

Re: WATER SUPPLY TO BURNABY MOUNTAIN  
CENTENNIAL PARK PAVILION

ITEM 17  
MANAGER'S REPORT NO. 62  
COUNCIL MEETING Oct. 4/76

Following is a report from the Municipal Engineer regarding the above.

The line would not be installed through any development and in fact would pass entirely through the Burnaby Mountain Conservation Area on the Hastings Street alignment.

The Municipal Manager met with the Vice-President of Administration at S.F.U. and discussed this matter at some length. It was pointed out by the University's insurance brokers, who were also in attendance, that the University's insurance could conceivably be jeopardized should approval be given to connect the line to the University's water system. This was verified by our brokers who advised that the insurance business is much different in nature than in years past and that underwriters are becoming more reluctant to cover items that are risky or complex.

RECOMMENDATIONS:

1. THAT the Corporation include, in the 1977 Waterworks Utility Budget, a sum of money to provide adequate domestic, fire protection and irrigation water supply to the Centennial Pavilion at a revised estimate of cost of \$350,000, and,
2. THAT the firm of Dayton & Knight Ltd., who carried out the preliminary study for this water supply, be asked to proceed immediately with the design of the approved alternative (2), which will supply adequate water for domestic, fire protection, and irrigation to Centennial Park Pavilion, including the installation of a new pumping station and a 300,000 gallon concrete reservoir at the Centennial Pavilion.

TO: MUNICIPAL MANAGER

30 September, 1976

FROM: MUNICIPAL ENGINEER

SUBJECT: WATER SUPPLY TO BURNABY MOUNTAIN  
CENTENNIAL PARK PAVILION

Approximately one year ago, it became apparent that the water supply to the Centennial Park Pavilion, which had always been quite inadequate for fire protection, had now, with the changing use of the Pavilion, become inadequate for even domestic water on some occasions. This, together with the fact that the existing system involving a small pumping system at the foot of Hastings Street and a wooden ten-thousand gallon storage reservoir at the Pavilion providing no reserve for sprinkling of the park facilities at the Pavilion, indicated that it was necessary to carry out a study for the best method of bringing the water supply to the Pavilion up to an acceptable standard. As a result, the firm of Dayton & Knight Ltd., Consulting Engineers, were engaged on 2 October, 1975, to study the water supply to Centennial Pavilion. The Consultant's report was prepared and received by the Corporation on 19 December, 1975, and it recommended two alternatives which would provide full domestic, fire protection, and water for irrigation at the Centennial Park Pavilion, as follows:

- Alt. (1) This alternative included the construction of a new pumping station on the site of the existing pumping station at Hastings Street, 5,500 feet of 6" diameter pipe to connect the new pumping station to a proposed 300,000 gallon concrete reservoir at the Pavilion; the estimate also includes new control cable and 1,500 feet of 8" feeder pipe from the new reservoir to the Pavilion, at a total estimated cost of \$338,000.

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Alt. (2) This alternative involved a connection from the westerly end of the Simon Fraser University system to the Pavilion and the estimated cost to provide the same water supply as Alternative (1) was \$143,000.

On 6 January, 1976, we forwarded the Consultant's report to the Simon Fraser University and asked them to review the report and consider our request to run a connecting line from the westerly end of their system to the Pavilion. In May, 1976, the University advised us that they were considering our application but would require a report from an independent Consulting Engineer to confirm that it would not be detrimental to the University's water system to permit an extension to service Centennial Pavilion. The Corporation agreed to this requirement and paid \$700 to have another Consulting Engineer study the proposal; this Consultant, Mr. D.H. Mill, P. Eng., prepared a report, received by us on 21 May, 1976, which concluded that it would be feasible to make a connection from the University system to the Centennial Pavilion provided that certain conditions were met, such as:

- (1) not taking more than 200 gallons per minute from the connection except when there was a fire;
- (2) not imposing sprinkling restrictions on the University except when restrictions are imposed on the Municipality as a whole;
- (3) not allowing the water level in the tower to drop more than 15 feet below the top water level except when there is a fire;
- (4) the University would reserve the right to shut off the water supply completely to the Centennial Park Pavilion whenever the water level in the tower dropped more than 15 feet below the top water level or whenever there was a fire at the University.

We had our Consulting Engineer review these requirements and we checked with the Greater Vancouver Water District regarding the requirement that affected water supply and subsequently advised the University that we could accept these conditions.

Our application to take water from the University system was in accordance with an agreement made with the University at the time it was located in Burnaby when the Corporation paid \$60,000 towards the cost of construction of the ground storage reservoir facilities at the University upon the stipulation that the Corporation reserved the right to utilize water supplies from the reservoir on a reciprocal basis should the necessity arise in the future. The University agreed to this commitment in a letter signed by P.D. McTaggart-Cowan, addressed to the Municipal Clerk on 3 March, 1964 (copy attached). Considering this commitment and the lengthy negotiations that had been carried out with the University, it came as a surprise to us to be advised by letter dated 10 August, 1976, that the University had decided in view of advice from their Insurance Brokers that they could not permit the proposed connection from the west end of the University water system. On 7 September, 1976, we received a letter from the University advising that we could extend a water line the complete distance from the Pavilion through the University to the water tower and run the line up the tower and make a connection 15 feet

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below top water level. It would be unthinkable to expend several hundred thousand dollars to obtain such a limited supply of water and therefore we cannot accept this alternative solution which has been put forth as the only one acceptable to the University. The University has, effectively, terminated the technically feasible and more economic solution of providing water supply to the Centennial Pavilion.

RECOMMENDATIONS:

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2. THAT the firm of Dayton & Knight Ltd., who carried out the preliminary study for this water supply, be asked to proceed immediately with the design of the approved alternative (2), which will supply adequate water for domestic, fire protection, and irrigation to Centennial Park Pavilion, including the installation of a new pumping station and a 300,000 gallon concrete reservoir at the Centennial Pavilion.

  
MUNICIPAL ENGINEER

VK:EEO:cmg

Attch.

- c.c. ( ) Municipal Treasurer  
( ) Parks & Recreation Administrator  
( ) Planning Director  
( ) Chief Public Health Inspector  
( ) Fire Chief

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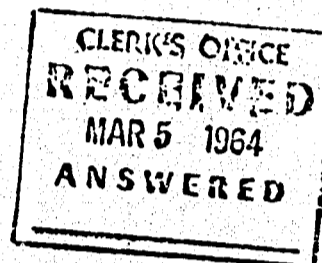
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SIMON FRASER UNIVERSITY  
 OFFICE OF THE PRESIDENT

TELEPHONE 682-7341  
 AREA CODE 604

570 DUNSMUIR STREET  
 VANCOUVER 2, CANADA

March 3, 1964.



Mr. John H. Shaw,  
 Municipal Clerk,  
 Corporation of the District of Burnaby,  
 4545 E. Grandview-Douglas Highway,  
 Burnaby 2, B. C.

Dear *Mr Shaw*

I wish to acknowledge and thank you for your letter of February 13, addressed to Dr. Shrum, regarding the water supply for the University site.

This will confirm complete approval by the University of the resolution passed by your Council on February 10, concerning the financial degree of participation by the Municipality in providing ground storage facilities at the summit of Burnaby Mountain for the use of Simon Fraser University.

The University is prepared to purchase this water from the Municipality at a special rate to be negotiated.

Yours sincerely,

P. D. McTaggart-Cowan

:jmh