

TO: CITY MANAGER 1993 SEPTEMBER 15

FROM: DIRECTOR PLANNING AND BUILDING OUR FILE: 15.601

SUBJECT: ENVIRONMENTAL PROTECTION/ENHANCEMENT MEASURES, NORTH ARM OF FRASER RIVER

PURPOSE: To provide Council with an update regarding the establishment of specific areas for environmental protection/enhancement measures adjacent the North Arm of the Fraser River.

RECOMMENDATION:

1. **THAT** this report be received for information purposes.

REPORT

1.0 BACKGROUND

Council, on 1993 June 7, received a report regarding proposed partnership funding for the Fraser River Dyking and Fisheries Enhancement Program between Boundary Road and Kaymar Creek. Subsequently arrangements were made with the North Fraser Harbour Commission (NFHC) and the Department of Fisheries and Oceans (DFO) to proceed with these works.

Arising out of Council's consideration of the foregoing, a motion was adopted "THAT staff provide an overall plan which would locate specific areas for enhanced environmental protection and that certain environmental improvements be developed in relation to stream side vegetation."

2.0 STATUS POSITION

In order to provide Council with updated information together with a perspective of the potential opportunities to establish environmental protection and/or enhancement areas, the following review on an area by area basis is provided. (Reference Figure 1 *Attached*)

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2.1 Kaymar Creek to Patterson Creek

This area is considered to be a candidate for the extension of the habitat restoration works currently underway between Boundary Road and Kaymar Creek.

2.2 Patterson Creek to Byrne Creek

The lands in this area comprise part of the Burnaby Fraser Foreshore Park and are to be kept in their existing native state. Floodproofing is proposed to be achieved by setting the required dykes within the industrial areas to the north of the park. In this way the existing wooded wetland areas will remain as a protected zone along the River.

As a component of the development of the interior Glenlyon Business Park, local enhancement of native vegetation is proposed in previously disturbed areas. Additional wetland habitat is to be introduced by way of wetland ponds together with the relocation of Sussex Creek.

2.3 Byrne Creek to Byrne Road

This area has been developed for passive recreational use and is vulnerable to bank overflows. Consequently it is considered appropriate to provide a setback dyke linking Byrne Road to the Byrne Creek relocation channel dyke. The dyke would be contoured to provide a transitional shape that is compatible with the park environment and would not require the removal of existing trees.

2.4 Byrne Road to Tillicum Street

This area comprises the active public recreational area of the Foreshore Park. As such, the public is invited to the River's edge. Bank protection is in place where required to protect against erosion and provide floodproofing.

2.5 Tillicum Street to CNR Bridge

The Foreshore Park in this area is comprised of a linear strip approximately 150 ft. wide. It is heavily vegetated and is considered a candidate for preservation in its natural state. Provision for east/west public access will need to be carefully designed to minimize potential impacts on the area.

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2.6 CNR Bridge to Wheaton Street

This area contains the recently acquired 40 acre Terminus Park. It is considered to be the prime candidate for significant environmental protection and enhancement measures. As part of staff's review in this regard, a letter has been forwarded to DFO advising of the fact that the City has ownership of 60% of the upland areas abutting the River. Specific reference is made to the fact that, with the acquisition of the 40 acre parcel, an opportunity is available to advance further habitat enhancement programs under the auspices of the Green Plan, Fraser River Action Plan. In this regard it must be emphasized that this is simply a staff initiative to determine if funding could potentially be made available further to the works currently underway between Boundary Road and Kaymar Creek. If a positive response is received, it is our intention to review potential habitat enhancement projects in conjunction with the Parks and Recreation and Engineering Departments leading to the submission of recommendations to Council.

The parksite is proposed to remain in a natural, wetlands condition. To accomplish this, it is envisaged that flood protection be achieved by an inland setback dyke set along the interior property lines rather than adjacent the River.

The easterly portion of this area is designated for comprehensive industrial development. Any such development will need to reflect the preservation of riparian vegetation along the River's edge. Any future dyking will similarly need to be set inland of this riparian zone. Any industrial access to the River will need to be designed so as to not impact the intertidal zone.

These basic concepts have been discussed with the Environmental Review Committee (ERC) of Fraser River Estuary Management Program to determine their requirements as a component of establishing an overall plan for dyking along the Fraser River as well as the provision of environmental protection and/or enhancement areas. The Committee has requested that, in order to allow adequate environmental assessment, an inundation study be undertaken to determine the extent to which Fraser River floodwaters inundate the properties during the annual freshet.

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2.7 Wheaton Street to City Boundary

These lands are designated for industrial use. Notwithstanding this designation, provision has been made by the City to pursue the provision of linear public access opportunities along the River's edge as a component of industrial development. These dual access provisions recognize the desire to maintain a balance between urban-industrial needs and the provision of public access along the River in a manner which preserves its ecological integrity. Street end parks are also proposed and would be candidate areas for enhancement works.

3.0 ESTABLISHMENT OF SPECIFIC PROPOSALS FOR ENVIRONMENTAL PROTECTION/ENHANCEMENT AREAS

As can be seen from the foregoing, there is considerable scope within the Big Bend area to establish specific sites and programs for implementing environmental protection/enhancement programs.

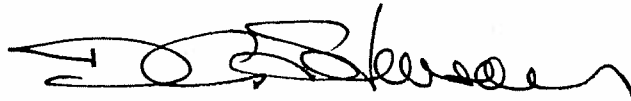
Prior to establishing priorities, costs and preparing recommendations in this regard, it is considered necessary to engage the services of qualified consultants to undertake the associated studies (i.e. floodwater inundation study, foreshore enhancement proposals, etc.). Kerr Wood Leidal has prepared several reports on matters affecting the Big Bend area including the Design Report for Big Bend Dyking and Fisheries Enhancement Program. It is this report which provides the basis for the habitat restoration works currently underway east of Boundary Road.

In order to be in a position to advance this matter, it is proposed to expand the terms of reference for the works undertaken to date by Kerr Wood Leidal Associates. KWL will be asked to submit a proposal in this regard, which will include the flood inundation study requested by the Environmental Review Committee of the Fraser River Estuary Management Program. The end result is seen as establishing a program to implement specific projects over time based on identified priorities. Funding sources will need to be established based on this further work and reflected in the City's Capital Budgeting process. Efforts to match outside funding sources will need to be continued based on an established implementation program.

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Staff from the Engineering, Parks and Recreation and the Planning and Building Department's will work with KWL throughout the process. Contact will also be made with Fisheries Agencies and the North Fraser Harbour Commission to refine specific proposals for review by Council.



D.G. Stenson, Director
PLANNING AND BUILDING

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Attachment

cc: Director Engineering
Director Recreation & Cultural Services

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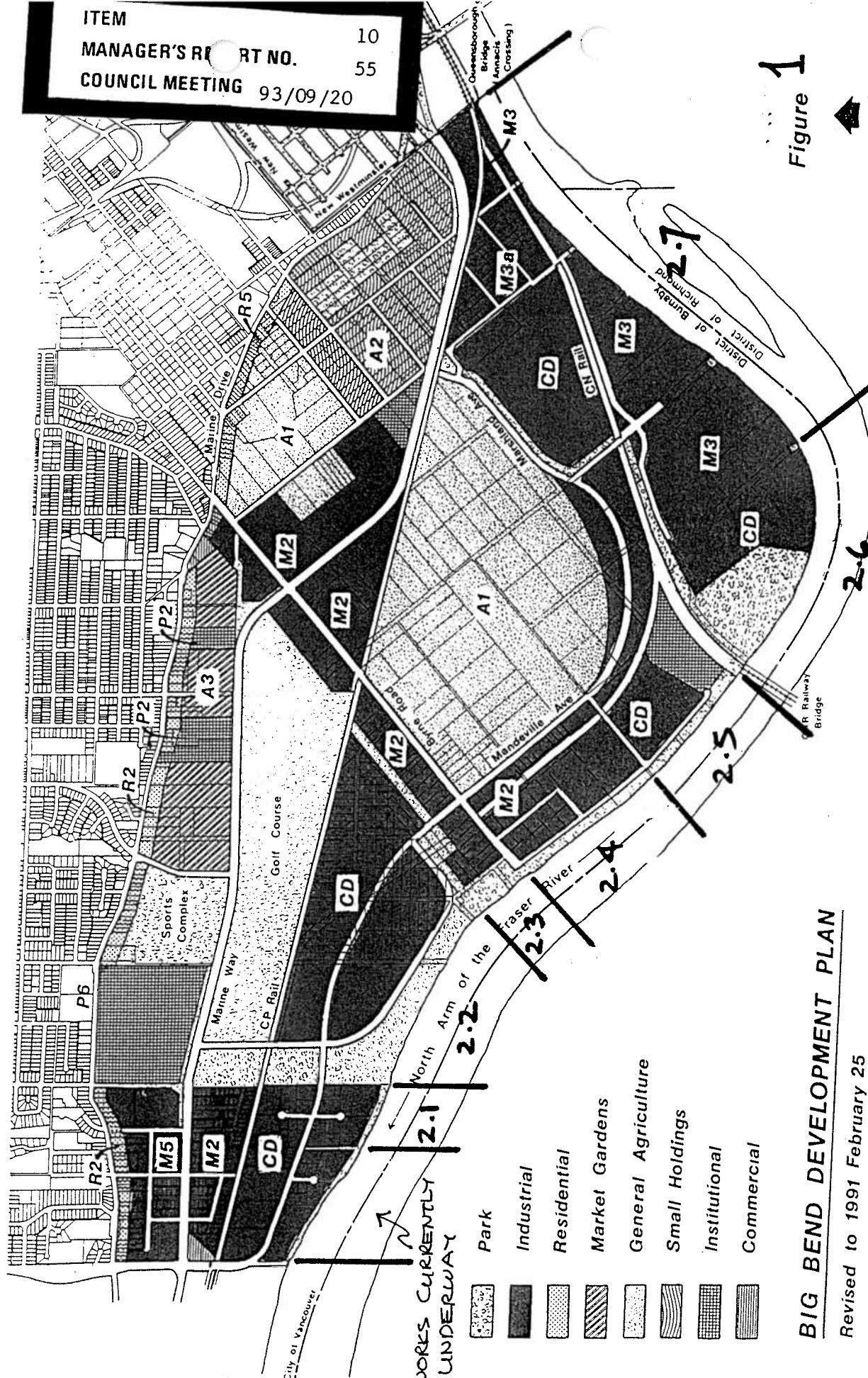


Figure 1

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BIG BEND DEVELOPMENT PLAN
 Revised to 1991 February 25
AREAS UNDER REVIEW FOR ENVIRONMENTAL PROTECTION / ENHANCEMENT MEASURES