HKGIS 香港政府新聞處

DAILY INFORMATION BULLETIN

Sunday, November 5, 1972

LASER LIGHT SYSTEM BEING USED IN CONSTRUCTION OF HIGH ISLAND TUNNELS

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The construction of the $300 million tunnel system of the High Island Reservoir, situated south-east of the Sai Kung Peninsula, is now well underway.

Since the start of the project in January, more than 12 miles of access road have been built and two miles of tunnels driven.

The 800-strong labour force is working on 11 portals and 8 shafts.

An unusual aspect of the tunnel construction is the use of the Laser Beam system for survey work inside the tunnels.

The Laser forms a concentrated beam of light which is being used to pinpoint the tunnel alignment. The device is suspended from the ceiling of the tunnel and the thin red beam shines onto the face of the rock indicating the line for tunnelling.

The particular Laser used in the High Island Tunnels has a range of about 1,200 feet.

The Resident Engineer of the Eastern Tunnels, Mr. I.R.S. Robertson, said that with the use of the Laser, the speed of the tunnel work will be increased and a lot of manpower saved.

/He explained: .....

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He explained: "Instead of having to send a survey team to measure and mark the surface of the rock, two workers can do the job within a matter of minutes."

The construction of the tunnels is being carried out by a consortium comprising Gammon (Hong Kong) Ltd; Sentab Svenska Entreprenad AB of Sweden; Hochtief Aktiengesllschaft of Germany; and Societe Francaise d'Entreprises de Dragages of France.

It involves the building of three main tunnels, a number of branch tunnels and their associated stream intakes and shafts.

One of the main tunnels will cut across the entire Sai Kung peninsula linking High Island Reservoir at the south-eastern end of the peninsula with the Sha Tin Treatment Works and further with the Lower Shing Mun Reservoir at the western end.

The other two main tunnels which are shorter, will be built north of High Island Reservoir, and will stretch northwards from Pak Tam Au to Hoi Ha and from Wong Chuk Hang to Sai Wan respectively.

The tunnel, which stretches across the Sai Kung peninsula, is divided into two sections. The section west of Tai Wan and its branch tunnels, totalling about 14 miles in length, are being built by the Public Works Department, while the other section east of Tai Wan as well as the two other shorter main tunnels, with a total length of 11 miles, are being constructed by the consortium.

The cost of these tunnels, which range from six feet to 13 feet in diameter, is equivalent to one quarter of the total cost of the High Island Water Scheme.

/Commenting .....

Commenting on the progress of the work, Mr. Robertson said no difficulty has so far been encountered as the ground condition is quite satisfactory.

The progress of the work, he added, has been as good as hoped.

The Resident Engineer in charge of the construction of the Western Tunnel, Mr. Auyeung Young, of the Public Works Department, said that apart from the slight delay in the building of access roads due to the rain in May and June, the work, as a whole, has been proceeding very smoothly.

He said: "The two sections of the main tunnel will meet towards the end of next year and the whole project should be completed by October 1975 as planned."

When the tunnel system is operative, water will be collected by branch tunnels from stream intakes and led into the main tunnels and then into High Island Reservoir.

Water from Plover Cove Reservoir can also be led, through its connecting system with the Lower Shing Mun Reservoir, into the High Island Reservoir, which will be able to hold 60,000 million gallons of fresh water.

On completion, the $1,300 million water scheme will double Hong Kong's existing water storage capacity.

If everything goes according to plan, the High Island Reservoir will start to impound water in the wet season of 1976 and contribute to Hong Kong's water needs in the winter of 1976/77.

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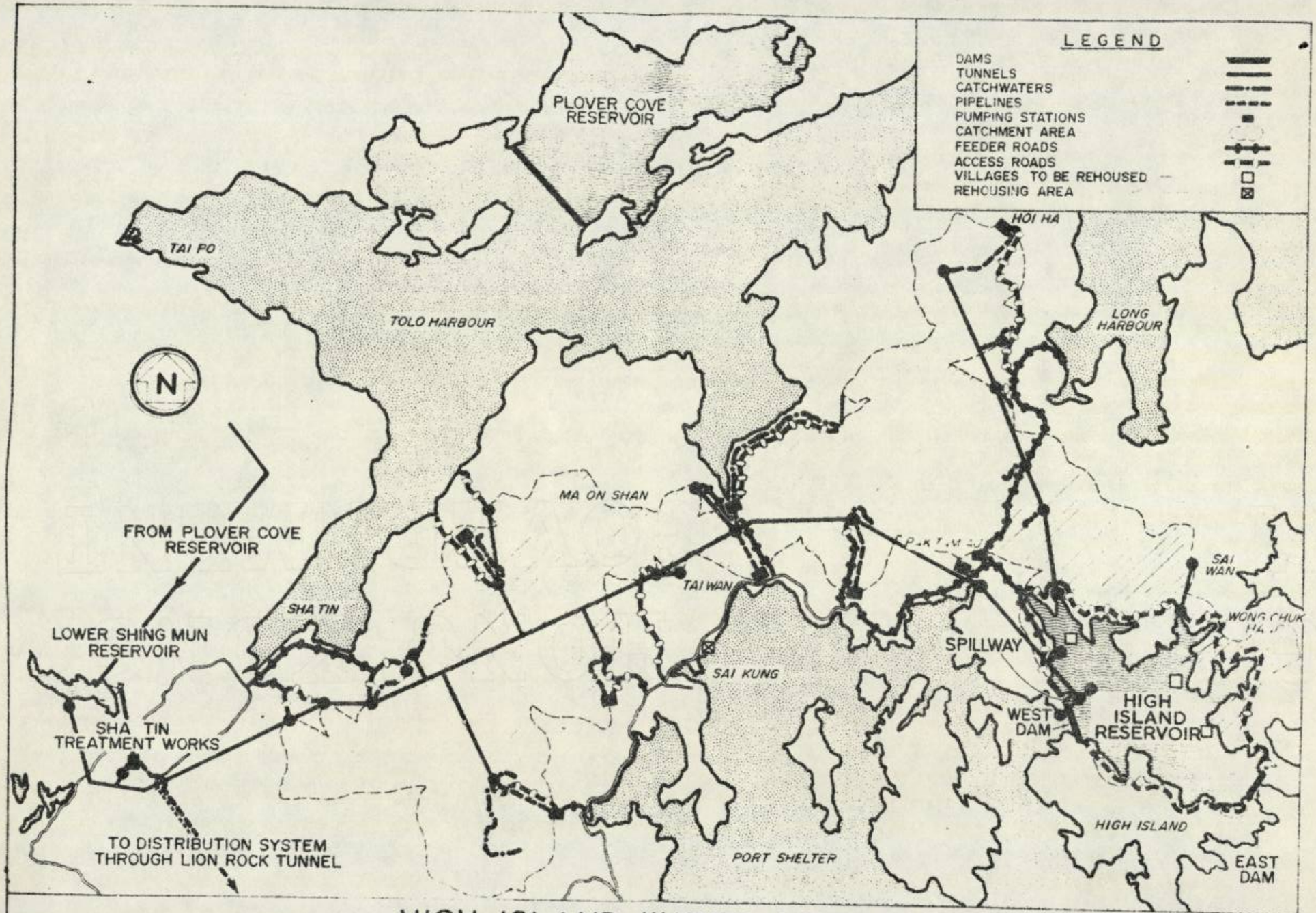
Release Time: 3.00 p.m.



HIGH ISLAND WATER SCHEME