

12 Impact Assessment of Public Health

This chapter is compiled according to the requirements of environmental impact assessment in Shenzhen, and is not a requirements of environmental impact assessment in Hong Kong.

12.1 Impact Analysis

12.1.1 Construction and Maintenance Periods

During construction and maintenance periods of the Project, the environmental hygienic condition in the construction sites and adjacent areas (such as both sides of the haul roads) may worsen due to river excavation, river dredging, and piling and transport of spoils. These lend to the followings: accidental dumping of spoil transportation, exhaust gas and noise arised from fuel combustion (and dust if land transport is used); in addition, bad smell will also be produced during excavation, piling and transport of sludge. These effects have already been assessed in relevant chapters and may have adverse effects on public health.

Construction workers will be affected most for being directly exposed to pollution sources. The hygienic condition in the construction site is relatively poor, and construction needs a lot of hard physical work. Workers therefore have higher risk to be infected with disease than ordinary citizens, if no proper housing, medical services and health care can be ensured.

In addition, because construction teams are selected through tendering, they may come from other rural provinces and have never lived in Shenzhen before. Thus they are prone to be affected due to difference in living environment, especially during early stage of construction.

Construction accidents may happen during construction.

However, different from many other hydraulic engineering works, the construction site of Stage III of the Shenzhen River Regulation Project is located on the fringe of Shenzhen City. Shenzhen City is a rather modernized city with good living and housing standard, as well as a sound medical care system. The number of hospitals, medi-

cal facility and the quality of medical personnel are of high standard in China, which will provide sufficient medical services to the workers. Therefore, workers' health will not be badly affected. The level of workers infected disease during construction of Stage I and Stage II Project not higher than the average level of people in Shenzhen City is an evidence.

12. 1. 2 Operation Period

It has been anticipated that after completion of the Project public health condition will be improved. The sludge and weeds will be removed from the river. Mosquito and fly, which spread diseases, may not breed and live here. In addition, bad smell will disappear after removing silt from the river bed. The river will become clearer and water pollution will be lessened. All the above factors have beneficial effect on public health condition along the Shenzhen River.

Generally, during the construction and maintenance periods, construction activities will have a slight detrimental effect on public health in the construction site and other affected areas. However, health condition of the construction workers and residents nearby will not deteriorate and this impact will disappear upon completion of the Project. By then the public health condition along Stage III Project river section will be improved immensely. Thus, construction of the Project will have more beneficial effects than adverse ones in view of public health.

12. 2 Mitigation Measures

The environmental protection measures proposed in relevant chapters of the report should be implemented to mitigate the environmental pollution, including measures on air, noise and bad odour during construction.

To avoid infectious disease bringing to construction site, workers should have medical examination before entering the construction site.

Regular medical examination for workers should be conducted during construction. Patients must be treated timely, and those infected diseases must be treated in special hospital and this should be reported to relevant health authorities timely according to regulations.

Hygienic sterilization in construction site together with site clearance should be carried out before commencement of construction.

Proper housing and living condition for workers should be provided and relevant national regulations on labor protection should be strictly followed.

12.3 Conclusion

During construction and maintenance periods, the environmental hygienic condition may worsen in the construction sites and adjacent areas (e. g. both sides of the haul roads) for river excavation, and piling and transportation of spoil, which will have a short-term adverse effect on public health. In general, the health condition of the construction workers and residents nearby will not deteriorate and those impact will disappear upon completion of the Project. The public health condition along Stage III Project river section will be improved remarkably after completion of the Project. Thus, the Project will have more beneficial effects than adverse ones in view of public health.