

For information on 28 October 1999

Legislative Council Panel on Planning, Lands and Works

Progress of Year 2000 Compliance Exercise Relating to Works Matters

Purposes

1. This paper reports on -
 - the present position and progress of Works Bureau (WB) and the Works Departments¹ under its purview, to address and resolve their Y2K problems;
 - the Y2K contingency plans;
 - the investigations of Works Department business partners; and
 - the arrangements for rollover to Year 2000.

Present Position & Progress

2. All mission-critical systems² within Departments under the policy purview of WB have been confirmed as Y2K compliant³.
3. In June 1999, we engaged an external consultant to help us (including our departments) review the preparatory work for the Year 2000 transition so that we would be better prepared in the rollover. The consultancy covers the contingency planning, setting up of coordinating centres during Y2K critical dates, investigation of business partner readiness and assessment of overall sector wide risk.
4. A working group was set up in July 1999 with representatives from all works departments so that we have a more consistent and coordinated approach in dealing with the preparatory works for the rollover of Y2K critical dates including 1 January and 29 February 2000.

¹ Works Departments include: Architectural Services Department (ArchSD), Civil Engineering Department (CED), Drainage Services Department (DSD), Electrical & Mechanical Services Department (EMSD), Highways Department (HyD), Territory Development Department (TDD) and Water Supplies Department (WSD).

² Mission-critical systems, according to the definition set by the Steering Committee on Y2K Compliance, are those systems whose proper functioning is related to public health and safety, the provision of critical service to the public, and payment and revenue collection.

³ These systems include systems which are confirmed to be compliant, have been rectified, and systems which can be rectified by resetting the clock on or after 1 January 2000.

Y2K Contingency Planning

5. Departments have already prepared their Y2K contingency plans in line with the recommendations made by the Steering Committee on Year 2000 Compliance. These plans have been and will be subject to further refinements if required.

Drainage Services Department

6. The key operational areas of DSD are sewage treatment and flood prevention. The Drainage Services Department has formed a Y2K contingency team with representatives from the various sectors of operations involved in the Y2K rollover.

7. The team has prepared the contingency plans to cover the facilities in the critical business areas. Dedicated teams will be on duty at major facilities with mobile teams assigned to monitor the operations at the various satellite locations. If there is a Red or Black rainstorm signal during the rollover (which is unlikely in the dry season), additional staff will be deployed to monitor the flood pumping stations.

8. For sewage treatment, it would not be feasible to maintain services in the event of prolonged power outage as the high power requirements for the heavy plant and equipment cannot be met by any emergency power generators. DSD are currently reviewing their operation procedures during the millennium rollover to allow storage of incoming sewage in major treatment plants for 1 to 2 hours in the event of power outage.

9. If there are any Y2K induced incidents causing operational problems to the sophisticated control and management systems in the sewage treatment plant, the system can be operated manually at short notice.

10. DSD will set up a departmental Y2K Coordinating Centre (DSD CC) with two subsidiary centres responsible for monitoring operations in the major sewage treatment plant. Information will be passed from the subsidiary centres to the DSD CC for preparation of summary reports to the Works Bureau Y2K Coordinating Centre (WB CC)⁴.

11. The contingency plan has undergone internal desktop testing in accordance with ITBB requirements. The DSD CC was operational during the transition from 8th to 9th September 1999 and will be activated again for the forthcoming command post exercise and territory wide drill coordinated by ITBB. The sewage treatment is relatively self-contained and the key business partners upstream in their supply chain are mainly power companies, telecommunication services

⁴ WB CC will be integrated with Planning, Environment & Lands Bureau's Coordinating Centre forming the WPELB CC. The centre will be headed by a Chief Assistant Secretary of WB and will be supported by staff from both bureaux.

providers and works contractors. We will involve the necessary business partners from time to time as required.

Water Supplies Department

12. The Y2K contingency plans are based on the business plans to deal with water outage in the normal day-to-day operations. The water distribution and supply system can be operated manually at short notice and this business contingency plan has been tried several times in the past.

13. Because of the high power requirements for the heavy equipment in the water supply and distribution system, it is not feasible that the services can be maintained through the use of emergency power generators in case of power outage. However, emergency power supply will be provided to the essential communication, monitoring and control facilities, and also to the chemical dosing equipment in the water treatment works.

14. The Guangdong Water Authorities have confirmed that the supply of raw water will not be affected by the Y2K rollover. Also, the water storage in the local reservoirs would be sufficient to meet normal demand for about 3 months. Before the rollover, all the services reservoirs in the territory will be topped up, so that 8-hour water supply on average to all supply zones can be maintained. If there is prolonged power outage, water drawdown from service reservoirs will be stopped to maintain buffer storage for supply to critical consumers including hospitals. Furthermore, all water wagons under the control of WSD will be put on alert during the Y2K critical dates.

15. WSD will set up a departmental Y2K Command Centre, 5 Regional and 1 Divisional Command Centres to monitor operations and coordinate the activation of contingency plans. All centres will be manned with specialist staff over the critical periods and will report progress directly to the WB CC.

16. WSD have undertaken extensive desktop testing of their contingency plans to ensure they are feasible and cover all possible scenarios. The communication mechanism was tested thoroughly during the September 8th to 9th rollover. The forthcoming command post exercise and territory wide drill coordinated by ITBB will supplement this testing. The water supply is relatively self-contained and the key business partners upstream in their supply chain are mainly power companies, telecommunication services providers and works contractors. We will involve the necessary business partners from time to time as required.

Other Works Departments

17. All other departments under the purview of WB have prepared detailed contingency plans for maintaining their critical services and will operate their Y2K coordinating centres during the critical dates.

18. Local testing and review of plans has been carried out and additional detailed testing will be carried out during the territory wide drill coordinated by ITBB.

Investigation of Works Departments' Business Partners

19. Since July 99 we have contacted 47 business partners whose services cannot be disrupted by more than 24 hours if we have to maintain our critical business in works departments. 96% of them have responded, and 71% have committed their Y2K readiness and the rest indicated that their Y2K compliance programme were in progress. In the remaining months, we will continue to monitor the situation of these business partners. However, for all critical suppliers, alternative suppliers will be identified as a precautionary measure.

Arrangements for Year 2000 Rollover

20. As a final check before the Year 2000 rollover, we are currently reviewing Works Departments' overall Y2K readiness and the remaining risk that may impact our transition to the Year 2000. Subject to the findings of the review, we will further refine our contingency plans accordingly, thereby providing an additional level of confidence to meet the millennium challenges.

21. WB will set up a sector-wide Y2K coordinating centre which will serve as the information hub between the departmental centres and the Central Coordinating Centre under the command of ITBB.

22. WB will carry out additional testing of the communications mechanism with departmental coordinating centres before the rollover to ensure the systems are working effectively.

23. Regarding the publicity programme for the Y2K exercise, we shall be working together with ITBB and will follow their guidelines issued from time to time. Information which may be need to be conveyed to the public during the rollover of Y2K critical dates will be disseminated under the coordination of the CCC.

24. WB will gather all information from the individual Works Departments pertaining to any events over the rollover period and carry out a post millennium review in preparation for the leap year transition.

**Works Bureau
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