

Lower

Big Creek

Greenway Redevelopment & Restoration Plan



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Greenway Redevelopment & Restoration Plan

prepared by:



in association with:
schmidtpelandparkerstevens



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SHADY SPOT ALONG BIG CREEK

Introduction

The Old Brooklyn Community Development Corporation, the City of Cleveland, Cleveland Metroparks and the Ohio Canal Corridor partnered in 2007- 08 to develop a comprehensive master plan and land use strategy for the Lower Big Creek Valley Greenway. A variety of planning studies had been previously developed over a number of years, resulting in a wealth of knowledge about the Valley environment and leading to a variety of restoration, recreational and economic development concepts. The partners sought to consolidate this thinking into a single document that realistically envisioned the future of the Valley. The planning team of Floyd Browne Group in association with schmidtcopelandparkerstevens was engaged to assist the partners in this effort. The resulting ***Lower Big Creek Greenway Redevelopment and Restoration Plan*** builds on the previous efforts by blending the best concepts of each study with new ideas developed by the planning team to create a new vision for the Valley Greenway. The creation of this vision incorporates detailed future land use, public access, infrastructure, ecological restoration and environmental regeneration, open space and trail linkages and economic development concepts.

A driving force in the development of this vision for the Valley was to dispel the view of many in the surrounding neighborhoods that the Valley is a

place to avoid, with its concentration of industrial and transportation uses. With 135,989 residents living within a 2-mile radius (Source: Cuyahoga County Planning Commission, 2000 Census), the Lower Big Creek Valley is a vital element in the growth and economic strength of the surrounding City neighborhoods of Brooklyn Centre and Old Brooklyn.

At approximately the same time, four other planning initiatives are being conducted of the study area, including a Watershed Management Plan for Big Creek, a Master Plan for the neighborhoods, a planning study of the Pearl Road corridor and an Economic Feasibility Study that supported the other plans. Coordination with these other plans was an important component of the planning process for this study.

Valley Resources



Big Creek is the third largest tributary of the Cuyahoga River, with a watershed of 39 square miles in the Cities of Cleveland, Brooklyn, Linndale, Parma, Parma Heights, Brookpark and North Royalton. The Creek joins the Cuyahoga River in Cleveland at a point about 7.4 miles above the mouth of the River at Lake Erie. It is a highly urbanized stream with a narrow greenbelt and little of its original floodplain remaining intact. The lower reach of Big Creek from Ridge Road to its confluence with the Cuyahoga River at Harvard Avenue is channelized or culverted for most of its length and is subject to intense rainfall surcharges and periodic combined sewer overflow discharges during storm events. Its banks are poorly vegetated and occasionally armored with walls or rock. Water quality is poor and, combined with the storm surges, produce a weak ecology.

The valley floor is populated with a variety of heavy industry, a railroad corridor that includes CSX and Norfolk Southern lines, service roads, storage yards and parking area, in addition to Cleveland Metropark's Brookside Reservation and Zoo. Several parcels within the Valley are underutilized, featuring container storage, auto salvage and construction aggregates processing yards. These uses have crowded the stream edges, further deteriorating the quality of Big Creek.



Despite this bleak picture of the stream's natural state, the greenbelt associated with the stream is ideally situated within the neighborhoods of Old Brooklyn and Brooklyn Centre to provide much desired contact with nature for the residents and visitors to the neighborhoods. This greenbelt, although highly manipulated still retains a large forest canopy, substantial wetlands and potentially accessible routes to the neighborhoods, their commercial centers and the Ohio and Erie Canalway to the east along the Cuyahoga River.

Nearby the valley are the commercial districts of the two neighborhoods, connected by the Brooklyn Brighton Pearl Road bridge. The valley is accessible regionally through nearby interchanges with the Jennings Freeway and Interstate 71. The newly developed Steelyard Commons commercial

center is immediately north along Jennings Road.

The valley's prize is the Cleveland Metroparks Zoo within Brookside Reservation. The zoo attracts 1.5 million visitors each year from its entrance off Fulton Parkway and Pearl Road and includes a wide array of exhibits, both new and refurbished. Brookside Reservation originated as a Cleveland city park and still today serves the local population with ballfields, picnic and events area as well as trail connections from the valley to the neighborhoods. Also, adjacent to the Valley rim is the City's Calgary Park, a neighborhood park serving Brooklyn Centre.

Public Involvement



LOWER BIG CREEK PUBLIC MEETING



The Lower Big Creek Greenway Redevelopment and Restoration Plan was developed through an intense public involvement process that included regular meetings of an Advisory committee of community and neighborhood leaders, individual interviews of key stakeholders along the greenway and public involvement workshops where residents, business and property owners were encouraged to identify key attributes in the valley and to express their preferences about several options available. Stakeholder interviews were held in the fall of 2007 and public involvement workshops were held in the Fall of 2007 and the Spring of 2008. The workshops were widely advertised in the local media, where interested parties were invited to attend.

The first public workshop reviewed alternate routes and land uses that may be considered. The public was invited to comment at work stations about the various options, additional options that should be considered and important features or issues that should be addressed in the plan. A series of four stakeholder interviews were held to engage land owners in the valley, whose partnership are critical to the plan's success. These individual interviews gave participants the opportunity to speak freely about the potential impact of the plan on their own plans and goals.

The second public workshop presented the draft concepts that resulted from the meetings of the advisory committee, stakeholder interviews and the first public meeting. Again, the public was invited to comment at various work stations about the plan elements. Comments, although diverse, were overwhelmingly positive about the potential the plan has to address important community access, recreation, environmental recovery and economic growth issues.

Summaries of the meetings are included in Appendix D.

Trail Route Alternates





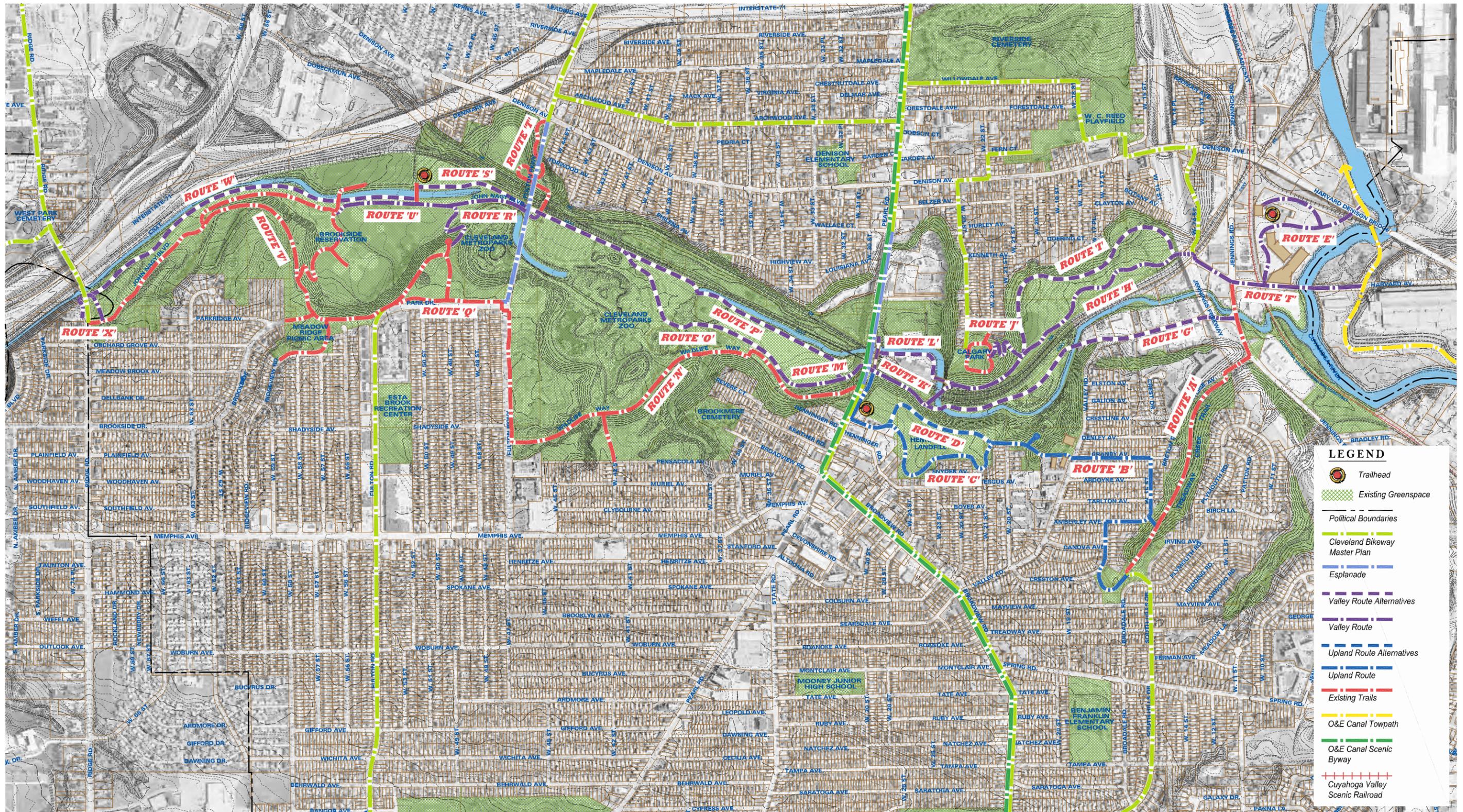
The accompanying Alternative Routes Map and Matrix outlines the numerous different options that were considered during plan development. Both Valley and Upland Routes were considered.

A number of objectives were considered when selecting the preferred trail routes. These are outlined in the matrix and the relative success that each alternative achieved in meeting the objectives. These included:

1. Providing a direct connection between the Zoo and the Ohio & Erie Canalway Towpath Trail.
2. Providing a practical solution for future tram service for Zoo visitors from the Harvard Avenue Rail Station of the Cuyahoga Valley Scenic Railway.
3. Providing accessible pedestrian connections for the resident population of Old Brooklyn and Brooklyn Centre neighborhoods.
4. Providing a catalyst for environmental regeneration/ecological restoration.
5. Providing access to expanded recreational options.
6. Providing continuous off-road/separate access.
7. Providing access to visitor services- restaurants and lodging.
8. Providing minimal risk for flooding.
9. Providing visual connection to water resources.
10. Not conflicting with federal regulations and mandates.
11. Providing cost-effective solutions.

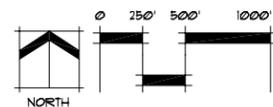
	A direct connection between Zoo and the O & E Towpath Trail	Providing for future tram service to & from the Zoo to the Harvard Ave. Rail Station (CVSR)	Accessible pedestrian connections for the resident population	A catalyst for environmental regeneration/ecological restoration	Access to expanded recreational options	Continuous off-road/separate access	Access to visitor services	Providing minimal risk for flooding	Visual connection to water resources	Not conflicting with federal regulations and mandates	Cost-effective solutions
Route A											
Route B											
Route C											
Route D											
Route E											
Route F											
Route G											
Route H											
Route I											
Route J											
Route K											
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Route X											

NOTE:
LIKE COLORS
DENOTE ROUTES
THAT WHERE
COMPARED
WITH ONE &
OTHER WHEN
SELECTING THE
PREFERRED
ROUTES



Lower Big Creek Greenway Redevelopment & Restoration Plan

Trail Route Alternates Considered



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Trail & Greenway Concept



The concept for the Lower Big Creek Greenway focuses on its important geographic position relative to the neighborhoods of Old Brooklyn and Brooklyn Centre. The valley, its flanking valley walls and nearby valley rim parcels, all provide the neighborhoods an opportunity to orient toward a restored and protected greenbelt that connects the neighborhoods with one the region's major recreational attraction, the Ohio and Erie Canalway. The *trails* that could potentially connect the neighborhoods with the Canalway, the *environmental regeneration* proposed that can heal and protect the greenway, making it once again a valued resource and the *land use* changes that can revitalize the neighborhood's economy are vital components of a new success strategy. The plan is explored in these three components in the following paragraphs.

Trail & Greenway Concept

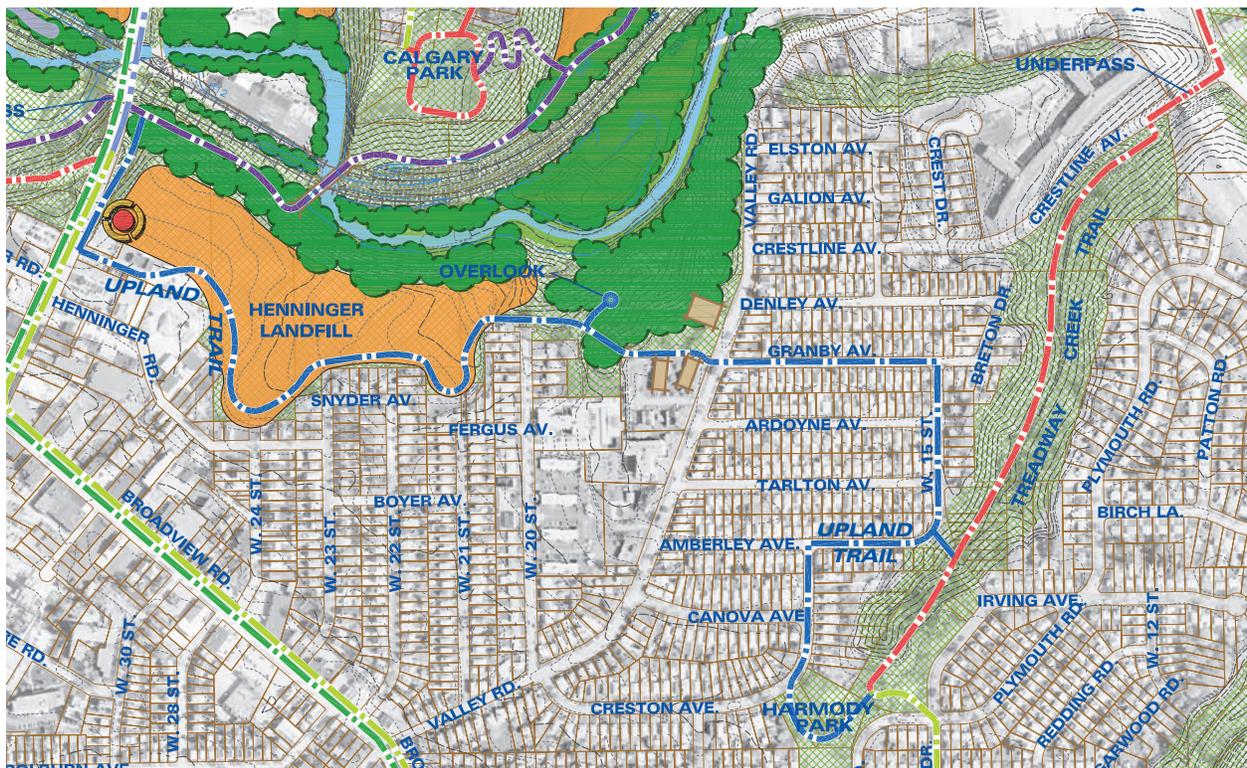
The plan includes both a Valley trail and an Upland trail, connecting the Canalway with the neighborhood and the Zoo. These two trails were seen as critical by residents of both neighborhoods. The 4.6 mile Upland Trail follows the southern valley rim from Brookside Reservation to the Cuyahoga River Valley at Jennings Road and the Towpath Trail. The 3.7 mile Valley Trail shares a portion of the Upland Route along Valley Way and Fulton Parkway but mostly remains in the Valley from the Brookside Reservation to the Towpath Trail at Harvard Avenue. Both meet the plan's objectives described above and together provide a dramatically new way of experiencing the neighborhoods.



MEADOW RIDGE PICNIC AREA

Upland Trail Description

The Upland trail connects the Old Brooklyn neighborhood with the Zoo and Towpath by interconnecting previously completed routes at Treadway Creek and Brookside Reservation. The trail begins at the current western terminus of the Brookside trail along John Nagy Boulevard. It follows the existing route paralleling the street until it branches to rise out of the valley and into the adjoining residential neighborhood at the Meadow Ridge picnic area in the Brookside Reservation. The existing trail continues along Park Drive and Fulton Parkway to Wildlife Way. The planned bike lanes on the Fulton Parkway bridge connect to the trail at the southern end of the bridge. At Wildlife Way the trail follows the existing trail alignment parallel to the street and the Zoo. The trail route diverts from the existing trail just beyond the Zoo entrance and follows the edge of the eastern Zoo parking lot, passing under the Pearl Road bridge to the old Pearl Road alignment. Adjustment to the Zoo's composting operation will





PEARL ROAD UNDERPASS



HENNINGER LANDFILL OVERLOOK OF MARTIN RECYCLING OPERATION

be needed at the easternmost end of the parking lot to accommodate the trail.

The trail continues along the old Pearl Road alignment up to the level of the Old Brooklyn commercial district at the southern end of the Pearl Road bridge. Bike lanes proposed on the Pearl Road bridge connect to the trail at this point. The proposed trail continues east past the Burger King site to the Henninger landfill property. The Henninger site is included in the land use changes proposed for the Greenway and

is further discussed in the *Land Use* section of the report. The trail follows a curving alignment near the southern edge of that property to West 20th Street where it transitions to the street level and the Young property. Near this location the Young property includes a spit of land that overlooks the valley floor under the canopy of huge trees comprising a remnant of the native forest in this area. An overlook spur is proposed for this area. The trail continues across a pedestrian bridge over a side valley and along the edge of the Young house property to Valley Road.





The proposed trail crosses Valley Road at Granby Avenue, a brick residential street where it continues in the street to West 15th Street and Amberly Avenue, all within the residential neighborhood. A spur connection is made to the Treadway Creek Trail at the intersection of Amberly and West 15th along a sewer access route to the Treadway Creek valley. The main route continues on Creston Avenue to Harmody Park and the head of Treadway Creek Trail in the park.

The Upland trail follows the existing Treadway Creek trail into the Creek valley to Crestline Avenue where the existing trail continues as a widened sidewalk along Crestline and Jennings Road to its intersection with Harvard Avenue. The trail is planned to continue east as a widened sidewalk along the southern side of Harvard Avenue in a streetscape enhancement that will include street trees and paving enhancements. The trail crosses Harvard at a signed crosswalk near its intersection with the Cuyahoga Valley Scenic Railway onto the property commonly known as the Harshaw Chemical site. This site is being remediated and eventually is proposed to be reused as the site of the Harvard Avenue station of the Scenic Railway and other reuse possibilities described under the *Land Use* section of this

report. The trail passes through this property and ends with its connection to the proposed location of the Ohio and Erie Canalway Towpath trail on the west bank of the Cuyahoga River.



HARMODY PARK



TREADWAY CREEK TRAIL



BROOKSIDE RESERVATION PICNIC AREA



BROOKSIDE RESERVATION CONNECTION
FOR BOTH UPLAND & VALLEY ROUTES



EXISTING NEIGHBORHOOD CONNECTOR TO
BROOKSIDE RESERVATION & ZOO

the rail lines in that area.

The trail continues from the overlook along the existing Brookside trail to the Meadow Ridge picnic area. Like the Upland route, the trail continues to follow the existing trail parallel to Park Drive and Fulton Parkway to Wildlife Way. The trail continues to follow the existing trail parallel to Wildlife Way to the Zoo entrance. Just beyond that entrance the trail is proposed to divert from the Brookside Trail and continue parallel to the Zoo's easterly parking lot. The trail passes under the Pearl Road bridge at the location of a reconfigured Zoo composting facility.

While the Upland Trail is proposed to climb the old Pearl Road grade to the Old Brooklyn commercial district on the east side of the Pearl Road bridge, the Valley trail crosses over the paired rail tracks and Big Creek on a pedestrian bridge and lands on the hillside of Calgary Park. The bridge offers the Valley trail the opportunity to make an accessible connection to the park and the Brooklyn Centre neighborhood through a spur route that includes a switch back up the valley wall. From that spur the proposed trail drops into the Valley at the Lustig Trust property, currently subleased to PB Express as a long-haul truck container storage yard. The plan calls for eventual change in the land use here as described in the *Land Use* section of this report.



The trail is proposed to be a key element of the new use of this property. A greenbelt is formed against the rail tracks within the floodplain limits here and the trail is proposed to be contained within the greenbelt as it continues east to West 14th Street.

The West 14th Street public crossing of the rail corridor provides an opportunity for the trail to cross the tracks at grade and continue parallel to the street as a widened sidewalk to its intersection with Harvard Avenue and Jennings Road. The trail here is proposed as a part of the street improvement that also would include streetscape enhancement such as street trees and decorative paving. The Valley trail crosses Jennings at a signaled crosswalk, joining the Upland Trail and continuing parallel to the south side of Harvard Avenue. Similar improvements are planned as suggested for West 14th Street.

The trail crosses Harvard Avenue at a crosswalk just beyond the Cuyahoga Valley Scenic Railway crossing of Harvard and enters the property commonly known as the Harshaw Chemical site. As previously mentioned in the Upland Route description, this site is planned to be remediated and reused as a mixed use development site for the Harvard Avenue Station of the Scenic Railway and other uses. The site would also become part

of an extensive greenbelt proposed to be restored along Big Creek and the Cuyahoga River. The trail passes through the property to its connection with the Towpath Trail on the west bank of the river.



Environmental Regeneration Efforts



The plan for the Big Creek Greenway includes a series of environmental regeneration measures to begin to restore a functioning ecology within the Valley. These include expanding the width of riparian zones, wetland creation and enhancement, clean up of industrial sites within the floodplain, paving removal within riparian zones and replanting of the floodplain.

Early discussions with the Advisory Committee concluded that these measures should, for now, exclude instream improvements. The logic is that the stream is greatly impacted by storm surges and that suggested stream improvements should take into account stormwater management measures to reduce those impacts. There is an on-going watershed management study that will better define watershed characteristics and

recommend watershed-wide controls to improve management of stormwater. Stream enhancement suggestions will eventually result from that study.

Suggested enhancements are identified for the entire stream reach from Ridge Road to its confluence with the Cuyahoga River. The greenway within Brookside Reservation is highly manipulated with little native vegetation remaining, the stream channelized, concrete lined and entrained within walled revetments. The proposed regeneration effort includes restoring riparian plantings above the streambanks and widening the riparian zone. Fortunately, in this area greenspace remains that allows for the restoration. It is proposed that these mostly lawn areas from John Nagy Boulevard to the streambank be restored with native trees, shrubs and forbs. Eventually, when more is known about stormwater management measures, removal of the walled revetments, restoration of the streambanks and stream bottom is suggested. A wetland creation area is suggested near the west end of the Zoo that will allow for continued evolution of the landscape in the Zoo to a more natural relationship with the Greenway. The wetland could be used in interpretation as well as part of the exhibit areas of the Zoo.



BIG CREEK ADJACENT TO I-71 AT
BROOKSIDE RESERVATION

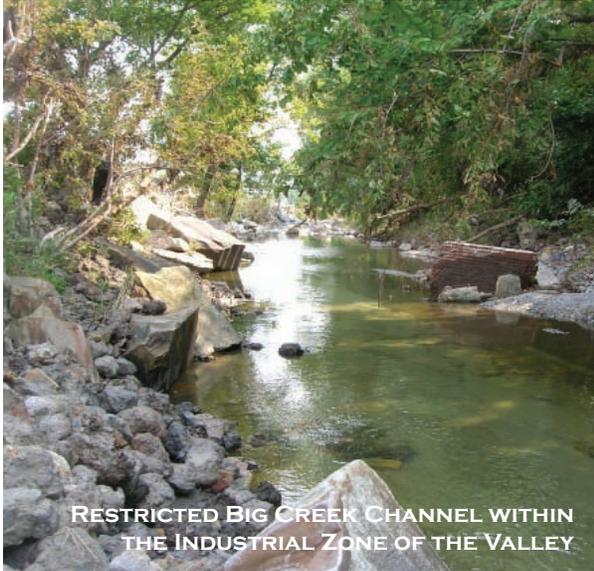
The daylighted stream reaches within the Zoo compound are currently confined between the

railroad tracks and zoo roads and parking. Only a very narrow band of streambank plantings remain. It is proposed that the Zoo embrace its relationship to the Greenway by widening the riparian zone within the Zoo. It is suggested that 50-75 feet of paving be removed adjacent to the streambank and that zone be restored with native trees, shrubs and forbs. This will not only provide an improved backdrop for Zoo functions but will shade adjacent paved surfaced and allow for Zoo walkways to be developed in a friendlier environment for pedestrian access to the zoo

entrance.

It is proposed that the impacted natural area between the Norfolk Southern and CSX tracks near the Zoo also be enhanced with native vegetation and an improved hydrology to permit improved wetlands and a connection to Big Creek. It is further suggested that additional study be performed in that area to determine the environmental influences from the railroad and the adjacent industrial sites and that corrective remedial action be employed where appropriate.





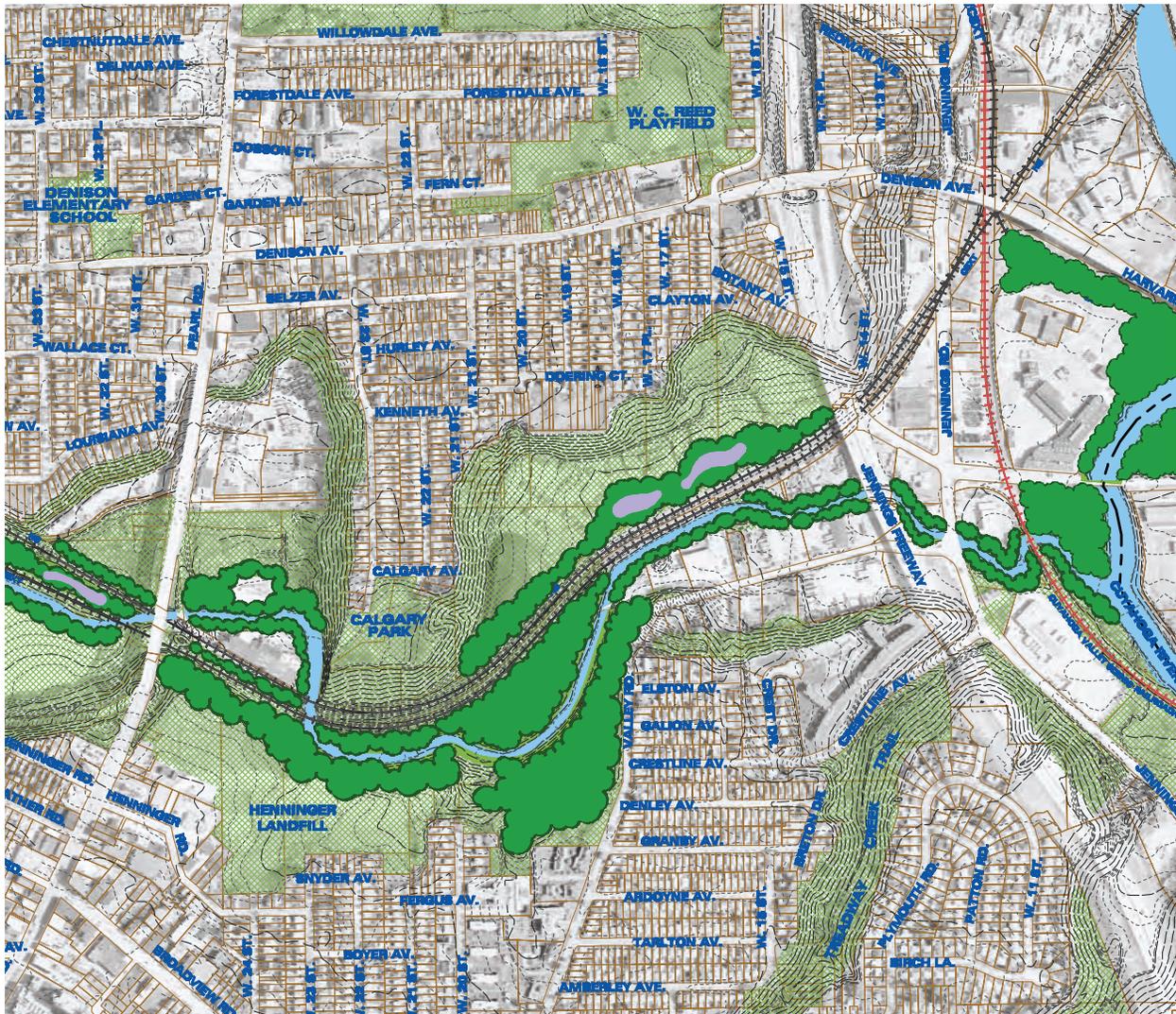
The Brookside Auto Salvage Yard lies mostly within the Big Creek floodplain. Minimally, it is suggested that the riparian zone be widened to 75 feet here to better buffer runoff from the yard. A dense planting of native floodplain trees, shrubs and forbs is suggested within the zone. Further, it is suggested that controls be expanded for the yard to prevent pollutants from reaching the stream or groundwater. Should a land use change occur at some time in the future, as is envisioned in the *Land Use* section, environmental remediation of the yard and an improved hydrologic connection to the stream is warranted.



This enhanced floodplain should also consider the construction storage yard further east. That area was permitted to be filled in the recent past, limiting its floodplain connection to the stream and undermining the toe of the wooded slope near the Calgary Park residential neighborhood.

The riparian zone adjacent to the old Champion Stove Company warehouse is recommended to be widened and reinforced with native riparian plantings. The paved yard and drive should be narrowed to the extent possible to permit the plantings.

The stream reach between the Henninger landfill and Jennings Freeway is largely entrained within a narrow steep-walled channel with industrial land uses extending to the top of its banks. Little native vegetation remains. Its floodplain has been mostly filled in this area. Although it is not really practical to restore the creek's floodplain connection here, it is possible to improve the greenway associated with the stream. It is recommended that industrial uses be removed from within 75 feet of the top of stream banks and that a native plant buffer be developed within this riparian zone. This may include repositioning of fences, removal of paving and repositioning of materials and equipment.





Several buildings fall within the setback and are suggested to remain as exceptions until they are replaced at which time they should be placed outside of the riparian zone. Runoff from the industrial uses should be further controlled to prevent pollutants from reaching the stream.

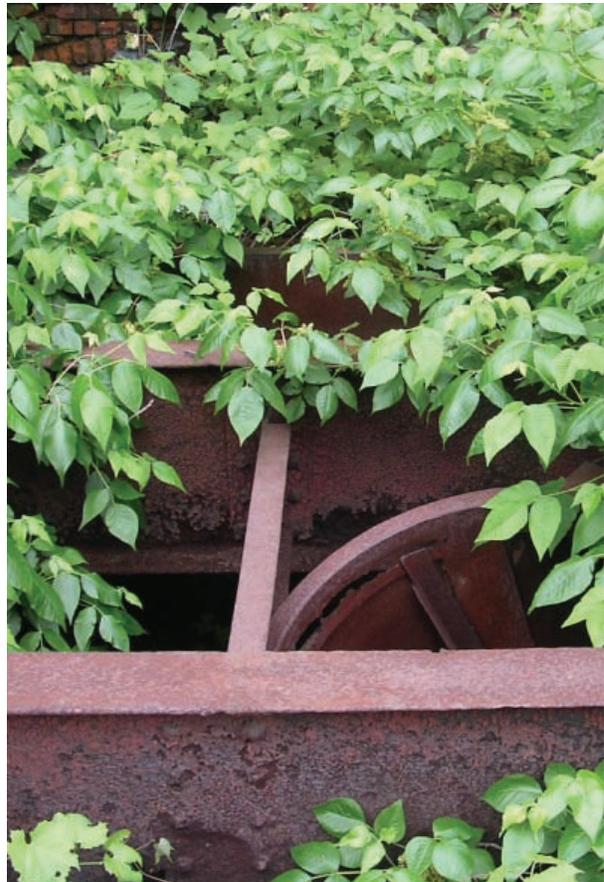
The area of land currently used by Martin Enterprises for its aggregates recycling operation is suggested to be converted to riparian zone buffer, once the recycling operation is relocated and the rubble piles are removed. Streambanks are proposed to be regraded to a more appropriate slope angle and replanted to provide overhanging vegetative cover for the stream. This is further discussed in the *Land Use* section.

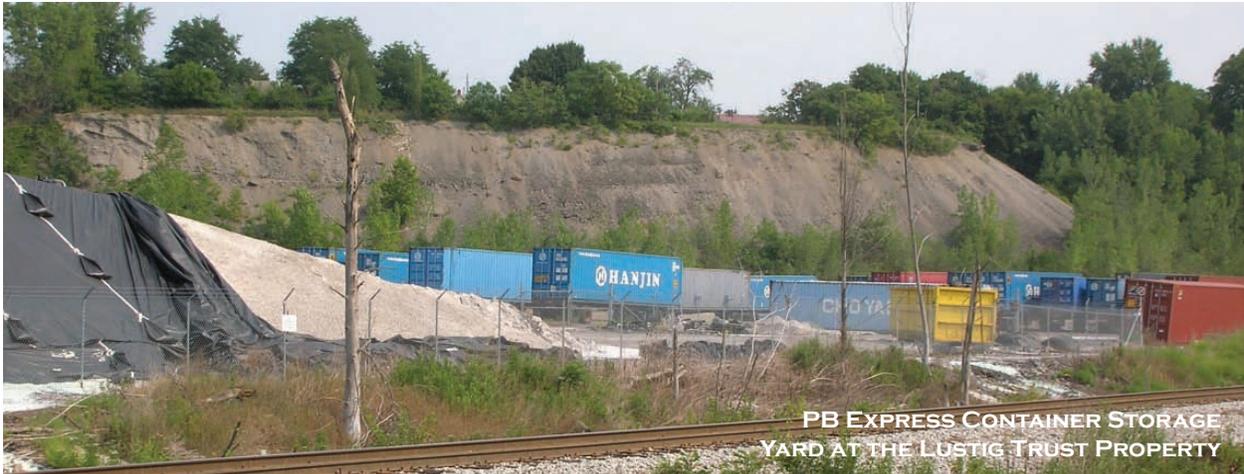
The stream reach from Jennings Freeway to its confluence with the Cuyahoga River is similarly entrained within a steep-walled channel with no meaningful connection to a floodplain. The area from the Scenic Railway tracks to its confluence is in a backwater condition with stable banks and a wider riparian buffer. A portion of the remediation site for the Harshaw Chemical property is a paved lot nearby. It is recommended that remediation of this property include conversion of it to a wooded buffer. It is suggested that a 50-75 feet buffer be developed that includes the entire reach by removing adjacent paving and reconfiguring

parking, drives and fences. Zeleznik's restaurant has a summer use patio within this zone and it is recommended that the patio remain, only be reconfigured to allow for the riparian zone to be enhanced. The Northeast Ohio Regional Sewer District pump station yard east of Jennings Road is recommended to be included in the riparian zone and similarly enhanced with native riparian plants.

Suggested Land Use Changes

A component of the study included exploration of possible land use changes on specifically identified parcels within the Greenway. Land uses included: a possible location for Camping within the Greenway that supported the need for overnight accommodations identified by previous planning for the Ohio and Erie Canalway; a site for Adventure Sports that would produce economic development opportunities for the neighborhoods; land use considerations at the Harshaw Chemical site; and open space restoration that supported Greenway goals of restoring access to nature and provided an amenity for adjacent land use changes, infill development and renovations that might occur. An economic consultant has been engaged by the partner agencies to test the economic viability of these and other land use suggestions.





PB EXPRESS CONTAINER STORAGE
YARD AT THE LUSTIG TRUST PROPERTY

Camping Site

A site for camping was selected by first considering the criteria that would lead to the likeliness of success. That included direct access to the Cuyahoga River Valley and The Ohio and Erie Canalway Towpath trail, perimeter controls to enhance security and the camping experience, a natural environment attractive to prospective camp users, a suitably sized parcel and access to visitor services like food, repairs, camping supplies, etc. The Lustig Trust property was selected as the site that most fit those criteria. It is nearby the Cuyahoga River and access to the Towpath trail. It is contained in a valley that includes a surrounding forest canopy and given the proper improvements could be controlled at its perimeter. It is suitably sized for a campground that could be financially viable.

The plan for the camp site recognizes that such a facility within the Greenway would require substantial improvements to be successful. The site is partially within the Big Creek floodplain that should be avoided for development. The adjacent rail corridor is a distraction from the peaceful confines typical to a campground. The site, although gently sloped, has a considerable history as a storage yard with little remaining native



SALT STORAGE AT THE
LUSTIG TRUST PROPERTY

vegetation. Pedestrian access among the Zoo, the neighborhoods and the Towpath complicates campground controls within this narrow valley.

The plan for the campground balances all these issues to create the outline for a successful facility. The floodplain portion of the property is used to advantage to buffer the rail corridor from the camp site and provide a location for the Valley trail alongside the camp. That greenbelt is really the signature element of the camp, the interface between the trail and the camp users. Access for both is quite convenient, yet camp controls are maintained. The floodplain buffer is restored as wetland and shrub border to serve to separate the camp visually from the rail corridor.

The camp is placed outside of the floodplain with

Adventure Sports Site

Criteria for selection of a site for the Adventure Sports facility included direct access to the interstate highway so that travelers from the region would be able to easily reach the venue, a direct relationship with the neighborhood commercial districts so that spin-off related uses could develop, and non-motorized uses that didn't conflict with the residential character of the neighborhoods. Those criteria led to the selection of the Henninger landfill site as the best alternative. It is located with immediate access to the Old Brooklyn and Brooklyn Centre neighborhoods via Pearl Road. Interstate 71 is easily accessed from Pearl Road at the bridge, giving the site the potential for high regional visibility. Its location is isolated at the rim of the valley, minimizing conflicts with the neighboring residential areas, yet is convenient to the commercial districts.

The plan suggests a mix of adventure sports that could potentially appeal to a regional audience. The site lends itself to considering a BMX track on the landfill with an adjacent skate park facility. A rock climbing tower is seen as an opportunity to create a unique architectural form at the gated entrance to the facility. This feature could offer the opportunity for visitors to train and be trained

in climbing and rappelling. It is suggested that an outfitter/restaurant facility be included of sufficient size and accommodation to include a restaurant, an indoor training center, an outfitter store and a center for the overall operation. It is suggested that the facility be developed of suitable quality and level of challenge that it could host regional events. It is suggested that the site be operated by a private for profit organization and that perimeter controls be included to ensure ticketed access to the facility.



HARVARD AVE. WITH VIEW OF EXISTING BUILDING ON THE HARSHAW CHEMICAL SITE



Harshaw Chemical Site

The sites commonly referred to as the Harshaw Chemical site are actually a complex of old industrial buildings and land on both sides of Harvard Avenue that includes the site of Manhattan Project research during the Second World War. That portion is planned to be remediated and several of the industrial buildings will remain. Prior plans have called for the Harvard Avenue Station of the Cuyahoga Scenic Railway to be located on the site. The plan considers how the train station and the Lower Big Creek trail connection to the Towpath through the site might be compatible with other potential uses there.

The plan suggests that the remaining industrial buildings could be adaptively reused for a number of uses associated with the emergence of a commercial service district along Harvard Avenue and Jennings Road. They might also serve the Scenic Railway or Metroparks operations in the area. The Scenic Rail station is seen as being accessed from Harvard to a parking lot suitably sized for rail and trail visitor traffic. The Lower Big Creek trail would follow this access drive in a green corridor to its connection to the Towpath at the eastern end of the site and along the banks of the river. The land associated with the site is recommended to be restored as a native meadow,

shrub edge and forest buffer along the Cuyahoga River Greenway, near the confluence of Big Creek with the River.



Ecological Restoration

Sites considered for ecological restoration were selected based on their ability to have a major impact on the Greenway, either by virtue of their size or presence in the floodplain or by their existing land use and the potential for watershed improvement due to restoration/recovery. Several sites were selected for their potential for recovery. Those include the Henninger landfill, the Martin Enterprises aggregates recycling operation site and the Brookside Auto Recycling Yard. Each if restored would greatly benefit the Greenway. The Martin Enterprises site has the closest connection to the Creek at a point in the stream reach where the channel is particularly affected by the land use. The Brookside Auto site has the greatest potential for environmental recovery due to the risk to surface and groundwater present with the current land use. The Henninger landfill is a large parcel with a strong connection to the neighborhoods and could benefit the adjoining neighborhood and the Valley with restoration. Environmental Regeneration plans for each are examined below.

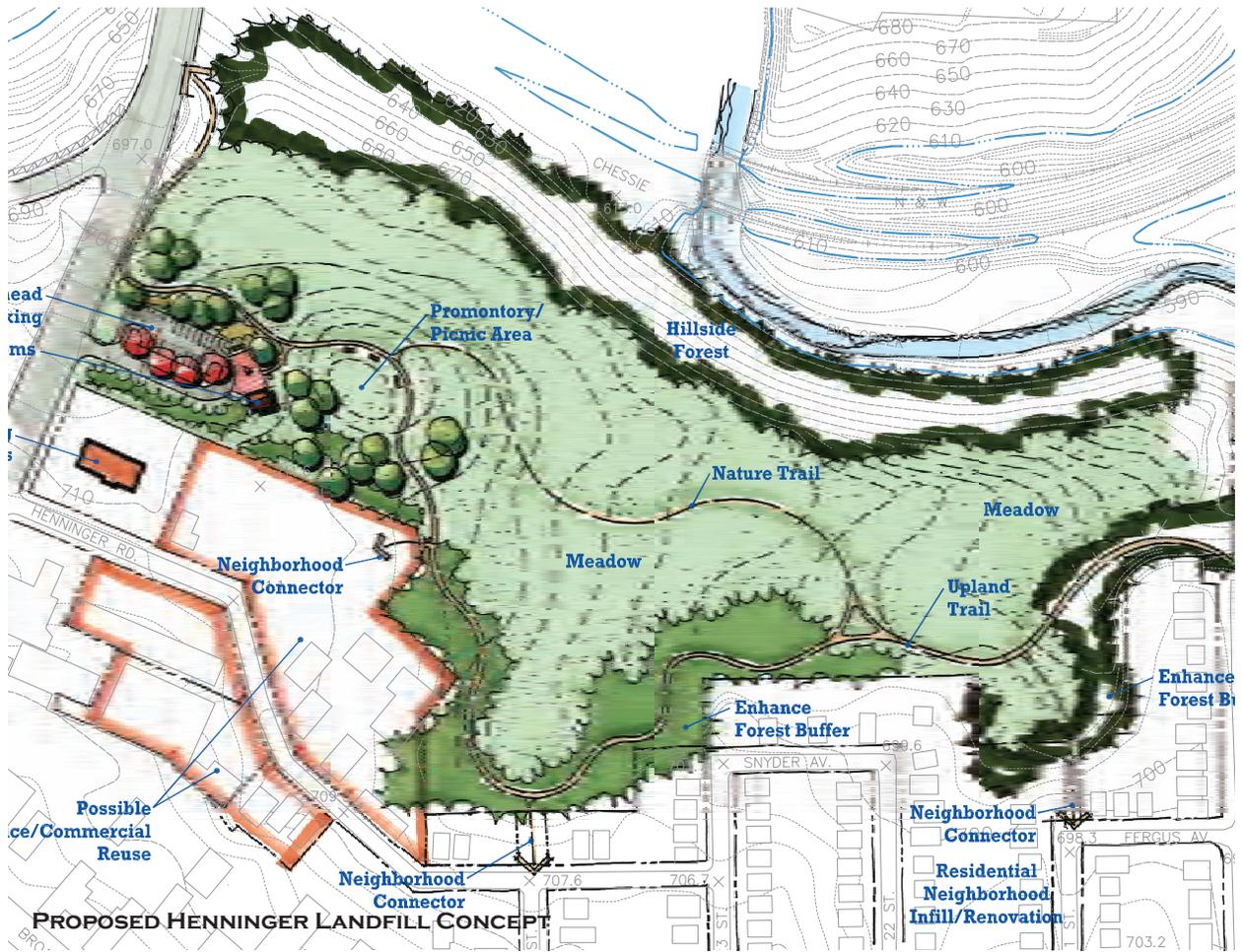
Henninger Landfill Site

The Henninger site plan suggests an alternative to the Adventure Sports land use option should it prove environmentally or economically infeasible to pursue that option. There is substantial benefit to the neighborhood of Old Brooklyn should the site be restored to a passive natural area, particularly if the area provided public access. The plan suggests the possibility that new and infill uses are possible on the margins of this large tract should it be restored with public access. The site has dramatic views into the Valley and beyond and views from the margins into the site would no doubt provide an attractive amenity for adjacent uses.

The plan suggests restoration to a native prairie or meadow with a series of nature trails that loop within the site and connect to a trailhead parking lot off Pearl Road, that includes views from a promontory overlook and picnicking site. The Upland trail is suggested to extend along the southern perimeter of the parcel, further providing connections to the adjacent neighborhood.



HENNINGER LANDFILL

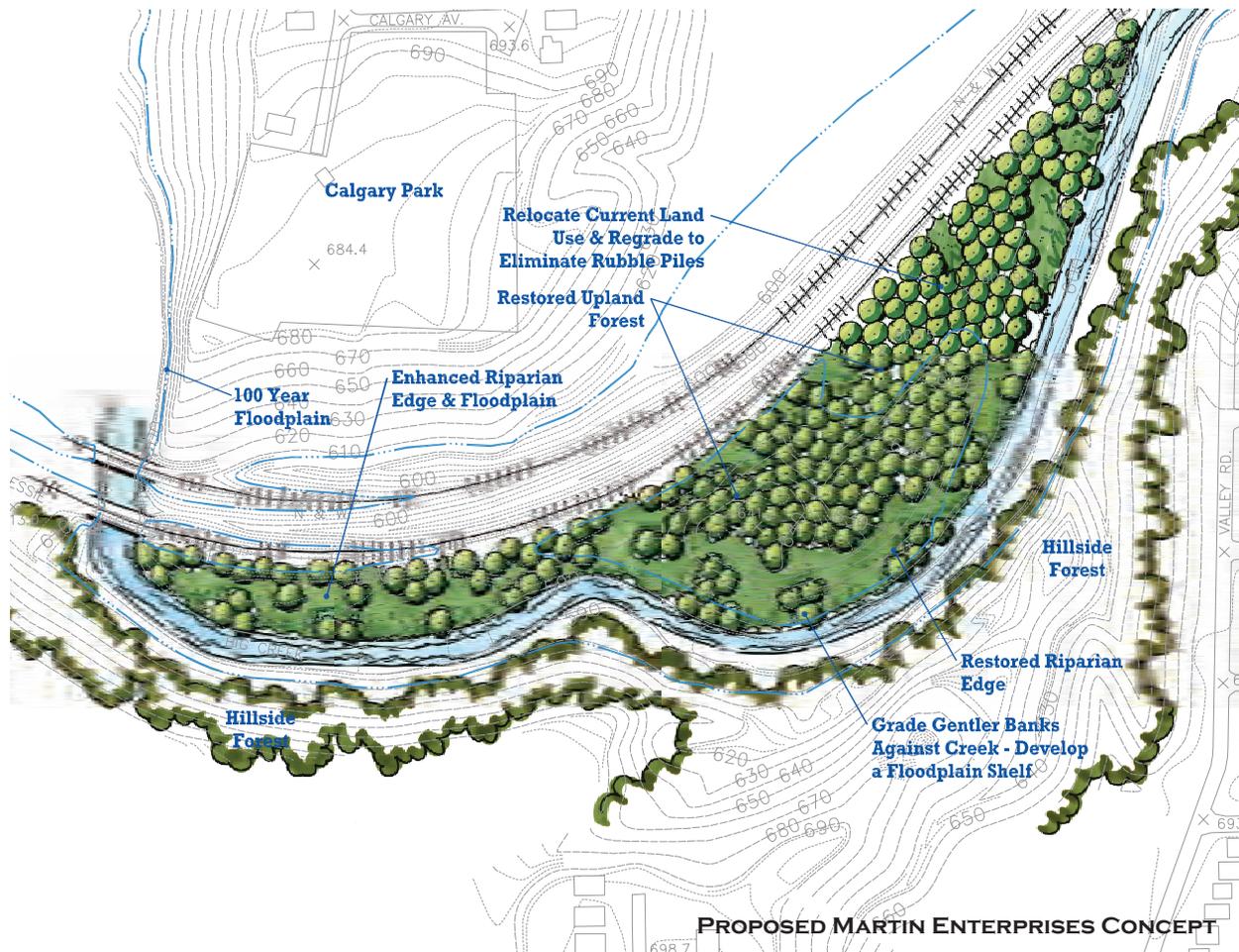
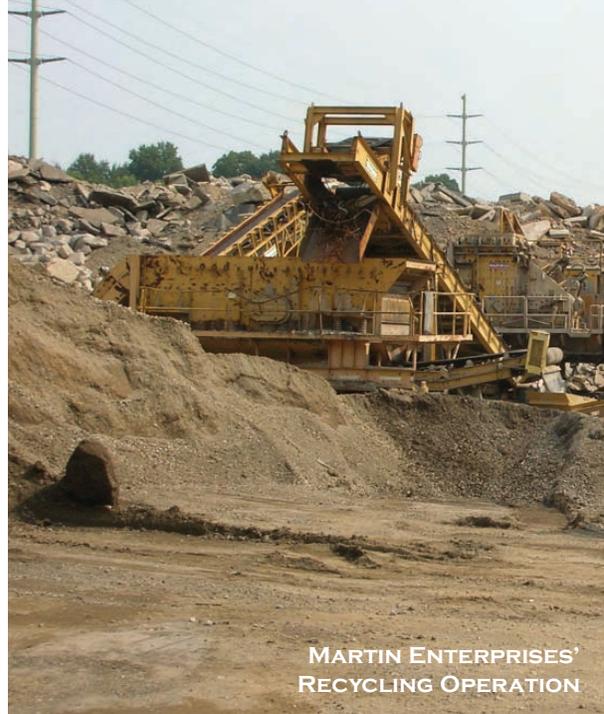




ARMORED BIG CREEK CHANNEL
NEAR THE MARTIN ENTERPRISES SITE

*Martin Enterprises
Aggregates Site*

The restoration plan suggests relocating the crushing operation elsewhere, regrading the site to remove the existing rubble piles and creating gentler banks against Big Creek. The plan calls for restoration of the site as a forested upland buffer at the level of the rail corridor and restoration of the riparian edge adjacent to the creek by developing a floodplain shelf and planting overhanging riparian vegetation. This plan is part of the larger plan to restore a riparian zone along the entire stream reach within the Lower Big Creek area.



Brookside Auto Recycling Yard Site

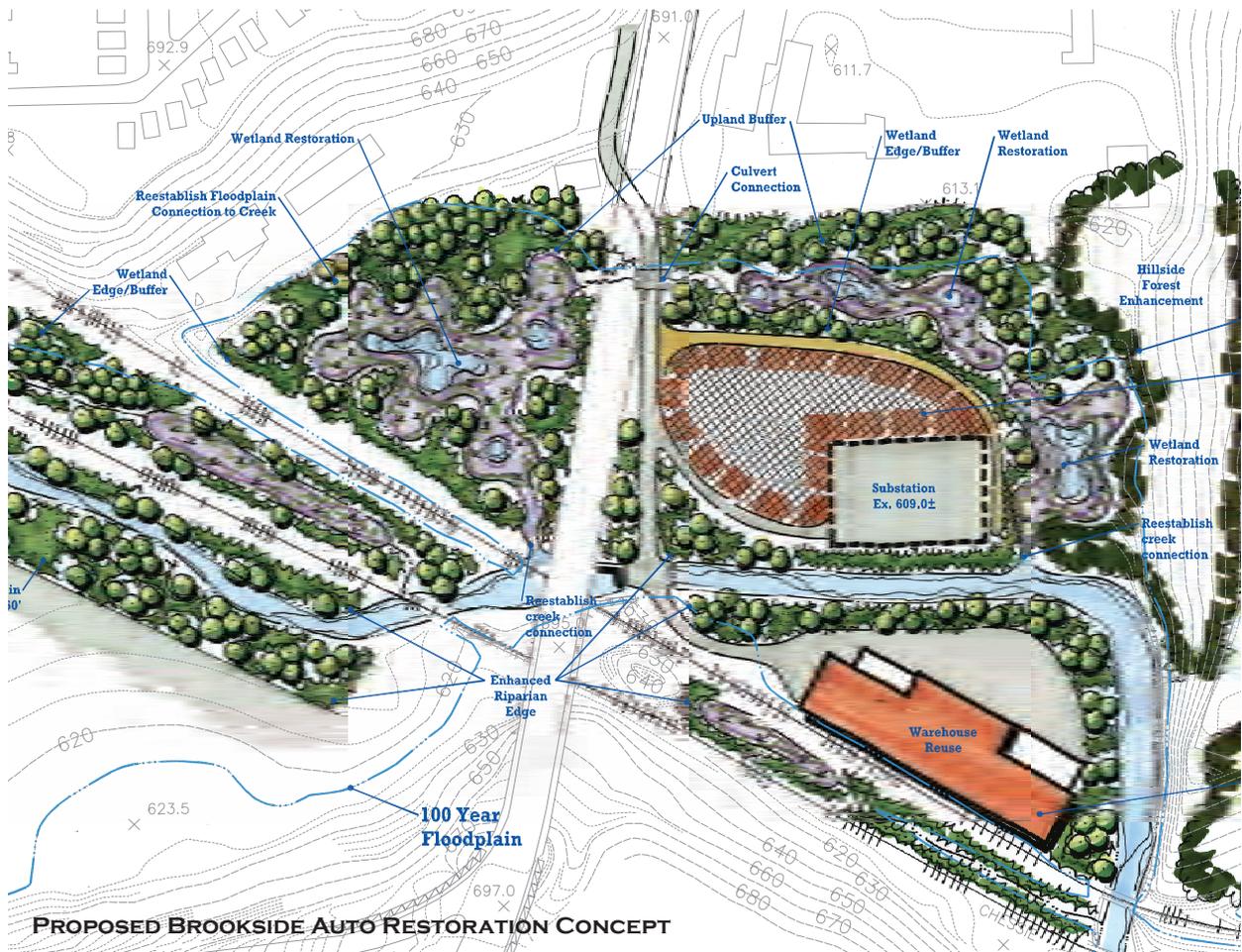
The restoration plan for the Brookside yard suggests a dramatic change from existing uses. As mentioned earlier in this report, the site is located mostly within the Big Creek floodplain and so, is subject to periodic flooding during extreme events. This, combined with the nature of the operation, suggests potential environmental risk for the watershed. The plan outlines the possibility of relocating the salvage operation elsewhere and restoring the original floodplain, providing an opportunity to recover some of the stream's capacity to store storm surges and to improve the Valley ecology.

The adjacent land use to the east (a construction yard) is included in the concept. That site was filled some time in the recent past to raise the level of the yard. In the process a connecting drainageway was restricted and the adjacent hillside was apparently excavated at its toe, undermining its stability. It is recommended that this site too be returned to floodplain elevations and the hillside toe be repaired.

The plan for these sites calls for restoration of the natural drainage connections to Big Creek to allow

for floodwaters to recharge a series of wetlands created on the properties. Adjacent buffers are suggested, as well, that would filter runoff from nearby upland areas and that, along with the filtering abilities of the wetlands, would improve water quality entering Big Creek. The plan also suggests isolating floodwaters that might affect the electrical substation in the area and offering the possibility of expansion by raising the elevation of adjacent lands with the clean fill excavations from the floodplain restoration.





Priorities & Next Steps



A conceptual stage construction cost opinion has been included in the Appendix for the public improvements needed to complete the plan. The cost opinion is divided geographically to depict segments of the trail and greenway improvements, giving readers the opportunity to view costs by probable construction phases. Details about the cost of professional fees, environmental clean-up, easements, property acquisition or relocation expenses are not included, given the variability of these costs and the relative lack of knowledge at this time about the factors affecting cost. Costs for the suggested land use changes are also excluded.

The cost opinion outlines a long-term series of activities needed to achieve the plan in its entirety. Realizing that a plan of this nature will require funding from a number of sources over a period of years the Advisory Committee has discussed priority elements of the plan.

Although the Committee is committed to the benefits of the entire plan, the committee determined that certain plan elements were more readily accomplished than others. These have been grouped as priorities and include: acquisition of the Lustig Trust property; the Valley Trail along Harvard Avenue to Jennings Road; the Valley trail along West 14th Street and through the Lustig Trust property from Jennings Road to the Calgary

Park Connector trail; the Calgary Park Connector Trail; the Valley Trail from the Calgary Park Connector Trail to the Metroparks Zoo parking lot; the Valley Trail from the Metroparks overlook in Brookside Reservation to the existing trail at John Nagy Boulevard and the Valley Trail underpass at Ridge Road.

Funding Strategies



The implementation of the *Lower Big Creek Greenway Development and Restoration Plan* will be a multiple phase project, requiring 15-20 years to complete. Completion of the improvements will require support from an array of sources including governmental, public and private support.

The Old Brooklyn Community Development Corporation and its project partners have historically been successful in acquiring various grants and awards for the wide array of project needs envisioned for the Greenway. The funding for the Treadway Creek Trail and the studies currently underway in the neighborhoods are examples of such efforts. Such grants and awards have been obtained in partnership with Ohio Canal Corridor and other private non-profit organizations, the City of Cleveland and other governmental bodies. Old Brooklyn CDC has been the administrative agent for a wide variety of the community development and neighborhood improvement programs that the City has undertaken and are on-going. They are well versed in the intricacies of grant and loan development and administration. As such Old Brooklyn CDC will play a key role in raising the funds necessary for the Greenway development.

Old Brooklyn CDC in concert with the City



and Ohio Canal Corridor will continue to apply for funding for trail design, engineering, and construction, as the opportunities arise. Both public and private funds will be sought locally, regionally, and nationally. The Cleveland Metroparks has and will continue to play a vital role in the implementation of the Greenway trail network, as demonstrated by their significant investment in trail development within the Brookside Reservation. As progress is made for the **Lower Big Creek Greenway Development and Restoration Plan**, Old Brooklyn CDC, the City, Ohio Canal Corridor and Cleveland Metroparks will coordinate efforts to guide the successful management and construction of the Greenway.

Granting agencies are very specific in their definition and scope of work. Trail and greenway projects will be delineated as to where funding is possible and not possible. Certain agencies, organizations, and foundations have very specific projects and programs they fund. For example, one may fund the acquisition of land, but limit any construction or engineering activity, while another may only be for engineering and design.

Fee title acquisition, conservation easement acquisition, or Right-of-way access will be key to alignment of the Greenway. As land is acquired

or made accessible, trail design and engineering funds will then be sought. Acquisition and construction funds will be sought from both public and private entities. Such funding sources include, but are not limited to:

- Ohio Department of Natural Resources
 - o Natureworks Program
 - o Recreational Trails Program
 - o Land and Water Conservation Fund
 - o Coastal Restoration Program
- Ohio & Erie Canalway Association
- Lake Erie Protection Fund
- Ohio EPA (multiple programs)
- US EPA (multiple programs)
- NOACA (Transportation Enhancement/Improvement Program)
- Private Foundations
- Mitigation

Old Brooklyn CDC and its partners will be the primary parties responsible for acquiring the necessary funds for the Greenway development and restoration. Prioritized funding will be applied to the priority projects, pending funding availability, land acquisition, and alignment probability.