

SECTION IV

PROPOSED LAND AND WATER USES
AND
PROPOSED PROJECTS

IRONDEQUOIT LWRP
SECTION IV

INTRODUCTION:

The heart of the Local Waterfront Revitalization Program consists of the identification of uses and projects, both public and private, proposed for the waterfront area. These uses and projects must further each policy of the Revitalization Program.

The process of developing proposed land and water uses is one of synthesis, in which the community's policies for the use and protection of its waterfront resources are considered along with development potential and constraints.

Three (3) types of areas are found in Irondequoit's waterfront, and each will be dealt with in a different manner:

- * Areas of existing stable uses unlikely to change significantly.
- * Areas suitable for a variety of uses, which typically include areas needing redevelopment or large tracts of undeveloped land.
- * Areas of particular concern, which typically include specific areas within the waterfront where important natural or manmade resources are found, as well as those that contain incompatible uses and blighting conditions which should be removed.

The classification system used for describing stable and proposed uses in Irondequoit's waterfront area consists of nine (9) land use categories. The classification system is identical to that which was developed for use in Irondequoit's Town Master Plan, which has now been adopted by the Town. This system was chosen because it provides easy comparison of existing uses and proposed uses.

LAND USE CATEGORIES:

- a) Public Land/Open Space: This land use category includes school and recreation sites owned by the Town, the Irondequoit School Districts, and the County. It also includes several privately owned sites for which permanent open space designation has been recommended. These open space sites include portions of the banks of Densmore Creek east of the Sea Breeze Expressway and the wetlands area at the southern end of Irondequoit Bay.
- b) Rural Residential: This land use classification, which restricts development to large lots of 1-2 acres, is not found within Irondequoit's waterfront area.
- c) Low Density Residential: This residential classification, which applies to the majority of Irondequoit's existing residential neighborhoods, allows residential development up to an average maximum density of four (4) units per acre.

- d) Multifamily Residential: This land use category, which includes a range of multifamily residential development types (townhouses, condominiums, and apartments), is applied to those areas where higher density residential development opportunities exist (especially along the Summerville lakefront).
- e) Business, Non-Retail: This land use classification indicates those areas where office development is appropriate, but a broader range of retail and commercial uses is not desirable. It is applied on arterial streets where a transitional land use is required between existing residential areas and more intensive commercial development.
- f) Neighborhood Business: This land use category is intended to accommodate convenience commercial uses which serve adjacent residential neighborhoods and are compatible within a residential context.
- g) Commercial: This general business category applies primarily to major shopping areas located outside of the waterfront. It allows a broad range of retail, service, and other commercial activities needed to serve residents of the community and region.
- h) Waterfront Mixed Use: This special waterfront land use classification is intended to provide the opportunity for developing an intergrated mix of water and recreation-oriented uses (including residential, commercial, and public open space), which will take maximum advantage of the special assets of a waterfront location. While providing the flexibility needed to allow mixed use development, this land use classification also requires substantial public sector review control.
- i) Light Industrial: This land use category is applied to a limited number of sites which are appropriate for office, research, light assembly/manufacturing, and warehousing and distribution uses. These "clean" industrial areas are located adjacent to major highways to maximize visibility and access (such as the State Tunnel Site located at the intersection of the Keeler and Sea Breeze Expressways.)

(See the 'Proposed Land and Water Use Map' in the attached map envelope.)

AREAS OF EXISTING STABLE USES:

The majority of Irondequoit's waterfront consists of areas of stable uses unlikely to change significantly. This fact can be attributed to the well established nature of the Town's waterfront area, as well as the scarcity of vacant developable land. The predominant stable land use in Irondequoit's waterfront area is single-family residential, and no foreseeable changes in market conditions or other factors are expected to significantly alter the character of the area. Proposed uses, with some major exceptions which are discussed below, will generally follow the area's existing land use pattern.

The attached map from Irondequoit's recently adopted Master Plan (which uses the classification system described above) show the land use patterns which are expected to continue for the foreseeable future. As already noted, the predominant stable land use in each of the three (3) sub-areas which comprise Irondequoit's waterfront (Summerville/White City, Sea Breeze/Irondequoit Bay North, and Irondequoit Bay South - which includes the Bay Central and Southeast Irondequoit sections) is single family residential. Generally, the residential areas within the waterfront are well established and fully developed. However, a limited amount of new residential development has occurred within the two sub-areas bordering Irondequoit Bay and can be expected to continue at a very modest rate on small, scattered sites.

Because most of the few remaining sites suitable for development are zoned for single family residential use, future residential construction in the waterfront will be low density in nature and, therefore, at a scale which will enhance existing stable residential neighborhoods. It should also be noted that the new Town Master Plan has proposed that the same areas remain in low density residential use (which allows up to an average maximum density of four units per acre), and this fact has been reflected on the Proposed Zoning and Land Use of Irondequoit's LWRP.

For the most part, the housing within the Summerville/White City and Sea Breeze sub-areas is older and more modest than that within Irondequoit Bay South, a fact which accounts for the higher densities and poorer housing conditions found in these sub-areas.

To preserve these and other older residential areas within Irondequoit, the Town has instituted housing rehabilitation and infrastructure improvement programs funded by both local and federal revenues, including substantial amounts of Community Development Block Grant funds. Such programs have been, in large part, responsible for preserving and upgrading Irondequoit's older residential neighborhoods and will continue to be funded by the Town for the foreseeable future. CDBG funds have also been used by the Town to provide greater recreational opportunities for residents of the waterfront area (such as the purchase and development of the Bateau Terrace site in White City) and could be used in the future to provide recreational facilities in conjunction with private sector water-related developments in the Sea Breeze and Summerville areas.

AREAS SUITABLE FOR DEVELOPMENT/REDEVELOPMENT:

Within the Inventory and Analysis section of the LWRP, eight (8) economic opportunity sites were identified and briefly described, including proposed uses. In the estimation of the Town, these sites (because of such factors as size, location, visibility, value, and proximity to the waterfront) possess the highest potential for development/redevelopment in the waterfront. The sites in question are either vacant, deteriorated, underutilized, or inappropriately developed and vary greatly in size, use, and type of ownership. The opportunity sites are located in each of the three waterfront sub-areas originally identified in the Inventory and Analysis section of the LWRP, and reference should be made to that section for background information.

The opportunity sites which the Town has identified, if developed as specified below, will enable Irondequoit to achieve several of the policy objectives it has set for its waterfront in Section III. In particular, the development of many of these sites will increase public access to and use of the waterfront by providing uses which realize this area's full recreational and commercial potential. Another major policy objective which the proposed uses address is the protection of valuable natural resource features found in the waterfront, particularly those sensitive environmental resources located in the vicinity of Irondequoit Bay.

SUMMERVILLE/WHITE CITY

Site 1: Stutson St.-Thomas Ave. (public land/open space)

This site is bounded by the Stutson Street Bridge on the north, the City line on the west, the Conrail right-of-way on the south, and Thomas Avenue on the east and parallels the Genesee River located to the west. Because of its proximity to the Genesee River and its good accessibility, the site, which is currently partially vacant, should be developed as a recreation facility.

This Stutson St-Thomas Ave. site is adjacent to City of Rochester land to the west which borders the Genesee River and which is included within the City's LWRP boundary. Rochester's Draft LWRP has proposed that this City land could be developed for a variety of water-oriented, recreational uses including a marina, public walkway, boat launch, boat docks and fishing areas.

The Stutson-Thomas Ave. site and the adjoining City land should be developed in a comprehensive and cooperative manner which takes advantage of their proximity to the Genesee River. "...While the water oriented recreational uses which are proposed for the Stutson Street - Thomas Avenue site and the adjoining City land are generally compatible, more detailed water-oriented land use proposals, developed in direct consultation with the City of Rochester, need to be prepared for this area, in order to ensure workable and mutually supportive projects which conform to the policy objectives of the Town and City LWRPs."

The proposed re-use of the Stutson-Street-Thomas Ave. site as a recreational facility is consistent with the Town's LWRP policies by greatly increasing public access to the shoreline. It would also insure the type of development which is most suitable to the site's physical features and environmental constraints. Care would have to be taken, however, when designing the facility to ensure minimal disruption of the adjacent residential neighborhood by providing sufficient parking, adequate "buffer" zones and vehicular access which causes minimal conflicts with local circulation plans.

It should be noted that the recommended reuse of the site is contingent upon the location chosen for the replacement of the Stutson Street Bridge. If a more southerly location for a new bridge is chosen, a portion of the site will probably be needed for the bridge's easterly approach. Studies are currently being made by Monroe County to determine the best location

and type of replacement for the existing structure. The primary options under consideration are:

- * Rehabilitation of the existing two-lane structure.
- * Replacement of existing bridge with four-lane drawspan at existing location.
- * Construction of new, four-lane drawspan connecting the Ontario State Parkway (on the west side of the Genesee River) to Pattonwood Dr. in Irondequoit on an alignment just south of the existing bridge.

It is unlikely that construction of the bridge replacement will begin prior to 1990. Currently, it appears that a four-lane bridge slightly to the south of the present crossing is the most likely recommendation, but the Town will not be prepared to endorse any replacement option until such time as it has the opportunity to consider in detail the findings of the County's studies and to present this information to the public for comment.

Site 2: Municipal Treatment Plant (waterfront mixed use)

The eleven acre former Irondequoit Northwest Treatment Plant site off of Pattonwood Drive and the adjoining privately owned, nine acre parcel constitute one of the most attractive development parcels within Irondequoit's waterfront area. As noted in the Inventory and Analysis section, the potential exists for combining the Town-owned parcel and the adjacent private property to provide a site on which to develop a special maritime theme complex. Such a complex of mixed uses could be intergrated with an existing marina on the Genesee River within the City of Rochester.

The site's size, high visibility, accessibility, and proximity to riverfront marina facilities make it ideal for a commercial-residential development with a maritime orientation. Based on market surveys conducted when the Town Master Plan was being written, support exists for a development program (to take place over the next 3-5 years), which includes townhouses (40-60 higher priced units), a restaurant, expanded marine services, and a small amount of retail use (up to 15,000 sq. ft.)

Development controls, imposed by the Town, will be included in any land disposition agreement for this site. The controls will be designed to realize the following development objectives:

- * promote a development program which includes well integrated mixed uses;
- * encourage a high quality of architectural design and site planning; and
- * ensure that new development presents an "edge" which is compatible with existing residential uses.

Because the Town-owned portion of the site is listed on the State's Registry as a location of an inactive hazardous waste site, various constraints to future development there may exist. The nature and scope of development constraints, if any, will not be known until such time as the site is completely tested.

The Town Master Plan recommends that the two parcels comprising the development site be included within a Waterfront Development District which, as noted above, is intended to facilitate the development of an integrated mix of water and recreation-oriented uses that will take maximum advantage of the special assets of a waterfront location. This new zoning classification will provide the flexibility needed to allow mixed use development having a maritime theme, while at the same time providing the standards and review criteria needed to ensure the most beneficial development of the waterfront.

The City of Rochester's recommendations for the riverfront adjoining the development site, as specified in its draft LWRP, include such water and recreation-oriented uses as: public walkways, swimming and fishing areas, water-related retail support facilities, parking, outdoor entertainment, marinas and boat docks. These types of uses are in complete harmony with the intent of the Master Plan's recommendations for the development site and could be expected to complement the facilities provided there.

(For a complete description of the provisions of the Waterfront Development District, reference should be made to the Proposed Legislation subsection of Section V, which includes the entire draft of this new ordinance.)

Site 3: Lakeshore Development (multi-family residential)

The underutilized and somewhat deteriorated site which includes First, Second, and Third Streets, between St. Paul Blvd. and the lakeshore, provides the only appropriate location within the Summerville/White City sub-area for waterfront, multi-family residential development. The site, which currently contains a mix of vacant parcels, substandard housing, and neighborhood commercial uses, lends itself to multi-family residential development due to its proximity to an existing condominium project and the area's multi-family zoning designation. Further, multi-family residential development appears to be a realistic proposal based on the market acceptance for moderate-density housing in the Summerville/White City sub-area. (According to an estimate appearing in the Town Master Plan, more than 100 housing units could be marketed in this section of Irondequoit, if the units fronted on Lake Ontario.)

Several issues, however, must be dealt with in a sensitive manner prior to the initiation of any development on the site so as to ensure a minimum of disruption to the surrounding neighborhood; the maintenance of public access to the shoreline; and the allocation of adequate space for water-dependent uses. Such issues include: architectural design of the project, site planning, preservation of waterfront views, potential conflicts between water-dependent and non-water-dependent uses, and the role to be assumed by the Town in facilitating the development.

Also to be decided is the nature and extent of public access to the waterfront, an issue which is complicated by the uncertain legal status of Windsor and Summerville Beaches (see the Inventory and Analysis section for a discussion of the legal questions regarding public use of these waterfront resources). This issue will have to be decided in a manner which recognizes the legal rights of adjacent property owners prior to determining the location and type of public access to the shoreline which will be provided as part of the site's development.

The Lakeshore Development site 3 is adjacent to a small section of City land to the west which borders the Genesee River and which is included within the City LWRP boundary. The City of Rochester's Draft LWRP has proposed that the City land could be developed for a variety of water-related recreational uses including a public walkway, swimming and fishing areas, water-related retail support facilities, marinas and boat docks.

The Lakeshore Development Site and the adjoining City land should be developed in a comprehensive manner which takes advantage of their proximity to the Genesee River. The concept of developing Site 3 for waterfront, multifamily residential purposes is generally compatible with the City's proposal to develop the adjacent City land for water oriented recreational uses. "...However, more detailed water-oriented land use proposals, developed in direct consultation with the City of Rochester, need to be prepared for this area, in order to ensure workable and mutually supportive projects which conform to the policy objectives of the town and city LWRPS."

SEA BREEZE/IRONDEQUOIT BAY NORTH

Site 4: Northeast Sea Breeze Area (waterfront mixed use)

The Sea Breeze sub-area is located in the northeast corner of Irondequoit and is bounded by Lake Ontario on the north, Irondequoit Bay on the east, and the City of Rochester's Durand Eastman Park on the west. Excellent regional access and ample traffic carrying capacity is provided by the 4-lane Sea Breeze Expressway and the Culver Rd. arterial. Despite its great natural resources, Sea Breeze has not yet achieved its full potential and lags behind much of the rest of Irondequoit from a socio-economic standpoint. (For example, a significant percentage of the area's housing units are substandard and their median value is relatively low.)

A major catalyst to the redevelopment of the northeast portion of Sea Breeze is the opening of a channel from Irondequoit Bay to Lake Ontario, which was recently completed (Summer 1987) by the Army Corps of Engineers. As a later phase of this project, the State has agreed to construct a harbor of refuge and boat launch facilities (2 double launch ramps and parking for cars and trailers) on a 20-acre site located on Sea Breeze's northern bayshore. A breakwater is being constructed to the west of the new channel and a jetty to the east (in the Town of Webster); fishing access will be provided on both piers. In addition, comfort stations and parking facilities will be constructed. (See attached site plan.)

The opening of Irondequoit Bay and the development of the State recreational facilities should be coordinated with new private development to take maximum advantage of Sea Breeze's enhanced recreational and economic development potential. The removal of Route 18 Bridge had been delayed because of a law suit brought by several residents and businesses in the area who want a replacement bridge constructed over the new channel in a timely manner. The Court granted an injunction barring the Corps from removing the bridge, but the injunction was lifted on November 4, 1980 (CIV- 84-1152T) by an appeals court thus clearing the way for the bridge removal.

The Town's Master Plan recommends that the State's bayshore site (20 acres), the adjacent private land (5 acres), and the vacant land located to the west of the Sea Breeze Expressway (including the 4.7 acre municipal sewage treatment plant site and 5 privately held acres) should be developed as a mixed-use waterfront center. The most appropriate type of uses for inclusion in this kind of waterfront development include: expanded marina facilities, specialty shops, a small conference hotel, restaurants, amusement parks, residential development, and waterfront promenades.

Coordinated development of water-oriented, mixed-use center, including some or all of the above uses, would provide a greatly expanded range of waterfront recreational opportunities and create a major new revenue producing project in one of the few waterfront locations in Irondequoit where adequate access and developable land are available.

The Master Plan also recommends that development of the northeastern portion of Sea Breeze should include redevelopment of the commercial properties (known as "Hot Dog Row") located near the baymouth and immediately west of the intersection of Culver Rd. and the Sea Breeze Expressway. Because of the high visibility of these properties and their proximity to both Lake Ontario and Irondequoit Bay, actions which would use the area more intensively, upgrade its quality of development, insure compatibility with adjacent new development, and provide for uses having year-round economic viability are called for. As part of a long-term plan for the area, provision should be made for either the relocation of the existing commercial uses within the same general area or the provision of assistance by the Town to the property owners for such improvements as building renovation, site and parking area landscaping, and upgrading of the public environment.

Other elements of Sea Breeze's redevelopment include the eventual public acquisition of some, if not all, of the residences located on the lakefront between the terminus of Culver Rd. and the Bay opening. Such an acquisition program would permit public access to a portion of the lakefront which is currently inaccessible and supplement the public and private, water-oriented recreation facilities envisioned for this area. It should be noted, however, that a decision to replace the bay outlet (Route 18) bridge would have a major impact on public access to this area and might, therefore, eliminate the primary need for acquiring these properties. It is also possible that, depending upon the location and size of a bridge replacement, some of the lakefront houses will have to be acquired to provide access to the new span.

Acquisition of the lakefront residences would also facilitate the development of the former Hojack Line right-of-way into a pedestrian and bicycle pathway between Irondequoit Bay and Lake Ontario.

The Hojack Line, which has been abandoned for several years, parallels Lake Ontario in the Town of Irondequoit and offers a unique opportunity for providing a non-vehicular connection between the Bay and Durand Eastman Park for use by bicyclists, joggers, hikers, etc. Swift action on the part of the County of Monroe, which already controls much of the right-of-way, is absolutely necessary to prevent the further loss of portions of the right-of-way to adjacent property owners. In addition, a program to acquire those sections already lost to the private sector should be instituted by the County (possibly using State funds) to insure an uninterrupted pathway for the public to use.

Another element of the Sea Breeze redevelopment plan is the potential realignment of the northern terminus of the Sea Breeze Expressway from the edge of the Bay to a location between "Hot Dog Row" and the former municipal treatment plant site. This public infrastructure improvement would bring about a dramatic change in the image of Sea Breeze's waterfront area by providing an improved physical setting for existing businesses and encouraging new development.

The realignment would also make possible the creation of an attractive site for a new privately constructed marina complex on a bayfront parcel made up of land leased from the State, the abandoned expressway right-of-way, and a portion of the "Hot Dog Row" properties. Without the roadway realignment, any future marina development in the area would have to be located on State-owned land further south along the bayshore. Development in this area would be severely constrained by a number of factors, including: the expense of dredging a channel to serve the marina; the presence of steep slopes and other sensitive environmental features; the limited land area available between the existing roadway and the bayshore; and the difficulty of providing adequate vehicular access. The bulk of the State-owned bayshore area should be preserved as a natural, passive park which provides walking trails, picnic areas, and a scenic backdrop for the Bay's northwest shoreline.

By better defining the development opportunity sites described above and providing a sense of separation from adjacent existing commercial uses, the new expressway realignment would minimize any potential adverse influence of adjacent uses and, thereby, promote the early development of the opportunity sites. The realignment would also provide for improved traffic circulation in the Sea Breeze sub-area by creating a more direct and efficient connection between the expressway and Culver Rd. and by minimizing the potential for congestion at the entrance to the proposed marina and Bay outlet park.

With regard to the existing strip commercial development on Culver Road between Durand Blvd. and the amusement park (Sea Breeze Park), improvements will be undertaken by both the Town and the County that will upgrade its appearance and insure its economic viability.

As part of Monroe County's Capital Improvements Program, an expenditure of \$1.75 million is scheduled for pavement and intersection improvements to Culver Rd. The Town, in addition to working closely with the County on this project, is in the process of initiating a commercial revitalization program (funded under its CDBG Program) which will assist property owners and merchants to design and implement improvements to the facades, signs, and parking areas of commercial structures located on Culver Rd. The Town will also continue to use local and CDBG funds to make infrastructure improvements in the area.

Market Potential: According to the Town's Master Plan, the market potential for the proposed uses discussed above in large measure will depend upon implementation of the transportation and recreational public improvements which constitute an integral part of the redevelopment scheme for northeastern Sea Breeze. Assuming these public improvements take place, this section of Irondequoit can be expected to be perceived as an excellent location for the development of such facilities as a small conference hotel, a high quality restaurant, and a modestly sized mixed-use commercial center. In addition, based on the success of recent development (such as the 16 unit Point Pleasant luxury condominium project), there seems to be a solid market for well planned residential projects in the vicinity of the Bay, especially if they take maximum advantage of views and waterfront access.

In order to facilitate the types of development discussed above for northeastern Sea Breeze, the Town Master Plan recommends that this area be included in a Waterfront Development District, a new zoning classification which is intended specifically to provide the opportunity for developing an integrated mix of water and recreation-oriented uses (including residential, commercial, and public open space) that will take maximum advantage of the special assets of a waterfront location. As will be seen in the Proposed Legislation section of Section V, this special waterfront classification will provide the Town with the review powers, development standards, and procedures necessary for dealing with the opportunities and concerns unique to waterfront areas.

IRONDEQUOIT BAY CENTRAL/SOUTH

Site 5: Newport Road (public land/open space; low density res.)

The site, which occupies an extensive section of the bayshore, contains three major parcels including: the Town's 27 acre municipal landfill, the site of the Newport House partyhouse facility on the Bay, and a large vacant parcel (known as the Cassara property) which includes both bayfrontage and steep, wooded slopes. As previously noted in the Inventory and Analysis section of the LWRP, the development of this site will be severely limited due to both the continuation of existing uses and the constraints imposed by the site's sensitive natural features including steep slopes and wood lots.

Portions of the site, however, possess limited development potential, but will require the Town's special attention to insure the protection and enhancement of important natural resources. The development criteria, standards, and regulations proposed by the Town as part of its LWRP (for the protection and enhancement of the Bay area's natural features) are described at length in the next section of the LWRP. These review procedures and development standards, will govern development in areas such as the Newport Road Site and will insure, among other things, the protection of adjacent areas and the maintenance of views of the Bay.

Further, the Master Plan proposes that the Newport Road Site be zoned as low density residential, thus maintaining the area's existing density and land use characteristics. Low density residential development is appropriate for the relatively flat northern portion of the Cassara parcel, assuming that such development is designed in a way which will not disrupt adjacent natural areas and views of the Bay. Development of the remainder of this parcel, including the foreshore of the Bay and the wooded, steep slopes, should be prohibited and left in its natural state.

The municipal landfill site is now closed. Based on the facility's beautiful setting, steep topography, and its limited development potential due to subsoil conditions, long-term reuse of the landfill site for a Town passive recreation facility is proposed. This proposed use is entirely appropriate given the area's physical features, beauty, and environmental constraints, and would have the additional advantage of increasing public access to the shoreline. However, before the site can be reused as a passive recreation facility, tests must be conducted to obtain the data necessary to determine whether any hazardous wastes are present that could constitute a health threat.

Provision of greater public access to the Bay is also proposed for the site of the Newport House, through the private development of a boat docking facility. This use is considered appropriate given the fact that the site of the Newport House is one of the few locations on Irondequoit Bay that contains sufficient space to accommodate parking requirements and will also not require excessive dredging. As part of the redevelopment plan for the Newport House Site, the owner will include a large boat docking facility. Also included in the approved site plan were the expansion and complete renovation of the existing party house facility, additional parking spaces, and the provision of a pump station and sewer line for the removal of sanitary waste. (Preliminary approvals from the State Department of Environmental Conservation and the Town have been obtained by the owner and rehabilitation has begun on the party house.) However, these plans appear to have changed in favor of a smaller free standing restaurant and additional supportive facilities for the marina users. (These changes have not yet received either Town or State approvals).

Site 6: State Tunnel Property (light industrial; mixed-use)

A unique redevelopment opportunity for the Town exists on a now vacant site located immediately to the east of the junction of the Sea Breeze and Keeler Street Expressways (Rts. 590 and 104). The 27 acre site, owned by the State Department of Transportation, (which until recently has been used

as a construction site for a sewer tunnel) has been offered to Irondequoit as the location for a Town-operated recreation facility. The appropriateness of the site for recreational use must be questioned however, given its suitability for more intensive use and the fact that a major County-operated park site (Bay Park West), which has recently been expanded, is located less than half a mile to the south. Bay Park West, unlike the State Tunnel Site, has an extensive shoreline and will contain significant water-oriented recreation facilities. (See below.)

As noted in the Town Master Plan, the State Tunnel Site and the adjacent privately-owned land (in particular, the Brockman parcel located directly to the north) offer one of the best remaining opportunities within the Town of Irondequoit for attracting and accommodating a significant mixed-use project. The site's exceptional visibility and accessibility, due to its expressway location, make it extremely well suited for a high-image office/industrial or mixed-use development which could include light industrial, office, hotel, and/or moderate density residential components.

This type of private development would be contingent upon the State donating the site to the Town without use restrictions and the cooperation of private property owners in allowing the assembly of an attractively scaled development parcel (approximately 30 acres). If, however, the State imposes restrictions on private development, the site should be developed for open space/recreation. In this case, the Brockman parcel to the north should be redesignated for multifamily residential development, extending the existing apartment use which fronts on Ridge Rd.

Site 7: Glen Haven (low density residential; public land/open space)

The Glen Haven Site actually consists of two separate areas. One area consists of a vacant parcel located on South Bay View Rd., immediately to the west of the Bay Village condominium project, and is under review by the Planning Board for low density residential use. Any development on the parcel should be designed in such a way as to preserve the excellent view of Irondequoit Bay and minimize disturbance to steep, wooded slopes.

The other area in the Glen Haven Site consists of three undeveloped parcels located on or near the Bay, south of the Bay Village project and immediately north of Bay Park West.

All three parcels have been purchased by the State for the purpose of incorporating them into Bay Park West, a County-owned facility which is currently unimproved. Negotiations are continuing between the State Office of Parks, Recreation, and Historic Preservation and Monroe County regarding the terms of a long-term lease under which the County will oversee the development and operation of the recently acquired parcels. Potential uses for the park addition include a marina and boat launch facility, a restaurant, and other types of commercial waterfront uses. It is now the County's intention to hire a private consultant to prepare a development plan for the Park that will not only recommend the uses and facilities which should be provided, but also the manner in which they should be financed and operated. The County has indicated that private operation of park facilities is an option which will be given serious consideration.

A small portion of the Glen Haven Site located immediately south and east of the Bay Village Condominiums is recommended for rezoning to a Waterfront Development District (WD) and should be developed for boat docks or other similar uses in conjunction with existing facilities provided by the Bay Village Condominium Association.

Park Master Plan: The Master Plan prepared for the original section of Bay Park West (which is currently undergoing final review) contains several recommendations regarding the future development of the Park. Included in these recommendations is a proposal for the construction of a new entrance(s) to the Park, providing a connection with the Sea Breeze Expressway and/or Empire Blvd., which would eliminate the need to enter through residential areas as is now the case. (The road presently entering the Park from the south would be abandoned.) The new road would include a bicycle trail, landscaping, and picnic areas along its route.

According to the Park Plan, the road would terminate in a boat launch complex complete with launch facilities, car and trailer parking, picnic and toilet facilities. Continuing south from the boat launch site would be a series of fishing piers, boardwalks and the existing boat marina. (The existing marina would be upgraded to a safe condition and maintained until more suitable arrangements for berthing boats can be found, probably at a new facility built on the recently acquired parcels to the north.) The entire road paralleling the shore would be improved and terminate into a small parking lot overlooking the Bay. The Plan also recommends that all the old houses within the Park be demolished as soon as possible. In addition, the Plan advises that the houses located along the shore between the Park's southern edge and Empire Blvd. be purchased by the County as they become available, so that they can be demolished and their sites incorporated into the Park.

Site 8: Empire Blvd. (waterfront mixed use)

Because of the presence of extensive wetlands and the uncertain nature of the fill found in the area, the development potential of the southern end of the Bay in Irondequoit is very limited. More intensive use, however, is proposed for a three acre vacant site located on the Bay on the north side of Empire Blvd. and for the underutilized area bordered by Empire Blvd., Irondequoit Creek, and the Ellison Park wetlands.

Due to such features as their high visibility, waterfront location, and excellent accessibility via a major arterial, these sites are best suited for waterfront commercial development. (Such uses include restaurants, marinas, and other water-oriented commercial uses.)

To facilitate the eventual redevelopment of this area for waterfront commercial use, several actions will have to be undertaken by the Town including:

- 1) The creation, in conjunction with the Town of Penfield, of a new sewer district to include Empire Blvd. between the steep slopes bordering the southern end of the Bay.

- 2) Rezoning the area as a Waterfront Development District.
- 3) Continued enforcement of the Town's Zoning, Building, and Safety codes to prevent such illegal activities as dumping in the adjacent wetlands, as well as the construction or expansion of prohibited land uses.
- 4) The adoption and mapping of Environmental Overlay Districts and an Erosion, Drainage, and Sedimentation Control Ordinance, which will insure that any new development in this area will not negatively impact nearby wetlands and other sensitive environmental features.

AREAS OF PARTICULAR CONCERN:

Irondequoit Bay Natural Resources:

Special attention needs to be given to the proposed uses in the vicinity of Irondequoit Bay (including the Bay's three geographic areas: the plateau, the steep slopes, and the shoreline) to insure the protection and enhancement of important natural resources which are environmentally very sensitive. Irondequoit Bay has many unique natural features which serve as a resource for recreation and visual beauty and constitute an integral part of complex and critical natural processes. Increasing pressures for development around Irondequoit Bay caused by the imminent opening of the Bay to Lake Ontario threaten these natural features and reinforce the need for special protection measures.

The natural features identified in several studies and plans for the Irondequoit Bay area (including those conducted by the technical staff of Monroe County's Bay Coordinating Committee) as requiring protection from development pressures include:

1) Wetlands

The State Department of Environmental Conservation (DEC) has identified the significant wetland areas in Irondequoit Bay. These areas generally are found where there is significant submerged or emergent aquatic vegetation. These wetland areas serve important functions including: shoreline erosion protection; wildlife habitat; fish habitat, spawning, and nursery areas; improving water quality by acting as a natural sedimentation basin; open space and passive recreation areas.

2) Steep Slopes/Bluffs

Much of the immediate shoreline area of Irondequoit Bay has steep slopes comprised of highly erodible soils. Slopes of 15% or greater may be subject to failure if disturbed either through removal of vegetation (which acts to stabilize the slope) or grading of slope areas which exposes them to erosion by wind and water. Natural percolation of stormwater is reduced when vegetation is removed from slope areas, or impervious surfaces such as buildings and paved surfaces are constructed in these areas.

Concentration of surface runoff from upland development areas to slope faces may cause excessive erosion and further reduce slope stability. Development related activities may increase the risk of slope failure and cause damage to property. Additionally, increased boat traffic resulting from the Bay opening may enhance the natural erosion at critical slope toe areas. Slope disturbance may also contribute to water quality degradation through siltation and destroy attractive natural features and wildlife habitats.

3) Floodplains

The shoreline area and wetlands of Irondequoit Bay have been identified as floodprone in studies done by the Federal Emergency Management Administration (FEMA). Floodplains generally serve as important water storage areas during times of flood, and building activity within floodprone areas can affect the flood handling capabilities of a body of water, as well as being exposed to significant damage from high water levels. (The National Flood Insurance Program, administered by the Town, already provides a mechanism for controlling development within floodprone areas.)

4) Woodlots

The area around Irondequoit Bay is endowed with many mature woodlots composed mostly of Hemlock and Mixed Hardwood forests. The woodlots are predominately in the steep slope areas of the Bay and provide soil and slope stabilization, as well as distinct aesthetic value and natural beauty. Indiscriminant clearing of woodlot areas will result in decreased slope stability and increased erosion and runoff. Woodlands also provide refuge areas for wildlife.

5) Significant Wildlife Habitat

Many of the areas around Irondequoit Bay (wetlands, slopes, woodlots) serve as important wildlife habitats. Fish spawning and feeding occurs in wetland areas and slopes provide habitat for ground animals and birds. Woods support deer, birds, and many other types of wildlife.

Maps showing the location of the natural features described above have been included in the Inventory and Analysis section of the LWRP for reference purposes. The specific development management measures, ordinances, and regulations which will be adopted by the Town for the purpose of protecting the Bay's environmentally sensitive features will be described in detail in Section V of the LWRP, as will the administrative and review mechanisms that will insure their implementation.

Bay Area Non-Conforming Uses:

Also requiring special attention by the Town are the numerous single-family residences located both on the bayshore and the steep slopes surrounding Irondequoit Bay. For the most part, these structures were built prior to

the enactment of Town Zoning and Building Codes and for this reason do not always meet the Town's present development and construction standards. Further, the age of many of these residences and the fact that several were originally intended only for part-time use in the summer has contributed to a relatively high percentage of substandard conditions. Also, because of such factors as difficult topography and unstable soils, many bayfront residential areas lack basic infrastructure improvements (including sidewalks, hydrants, adequate water mains, and storm and sanitary sewers).

This has led to erosion problems due to uncontrolled runoff, pollution of the Bay from inadequate septic systems, poor accessibility, and reduced fire-fighting capability.

With the impending opening of the Bay to Lake Ontario and the resulting increase in development pressures have come increased property values and renewed interest in the Bay as a place to live. These forces have resulted in the rehabilitation of several Bay area residences, an increase in the rate of property turnover, and higher property values.

All of these trends are expected to continue and to accelerate and bring about a significant improvement in the conditions of the area's housing stock. Nonetheless, the Town will continue to make available to lower income homeowners residing in the area grants (funded under Irondequoit's CDBG Entitlement Program) with which to rehabilitate their homes and bring them up to existing code standards.

Bay Waterfront Development

To prevent the type of development in the future that in the past has resulted in the problems discussed above, will require the adoption of new Town laws and the establishment of administrative and review procedures which will insure the application of adequate development standards. As will be seen in Section V, the Town has chosen to extensively revise its existing Zoning Ordinance as the primary means for regulating development in its waterfront area. A number of these zoning changes have already been adopted by the Town and procedures such as E.P.O.D. permits have been put in place.

The Town has drafted new zoning districts and other legislation which, when taken together, will have the effect of insuring that a balance will always be maintained in these areas between development pressures on the one hand and the need to protect sensitive environmental features on the other. In addition, because the Town has incorporated most of the recommendations and proposed legislation of the Irondequoit Bay Coordinating Committee (composed of Monroe County and the Towns of Irondequoit, Webster, and Penfield) into its own ordinances and local laws, there is a reasonable assurance that Irondequoit's approach to dealing with waterfront development pressures will be similar to those of the other municipalities bordering Irondequoit Bay.

Bay Opening:

The United States Corps of Engineers has completed a project to open Irondequoit Bay to Lake Ontario that has provided increased boating access

between the Bay and the Lake. The project consisted of the removal of the Lake Rd. (Route 18) highway bridge at the Bay outlet, the construction of a larger channel between the Lake and the Bay, and the construction of associated breakwalls and fishing jetties on either side of the channel on the Lake Ontario end.

Citizens and merchants in the area have challenged the Corps of Engineers' Bay opening project in the Federal courts, claiming that a replacement bridge carrying Lake Rd. over the widened outlet (which would continue vehicular access between the Towns of Irondequoit and Webster) was an integral part of the original project plan and that failure to provide a replacement bridge would cause area residents and businesses substantial hardships. In addition, the suit claimed that all potential environmental impacts were not considered by the Corps prior to the start of construction. The lawsuit temporarily halted all construction work on the Bay opening project. However, the injunction was subsequently lifted and construction on the channel allowed to proceed. Work on the channel was completed in the Summer of 1986.

The three towns surrounding Irondequoit Bay and Monroe County have stated that a replacement is needed and should be constructed as part of the Bay opening project, and the State has agreed to provide the funds for a replacement bridge (\$8,000,000+), if the County agrees to assume the annual cost for the operation and maintenance of the structure (estimated to be between \$160,000 and \$200,000). The County, for its part, has funded a consultant study which considered the need for a bridge replacement, the implications of not providing a replacement, and the costs and land use consequences associated with alternative courses of action.

The Irondequoit Bay Outlet Study, which was completed in October, 1986, narrowed the potential options regarding a bridge replacement to three alternatives:

- * No-crossing
- * Tunnel
- * Vertical Lift Bridge

This made possible an in-depth evaluation and comparison of the alternatives to each other in detail. (The results of this evaluation are summarized in the matrix included as an appendix to this section, as is a general comparison of the principal features of the three alternatives.)

Although the consultants responsible for the Bay Outlet Study concluded that the net benefits of each of the three alternatives outweigh their costs, and thus each is worth implementing, they further concluded that the long term potential benefits of the no-crossing alternative, including better land development and recreational opportunities, are superior to the shorter term benefits, such as improved access, associated with the tunnel or lift bridge crossing alternatives. These long term benefits, according to the consultants, would serve the entire community and build on the significant public investment already made for Irondequoit Bay improvements. However, the consultants noted that achieving the full

potential benefits of the no-crossing alternative would require a land use development plan or guideline policy, as well as a firm commitment jointly agreed to by Monroe County and the Towns of Irondequoit and Webster. There would also be some cost to the public in the form of infrastructure commitment needed as an incentive for guided development.

The consultants judged either crossing alternative to also be a viable course of action, under certain circumstances. The lift bridge is much less expensive in initial capital costs and annual operating costs than the tunnel. The tunnel is superior to the bridge in terms of its navigational and vehicular queuing benefits. Either alternative was recommended if Monroe County and the Towns of Irondequoit and Webster prove to be incapable of developing, agreeing upon, and initiating a united, definitive, and implementable land use plan or development guideline policy for the Sea Breeze area in Irondequoit and the sand bar in Webster.

For the purpose of developing the proposed waterfront land use plan for Irondequoit's LWRP, it was assumed that, if a replacement carrying Lake Road over the Irondequoit Bay outlet is eventually constructed, its clearance would be such as to permit essentially unlimited boating access between the Bay and the Lake. It was further assumed that the Bay opening project would be completed with or without the construction of a replacement and that the effects of the opening, in terms of increased development pressures on the area surrounding Irondequoit Bay, will be felt immediately.

Providing greater boating access to Irondequoit Bay has already increased the pressures for new residential, commercial, and marina development along the Bay shoreline. However, site development constraints such as shallow water depth, poor vehicular access, limited land for parking, lack of utilities, and the proximity to sensitive environmental features (see above) has necessitated the imposition by the Town of development measures, standards, and review procedures designed specifically to deal with the Bay's unique characteristics. (As has already been noted, such measures and standards, as well as the techniques used for implementing them, will be described in detail in the next section of the LWRP - Section V.)

The provision of a replacement for the Lake Rd. bridge would have a significant impact on the State's redevelopment plans for the area adjoining the Bay outlet. The approaches to most types of replacements now under discussion (especially for those providing sufficient vertical clearance for large sail boats) would require a substantial amount of land. Because there would be less land available, modifications would have to be made to the State's current plans to develop water-oriented recreational facilities adjacent to the Bay outlet, including their configuration and size. Further, provision would have to be made for a pedestrian connection between the recreational improvements to be located on the Bay and those to be located on Lake Ontario, in order to facilitate public access. To minimize the potential negative impacts which a replacement would have on planned public recreational facilities, the structure, if built, should be sited and designed so as to cause the least amount of disruption to the adjacent areas.

If a replacement is not built, most of the vehicle trips which the old Route 18 bridge formally accommodated will be diverted to the Route 104 bridge located to the south, and a number of local trips between Webster and Sea Breeze are likely to be eliminated because of the increased travel distances. New interchange ramps between the Route 104 bridge and the Sea Breeze Expressway (which will improved access to and from the north) are currently being designed by the NYS Department of Transportation. Construction of these ramps, however, is on hold pending the resolution of the Route 18 bridge replacement issue. If the decision is made not to replace the bridge, the Town of Irondequoit will take a strong position in negotiating a commitment by the State to the earliest possible construction of the Route 104 ramps, to insure that adequate access from Sea Breeze to the east and west is provided in a timely manner.

APPENDIX

SECTION IV: PROPOSED LAND AND WATER USES
AND
PROPOSED PROJECTS

COMPARISON OF BAY CROSSING ALTERNATIVES

IRONDEQUOIT BAY OUTLET STUDY

CHAPTER TWELVE

So many categories of impacts exist that it is difficult to determine the key elements of each alternative and the significant similarities and differences. The purpose of this chapter is to generally compare the principal features of the three alternatives. Any such synthesis possess inherent inaccuracies depending on the degree of emphasis for each aspect. This chapter represents the collective assessment of the consulting team based on our technical studies and input from the community. Other interpretations of the alternatives' impacts are recognized as fully viable depending on the specific weighting of values of the reader.

A. COMPARING CROSSING OPTIONS

The two crossing options share many of the same impacts and benefits when compared to a no-crossing alternative; however, there are significant differences. The tunnel has the following features that are superior to a movable bridge:

- * a tunnel provides for improved boating operations with no delay for boaters, nor the safety problems associated with the navigation queuing within the confines of the dredged bay and lake jetties;
- * a tunnel results in no delay to vehicular traffic, nor the problems associated with traffic backed up when the bridge is in the open position;
- * a tunnel has less visual impact;
- * a tunnel would result in some land at the outlet being available for public access.

A tunnel alternative also has several negative features when compared to a low-level movable bridge alternative:

- * a tunnel costs more than a movable bridge to build;
- * a tunnel would require the construction of a two-way access road within the former railroad right-of-way. Approximately twelve of the homes on the east side of the channel and on the north side of Lake Road come very close to this right-of way (within four to ten feet in three cases). The future disposition of the railroad right-of-way, which is now owned by DOT, is not known.
- * a tunnel would cut off access from Lake Road for three houses on the south side of Lake Road.

B. COMPARING CROSSING ALTERNATIVES TO NO-CROSSING

For the most part, the significant differences between crossing and no-crossing benefits can be seen in two categories: short-term and long-term. The significant benefits of the no-crossing alternative tend to be primarily long term, that is 10 to 20 years away or later. The benefits that are considered significant are long-term in large part because the no-crossing condition is now the existing condition and in analyzing future conditions, most of the significant short-term benefits of no-crossing have already been realized with the removal of the bridge, such as enhanced recreation, improved navigation, reduced through-traffic, etc. These existing benefits of the no-crossing condition are transformed to negative impacts of the crossing alternatives where something that exists will be taken away.

The benefits of the crossing alternatives are generally short-term in focus. Further, achieving those short-term benefits limits the full potential for long-range benefits. The crossing benefits essentially return the situation to a previous state as much as possible. Returning to a previous condition represents a short-term benefit only because, given time and changes in population, the perception of the status quo changes.

The potential benefits of a no-crossing alternative pertain to the long-range value and use of the land. If the land at the outlet and approaching the outlet does not have a major portion of it dedicated to transportation, it has a greater potential value for uses such as future recreation use, development, or public access to the waterfront. The difference in future development could have significant long-term effects on the tax base and sales tax revenues. However, these benefits only represent a potential value. To reap these benefits would require a commitment of funds and manpower, a willingness to cooperate and negotiate, and the vision to achieve a consensus on future direction. The unique character of this area makes this land very valuable, and therefore the potential financial benefits to Monroe County and the Towns of Irondequoit and Webster are a quantum step above existing revenues. An assessment of the likelihood of achieving these benefits and a complete monetary assessment of this value, while very important in the final decision, is outside the scope of this study.

The benefits of the crossing alternatives all relate to general access and include:

- * reestablishing a link between the communities;
- * eliminating the inconvenience of traveling from one side of the outlet to the other; and
- * reinstating the short-term economic benefits for those commercial facilities that formerly relied on intercepting through-traffic, or a larger market area.

Specifically, a crossing would replace the old community boundaries by providing a physical link between the Webster spit and Sea Breeze. No-crossing likely means that over time community links would be forged between the Webster sand spit and Webster.

A crossing also provides transportation benefits by alleviating the inconvenience for those traveling from one end of the sand spit to the other. Although this origin/destination pair is estimated to be a very small percentage of the traffic using the bridge, (approximately two percent) their increased travel time is significant, about eight minutes. Overall, the average time savings for all traffic using a potential crossing is about two minutes. This benefit is actually defined as a cluster of benefits addressing accessibility which included public safety, the availability of an alternate route, etc.

The short-term economic impact on those businesses that relied on intercepting passing-by traffic may be significant. The businesses must now rely on seasonal traffic that is destined to the area rather than through traffic. This may be positive or negative; no sales data is available. Over time, without a crossing, we judge that these highway oriented businesses will tend to be replaced with recreational destination type businesses.

There is also a series of impacts, that, while important in themselves, from the reaction of community meetings do not appear to have as serious significance depending on the specific concerns of the reader. For example, pedestrian and bicycle access along are not usually significant enough to justify a project. Without a crossing, there will be no such access between these two areas.

Available sources of funding may be a significant factor in determining the feasibility of these alternatives. This was not a part of the scope of this study but may well be a determining factor in the final outcome. If full state funding is available for construction, the cost issue may instead be one of the value to Monroe County of paying their share such as the estimated \$200,000 annually for operating and maintenance expenses of a crossing.

SUMMARY OF ALTERNATIVE IMPACTS

DESIGN ALTERNATIVES

EVALUATION FACTOR	NO-CROSSING	TUNNEL	VERTICAL LIFT BRIDGE
<u>Recreational Impacts</u>			
1. Impacts on Navigation	No Impact	No Impact	Some maneuvering problems while waiting for bridge to open. Delay.
2. Impacts on Recreational Land	No impact on presently identified recreational land; could create potential for expanded recreational use in future.	More compatible with existing Corps/OPRHP plans for boat launch and auxiliary parking. Would require taking recreation lands.	Cause a taking of some of the land identified for recreational use; smaller version of launch might still be possible.
<u>Socio-Economic Impacts</u>			
1. Public Safety.	Initial severing resulted in development of new mutual aid agreements; no crossing would continue these agreements.	Allow for a return to prior mutual aid agreements and provision of back-up services. Provide an unofficial alternative for evacuation.	Provide for a potential return to prior aid agreements. Provide an informal alternative for evacuation.
2. Community Cohesiveness and Appearance	Some negative impact in terms of community cohesion as no physical link.	Establishes a physical link.	Establishes a physical link.
3. Displacement/Relocation	No Impact	Will affect access to a number of properties particularly the Webster side; cause use of railroad right-of-way and some recreation land along bay for roads.	Will require use of some recreation land along bay for road.
4. Land Development	Greater long-term potential for growth - commercial in Sea Breeze and residential in Webster.	Allows for some development.	Allows for some development.

SUMMARY OF ALTERNATIVE IMPACTS (cont'd)

DESIGN ALTERNATIVES

EVALUATION FACTOR	NO-CROSSING	TUNNEL	VERTICAL LIFT BRIDGE
5. Impacts on Community Tax Base	Immediate short-term loss of commercial on Sea Breeze side; however greater potential to create tax generating use in future.	Causes loss of access to several properties; could lower their assessed valuation.	Some effect on existing property values as traffic congestion and through traffic negatively impacts residential desirability.
<u>Transportation Impacts</u>			
1. Average Travel Time Savings	No Savings	Approximately 2 minutes	Approximately 1 minutes
2. Maximum Travel Time Savings	No Savings	Approximately 8.4 minutes	Approximately 7.9 minutes
3. User Operating Costs	\$456,600/day (base condition)	\$449,200/day	\$450,100/day
4. Accessibility	Remains the same.	Significant improvement.	Significant improvement.
5. Pedestrians and Bicyclists	Severely constrained.	Access provided.	Access provided.
<u>Environmental Impacts</u>			
1. Wetlands	No Immediate Impact.	No Impact. Dredging spoils could be used to expand wetlands.	No Impact. Dredging spoils could be used to expand wetlands.
2. Floodplains	No Immediate Impact.	No Impact.	No Impact.
3. Coastal Erosion Hazard Areas	No Immediate Impact.	No Impact.	No Impact.
4. Visual and Aesthetic	Positive impact - Open view to Lake and Bay	Open view at outlet; ramp walls 3-1/2 - 4ft. high, ventilation building 34 ft. high	Towers at outlet over 90' high, out of scale with surroundings.

SUMMARY OF ALTERNATIVE IMPACTS (cont'd)

DESIGN ALTERNATIVES

EVALUATION FACTOR	NO-CROSSING	TUNNEL	VERTICAL LIFT BRIDGE
<u>Environmental Impacts</u> (cont'd)			
5. Air Quality	No Impact.	Slight decrease as through traffic is permitted.	Greater decrease in air quality than tunnel since bridge opening will result in some idling and traffic congestion.
6. Noise	No Impact.	Increased noise due to traffic; temporary construction related noise.	Increased noise due to traffic; temporary construction noise.
7. Energy	Increased travel as a result of no Lake Road crossing.	Increase in use resulting from ventilation and lighting.	Increase resulting from bridge operation, vehicular idling and traffic congestion when bridge is open.
8. Water Quality	No Impact.	Temporary impact during construction.	Temporary during construction
9. Vegetation and Wildlife	No Impact.	Temporary impact during construction.	Temporary during construction
<u>Summary Travel Cost/Benefit Analysis</u>			
1. Construction Cost	No Cost.	\$14 million	\$8 million
2. Annual Maintenance and Operating Costs	Base condition.	\$200,000/yr.	\$160,000/yr.
3. Annual Transportation Benefits	Base Condition.	\$1.8 million	\$1.6 million/yr.
4. Cost Benefit Ratio	Base Condition.	\$1.4	\$1.9