenway Project Impact on Park Operations Budget									
Capital Project by Program Area	2002	2003	2004	2005	2006	2007	2008	2009	2010
CONTRACTUAL SERVICES									
Trail Coordination Personnel	\$0	\$0	\$0	\$0	\$5,000	\$5,500	\$6,000	\$6,500	\$7,000
Maintenance Equipment	\$14,500	\$10,880	\$14,500	\$10,000	\$11,000	\$12,000	\$13,000	\$14,000	\$15,000
Water	\$950	\$1,311	\$1,400	\$1,450	\$1,500	\$1,550	\$1,600	\$1,650	\$1,700
Electricity	\$3,100	\$3,776	\$3,600	\$3,650	\$3,650	\$3,750	\$4,000	\$4,250	\$4,500
Grass Cutting Services	\$20,000	\$21,585	\$23,000	\$32,000	\$35,000	\$37,500	\$40,000	\$42,500	\$45,000
Equipment Rental	\$1,000	\$514	\$950	\$950	\$1,000	\$1,250	\$15,000	\$1,750	\$2,000
Civic Functions	\$13,500	\$12,787	\$14,000	\$14,000	\$15,000	\$16,000	\$17,000	\$18,000	\$19,000
Subtotal	\$53,050	\$50,853	\$57,450	\$62,050	\$72,150	\$77,550	\$96,600	\$88,650	\$94,200
SUPPLIES AND COMMODITIES									
Office Supplies	\$300	\$192	\$400	\$500	\$550	\$600	\$650	\$700	\$750
Signs and Signals	\$900	---	\$1,000	\$1,000	\$1,500	\$1,750	\$2,000	\$2,250	\$2,500
Small tools and Equipment	\$5,700	\$2,694	\$5,000	\$5,000	\$6,000	\$6,150	\$6,200	\$6,300	\$6,400
Membership/Dues/Education	---	---	\$1,000	\$750	\$1,000	\$1,100	\$1,200	\$1,300	\$1,400
Park Supplies	\$4,000	\$5,005	\$5,000	\$5,000	\$5,500	\$6,000	\$6,500	\$7,000	\$7,500
Miscellaneous Expenses/Supplies	\$6,000	\$14,558	\$6,000	\$6,000	\$6,750	\$7,250	\$7,500	\$7,750	\$8,000
Subtotal	\$16,900	\$22,449	\$18,400	\$18,250	\$21,300	\$22,850	\$24,050	\$25,300	\$26,550
TOTAL	\$69,950	\$73,302	\$75,850	\$80,300	\$93,450	\$100,400	\$120,650	\$113,950	\$120,750
Budget program areas impacted by implementing trail/greenway plan.									

Budget program areas impacted by implementing trail/greenway plan.



These budget projections include the total park budget. Trail development impacts grass cutting minimally. Other increases will occur with a need for trail signs and symbols, minor tools, and supplies. Trail improvements may impact the need or desire for more environmental education or interpretive service programs in the civic functions category.

Budget projections include consideration of a part-time trail or greenway advisory position included in the park budget. Survey results indicated considerable potential for public support including private donations, maintenance, and programming, including development of a trail web page, but coordination is needed.

#### 6.11 Capital Improvement Impacts

Implementation of the project(s) will impact the capital outlay requirements of the Township. Table 11 provides these costs. *These are planning intensity cost levels and could be offset by government grants or donations from businesses, endowments, clubs, organizations, or other benefactors.*

Table 11 - Capital Improvements Plan (2005 - 2012)  
Township of O'Hara - Summary for Parks and Recreation

Capital Project by Program Area	2005	2006	2007	2008	2009	2010	2011	2012	Eight Year Total
PARKS AND RECREATION									
Land Acquisition	\$200,000			\$650,000					\$850,000
Trail Development**	\$150,000	\$170,000	\$170,000	\$150,000	\$150,000	\$142,000	\$136,000		\$1,068,000
Crofton Park	\$6,500								\$6,500
Park Court Resurfacing	\$5,000		\$10,000			\$15,000			\$30,000
Community Center			\$1,000,000						\$1,000,000
Parkview Park		\$180,000							\$180,000
Squaw Valley Pond Remediation	\$70,000								\$70,000
Bituminous Surface Treatment		\$32,000					\$35,000		\$67,000
Ball Field Refurbishing		\$10,000	\$20,000						\$30,000
Gypsy Moth Abatement			\$20,000	\$30,000	\$30,000	\$20,000	\$9,000	\$9,000	\$118,000
Park Signage			\$18,000						\$18,000
<b>TOTAL PARKS AND RECREATION</b>	<b>\$431,500</b>	<b>\$392,000</b>	<b>\$1,238,000</b>	<b>\$830,000</b>	<b>\$180,000</b>	<b>\$177,000</b>	<b>\$180,000</b>	<b>\$9,000</b>	<b>\$3,437,500</b>
ROADS									
Field Club Rd./Cabin Ln./Power Run	\$15,870								\$15,870
RIDC			\$28,182						\$28,182
Saxonburg Blvd.**				\$23,570					\$23,570
Dorseyville Road**					\$28,800				\$28,800
Squaw Run Road**						\$38,040			\$38,040
Old Mill Road/Squaw Run Road East**									\$0
Powers Run Road**							\$23,520		\$23,520
Guys Run Road**								\$17,780	\$17,780
<b>TOTAL ROADS</b>	<b>\$15,870</b>	<b>\$0</b>	<b>\$28,182</b>	<b>\$23,570</b>	<b>\$28,800</b>	<b>\$38,040</b>	<b>\$23,520</b>	<b>\$17,780</b>	<b>\$175,762</b>

\*Does not include grants and donations.  
\*\*Shared roads, not all in the Township of O'Hara.

**7 REFERENCES**

- **2002 Comprehensive Parks, Recreation, and Open Space Plan, prepared by Pashek Associates.**
- **GIS Background Mapping, Township Staff (Cindy Davis and Robert Robinson).**
- **1999 American Associates of State Highway and Transportation Officials (AASHTO), "Guide for Development of Bicycle Facilities" (AASHTO Bicycle Guide).**
- **Pennsylvania Department of Transportation (PENNDOT) Publication 13M (DM-2).**
- **<http://www.ohara.pa.us/>, Demographic and general township information.**
- **<http://www.walktoschool-usa.org/funding/index.cfm>, "Safe Walks to School" and Main Street grant information (October 7, 2004).**
- **<http://www.chapelharbor.com>, Architectural drawing of the neighborhood plan for Chapel Harbor.**
- **<http://www.fox-chapel.pa.us/>, Parks information.**
- **<http://www.rachelcarsontrail.com>, Trail information.**
- **<http://www.bonestroo.com/whatsatrail.asp>, Americans With Disabilities (ADA) trail information.**
- **<http://www.fhwa.dot.gov/>, Intermodal Surface Transportation Efficiency Act (ISTEA), the Transportation Equity Act (TEA-21), and the Safe and Flexible Transportation Efficiency Act of 2003 (SAFETEA) information.**
- **<http://www.hcrc.hps.gov/wcf/>, Land and Water Conservation Fund information.**
- **<http://www.wallop-breux.org/>, The Wallop Breux Fund.**
- **<http://www.inventpa.com/default.aspx?id=321>, Invent Pennsylvania information.**
- **<http://www.dot.state.pa.us>, Pennsylvania Department of Transportation (PENNDOT) information and grants.**
- **<http://www.state.pa.us>, Pennsylvania Department of Conservation and Natural Resources (PADCNR), grant information.**
- **[Minnesota Bicycle Transportation Planning and Design Guidelines](#), Minnesota Department of Transportation, June 1996, (Diagram for Bicycle Operating Space).**
- **<http://www.hsrc.unc.edu/research/pedbike/98072>, Bicycle Safety Index Rating and Bicycle Stress Level.**

# **APPENDIX A**

## **Trail Feasibility Survey**

# **O'HARA TOWNSHIP TRAIL FEASIBILITY SURVEY**

## **INTRODUCTION**

In 2002, a Comprehensive Park, Recreation, and Open-Space Plan for O'Hara Township was completed. Based on community input, the plan recommended that a study be performed relating to the feasibility and planning of a trail system throughout the Township with emphasis on connecting to surrounding communities and regional assets, and to provide a trail along the Allegheny River.

This survey is a follow-up to the plan to identify the trail types, frequency of use, key access, and other issues. According to the last survey, respondents stated they would use trails for walking, hiking, biking, jogging, and in-line skating. Results of this survey will be used to lay the groundwork for the development of a Township-wide system of trails.

Public involvement is an integral part of developing a Trail Feasibility Study sensitive to the needs of the citizens. O'Hara Township's Trail Study Committee is seeking public opinion on the need, preference, and potential use of a trail system.

"Since your opinion is important to the future of O'Hara Township, please take a few minutes to complete and mail the survey."

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## **YOUR OPINION IS IMPORTANT!**

Your opinion will determine specific features included in the Trail Feasibility Study. Your response to the survey will enable the Study Committee to compile statistics that demonstrate the level of public interest in designating a trail system. Results from the survey will be used to make your opinion clear to elected officials and potential funding agencies. To maintain your privacy, your response is in confidence.

## **SURVEY PURPOSE**

- To determine your overall level of trail interest, use, key access locations, and connections.
- To measure the level of commitment and potential support for the trail system.
- To determine if parks, schools, and other community destinations could be linked by a trail system.
- To provide input to local decision-makers and for potential fund grant applications.

**Please Return the Survey in the Self-Addressed Envelope  
by May 31, 2004**

**Or You May Reply On Line. Log onto the O'Hara Township Web Page at  
<http://www.ohara.pa.us/>**

**and Click onto "Links." Look for "Trail Survey"  
and Complete Your Survey On Line.**

**Your web # is: \_\_\_\_\_**

# O'HARA TOWNSHIP TRAIL FEASIBILITY SURVEY

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## PART 1

YES NO (Check one for each question)

1. \_\_\_\_\_ My opinion is important and I want my Township Officials to know how I feel.
2. \_\_\_\_\_ I support the development of a trail system.
3. \_\_\_\_\_ I currently visit the O'Hara Township parks for recreation.
4. When weather permits, how often do you participate in these recreational activities typically conducted along trails (check all that apply)? On average, how far do you travel?

Activity	Frequency			Distance		
	Never	1/Week	2-3/Week	1 Mile	2-3 Miles	>4 Miles
Walk						
Jog						
Nature Hike						
Roller Blade						
Bike						
X-County Skiing						
Other						

## PART 2 - General Questions:

Please respond based on the past year and on your entire household.

1. How many people within the following age groups live in your household?  
(Please place a number of people next to each applicable age group.)

- |                            |                            |
|----------------------------|----------------------------|
| _____ a. 4 years and under | _____ e. 20 - 39 years old |
| _____ b. 5 - 10 years old  | _____ f. 40 - 59 years old |
| _____ c. 11 - 14 years old | _____ g. 60 and older      |
| _____ d. 15 - 19 years old |                            |



# O'HARA TOWNSHIP TRAIL FEASIBILITY SURVEY

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2. Which of the following most likely applies to you: (check one)

I would walk \_\_\_\_/drive \_\_\_\_ to the trails to use them.

I would visit it mostly with large groups (clubs, groups) \_\_\_\_ or alone or with a couple of friends \_\_\_\_, or other \_\_\_\_, please specify: \_\_\_\_\_

3. According to the community recreation survey (February 2002), walking/nature trails were identified as top priority. I, or my family and guests, would use trails on average: (Check the one that *most applies* to you.)

- |  |  |
|--|--|
| <input type="checkbox"/> Infrequently or Never     | <input type="checkbox"/> Once per Week During the Summer |
| <input type="checkbox"/> One to Two Times per Week | <input type="checkbox"/> Three to Five Times per Week    |
| <input type="checkbox"/> Every Day Year Round      | <input type="checkbox"/> Other: _____                    |

4. Where should the key access points (trailheads, parking areas, etc.) be located?

- |  |  |  |                                    |
|--|--|--|------------------------------------|
| <input type="checkbox"/> Squaw Valley Park | <input type="checkbox"/> Beechwood Farms | <input type="checkbox"/> Waterworks Mall       | <input type="checkbox"/> RIDC Park |
| <input type="checkbox"/> Allegheny River   | <input type="checkbox"/> Meadow Park     | <input type="checkbox"/> Boyd Community Center |                                    |

(Other: Please List) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_

5. What type of amenities are most important to the trail system? Choose 5. Rank them by importance, "1" being the most important and "5" being less important to you.

- |                             |                         |                                 |
|-----------------------------|-------------------------|---------------------------------|
| _____ Restrooms             | _____ Telephones        | _____ Trees & Shrubs            |
| _____ Picnic Tables         | _____ Benches/Fountains | _____ Directional Signs         |
| _____ Trash Cans            | _____ Historic Markers  | _____ Plant /Animal Information |
| _____ Accessibility/Parking | _____ Lighting          | _____ Mile Markers for Joggers  |
| _____ Exercise Stations     | _____ Fishing           | _____ Allegheny River           |
| _____ Other: _____          |                         |                                 |

6. If trails were interconnected within the community and regionally, would you use them more often?

- ☐ Yes ☐ No

If yes, would you have a tendency to travel further and use a variety of trails?

- ☐ Yes ☐ No

# O'HARA TOWNSHIP TRAIL FEASIBILITY SURVEY

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7. What safety or security issues do you have?

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8. What other ideas or concerns do you have regarding a proposed trail system in O'Hara Township?

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## PART 3 - Support (Optional)

If adopted, the creation of a "Friends of Parks" group for O'Hara Township would provide a recognized pool of volunteers devoted to helping with programs and maintenance. Volunteers could range from children to senior citizens, who would perform such services as conducting nature hikes, landscaping, planting native plants, ecological restoration, and maintenance. Programs are intended to supplement, but not supercede existing caretaker programs. Similar programs have been highly successful in other municipalities, and provide excellent opportunities for communities to take ownership of trails. In addition, these services can often be used as "in-kind" services to serve as local matches to meet the grant funding requirements.

### "Friends of the Parks" Benefits:

- ◆ Stimulates a large and diverse volunteer network.
- ◆ Creates goodwill and community ownership.
- ◆ Provides focus on local initiative to support trail development.
- ◆ Provides local in-kind matches for state and federal grants.



# O'HARA TOWNSHIP TRAIL FEASIBILITY SURVEY

Page 5 of 5

If developed, trail systems require continual maintenance and improvements (e.g., water, restrooms, parking, lighting, etc.). Therefore, potential private support is a factor in determining trail feasibility.

1. Check any of the following financing methods you would support to maintain a trail system.

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Federal Grants        | <input type="checkbox"/> State Grants        | <input type="checkbox"/> Local Taxes       |
| <input type="checkbox"/> Private Contributions | <input type="checkbox"/> Fund-raising Drives | <input type="checkbox"/> User Fees         |
| <input type="checkbox"/> Other: _____          |  | <input type="checkbox"/> None of the Above |

2. In what ways are you willing to advance the cause of trail development? (Check all that apply.)

- |  |                                      |  |
|--|--------------------------------------|--|
| <input type="checkbox"/> Volunteer on a trail work party | <input type="checkbox"/> Join a club | <input type="checkbox"/> Make a donation |
| <input type="checkbox"/> Prepare newsletters             | <input type="checkbox"/> Maintenance | <input type="checkbox"/> Litter Patrol   |
| <input type="checkbox"/> Other: _____                    |                                      |  |

3. If you would be interested in volunteering for the "Friends of Parks" Program, please give your name, address, and phone number; and check all of the activities in which you would like to participate.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

E-Mail: \_\_\_\_\_

- |                                       |  |   |   |
|---------------------------------------|--|---|---|
| <input type="checkbox"/> Planting     | <input type="checkbox"/> Brush Removal     | <input type="checkbox"/> Painting               | <input type="checkbox"/> Trail Clean-Up |
| <input type="checkbox"/> Construction | <input type="checkbox"/> Trail Design Work | <input type="checkbox"/> Trail Safety Volunteer |   |
| <input type="checkbox"/> Other: _____ |  |   |   |

Thank you. Please write us if you have additional or more detailed planning opinions.

Please Return To:

**Parks & Recreation Commission  
Township of O'Hara  
325 Fox Chapel Road  
Pittsburgh, PA 15238**

**PLEASE RETURN BY MAY 31, 2004**

A self-addressed, stamped envelope is included for your convenience  
or file your survey on-line. Go to O'Hara Township's web page at: <http://www.ohara.pa.us/>.  
Click onto "Links" and look for "Trail Survey."

Your web # is: \_\_\_\_\_

# **APPENDIX B**

## **Implementation Strategy**

PROJECT IMPLEMENTATIONS

The following table describes the phased approach needed to implement each of the nine trail projects and the potential benefits to the overall O'Hara Township Trail System.  
\*Budget Year is the year the capital or roadway improvements are provided in the Parks and Recreation Budget (see Table 11).

SHORT RANGE TIME FRAME (UP TO THREE YEARS)					
Alignment	Budget Year*	Task Type	Description	Benefit(s) to O'Hara Trail System	
Riverfront Trail - Phase 1	2005	Construction	Construct a trail from Squaw Valley Park to Chapel Harbor with spurs north along the river toward the Fox Chapel Yaught Club and from Chapel Harbor into the Waterworks Mall.	Alignment would provide a link from the most popular township park to riverfront access at Chapel Harbor. Chapel Harbor residents would be connected to the Waterworks Mall by a walking trail.	
Bicycle Lane Corridors (excluding RIDC)	2006	Construction/Designation	Use line striping and signage to designate a bike lane along Field Club Road (at O'Hara/Fox Chapel line) to Timberlane Road to Cabin Lane to Powers Run Road to Boyd Community Center.	Alignment would provide a bicycle lane connecting Fox Chapel High School, O'Hara Elementary, Boyd Community Center, and its surrounding eastern O'Hara neighborhoods.	
Bicycle Lane Corridors (RIDC)	2007	Construction/Designation	Use line striping and signage to designate a bike lane forming a loop around RIDC park.	Alignment would provide a bike loop for recreational bicyclists.	
Community Connections - Western O'Hara	2006-2007	Land Preservation	Officially designate existing Silvan Trail along Sitz Run with signage; acquire available land and/or easements along Saxonburg Blvd., at Camp Guyasuta spur, etc., and as available.	Not all of this alignment would presently use public right-of-way. In preparation for constructing the entire alignment, land acquisitions and easement agreements would be necessary.	
Community Connections - Western O'Hara	2006-2007	Construction	Construct Community Connections.	Alignments would link western O'Hara (and Aspinwall) recreation parks and facilities, Kerr Elementary, Camp Guyasuta, and western residential neighborhoods with a trail network.	
Community Connections - Eastern O'Hara	2008	Land Preservation	Obtain a public easement and officially designate the paved surface connection between RIDC park and Montrose Hill as part of the O'Hara Township Trail System. Preserve the undeveloped "strip" of Timberlane Road. Discuss connection trails with RIDC businesses; obtain easements.	Would provide a designated connection between RIDC and Montrose Hill as well as preserving the existing township greenway along Timberlane Road.	
Community Connections - Eastern O'Hara	2008	Construction	Construct Community Connections.	Alignments would link eastern O'Hara: RIDC, Fox Chapel High School, O'Hara Elementary, Boyd Community Center and residential neighborhoods with a network of trails and developed greenways connected through neighborhoods by residential streets.	

SHORT RANGE TIME FRAME - CONTINUED (UP TO THREE YEARS)				
Alignment		Task Type	Description	Benefit(s) to O'Hara Trail System
Squaw Valley Park to Beechwood Farms	Outside Township of O'Hara	Coordination	Preliminarily discuss the alignment with Fox Chapel Borough. If coordination is successful, begin easement and property acquisition along required right-of-way.	Most of the alignment is in Fox Chapel Borough. Coordination with Fox Chapel is vital to the success of the alignment.
MID RANGE TIME FRAME (FOUR TO SEVEN YEARS)				
Alignment		Task Type	Description	Benefit(s) to O'Hara Trail System
Shared Roadway Corridors	2008-2012	Construction	Using signage and where necessary line striping, designate shared roadway corridors throughout the study area.	Shared roadway corridors will provide advanced bikers information such as recommended shared roadway and directions to regional recreation facilities.
RIDC Park	2009 (Partial Township of O'Hara funding)	Construction	Work with RIDC businesses to build a paved or unpaved walkway system along the streets of RIDC. Potential amenities could include exercise stations.	Alignment would provide walking loop for RIDC employees as well as O'Hara residents. Exercise stations would provide an outdoor fitness opportunity.
Water Trail	2010	Land Preservation	Coordinate with Chapel Harbor to provide a public dock for non-motorized watercraft. Monitor/assist with Sharpsburg/PA Fish and Boat Commission boat dock project at 13th Street. Designate public docking on Six Mile Island.	Current ongoing waterfront projects provide opportunities through coordination to begin to preserve land and to construct docks for a water trail system.
Water Trail	2010	Construction	Construct docks at Chapel Harbor, Sharpsburg public river access, and on Six Mile Island. Work with Fox Chapel Water Authority and Bell Harbor to acquire public access and docking along River Road. Coordinate with Blawnox and private entities to obtain public access to Sycamore Is.	Docks for non-motorized watercraft along the riverfront will provide a water trail that will link up with downstream water trails, which currently end on the Allegheny River at the Millvale waterfront.
Bicycle Lane Corridors	2006-2007	Expansion	As Township roadways are widened, where possible, widen the shoulder and extend the existing bicycle lane corridors. Extend bicycle lane corridors into adjoining municipalities, especially along Field Club Road.	Longer bicycle lane routes would become available. Eventually a lane loop or series of lane loops could be completed in the study area.
Scenic Overlooks	2011	Construction	Determine the ownership status of High Street and acquire as necessary. Construct a walkway and viewing platform along High Street and at Meadow Park.	Overlooks will allow the trail user to view the aesthetic beauty of the Allegheny River Valley.
Riverfront Trail - Phase 2	Outside Township of O'Hara	Construction	Construct Phase 2 of the riverfront trail from Chapel Harbor and the Waterworks Mall to public river access at 13th Street in Sharpsburg.	Alignment would provide a connection from O'Hara's most popular park and riverfront area to public river access at Sharpsburg.
Squaw Valley Park to Beechwood Farms	Outside Township of O'Hara	Construction	Construct trails segments to link the existing trails of the alignment.	Completed alignment provides a walking trail from Squaw Valley Park to Beechwood Farms through a biodiverse greenway corridor.



LONG RANGE TIME FRAME (BEYOND SEVEN YEARS)				
Alignment		Task Type	Description	Benefit(s) to O'Hara Trail System
Bicycle Lane Corridors	2006-2007	Expansion	Continue to extend bicycle lanes where possible.	A bicycle lane "tour" of O'Hara Township and the study area could be created.
Shared Roadway Corridors	2008-2012	Refinement/Designation	As the roadway system changes in the study area, coordinate with local bike groups, the general public, etc. to adjust the corridors as necessary.	Eventually, a shared roadway bike "tour" through the study area can be established.
Riverfront Trail - Phase 3	Outside Township of O'Hara	Construction	Construct Phase 3 of the riverfront trail from the Chapel Harbor riverfront through Blawnox and along River and Freeport Roads in O'Hara to the Hulton Bridge in Harmar Township. Construct Phase 3 of the riverfront trail from 13th Street in Sharpsburg through Elna and Shaler to the Millvale Riverfront Park.	Alignment would connect the O'Hara riverfront to the riverfront trail system of Pittsburgh. The riverfront trail system will eventually provide a connection from Pittsburgh to Washington, DC along public right-of-way. The alignment would also provide recreation along the riverfront as well as facilitating a transportation corridor for commuters going downtown or north to Harmar and Oakmont.

# **APPENDIX C**

## **Project Cost Estimates**

COMMUNITY CONNECTIONS - WESTERN O'HARA

										6-Foot Wide Surface				8-Foot Wide Surface					
	Approximate Trail Length (Feet)	Clearing and Grubbing	Excavation Depth (Inches)	Excavation - 8' Surface Width	Excavation - 6' Surface Width	8' Surface (Subbase and Crushed Limestone)	6' Surface (Subbase and Crushed Limestone)	Ammenities	Signage	Other	Subtotal	Design Cost (15%)	Contingency (20%)	Total	Subtotal	Design Cost (15%)	Contingency (20%)	Total	
Camp Guyasuta	2,000	\$400	12	889 CY \$8,889	741 CY \$7,407	\$7,111	\$5,926	Fence (1000') Benches (2)	\$6,000 \$1,000	2 Signs \$900	-	\$21,633	\$3,245	\$4,976	\$29,854	\$24,300	\$3,645	\$5,589	\$33,534
Kerr Elementary to Kernwood Road	400	\$100	12	178 CY \$1,778	148 CY \$1,481	\$1,422	\$1,185	Fence (800')	\$4,800	1 Sign	-	\$8,017	\$1,203	\$1,844	\$11,063	\$8,550	\$1,283	\$1,967	\$11,799
Silvan Trail (Existing)	2,200	\$0	6	489 CY \$4,889	407 CY \$4,074	\$3,911	\$3,259	Fence (300')	\$1,800	1 Sign	-	\$9,583	\$1,438	\$2,204	\$13,225	\$11,050	\$1,658	\$2,542	\$15,249
Silvan Trail (Completion)	2,200	\$500	12	978 CY \$9,778	815 CY \$8,148	\$7,822	\$6,519	Fence (700') Bench (1)	\$4,200 \$500	1 Sign \$450	-	\$20,317	\$3,048	\$4,673	\$28,037	\$23,250	\$3,488	\$5,348	\$32,085
Silvan Trail (Extension)	3,400	\$700	12	1511 CY \$15,111	1259 CY \$12,593	\$12,089	\$10,074	Fence (850') Benches (2)	\$5,100 \$1,000	2 Signs \$900	-	\$30,367	\$4,555	\$6,984	\$41,906	\$34,900	\$5,235	\$8,027	\$48,162
Woodland Park	2,200	\$500	12	978 CY \$9,778	815 CY \$8,148	\$7,822	\$6,519	Fence (1000') Benches (2)	\$6,000 \$1,000	2 Signs \$900	-	\$23,067	\$3,460	\$5,305	\$31,832	\$26,000	\$3,900	\$5,980	\$35,880
O'Hara/Davonshire Trails	9,300	\$2,500	12	4133 CY \$41,333	3444 CY \$34,444	\$33,067	\$27,556	Fence (4000') Benches (4)	\$24,000 \$2,000	4 Signs \$1,800	Parking Lot (1) \$15,000	\$107,300	\$16,095	\$24,679	\$148,074	\$119,700	\$17,955	\$27,531	\$165,186
TOTAL LENGTH: 21,700 (4.1 Mi.)										TOTALS:		6-Foot Wide Surface			\$303,991	8-Foot Wide Surface			\$341,895



## RIDC PARK

[illegible]

\*Assumed a conservative estimate of \$45/SY for paving, it may possible to obtain a lower cost based on the project size (down to \$20/SY)

RIVERFRONT TRAIL (PHASE I)

Total Cost												
	Approximate Trail Length (Feet)	Clearing and Grubbing*	Excavation Depth (Inches)	Excavation - Surface Width	Trail Surface Cost	Ammenities	Signage	Other	Subtotal	Design Cost (15%)*	Contingency (20%)*	Total
Chapel Harbor (does not include private construction costs)	N/A	\$0	12	-- CY	--		--	2 Signs	--			
Chapel Harbor - Private Costs	N/A	N/A	---	-- CY	--		--	--				
Squaw Valley Park Connection (assume 8 foot trail width)	2,500	\$1,900	12	1111 CY	\$8,750	Fence (2500)	\$12,000	4 Signs	Private Cost of Chapel Harbor Trails: \$375,000	--	--	\$375,000
Mews II Development to Chapel Harbor (along existing roadway)	1,400	\$1,000	0	625 CY	\$4,900	Benches (2)	\$1,000	\$1,800	Structure (800)**	\$136,561	\$27,484	--
				\$6,250			\$0	4 Signs				
Existing Tunnel from Chapel Harbor to Waterworks Mall	500	\$2,000	12	222 CY	\$1,750	Fence (700)	\$4,200	4 Signs	Gate/High Fence and Retaining Wall Replacement	\$16,950	\$2,543	--
				\$2,222		Bench (1)	\$500	\$1,800				
TOTAL LENGTH:	4,400 (0.8 Mi.)								TOTALS:	Riverfront Trail - Phase 1 Total Cost		\$775,031

\*Includes existing guide rail removal for Squaw Valley Park Connection.  
\*\*Includes new guide rail or other traffic/pedestrian protection device.  
\*\*\*Additional costs have been added to the Squaw Valley Park Connection design for streambank stabilization design considerations.  
\*\*\*\*Contingency has not been added to the total cost, conservative estimates have been made for the Squaw Run structure and existing tunnel retaining wall costs.

## BICYCLE LANE CORRIDOR

BICYCLE LANE CORRIDOR												
	Approximate Trail Length (Feet)	Clearing and Grubbing	Excavation Depth (Inches)	Excavation - Surface Width	Surface	Ammenities	Signage	Other	Subtotal	Design Cost (15%)	Contingency (20%)	Total
Field Club Road, Cabin Lane, Power Run Road	5,200	\$0	0	-- CY	-		6 Signs	Line Striping and Paint	\$11,500	\$1,725	\$2,645	\$15,870
				--								
RIDC Park	10,200	\$0	0	-- CY	-		8 Signs	Line Striping and Paint	\$20,400	\$3,060	\$4,692	\$28,152
				--								
TOTAL LENGTH:		15,400 (2.9 MI.)										
TOTALS:		BICYCLE LANE CORRIDOR \$44,022										



SQUAW VALLEY PARK TO BEECHWOOD FARMS

6-Foot Wide Surface													
	Approximate Trail Length (Feet)	Clearing and Grubbing	Excavation Depth (Inches)	Excavation - 6' Surface Width	6' Surface (Subbase and Crushed Limestone)	Ammenities	Signage	Other	Subtotal	Design Cost (15%)	Contingency (20%)	Total	
Squaw Valley Park to Salamander Trail	2,500	\$200	12	926 CY	\$7,407	Fence (300')	\$1,800	2 Signs	--	\$20,567	\$3,085	\$4,730	\$28,382
				\$9,259		Benches (2)	\$1,000	\$900					
Salamander Trail to Trillium Trail	5,300	\$2,000	12	1963 CY	\$15,704	Fence (3000')	\$18,000	2 Signs	\$45,000	\$102,233	\$15,335	\$23,514	\$141,082
				\$19,630		Benches (2)	\$1,000	\$900					
Trillium Trail to The Trillium (Residential Development)	1,500	\$2,000	12	556 CY	\$4,444	Fence (1000')	\$6,000	2 Signs	--	\$18,900	\$2,835	\$4,347	\$26,082
				\$5,556			\$0	\$900					
The Trillium to Old Squaw Trail	4,000	\$3,500	12	1481 CY	\$11,852	Fence (1000')	\$6,000	2 Signs	--	\$37,567	\$5,635	\$8,640	\$51,842
				\$14,815		Bench (1)	\$500	\$900					
Old Squaw Trail to Beechwood Farms	1,000	\$200	12	370 CY	\$2,963	Fence (400')	\$2,400	2 Signs	--	\$10,667	\$1,600	\$2,453	\$14,720
				\$3,704		Benches (1)	\$500	\$900					
Allotment for upgrades to Existing Trail	--	--	--	-- CY	--	--	--	10 Signs	Trail Upgrades	\$49,500	\$7,425	\$11,385	\$68,310
				--		--	--	\$4,500					
TOTAL LENGTH: (New)		14,300 (2.7 Mi.)							TOTALS:		6-Foot Wide Surface		\$330,418

WATER TRAIL

WATER TRAIL															
		Clearing and Grubbing	Excavation Depth (Inches)	Excavation	Surface - Concrete Dock, Aggregate Parking Lot		Ammenities		Signage	Other	Subtotal	Design Cost (15%)	Contingency (20%)	Total	
Boat Dock Cost - Each*		\$3,000	12	130 CY \$1,300	\$9,100	Canoe Rack	\$5,000	4 Signs							
					Other		\$10,000	\$1,800			\$30,200	\$4,530	\$6,946	\$41,676	
Parking Lot (Assume 50' x 100')		\$2,000	12	187 CY \$1,867	\$7,467		--	2 Signs							
							--	\$900			\$12,233	\$1,835	\$2,814	\$16,882	
												Total Docks		3	
												Total Parking		1	
TOTALS:												WATER TRAIL DOCK COSTS			\$141,910

\*O'Hara boat docks: Chapel Harbor, Six Mile Island, and River Road. Docks outside O'Hara Township will be built under separate projects.  
Assume a dock 50' x 50' and an access ramp of 5' x 200'.

SCENIC OVERLOOKS

6-Foot Wide Surface															
		Approximate Trail Length (Feet)	Clearing and Grubbing	Excavation Depth (Inches)	Excavation - 6' Surface Width	6' Surface (Subbase and Crushed Limestone)	Ammenities	Signage	Other						
Meadow Park	500	\$7,500	12	185 CY	\$1,481		Fence (2000')	\$12,000	2 Signs	--		\$24,733	\$3,710	\$5,689	\$34,132
				\$1,852			Benches (2)	\$1,000	\$900						
High Street	2,000	\$10,000	12	741 CY	\$5,926		Fence (3000')	\$18,000	2 Signs	Foot Bridges (2)		\$73,233	\$10,985	\$16,844	\$101,062
				\$7,407			Benches (2)	\$1,000	\$900						
TOTAL LENGTH: (New)		2,500 (0.5 Mi.)													

## SHARED ROADWAY CORRIDORS

				Shared Roadway Corridor		
	Line Striping - Only use where necessary	Signage	Other	Subtotal	Contingency (20%)	Total
Saxonburg Boulevard	(4.0 Mi.)	8 Signs	-			
	\$16,000	\$3,600		\$19,600	\$3,920	\$23,520
Dorseyville Road	(5.1 Mi.)	8 Signs	-			
	\$20,400	\$3,600		\$24,000	\$4,800	\$28,800
Squaw Run Road/Squaw Run Road East/Old Mill Road	(6.8 Mi.)	10 Signs	-			
	\$27,200	\$4,500		\$31,700	\$6,340	\$38,040
Powers Run Road	(4.0 Mi.)	8 Signs	-			
	\$16,000	\$3,600		\$19,600	\$3,920	\$23,520
Guys Run Road	(2.8 Mi.)	8 Signs	-			
	\$11,200	\$3,600		\$14,800	\$2,960	\$17,760
TOTAL LENGTH: (New)	(2.7 Mi.)		TOTALS:	Shared Roadway Corridors		\$131,640

## SHARED ROADWAY CORRIDORS

				Shared Roadway Corridor		
	Line Striping - Only use where necessary	Signage	Other	Subtotal	Contingency (20%)	Total
Saxonburg Boulevard	(4.0 Mi.)	8 Signs	-			
	\$16,000	\$3,600		\$19,600	\$3,920	\$23,520
Dorseyville Road	(5.1 Mi.)	8 Signs	-			
	\$20,400	\$3,600		\$24,000	\$4,800	\$28,800
Squaw Run Road/Squaw Run Road East/Old Mill Road	(6.8 Mi.)	10 Signs	-			
	\$27,200	\$4,500		\$31,700	\$6,340	\$38,040
Powers Run Road	(4.0 Mi.)	8 Signs	-			
	\$16,000	\$3,600		\$19,600	\$3,920	\$23,520
Guys Run Road	(2.8 Mi.)	8 Signs	-			
	\$11,200	\$3,600		\$14,800	\$2,960	\$17,760
TOTAL LENGTH: (New)	(2.7 Mi.)		TOTALS:	Shared Roadway Corridors		\$131,640



