

ITEM 2  
MANAGER'S REPORT NO. 74  
COUNCIL MEETING 89/11/14

RE: PROPOSED ROAD AND NATURAL GAS PIPELINE THROUGH COQUITLAM WATERSHED

MUNICIPAL MANAGER'S RECOMMENDATION:

1. THAT the recommendation of the Director Planning & Building Inspection be adopted.

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TO: MUNICIPAL MANAGER 1989 October 30

FROM: DIRECTOR PLANNING & BUILDING INSPECTION

SUBJECT: PROPOSED ROAD AND NATURAL GAS PIPELINE THROUGH COQUITLAM WATERSHED

PURPOSE: To respond to Council's request for information as to the possible coordination of routes for both the natural gas pipeline to Vancouver Island and the proposed highway to Squamish/Whistler.

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RECOMMENDATION:

1. THAT Council receive this report for information.

R E P O R T

1.0 INTRODUCTION

At its regular meeting of 1989 September 11, Council discussed the proposed natural gas pipeline through the Coquitlam Watershed. Arising out of the discussion Council requested a response from staff as to the feasibility of an alternative route which does not traverse the Coquitlam Watershed for both the pipeline and the proposed highway to Squamish/Whistler.

This report is written in response to Council's request.

2.0 PROPOSED ROUTES

2.1 Squamish/Whistler Highway

The report on transportation needs of the Squamish-Lillooet Regional District to the Ministry of State-Regional Economic Development Office proposed a study of an alternative route to Squamish and Whistler via the Capilano Watershed. This route, as shown in Figure 1 attached, was proposed to extend from the First Narrows Bridge via Capilano Road north along the east side of Capilano Lake and the Capilano Valley connecting to the Sea to Sky Highway at Britannia Beach. The Squamish-Lillooet Regional District views this as a longer term alternate to a widened Sea to Sky Highway i.e., Squamish Highway or Highway 99.

## 2.2 Natural Gas Pipeline

The Report of the Coquitlam Watershed Pipeline Inquiry conducted by D.L. McKay, examined six alternative routes as shown in Figure 2 attached. Alternative A is the proposed route through the Coquitlam Watershed which was ultimately recommended. Alternatives B and C are routed via Indian Arm. Alternative D flows to the west of Pitt Lake. Alternatives E and F are routed via the Seymour Lake and Capilano Lake Watersheds respectively.

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## 3.0 COMBINED PIPELINE/HIGHWAY ROUTE VIA CAPILANO WATERSHED

Of the routes studied, Alternative F from the north end of Capilano Lake corresponds closely to the route proposed for the alternate road to Squamish/Whistler in the report of the Squamish-Lillooet Regional District. It is therefore a prime candidate for a combined pipeline/highway route.

Initial review of the alternative routes by the Commissioner however, eliminated from further consideration all but routes A through the Coquitlam Watershed and B and C via Indian Arm. The following quote from the McKay report indicate the rationale for eliminating routes E and F.

"Routes E and F involve pipelines through either the Seymour or Capilano Watersheds. Again, these routes were the subject of a reconnaissance evaluation and were rejected for the following reasons. First, there is not sufficient pipeline capacity in the existing natural gas system on the North Shore of Burrard Inlet to serve the load of the Vancouver Island natural gas pipeline. Thus major expansion in pipeline facilities through heavily populated parts of North Vancouver would be required. Secondly, ground conditions are unfavorable for pipeline construction in the areas north of the Seymour Watershed in the vicinity of Loch Lomond. Finally, as can be seen from the map, both routes would go through either GVWD's Seymour or Capilano Watershed and do nothing to address the issue of ensuring a safe and secure water supply to the Greater Vancouver area. In fact, the soil conditions in both these watersheds result in more frequent and more severe turbidity events for the overall GVWD system as was seen in Chapter 3."

As the Capilano Watershed route (Route F) was not acceptable as a route for a natural gas pipeline according to the McKay Report, it would not be appropriate as a combined pipeline/highway route.

## 4.0 COMBINED PIPELINE/HIGHWAY ROUTE VIA INDIAN ARM

The McKay Report therefore eliminates the Capilano route as an option for combining the pipeline with a planned highway route. The option remains however, to combine the highway with a possible pipeline route. An option to accomplish this without infringing on the Coquitlam Watershed is by either of the Indian Arm route alternatives (Routes B and C) which were retained for more detailed consideration in the McKay Report.

Route B (Indian Arm East) which runs along the east side of Indian Arm, follows a very steep rock slide slope with houses and cottages located below and a 550 kv powerline criss-crossing the route. As a result the Commissioner concluded that the route was practical but would be expensive, time consuming and dangerous.

Route C (Indian Arm West) avoided the steepest section of Route B through two underwater crossings of Indian Arm to the west side then back to the east side. With regard to Route C the Commissioner concluded that construction of the Indian Arm west route was practical but would need further extensive underwater surveys and engineering to plan and construct properly and economically.

It would appear that both Indian Arm routes present substantial obstacles for both a pipeline route and a potential highway route to Squamish and Whistler - the primary difficulty being the extremely steep and rocky terrain.

The route through the Coquitlam Watershed however, follows the east side of Coquitlam Lake via an access road to the watershed. The Commissioner concluded that this route was practical and difficulties resulting from unstable ground and the water quality of cross streams could be overcome in a cost effective manner.

As a result, the McKay Report recommended that land use, environmental and cost considerations supported the route through the Coquitlam Watershed.

The Greater Vancouver Water District however, continued to oppose the route with the recommendation passed on 1989 August 10 as follows:

"That the report of the Coquitlam Watershed Pipeline Inquiry be received and the Provincial Government be advised that the Greater Vancouver Water District remains opposed to the proposal to route the proposed natural gas pipeline through the Coquitlam Watershed."

The Provincial Government then moved to implement the recommendation in the McKay report when on 1989 September 05, Provincial Energy Minister Jack Davls announced the granting of an Energy Project Certificate (EPC) to Pacific Coast Energy Corporation (PCEC) to begin construction of the Vancouver Island Natural Gas Pipeline including the section through the Coquitlam Watershed.

#### SUMMARY

The foregoing evaluation of the potential for a combined pipeline/highway route indicates that based on the evaluation in the McKay Report, a combined pipeline/highway route may not be feasible due to the following considerations:

- (i) the Capilano Watershed route may be suitable for a highway as noted in the transportation recommendations from the Squamish-Lillooet Regional District but is not recommended as a pipeline route by the McKay Report
- (ii) the Indian Arm route is not recommended as a pipeline route and is probably not suitable for a highway route for similar reasons as outlined in the McKay Report

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Based on the conclusions of available studies, a combined pipeline/highway route in either the Capilano Watershed or Indian Arm area would not appear to be feasible. Identification of a combined route for a natural gas pipeline and a highway to Squamish/Whistler which would not intrude into any of the existing watersheds would appear to require a separate study under terms of reference which are appropriate to address the issue of a combined route.

It appears however that the confirmation of joint provincial/federal funding for the route announced on 1989 November 03 effectively signals an immediate start on the project. Further consideration of routing options is therefore unlikely.

  
A.L. Parr  
DIRECTOR PLANNING &  
BUILDING INSPECTION

RG/mcb  
Attachs:

**LURLEY PASS ROUTE**  
 Pemberton to Lilcoot (Mt. Bralorne and Goldstridge)  
 Long term consideration as an alternate high quality route to the interior.

**MOUNT DOUGLAS ROAD**  
 Mount Currie to Harrison Mills  
 Study to investigate feasibility of upgrading this route.

**JOHM LAKE PHASE II ON HIGHWAY #99**

Iron Creek to Cheakamus  
 Sign highway and widen to 4 lanes.

**TAWAMUS PEDESTRIAN ACCESS**

North of Stawamus River  
 Provide safe pedestrian access to Stawamus  
 serve across Highway #99.

**BRITANNIA BEACH**  
 Provide pedestrian and vehicular public access to Howe Sound.

**PILANO ALTERNATE ROUTE**

Creek to Southern Alternate connection with Vancouver  
 Feasible study is required to assess the best location for a high standard route through this area.

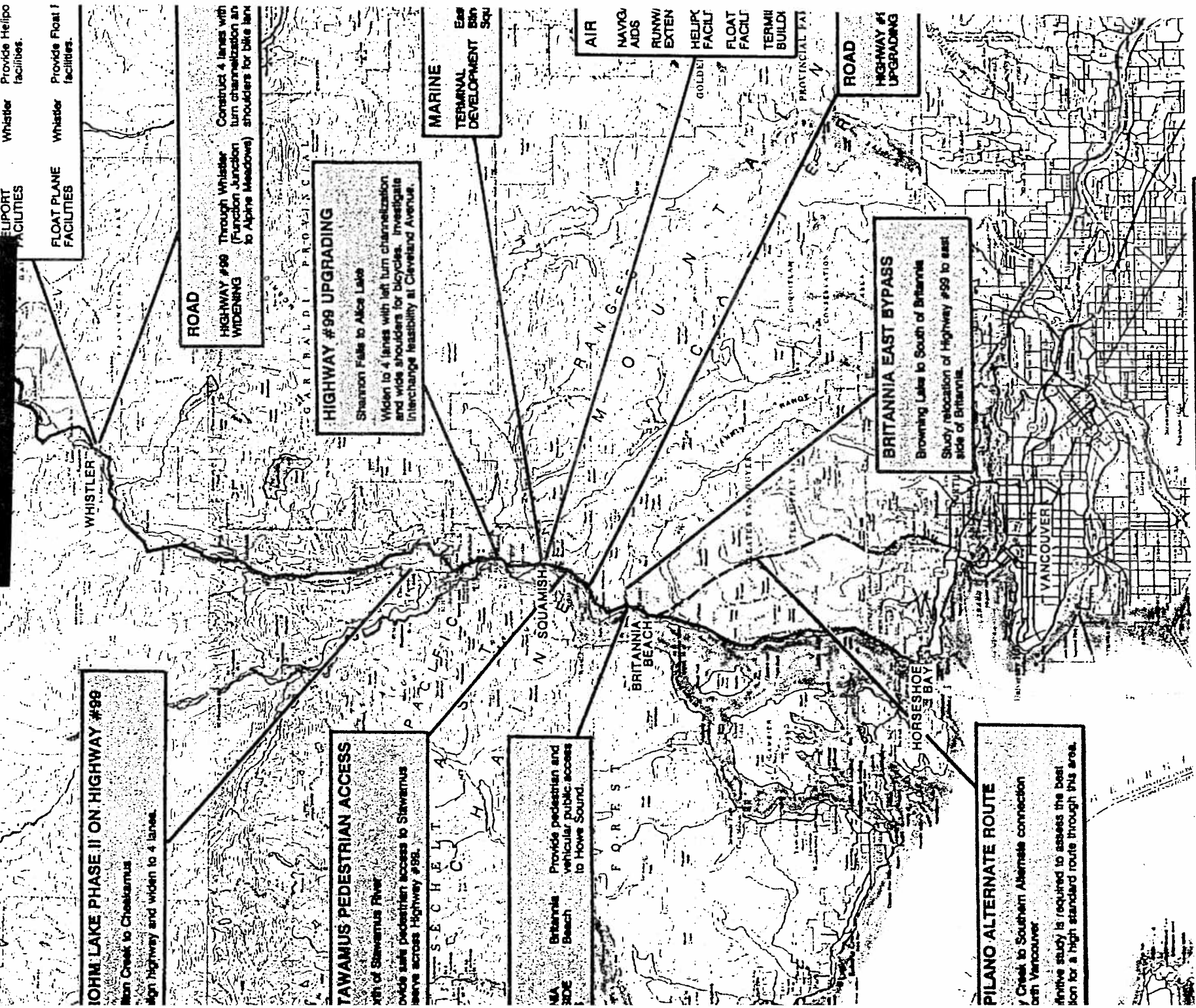
**\* PULLOUTS, REST STOPS AND SERVICE VIEWPOINTS**

Highway #99 (Horseshoe Bay to Lilcoot)  
 Highway #12 (Cache Creek to Lytton)  
 Highway #40 (Lilcoot to Gold Bridge)  
 Provide tourist amenities

**\* URBAN RAIL/ROAD AT-GRADE CROSSINGS**

All Municipalities  
 Consider signalization and grade-separations in the short term. Consider rail consolidation in the long term.

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**FIGURE 1**  
**CAPILANO ALTERNATE ROUTE**

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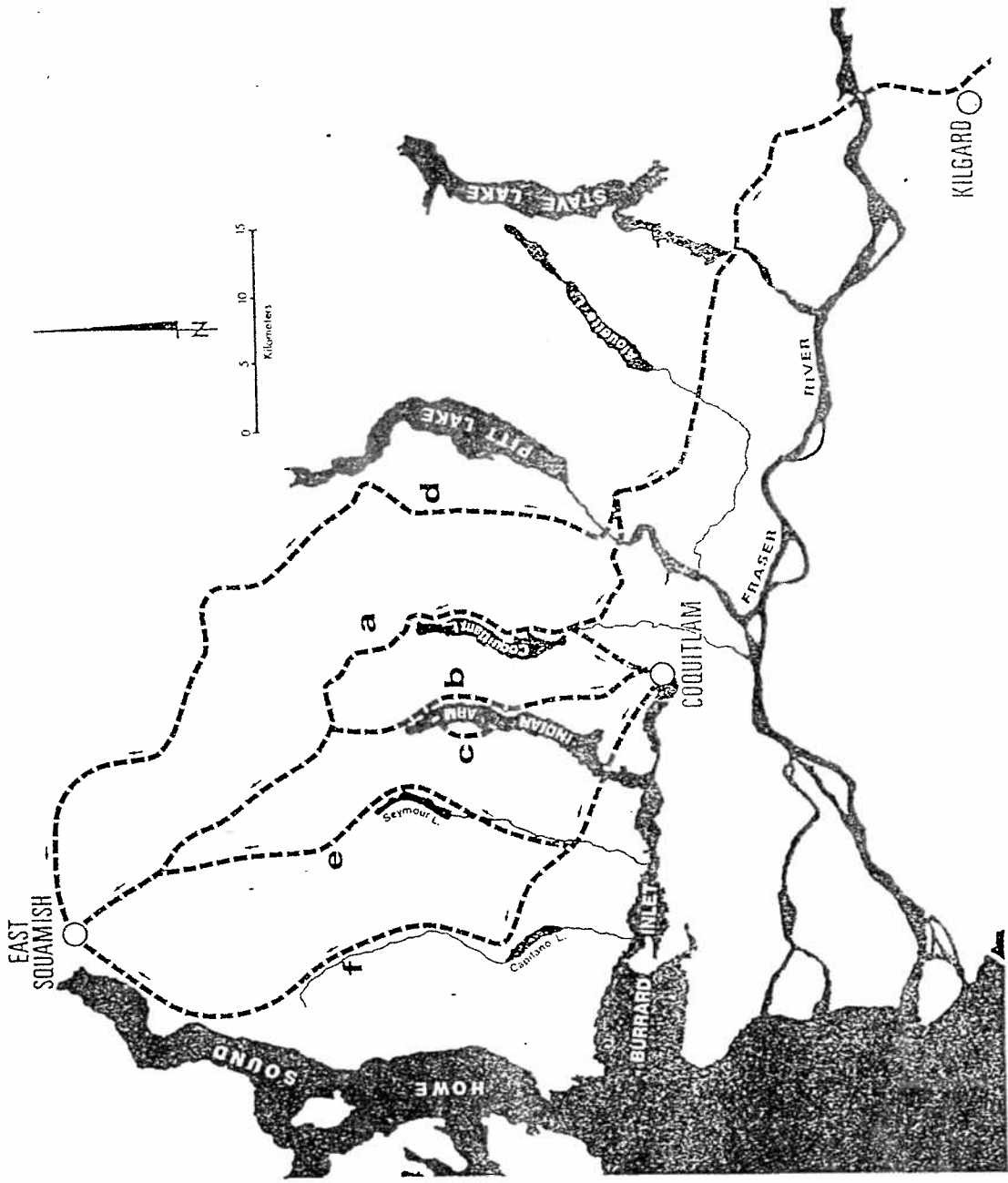


FIGURE 2