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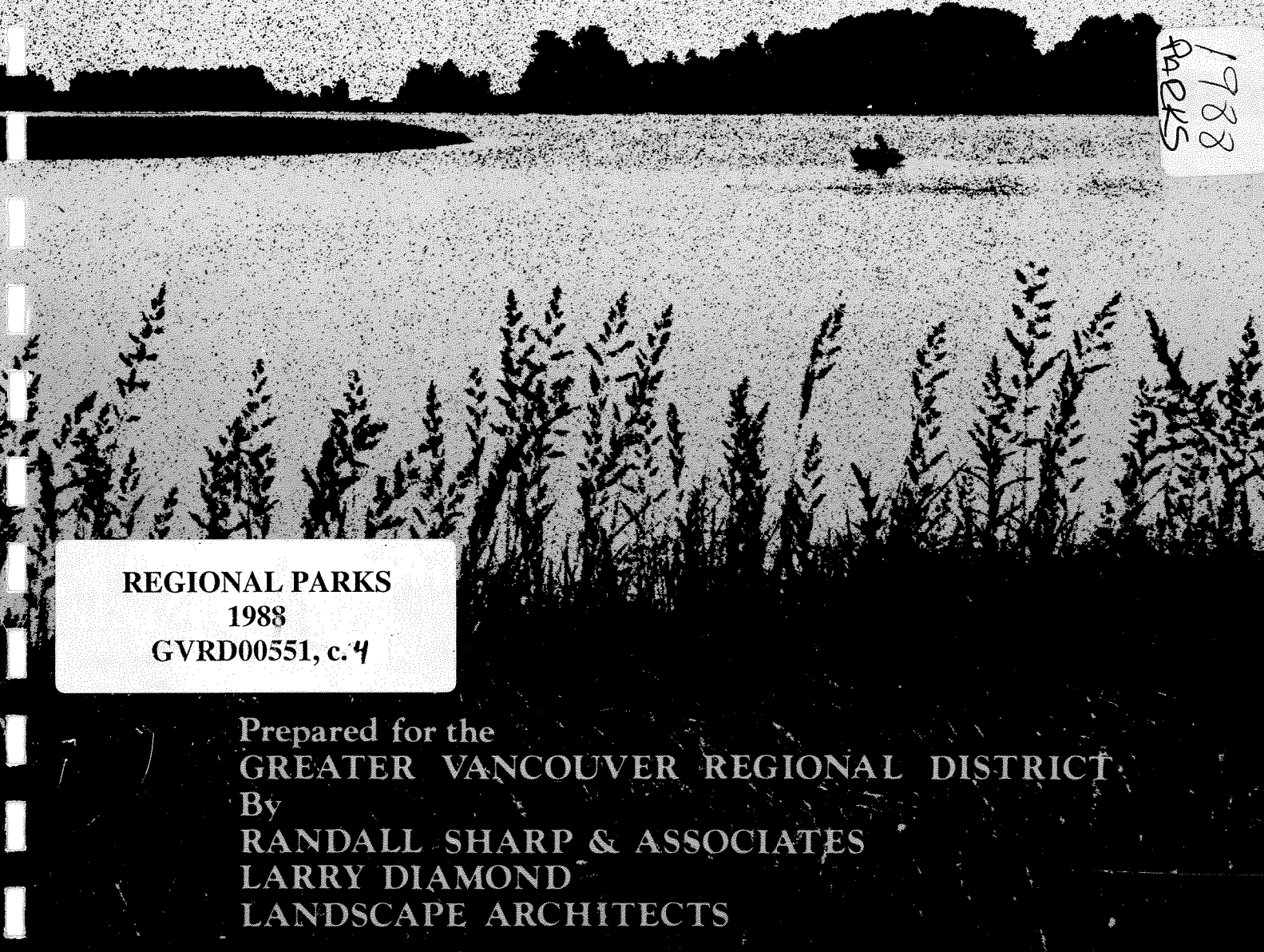


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# DEAS ISLAND

## REGIONAL PARK

### MASTER PLAN



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Parks

REGIONAL PARKS  
1988  
GVRD00551, c. 4

Prepared for the  
GREATER VANCOUVER REGIONAL DISTRICT  
By  
RANDALL SHARP & ASSOCIATES  
LARRY DIAMOND  
LANDSCAPE ARCHITECTS

# DEAS ISLAND REGIONAL PARK MASTER PLAN

**A Long Range Development, Enhancement and Conservation Plan**

Prepared for the

Greater Vancouver Regional District

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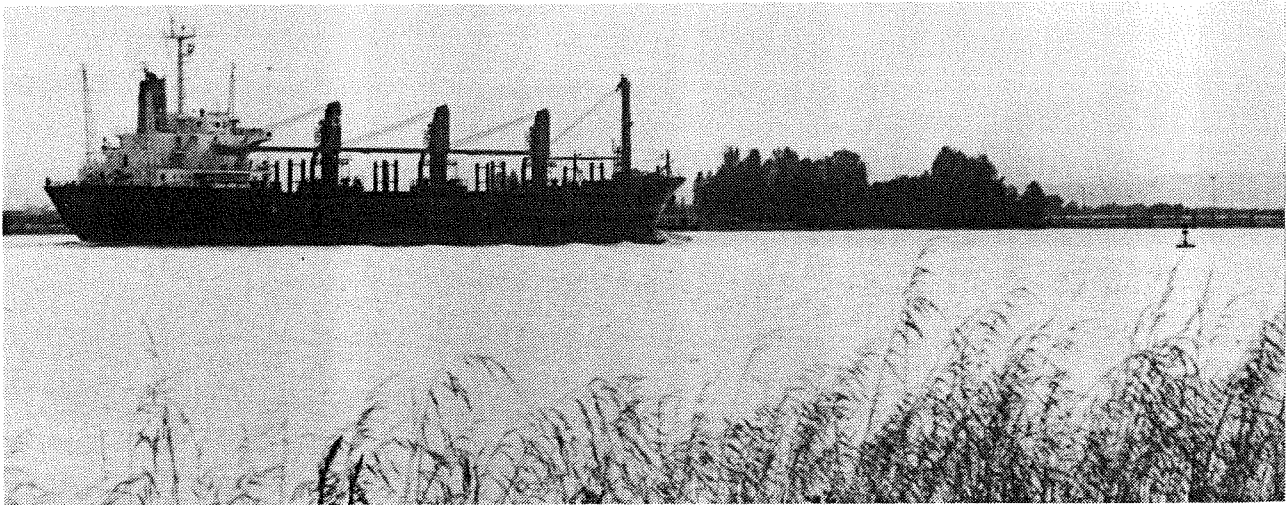
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## PREFACE

The Fraser River is one of North America's most environmentally significant waterways. It serves as a migration route for millions of salmon annually. The Fraser River estuary affords habitats for a wide range of fish and wildlife and is a major stop for waterfowl on the Pacific Flyway. The Fraser is also a principal commercial shipping route. Its shoreline supports a range of industries and port facilities, vital to regional, provincial and national economies.



THE WINDOW ON THE FRASER

Deas Island Regional Park in Delta provides a real window on this dynamic watercourse. Approximately 175 acres in size, Deas Island was acquired by the GVRD in 1980, from Weldwood Canada Ltd. Its fascinating history of use by Native Indians, the fishing industry and farmers, its unusual location and its bountiful natural resources makes it a vital component of GVRD's Regional Park System. With marshland, woodland, dune habitat and meadows as well as sloughs and riverfront, Deas Island can accommodate many activities simultaneously. These include nature and outdoor enjoyment, picnicking, field events, natural and cultural history interpretation as well as water sports.

Increasing use by visitors from throughout the Lower Mainland makes a long term plan to guide the park's future urgent. The plan must recognize the Island's suitability for a greater range of facilities and activities which could potentially be accommodated while maintaining and enhancing existing qualities of the Island.

## ACKNOWLEDGEMENTS:

The consultants would like to thank representatives from all the organizations both public and private who took time from their busy schedules to help forge this plan. In addition, we would like to extend particular gratitude to the staff of GVRD Parks for their support, insights and assistance during the planning process. A complete list of individuals and organizations who participated with us over the past four months may be found in Appendix 3.

## THE PLANNING PROCESS

An **issues based** process has been pursued which has encouraged the consultants, GVRD staff, interested groups and the public to focus directly on problems to be resolved and potentials to be enhanced. Key steps have been:

1. An **inventory and analysis** of existing information, supplemented by field reconnaissance and site meetings;
2. **Summary mapping** of site context, biophysical resources, heritage resources and present park uses;
3. **Discussions and workshops** with interest groups and government agencies to evaluate information and to highlight issues;
4. A first **public open house and questionnaire** to help establish needs and priorities (Deas Island Day, August, 1987);
5. **Staff - Consultant workshops** to evaluate results and to establish planning objectives;
6. Testing of **alternative** development directions for Deas Island Regional Park (which emerged from workshops and public sessions), evaluation of options against planning objectives and site specific issues.
7. A park **Facility and Activity Program**: Components to be conserved, enhanced or developed;
8. Preparation of a draft **preferred Plan**, responsive to public, interest group and staff input including phasing and costing;
9. A second **interest group/agency workshop** and a **second public open house** with **questionnaire** to gain response to the draft plan;
10. Plan refinement, review and publication.

## **PARK DEVELOPMENT AND OPERATING OBJECTIVES:**

The following overall objectives have served to guide the Plan's development:

1. To provide a mix of activities that will attract a wide range of users from across the whole region.
2. To emphasize the unique opportunities of the Park and to avoid duplication of facilities and activities that are or will be provided in nearby recreation and conservation areas.
3. To be a regional attraction that contributes to the tourism base of the Delta/Richmond area.
4. To preserve and enhance wildlife habitat and to respect the Department of Fisheries and Oceans principle of no net loss of wetland habitats in Fraser River Estuary .
5. To retain areas for the flexibility to accommodate multiple use including festival events.
6. To provide within the Island activity areas for children, families, seniors and the disabled.
7. To preserve and enhance the visual quality of open meadows, treed dykes and natural river edge.
8. To maintain a continuing high level of public input with respect to the planning and ongoing management of the Park.



## 1. DEAS ISLAND REGIONAL PARK: PHYSICAL CONTEXT

Geologically, Deas Island has evolved from the Fraser River's dynamic natural forces. Originating as a mid-channel sand bar, over many centuries it has experienced flooding, channelization and sedimentation, changing shape several times. Eventually natural vegetation together with man's intervention in the form of dyke building and armouring has made the Island relatively stable. A narrow causeway constructed in the 1940's links it to the mainland.

Today, Deas Island Regional Park offers visitors a pastoral river edge experience within twenty minutes of Vancouver. It is linked to major traffic routes by River Road (62B Street) in Delta. As well, the Island can be accessed by bicycle, horseback and small boat. The Park therefore plays a unique role as an island passive-recreation area, with many opportunities to experience the Fraser River estuary environment as well as the River's activities and history.

### 1.1 Surrounding Land and Water Uses:

Adjacent land uses in Delta (see Figure 1.1) are primarily agricultural and industrial, with significant acreage in the A.L.R. The Tri-Mac Concrete plant borders the Park's entrance. On the east shore of Deas Slough are two marinas, Captain's Cove (west of Highway 99) and Deas Harbour.



DEAS HARBOUR MARINA AND TOUR BOAT

Visible from Deas Island's riverfront is the edge of Tilbury Island Industrial area in Delta and the Fraser Wharf, B.C. Ferries Dockyard, Delta Rock Barge Port and Ocean Fisheries plant, all in Richmond. Southwest of Highway 99 is the community of Ladner, with its mix of residential and commercial activities.

Fraser River's South Arm is extensively used by deep sea vessels as well as commercial and industrial boat traffic while Deas Slough is utilized by power boats, canoes, kayaks and rowing shells.

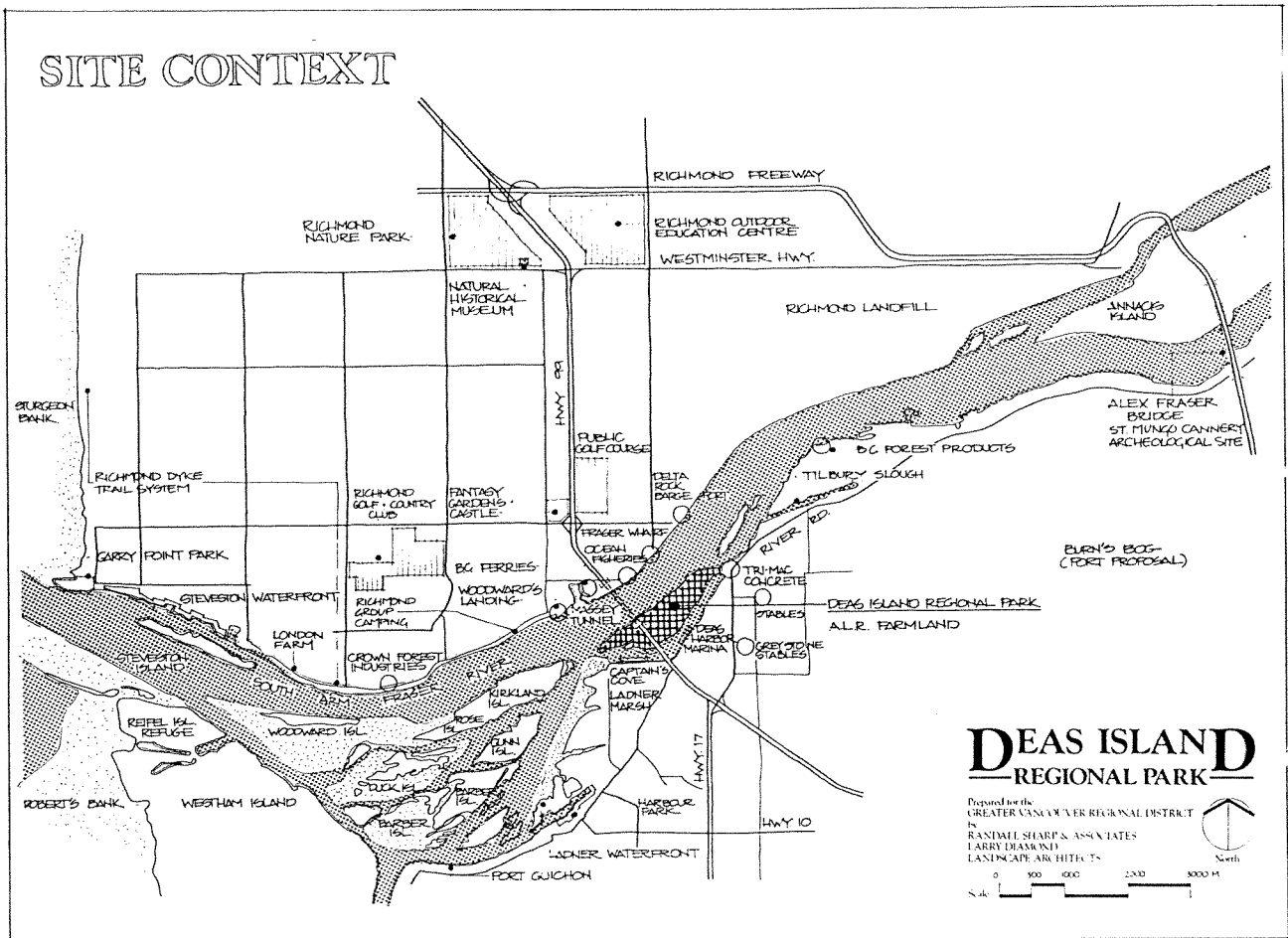


FIGURE 1.1

### 1.2. Nearby Recreation Facilities

The municipalities of Richmond and Delta provide sportsfields, community recreation centres, passive open spaces and trails. Some notable examples are the playfield complex adjacent to Delta's Municipal Hall, Steveston and Tsawassen's Community Centres, public golf courses in South Richmond and the dyke trail along Richmond's riverfront. Steveston's new Garry Point Park will afford a mix of passive and active open space while Boundary Bay Regional Park offers a swimming beach and tidal flats. In Ladner, Harbour Park contains woodlands, paths and marsh.

East of River Road are Greystone Stables, an important local equestrian centre, and Crescents stables, often the starting points for horseback rides to Deas Island.

### 1.3 Nearby Natural Sites

The most prominent Natural Sites are:

**Reifel Wildlife Sanctuary** at the mouth of the Fraser River South Arm, a prime waterfowl habitat;

**Ladner Marsh / Barber Islands**, downstream from Deas Island along the Ladner Reach;

**Tilbury Slough**, upstream from Deas Island, has been improved by the Department of Fisheries and Oceans;

**Richmond Nature Park**, a wooded area at the intersection of Westminster Highway and Highway 99, Richmond, with an interpretive centre and community nature programs;

**Delta Nature Park**, adjacent to Burn's Bog in north Delta, which affords visitors a woodland habitat experience.

Few of these natural sites offer safe river edge access or recreational opportunities.

### 1.4 Nearby Heritage Sites

An important heritage resource is the **Gulf of Georgia Cannery** complex in Steveston which Parks Canada and the Gulf of Georgia Society are currently renovating. It is a prime example of B.C.'s fish canning industry. Also in the municipality of Richmond, the **London Farm**, an early 20th century farmstead is located on the Fraser River. In Ladner, the **Delta Museum and Archives** contains extensive information about the municipality's history of settlement and development. It also harbors important records and photographs of Deas Island's early years. Adjacent to the Alex Fraser Bridge in Delta, the **St. Mungo and Glenrose Cannery Archaeological Sites** contain evidence of Native Indian settlement dating back 8000 years.

### 1.5 Recent and Future Development:

Recent and future land use which affects planning for the Park includes:

#### **Captain's Cove Marina Residential Complex:**

An intensive waterfront residential and commercial development is planned for this site, potentially placing a significant number of people directly across Deas Slough from the park.

#### **Fraser River Trifurcation Scheme:**

Although placed on hold, this extensive river training scheme, proposed in the late 1970's, could alter the flow of water close to Deas Island if eventually implemented. It proposes two major groins and a training wall on the riverside of Deas Island which could change the foreshore areas requiring reprogramming of park design to create new opportunities for recreation.

The continuing population growth of the surrounding municipalities and major mixed-use developments (such as the Delta Port), implies increasing demand for a wider range of recreational opportunities in the Park. While the Plan should recognize and where possible accommodate this trend, it must do so by enhancing and reinforcing the Park's principal role as a unique riverfront resource. The Park Plan should therefore be careful not to duplicate activities and facilities already available close by or which are best provided by agencies other than the Greater Vancouver Regional District Parks.

## 2. EXISTING PARK USES:

In the entire B.C. Lower Mainland, there are very few riverfront parks and even fewer island recreation sites. Easily accessible and surrounded by water on three sides, Deas Island Regional Park's natural character and pastoral atmosphere has strong visitor appeal. Over 160,000 people visited Deas Island in 1987.

Present use patterns and facilities (see Figure 2.1) reflect the Island's human and geographic history as well as those recreation opportunities appropriate to a lowland riverfront location. They generally break down into land based and water oriented uses. The existing dyke system provides a logical border (or container) for more active field recreation while the areas beyond it are more conducive to strolling, fishing and nature study. As well, Deas Island's pattern of internal drainage ditches also influences the location of certain activities.

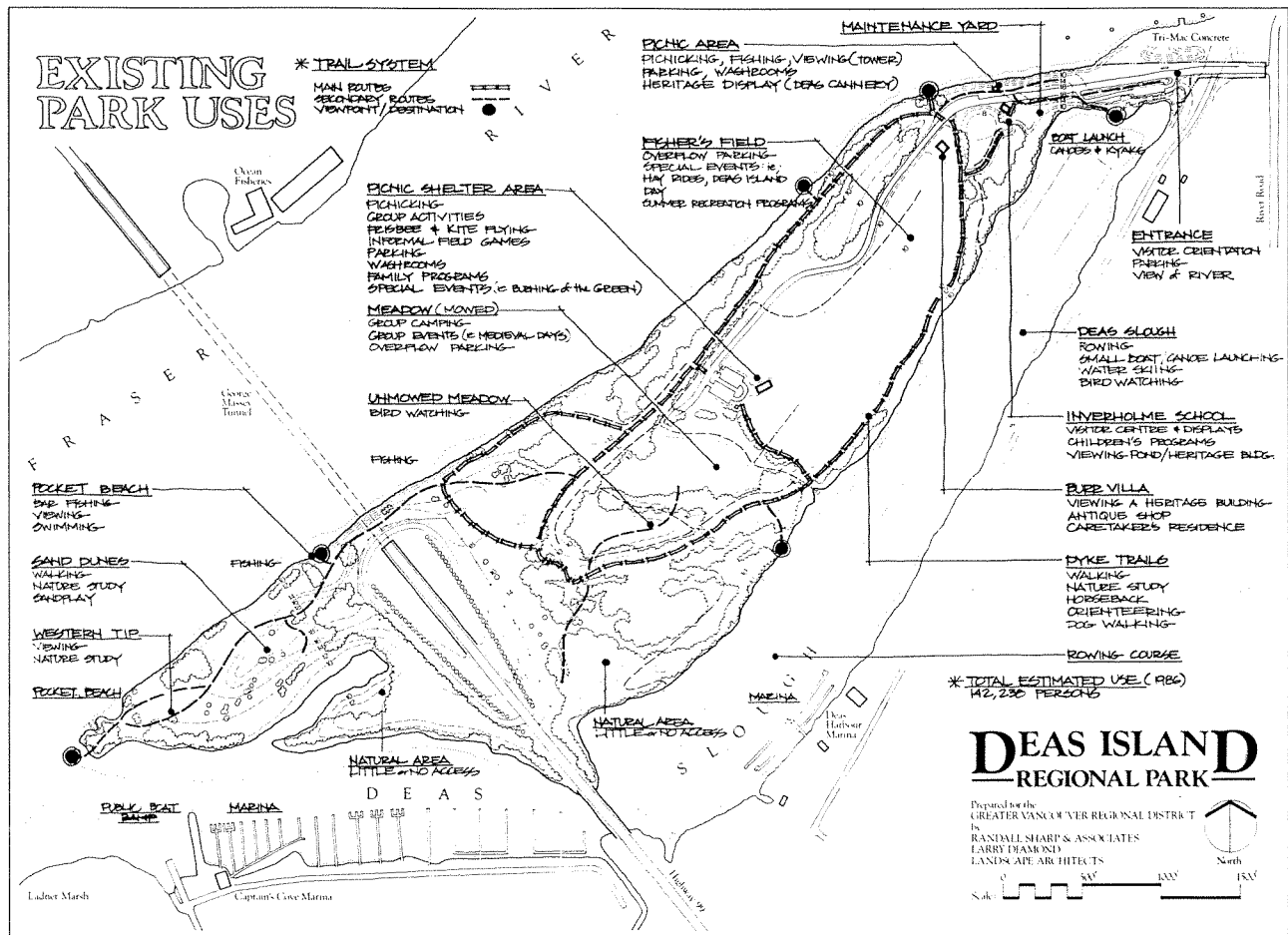


FIGURE 2.1

### 2.1 Uses on Dyked Lands

The dyked area contains several meadows with some peripheral woodlands. Largest of these is Fisher's Field, which permits the visitor a comprehensive view of wooded edges, meadow and glimpses of the water. The field is used for group and family recreation and special events (such as Deas Island Day). A large picnic shelter (built by the Delta Scottsdale Lions) and toilets are located close to the paved parking area at the south end.



FISHERS FIELD AND BURRVILLA

Large scale annual events in the Park include the "Burning of the Green" (Christmas tree burning at the New Year) and Deas Island Day. The latter event often attracts 8000 visitors or more to the site on one day (the 2nd Sunday in August). In the summer of 1987, the B.C. Games were held in Delta, and Deas Island was the site for competitive water skiing, canoe races, rowing, orienteering, and other sports.

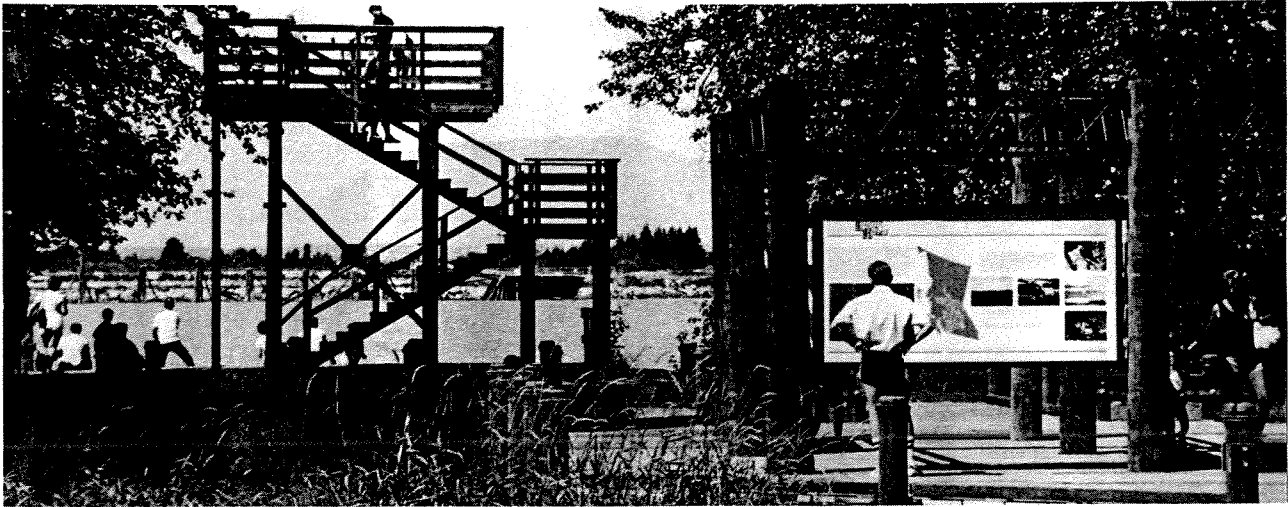
Beyond Fisher's Field are two meadows. The first one is mowed and is utilized for informal field activities and limited group special event camping. The second is unmaintained, providing a good habitat for small animals and birds.

At the Island's north end are the Inverholme Schoolhouse and Burrvilla. Both heritage structures were moved to the site in 1982. Inverholme is a summer visitor centre, with displays and children's programs. It also provides a meeting space for groups. Burrvilla contains an antique and gift shop as well as the park caretaker's residence.



PARKING LOT, TOILET BUILDING AND PICNIC AREA AT NORTH END OF THE ISLAND

A short boardwalk on the old Deas Cannery site provides access to interpretive information and a viewing deck and tower at the Island's north end, while a pathway skirts the edge of a tidal pond behind the Inverholme Schoolhouse. Although there are no hard surfaced paths, the Schoolhouse, the north picnic area, washrooms and the boardwalk view point are accessible by the disabled.



VIEWING DECK AND DISPLAYS BY THE OLD DEAS CANNERY SITE

Most primary trails are located atop the dykes, with secondary routes branching off from them. Pathway surfaces are usually earth or sand. Horseback riders are restricted to a marked trail along the southeast side of the Island. Wood bridges provide access for both walkers and equestrians across internal sloughs at several locations.

Where these pathways flank either the River or Deas Slough, trail users can experience changing vistas of the surrounding landscape, and observe industry as well as shipping activities. A viewpoint at the park's extreme western tip is accessible only at lower tidal phases.

## 2.2 Land Uses outside the Dykes

Much of the Island's southeast lands consist of floodplain forests. The "Island Tip Trail" which extends to the west end from the dyke pathways crosses the Massey Tunnel entrance skirting dunes, sand piles and two small pocket beaches. The beaches are used by sunbathers and bar fishermen.

Between the north dyke ("Tinmakers Walk") and the rip-rapped river edge is a large marsh, presently inaccessible except for a narrow unmarked path leading to the Island's edge.

In summary, the lands outside the dykes are relatively wild, receive lower levels of use and offer the energetic visitor chances to experience the Island's more natural attributes.

## 2.3 Water Oriented Uses:

There are other activities which utilize the shoreline and water surface. Some of these are:

**Shore-based Sport Fishing** is currently informal, usually occurring in conjunction with family outings or picnicking. The Island's north end and the two Western pocket beaches are used. Although there are no statistics on the number of anglers or catch success, species of fish typically caught include Dolly Vardon Char, Prickly and Staghorn Sculpit, sturgeon, Chinook and Coho Salmon.

**Rowing, canoeing and water-skiing:** The Delta rowing club uses the 1500 metre rowing course in Deas Slough for practice and competition. However, they must also share the resource with canoeists, power boaters and water skiers. The posted 5 knot speed limit does not extend to the Northern part of the Slough. A recently installed float (B.C. Summer Games Legacy) to facilitate landing of rowing shells is often used by the water skiers.



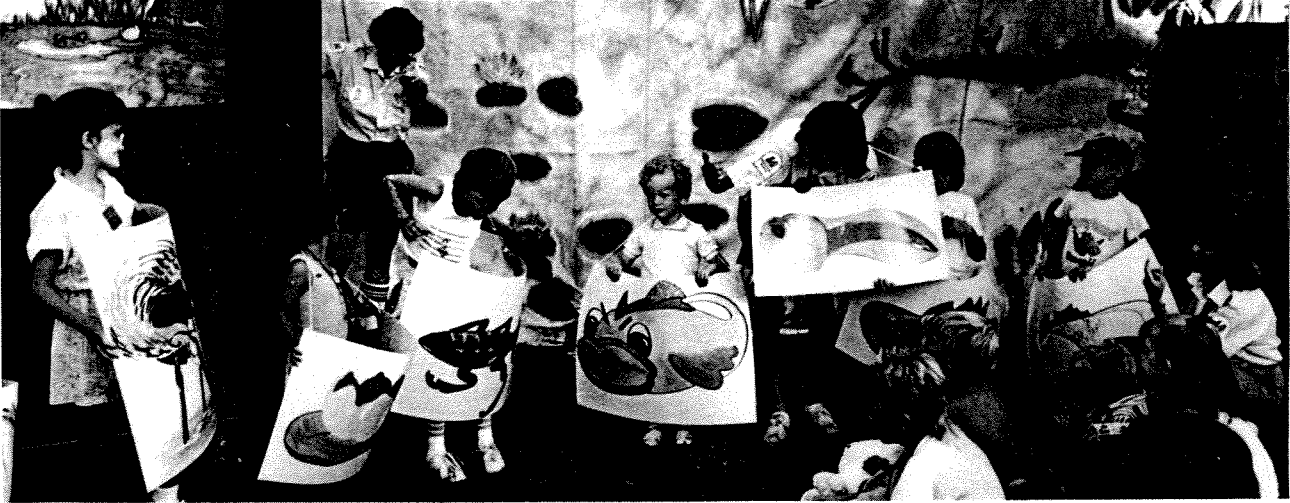
CANOEING IN DEAS SLOUGH AND THE RECENTLY INSTALLED FLOAT

**Sunbathing and Swimming:** The south facing beach at the Slough's north end is a popular summer gathering place for local waterskiers and their families who often sunbathe and swim. It is also a drop-off point for canoeists, kayakers and rowers. There is a municipal boat ramp nearby at the foot of Ferry Road.

Although officially discouraged because of safety hazards and bacterial contamination, some people wade and swim in Deas Slough and at the pocket beaches along the river.

## 2.7 Interpretive and Educational Programs

The Inverholme Schoolhouse serves as a base for programs conducted by GVRD staff which accommodate families, children and school groups. The interpretive programs currently are administered from the Burnaby Lake Regional Park Nature House. The Inverholme Schoolhouse is the starting point for natural and cultural history programs. Pamphlets and displays are located at the Schoolhouse. In addition, there is a major panel display of information about the dynamics and activities of the Fraser River located at the boardwalk.



NATURE INTERPRETIVE PROGRAM DURING DEAS ISLAND DAY

A review of the Park's present use patterns, facilities and programs implies that:

- Most existing uses and the Island's pastoral qualities should remain and be enhanced - a preference that was strongly expressed in public questionnaires and workshop responses. Therefore a preferred long term plan should build upon this use pattern and reflect the park's strong appeal as a passive use open space.
- The "Window on the Fraser" theme which directly exposes the visitor to the natural, historic and present activities and roles of the River should exert an overall influence in structuring the Park Plan.

### 3. BIOPHYSICAL RESOURCES

There are nine distinct categories of man-made or natural landscapes on Deas Island each with several sub-units (see Figure 3.1).

1. **Meadows;** which include maintained fields (regularly cut), tall grass areas and moist meadows. Locations with the least human intervention offer the greatest habitat value. They provide shelter and forage for small rodents, song birds, deer, pheasants and raptors. Interesting plants such as arrowhead are found within some wet meadows.

Cattails found in the wet meadows provide important habitat for marsh birds such as Marsh Wrens and Red-winged Blackbirds. Plovers and sandpipers breed in the cattails and Killdeer and Spotted Sandpipers nest in the area. The grasses and tall plants in the wet meadow at the south end of Fisher's Field are left uncut for pheasant habitat.



SECOND MEADOW LEFT UNMAINTAINED, HABITAT FOR SMALL RODENTS AND RED-TAILED HAWK

2. **Floodplain forests** consist of periodically flooded areas dominated by Red Osier Dogwood and willow as well as woodlands adjacent to the dykes. The latter are characterized by stands of cottonwood and alder with occasional birch. Mourning Doves nest in these trees on Deas Island, one of the few places in the Lower Mainland where they are regularly found. There are also two clearings vegetated with leafless horsetail (Scouring Rush). These forests are used by rabbits and deer as well as by a variety of birds for roosting and nesting including hawks, song birds, woodpeckers and Bald Eagles.

3. **Sand deposits** may be found in two locations. The larger one extends from northeast of the Massey Tunnel entrance southwestward toward the Island's western tip. A smaller sand deposit is situated to the south of Burrville and faces toward Deas Slough. Vegetation on these land forms varies from sparse sedge to dense alder. Some of the most unique vegetation in Deas Island Regional Park is found on the sand area northeast of Massey Tunnel. Plants include Big-headed Sedge, Salsify, Evening Primrose and pioneer mosses. This sand area is the most fragile landscape on the Island and is susceptible to disturbance. Sand areas covered in sedge and broom offer excellent habitat for short eared owls.

4. **Lawn Areas;** Most lawns are situated at the Island's north end and adjacent to the group picnic shelter and parking lot. Both areas receive periodic intense use and are of low habitat value. At the Island's north end, erosion has occurred on the backshore at the picnic area.

5. **Rip-rap Banks;** Much of the river shoreline is armored to protect against erosion caused by currents and the waves from boat traffic. Although presently of low habitat value, there are techniques for enhancing the habitat (see Figure 7.2).

6. **Clay Banks;** Portions of the clay banks along Deas Slough are undercut and eroding. In several places, old trees have collapsed onto the foreshore, dislodging small sections of the bank. Although some erosion is natural through tidal action, it is probably accelerated by boat wakes in the slough. The clay banks provide habitat for muskrat.

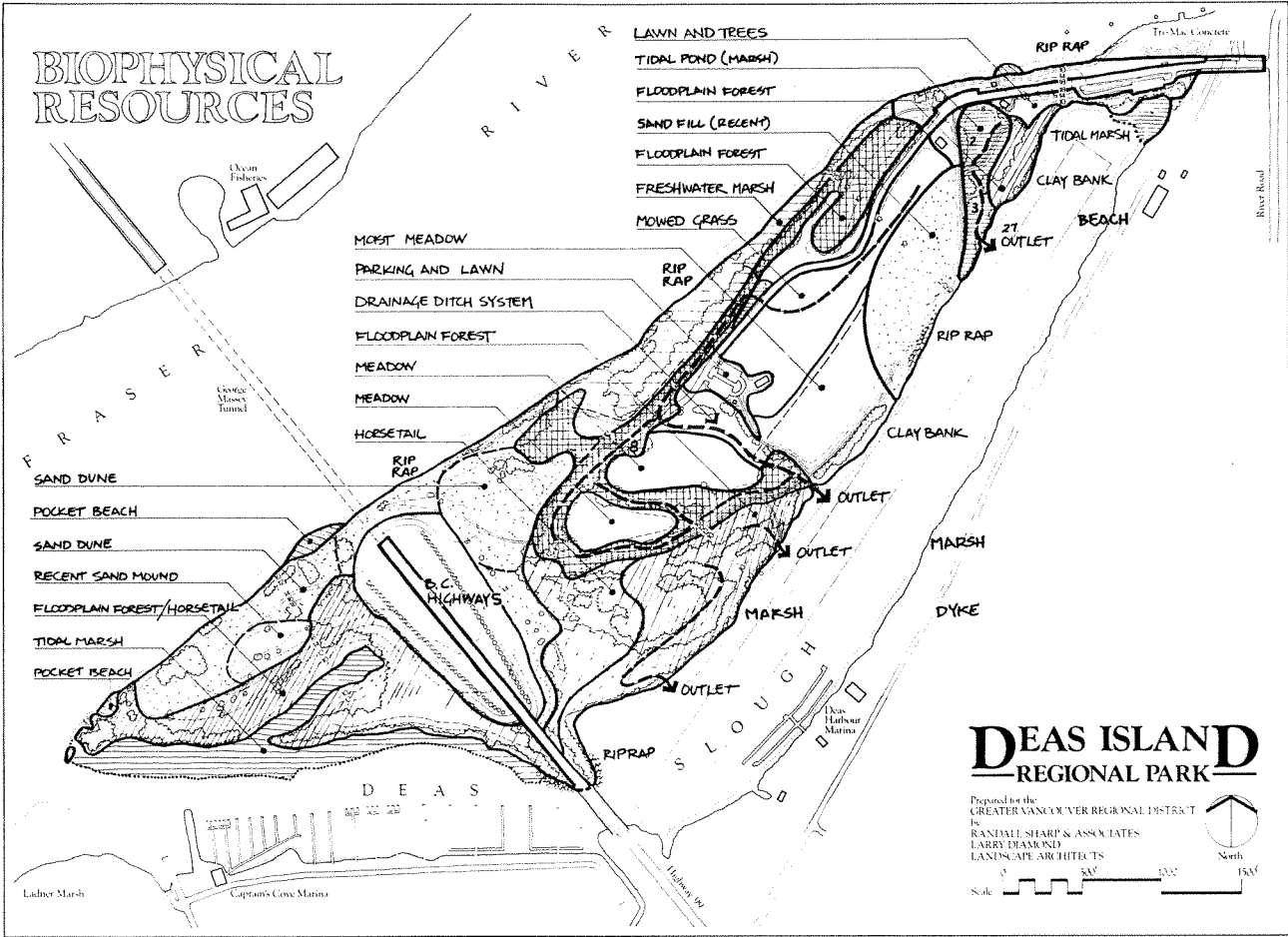


FIGURE 3.1



TIDAL MARSH ALONG SOUTH END OF ISLAND

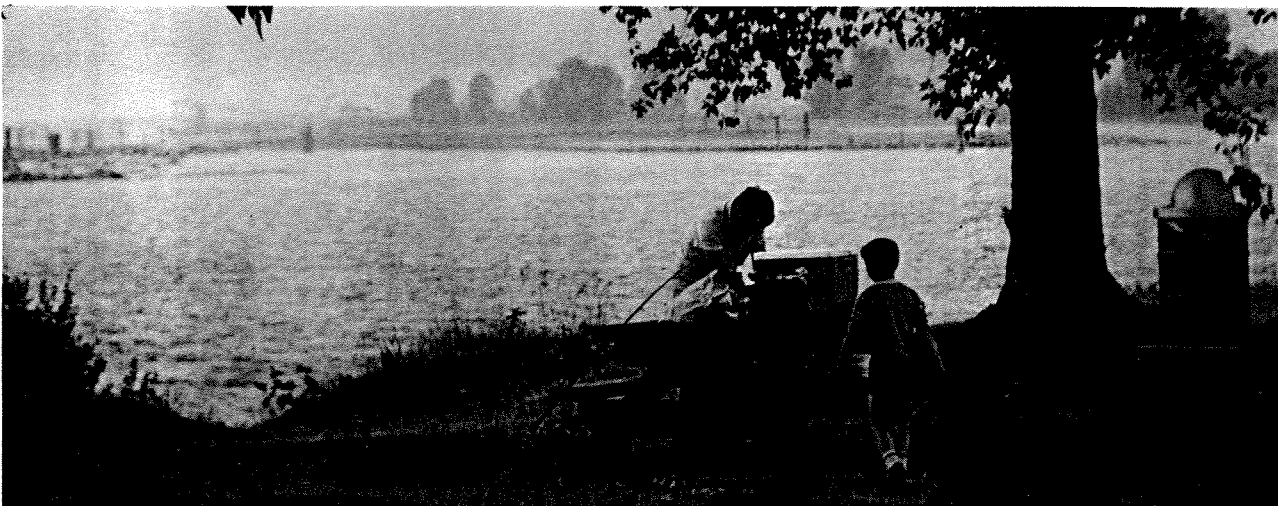
7. **Pocket beaches** and sedimentary accretion deposits along the riverfront offer habitat for fish, waterfowl and shorebirds. In general, intertidal vegetation such as sedge and bulrush are more valuable aquatic habitat than plants at higher elevation on the upper beach as they afford rearing and feeding opportunities for migrating juvenile salmon. Pocket beaches are also an important recreational asset.

8. **Tidal marshes** occur in several locations. Tidal marshes are found immediately south of the Inverholme Schoolhouse and along the south end of the Island. Considerable deposition of fine sediments has occurred within them resulting in colonization by sedges, bulrush, loosestrife arrowhead, Water Plantain and two species of mint.

On the river side of the Island, an extensive marsh occupies an area between the armoured river edge and the north dyke. There is considerable vegetation diversity within this marsh which is used by waterfowl and perching birds. It has good wildlife enhancement potential to increase habitat for waterfowl and juvenile salmon.

9. **Internal Drainage Ditches:** Many internal drainage channels are stagnant and choked with vegetation. Where less obstructed, they are used by waterfowl, muskrat and beaver. Through clean up, channel improvement and flushing, these waterbodies could become more scenic and useful to wildlife and park visitors. (see 7.2)

Of particular significance is the **Fraser River**, with its natural dynamics and human activity. The main channel of the River serves as a migratory route for millions of salmon annually also providing habitat for many species of resident fish. The log booming ground and sand bar immediately upstream from Deas Island serves as a roosting area for thousands of sea gulls.



PICNICKING AND FISHING ALONG THE FRASER, SAND BAR IN THE BACKGROUND

**Deas Slough**, formerly an active river channel, is now a sheltered body of water tidal flushed each day. The causeway at the entrance to Deas Island cuts off the river currents. Deas Slough is important because it offers shelter for wildlife from winter storms. Diving and fish eating birds use the Slough year around and dabbling ducks use the muddy shoreline. Deas Slough and the adjacent tidal marshes is an important habitat affording feeding and rearing opportunities for juvenile salmon.

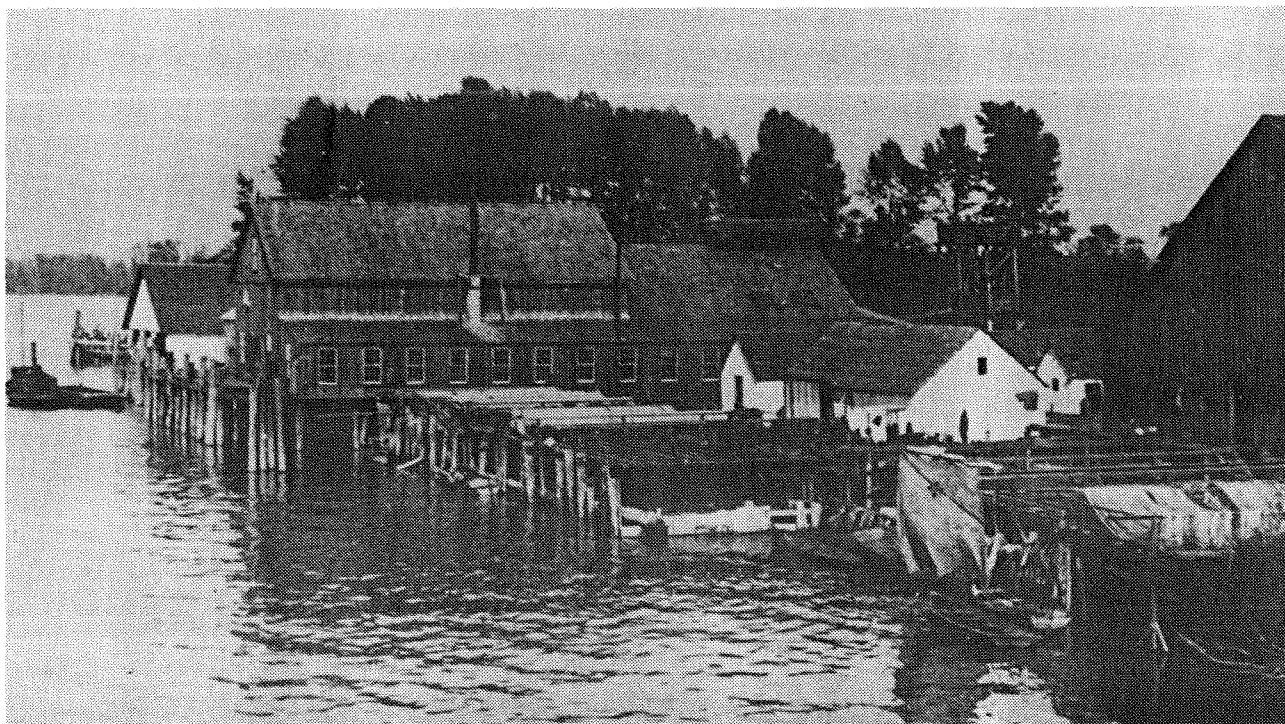
It is apparent that Deas Island Regional Park has an unusual mix of natural resources which offer a wide range of recreational and educational opportunities. However, the Island's high water table, exposure to major floods, its extensive wetlands and narrow causeway link to the mainland are limitations to extensive development which require major servicing, expanded road access, and expanded septic waste disposal.

#### 4. HERITAGE RESOURCES:

The Island's diverse human history probably commenced many centuries ago when coastal Native Indians used Deas and other river bars for seasonal fishing camps, food gathering, and trading. Although there are no middens, they probably erected weirs, preserved fish for winter consumption and traded with other river and coastal communities.

Evidence of Deas Island's more recent history since the 1870's survives and has been documented and well portrayed (see Figure 4.1). Highlights include:

- Settlement and establishment of a cannery by J.S. "Billy" Deas and his family in 1873, plus initial dykes;
- Sale, updating and enlargement of the cannery during the 1880's;
- Destruction by flooding and fire; cannery rebuilding in the 1890's;



DEAS ISLAND CANNERY CIRCA 1890

B.C. PROVINCIAL ARCHIVES PHOTO NO. H.P. 68360

- Purchase of the Island by Frank Fisher who farmed through the 1920's and extended the dykes;
- Use by fishermen of Greek and Japanese origin in the 1930's;
- Landing for the Delta Ferry built on the western tip of the Island in the 1940's and final destruction of the cannery;
- Building of the causeway in 1948 following the disastrous Fraser River flood;
- Sale of the Island to Western Plywood in 1955;
- Building of the Massey Tunnel which opened in 1959 and the sale of the island to Weldwood in the late 1950's;
- Acquisition by GVRD in 1980 for park and subsequent move of two heritage buildings, Inverholme School and Burrvilla (Burr House) onto the Island.

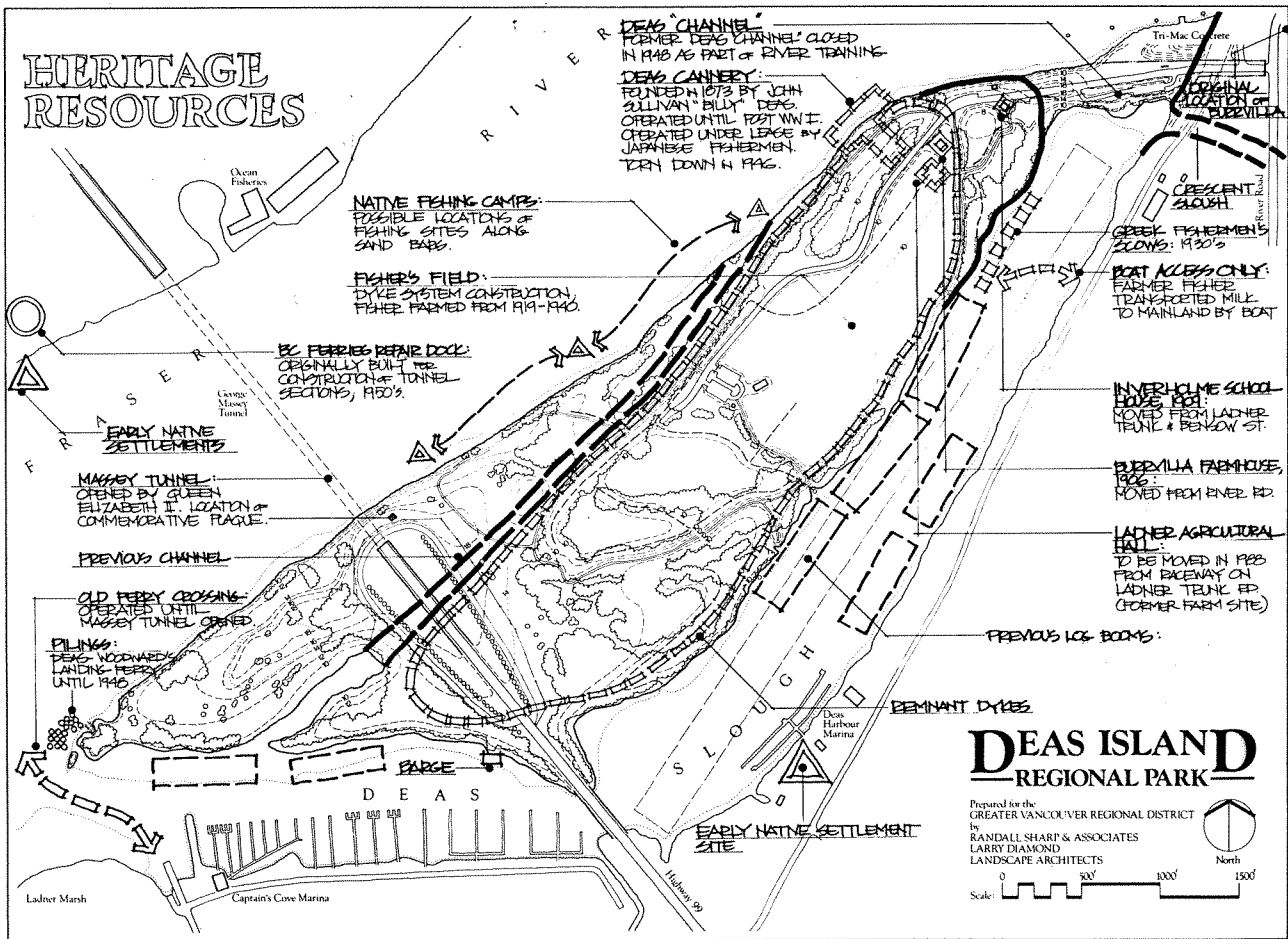


FIGURE 4.1

Visible evidence of this past includes the old cannery pilings, tin piles, remnant ferry pilings at the western tip, and a plaque commemorating the opening of Massey Tunnel by Queen Elizabeth II. There is also a boiler from the old St. Mungo Cannery located at the Deas Island Cannery site.

The Burrvilla farmhouse and Inverholme Schoolhouse, although not originally on the island, are important representations of Delta's agricultural past. In 1988, GVRD plans to move the Ladner Agricultural Hall to Deas Island which will house maintenance equipment and complement the two heritage buildings already on site.

Deas Island's cultural interpretative programs and displays attract visitors to the Park. These components can be further augmented in the long term. There is also an untapped opportunity to describe historic Native Indian use of the river and estuary including traditional lifestyles, fishing techniques and food gathering as well as to identify nearby archaeological sites.

## 5. PARK PLANNING ISSUES

An issue is a problem or concern requiring investigation and solution through the planning process. Issues are also **site specific** objectives which further guide and refine the plan. In examining alternatives, the particular option (or combination of elements from different options) which respond to and resolve most important issues usually has the greatest chance of long term success. In addition, issues provide a basis for establishing priorities. With limited budgets and human resources, only a limited number of projects can realistically be undertaken by the GVRD at Deas Island over the next ten years.

The following summary highlights ten principal issues identified through our own analysis of site resources as well as through interest group meetings, public workshops, questionnaires and sessions with GVRD staff. (Refer to Figure 5.1)

1. How can the "Window on the Fraser" theme best continue as a dominant message in guiding future park use and development?
2. Can the park be effectively linked to other nearby conservation, heritage and recreation sites? Should Deas Island become the focus? Should the east dyke be acquired?
3. How can the park entrance be enhanced?
4. What service, parking, access, safety and health requirements are necessary to accommodate new facilities?
5. What should be the scale, location and means of providing Native Indian cultural interpretive facilities, information and programs?
6. Should a group campground be established at the park to serve scouts and other community groups?
7. How should conflicts between waterskiers and boaters be resolved in Deas Slough?
8. How can improved water access to Deas Island be accommodated? Are additional floats on Deas Slough and a pier on the river needed?
9. How can water edge access be enhanced (beach creation, erosion control)?
10. Can the quality and flow of water in ditches, ponds and marshes be improved for greater recreational, aesthetic and wildlife amenity?

These and other issues are portrayed on the Issues Map.

A review of these park planning issues in the context of Deas Island's land and water resources reveals opportunities to:

- provide for new visitor experiences;
- enhance existing facilities and activity areas;
- protect and enhance important habitats.



## **6. ALTERNATIVES FOR PARK DEVELOPMENT**

Our review of the base information and workshop results indicates four possible directions for future park development. These alternatives are first described and then evaluated for their feasibility and their response to the park planning objectives and site specific issues.

Two options, Wildlife Enhancement and the Large Scale Native Indian Cultural Centre explore a single dominant use while the other two examine combinations of uses. Each alternative reveals a series of opportunities to enhance existing park activities and facilities or to create new ones. Among them are some excellent potentials to reinforce the Fraser River's natural, historic and cultural themes while broadening the Park's recreational and educational role.

### **6.1 Wildlife Enhancement and Conservation**

In this alternative, the park is dedicated primarily to natural habitat preservation and enhancement, with intensive uses reduced or phased out. No new development is envisioned and Deas Slough would eventually become a waterfowl and shorebird refuge. Highlights of this option include the following opportunities to:

- Construct new ponds to attract wildlife;
- Modestly improve pathways;
- Seed sandy areas in native grasses and wildflowers;
- Improve tidal ponds and internal drainage ways by increased flushing, channel clean up, removal of alders, etc.)
- Maintain existing natural meadows and tall grass areas while introducing a greater complexity of native plantings
- Construct wildlife viewing platforms;
- Enhance salmon habitat (ie: shoreline edge plantings in tidal zone);
- Make the park a focal point for nature tours to other conservation sites in the Fraser River Estuary.

This scheme would have strong appeal to naturalists and agencies whose mandate is habitat protection and enhancement.

### **6.2 Intensive Recreation Development**

An opposite approach to the park's future entails structured recreation development. Activities having strong appeal to active sports enthusiasts, large organized groups and families would be encouraged, with improved access for automobiles, busses, cyclists and pedestrians. The park would become more urban in its use patterns, with some encroachment on natural areas. Opportunities of this alternative are:

- An expanded access road with new and larger parking lots;
- Hard surfaced pathways and several new trails (including a dyke trail along the east side of the slough linking the park to Captain's Cove);
- A large swimming pool (or pond) with filtered chlorinated water and a beach;
- More group picnic shelters, change rooms plus a food concession and bandstand;
- Playgrounds and group campsites
- A formal playfield for fieldsports;
- New pocket beaches along the river for sunning, nature study and fishing;

- A boat rental concession at Deas Slough, with shared time between power boaters and non-motorized craft;
- A commercial restaurant (possibly with a Native Indian food theme)
- Creating group camping facilities in the meadow south of Fisher's Field (first meadow) to serve community organizations and service clubs;
- A "salmon theme" children's play area.

A plan which emphasized large scale intensive uses would require major capital commitments as well as amplified access, servicing and waste handling.

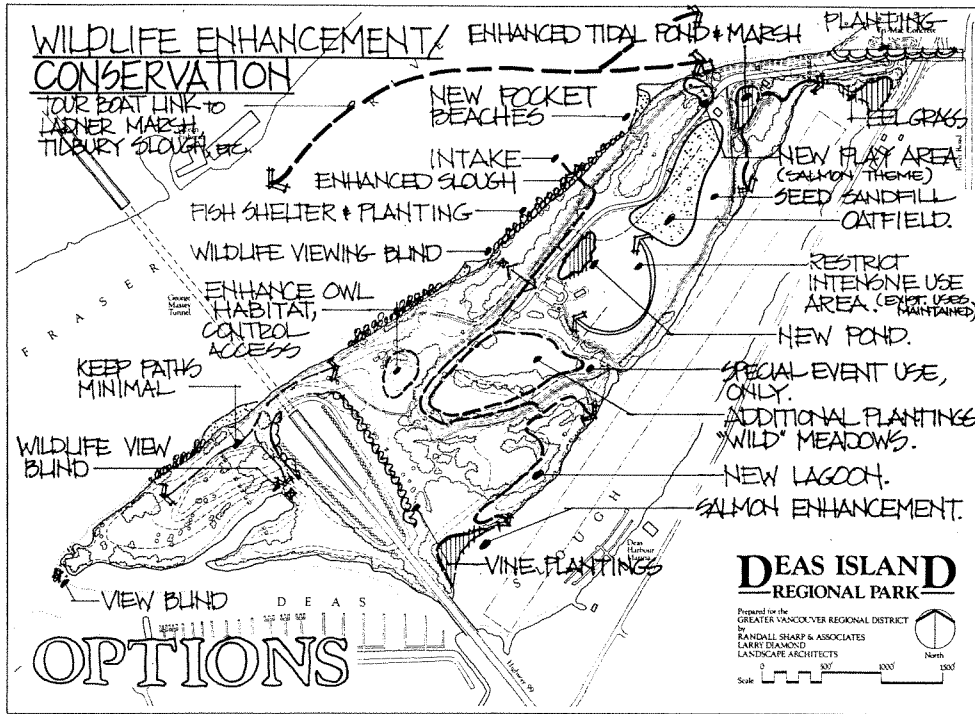


FIGURE 6.1

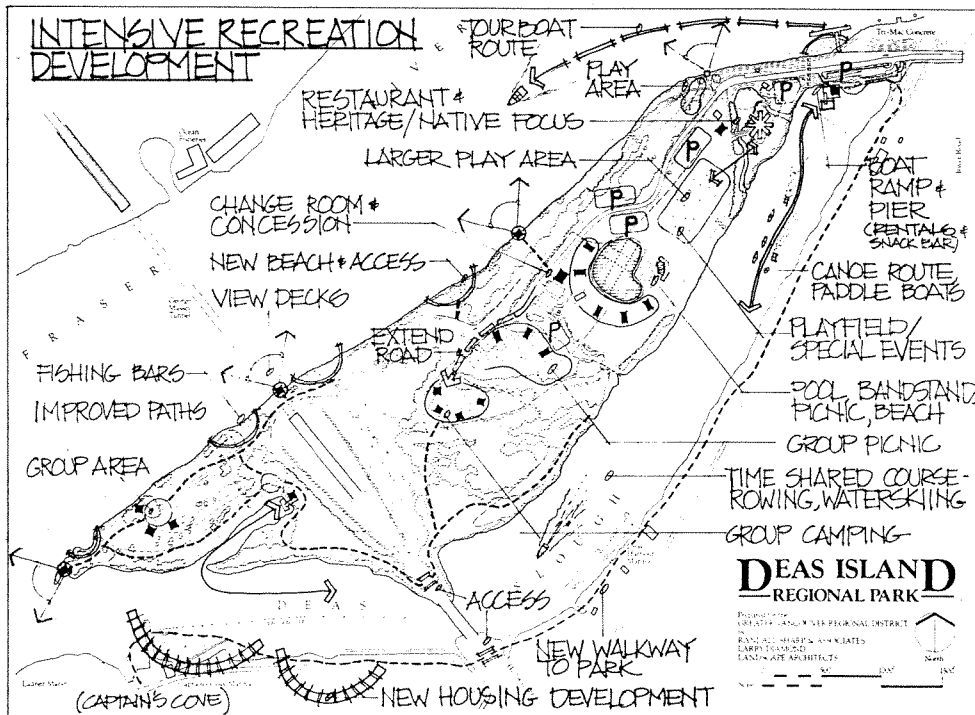


FIGURE 6.2

### 6.3 Intensive Development: Large Scale Native Indian Cultural Center: (N.I.C.C.)

In April, 1987, G.V.R.D. received an ambitious proposal from a B.C. based Native organization, L.I.F.T. Indian Training Society. In part, the proposal is based upon a similar development in Hawaii, the Polynesian Cultural Centre, where employment and training are offered to Polynesians while visitors are exposed to many aspects of their culture. Objectives of the L.I.F.T. proposal are:

- To maintain and perpetuate Native Indian culture through training and employment in traditional customs and activities;
- To encourage non-Native people to participate in Native Indian traditional activities and culture.

A native Indian Cultural Centre is indicated which would represent the traditional lifestyle and heritage of some of the major ethno-linguistic groups of British Columbia including the Coast Salish, the Interior Salish, the Kwakiutl, the Nootka, the Haida, the Tsimshian and the Tlingit. Fisher's Field would become the primary development site with some use of the adjacent forest and meadow.

L.I.F.T.'s organizers identified Deas Island as their preferred NICC site for several reasons:

- History of Native interaction with the Fraser River Estuary;
- The protected slough lends itself to water demonstrations;
- Neutrality - the land did not belong to a particular tribe or band;
- Tourist access; proximity to Highways 99 and 17 and to the American border.
- Flatland, ease of construction
- Expansion capability

Included in the program would be indoor and outdoor demonstration areas, theaters, authentic representations of native architecture, carved out waterways for canoes, a gift shop, a restaurant, a controlled access entry and substantial parking. In addition, ethno-botanical gardens (plantings utilized by Native Indians for food and medicine) would be located close to the complex. At times, the N.I.C.C. might use the entire island for special activities (ie: ceremonies and celebrations, demonstrations of wildland skill, etc.).

While the initial size would be fifteen acres, the ultimate development as portrayed would encompass forty five acres. Land for the site would be leased from the GVRD. Paid admission would be through a controlled entrance. Additional parking may be needed off the Island with a shuttle bus link.

With this scheme, most of the park's present uses would be restricted to the north and southwest parts of the island. Group picnic facilities would move into the meadows south of Fisher's Field. The existing access road would probably require substantial upgrading, possibly with a controlled intersection at River Road. Service, sanitation, safety, energy and emergency access requirements would all be substantial.



## 6.4 Mixed Development (including alternative N.I.C.C. proposal)

This option combines certain attributes of the previous three scenarios while maintaining many existing use patterns. It recognizes road and servicing limitations while assuring that over time, some increased amount of non-passive use will occur. Parking requirements are lower than those in alternatives two and three. Incorporated in the plan are the following opportunities:

- Plantings at the park entry;
- A shelter for Delta Rowing Club's shells, including a possible view deck and meeting room;
- A second float located on Deas Slough to facilitate canoe and kayak access, and a short pier for tour boat docking and sport fishing on the river
- Development of a small heritage farm on a portion of Fisher's Field and use of the Ladner Agricultural Hall (1988) for some interpretive programs in addition to its proposed storage and maintenance function;
- Enhancement of the tidal pond, marsh and internal sloughs, as well as other specific wildlife areas;
- Establishing canoe loops for wildlife viewing;
- New pocket beaches, viewpoints and some pathway improvements; including new pathways (or fingers) to increase shoreline access;
- A native Indian Cultural Centre on a ten to fifteen acre site. It would be smaller in scale than in Option 3 and situated south and west of the tidal pond near the Inverholme Schoolhouse. Most of its orientation would be toward Deas Slough with opportunities for canoe and fishing demonstrations in Deas Slough; (Refer to Figure 6.8)
- Additional group picnic shelters with fire pits and the maintenance of Fisher Field's south end for group activities;
- A group campground to primarily serve schools, service clubs and other groups interested in experiencing the Fraser River Estuary

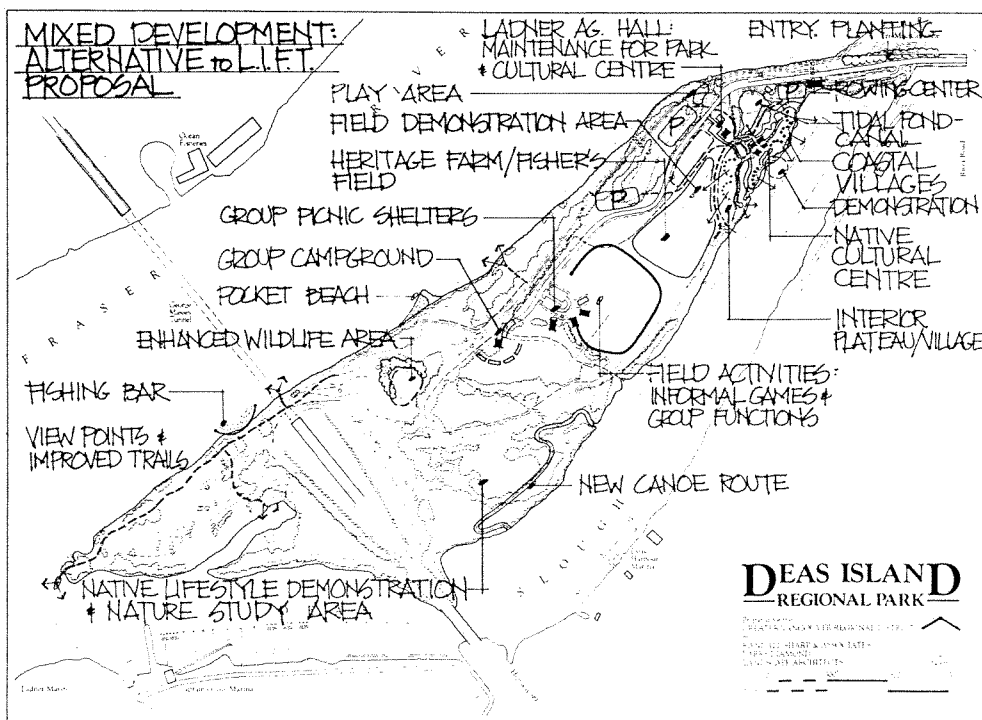


FIGURE 6.6

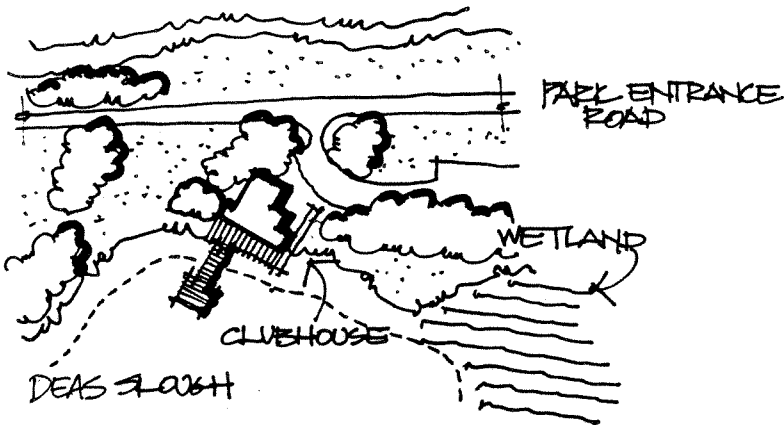


FIGURE 6.7 ROWING CENTRE WITH PUBLIC DECK, MEETING ROOM AND FLOAT AT THE NORTH END OF DEAS SLOUGH.

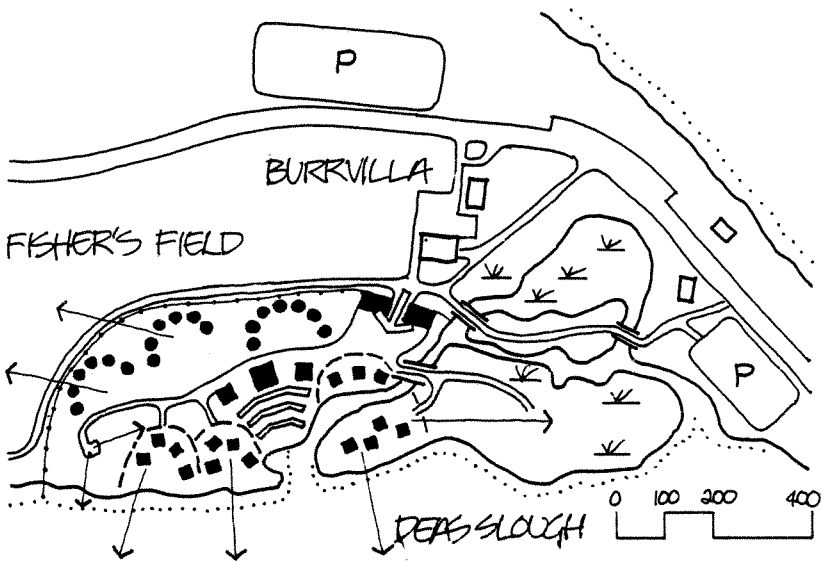


FIGURE 6.8 ALTERNATIVE N.I.C.C. LAYOUT ON A 10 ACRE SITE

## 6.5 Evaluation of Park Plan Alternatives: Summary

Each of the four options has both strengths and weaknesses. The accompanying matrix (Figure 6.9) illustrates their response to Park Planning objectives and to key issues. From it, those components which reinforce the "Window on the Fraser" theme and which offer new and enhanced opportunities for compatible park uses can be selected. These elements then form the basis for a park program and a preferred plan which addresses the issues in the most forceful way. An evaluation summary follows.

### 1. Wildlife Enhancement and Conservation:

Conservation and enhancement have important site potential and are strongly compatible with F.R.E.M.P. (Fraser River Estuary Management Program), Department of Fisheries and Oceans, B.C. Ministry of the Environment and other groups concerned about the Estuary's environmental health. Enhancement measures also reinforce the "Window on the Fraser" theme.

Weaknesses of a plan which **only** emphasizes conservation are its lack of response to families and larger community groups who require a wider range of attractions and facilities.

Flexibility to accommodate special events would be reduced and the heritage potentials of the site left unexploited. Moreover, experiences already available at Riefel Wildlife Refuge, Tilbury Slough and Richmond Nature Park might be duplicated.

In conclusion, positive aspects of this option are its response to the need for important habitats, protection of valuable plant communities and the preservation and enhancement of the site's visual qualities. These essential components should be incorporated in a preferred plan.

### 2. Intensive Recreation Development

Strengths of this alternative are its appeal to people seeking more diverse activities and its emphasis on easier pedestrian access. Components of this plan such as a group campground, children's play areas, more picnic tables, pocket beaches and some increased parking would respond to the demands of larger groups, families and the disabled.

Activities such as swimming or organized sports can better be accommodated at the municipal level. Also, the costs of providing a safe artificial swimming environment and intensive use playfields would be high. A comparative aquatic recreational development would be Kitsilano Pool in Vancouver which cost approximately \$8 million. As well, the Island's limitations for servicing (ie: septic systems) could pose serious constraints for permanent facilities such as bathhouses, concession and enlarged washrooms.

In summary, elements such as swimming pools and sportsfields would do little to reinforce principal park themes. Most of the intensive use facilities and programs requiring high investment and servicing are not appropriate to Deas Island Regional Park. However, some features such as group camping and picnicking, and improved pedestrian and disabled access should be incorporated in a preferred plan.

### 3. Intensive Development:

#### Large Scale Native Indian Cultural Centre.

Exciting in its content, imaginative in scope and potentially attractive to tourists and local visitors, this scheme highlights the heritage and culture of Native people not only on the Fraser River, but throughout British Columbia. However, as depicted, this alternative has some serious limitations.

The proposal's size, parking and service demands are out of scale with the Island. Other activities would become secondary, with the site essentially becoming a theme park. The "Window on the Fraser" concept would be diminished. Also, problems of servicing, security, controlled access and complex leasing and liability arrangements would need to be resolved.

Creative uses could be made of the Island's natural resources through interpretive programs and demonstrations. However, the extensive channel excavation and number of buildings proposed for Fisher's Field would seriously reduce the Parks' capability and flexibility to accommodate other uses and events

In summary the concept of native cultural and heritage interpretation warrants a serious consideration and could be an important park feature if the appropriate site, scale and means are resolved.

#### 4. Mixed Development

This option responds to the requirement for a balance between the Island's pastoral qualities and the long term need to accommodate a wider activity base to serve a growing and changing population. Its strengths include natural habitat enhancement, a small heritage farm, increased access to the water's edge and a group campground to serve community organizations and schools.

The scaled down N.I.C.C., while requiring increased parking and access control, could be implemented with less disruption of other uses and could be compatible with Department of Fisheries and Ocean's "no net habitat loss" objective if skillfully sited and designed.

It is this option which best responds to the "Window on the Fraser" theme by enhancing existing use patterns and by providing new opportunities to experience the estuary.

FIGURE 6.9 ALTERNATIVES  
EVALUATION MATRIX

	ALTERNATIVE	1	2	3	4
		WILDLIFE ENHANCEMENT/ CONSERVATION	INTENSIVE RECREATION	LARGE SCALE N.I.C.C.	MIXED DEVELOPMENT
<b>OBJECTIVES</b>					
1. Reinforces "Window on the Fraser" theme		HIGH	SOME	SOME	HIGH
2. Provides a mix of activities for wide range of users		LITTLE	HIGH	LITTLE	HIGH
3. Emphasizes unique opportunities of park, avoids duplication		SOME	LITTLE	SOME	HIGH
4. Preserves & enhances wildlife habitats, respects no net wetland loss policy		HIGH	LITTLE	LITTLE	SOME
5. Accommodates multi-use / large scale events		SOME	LITTLE	LITTLE	HIGH
6. Provides activity areas for children, families, seniors, disabled, etc.		LITTLE	HIGH	SOME	HIGH
7. Preserves & enhances visual quality: meadows, dykes, river edge		HIGH	LITTLE	LITTLE	HIGH
8. A regional attraction: enhances tourism base		LITTLE	SOME	HIGH	HIGH
		1	2	3	4
<b>SITE ISSUES</b>					
• Improved water edge access to Deas Island?		LITTLE	SOME	LITTLE	HIGH
• Size, location, scale of Native cultural and heritage interpretation?		LITTLE	LITTLE	HIGH	HIGH
• Servicing, parking and safety limitations?		LITTLE	HIGH	LITTLE	SOME
• Enhancement of fish and wildlife habitats: flushing etc?		HIGH	LITTLE	LITTLE	HIGH
• Provides for group camping?		LITTLE	SOME	LITTLE	SOME

- HIGH response to OBJECTIVE or ISSUE
- SOME response to OBJECTIVE or ISSUE
- LITTLE response to OBJECTIVE or ISSUE

## **7 PREFERRED DEVELOPMENT AND ENHANCEMENT PLAN: FIVE TO TEN YEAR HORIZON**

### **7.1. A Program for the Park:**

Through the evaluation of the park development alternatives, a range of activities and facilities have been identified which are important in achieving a long term preferred plan

#### **a. Group Picnic Facilities**

These need to be increased, with the potential for multi-use of shelters to accommodate group camping and other related activities. The optimal configuration for grouping the shelters must yet be determined, but could be either a "Y" or a semi-circle. Necessary support facilities include a fire pit and gathering area as well as a cooking space. The first meadow is a potential location.

#### **b. Family Picnic Areas**

In any alternative, picnic tables are required. A cluster of tables related to a new pocket of parking north of Fisher's Field would be compatible with the visual quality of the Park and other park development. Increasing the number of picnic tables at existing family picnic areas should also be considered.

#### **c. Group Campsite**

If Deas Island is the appropriate location for another GVRD group campsite (to accommodate non-profit organizations such as the Scouts), it should be multi-functional, overlapping with group picnic shelters and offering spaces for additional Island events. Water, washrooms, drop-off/turnaround and (picnic) shelter with cooking/fireplace are needed.

#### **d. Children's Play Area**

Two types of play areas are suggested:

- The already proposed Salmon Migration theme area;
- Tot-lot scale play areas adjacent to group picnic/group campsite.

#### **e. Field Play**

A maintained open grassed area cut on a regular basis is required. It could be a portion of Fisher's Field or the First Meadow.

#### **f. Increased Water Access (Walkways, Pocket Beaches, Bar Fishing)**

Opportunities for water access (non-contact) should be increased. Some of these can occur in conjunction with channel improvement schemes proposed by the Fraser Harbour Commission and Public Works Canada.

#### **g. Docks**

Two types of docks should be established in the long term:

- Along the Slough a short term pleasure boat tie up float. This could be centrally located at the cove by the flapgate (possibly 50 feet (15m) in length).

- A tour boat landing from a pier along the Main Channel of the Fraser with a gang plank (no float because of tug boat waves) near the existing look-out tower.

#### h. Rowing Club

The Delta Rowing Club is an active user of Deas Slough and accommodation of their rowing shells has been proposed. However, this should not be a single-use facility. It should be combined with a public deck and float or a possible meeting room. A storage facility could be sited in the trees adjacent to the east end of the Slough. Eventually, the structure might accommodate canoe rentals. A spectator area for viewing events is proposed near the 1000 metre pylon on the dyke along Fisher's Field.

#### i. Canoe Routes

One or two canoe loops, developed by linking together existing drainage ways (tidal sloughs on the south edge of the Island) and connecting these to Deas Slough would provide a unique viewing experience at medium to high tides for canoeists. This would increase water edge habitat for wildlife.

#### j. Viewing Platforms and Sitting Areas

These places are badly needed and should be developed in conjunction with general trail improvements and water edge access points.

#### k. General Trail Improvements

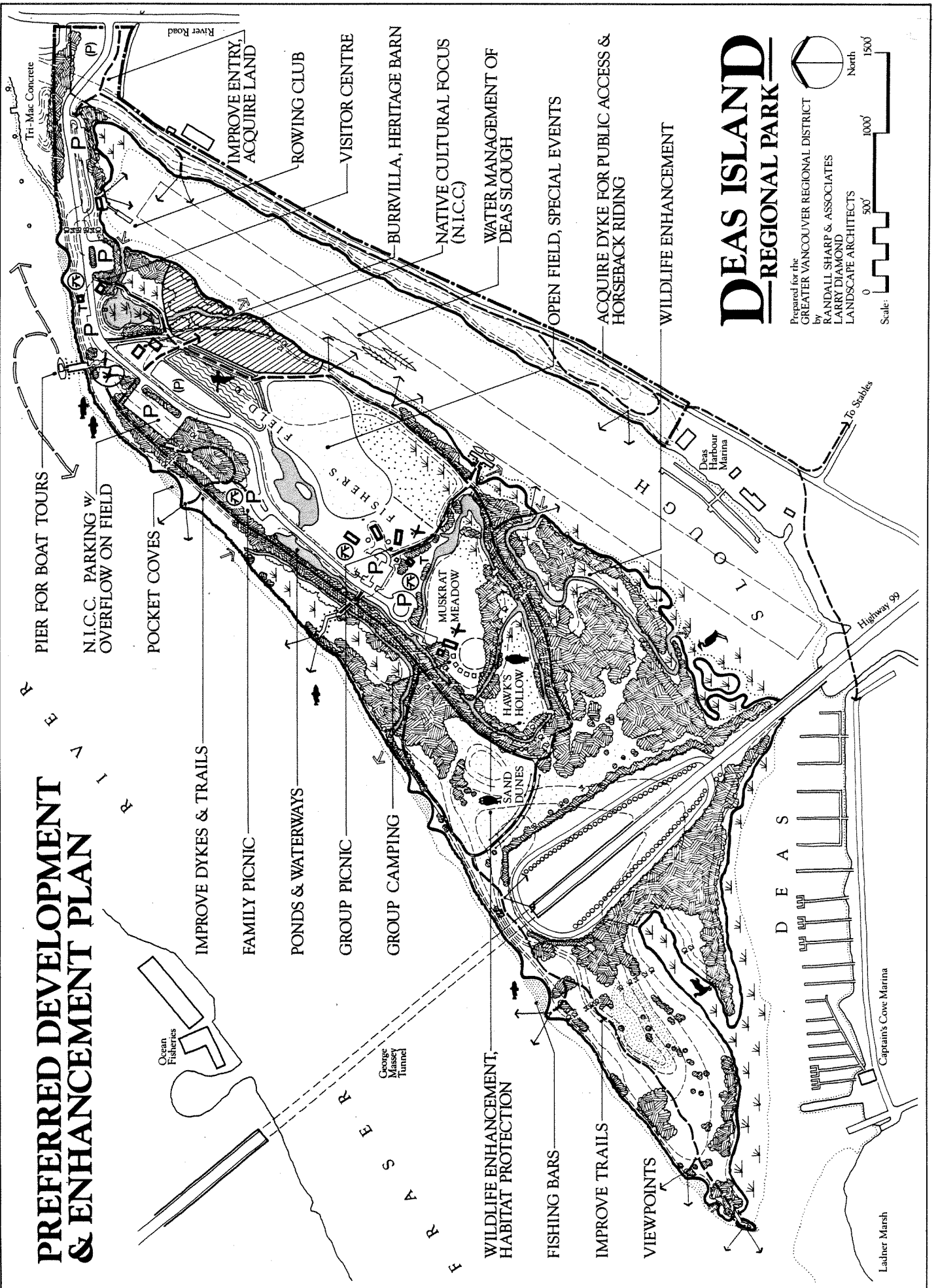
The following improvements are proposed:

- Providing a firmer (non pavement) surface along the north dyke linking the Island's east and west ends;
- Controlling access to hazardous and sensitive areas such as in the sand dunes by lining the trails with a low wood rail fence, which would keep the majority of park visitors from entering these sensitive areas;
- Relocating horsetrails in the long term to the dyke/proposed linear park on the southeast side of Deas Slough opposite the main Park. This requires land acquisition. In conjunction with Delta, the horsetrails could be extended, creating a circular loop to the stables in the area;
- Limiting bicycle use to the paved road in the Park;
- Providing (in conjunction with Delta) dyke access to Captain's Cove, to Ladner and other waterfront development;
- Providing smooth surfaced pathway loops of increasing lengths for seniors, disabled persons, people with strollers and small children and for other special needs groups (ie: one quarter, one half and two miles).

#### l. On Site Provision for Special Groups

A covered shelter or room for groups to gather and meet and equipment temporarily stored could be provided in conjunction with existing or proposed structures. A "tea room" might be eventually developed as part of an existing building to serve the needs of seniors or other groups during a day visit.

# PREFERRED DEVELOPMENT & ENHANCEMENT PLAN



## DEAS ISLAND REGIONAL PARK

Prepared for the  
GREATER VANCOUVER REGIONAL DISTRICT  
by  
RANDALL SHARP & ASSOCIATES  
LARRY DIAMOND  
LANDSCAPE ARCHITECTS

Scale: 0 500' 1000' 1500'

North

#### m. Food Services

If a Native cultural focus is developed in the Park, the concept of a theme food facility should be explored. However, there are severe limitations for servicing, waste handling and sewage disposal (health regulations). A small scale tea room (see 14) might be compatible without the need for elaborate improvements or servicing.

#### n. Delta Heritage Themes (agricultural, historical)

GVRD in cooperation with the Delta Agricultural Society plan to move the Delta Agricultural Hall from Patterson Race Track to Deas Island in 1988.

The placement and use of the Agricultural Hall provides increased opportunities for adaptive re-use. In addition to housing maintenance equipment, the barn could have other spaces used to reflect an agrarian theme.

Establishing hedgerows, a small heritage farm (demonstration garden or field) and fence rows would also increase this aspect. A "village" (such as Barkerville) should be avoided.

#### o. Native Cultural Focus

The important Native heritage and cultural contributions in British Columbia could be expressed and accommodated in the Park. Native people could be trained and/or employed to present traditional lifestyles including fishing, food preparation, canoe carving, longhouse construction, basketry, weaving, ceremonies and sports to tourists and regional visitors. Emphasis should be on authentic construction and appearance, and utilization of the natural setting at Deas Island. Integration into the overall landscape rather than a single, dominant use should be encouraged, with a limit of fifteen acres established. Demonstrations of traditional activities can 'borrow' upon the greater landscape utilizing Deas Slough, adjacent forests/wetlands and Fisher's Field.

#### p. Parking

Parking can be provided in a series of 'pocket' parking areas located on the field/forest edge screened by trees. The modified Native Indian Cultural Centre proposal would triple the parking requirements in Deas Island. On peak days during the summer, temporary parking could be provided on the grassed fields.

#### q. Education and Interpretation

The Island's present role and GVRD's (as well as that of other groups) program opportunities should be increased along with signs, displays, audio and brochure (self-guided) walks.

Use of historic features on site should be maximized (ie: ferry pilings, cannery pilings). Habitat enhancement can be used as an educational tool (ie planting demonstrations along meadow edges). Interpretive programs for school groups and other visitors should emphasize the River's essential role in salmon migration and as a sturgeon and other habitat. Active demonstrations by agencies and observations of the shipping & fishing industry can augment the "Window on the Fraser" theme.

#### r. Habitat Enhancement

The following techniques to increase the potential for fish and wildlife habitat are proposed:

- Increasing water flow in the tidal marshes by creating channels;
- Planting sedges in pockets in the rip-rap along the river and on perched benches in sedimentary areas;

- Recharging the internal drainage ditches and constructing new ponds;
- Planting hedgerows and placing vines along the fences;
- Planting the edges of the meadows and seeding sparse areas with native grasses and wildflowers;
- Protecting valuable habitats through access control, signs and interpretive information.

The following components are not included in the long range program.

a. Swimming Pool/Artificial Pond

While this facility may be well utilized, it would duplicate an experience available in Boundary Bay Regional Park, Iona Regional Park and in nearby municipal parks. In addition, there would be major capital costs (up to \$8 million), a large service and parking commitment as well as the need for concessions, change rooms and safety requirements.

b. Power Boat Ramp

This facility is already provided along Ferry Road on Deas Slough in Delta. The provision for power boat launching would consume valuable space (trailer storage, parking) and could conflict seriously with other park uses. However, the opportunity for hand-launching of canoes, kayaks and car top boats should be encouraged.

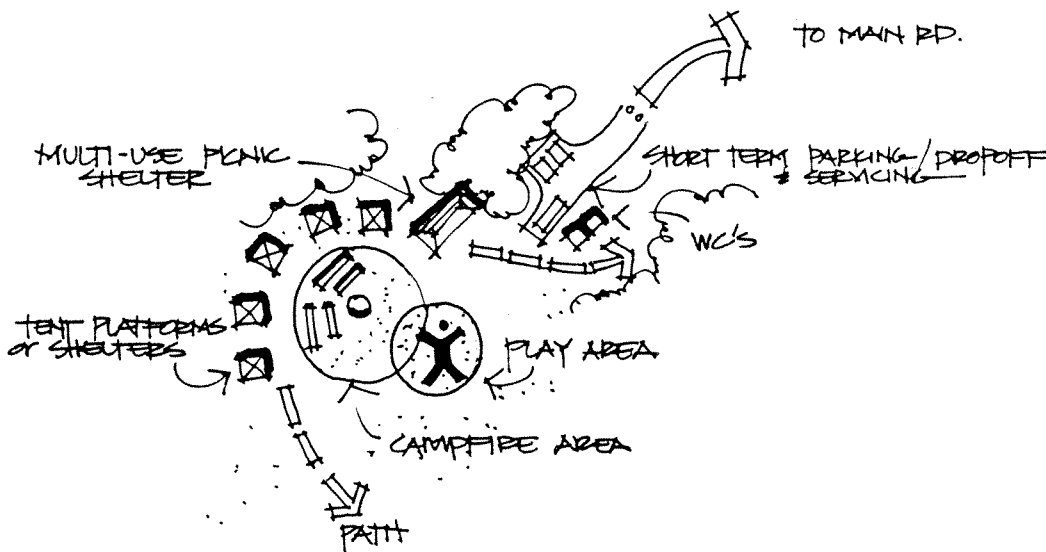
c. Water Skiing

Wake damage, shoreline/dyke erosion and the potential for collisions in a limited waterway suggest that this activity could be better accommodated elsewhere. There are alternative sites suitable for water skiing and GVRD should work with the water ski clubs to find an alternative safe location with the type of shore-based support facilities they require.

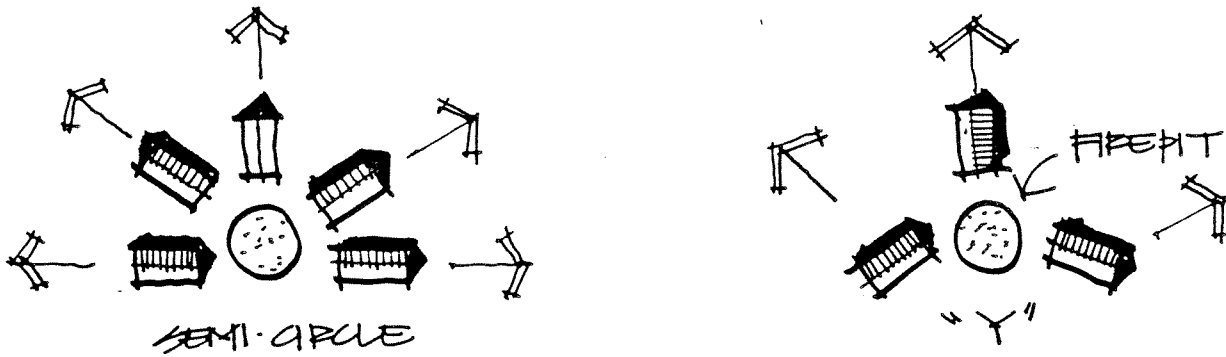
## 7.2 Design Concepts for New Park Facilities

The following diagrams and sketches illustrate potential design solutions for new amenities as expressed in the Preferred Plan Program:

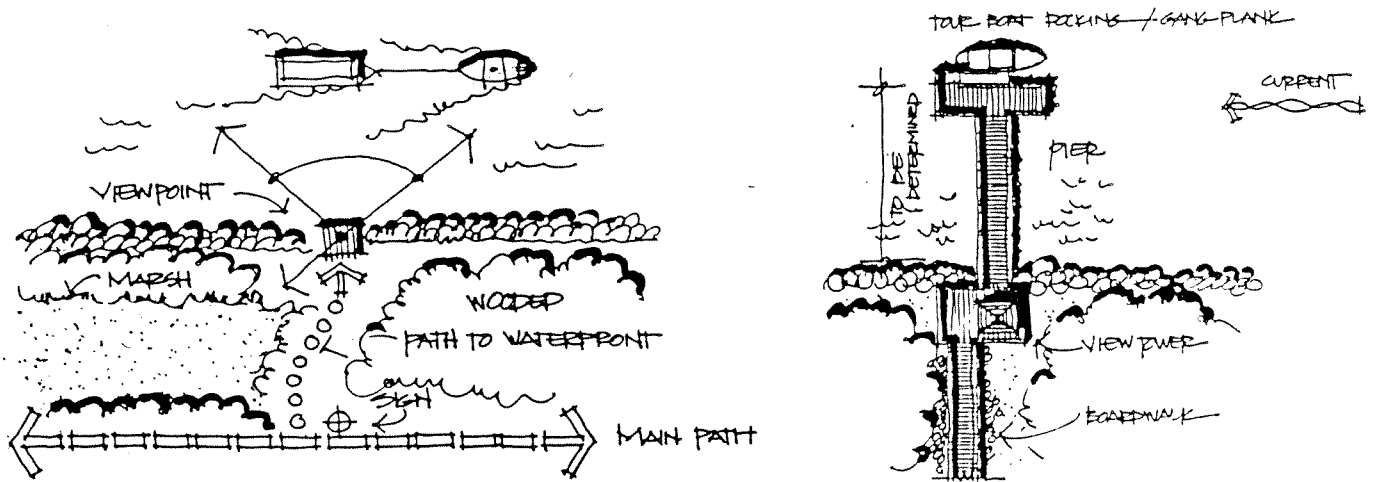
- a. Group camping and picnicking area to accommodate thirty to forty persons, with required support facilities, including play area.



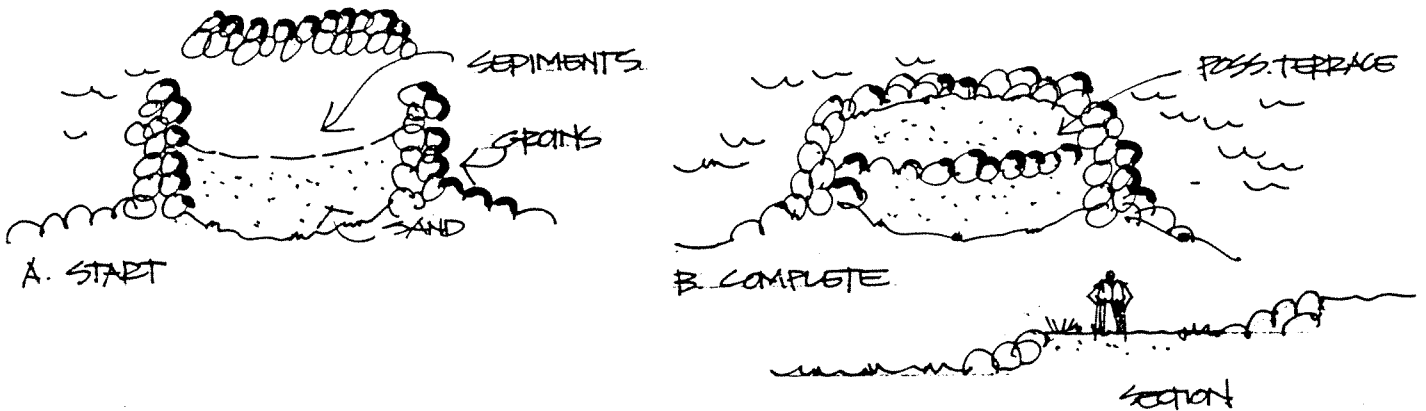
b. Group picnic facilities (dual use shelters).



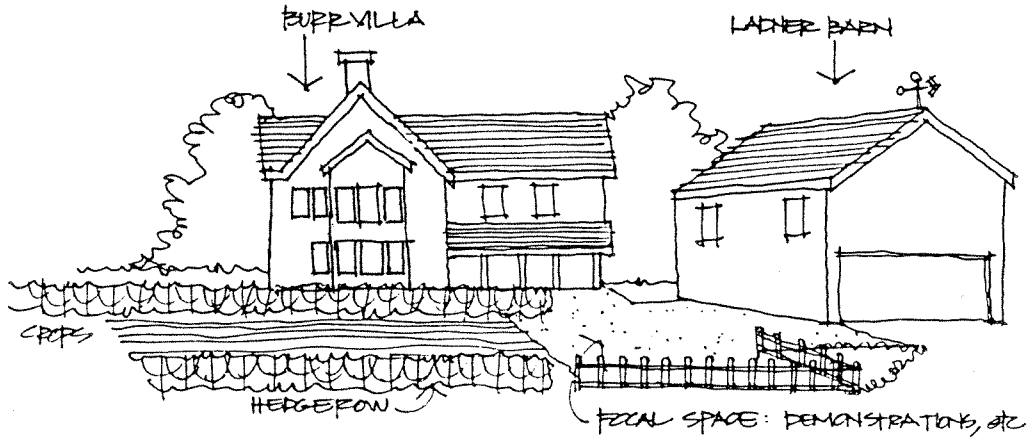
c. New Pathways and viewpoints to shoreline including interpretive information to the right, a boat tour pier with potential for sportfishing is illustrated.



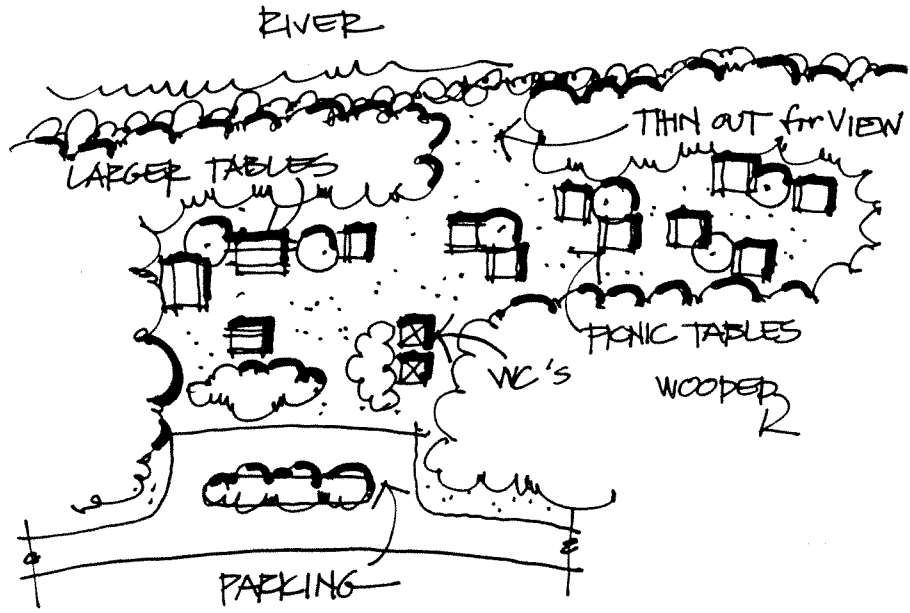
d. Pocket beach/fishing bar



e. Heritage Farm, use of the Ladner Agricultural Hall as a barn to complete the historical building complex.



f. Family picnic area



## 8. PRIORITIES FOR CAPITAL DEVELOPMENT, PHASING AND COSTING.

The following plan components have been listed in priority based on questionnaire results, meeting with agencies and interest groups and from discussions with G.V.R.D. staff. These items are subject to constant review, GVRD funding and willingness of other agency/interest group participation and consultation.

YEAR	PRIORITY/ACTION	COST ESTIMATE (1987\$)
1	1. Dyke upgrading and water edge stabilization (on going)	\$15,000/yr
	2. Group camping including parking, decks, tables, shelter, pit toilets and support facilities	\$65,000
	3. Delta Heritage Farm Theme: Relocation and improvements to Ladner Barn	\$70,000
	4. Heritage building improvements	\$20,000
2	5. Delta Heritage Farm Theme: hedgerows, farm fencing, barn improvements	\$50,000
	6. Children's play area (Salmon Migration Theme)	\$50,000
	7. Picnic table replacements	\$10,000
3	8. Interpretive displays and signs	\$25,000
	9. Wildlife enhancement: water circulation improvements, floodgate and ponds (with Ducks Unlimited, to be completed over several years)	\$100,000
4	10. Picnic table additions	\$10,000
	11. General grass area improvements and tree planting	\$50,000
5	12. Group picnic shelters (2)	\$100,000
	13. New flush toilets (septic field required)	\$50,000
	14. Children's tot lots (2)	\$20,000
	15. Hydro to Group Picnic Area	\$50,000
6	16. Viewing/sitting areas and pedestrian access fingers	\$50,000
	17. Trail Improvements	\$75,000
7	18. New Gravel Parking Lots (3) and roads	\$50,000
	19. Increase Water Access (4 Pocket beaches)	\$200,000

8	20.	Pave parking lots (4)	\$180,000
	21.	Wildlife enhancement: native plantings	\$20,000
	22.	Family picnic area: tables, parking and flush toilets	\$100,000
9	23.	Land Acquisitions, 15 to 20 acres	unknown (possibly \$200,000)
10	24.	Entrance area improvements: realign entrance road, short term (overflow) parking and landscaping	\$60,000
	25.	Float for pleasure boats	\$50,000
	26.	Pier for tour boats and sport fishing	\$100,000

**Note:** The above costs include design and engineering fees. These preliminary costs are of an order of magnitude basis for budgeting purposes. The cost of work and time estimates are subject to change and the consultants do not guarantee the accuracy of these estimates. Exact costs will be determined only when tenders have been received for the work.

Items such as the Native Indian Cultural Centre (N.I.C.C.) or the Rowing Club structure would be undertaken by individual groups (such as L.I.F.T.) with tactical cooperation from the GVRD. Lease arrangements for the land and certain services would have to be worked out in detail, as well as liability.

This ten year improvement program reflects the reality of limited funds which must be distributed throughout the park system.

## 9. MANAGEMENT AND OPERATION GUIDELINES

The following improvement and maintenance procedures should be initiated at Deas Islands Regional Park. They can be ongoing, implemented over time, as funds and other resources become available.

### 1. Fish and Wildlife Habitat Enhancement:

#### a. Tidal Ponds, Marshes and Ditches:

##### • Tidal Channels:

If dredging is required, carry out operation during late fall - winter period. Avoid spring - peak period of downstream migration for juvenile salmon. Remove material, sidecast and spread out plant root material. Preferably, contour banks at 2:1 slope. Avoid barging dredgate as it is costly.

##### • Marshes:

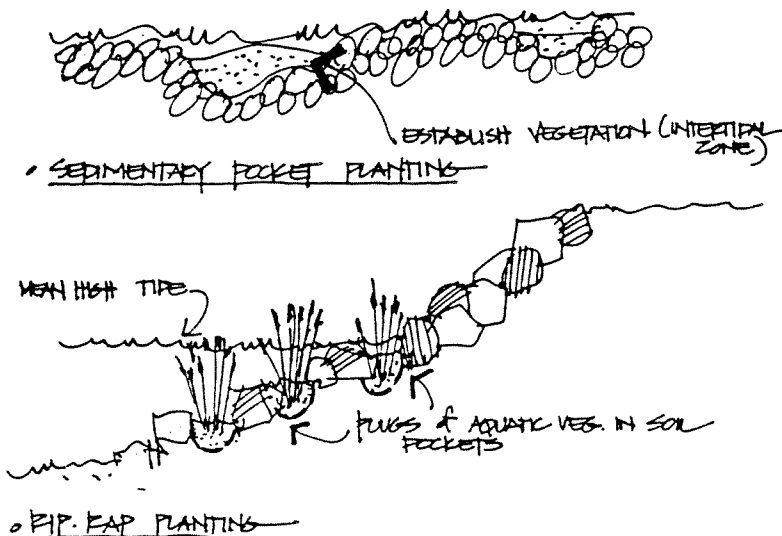
For the marsh along the Fraser River, provide intake culvert off river through rip-rap at up stream end and discharge culvert downstream. Capture last half to third of tidal phase. Water flow will increase habitat potential (juvenile fish and waterfowl).

##### • Recharging internal drainage ditches:

The water should be from Deas Slough as it contains less silt than river water. Keep recharge rate moderate to avoid excessive back pressure on old dykes. Use screen at flapgate to omit debris. Most recharge needed in summer. Keep bottom of ditch free of excessive weeds to enhance water circulation.

#### b. Intertidal Plantings: Rip-rap and sedimentary edges:

- Plant sedges in pockets between rip-rap along river front where current flow is reduced. Place soil/sediment in pocket. Most valuable habitat is at the level below mean high tide. In sedimentary areas, create perched marshes, with sedges at the level below mean high tide.



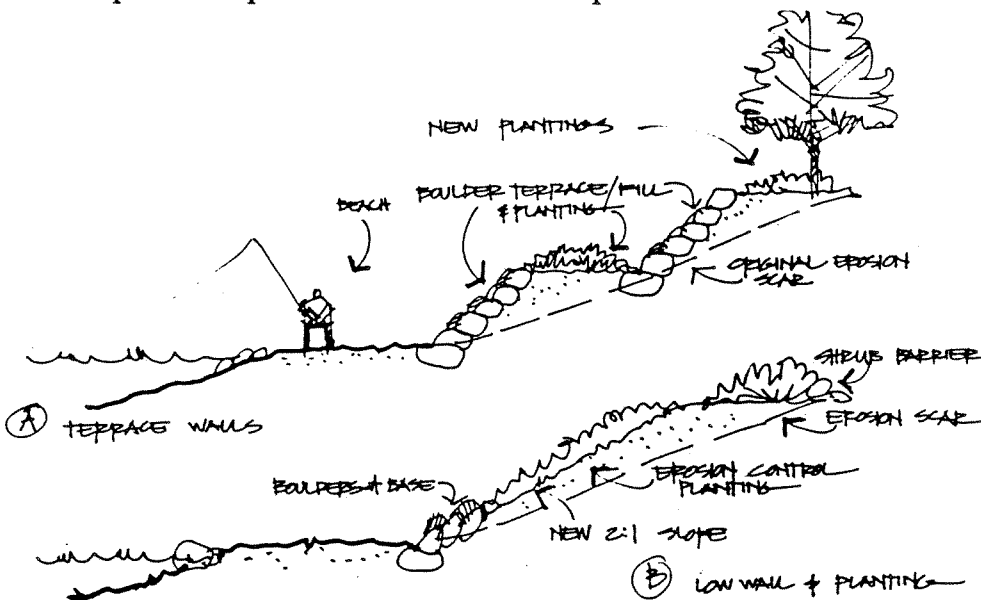
#### c. Terrestrial Wildlife Planting and Habitat Protection:

- Plant edges of fields and meadows with native fruit, seed and berry bearing plants such as: Snowberry, Hawthorn, Mountain Ash etc.

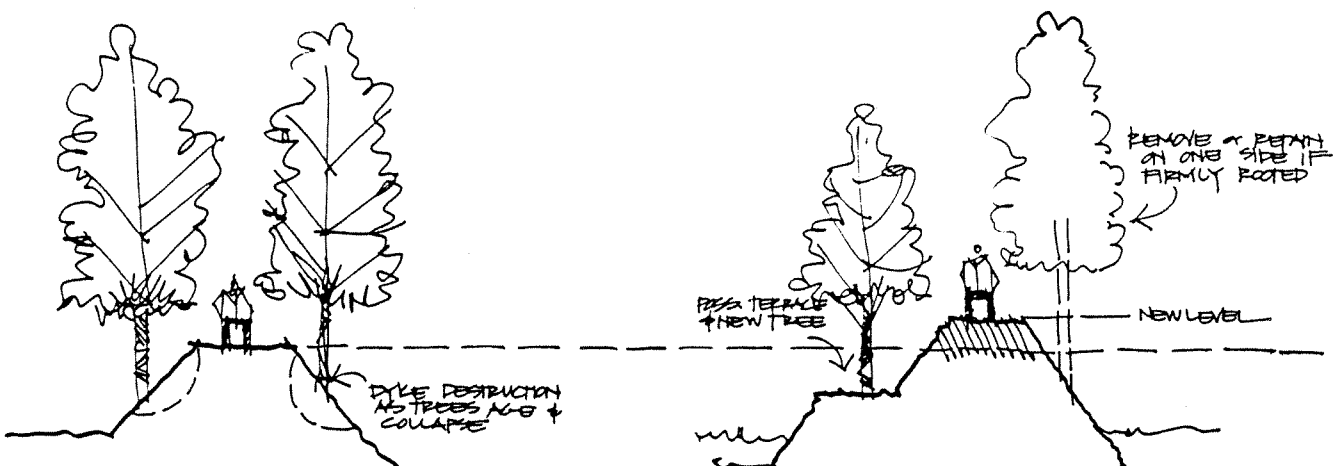
- Plant fence around Massey Tunnel entrance in flowering vines such as Honeysuckle to attract insects and hummingbirds.
- Cut blackberry in meadows back once a year, cut grasses in early spring to assure vigorous growth of high grass meadow.
- Initiate hedge and tree planting along fence (Tri-Mac Concrete) at park entrance.
- Protect valuable plant habitats (horsetail in clearings, arrowhead in wet meadows and pond edges) through sign, interpretive information and access control.
- Plant hedgerows as part of heritage farm.

## 2. Erosion Control, and Flood Protection

a. North edge of park (riverfront) terrace eroded bank: use rocks or boulders for retention, provide marked path or steps. Can be combined with pocket beach creation.



b. Old dykes: it may be necessary to raise the dyke level. If so, cut trees only where necessary or on one side. Cut older or weak trees to maintain overall sense of canopy. Create terraced edges.



c. Full flood proofing of buildings requires occupied floor space to be 3.5 M geodetic or greater (two hundred year flood limit). Most areas of the Park do not require this level of protection. However, for occupied space:

- Build on piles (preferable, as least shoreline/habitat disruption)  
or
  - Build back from foreshore and use sand to build up to required level (preloading may be required)
- d. Wake control and clay bank (slough) erosion: Post a 5 knot speed limit for motorized boats in Deas Slough (must be coordinated through Fraser River Harbour Commission).

### .3 Trail and Access Improvements

a. Increase interpretive opportunities by providing:

- Area displays
- Trail signs and self guiding trail information
- Pedestrian traffic control for sensitive habitat areas;
- Pedestrian access fingers to riverfront viewpoints and pocket beaches
- Administer interpretive and educational programs from the Interholme Schoolhouse

b. Accommodate special needs by providing:

- Handicapped ramps and hard surfaced paths, to water viewing and fishing pier;
- Potential path/information for the visually impaired

c. Accommodate large gatherings by providing:

- Overflow parking areas
- Separate pedestrian and car access
- Protection for sensitive habitat

There is an excellent maintenance program for the more intensively used areas and facilities in Deas Island Regional Park. For example, lawn areas are regularly cut, buildings painted, washrooms cleaned etc. to assure that health and safety standards are met or exceeded and that the Park has an attractive appearance.

We recommend that existing and new activity areas of the Park be maintained at this existing level. However, significant parts of the Island should still be left in their natural state.

## 10. POLICY RECOMMENDATIONS

There are several recommended policies to help assure that the Enhancement and Development Plan stays current, responds to changing requirements (use trends) and remains compatible with local, regional, provincial and federal agency objectives for the lower Fraser River Estuary.

1. Continue regular liaison with organizations such as F.R.E.M.P., the Department of Fisheries and Oceans and the B.C. Ministry of Environment. Have these agencies review any development and management proposals affecting sensitive habitats (ie. wetlands).
2. Request periodic input from community education, recreation, heritage and naturalist interest groups using Deas Island to:
  - Offer information on changing roles;
  - Offer response to new development proposals
3. Continue the excellent dialogue with L.I.F.T. (as well as with other Native Indian organizations) to arrive at the appropriate scale, siting and strategy for a successful representation of Indian culture, heritage and lifestyle at Deas Island.
4. Provide tactical assistance (non-financial) to groups whose activities are not compatible with long-term objectives of the Park Plan. (ie: water skiing, speed boating). Assist these groups in cooperation with other agencies to relocate in safe, appropriate sites.
5. Conduct further research into the use by fish and wildlife of the Islands habitat areas. Use the expertise and assistance of interest groups such as Ducks Unlimited, local field naturalist clubs, scouting organizations and environmental agencies.
6. Every five years (1992 and 1997) conduct a thorough review to the plan:
  - Are the objectives still valid?
  - Is there new information which changes the plan?
  - Have new users been attracted to the park and has visitor response been favourable?
  - Have budget forecasts and costs been accurately determined?
7. The "Window on the Fraser" theme should continue to guide the overall character and role of Deas Island Park beyond the plan's ten year mandate.

## **Appendix 1: Questionnaire Results**

**DEAS ISLAND**  
REGIONAL PARK  
 PARK MASTER PLAN

# QUESTIONNAIRE 1

SUMMARY OF INTEREST GROUP & GOVERNMENT AGENCY RESPONSES TO QUESTIONNAIRE # 1

Questions:

1. What group or agency do you represent?

	<u>No. of Representatives</u>
Environmental	3
Municipal Parks/Planning	5
Government Agency	3
Heritage/Cultural	6
Sport	2
Other (service, private)	1

2. Where are you located?

	<u>No. of Responses</u>
Delta	7
Vancouver	5
New Westminster	3
Richmond	3
Surrey	2

3. What is your group or agency's major role?

- development and maintenance of municipal parks and recreation services.
- maintain navigation of the Fraser River & promote port and terminal development.
- habitat management of the fisheries resource.
- co-ordinate government activities concerned with environmental protection and economic development of the estuary.
- foster awareness and preservation of heritage resources.
- foster awareness, appreciation and interpretation of nature through active programming.
- foster education, appreciation and conservation of nature.
- interpretation of archeological sites.
- development of Native Indian culture & Native training.
- community service involvement.
- enhance and promote the sport of rowing.
- enhance and promote the sport of water skiing.
- conservation, development and enhancement of water fowl habitat.

4. What programs/projects are you presently involved with?

- provision and delivery of leisure services to the community.
- Fraser Surrey Dock, Fraser Richmond proposed port, F.R.E.M.P., Development of Deas Slough for B.C. Summer Games, patrol river.
- water quality, recreation and habitat conservation; industrial development, port terminals, dredging and navigation of Fraser River; area designation; public awareness of Fraser River resource.
- identification of heritage resources, public education and Heritage awards.
- nature interpretation, outdoor recreation, preservation and enhancement of Burns Bog.
- public awareness of cultural resources through archeology and interpretation of native cultural sites.
- public education programs & publications on nature.
- advisory committees on nature projects.
- Native alcohol & drug prevention and provision of Native Indian performances.

4. Cont'd

- organizational support for Deas Island Days.
- high school rowing program.
- building rowing boathouse on Deas Island.
- starting a water ski club.
- water fowl management options on Ladner Marsh, Woodward Island, Duck Island and Barber Island.

5. Do you presently use Deas Island?

	<u>No. of Respondents</u>
Yes	14
No	4
No response	2

6. How important or appropriate are the following activities/programs in this Park?

<u>ACTIVITY</u>	<u>Very Important</u>	<u>Some Importance</u>	<u>Not Important</u>	<u>Elsewhere</u>	<u>*No response NR*</u>
Picnicking	14	6	-	-	-
Strolling	17	3	-	-	-
Horseback Riding	-	9	8	2	1
Bicycling	1	8	6	4	1
Informal Field Sports	1	11	2	4	2
Sport Fishing	4	12	3	-	1
Small Boat Launch (Canoeing)	11	9	-	-	-
Rowing	11	7	1	-	1
Water Skiing	1	5	1	13	-
Swimming	3	5	5	7	-
Group Camping	1	8	4	7	-
Large Group Gatherings	8	10	1	1	-
Heritage Interpretation	14	6	-	-	-
Native Cultural Interpretation	8	9	1	1	1
Nature Study	13	7	-	-	-
Fish & Wildlife Enhancement	17	2	1	-	-
Enhancement of Ditches/Ponds	14	4	2	-	-

7. What new facilities and or changes would you like to see at Deas Island?

	<u>No. of Respondents</u>
- facilities, programs and access for wildlife/vegetation/fisheries/River estuary interpretation	6
- Native cultural or heritage facility	5
- improve parking/access/entry	3
- children's playground	2
- agriculture heritage area	2
- no change/keep natural	2
- improve washroom facilities	1
- satellite display	1
- boat tours	1
- improved bar fishing	1
- rowing centre	1
- roped off swimming centre	1
- promotion of water safety	1
- enhancement of cat tail area for waterfowl use	1

Are there any uses/activities you would not like to see at Deas Island?

	<u>No. of Respondents</u>
- power boating/water skiing	12
- motorcycles	4
- swimming	2
- camping	2
- commercial development	2
- increased parking	1
- rock concerts	1
- foreshore development	1
- horseback riding (ie. Black Creek)	1
- Heritage Village (Black Creek?)	1
- those not in keeping with natural environment	1

# DEAS ISLAND REGIONAL PARK

## PARK MASTER PLAN

# QUESTIONNAIRE

# 2

### SUMMARY OF PUBLIC RESPONSES TO QUESTIONNAIRE # 2

Total number of questionnaires 154

#### Questions:

1. Which municipality do you live?

	<u>No. of Respondents</u>	
Delta	65	*Port Moody, Coquitlam, Pt. Roberts, Maple Ridge, Aldergrove
Vancouver	37	
Richmond	12	
Burnaby	10	
Surrey	7	
New Westminster	5	
Other*	<u>18</u>	
Total:	154	

2. How long have you lived there?

	<u>No. of Respondents</u>
1 - 5 years	57
6 - 10 years	38
11 - 20 years	27
20 & over	28
No response	<u>4</u>
Total:	154

3. a. How many people are living in your household?

	<u>No. of Respondents</u>
1 - 2	27
3 or more	69
No response	<u>58</u>
Total:	154

b: Family members age breakdown.

	<u>No. of Respondents</u>
0 - 5 years	56
6 - 12 years	56
13 - 19 years	23
20 - 24 years	13
25 - 29 years	6
30 - 39 years	110
40 - 49 years	32
50 - 65 years	20
66 & over	<u>5</u>
Total family members of those responding to question	321

4. How frequently do you visit Deas Island?

	<u>No. of Respondents</u>
1 visit per year*	67
2 - 5 per year	63
6 - 10 per year	7
10 & over per year	14
No response	<u>3</u>
Total:	154

\* No. of first time visitors 33

5. What activities do you engage in at the park?

No. of Respondents

- walking/hiking	68
- picnic	47
- special events (ie. Deas Is. Days, Christmans Tree burning, haywagon ride)	41
- bird watching/nature walk	11
- visit heritage buildings	8
- sightseeing	6
- fishing	6
- photography	4
- berry picking	4
- organized program (ie. school, scouts)	3
- work	2
- bicycling	1
- field sports	1
- waterskiing	1
- boating	1
- sunbathing	1
- camping	1
- sand dunes	1
- cross-country skiing	1

6. How important or appropriate are the following activities/programs in this Park?

ACTIVITY	Very Important	Some Importance	Not Important	Elsewhere	NR *
Picnicking	120	22	4	1	7
Strolling	128	18	2		6
Horseback Riding	18	47	48	21	21
Bicycling	45	69	19	9	12
Informal Field Sports	19	73	36	13	13
Sport Fishing	28	63	30	13	20
Small Boat Launch (Canoeing)	44	65	19	8	18
Rowing	35	68	23	9	19
Water Skiing	18	33	39	40	24
Swimming	50	51	20	19	14
Group Camping	33	48	24	30	19
Large Group Gatherings	50	57	19	5	23
Heritage Interpretation	94	42	2	3	13
Native Cultural Interpretation	81	36	15	5	17
Nature Study	116	26	1	2	9
Fish & Wildlife Enhancement	107	31	5	2	9
Enhancement of Ditches/Ponds	93	33	7	4	17

\*NR - no response

7. What new facilities and/or changes would you like to see at Deas Island?

No. of Respondents

- no change/keep natural 15
- children's playground 12
- more picnic tables/  
B.B.Q. areas 12
- swimming pool/water park 9
- more washrooms 7
- more drinking water 6
- more trails 6
- more heritage buildings 5
- camping area 5
- boat/canoe rental 3
- interpretive signs along  
trails 3
- beach areas 3
- cultivated grass area 2
- more sports fields 2
- more special events 2
- improved tidal flow into  
ponds 2
- more fishing bars/pier
- increase natural environment
- gardens
- more trees
- nature interpretive centre
- bird sanctuary/viewing
- protect dune plants
- nature programs
- improve ditches for canoeing
- cut large field year round  
or not at all (disturbs  
nesting birds in mid-summer)
- improve barren sport on Fisher's  
Field
- enforce dog laws
- improve parking
- longer hours
- improve bus service
- need emergency phone
- increase maintenance
- more country house store
- concession
- pond for model boats
- rowing clubhouse
- horse stables
- water ski ramp
- canoe routes
- mini golf
- flags at entry
- better location signs to Deas  
Island
- loud speaker for announcing at  
special events

8. Activities/uses that you would not like to see on Deas Island.

No. of Respondents

- speed boats 19
- motorcycles 16
- no (indifferent) 14
- commercial development 10
- alcohol/beer gardens 8
- waterskiing 6
- camping 6
- horseback riding 4
- dogs without leash 3
- motor vehicles 2
- bicycles 2
- logging 2
- sports fields 2
- recreation vehicle camping 1
- snowmobiles 1
- hunting 1
- ultralight planes 1
- landscaping 1
- Hell's Angels reunion 1

1. Place of Residence (27 questionnaires filled out)

Delta.....10  
Surrey..... 3  
Vancouver..... 3  
Burnaby..... 1  
Richmond.....0  
Other.....0

2. Identified Priorities (items scored 1 to 3 in question 5)

1. Wildlife enhancement.....15  
2. Water edge access.....10  
3. Trail improvements.....8  
4. Delta heritage themes..... 6  
5. Children's play and Family picnic'  
areas..... 4 each  
6. Native cultural focus..... 3  
7. Group campsite and Interpretive pro-  
grams, displays.....2 each

3. Additional Suggestions:

1. Keep quality of existing experience ( ie: semi-wild, pastoral); don't over develop;
2. Provide seating along walks and at viewpoints;
3. Provide a heritage farm, enhance heritage aspects;
4. Resolve waterski - canoe / rowing conflict A.S.A.P.;
5. Bike path and safe bike stand / lock up;
6. Replace dead or dying trees along road, provide more shade trees;
7. Small "theme" food service in a heritage building;
8. Winterized flush toilets;
9. More channels for fish and waterfowl;
10. Models and pictures of past heritage elements and uses;
11. Maps and interpretive signs at key places along trails re. wild-  
life and plants.

4. Unfavorable Comments: (very few)

1. Too many elements, no primary focus;
2. Fear of losing natural potentials and qualities;
3. Native cultural centre too big: 15 a. too much to commit;
4. Children's playgrounds not needed, they can learn from the outdoors;
5. Don't encourage large events, noise and commercial components;
6. Group campsite could cause serious problems: scale?
7. Don't permit concessions for food;
8. Lack of parking.

5. Favorable Comments:

1. Excellent balance of uses, something for all interests;
2. Year 'round use potential;
3. Exciting;
4. Most of island kept passive with busy areas kept to north end and road;
5. Wildlife enhancement, native culture representation and heritage theme "tea room".

## Appendix 2: Summary of Site Meetings, Agency and Interest Group Workshops:

<b>Date</b>	<b>Meeting</b>
July 26, 1987	Site Meeting
The entire site was examined by foot and canoe. From this reconnaissance, principal site characteristics were recorded and key environmental units were mapped with the aid of aerial photography and previous studies. Ron Kistriz and Ken Summers from the Consultant team and Jude Grass from GVRD participated.	
August 5, 1987	First Interest Group/ Agency Workshop
The primary purpose of this session was to review the consultant's initial base mapping and to identify site issues. Among those issues discussed were fish and wildlife habitat protection, increasing user demand, future development in the surrounding municipalities, enhancing Park estuary nature and heritage themes, potential links to other estuary sites and the L.I.F.T. Native Indian Cultural Centre proposal. A questionnaire was circulated.	
August 9, 1987	Deas Island Day
First public openhouse and questionnaire.	
August 1987	Meetings with L.I.F.T
Four separate meetings were held with representatives from L.I.F.T. Image and program of the N.I.C.C. proposal were discussed along with scale and location. The alternative scale N.I.C.C., depicted on Figure 6.8, was formulated and revised at the meetings.	
August 27, 1987	Site work with Duncan Hay, P.Eng
Potentials for the following amenities and solutions to the following problems were discussed and examined:	
<ul style="list-style-type: none"><li>• erosion control and repair;</li><li>• pocket beach construction;</li><li>• a small pier on the river;</li><li>• flushing internal ditches.</li></ul>	
August 27, 1987	Meetings (on site) with staff from Parks Canada, FREMP and Richmond Leisure Services
This meeting was scheduled to assure that plans for Deas Island Regional Park were not duplicating facilities and programs at other nearby locations. From this session it was determined that:	
<ul style="list-style-type: none"><li>• The Gulf of Georgia Cannery in Steveston should plan the prime role in fishing industry interpretation;</li><li>• The London Farm (Richmond) offers a full scale heritage farm experience;</li><li>• There is a large group campground in Richmond off Number 5 Road;</li><li>• There is high potential for a boat link from Deas Island to other estuary sites such as Tilbury Slough and the Islands along the Ladner Reach.</li></ul>	

- Smaller campground catering to community groups and a small scale heritage complex/farm stressing Delta's history would not duplicate agricultural London Farm:
- Any Native Indian heritage interpretive program needs to be carefully researched and should be authentic in detail;
- Deas Island Regional Park's greatest potential is to interpret the natural processes of the river and its economic importance.

August 29, 1987

Delta Planning Staff

- The role of Deas Island as an important passive open space was emphasized.
- The potential for possible future acquisition of the east dyke was discussed.
- Future connections to Captain's Cove and Ladner should be encouraged. Cooperation among Delta, GVRD and private land owners is needed.

September 9, 1987

Site Meeting:  
 Consultants and Environmental Agency  
 Staff  
 (D.F.O., Provincial Ministry of  
 Environment)

This final workshop was held to review the draft preferred plan and all relevant work. In addition, the issue of water surface use in Deas Slough was discussed in detail. Representation was made by the Water Ski Groups using the Slough. Long term conflict resolution involves the relocation and development of an alternative site for water skiers. GVRD could give tactical (non financial) assistance.

September 20, 1987

Public Openhouse at Deas Island  
 Inverholm Schoolhouse

Second public openhouse and questionnaire

### Appendix 3: List of Agencies, Individuals and Organizations

<b>Agencies</b>	<b>Contact</b>	<b>Addresses</b>
B.C. Archaeological Society	Kitty Burnick	139 West 18th Avenue Vancouver, B.C. V5Y 2A6 873-5958
Canadian Wildlife Service	Laszilo Retsalvi	Canadian Wildlife Service P.O. Box 340 Delta, B.C. V4K 3Y3 666-0143
Captains Cove Marina	Ken Stinson	6100 Ferry Road Delta, B.C. V3K 3M9 946-1244
The Country House (Burrville)	Daphne Savage Dorothy Brown	5169 Kilkenny Drive Delta, B.C. V4M 3R6 946-2283
Deas Harbour Marina	Ron Hallgate	5825-60th Avenue R.R.#7 Delta, B.C. V4K 4E2 946-1251
Deas Rowing Club	Lyle Gatley	4441 Auther Drive Delta, B.C. V4K 2X3 946-7384
Delta Agricultural Society	Robert Savage	7064-48th Avenue Delta, B.C. V4M 3N3 946-2283
Delta Heritage Society	Brian Hart, Inga Kam	4375 West River Road Delta, B.C. V4K 1R9 946-8302
Delta Museum & Archives	Leigh Hussey	Delta Museum & Archives 4858 Delta Ladner, B.C. V4K 2T8 946-6262

Delta Parks & Recreation	Dave Gibbon Bus Evans Jim Marsh	Corporation of Delta 4450 Clarence Taylor Crescent Delta, B.C. V4K 3E2 946-4141
Delta Parks & Recreation Commission	Ray Carter	5343 Wildwood Crescent Delta, B.C. 943-0026
Delta Planning Commission	Bruce McDonald	6554 Lambert Crescent Delta, B.C. V4E 1R8 596-8345
Delta Planning Department	Art Cowie Laura Ryan	Corporation of Delta 4450 Clarence Taylor Crescent Delta, B.C. V4K 3E2 946-4141
Delta Scottsdale Lion Club	Wade Farrell	c/o 10940A-64A Avenue Delta, B.C. V4E 1E3 590-6442
Ducks Unlimited	Peter Jones Kathleen Fry	P.O. Box 1304 Station A Surrey, B.C. V3S 4Y5 591-1104
Environment Canada Parks	Wayne Crossen	Fort Langley National Historic Park P.O. Box 129 Fort Langley, B.C. VOX 1J0 888-2822
Federation of B.C. Naturalists	Jude Grass	1200 Hornby Street Vancouver, B.C. V6Z 2E2 687-3333
Fisheries & Oceans	Otto Langer Kevin Conlin Marissa Payer	Fisheries & Oceans Habitat Mangement Unit 80-6th Street New Westminister, B.C. V3L 5B3 666-8714
Fisheries & Oceans	Joe Kambeitz	Fisheries & Oceans Salmonid Enhancement Program 80-6th Street New Westminister, B.C. V3L 5B3 666-0742

Fish & Wildlife	Tom Wood Tom Burgess	Ministry of Environment & Parks 10334-152A Street Surrey, B.C. V3R 7P8 584-8822
Fraser Port	Martin Hilmer	Fraser River Harbour Commission #505- 713 Columbia Street New Westminister, B.C. V3M 1B2 524-6655
FREMP	Mike McPhee	FREMP 708 Clarkson Street New Westminister, B.C. V3M 1E2 525-1047
Greater Vancouver Regional District Parks	Rick Hankin Bob Gibson Gordon Smith Jolie Switzer Dick Bullinger	Greater Vancouver Regional Parks Department 4330 Kingsway Burnaby, B.C. V5H 4G8 432-6350
Greysone Stables	Mike Wolzen	6085-64th Street R.R.#7 Ladner, B.C. V4K 4E2 946-6442
L.I.F.T.	Gail Sparrow Victoria Hannemann Helmut Urhann	P.O. Box 35052 Vancouver, B.C. V6M 4G1 733-2176
Richmond Nature Park	Peter Woods Donna Underhill	11851 Westminister Hwy., Richmond, B.C. V6X 1B4 273-7015
Richmond Leisure Services	Mike Brow Dave Semple Clarence Sihoe	Richmond Parks & Recreation 6911 No.3 Road Richmond, B.C. V6Y 2C1 278-5511
Water Ski Association	Blain Haskins Ken Caley Cliff Kusch	122221-72 Street Surrey, B.C. V3W 2M1 596-4820
White Rock & Surrey Naturalists	Madelon Schouten	14916 Thrift Street White Rock, B.C. V4B 2J9 536-6018

## Appendix 4: Complete list of Park Facilities; Deas Island

DEAS ISLAND REGIONAL PARK						
TYPE: RIVERSIDE						
LOCATION: DELTA						
SIZE: 78 HA						
YEAR OPENED:						
FACILITY 1981	SIZE	QUANTITY	CAPACITY	CONDITION	LEVEL	CONSTRUCTED
<b>1. ENTRANCE AREA</b>						
ENTRANCE GATE	20' LONG	1				1981
GATE SIDE RAILS (WOOD)	10' LONG	2				1987
ENTRANCE SIGN	15' X 9' H	1		REPLACE IN '88		1981
DYKE ACCESS GATE	16' LONG	1				1982
BARB WIRE FENCE	4' H	340'				1982
INFORMATION KIOSK	4 X 8	1				1981
CHAINLINK FENCE	6' H	720'				1981
PAVED ACCESS ROAD	4920' X 20' W					PAVED 1985
LANDSCAPED AREAS	4060 SQ. FT.	2				1985
CEDAR HEDGE	6'	600'		SOME DEAD		
GRAVEL PARKING LOT	60' X 285'		56 CARS			1986
GRAVEL ROAD	20' WD.	680'				1986
WOOD RAILS	6' Ø X 8' X 2'	164'				
WATER TAPS		3				1986
GARBAGE CANS		3				
GRAVEL WALK	4' W	7700'				1985
FLOOD GATE	12'	1				1985
SIGNS - REGULATORY		7				
- INFORMATION		2				
- TRAFFIC		5				
FLOATING WHARF	6' X 86' + 10' X 32'	1				1987
ROWING LANE MARKERS	4' X 4' + 4' X 8'	8 + 2				1986
ROWING COURSE DIST. POSTS	8' Ø X 10'	4				1986
GRASS AREA (PKG LOT)	1 ACRE	CONTOURED	TRACTOR	MOWED	CLASS	
GRASS AREAS (ROAD'S EDGE)	0.4 ACRE	TRACTOR	+ WEED EATER		CLASS	
<b>2. HERITAGE AREA</b>						
INVERHOLME SCHOOLHOUSE	30' X 50'			PAINT EXT '88		RESTORED 1983
BOARD WALK AND RAMP	5' W	170'				1984
FORMAL GARDENS	750 SQ. YDS					
BURRVILLA	36' X 58'		1,789 SQ. FT.	PAINT EXT '88		RESTORED 1984
BURRVILLA - GRAVEL DRIVE	12' W	195'		POOR		1984
BURRVILLA - FORMAL GARDENS	3,000 SQ. YDS.					
GARDEN SHED	10' X 20'	1				1986
PICKET FENCE (YARD)	4' H	264'				1986
PICKET FENCE (VEG. GARDEN)	3' H	79'				1986
WASHROOM BUILDING (HEATED)	12' X 15'	1				1986
PICNIC TABLES	PARK STD.	10		GOOD	CLASS 1	1981
GARBAGE CANS		4				
ASH CANS		1				
HIBACHI STANDS		2		OLD TYPE		
VIEWING TOWER	16 X 18 X 15 H		45 PEOPLE			1985
VIEWING TOWER DECK	32' X 35'					1985
DISPLAY BOARDWALK	2,350 SQ. FT.					1986
DISPLAY STRUCTURE POLES	15' X 20' H	9				1986
STEEL WEBBING	10' X 2'	12				1986
DISPLAY PANELS	4' X 8'	5	DOUBLE SIDE			1986
HORSE TRAIL (TIDAL POND)	10' W	600'				1986
WOOD BRIDGES	20' X 8' W	2				1986
PAVED PARKING	20' X 320' + 60'	2	38 CARS			PAVED 1985
TRAFFIC LOOP COUNTER		1				
GRAVEL WALKS	4' W	1150'				
WOOD ROUND RAIL FENCE	6' Ø X 8' X 2'	2130'				
STUMP POSTS	16' Ø	7				
LANDSCAPE PLANT BEDS	52,580 SQ. FT.					
SIGNS - REGULATORY		2				
- INFORMATION		4				
- TRAFFIC		0				
GRASS AREAS (PICNIC AREAS)	1.5 ACRES	(HAND MOWED AND WEED-EATER)				

<b>3. RECREATION AREA</b>						
PAVED PARKING	64 X 160'		2	58 CARS		PAVED IN 1985
PICNIC SHELTER	20 X 70'		1	8-12 TABLES	GOOD	1982
PICNIC TABLES	PARK'S STANDARD		10		GOOD	CLASS 1
GARBAGE CANS			7			
ASH CANS			3			
HIBACHI STANDS			2			
WATER TAP			1			
FIRE PIT (CONE EDGE)	4' X 8'		1			1987
PIT TOILET	CLASS 2		2			1985
WOOD STEPS	5' X 5'		1			1987
STUMP POSTS	16" DIAMETER		8			
GRAVEL WALKS	8" W	482'				
WOOD PLANTERS	11' X 30'		2			
PLANTED TREES			78			
WOOD BRIDGE	8' X 35'		1			1985
DRAINAGE DITCHES	5' TO 15'	7000'				
CULVERTS	24" AND 36"	1 OF EACH				1985
FLOODGATE	36" DIAMETER		1			1981
FIRE HYDRANTS	2"		2			1983
OPENING PLAQUE ON COMPRESSOR			1			1981
DYKE TRAILS - TINMARKERS	8' - 10' W	2300'				
- DYKE LOOP		3750'				
- SLOUGH VIEW		2500'				
SIGNS - REGULATORY			4			
- INFORMATION			4			
- TRAFFIC			4			
GRASS AREAS - FISHER'S FIELD	18 ACRES			(ROUGH UNMOWED, NEEDS SEEDING)		
					DREDGE FILL	1986
- ROADSIDE	10 ACRES			WEEDEATER		
- PICNIC AREA	7 ACRES			HAND MOWED AND TRACTOR		
- 2ND FIELD	10.8 ACRES					
<b>4. NATURAL AREA</b>						
TRAILS - RIVERSIDE WALK	8' - 10' W	1400'				
- SAND DUNES TRAIL		700'				
- ISLAND TIP TRAIL		3600'				
SIGNS - REGULATORY			1			
- INFORMATION			1			
MASSEY TUNNEL PLAQUE			1			1981
CHAINLINK FENCE	6" H	2600'				1981
POCKET BEACHES			2			
DREDGATE SAND PILE	200' X 500'	10,000 CU. YD.				1985
<b>5. PARK SERVICES</b>						
HYDRO LINE			12	POLES		
SECURITY LIGHTS			3			
TRANSFORMERS			2			
ELECTRICAL PANELS			4	1/60 2/100		
				1/200		
WATER MAIN	6"	2300'				
SECONDARY WATER LINES	2"	3580'				
HYDRANTS AND VALVES	4"		2			
VALVES - MAIN SHUT OFF			1			
PRESSURE REDUCTION VALVES			4			
CURB STOP VALVES			5			
WATER TAP			1			
SEPTIC TANKS			3	600 GAL.		
TILE FIELDS (2)	4" PERF. POLY.	600'				
TELEPHONE CABLE (UNDERGROUND)		2300'		8 PAIRS		
TELEPHONE KIOSKS			2			
SERVICE YARD	60' X 100'					
MAINTENANCE TRAILER	10' X 53'					
STORAGE SHED	12' X 14'					
WOOD FENCE	16' X 20'					

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