

I. Project Area Characteristics

I-a. Location (Map I-a)

Nine Mile Run (NRM) is an urban stream that can be found on the USGS Pittsburgh East Quadrangle map of Allegheny County (7.5 minute series, topographic). It can be easily found by looking for the third bend of the Monongahela River, measured from Point State Park, directly across from Homestead. The watershed includes the areas north of the mouth, through a section of Squirrel Hill, into Homewood, then east to Wilksburg, then south to Edgewood and Swissvale.

Referencing the 1,000 meter grid:

Longitude, 591,000 meters east - 596,000 meters east

Latitude, 4,474,000 meters north - 4,479,000 meters north

I-b. Size

The entire length of the stream is under 1.8 miles from where it first emerges from culvert near Braddock Avenue in Frick Park to its mouth at the Monongahela. The watershed is roughly 6.5 square miles.

I-c. Topography

The topography consists of low hills and river valleys. Much of the **watershed** is primarily hard surface, typical of an urban watershed. In the upper section, there is a 476-acre park of primarily wooded uplands with some river valley bottom and remnant wetland areas. The lower section of NMR is dominated by an industrial dump site (or brownfield) where slag, a by-product of the steel industry, was dumped continuously over a 50-year period. The broad floodplain that once existed is irretrievably buried in piles of slag up to 20 stories high. This creates a canyon-like environment with some residual **riparian growth**.

I-d. Major Tributaries (Map I-d)

The NMR watershed is characterized by two river valleys that drain spring-fed first order creeks, themselves feeding into second order tributaries, to the main body of the stream, which is of the third order. The larger of the two second order tributaries has been culverted. It winds through three municipalities to emerge in open channel in Frick Park before meeting the other major tributary. The other second order tributary is a 400-acre remnant of the original watershed in Frick Park. This second order stream is known as Fern Hollow Creek which is in turn fed by spring-fed creeks. Fern Hollow Creek and its first order tributaries are fairly clean.

I-e. Corridor

To adequately describe NMR, we need to consider the upper and lower reaches. The upper reach emerges from a **culvert** and travels downstream in a westerly direction. The northern banks transition from minimal park land to significant stretches of park land. The southern banks border a thin stretch of park land transitioning into the Parkway East (I-376) and beyond that, the community of Swissvale. The lower

Community Input

John Seibal mentioned that he is attracted to the site by the fact that it is one of the last remaining examples of a valley flowing down to the river.

Peggy Charny suggested we need to look at the slag pile in a more positive way. Assuming it is safe, the slag pile can be used as an education resource. There is already some new vegetative growth near the Parkway and the site can be used for people to gain an appreciation of successional growth. The slag is evolving if you pay close attention.

watershed: a region or area bounded peripherally by a water parting that drains to a particular body of water

riparian growth: plants living or located on a natural watercourse

culvert: a concrete pipe that encloses a portion of or an entire stream or creek

reach passes under Commercial Avenue just below the Irish Centre of Pittsburgh. It travels in a southwest direction to empty into the Monongahela. The lower reach is defined by a brownfield/slag dump and the community of Squirrel Hill to the northwest and the community of Swisshelm Park to the southeast.

Immediately across the Monongahela River from the mouth of NMR is a large, vacant brownfield site and the main streets of downtown Homestead.

I-f. Social Economic Profile

I-f1. Population Centers

Of the seven square miles in the watershed, approximately 35% is undeveloped land. This undeveloped area is generally steep slopes or extensive green areas, including Frick Park and Homewood Cemetery. The balance of the watershed is primarily residential, with some commercial and industrial uses. Because of the small scale of the watershed, it is all in the proximate area of the Nine Mile Run stream and the Monongahela River.

The population of the City of Pittsburgh has been in decline since the collapse of the steel industry in the 1970's, moving from a high of 700,000 in 1950 to 370,000 today. The region also has a large elderly population and a small outmigrating young population. The population numbers for the communities of the watershed are:

Community	Population
Edgewood	3,589
Swissvale	10,637
Wilkinsburg	21,080
Regent Square	1,108
Swisshelm Park	1,522
Squirrel Hill/South	4,573
Point Breeze	3,467
Homewood/South	2,097
total	48,067

Table I-f1

See also:

Map 1-f1a for Population per square mile

Map 1-f1b for Median Household Income

Map 1-f1c for Unemployment Rate

I-f2. Regional and Local Vehicular Access

NMR is strategically positioned with respect to regional transportation systems. It is generally accessible by air, road, water and rail (**Map I-f2**). As a potential greenway system, however, several transportation modes will become important as the primary means of connecting people with

the study site: by car, by bus, by foot, and by bicycle. There is also a possibility that access by boat may someday become feasible.

Access for motorized vehicles to Nine Mile Run can be considered at both the regional and local levels. At the regional scale, the four-lane Parkway East (I-376) provides a high-capacity means of accessing the general study area. Since it passes over the heart of the valley, I-376 provides no direct access. Instead, one must negotiate the flanking neighborhoods of Squirrel Hill, Swissvale, or Edgewood. The Squirrel Hill approach is easily accessed from Interchange 8 and through the Monitor-Beechwood-Commercial arterial street combination.

The Swissvale approach from I-376 to the primary Commercial Street through-route is less convenient. From Interchange 9, the most direct link to Commercial Street is via Whipple Street, a narrow local residential street that was not designed to accommodate through traffic. Interchange 9, however, provides very direct access to the upper end of the greenway via Braddock Avenue in the southwest Edgewood area. From Braddock Avenue, a spur lane below what is recognized colloquially as the "Foodland" parking lot, culminates at the main culverted outlet of NMR. This small side street accesses the uppermost reach of the study area and should be further investigated for its potential as a trailhead parking area.

Access from Pittsburgh's Southside can be gained via the Homestead High Level Bridge and Brown's Hill Road. From this direction, the lower portion of the site can be accessed via Old Brown's Hill Road, while accessing the central and upper portions of the site would require taking the Beechwood-Commercial Drive route noted previously.

Two roads lead directly into the core of NMR: Old Brown's Hill Road and the Forward Avenue-Commercial Street combination. Both are steep, winding, two-lane asphalt drives with minimal shoulders and gravel verges. The former is lightly traveled, while Forward Avenue is a busy (5,400 vehicles per day) thoroughway that links neighborhoods on either side of the valley and functions as an unofficial bypass of the Squirrel Hill Tunnel during rush hours. Old Brown's Hill Road culminates in a small (40-50 space) parking lot overlooking the Monongahela River. A short laneway (McFarren Street) doubles back over a narrow bridge spanning NMR to access the 18-residence hamlet of Duck Hollow.

In overall terms, NMR is highly accessible to both regional and locally-based vehicular traffic. The most accessible and least disruptive route for regional visitors coming from I-376 is via the Beechwood Exit (Interchange 8) while a quick, but rather intrusive, route (Interchange 9) is available to visitors originating from the east along I-376. Access to the valley proper is available through either of the two main gateways mentioned above. The Forward Avenue-Commercial Street descent is of primary concern due to its steep grade and winding alignment.

I-f2a. Public Transit

Access to NMR via the PAT (Port Authority of Allegheny County) service is dispersed along the periphery of the site. Along the north border of

The current development plan calls for a roadway entrance from the Phase III development onto Commercial Street near the location of the CMU trailer. This location is dangerous as it is near a blind bend in Commercial Street and will not allow a motorist a proper and safe sight line, nor will it provide for a free traffic flow during rush hour conditions.

"The entranceway should be more toward Nine Mile Run...a center, left-turn-only lane for westbound traffic on Commercial Street should be part of the Phase III entranceway construction to facilitate entrance onto the Phase III development without causing traffic to back up on Commercial Street."

Position of the Residents of Swisshelm Park on the Current Proposed Development of the NMR Valley

Citizens at an early workshop discussed how to access the greenway, some of the issues raised:

- Commercial Street is dangerous.
- Traffic near the trailer is dangerous.
- Crossing the road is hazardous.

The citizens discussed options that might make the Commercial Street crossing safer including:

- wildlife underpass,
- pedestrian activated signal,
- traffic calming,
- pedestrian overpass.

trailhead: the point where a trail begins

the study site in Squirrel Hill, the 64A Highland Park bus route runs along Brown's Hill Road and the 74A route runs along Beechwood Boulevard. Numerous stops give ample opportunity to those seeking to access the valley's brow from the Squirrel Hill side, although trailheads are currently informal and rather infrequent (see Pedestrian Access below). Access to the mouth of the creek via bus transit would currently entail disembarking at the stop at the intersection of Brown's Hill Road and Old Brown's Hill Road and walking a distance of more than 2,300 feet along Old Brown's Hill Road.

Bus lines 61A and 61B also serve the neighborhoods of Swissvale and Edgewood along the east side of the valley. In particular, bus stops along Braddock Avenue near the Braddock Street trailhead (historically called the Swisshelm Entrance) provide a potentially important public transit service to the upper limits of the greenway.

I-f2b. Pedestrian Access and Trailheads (Map I-f2b)

NMR is flanked to the east and west by pedestrian-friendly neighborhoods. A network of sidewalks, curb cuts, and traffic control devices generally provide a barrier-free environment for walkers and those with walking disabilities. Many side streets (with and without sidewalks) follow the valley's brow or extend laterally to cul-de-sacs at the edge of the site. Each of the three major neighborhoods encircling NMR have a number of existing and potential trailheads. Only several provide formal accommodations.

The primary means of pedestrian entry into NMR from the perimeter neighborhoods is via a series of informal (no signage, surfaced trails, or parking) trailheads. For the most part, these entry points do not possess the necessary space, positioning, or ownership status to serve as public portals into the valley. A few exceptions include:

- the Frick Park parklet at the west side of Frick Park;
- the Frick Environmental Center, which serves as a major trailhead to the Falls Ravine Trail and Tranquil Trail, both of which merge with Braddock Trail which descends further down the valley;
- the Hutchinson Entrance (an asphalt lane) at the southeast side of Frick Park, extending to the Braddock Trail and recreational facilities of Fern Hollow in the valley below (includes a large parking lot);
- a small public green space at the intersection of Sanders and Richmond Streets at the southeast side of Frick Park from which a dirt path links with the marked Braddock Trail; and
- possibly one or several of the cul-de-sacs located in the extreme westerly sector of Swisshelm Park. In collaboration with local residents, the termini of Goodman, Love, Uptegraff, and Onandago Streets should be investigated in more detail for their capability to accommodate mini-trailhead facilities: 3-5 car parking, signage, bicycle stands, and formalized trail leads into the valley. (Note: No similar opportunities to upgrade cul-de-sacs exist on the Squirrel Hill side of the valley.)

Within the valley itself there are four functional trailheads. Listed from upper to lower valley, these include:

- a small (3-4 car) gravel pull-off along Forward Avenue at the head of Fire Lane Trail (little more than a widened shoulder);
- the 20-25 car private gravel parking lot serving the Irish Centre and located along Forward Avenue almost immediately beneath the I-376 overpass;
- the clearing associated with the present Carnegie Mellon University trailer, accessible from Commercial Street; current graveled area can accommodate 5-8 cars; and
- the 40-50 car parking lot (gravel and asphalt) at the base of Old Brown's Hill Road along Second Street (an unimproved public right-of-way aligned between the Monongahela River and the CSX railway).

A network of trails and pathways can be found within the valley-and-terrace topography which characterizes NMR. From the I-376 overpass south, the primary means of negotiating the valley is a 3 m wide graveled track known as "the jeep trail." Its main easterly alignment stretches some 1,700 m (5,600 ft) culminating at Old Brown's Hill Road. Along the way, it passes through a variety of environments, crossing the stream via a small timber bridge of questionable stability at approximately the

half-way point. Just west of the bridge it forks, allowing walkers and bikers the opportunity to ascend a 1,030 m (3,400 ft) **switchback route** that traverses the slag pile on its way to the top of the plateau near the Squirrel Hill Tunnel entrance. The slag terraces themselves are almost completely open, permitting the walker (or biker, see below) to decide his own course. The jeep trail comprises a route over 2,730 m (1.7 mi) in length, accessing the main internal units of NMR below the overpass, and linking Frick Park with the lower end of the valley. Originally installed to service slag-dumping operations, it has over the years become adapted to new use patterns and now serves as the spine of movement through the valley.

From the Braddock Street culvert trailhead to the I-376 overpass, a series of trails link the community of Swissvale with Frick Park's NMR and Fern Hollow and the lower NMR site. Extending westerly from the Braddock Street culvert are two packed-earth trails on both sides of the stream. At times both trails meander precariously close to the steeply-eroded stream bank; slumped earth and poorly-maintained chain link fencing combine to create a hazardous situation which should be rectified. The trail along the south bank crosses the stream in an informal manner via the semi-buried Swissvale stormwater main which runs diagonally through the creek bed, culminating at the playing fields. Several dirt trails continue to parallel the stream's north bank, terminating at Forward Avenue. About 120 m up-gradient from these streamside trails is the Fire Lane Trail, a gravel-and-asphalt track linking the parking lots in Fern Hollow with the small Forward Avenue trailhead noted previously. When pedestrians confront Forward Avenue, they are met with a challenge: either cross the roadway or turn back. Considering Forward Avenue's hairpin corners and extreme slope, more than a few pedestrians decide against attempting a crossing.

A vast network of even more informal and uncharted paths exist

switchback route: a zigzag road in a hilly region

Community Input

“Nine Mile Run provides a feeder route from the upper watershed into an expanding network of trails that will provide safe, non-motorized routes to popular destinations as urban as downtown Pittsburgh and as rural as Ohiopyle! With increased bicycle traffic we will need to begin to plan management options. Imagine...too many bicyclists in Pittsburgh!”

John Stephen 1998

throughout the lower reach of NMR and the lower portion of Frick Park. Without the benefit of ongoing monitoring and on-site agency control, walkers and bikers have been largely free to travel where topography and vegetation have permitted. The creek itself is a favored route for “stream-stomping,” particularly during low (and no) flow periods when the various surficial textures of pebbles, silt, sand, cobbles, and concrete may best be appreciated. Because of its incised nature and generally thick riparian brush along its steep banks, the stream and parallel path systems are not well-linked, converging at only a few points along the entire valley.

I-f2c. Bicycle Access

A myriad of informal bicycle access points and trails exist along the edge of, as well as within, the NMR valley. In fact, one of the most popular and visible activities in the valley for the past several decades has been off-road trail biking. As discussed above for pedestrian access, most trailheads provide dual service in accommodating bicycle access. The only designated bicycle path near the study area is located along Beechwood Boulevard generally paralleling the westerly boundary of the valley. This asphalt road-based system is well-signed and well-utilized, although along some stretches cyclists are forced to maneuver between the traffic lanes and curb-side parking.

Within the valley proper, there are no formal on-site means to distinguish or separate pedestrians from cyclists. The overlapping, informal networks of old asphalt, graveled, and dirt paths internal to the valley and its terraces currently serve both pedestrian and bicycle movement without discrimination. There have been no (still to be confirmed with police) reports of collisions or conflicts between walkers and cyclists. In considering the potential integration of bicycling as a recreational pursuit and a sustainable means of transportation, one must acknowledge the tradition of relatively unfettered access NMR cyclists have enjoyed over the past several decades. To this significant and largely unorganized group, NMR represents both a challenge and a place of respite away from road traffic.

I-f2d. Boat Access (Map I-f2d)

There is currently no boating activity associated with NMR itself. Shallow low-flow conditions, flashy stormwater regimes, steep longitudinal drop, and a myriad of in-stream structures combine to frustrate any attempts at canoeing or rafting. Boating access to the stream’s convergence with the Monongahela River, however, is worth investigating. Fishing and recreational power boating are popular activities in this reach of the Monongahela, and smaller boats and canoes can be seen pulled up along shore. Tugs-and-barges transporting coal from West Virginia ply the Monongahela’s deeper channels, and a variety of larger recreational powercraft enjoy the river throughout the year. Some 10 km (6 miles) up-river are the docks of the Gateway Clipper Fleet. Water taxis serve portions of the Allegheny/Ohio pool.

Considering the extent of boating traffic in the Three Rivers area, there appears to be considerable potential for a “**blueway—greenway**”

greenway: a network of land designed and managed for multiple purposes including recreational, aesthetic, cultural, and ecological

blueway: a network of water designed in the same way and for the same purposes as a greenway

alluvial fan: loose material, such as sand, gravel or silt, that a stream deposits into a larger body of water over time

connection at the mouth of NMR. Currently, however, no formal docking facilities exist near the mouth. A 4 m high corrugated sheet-pile shorewall extends some 120 m down-river from the mouth. While it now serves to retain the gravel parking lot previously noted, it was historically associated with the queuing of barges to unload slag. The convergence of the sediment-laden flow of NMR with the comparatively placid waters of the Monongahela River has resulted in a significant **alluvial fan**. Extending some 20 to 30 m out from the stream's mouth, the deposits not only restrict any up-stream small boat movement, but also raise the specter of periodic dredging to accommodate any future small boat navigation in the immediate vicinity.