

# City of Lambertville

## *Waterfront Plan*

*A Sub-Element of the Land Use Plan*

Planning Board  
City of Lambertville  
Hunterdon County, New Jersey

September 28, 1998

# *Waterfront Plan*

## City of Lambertville County of Hunterdon

Adopted by Resolution of the Planning Board

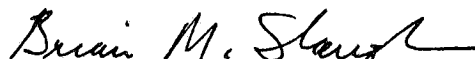
September 28, 1998

Adopted pursuant to N.J.S.A. 40:55D-28  
the New Jersey Municipal Land Use Law

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A signed and sealed original is on file with the City Clerk's office.

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The Waterfront Plan was developed with assistance from the Delaware River Greenway Partnership and the National Park Service through the Lower Delaware Wild & Scenic River Management Plan program. The Delaware River Greenway Partnership is a bi-state public/private partnership hosted by Hertiage Conservancy with the mission to promote stewardship of the natural, historic, scenic, and recreational resources along the Delaware River and its tributaries.

## WATERFRONT PLAN

Lambertville is defined more than most cities by its geography. The Delaware River, one of the largest water courses in the United States, edges the City on the west. The City's bluffs were formed from the meandering river as it carved its way down through the plain, leaving the flat lands in between. The City's proximity to water fueled its commerce by providing power for mills and the means to move goods. It created sufficient economic wealth to fund a magnificent collection of buildings spanning a century and a half. In turn the architectural novelty of the City has spawned a different kind of commerce drawing on this eclectic and interesting backdrop, for recreation, and as a place apart from the everyday and humdrum. Through all of Lambertville's history, the river has defined yet enhanced the built environment.

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This special place that the river has in the history of Lambertville is the reason for this section of the Master Plan. The Waterfront Plan is a sub-element of the Land Use Element but is focused on specific policies for the river corridor. It attempts to further the City's long term goals for its physical development and redevelopment. The Waterfront Plan is centered on the land between the Delaware River and the Delaware and Raritan Canal. Nearly all of this land is located within the river's 100-year flood plain (as is much of the City proper). Since this land is by definition subject to periodic flooding, a careful balance of the natural and built environment must be drawn. This Plan attempts to create this balance based on the existing land uses, the adopted goals and objectives of the Master Plan, the commentary of elected and appointed officials, and the citizenry of the City.

The natural beauty of the Delaware may be potentially compromised by inappropriate land development and poor environmental practices. This has been recognized from the local to the federal level of government. The Upper and Middle Delaware River, from the Delaware River Water Gap north, has been designated as a (U.S.) Wild and Scenic River. A study, entitled the *Lower Delaware River Management Plan*, which includes Lambertville, has been adopted by the Lower Delaware River Wild and Scenic River Study Task Force. The study identified ten segments of the river from the Delaware Water Gap to Washington Crossing for designation as a Wild and Scenic River. The study

set six goals for municipal governments and are in large measure consistent with the City's adopted goals and objectives.

The Waterfront Plan first describes the existing land use pattern along the Delaware River, the environmental factors affecting existing and future land use, the City's goals and objectives for the waterfront, the congruity of these goals to the ones established by the Lower Delaware Task Force, the land use plan for the waterfront, and finally concludes with circulation issues that were taken into consideration in the Plan.

#### EXISTING LAND USE

One of the exercises undertaken by the Planning Board during workshop sessions on the City's Reexamination Report was to conceptually map the different areas of the municipality. It was clear from the exercise that Bridge Street and the Free Bridge are considered the dividing line between north and south Lambertville. This is reinforced by the street system which divides Union, Main and Franklin Streets into north and south at Bridge Street. Bridge and Union Streets marks the conceptual center of the City.

An examination of the D&R Canal maps, however, reveals that Bridge Street does not evenly divide Lambertville. About two-thirds of the City lies north of Bridge, and one-third south. The intensity of use of the land is also unevenly divided, with the State park area south of Bridge Street more heavily used than the northern part. The waterfront area may be viewed in three parts, the northern, central and southern areas. The three areas are tied together by the D & R Canal and the Black River and Western Railroad. Both of these uses were important transportation facilities but only function for recreational purposes today.

#### NORTHERN AREA

The northern area includes Holcombe Island and all of the land north of the Original Trenton Cracker (OTC) factory, now known as Lambert's Square, extending from the river to the Black River and Western Railroad. Holcombe Island consists of the land between Island Creek and the Delaware River, south of Alexauken Creek. The southern part of Holcombe Island is owned by the Lewis family ("Lewis property") and is popularly known as Lewis Island.

The City's northern boundary is formed by the Alexauken Creek which it shares with Delaware and West Amwell Townships. This land is almost entirely wooded and largely vacant. Land between the two branches of the railroad is used for a public utility transmission line and a single family home. The D&R Canal is used for public recreation and water supply purposes and is overseen by a special commission charged with preserving the canal for future generations. A portion of the land area just to the west of the canal is also owned by the state as part of its recreational holdings.

The Delaware River edge is defined by Holcombe Island, in actuality a peninsula, that is privately owned by two landowners. The northern part of the island is not presently used. In the past the northern part was used for gardening and timber production. The southern part of the island is occupied by a single family home and a boat house owned by the Lewis family. Historically, commercial shad fishing has taken place on the Lewis property. Commercial shad fishing was an important economic activity throughout the region but had declined because of water pollution. Successful efforts by industry and government to reduce water pollution has increased the shad population. The Lewis property is now the last remaining shad fishing enterprise in the area. The Lewis property is important in the traditional harvesting of shad from the River each spring and features prominently in the City's annual Shad Festival. The Lewis property is also used by a private rowing club for practice and racing on the river.

Access to this part of the waterfront is limited to walking or boating. A pedestrian bridge over Island Creek provides access from Lambert's Lane to the Lewis Property. Through the Lewis family's stewardship of the land and their generosity in allowing public access, Lambertville residents have enjoyed the benefits of the river.

The towpath has been improved for the entire distance of the canal through the City and provides a connection to the Holcombe-Jimison Farmstead in Delaware Township. Vehicular access is limited to occasional D&R Canal personnel using the railroad right-of-way on the western bank. The lack of vehicular access is a major contributor to the low intensity uses described and proposed in this Plan.

## CENTRAL AREA

The central area encompasses both sides of Bridge Street and is the most developed part of the waterfront. The area north of Bridge Street includes a number of residential and commercial land uses. The recently redeveloped mixed use complex at the OTC site includes a micro-brewery, offices and in future construction, a proposed health club. This also includes a number of single family attached structures along Lambert Lane. On Bridge Street, jewelry, antique, and clothing retailers predominate. On the south side of Bridge Street to the Swan Creek is the Lambertville Inn and Station complex. The Inn is a 45-room hotel with banquet facilities. The Station is a restaurant converted from the City's railroad station. This complex is the largest employer in Lambertville. A major expansion of the facility has been conceptually proposed to permit additional banquet rooms, outdoor recreation, a residential hotel, office, and retail uses; however, no official action by the Township or its agencies has been taken.

The Central area is an extension of the central business district uses but is limited to three City blocks. The D&R Canal provides a recreational link through this area to strongly connect the north and south portions of the river corridor.

## SOUTHERN AREA

The southern area begins at Swan Creek and extends southward to the wing dam on the Delaware River. Several interesting features of the canal are visible. The most notable is perhaps the lock structure that permitted boats to make changes in elevation while maintaining sufficient water in the canal for navigation. An additional feeder canal at Feeder Street was constructed to store more water for the proper operation of the lock. Just south of the lock, a second lock permitted access between the Delaware River and the canal. The lock mechanism is gone and the upper reaches have been filled in but the stone walls leading to the river remain.

To the east of the main lock is the lock keeper's house, still in use by an employee of the D&R Canal Commission. Vehicular access to the house from Rt. 29 is maintained by a bridge over the feeder canal.

The state owns the vast majority of land for active and passive recreation south of Swan Creek, including the City's playground on Mt. Hope Street. The City maintains a lease of the land with the state. In a similar fashion, the Delaware Valley Powerboat Association leases land for a picnic area, clubhouse, and boat ramp that is accessible to the public just south of Swan Creek. Public access to the boat ramp is available via an easement through the Lambertville Inn and Station property. Pedestrian access occurs from the D&R Canal's tow path. Pedestrian and bicyclist crossings of the canal may be made at the main lock near Feeder Street or farther upstream in the central portion of the waterfront area at Coryell, Bridge, and Ferry Streets.

The Ferrell Gas Company owns and operates a propane gas distribution facility on a one acre tract adjacent to the Powerboat clubhouse. Unlike other uses south of Swan Creek, this land is owned by the company rather than leased from the state.

The Lambertville Sewerage Authority operates a regional sewage treatment plant between the boat ramp and the river access lock on land leased from the state. As part of the lease agreement, the Sewerage Authority is responsible for maintaining the road between Swan Creek and its operations and allowing public access to the Delaware River.

The sewage treatment plant marks the terminus of the Black River and Western Railroad. The Black River and Western Railroad is a tourist attraction that runs old-fashioned trains between Flemington, the seat of Hunterdon County, and Lambertville. At this location, passengers board the trains for passage to Flemington and points in between. While the line is in use, the railroad serves only a leisure and entertainment purpose in Lambertville.

#### SUMMARY OF EXISTING LAND USES

The waterfront may be categorized into three distinct segments. The northern part is largely wooded and vacant with only one occupied and one accessory structures. The central portion is the developed portion of the waterfront centered around the Free Bridge where a mix of residential and commercial uses are found that are reflective of its close association with the downtown area. The southern section is dominated by the state park where active and passive recreation uses are encouraged that take advantage of the D&R Canal



and the Delaware River. The Black River and Western Railroad is a commercial form of recreation that exists along with the canal in an historical format that helps to define the City's character and reflects its architecture. There are significant intrusions from uses that are industrial in nature; however, represented by the gas company and sewage treatment plant.

The waterfront may be distinguished from the rest of the City in several ways. One, it has very few residences. For instance, aside from the lock keeper's house, no residential uses are present south of Bridge Street. Two, intense development is limited to a three block area around Bridge Street. If one views the waterfront as a whole, there is less development than any other area of the City - with the possible exception of Music Mountain. Three, in no other area of the City is there such a concentration of natural assets. Fourth, the ability to retain and enhance these assets has not been compromised by previous development. The City still has the opportunity to implement its goals through a combination of vision and perseverance.

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## ENVIRONMENTAL CONSIDERATIONS

The geology of the City is characterized by bluffs composed of Brunswick shale with the lowlands underlain by black to dark gray igneous diabase, commonly called traprock. The lowland areas are typically filled with silty deposits from successive inundations of the Delaware River and runoff from the bluffs. The lowlands of the City are built on these unconsolidated materials. Soil is often underlain by gravels built up by the river.

The soil on top of the bedrock has been classified by the Soil Conservation Service (SCS) into 19 different types. The entire lowland area consists of just one of these types, Pope fine sandy loam, high bottom, with the exception of the Rowland silt loam associated with Swan Creek. The Pope soil generally has only slight limitations for building except where the land is subject to periodic flooding. The limitations increase depending on the frequency of flooding. The SCS notes that Pope soils in Hunterdon County, which are only found along the Delaware, are flooded to some extent about once every five years. Lambertville, however, is an exception since the City was founded on higher ground than areas to the immediate north and south of Lambertville. Further discussion on flooding is found below.

The types of problems encountered in flood-prone areas are with the installation of on-site sewage disposal, foundations, and frost heave in roadways. The Pope soil supports recreational uses, such as picnic grounds, and is well suited to growing the types of vegetation favored by wildlife found on open land and woodland.

The Rowland soil is subject to very frequent flooding, as may be expected in the stream channel of Swan Creek, has severe limitations for any kind of development, and is poorly suited for wildlife habit.

Approximately half of the land area between the Delaware River and the Canal is within the 100-year flood hazard area and the remainder within the 500-year flood hazard area. A 100-year flood hazard demarcates an area where there is a 1% chance per year of being flooded to that extent. This is usually equivalent to about 7.4 inches of rain in a 24 hour period, though local factors may increase or decrease the amount of rain. The 500-year flood is five times less likely to happen than the 100-year flood in any one year. The 500-year flood hazard area covers about 35% of the land area of the City.

Development in flood hazard areas is regulated by the New Jersey Department of Environmental Protection. The Delaware and Raritan Canal Commission also has review powers over storm water management in the canal area because of its use in supplying potable water. Any development in the Waterfront Plan area is subject to review by these agencies, including proposed public uses. Briefly, any habitable structures must be placed at least one foot above the 100-year flood elevation and no permanent structure may be placed in the floodway. The floodway is the fast moving part of a flooded water course. The flood fringe area is the slower moving portions of a waterway on the outer portions of the flood.

Wetlands associated with the Delaware are freshwater and not extensive. In the waterfront corridor, wetlands exist as a narrow fringe along the shore of the river, excepting one block north and south of Bridge Street, and along the banks of Alexauken, Ely, Island and Swan Creeks. Parts of the feeder canal banks are also considered wetlands. Like stream encroachment (flood prevention), freshwater wetlands are regulated by the Department of Environmental Protection. Any development in wetlands or in transition buffers (upland areas next to wetlands) requires a permit from the DEP. In the river corridor, the wetlands are either broad-leaved deciduous forests

(palustrine), or riverine with low perennial shrubs.

In 1992, a survey by the Bucks County Conservancy as part of their Delaware River Greenway Island Protection Project was undertaken of Holcombe Island. Five endangered plant species and one endangered insect species have been sighted on the island since 1940.

#### GOALS AND OBJECTIVES FOR THE WATERFRONT

The adopted Reexamination Report included a Statement of Goals and Objectives that is the main set of policies for the Master Plan. Among its seventeen goals several specifically pertain to this Waterfront Plan. These include:

- 1) Encourage new public park areas throughout the City for passive and active recreation.
- 2) Preserve and protect environmentally sensitive areas, including but not limited to, flood plains, wetlands, and steep slopes.
- 3) Strive to preserve the natural, scenic, historic, aesthetic aspects of the community and its environment.

The City's goals may be compared with the ones established by the Lower Delaware River Management Plan. Their goals are:

- 1) Water Quality. Maintain existing water quality in the Delaware River and its tributaries from measurably degrading and improve it where practical.
- 2) Natural Resources. Preserve and protect the river's outstanding natural resources, including rare and endangered species plant and animal species, river islands, steep slopes and buffer areas in the river corridor and along the tributaries.
- 3) Historic Resources. Preserve and protect the character of historic structures, districts and sites, including landscapes, in the river corridor.

- 4) Recreation. Encourage recreational use of the river corridor that has a low environmental and social impact and is compatible with public safety, the protection of private property and the preservation of natural and cultural qualities of the river corridor.
- 5) Economic Development. Identify principles for minimizing the adverse impact of development within the river corridor.
- 6) Open Space Preservation. Preserve open space as a means of minimizing the impact of new development in the river corridor.

The City's goals, developed independently, are in close agreement with the Lower River Task Force's regional objectives. This document seeks to address these goals and objectives in the land use plan for the waterfront.

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#### WATERFRONT LAND USE

The Waterfront Land Use Plan designates different geographic areas of the City along the Delaware River for land use based on the existing pattern of development, policy objectives, and public comment. Land use classifications form the basis for distinguishing zoning districts in the zoning ordinance - the local law that provides control of uses. The intent is to create an implementation document that will be used regularly to review and assess conservation, recreation, development and redevelopment proposals on the waterfront while promoting the goals and objectives of the Master Plan. The Waterfront Plan is also a part of the overall Land Use Element of the Master Plan and should be viewed in that context.

The three distinct segments of the waterfront lend themselves to three different land use classifications tied together by a common thread - the Delaware and Raritan Canal. These land use classifications are as follows:

#### CONSERVATION

Holcombe Island and the remaining area north of the OTC property is designated primarily for conservation purposes. Most of the land is environmentally sensitive because of the flood plain of the Delaware River and

the associated wetlands of Island and Alexauken Creeks. The intent of the conservation district is to preserve the existing wooded nature of the land area since it does not have the physical capacity for much development. Access to this area will always remain difficult. Additional development of the waterfront in this section like the pattern of development elsewhere in the City would aggravate traffic conditions in the rest of town and change the character established by the natural water's edge. Further, development would damage environmentally sensitive land and may lead to undesirable effects from the filling of flood plain and wetlands. The filling of flood plain areas, which is allowed to a limited extent under State regulations, may have the effect of increasing the frequency of flooding and the velocity of water in the floodway.

It is proposed that the existing uses, including the residential use, commercial shad fishing, and recreational activities, continue on the Lewis property.

Holcombe Island is currently included in the sanitary sewer service area of the adopted Wastewater Management Plan (WMP) of the Lambertville Sewerage Authority. The entire City is included in the sewer service area. The extension of sanitary sewers to Holcombe Island, however, is problematic and promotes the development of the land for a variety of uses incompatible with designating this area primarily for conservation. Extensive development of this area would increase the potential for flooding, put public and private property at great risk from flood damage, disturb wetlands, increase erosion and reduce wildlife habitats. A judicial decision in 1989 affirmed the power of municipalities to designate the sanitary sewer service area through the Master Plan process. The northern part of the island, however, can be distinguished from the southern part since there is no existing use of that property. Accordingly, the Master Plan proposes to remove the northern part of Holcombe Island<sup>1</sup> from the sewer service area. The City Council should direct the Lambertville Sewerage Authority to initiate proceedings to amend their WMP appropriately.

Public access to the waterfront has been available only through the generosity of the Lewis family. The Lewis family, in promoting their own stewardship of the land, have granted the Heritage Conservancy in Doylestown the right of first refusal to purchase their land for conservation purposes at some future

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<sup>1</sup> - Consisting of Block 1022, Lots 4-6.

time. The preservation of the land would complement the D&R Canal and provide additional passive recreation opportunities for citizens of the City and visitors. The Canal Commission is planning to expand parking facilities at the Holcombe-Jimison Farmstead to permit walkers and bicyclists to gain access to the Canal without adding additional burdens to the circulation system in Lambertville. The staff of the Commission support the preservation of the land because of its important connection to the river and canal.

In the long term the City should pursue Green Acres bond money for acquiring a public interest in the northern part of Holcombe Island. The Heritage Conservancy's interest in the southern portion would serve to further the goals of this Waterfront Plan in the preservation of the land. An application to the Green Acres program for the northern section would meet many of the highest priorities established for open space by the state. It is on the waterfront, is connected to the historically important canal, and it would link existing recreational opportunities. All of these factors are important in receiving a high ranking in the annual consideration in the funding of projects. Conservation easements, instead of full ownership rights, could be pursued to restrict the use of the land for conservation purposes without actually placing the land in public ownership.

Though the future use of the land is proposed for conservation purposes, land cannot be zoned into inutility - that is for no economic activity. It may be assigned a low residential density, however, to reduce the potential impact of development on environmentally sensitive land. In examining the allowable densities clearly supported by case law, a minimum lot size of three acres for each residential dwelling unit is recommended. Though higher minimum lot sizes have been permitted under certain circumstances, the three acres per unit minimum has been found to enjoy the most judicial support where the environmental factors described in this Plan are found. Should higher minimum lot sizes at a later time be found to be judicially supportable in the future, it is recommended that the density be lowered to the new threshold. Additionally, the zoning ordinance should include requirements for the placement of buildings to minimize any visual intrusion into the wooded edge of the river.

The conservation land use classification would meet all three goals that have been articulated. The land, if or when acquired, would provide for passive recreational activities such as walking and bird watching. Fishing and rowing

activities on the river would be compatible with conservation uses. The proposed use of the land would preserve environmentally sensitive land. By retaining the land largely in its present state, it would preserve natural features and existing views from the river side.

#### DOWNTOWN MIXED USE

The land use classification for the central segment on both sides of Bridge Street is Downtown Mixed Use. In this instance, mixed use refers to a combination of residential and non-residential uses. Lambertville's diversity of uses occurred before the separation of uses that became common with the institution of zoning. Downtown areas need residential uses for a lively pedestrian environment and a vibrant business community.

This land use classification is intended to support the central business district by encouraging personal sales and services as opposed to more general or highway oriented retail uses. It is intended to provide land areas for the City's tourist and entertainment industries with a specific orientation towards the waterfront. In conjunction with opportunities for commercial development, significant public amenities and access to the river are important parts of the overall plan for the waterfront. This area is proposed to be the only part of the waterfront with visible activities from the opposite side of the river. This land use classification is a continuation and refinement of the land use policies proposed in the 1989 Master Plan.

A pedestrian path to the Delaware open to the public is an important element necessary to maintain the connection of the river to the central business district and by extension to the rest of the City. Views of the river from the City constitute an important part of the civic realm that forms a significant element in Lambertville's identity. Development in the downtown mixed use area should be designed to extend the civic realm and provide views of the river.

#### PARKS AND RECREATION

The Parks and Recreation land use classification has been designated for the lower part of the waterfront encompassing the state park. Because of the state ownership of this land, the City has less direct control over land use than the rest of the waterfront and other areas of the municipality. Implementation of

the recommendations in this land use category is consequently more involved since it requires the approval and likely participation of the state.

The Parks and Recreation land use classification is proposed for active and passive recreation. Active recreation is usually conceived of as organized sports with a set of formal rules. Passive recreation is considered less formal activities such as hiking and bird watching. Because of a lack of flat open land, it is anticipated that most activities will be of a passive nature.

The Parks and Recreation classification is also proposed for the entire length of the Delaware and Raritan Canal. The canal ties together the three land use segments that are designated in the Waterfront Plan.

A number of specific proposals for the state park are recommended. In the long term, the Ferrell Gas Company should be relocated from the waterfront. An industrial use such as this is incompatible with the policy to enhance recreational opportunities for local residents and visitors. A community or recreation center in its location would complement the proposed land use by providing organized activities which could make use of the state park's facilities.

The terminus of the rail line is taken up by old rail cars and miscellaneous steel that detracts from the ambiance of the canal. These should be removed to enhance the visual aspects this area. In conjunction with the enhancement of the area, any unnecessary track should also be removed.

The Delaware River lock just south of the sewage treatment plant should also be enhanced to show off its beautiful old stone work. This is a good fishing spot because of the excess water that spills from the canal that could be made more accommodating for their use. One method of accomplishing this would be to develop a pedestrian path from the boat launch area to the lock following in front of the sewage treatment plant. Though there are some physical impediments because of the fencing around the plant and the steepness of the slope from the fence to the river a path could be developed.

The map "Waterfront Plan", appended to the end of this document, depicts in graphic form the future land use and proposed physical improvements to the Delaware River corridor.



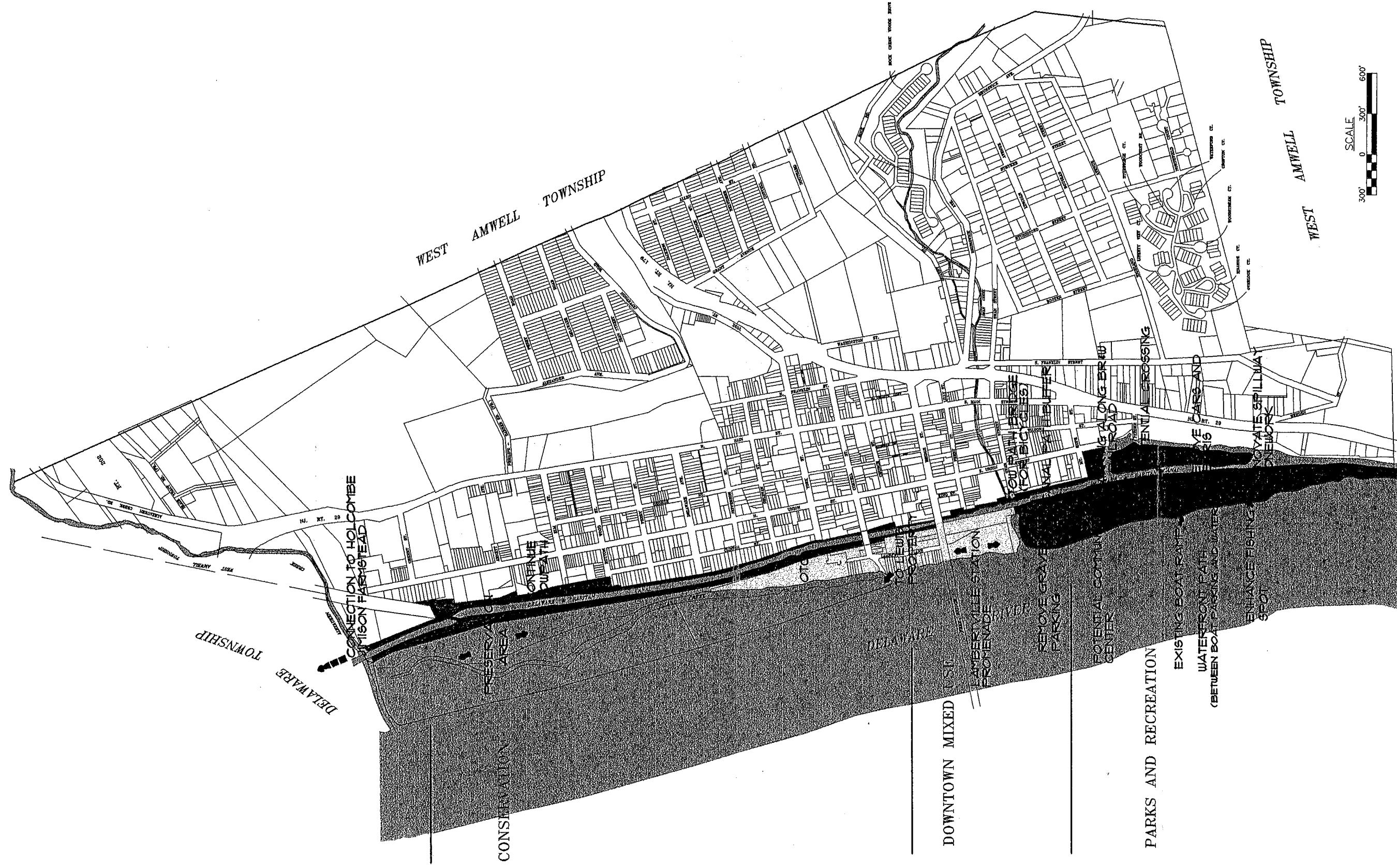
## CIRCULATION ISSUES FOR THE WATERFRONT

Lambertville is a tourist destination and part of its attraction is the Delaware River and the D & R Canal. The partial removal of track and subsequent improvements to the towpath have created a recreation facility that is extensively used both by residents and tourists. The close proximity of restaurants and shops add to its charm. Lambertville's attractiveness as a tourist destination, however, brings significant traffic congestion particularly on weekends. Every solution has its drawbacks, however a series of steps to assist in alleviating congestion will bring a measure of relief.

One method would be to develop small parking areas at the north and south ends of the City adjacent or near to Rt. 29. These areas would be signed to encourage Canal users to park in these lots outside of the central business district. Persons desiring to use the Canal would not need to necessarily park in the central business district where congestion is the heaviest. From these parking areas, new connections to or over the Canal should be explored. Since the Canal experience has been characterized by the D & R Commission as a combination of the historic and the natural, any new parking areas should be designed to minimize visual intrusions through intensive landscape treatments and elements.

## CONCLUSIONS

The Waterfront Plan seeks to retain the balance of developed and undeveloped portions of the Delaware River corridor that presently exist in Lambertville. The Waterfront Plan follows from the Master Plan's goals and objectives for the development, redevelopment, and preservation in Lambertville. In turn the Waterfront Plan is supportive of the goals of the *Lower Delaware River Management Plan* since the two sets of goals describe a common view of the importance of the Delaware River. The Waterfront Plan will be used to implement amendments to the City's land development and wastewater management regulations by City Council as appropriate.



# WATERFRONT PLAN

