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for information

**INFORMATION PAPER
ON SITE SEARCH FOR THE DEVELOPMENT OF THE
LOW-LEVEL RADIOACTIVE WASTE STORAGE FACILITY**

PURPOSE

1. This Paper aims to provide Members with background information on the site search for the development of the low-level radioactive waste storage facility (LRWSF).

BACKGROUND

2. On 3 July 1995, a paper presenting the findings of the environmental impact and safety assessment regarding the development of the LRWSF on Siu A Chau was submitted to the EIA Subcommittee of the ACE for consideration. At the meeting, Members requested that more background information should be given on the site selection process, particularly on how the two islands were chosen from the 98 sites identified. Besides, Members would like to be informed on the overall planning intention for Soko Islands. This Paper outlines the site selection process and presents a comparison amongst all sites considered. In addition, the overall planning intention for Soko Islands will be described.

THE SITE SEARCH

3. As a result of the recommendation of the consultancy study on the radioactive waste management of Hong Kong, EPD requested Plan D to undertake a site search for the development of the LRWSF. Site search began in 1991 and over 30 sites throughout the territory were considered. Amongst these, a number of cavern sites, disused mines and disused tunnels were considered but were found not feasible due to various reasons such as limited scope for expansion, flooding and cost. Subsequently, a site at Tai Ho Area 3 was recommended to the Development Progress Committee (DPC) for approval at its meeting on 10 December 1992. However, the Committee rejected the proposal on the grounds that there were still dissenting views on the chosen site from some departments concerned and requested Plan D to look for alternative suitable sites.
4. A second round of comprehensive site search was carried out and 34 sites were considered, including a number of outlying islands such as Hei Ling Chau, Wang Chau, Fat Tong Chau and Tung Lung Chau as well as some inland sites in Tuen Mun, San Tin, Tai Po, Ma On Shan and Tai Ho in North Lantau. These sites were identified and assessed in terms of planning, environmental and operational criteria. The selection criteria, the list of sites and the location plan are attached in *Appendix A*.

5. As a result of the evaluation and after further departmental consultation, two sites in Tuen Mun Area 47 were recommended and a second submission was made to DPC on 12 August 1993. The Committee deferred making a decision. It felt that in view of the anticipated likely strong local objection from the residents in Tuen Mun, it might be worthwhile exploring more remote sites and particularly sites on the outlying islands. The Committee requested for a comparison of the costs between inland sites and island sites.
6. A third round of site search was conducted and 98 sites (mostly on islands) were identified for consideration. After a site evaluation exercise, 5 sites were selected for further assessment, this included Shek Kwu Chau, Siu A Chau, Luk Chau, Wang Chau, and Tai Ho Area 6 in North Lantau. A list of these long- and short-listed sites with the assessment criteria, and a location plan of these chosen sites are shown in *Appendix B*.
7. Amongst these sites, Luk Chau was not preferred because of its closeness to Lamma Island, steep terrain, lack of infrastructure and inaccessibility. Wang Chau was considered too far away, lacking in infrastructure, inaccessible and exposed to wind. The site in Area 6, Tai Ho, was considered too small and too close to built-up area; it would not be available until late 1997. Therefore, only Shek Kwu Chau and Siu A Chau were shortlisted for further consideration.
8. The third submission to DPC was made on 17 February 1994. At the meeting, the Committee endorsed that *Shek Kwu Chau* (as the preferred site) and *Siu A Chau* (as a fall back option) be selected for the development of the LRWSF subject to a study on safety and environmental impact assessment (see Plan 1 attached).
9. In August 1994, EPD has commissioned Consultants to carry out a feasibility study of the project. Four sites; two on each of the selected island i.e. Shek Kwu Chau and Siu A Chau, were identified for detailed assessment. The criteria for assessment included safety, environmental impact, transport infrastructure, construction cost and impact of the proposed liquefied natural gas (LNG) terminal on Siu A Chau. The site at *Sum Wan in Siu A Chau* was recommended by the Consultants as the final preferred site. Its advantages over the other three sites are that:
 - (a) The site is at the eastern end of the island, which is not inhabited;
 - (b) It is set into the hillside above a small bay and the planned storage facility, which is only a single storey building, would lie below the ridgeline and therefore visual impact will be minimised; and
 - (c) This site has no existing land issues and there is no conflict with existing uses.

10. For details of the Consultants' site selection and evaluation, please refer to the Executive Summary in *Appendix C*.

PLANNING INTENTION FOR THE SOKO ISLANDS

11. The Soko Islands comprise a number of small islands including Tai A Chau, Siu A Chau, Yuen Chau, Ma Chau, Shek Chau, Wan Hau Chau, Cheung Muk Tau, Ko Pai, Yuen Kong Chau and Tau Lo Chau, amongst these islands Tai A Chau and Siu A Chau are the two largest. These islands mainly consist of natural features of barren rocks and slopes with sparse vegetation. There are some abandoned village houses on Tai A Chau and Siu A Chau and it is not expected that there would be any Small House development in the future in accordance with DLO/Island's ten year estimates of Small House demand. However, there is a refugee camp on Tai A Chau.
12. The Interim Recommended Strategy of the South West New Territories Development Strategy Review (SWNT DSR) acknowledged the strong countryside heritage of the district and Soko islands were recommended to be designated as Conservation area/Landscape protection area, and the coastal areas in the islands be designated as Inshore recreation/Inshore water protection areas. It was also considered that Tai A Chau and Siu A Chau might have potential for tourist development. However, in accordance with the latest thinking of the SWNT DSR, which is expected to produce a final Recommended Strategy by the end of this year, the Soko Islands are not identified as major recreation/tourist development areas because of the relatively remote location and their inaccessibility. The planning intention for Soko Islands will remain to be conservation oriented.
13. The proposed LRWF, which is a single-storey development and occupies a small area at Sum Wan, is considered not incompatible with the area. With appropriate mitigation measures and compatible design and landscaping, its impact will be further minimised.
14. Regarding EIA sub-committee's specific query, it should be noted that there has not been an intention to relocate the oil depots at Tsing Yi to Soko Islands. However, there has previously been a private sector proposal of siting a liquefied natural gas terminal at Siu A Chau (see Figure 7 in Appendix C). However, no further plan or action has been taken by the private sector. The possibility of such a development and its impact on the LRWSF has been taken into consideration by the Consultants in their site evaluation process (see Table 1 in Appendix C).