

**CHAPTER 2**

**THE GOVERNMENT OF THE  
HONG KONG SPECIAL ADMINISTRATIVE REGION**

**GENERAL REVENUE ACCOUNT**

**GOVERNMENT SECRETARIAT**

**Environment and Food Bureau**

**GOVERNMENT DEPARTMENT**

**Food and Environmental Hygiene Department**

**Provision of slaughtering facilities  
for supplying fresh meat**

**Audit Commission  
Hong Kong  
13 March 2001**

# PROVISION OF SLAUGHTERING FACILITIES FOR SUPPLYING FRESH MEAT

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# PROVISION OF SLAUGHTERING FACILITIES FOR SUPPLYING FRESH MEAT

## Summary and key findings

### Introduction

A. Under the Public Health and Municipal Services Ordinance (Cap. 132), the Food and Environmental Hygiene Department (FEHD) is responsible for monitoring the operations of licensed slaughterhouses. Presently, the territory's supply of fresh pork, beef and mutton comes from three licensed slaughterhouses, namely the Sheung Shui Slaughterhouse (SSSH), the Tsuen Wan Slaughterhouse (TWSH) and the Cheung Chau Slaughterhouse (para. 1.1).

### Privatisation programme of public slaughterhouses

B. The Government built two public slaughterhouses, namely the Kennedy Town Abattoir (KTA) in 1968 and the Cheung Sha Wan Abattoir (CSWA) in 1969. In 1973, the then Urban Council (UC) took over the responsibility for the management and control of the two public slaughterhouses. In March 1987, as the KTA and the CSWA were operating at substantial losses, the Executive Council (ExCo) approved a programme to privatise the KTA by 1990 and, upon the commissioning of the SSSH, to close down the CSWA by 1992 (the privatisation programme — paras. 1.2 and 1.3).

### SSSH and TWSH

C. The SSSH, which is a public slaughterhouse, is operated by a private company (Company A). It was commissioned in 1999, seven years after its originally expected commissioning date of 1992. The TWSH, which is a private slaughterhouse, was commissioned in 1983. In that year, a piece of land nearby was re-zoned for residential development. Over the years, the local residents of the subsequently completed residential blocks have been repeatedly complaining about the environmental nuisance caused by the operation of the TWSH (paras. 1.4 to 1.7).

### Audit review

D. Audit has conducted a review to examine: (a) the implementation of the privatisation programme of the UC's public slaughterhouses and (b) the feasibility of centralising the slaughtering operation of livestock at the SSSH (para. 1.8). Audit's findings are summarised in paragraphs E to I below.

### Implementation of the privatisation programme

E. *Important information not provided to ExCo and the Policy Group.* Audit found that there were two instances where important information on the land premium of the SSSH site was not provided to the decision-making bodies concerned: (a) in the Memorandum seeking ExCo's approval

of the privatisation programme in March 1987, the Administration did not mention that Company A had requested the granting of the SSSH site at a low land premium and (b) at the outset of the privatisation programme in September 1987, the then Urban Services Department (USD) did not report in its progress report to the Lands, Works, Transport, Housing and Environmental Protection Policy Group of the Chief Secretary's Committee (the Policy Group) that Company A would not participate in the programme, unless favourable and concessionary terms of the private treaty grant for the SSSH site were offered. Audit considers that: (a) such important information should have been provided to ExCo so as to enable it to fully assess the implications of the programme and to make informed decisions and (b) the USD should have informed the Policy Group of the strong view held by Company A before entering into the negotiations so that the Policy Group could decide whether to request the USD to explore other alternatives and formulate an appropriate negotiation strategy to address the difficult issue (para. 2.31).

F. ***Lack of an effective negotiation strategy on the land premium.*** Audit also found that one of the main causes of the significant delay in implementing the privatisation programme was the unduly long time taken to negotiate with Company A on the land premium of the SSSH site. The negotiations with Company A, which dragged on for five years from 1987 to 1992, were fruitless because the sale of the SSSH site by private treaty grant did not materialise. Audit considers that the lack of an effective negotiation strategy to deal with Company A on the land premium of the SSSH site was unsatisfactory (para. 2.34).

G. ***Opportunities missed to privatise or close down the CSWA.*** Furthermore, Audit found that, when implementing the privatisation programme, the USD missed a number of opportunities to privatise or close down the CSWA during the period January 1991 to February 1994. Although various proposals had been made to the USD to privatise or close down the CSWA during this period, the USD failed to assess critically the consequences of the continued operation of the CSWA. Audit considers that, had the USD performed a cost and benefit analysis of the options of privatising and closing down the CSWA and critically reviewed the operating environment of the CSWA, the CSWA's slaughtering operation would have been privatised or closed down much earlier. Consequently, the UC would have been able to avoid a cumulative operating loss of \$883 million, if the CSWA had been privatised in 1992 (paras. 2.37 to 2.39).

#### **Feasibility of centralising slaughtering operation of livestock at the SSSH**

H. ***Need for carrying out a detailed study.*** Audit found that, in terms of the SSSH's slaughtering capability and its waste water treatment capability, the SSSH's daily slaughtering throughput of pigs can be increased to more than 6,000, provided that the daily slaughtering throughput of cattle remains at 170. Notwithstanding this, Audit recognises that some modification works to the SSSH would be required for the SSSH to absorb the additional throughput displaced by the TWSH. The slaughtering throughput of pigs at the SSSH can be increased if modifications are made to the SSSH's existing facilities. Audit considers that there is a need for the FEHD to carry out a detailed study with a view to determining the SSSH's consequent practical slaughtering capability (paras. 3.16 to 3.22).

I. ***Need for closely monitoring the eating habits of the population.*** Audit also found that, if pigs and cattle carcasses are required to be chilled after slaughtering, the SSSH is presently the only slaughterhouse capable of handling this mode of processing fresh pork and fresh beef. Audit considers that the FEHD needs to closely monitor the eating habits of the population, with particular reference to the demand for fresh and chilled meat in the territory (para. 3.29).

## **Audit recommendations**

J. Audit has made the following main recommendations that:

- (a) in order to improve the planning and implementation of future similar programmes, the Administration should:
  - (i) provide ExCo and the other decision-making bodies with all the important information so as to enable them to fully assess the implications of the programmes, to make informed decisions and to approve practicable implementation plans (para. 2.32);
  - (ii) where it is necessary to negotiate with outside parties, formulate an effective negotiation strategy so as to enable alternative approaches to be adopted quickly in response to changes in circumstances (para. 2.35); and
  - (iii) in cases where there are significant changes to the implementation plans and where problems are expected to be encountered, provide fallback options in the implementation plans and critically assess the risks involved so that appropriate action can be taken expeditiously to address the problems (para. 2.40); and
- (b) the Director of Food and Environmental Hygiene should:
  - (i) carry out a new forecasting exercise on the slaughtering throughput of livestock in the territory for the coming years (para. 3.13);
  - (ii) carry out a detailed study to determine the SSSH's consequent practical slaughtering capability if modifications are made to the SSSH's existing facilities to increase the slaughtering throughput of pigs at the SSSH (para. 3.23(a));
  - (iii) closely monitor the change in the demand for fresh pork and, if the daily slaughtering throughput of pigs does not show an increasing trend and there are indications that the SSSH's practical slaughtering capability will be capable of absorbing the additional slaughtering throughput of pigs displaced by the TWSH, conduct a cost and benefit analysis on centralising the slaughtering operation of pigs at the SSSH (para. 3.23(b)); and
  - (iv) closely monitor the eating habits of the population, with particular reference to the demand for fresh and chilled meat in the territory, and consider the desirability of chilling fresh meat at the SSSH before it is delivered to the retailers (para. 3.30).

## **Response from the Administration**

K. The Administration has generally accepted Audit's recommendations.





## PART 1: INTRODUCTION

### Background

1.1 In Hong Kong, fresh meat (i.e. beef, pork and mutton) is supplied by local slaughterhouses through the slaughtering of livestock. Under the Public Health and Municipal Services Ordinance (Cap. 132), the Food and Environmental Hygiene Department (FEHD) is responsible for monitoring the operations of slaughterhouses to ensure that they meet the required hygiene and environmental standards and that only meat fit for human consumption is released for sale in the market. Slaughterhouses supplying fresh meat are required to operate under a slaughterhouse licence issued by the FEHD. Presently, the territory's fresh meat supply comes from three licensed slaughterhouses, namely the Sheung Shui Slaughterhouse (SSSH — see paragraphs 1.4 and 1.5 below), the Tsuen Wan Slaughterhouse (TWSH — see paragraphs 1.6 and 1.7 below) and the Cheung Chau Slaughterhouse (CCSH — Note 1).

### Development of slaughtering facilities in Hong Kong

1.2 In the early 1960s, slaughterhouses operated by meat traders were reportedly dominated by triad elements and were unhygienic. The Government considered that the situation was unacceptable because there would be a risk of interruption to the supply of fresh meat in the territory. Consequently, the Government built two public slaughterhouses, namely the Kennedy Town Abattoir (KTA) on Hong Kong Island in 1968 and the Cheung Sha Wan Abattoir (CSWA) in Kowloon in 1969. The then Urban Services Department (USD), being the then Urban Council (UC)'s executive arm, was responsible for operating the two public slaughterhouses. In 1973, when the UC became a financially autonomous body, it took over the responsibility for the management and control of the two public slaughterhouses (Note 2).

1.3 In the late 1970s, the Government allowed private slaughterhouses in the New Territories to operate under a licensing system to serve the rapidly growing population of new towns. In the early 1980s, three licensed private slaughterhouses were in operation in the territory, namely the Tai Po Slaughterhouse (TPSH), the TWSH and the Yuen Long Slaughterhouse (YLSH). In March 1987, as the UC's two public slaughterhouses (i.e. the KTA and the CSWA) were operating at substantial losses, the Executive Council (ExCo) approved a programme to privatise the KTA by 1990 and, upon the commissioning of a newly constructed slaughterhouse in Sheung Shui (i.e. the SSSH), to close down the CSWA by 1992 (hereinafter referred to as the privatisation programme — see Part 2 below). In July 1996, the Finance Committee (FC) of the Legislative Council (LegCo) approved the funding of \$1,793 million for the construction of the SSSH to replace the KTA, the CSWA and the YLSH. Shortly after the commissioning of the SSSH in August 1999, the KTA, the CSWA and the YLSH ceased operation. Table 1 below shows the present position of the abovementioned slaughtering facilities in Hong Kong. Table 2 below shows the site area and the licensed daily slaughtering capacity of the existing three slaughterhouses.

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**Note 1:** *The CCSH, which has a licensed daily slaughtering capacity of 500 pigs, mainly supplies fresh pork to the residents of Cheung Chau, Peng Chau and Mui Wo. In 2000, the average daily slaughtering throughput of pigs was 36.*

**Note 2:** *Since the dissolution of the UC in January 2000, the responsibility for monitoring the operations of slaughterhouses has been taken over by the FEHD.*

**Table 1**  
**Slaughtering facilities in Hong Kong**

<b>Slaughterhouse</b>	<b>Mode of operation</b>	<b>Year of commissioning</b>	<b>Present position</b>
TPSH	Private slaughterhouse operated by a private company	1954	Ceased operation in 1987
KTA	Public slaughterhouse operated by the USD	1968	Privatised in 1990 and ceased operation in 1999
CSWA	Public slaughterhouse operated by the USD	1969	Ceased operation in 1999
TWSH	Private slaughterhouse operated by a private company	1983	In operation
YLSH	Private slaughterhouse operated by a private company	1984	Ceased operation in 1999
CCSH	Public slaughterhouse operated by a private company	1991	In operation
SSSH	Public slaughterhouse operated by a private company	1999	In operation (and replaced KTA, CSWA and YLSH)

*Source:* FEHD's records

*Summary:* Presently, three licensed slaughterhouses are in operation.

**Table 2**

**Site area and licensed daily slaughtering capacity  
of the existing three slaughterhouses**

<b>Slaughterhouse</b>	<b>Site area (hectares)</b>	<b>Licensed daily slaughtering capacity</b>
SSSH	5.80	5,000 pigs, 400 cattle and 300 goats
TWSH	1.00	3,000 pigs
CCSH	0.16	500 pigs

*Source: FEHD's records*

**Sheung Shui Slaughterhouse**

1.4 The SSSH, which is a public slaughterhouse, was commissioned in 1999. It is situated at a site of 5.8 hectares and consists of the following facilities:

- (a) lairages with a holding capacity of 12,000 pigs and 2,200 cattle;
- (b) a slaughter hall where pigs, cattle and goats are slaughtered, dressed and inspected;
- (c) blood coagulation and dewatering facilities;
- (d) a waste water treatment plant for treating effluent discharged;
- (e) a meat despatch area with car parking facilities for meat despatch vehicles, livestock lorries and private cars; and
- (f) a railway platform and animal holding pens.

The SSSH can be reached within three minutes by train from Lo Wu where almost all livestock from Mainland China enter Hong Kong. Since it is situated away from residential developments, its operation does not cause serious environmental problems.

1.5 Presently, the SSSH is managed and operated by a private company (hereinafter referred to as Company A) under a management contract awarded by the Government. It has a licensed daily slaughtering capacity of 5,000 pigs, 400 cattle and 300 goats. In 2000, the SSSH had an average daily slaughtering throughput of 4,427 pigs, 159 cattle and 11 goats. Based on the actual average daily slaughtering throughput of livestock in 2000, there is apparently spare capacity for the SSSH to increase its slaughtering throughput.

### **Tsuen Wan Slaughterhouse**

1.6 In 1979, the Government granted the TWSH site to a private company by a special-purpose lease for slaughtering operation. The site, with an area of one hectare, had a typhoon shelter along the whole of the western frontage, a cemetery at the eastern frontage and an oil depot to the north. The site was carefully chosen so that it would not be close to any residential area. In 1983, the TWSH was commissioned. It consists of two main blocks: one is used as lairages and the other for slaughtering. Waste water pre-treatment facilities are also provided for the discharge of waste water.

1.7 In July 1983, the Town Planning Board approved the change of zoning of the land which was north to the TWSH site and which accommodated the oil depot for residential development. As a result, the TWSH was placed in close proximity to residential blocks, which had been occupied since 1989 (see Figure 1 in paragraph 3.1 below). Over the years, the local residents have been repeatedly complaining about the odour and noise caused by the operation of the TWSH. In 2000, the TWSH was licensed to slaughter 3,000 pigs daily and had an average daily slaughtering throughput of 1,860 pigs.

### **Audit review**

1.8 Since 1989, the local residents have been repeatedly complaining about the environmental nuisance caused by the TWSH (see paragraph 1.7 above). The SSSH was commissioned in 1999, seven years after its originally expected commissioning date of 1992 to replace three slaughterhouses (the KTA, the CSWA and the YLSH — see paragraph 1.3 above). Against this background, Audit has conducted a review on the provision of slaughtering facilities for supplying fresh meat in the territory. The audit objectives were to examine:

- (a) the implementation of the privatisation programme of the UC's public slaughterhouses to see if there are any useful lessons to be learned; and
- (b) the feasibility of centralising the slaughtering operation of livestock at the SSSH.

## **PART 2: IMPLEMENTATION OF THE PRIVATISATION PROGRAMME**

### **The privatisation programme**

#### **Proposal to privatise the public slaughterhouses**

2.1 In the 1980s, the UC's two public slaughterhouses (i.e. the KTA and the CSWA) were operating at substantial losses mainly because of the high costs involved in employing civil servants to operate them. In 1983, the Steering Group on Abattoir Programme (hereinafter referred to as the Steering Group), chaired by the then Director of Urban Services, was formed to study the feasibility of privatising the two public slaughterhouses, taking into account public health, hygiene, economic and political considerations. The Steering Group considered that:

- (a) the Government and the UC should dissociate themselves from the slaughtering business because the justifications for the Government to be directly involved in the supply of fresh meat were less cogent than before; and
- (b) in order to meet the demand for fresh meat in the territory and to reduce the impact of environmental nuisance caused by the slaughtering operation, the slaughtering facilities should be geographically redistributed.

2.2 In 1984-85, the KTA and the CSWA incurred a total operating loss of \$38 million. **In June 1985, the USD considered that privatisation of the two public slaughterhouses was the only feasible solution to reduce the UC's financial burden.**

2.3 In April 1986, following a series of discussions with local meat traders, Company A, which had been the principal importer of livestock from Mainland China, submitted a proposal on revamping the livestock handling and transportation and meat distribution systems (hereinafter referred to as the Proposal) to the USD. The salient features of the Proposal were:

- (a) a new organisation would be formed by Company A together with meat retailers to take over the operation of the KTA and to build a slaughterhouse and an animal handling centre on a site in Sheung Shui on private treaty terms to be negotiated with the Government;
- (b) with the commissioning of the new SSSH, the CSWA (together with the Cheung Sha Wan and Ma Tau Kok landing piers, the Ho Man Tin railway siding and the Ma Tau Kok Cattle Depot) would be closed down; and
- (c) upon completion of the tasks mentioned in insets (a) and (b) above, all livestock handling facilities would be removed from Kowloon and the distribution of fresh meat within the territory would be geographically revamped. The final outcome would be for the KTA to supply fresh meat to Hong Kong Island; for the TWSH to supply fresh meat to Kowloon and Tsuen Wan; and for the SSSH, possibly together with the YLSH, to supply fresh meat to the rest of the New Territories.

2.4 In its Proposal, Company A requested the Government:

- (a) **to grant the SSSH site at a low land premium to the new organisation mentioned in paragraph 2.3(a) above; and**
- (b) to provide the essential facilities to serve the proposed SSSH, including a railway siding adjacent to the SSSH site for the transportation of livestock and a sewerage system for the disposal of animal waste.

2.5 The USD considered that the Proposal was well thought out and practicable. In June 1986, the UC approved in principle that the privatisation of its two public slaughterhouses should proceed as a matter of high priority.

#### **Administration's views on the Proposal**

2.6 Having studied the USD's views, the Administration considered that the Proposal would bring about the following significant benefits to the Government and the UC:

- (a) introducing orderly control of the fresh meat trade and guaranteeing stable supply of fresh meat in the territory;
- (b) enabling the CSWA to be closed down, thereby releasing the valuable piece of land for development, eliminating the long-standing environmental nuisance and dispensing with the Government's commitment to re-provision the CSWA;
- (c) removing the slaughtering and transportation of livestock from Kowloon; and
- (d) enabling the UC to complete its privatisation programme smoothly with the amicable cooperation of the meat traders.

#### **ExCo's decision to proceed with the privatisation programme**

2.7 In October 1986, the Lands, Works, Transport, Housing and Environmental Protection Policy Group of the Chief Secretary's Committee (hereinafter referred to as the Policy Group — Note 3) considered that ExCo's approval should be obtained for the proposed privatisation

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**Note 3:** *To assist in the coordination of government policies, seven policy groups which brought together Policy Secretaries in related programme areas were formed under the Chief Secretary's Committee. The Lands, Works, Transport, Housing and Environmental Protection Policy Group, chaired by the then Chief Secretary, was one of these groups.*

programme and for the granting of land by private treaty to Company A for building the SSSH. In March 1987, in the Memorandum seeking ExCo's approval of the Proposal, the Administration informed ExCo that, in addition to the benefits mentioned in paragraph 2.6 above, the privatisation programme would bring about significant financial benefits, including the proceeds of the private treaty grant for the SSSH site, the sale proceeds of the CSWA site, and the reduction of the UC's financial burden. The Administration also informed ExCo that the privatisation programme was expected to be completed in two phases, as follows:

- (a) **Phase One.** The handover of the KTA and the sale of the piece of land in Sheung Shui for the construction of the SSSH would be completed in 1989-90; and
- (b) **Phase Two.** The CSWA and the live animal handling centres in Kowloon could be closed down when the SSSH became operational in 1992.

## 2.8 ExCo considered the Administration's proposal and advised that:

- (a) on the basis of the Proposal, detailed discussions on the privatisation of the KTA and the CSWA should be conducted between Company A and the USD and between the UC and the Government. **The privatisation programme should be taken forward expeditiously;** and
- (b) **the private treaty grant for the land in Sheung Shui mentioned in paragraph 2.3(a) above was approved in principle, subject to the provision that full details of the grant would be submitted for ExCo's consideration and formal approval in due course.**

## Implementation of Phase One of the privatisation programme

### Privatisation of the KTA

2.9 In May 1989, the Administration informed ExCo of the finalised staff redundancy package for the privatisation of the KTA. In July 1990, the FC approved the staff redundancy package.

2.10 Negotiations with Company A on the privatisation of the KTA started in September 1989. During the negotiations, Company A expressed concern that it would face a high risk in taking over the KTA because the demand for fresh meat in Hong Kong was declining. Consequently, Company A offered the Government a rent of \$1 million per annum, subject to an annual revision pro-rata to the increase in Company A's gross receipts from the KTA less the USD's meat inspection fee.



2.11 In its cost and benefit analysis of the privatisation of the KTA, the USD considered that, apart from the fact that the operating losses of the KTA could be avoided, any rental income generated from the privatisation programme would be a bonus to the Government. In addition, the Rating and Valuation Department considered that Company A's offer was not unreasonable. The Government then accepted Company A's offer. **Upon conclusion of the agreement between Company A and the Government, the KTA was privatised in November 1990. However, Phase One of the privatisation programme (see paragraph 2.7(a) above) had not yet been completed because the private treaty grant for the piece of land in Sheung Shui for the construction of the SSSH was still under negotiation.**

#### **Private treaty grant for the SSSH site**

2.12 In April 1986, Company A requested, in its Proposal, the Government to grant the SSSH site at a low premium (see paragraph 2.4(a) above). **At the outset of the privatisation programme, Company A held the view, stressing it again at a meeting with the USD in September 1987, that Company A would not participate in the programme unless favourable and concessionary terms of the private treaty grant for the SSSH site were offered. However, the USD did not reflect this view in its progress report to the Policy Group.** In September 1989, the USD informed Company A of the basic terms of the private treaty grant, which included a land premium of \$34 million assessed by the then Buildings and Lands Department on the basis of the USD's projected profitability of the slaughtering business. In December 1989, Company A expressed serious reservations about the high land premium and counter-proposed, as one of the conditions for building the new SSSH, only a nominal land premium for the SSSH site.

2.13 In connection with Company A's counter-proposal for a nominal land premium, the then Planning, Environment and Lands Branch (PELB) commented that:

- (a) as the slaughtering business would be a commercial operation, there were no grounds for granting the land at a concessionary premium to Company A;
- (b) according to Annex 3 to the Sino-British Joint Declaration on the future of Hong Kong, all land premium income would need to be shared equally with the future Hong Kong Special Administrative Region Government (HKSAR Government). If the land was granted at a concessionary premium, the Hong Kong Government would have to pay the future HKSAR Government its share of any premium foregone; and
- (c) even if the Government decided to subsidise the operation of the slaughterhouse, the subsidy should not be in the form of a concessionary premium.

**In February 1990, the Policy Group was informed of Company A's counter-proposal and of the PELB's view on the concessionary premium. The Policy Group was also informed that the negotiations on the private treaty grant for the SSSH site would be very difficult.**

### **Government's strategy for developing the SSSH site**

2.14 At the Policy Group's meeting held in August 1990, it was agreed that the departments concerned should formulate the Government's strategy with a view to setting a target date earlier than mid-1992 for commencing the construction of the SSSH. In December 1990, the Policy Group decided that:

- (a) attempts should be made again to strike a deal with Company A to develop the SSSH site; and
- (b) if, at a certain point of time in the near future, no meaningful progress could be achieved by further negotiations, the Government might consider shelving the idea of developing the SSSH site and, instead, opting for the alternative of privatising the CSWA along the line of privatising the KTA so as to reduce the UC's financial burden.

In the event, negotiations on the land premium for the SSSH site were deferred to Phase Two of the privatisation programme.

### **Implementation of Phase Two of the privatisation programme**

#### **Company A's indication of interest in taking over the CSWA**

2.15 In January 1991, before resuming negotiations on the land premium for the SSSH site, Company A indicated its interest in taking over the CSWA, on the understanding that the CSWA would only have a limited life span and would be closed down once the SSSH came into operation. The USD considered that:

- (a) financially, handing over the CSWA to Company A along the line of privatising the KTA would be in the UC's best interest, particularly when the negotiations with Company A on the land premium for the SSSH site might still take a long time to complete. Furthermore, the USD's staff working in the CSWA would not object to its privatisation because the redundancy terms had already been agreed by all slaughterhouse staff; and
- (b) operationally, Company A, after taking over the CSWA, would virtually control all the slaughtering business in Hong Kong. Pursuing the privatisation of the CSWA would inevitably take up a lot of the resources of the USD and would further delay the negotiations with Company A on the land premium for the SSSH site.

### **USD decided to keep the option of privatising the CSWA as the last resort**

2.16 **The USD insisted that the option of privatising the CSWA had to be kept as the last resort and would be considered only when it was clear that all attempts to persuade Company A to develop the SSSH site failed.** Therefore, the USD decided:

- (a) not to accept Company A's offer to take over the CSWA but to resume negotiations with Company A on the land premium for the SSSH site; and
- (b) to respond to Company A's offer to take over the CSWA only if Company A very quickly showed its clear commitment to the SSSH project and reached agreement with the Government on the basic terms of the private treaty grant. On the other hand, if Company A lost interest in developing the SSSH site and the Government decided to give up the SSSH project, the USD would then pursue the only remaining option of privatising the CSWA.

### **Failure to grant the SSSH site under private treaty terms**

2.17 The negotiations with Company A on the terms of the private treaty grant for the SSSH site resumed in early 1991. In response to the District Lands Officer/North's request, in August 1991, Company A appointed a valuer to work out an alternative land premium for the SSSH site. Having studied the viability of the slaughtering business, in December 1991, Company A's valuer informed the Government that the estimated gross profit would not be sufficient to provide a reasonable return to the operator of the business. Based on the valuer's conclusion, Company A informed the USD that it could not afford to pay any premium for the SSSH site even if it accepted a less than reasonable return from its investment. **As there were divergent views between Company A and the Government on the land premium for the SSSH site, the negotiations for the private treaty grant came to a halt.**

### **Government's decision to expand the SSSH**

2.18 At the Development Progress Committee's meeting (Note 4) held in June 1992, the idea of closing down the KTA and expanding the proposed SSSH was discussed because of the continuing decline in demand for fresh meat in Hong Kong. In July 1992, the USD considered that:

- (a) it was not essential to have a slaughterhouse on Hong Kong Island subsequent to the commissioning of the SSSH; and

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**Note 4:** *The Development Progress Committee was chaired by the then Secretary for Planning, Environment and Lands. It was responsible for monitoring the general progress of the development of the territory, for considering and approving detailed planning briefs, layouts and development plans and for dealing with specific land policies. It was replaced by the Committee on Planning and Land Development with effect from July 1995.*

- (b) the KTA could be closed down in future if its slaughtering throughput could be absorbed by the SSSH.

After conducting a review, in the same month, the USD concluded that in addition to the CCSH, two slaughterhouses, namely the SSSH and the TWSH, would be sufficient to meet the territory's future demand for fresh meat (Note 5).

2.19 Subsequently, the idea of closing down the KTA and expanding the SSSH was reported to the Policy Group. It was also recommended to the Policy Group that the privatisation of the CSWA should proceed along the line of privatising the KTA because it was expected that the SSSH would take at least two years to build. At its meeting held in July 1992, the Policy Group:

- (a) was informed that in addition to the CCSH, two slaughterhouses, namely the SSSH and the TWSH, would be sufficient for meeting the territory's future demand for fresh meat;
- (b) agreed to consider whether the Government should build the SSSH and then contract out its management; and
- (c) **agreed that the UC should proceed with the privatisation of the CSWA in the interim, pending its closure upon the commissioning of the SSSH.**

#### **USD decided not to privatise the CSWA in the interim**

2.20 **Notwithstanding that the privatisation of the CSWA was agreed by the Policy Group in July 1992 (see paragraph 2.19(c) above), the USD considered that, if the Government were to sign an agreement with Company A for it to operate the CSWA even on an interim basis, it would undermine the chance of persuading Company A to build the SSSH, which the USD was pursuing at that time. Consequently, the USD decided not to privatise the CSWA in the interim.**

#### **Government decided to fund the SSSH project**

2.21 **At its meeting held in November 1992, the Policy Group:**

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**Note 5:** *At its meeting held in June 1989, the Steering Group decided that the YLSH should be closed down because, in addition to the CCSH, three slaughterhouses (i.e. the KTA, the SSSH and the TWSH) would be sufficient.*

- (a) **was informed that, because of the sensitivity and complications of the negotiations with Company A on the SSSH project, discussions with Company A on the privatisation of the CSWA should be deferred until a final decision had been made on the SSSH project; and**
- (b) **decided that the Government should fund the SSSH project.**

#### **Company A again urged USD to privatise the CSWA**

2.22 In February 1993, on the basis of commercial considerations, Company A advised the USD that it had a plan to centralise the trading and slaughtering of roaster pigs at the TWSH (hereinafter referred to as the centralisation plan). This would reduce the daily slaughtering throughput of the CSWA by 1,000 pigs. The USD expressed concern about the financial and staffing implications of the centralisation plan and suggested Company A to consider centralising the slaughtering of roaster pigs at the CSWA instead. **In reply, Company A urged the USD to privatise the CSWA in the light of the imminent loss of business resulting from the proposed transfer of slaughtering of roaster pigs from the CSWA to the TWSH. However, the USD said that the Government's priority was to resolve the development of the SSSH site first and that the idea of privatising the CSWA would only be considered after a concrete plan for the SSSH project had been drawn up. In November 1993, notwithstanding that Company A had again indicated its interest in taking over the CSWA and operating the future SSSH, the USD reiterated its view that this would only be considered after there was a definite timetable for the SSSH project.**

#### **Company A suggested USD to close down the CSWA**

2.23 In January 1994, the USD asked Company A to consider other possible alternatives instead of centralising the slaughtering of roaster pigs at the TWSH. In response, Company A said that:

- (a) it was under strong pressure from the meat traders to centralise the trading and slaughtering of roaster pigs at the TWSH;
- (b) the shareholders of the TWSH were aiming to improve the profitability of the TWSH and were finding ways to increase the slaughtering throughput of the TWSH, which had been declining drastically during the past few years; and
- (c) the centralisation plan had already been deferred for more than 14 months.

2.24 In February 1994, despite the USD's concern about the implications to the CSWA, Company A implemented the centralisation plan. This resulted in the transfer of an average daily slaughtering throughput of about 1,000 pigs from the CSWA to the TWSH and in a drastic decrease in the CSWA's average daily slaughtering throughput of pigs by 35% (from 2,710 in 1993 to 1,755 in 1994). **In these circumstances, Company A suggested that, instead of considering the contracting out of the CSWA, the USD should consider closing it down because other slaughtering facilities in the territory were able to absorb the CSWA's slaughtering throughput. However, the USD stated that Company A's suggestion should only be considered in the longer term because the USD's concern was to reduce the immediate impact of the decrease in the CSWA's slaughtering throughput.**

### **Implementation of the SSSH project**

2.25 In late 1992, the Architectural Services Department (ArchSD) started working closely with other government departments concerned and Company A to prepare the Schedule of Accommodation and building layout of the SSSH. In May 1994, the Policy Group agreed that the then Regional Services Department (RSD) should be the client department (Note 6) responsible for overseeing the SSSH project.

2.26 Concurrently, meetings were held with Company A to discuss the possibility of persuading Company A to build the SSSH. In mid-1995, the Government decided that the project should be undertaken by the ArchSD.

### **FC's approval for funding the SSSH project**

2.27 In July 1995, the FC approved the funding of \$131.8 million for the site investigation and planning of the SSSH. Following the FC's approval, the Government conducted site investigations, engaged consultants to carry out detailed design, and set up a project planning team in the RSD to oversee the project.

2.28 In January 1996, the Administration invited the Public Works Subcommittee (PWSC) of LegCo to recommend to the FC to approve the funding for the construction of the SSSH. The request was rejected because some Members of the PWSC were concerned about the close proximity of the proposed SSSH site to the Shek Wu Hui Sewage Treatment Works, insufficient information about the cost-effectiveness of the management contract arrangements, and the environmental nuisance caused by the operation of the TWSH (see paragraph 3.6 below). The Administration then took action to address the PWSC's concerns.

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**Note 6:** *As the client department, the RSD's tasks were:*

- (a) *to negotiate with Company A to reach an agreement on the future operation of the SSSH;*
- (b) *to make arrangements for the design and construction of the SSSH; and*
- (c) *to coordinate and monitor the work of all parties concerned before and during the development of the SSSH site in order to ensure that it would be completed on time and within budget.*

2.29 Eventually in July 1996, the FC approved the funding of \$1,793 million for the construction of the SSSH. The construction of the SSSH was expected to be completed by June 1999 so that the SSSH would replace the KTA, the CSWA and the YLSH as part of a plan to revamp the distribution of slaughtering facilities in the territory. The existing sites of the KTA (with an area of 1.25 hectares), the CSWA (with an area of 1.8 hectares) and the YLSH (with an area of 0.44 hectare) would then be available for other uses more compatible with the surrounding areas. Up to the end of 2000, the total expenditure of the SSSH project amounted to \$1,654 million.

### **Commissioning of the SSSH**

2.30 In December 1997, the RSD took up the role of administering the management contract of the SSSH. In that month, the RSD awarded the management contract of the SSSH to Company A (which was the only tenderer for the contract) for a period of four years. Subject to mutual agreement, Company A would be given priority to renew the contract for two more terms of three years each. The SSSH started operation in August 1999. Consequently, the three replaced slaughterhouses were decommissioned: the KTA in August 1999, the CSWA in October 1999 and the YLSH in November 1999.

### **Audit observations on the provision of important information to ExCo and the Policy Group**

2.31 **Audit found that there were two instances where important information on the land premium of the SSSH site was not provided to the decision-making bodies concerned:**

- (a) **in the Memorandum seeking ExCo's approval of the privatisation programme in March 1987, the Administration did not mention that Company A had requested the granting of the SSSH site at a low land premium (see paragraph 2.4(a) above). Audit considers that this piece of important information should have been provided to ExCo so as to enable it to fully assess the implications of the programme and to make informed decisions; and**
- (b) **at the outset of the privatisation programme, Company A held the view, which was stressed again at a meeting with the USD in September 1987, that Company A would not participate in the programme unless favourable and concessionary terms of the private treaty grant for the SSSH site were offered. However, the USD did not report this view in its progress report to the Policy Group. It was not until February 1990, when the Policy Group was informed of Company A's counter-proposal for a nominal land premium, that the Policy Group realised that the negotiations on the private treaty grant would be very difficult (see paragraphs 2.12 and 2.13 above). Audit considers that the USD should have informed the Policy Group of the strong view held by Company A before entering into the negotiations, so that the Policy Group could decide whether**

to request the USD to explore other alternatives and formulate an appropriate negotiation strategy to address the difficult issue.

### **Audit recommendation on the provision of important information to ExCo and the Policy Group**

2.32 In order to improve the planning and implementation of future similar programmes, Audit has *recommended* that the Administration should provide ExCo and the other decision-making bodies with all the important information including all operational and financial constraints so as to enable ExCo and the decision-making bodies to fully assess the implications of the programmes, to make informed decisions and to approve practicable implementation plans.

### **Response from the Administration**

2.33 The Director of Food and Environmental Hygiene has said that:

- (a) the FEHD will discharge all its duties faithfully and with the best endeavour. Like other government departments, in seeking approval for policy proposals within the Civil Service, it is a standing practice of the FEHD to provide ExCo and the Government's policy-making bodies with full information, justifications with details on staffing and financial implications and a detailed implementation plan; and
- (b) the FEHD could not trace any record as to why no report was made in 1987 by the Administration to ExCo and by the USD to the Policy Group on Company A's view that the company's participation in the privatisation programme would hinge on favourable and concessionary terms of the private treaty grant for the SSSH site.

### **Audit observations on negotiations with Company A on the land premium**

2.34 Audit found that one of the main causes of the significant delay in implementing the privatisation programme was the unduly long time taken to negotiate with Company A on the land premium of the SSSH site. The negotiations with Company A on the land premium dragged on for five years (from 1987 to 1992 — see paragraphs 2.12 and 2.21 above), notwithstanding that Company A had indicated its stand on two occasions (see paragraph 2.12 above). Eventually, the negotiations with Company A were fruitless because the sale of the SSSH site by private treaty grant did not materialise. **Audit considers that the lack of an effective negotiation strategy to deal with Company A on the land premium of the SSSH site was unsatisfactory.**



## **Audit recommendation on negotiations with Company A on the land premium**

2.35 In order to improve the planning and implementation of future similar programmes, Audit has *recommended* that the Administration should, where it is necessary to negotiate with outside parties, formulate an effective negotiation strategy so as to enable alternative approaches to be adopted quickly in response to changes in circumstances.

## **Response from the Administration**

2.36 The **Director of Food and Environmental Hygiene** has said that any negotiation like the one with Company A is a time-consuming and complex process as the parties concerned have different or even conflicting objectives. The FEHD believes that, in the process of conducting the negotiations with Company A, the USD, while having to maintain amicable relationship with Company A, had to fulfil its role to protect the Government's financial interest by reaching a reasonable deal with Company A on the land premium of the SSSH site.

## **Audit observations on consideration of alternatives and consequences**

2.37 The objective of the privatisation programme was to reduce the UC's financial burden of operating the KTA and the CSWA (see paragraph 2.2 above). With this objective in mind, in March 1987, ExCo advised that the privatisation programme should be taken forward expeditiously (see paragraph 2.8(a) above). **However, Audit noted that, when implementing the privatisation programme, the USD did not give due regard to the objective and to ExCo's advice, and missed a number of opportunities to privatise or close down the CSWA during the period January 1991 to February 1994.** These opportunities were:

- (a) in January 1991, although Company A had indicated its interest in taking over the CSWA, the USD insisted that the option of privatising the CSWA should only be kept as the last resort (see paragraphs 2.15 and 2.16 above);
- (b) in July 1992, although the Policy Group had agreed that the UC should proceed with the privatisation of the CSWA in the interim, pending its closure upon the commissioning of the SSSH, the USD considered that the privatisation would undermine the chance of persuading Company A to build the SSSH (see paragraphs 2.19 and 2.20 above);
- (c) in February 1993, although Company A urged the USD to privatise the CSWA, the USD considered that the Government's priority was to resolve the development of the SSSH site first (see paragraph 2.22 above);

- (d) in November 1993, although Company A again indicated its interest in taking over the CSWA and operating the future SSSH, the USD reiterated its view that privatising the CSWA would only be considered after there was a definite timetable for the SSSH project (see paragraph 2.22 above); and
- (e) in February 1994, Company A suggested that the USD should consider closing down the CSWA because other slaughtering facilities in the territory were able to absorb the CSWA's slaughtering throughput. However, the USD stated that Company A's suggestion should only be considered in the longer term (see paragraph 2.24 above).

**2.38 Audit found that, although there was significant delay in implementing the privatisation programme and various proposals had been made to the USD to privatise or close down the CSWA during the period January 1991 to February 1994, the USD failed to assess critically the consequences of the continued operation of the CSWA (see paragraph 2.37 above). As a result, the USD did not pursue any of these alternatives but continued to operate the CSWA until October 1999 (shortly after the commissioning of the SSSH). In Audit's view, the USD would have ceased operating the CSWA, had the following assessments been made:**

- (a) ***Cost and benefit analysis.*** A cost and benefit analysis on the privatisation or closing down of the CSWA would have revealed that the financial benefits would far outweigh the costs. This was evidenced by the fact that the CSWA's operating loss increased from \$86 million in 1992-93 to \$112 million in 1994-95 and further to \$138 million in 1998-99 (see Appendix A); and
- (b) ***Operating environment review.*** A critical review of the operating environment of the slaughtering business would have revealed that, since the privatisation of the KTA in 1990, the CSWA's competitiveness had been deteriorating continually because the other licensed slaughterhouses dominated the slaughtering business. During the period 1991 to 1995, both the average daily slaughtering throughput and market share of the CSWA had continued to drop, as follows:
  - (i) as compared with 1990, the CSWA's average daily slaughtering throughput of pigs decreased by 11% in 1991 and by 57% in 1995 (see Appendix B); and
  - (ii) the CSWA's market share of the slaughtering business for pigs dropped from 41% in 1990 to 38% in 1991 and further to 22% in 1995 (see Appendix C).

**2.39 Audit considers that, had the USD performed a cost and benefit analysis of the options of privatising and closing down of the CSWA and critically reviewed the operating**

environment of the CSWA, the CSWA's slaughtering business (which was financially non-viable) would have been privatised or closed down much earlier. Consequently, the UC would have been able to avoid:

- (a) a cumulative operating loss of \$883 million which had been incurred during the period 1992-93 to 1999-2000 (see Appendix A), if the CSWA had been privatised in 1992; or
- (b) a cumulative operating loss of \$591 million which had been incurred during the period 1995-96 to 1999-2000 (see Appendix A), if the CSWA had been closed down in the last quarter of 1994-95. This was possible because since 1994-95, the CSWA's slaughtering throughput of pigs and cattle could have been fully absorbed by other licensed slaughtering facilities in the territory (see Appendices D and E).

In Audit's view, the closure of the CSWA would also have resulted in the early release of its valuable site for other uses and the early elimination of the environmental nuisance caused by its operation.

#### **Audit recommendation on consideration of alternatives and consequences**

2.40 In order to improve the planning and implementation of future similar programmes, Audit has *recommended* that the Administration should, in cases where there are significant changes to the implementation plans and where problems are expected to be encountered, provide fallback options in the implementation plans and critically assess the risks involved so that appropriate action can be taken expeditiously to address the problems, having regard to the objectives of the approved programmes.

#### **Response from the Administration**

2.41 The Director of Food and Environmental Hygiene has said that:

- (a) on the audit observation that the UC would have been able to avoid a cumulative operating loss of \$883 million, if the CSWA had been privatised in 1992:
  - (i) the FEHD believes that, when ExCo was informed in March 1987 that the CSWA could be closed down in 1992 (when the SSSH became operational), the decision to close down the CSWA was made on the assumption that everything, including

the sale of the SSSH site to Company A for development of the SSSH, would and could proceed smoothly without complications; and

- (ii) following the unsuccessful negotiations during the period September 1987 to July 1992 between the Government and Company A on the sale of the SSSH site, the Policy Group finally decided in November 1992 that the SSSH would be built by the Government. Hence, the idea of privatising the CSWA continued to be pursued; and
- (b) on the audit observation that the UC would have been able to avoid a cumulative operating loss of \$591 million, if the CSWA had been closed down in the last quarter of 1994-95:
- (i) the FEHD believes that in early 1994, the USD's discussion with Company A was focused on maximising the slaughtering throughput of the CSWA by keeping the trading and slaughtering of all roaster pigs at the CSWA. The USD considered that Company A's suggestion to close down the CSWA hinged on longer-term possibilities and could not reduce the immediate impact on the mode of operation of the CSWA;
  - (ii) furthermore, to proceed with the long-term arrangement for the operation of the SSSH, the USD started to make staff redundancy and redeployment arrangements for the privatisation/closure of the CSWA in January 1993. Formal consultation with the affected staff on the redundancy arrangement also commenced in November 1994; and
  - (iii) in July 1995, when the SSSH project was first presented to the PWSC for consideration, it was the Administration's plan to replace the KTA, the CSWA and the YLSH by the SSSH. In July 1996, the FC approved the funding for the construction of the SSSH, which commenced in March 1997 for completion in mid-1999.

## **PART 3: FEASIBILITY OF CENTRALISING SLAUGHTERING OPERATION OF LIVESTOCK AT THE SSSH**

### **Slaughtering operation of the TWSH caused environmental nuisance**

3.1 At a distance of 120 metres from the nearest residential block, the TWSH is in close proximity to a large residential area (see Figure 1 below). Since the occupation of these residential blocks in 1989, the residents have been repeatedly complaining about the odour and noise caused by the operation of the TWSH and have requested its early relocation. According to the Metroplan Selected Strategy endorsed by ExCo in 1991, the TWSH was classified as a “badly located Government, Institution or Community facility and utility” which should be relocated in the long term. So far, two attempts had been made to relocate the TWSH: one in 1988 and the other in 1995. However, both attempts were in vain.

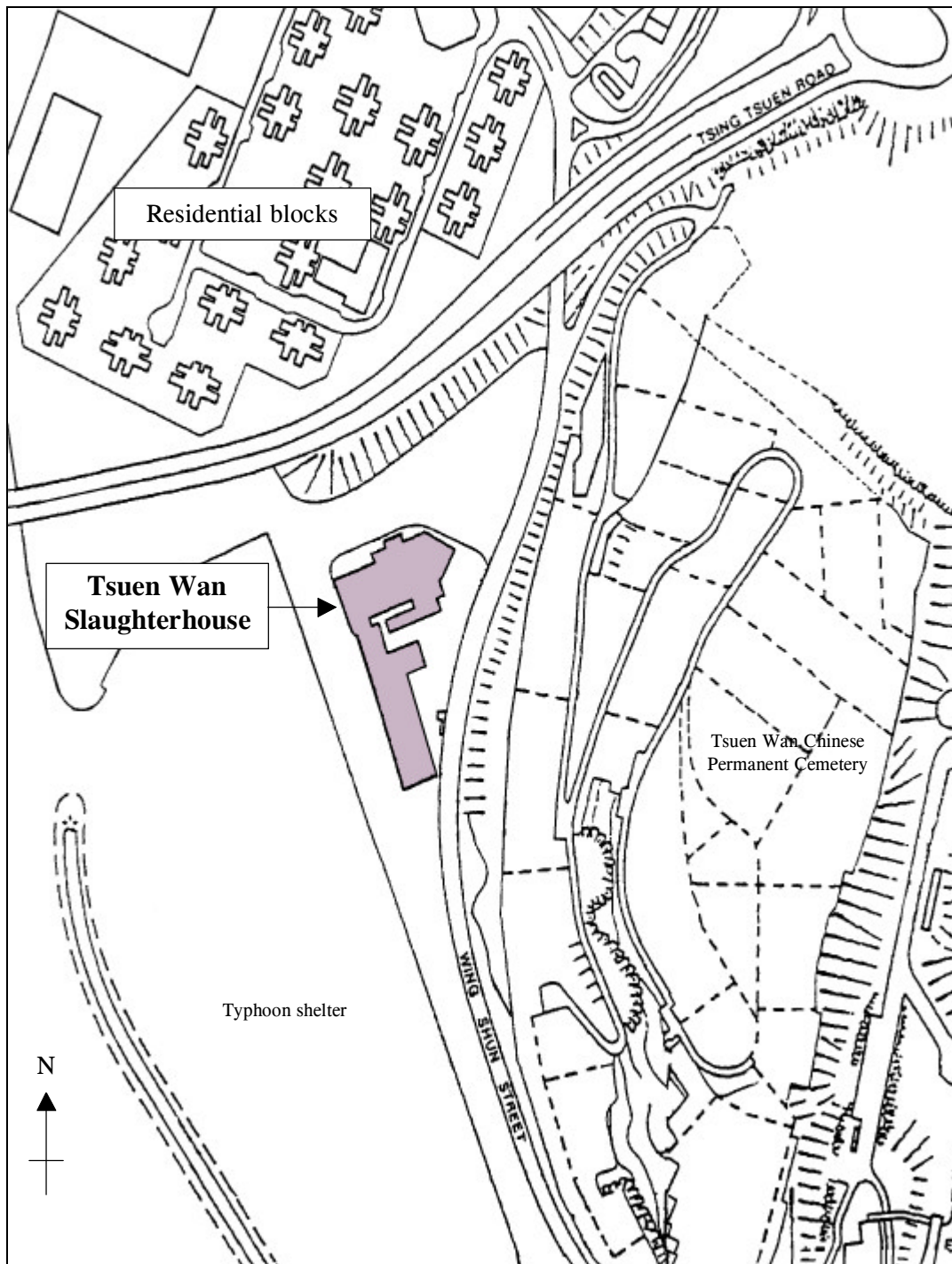
### **Attempts to relocate the TWSH in vain**

3.2 In 1987, following the completion of a study on the environmental impact of the TWSH by the Environmental Protection Department (EPD), the Government recognised that, as the TWSH would be close to a residential area, it would pose environmental nuisance (particularly odour) to the local residents. In May 1988, the Government decided that the possibility of relocating the TWSH should be examined. In October 1988, the Government considered that a site in Kwai Chung was suitable for the possible relocation of the TWSH.

3.3 In late 1989, knowing that the estimated cost for the relocation of the TWSH would be \$210 million, the Government decided that the EPD should conduct a further study on the environmental impact of the TWSH on the local residents. The study, which was completed in 1991, concluded that the odour and noise levels caused by the slaughtering operation were within the statutory limits. To minimise the impact of this environmental nuisance, the study report suggested that other control measures (which included limiting the slaughtering throughput of the TWSH, improving its housekeeping procedures and rearranging the transportation routes of delivery lorries to the TWSH) should be implemented. After further consideration, the Government decided not to proceed with the proposed relocation.

**Figure 1**

**Location of the TWSH**



*Source: Lands Department*

*Note: This map is not drawn to scale.*

*Summary: The TWSH is in close proximity to a large residential area.*

3.4 In November 1992, the Government decided to build the SSSH. On the basis of a forecast of the slaughtering throughput in the territory, the SSSH was designed to handle a daily slaughtering throughput of 5,000 pigs, 400 cattle and 300 goats.

3.5 In July 1995, the then Tsuen Wan District Board passed a resolution which urged the Government to relocate the TWSH to Sheung Shui and requested Members of LegCo to consider incorporating the TWSH in the SSSH project. At that time, the FC was considering the funding for the consultancy on the detailed design of the SSSH. Consequently, the FC suggested that the Administration should explore the feasibility of further expanding the capacity of the SSSH to cater for the TWSH's slaughtering throughput. Upon the FC's request, the Administration reviewed the feasibility of expanding the design capacity of the SSSH by 50%. The Administration eventually decided that the SSSH project should proceed as originally planned because:

- (a) no additional land was available to cater for a further increase in slaughtering throughput;
- (b) the proposed expansion of the SSSH would result in an unacceptable odour level and produce additional waste water which could not be dealt with by the adjacent Shek Wu Hui Sewage Treatment Works;
- (c) any change to the SSSH project would delay the scheduled completion of the SSSH; and
- (d) from a food supply point of view, it was necessary to maintain a second slaughterhouse in addition to the SSSH in order to safeguard against unforeseeable contingency situations such as burst watermain, gas supply disruption, power failure, flooding and industrial action (Note 7).

3.6 In December 1995, the Administration informed the LegCo Panel on Planning, Lands and Works of the Government's decision that the TWSH would not be relocated. In January 1996, the PWSC rejected the Government's request for funding approval of the SSSH project and suggested the Government to draw up a concrete environmental improvement plan for the TWSH. When the funding of the SSSH project was reconsidered in July 1996, some Members of the PWSC urged the Administration to seriously consider implementing improvement measures to minimise the environmental nuisance caused by the TWSH to the local residents. In response, the

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**Note 7:** *In Audit's view, it is questionable whether there is a need for maintaining a second slaughterhouse for such unforeseeable contingency situations because such situations can normally be resolved in a short period of time. Furthermore, there are alternative sources of meat supply (such as frozen meat) which can meet the demand for meat in Hong Kong.*

Government assured Members that it would further examine the feasibility of making additional environmental improvements to the TWSH. Since then, the operator of the TWSH has implemented in-situ environmental improvement measures to reduce the odour and noise problems caused by the TWSH to the local residents (Note 8).

### **Monitoring of environmental problems**

3.7 Since July 1996, the EPD has been maintaining a rigorous monitoring programme for the TWSH to ensure that the odour and noise reduction measures are implemented effectively. In response to frequent complaints about the odour problem raised by the local residents, the EPD has been regularly monitoring the odour emissions from the TWSH, by conducting inspections of the TWSH and by assessing the odour level at different times, especially during the slaughtering operation (Note 9). The monitoring results revealed that only very faint odour emissions, which lasted for short intervals, could be detected occasionally. Up to the completion of this audit in October 2000, no odour nuisance case had been established by the EPD.

3.8 The Noise Control Ordinance (Cap. 400), which stipulates the statutory noise limits, is applicable to the slaughtering operation. However, the EPD has found that the main source of noise in the vicinity of the TWSH is from the traffic along the adjacent Tsing Yi North Bridge and the pig squeal noise from the TWSH tends to be mixed with the background traffic noise. Up to the completion of this audit in October 2000, the EPD had not detected any case which exceeded the statutory noise limits.

3.9 Discharge of waste water arising from the slaughtering operation of the TWSH is subject to the licensing control under the Water Pollution Control Ordinance (Cap. 358). The current licence stipulates the major discharge limits of the TWSH in terms of flow, biochemical oxygen demand, chemical oxygen demand, suspended solids, and oil and grease levels. According to the EPD's monitoring results, the existing waste water treatment plant of the TWSH is capable of coping with the current daily slaughtering throughput of around 2,000 pigs.

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**Note 8:** *The environmental improvement measures included: diverting transportation routes of delivery lorries away from the residential area; cleaning all lairages at least eight times a day at regular intervals; keeping windows closed during slaughtering hours; covering up the major proportion of the open apertures facing the residents; and after the arrival of livestock, hosing down the livestock within 15 minutes and cleaning the reception area thoroughly.*

**Note 9:** *A licence or permit is not required for the operation of the TWSH under the Air Pollution Control Ordinance (Cap. 311). However, any emission of odour from the slaughterhouse must not cause any nuisance to the public. Otherwise, the EPD may issue to the operator of the TWSH an abatement notice requiring the abatement of the emission.*



## Complaints about environmental problems

3.10 Although no incidents of odour or noise nuisance in breach of the statutory requirements had been detected by the EPD, the local residents still repeatedly lodged complaints about the environmental problems caused by the TWSH. During the period June 1999 to October 2000, the EPD received about 100 complaints about odour, noise and waste water problems. As long as the levels of this environmental nuisance did not exceed the statutory limits, no enforcement action could be taken. Both the EPD and the District Officer/Tsuen Wan expected that the local residents would continue to express their environmental concerns unless the TWSH was relocated or its operation was completely enclosed.

## Continuing decline in demand for fresh meat

3.11 Against the background mentioned in paragraphs 3.1 to 3.10 above, Audit has examined the feasibility of centralising the slaughtering operation of livestock at the SSSH (Note 10), taking into account the demand for fresh meat in the territory and the capability of the SSSH to meet such demand. **Audit has found that changes in the eating habits of the population have led to a continuing decline in the demand for fresh meat in the territory, as follows:**

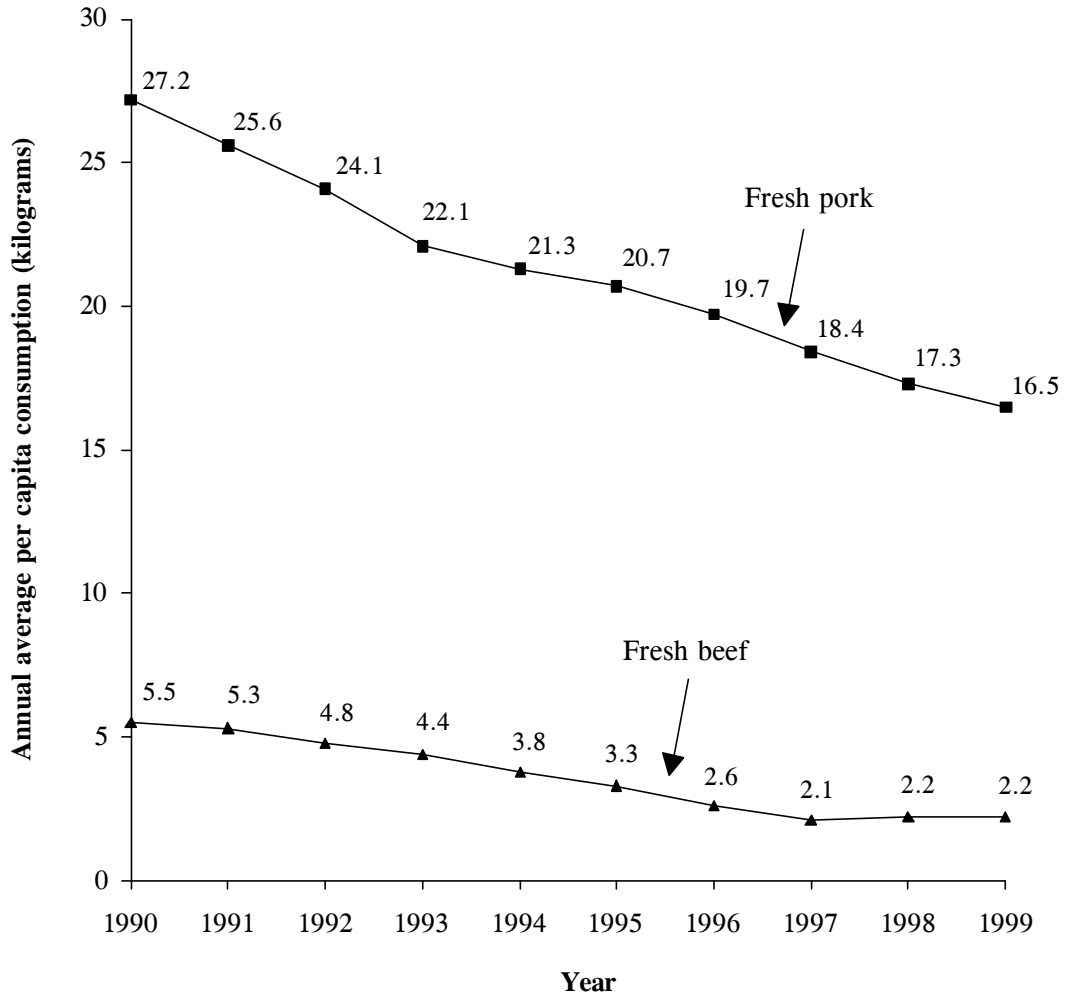
- (a) ***Decline in consumption of fresh meat.*** During the period 1990 to 1999, the annual average per capita consumption of fresh pork decreased by 39% from 27.2 kilograms to 16.5 kilograms and that of fresh beef decreased by 60% from 5.5 kilograms to 2.2 kilograms (see Figure 2 below); and
- (b) ***Increase in consumption of frozen and chilled meat.*** As compared with 1990, there was an increase in the average per capita consumption of frozen and chilled meat, particularly frozen and chilled poultry (see Figure 3 below).

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**Note 10:** *Centralising the slaughtering operation of livestock at the SSSH will result in all the slaughtering operation in the territory, except that of the CCSH, to be carried out at the SSSH.*

**Figure 2**

**Annual average per capita consumption  
of fresh meat during the period 1990 to 1999**



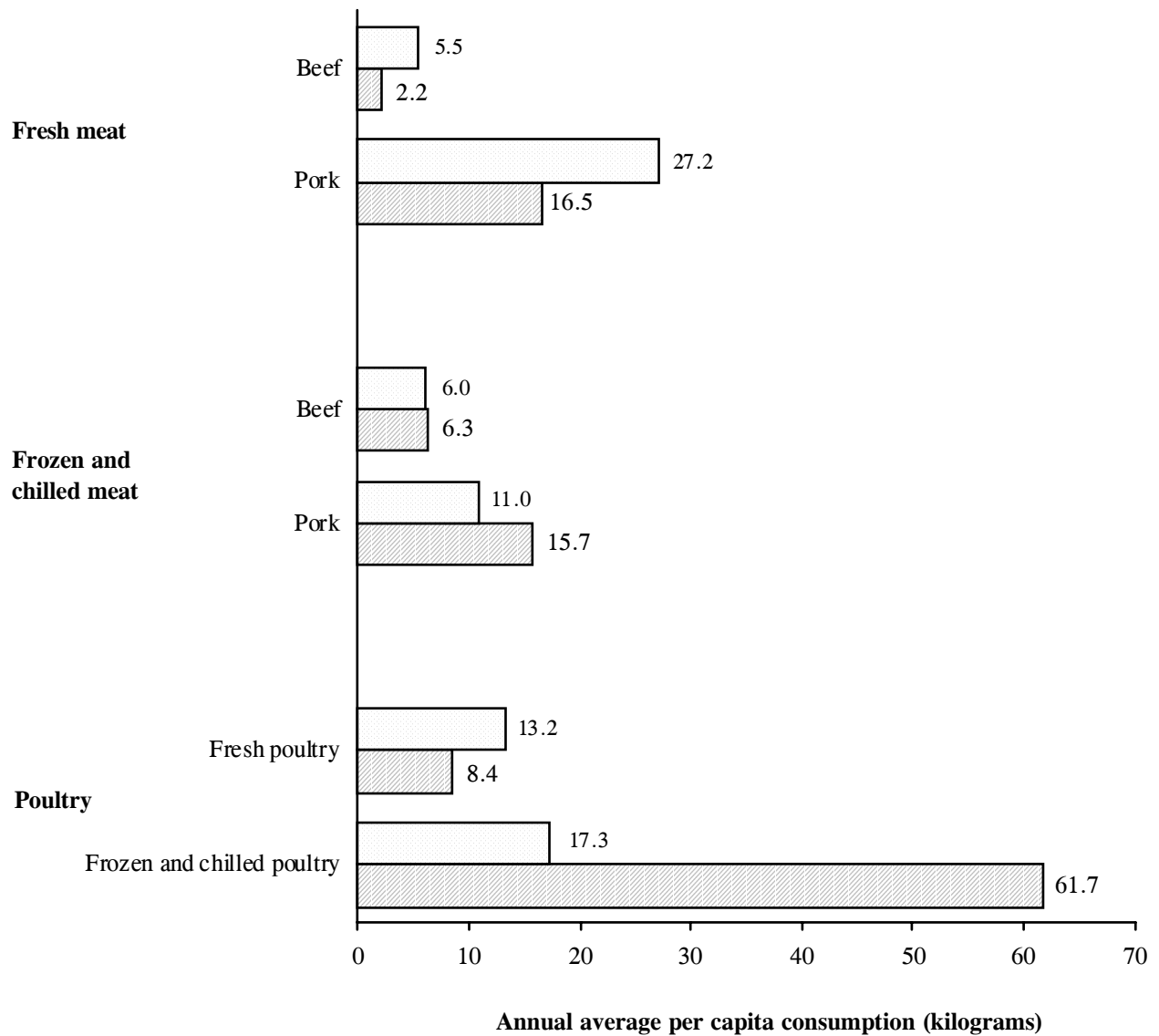
*Source:* Audit's analysis of the records of the Census and Statistics Department and the FEHD



*Note:* The annual average per capita consumption of fresh mutton is not shown due to its low level of consumption.

*Summary:* Over the ten-year period, the annual average per capita consumption of fresh pork decreased by 39% and that of fresh beef decreased by 60%.

**Figure 3**

**Annual average per capita consumption  
of various types of meat in 1990 and in 1999**



Legend:  Consumption in 1990  
 Consumption in 1999

*Source:* Audit's analysis of the records of the Agriculture, Fisheries and Conservation Department, the Census and Statistics Department and the FEHD

*Summary:* The annual average per capita consumption of fresh meat has decreased. There has been an increase in the annual average per capita consumption of frozen and chilled meat, particularly frozen and chilled poultry.

### **Audit observations on the continuing decline in demand for fresh meat**

3.12 Over the years, the continuing decline in demand for fresh meat in the territory has resulted directly in the declining slaughtering throughput of livestock in the territory (Note 11).

**Audit has found that:**

- (a) **during the period 1985 to 2000, the average daily slaughtering throughput of pigs decreased by 36% from 9,821 to 6,323.** While the declining trend in the slaughtering throughput of pigs continued until 1999, the average daily slaughtering throughput of pigs increased slightly by 2% from 6,213 in 1999 to 6,323 in 2000. This was the first time since 1986 that a year-on-year increase in the average daily slaughtering throughput of pigs was recorded (see Figure 4 below);
- (b) **during the period 1985 to 2000, the average daily slaughtering throughput of cattle decreased by 69% from 511 to 159. Since 1997, the average daily slaughtering throughput of cattle has remained at about 170 (see Figure 4 below); and**
- (c) in August 1991, the USD forecasted that the daily slaughtering throughput of pigs in the territory would decrease continuously from 7,998 in 1992 to 5,704 in 2002. For the period 1992 to 1999, the USD's 1991 forecast of the slaughtering throughput of pigs had been quite accurate, as indicated by the fact that the variances between the forecasted and actual average daily slaughtering throughput of pigs had been within 2%. The variance between the forecasted and actual average daily slaughtering throughput of pigs was 4% in 2000 (see Figure 5 below).

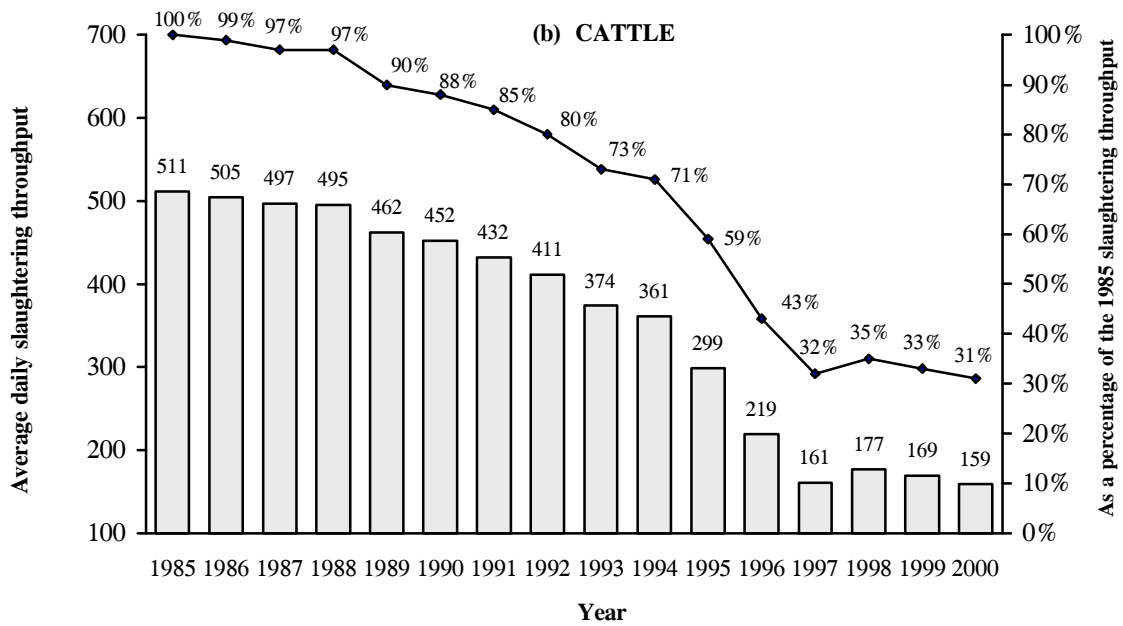
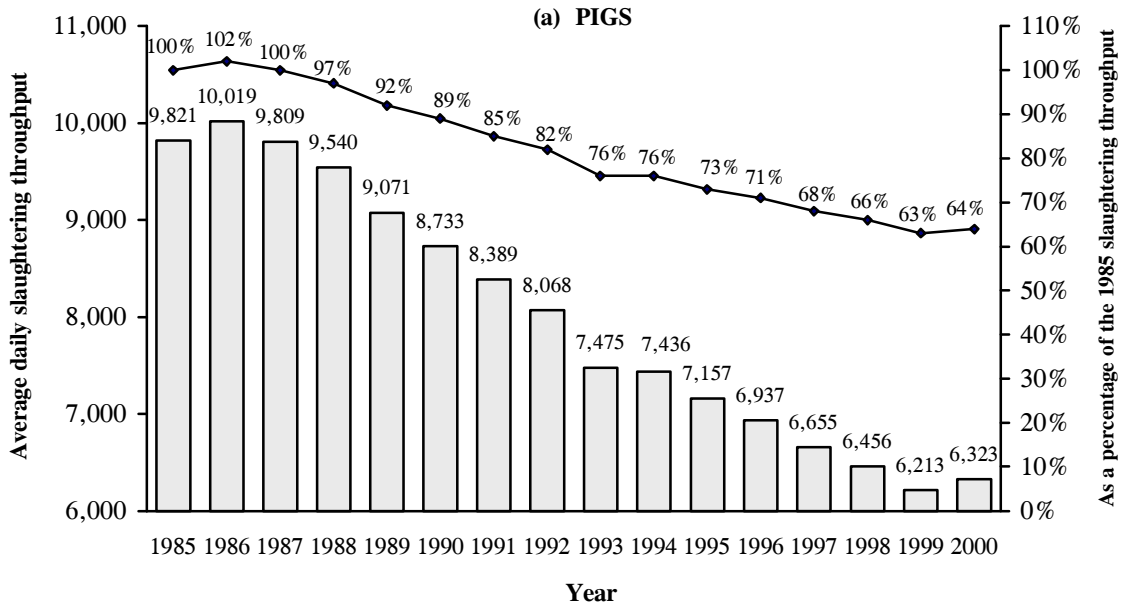
**Audit considers that there is a need for the FEHD to carry out another forecasting exercise on the slaughtering throughput of livestock in the territory for the coming years, having regard to changes in the eating habits of the population. In particular, there is a need for the FEHD to closely monitor the demand for fresh, frozen and chilled meat in the territory. If there is an increase in the demand for chilled meat, the mode of the existing slaughtering operation may have to be changed in order to cope with the additional demand. The change in the mode of slaughtering operation would enable the slaughtering of livestock to be spread evenly throughout the day, instead of the bulk slaughtering presently being carried out at night. As a result, the existing slaughtering operating hours and the daily slaughtering capability can be increased considerably. In Audit's view, the results of this forecasting exercise will facilitate the long-term planning of slaughtering facilities in the territory.**

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**Note 11:** *The decline in slaughtering throughput of livestock is also partly due to an increase in meat yield because the improvements in breeding methods have resulted in increase in the average weights of livestock.*

**Figure 4**

**Average daily slaughtering throughput during the period 1985 to 2000**



Source: FEHD's records

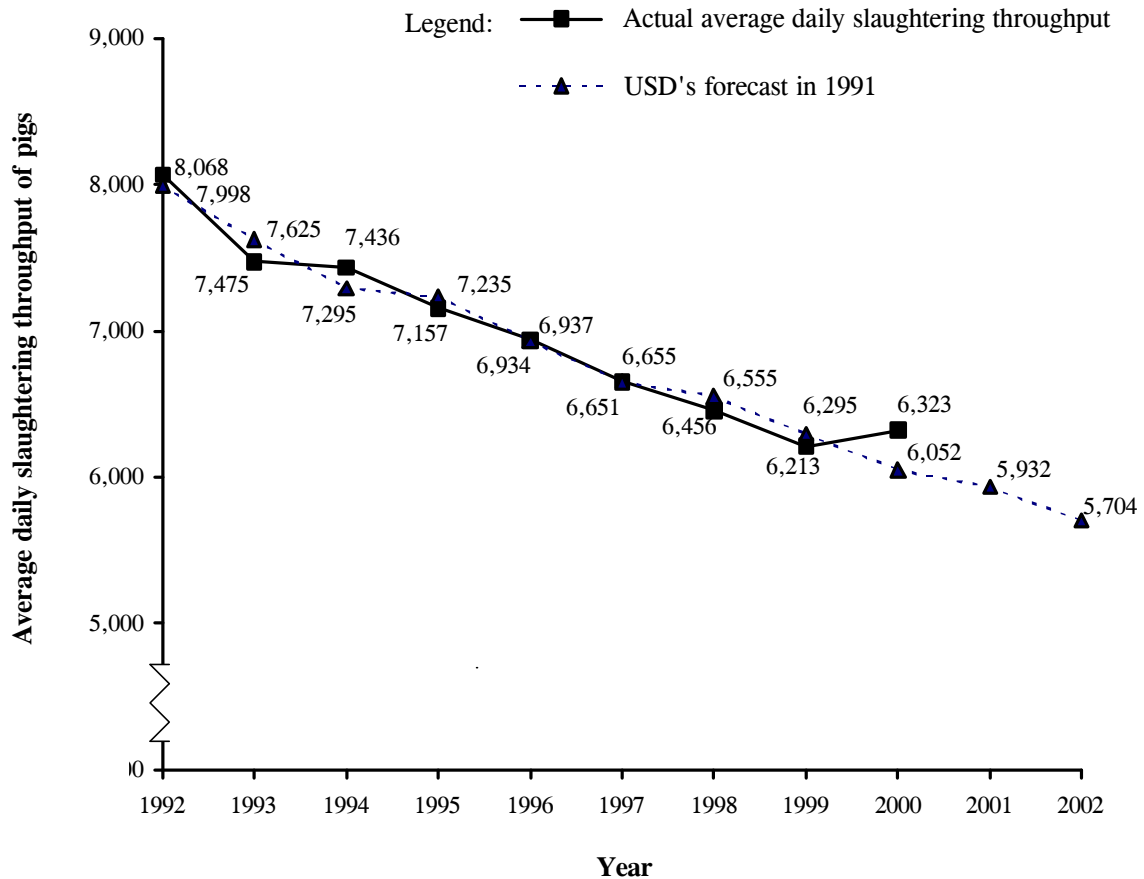
Note 1: For comparison, 1985 is taken as the base year.

Note 2: The slaughtering throughput of goats is not shown due to the low level of consumption of mutton. In 2000, the average daily slaughtering throughput of goats was eleven.

Summary: During the period 1985 to 2000, the slaughtering throughput of pigs decreased by 36% and that of cattle decreased by 69%.

Figure 5

Actual average daily slaughtering throughput of pigs  
for the period 1992 to 2000 and the USD's forecasted average  
daily slaughtering throughput of pigs for the period 1992 to 2002



Source: FEHD's records

Summary: The USD forecasted that the slaughtering throughput of pigs would continue to decline. The variance between the forecasted and actual average daily slaughtering throughput of pigs was 4% in 2000.

**Audit recommendation on the continuing decline in demand for fresh meat**

3.13 Audit has recommended that the Director of Food and Environmental Hygiene should carry out a new forecasting exercise on the slaughtering throughput of livestock in the territory for the coming years, having regard to changes in the eating habits of the population.

## Response from the Administration

3.14 The **Director of Food and Environmental Hygiene** has said that:

- (a) the declining trend of the actual daily slaughtering throughput of pigs reversed in 2000 after a period of 14 years. The FEHD will closely monitor the daily slaughtering throughput of livestock in the territory; and
- (b) the FEHD will consider the audit recommendation to carry out a new forecasting exercise on the slaughtering throughput of livestock in the territory for the coming years, which will in turn reflect the demand for fresh meat.

## Feasibility of increasing the slaughtering throughput at the SSSH

3.15 As the TWSH slaughters pigs only, Audit examined the SSSH's capability to ascertain if the TWSH's slaughtering throughput of pigs could be absorbed by the SSSH. Given the fact that in 2000, the average daily slaughtering throughput of pigs in the territory was 6,287 (excluding the CCSH's throughput of 36), there would have been a daily shortfall in slaughtering capacity of 1,287 pigs if the SSSH had taken over all the slaughtering operation of the TWSH, as indicated in Table 3 below.

**Table 3**

**Shortfall in SSSH's daily slaughtering capacity of pigs  
if the slaughtering operation in the territory had been centralised at SSSH**

	<b>Number of pigs</b>
(a) SSSH's design daily slaughtering capacity	5,000
(b) Average daily slaughtering throughput in 2000 in the territory (4,427 pigs at the SSSH and 1,860 pigs at the TWSH)	6,287
(c) Shortfall in SSSH's daily slaughtering capacity if the slaughtering operation in the territory had been centralised at the SSSH (a) – (b)	<b>1,287</b>

*Source:* FEHD's records

*Summary:* In 2000, the SSSH was not capable of absorbing the TWSH's slaughtering throughput of pigs.

3.16 **Audit has found that, in terms of the SSSH's slaughtering capability and its waste water treatment capability, the SSSH's daily slaughtering throughput of pigs can be increased to more than 6,000, provided that the daily slaughtering throughput of cattle remains at about 170 (see paragraph 3.12(b) above), as follows:**

- (a) ***Slaughtering capability.*** At the SSSH, there are four mechanised slaughter lines for pigs, each line is capable of slaughtering 350 pigs an hour. In 2000, the operation of the four slaughter lines was as follows:
- (i) one slaughter line was reserved for standby purpose;
  - (ii) two slaughter lines were operated at night (normally from 1 a.m. to about 6 a.m.) and in day time (during which one slaughter line was operated normally from about 6:30 a.m. to about 9 a.m. and another slaughter line from about 6:30 a.m. to about 11 a.m.); and
  - (iii) to meet the demand for fresh pork at major festivals, three slaughter lines were operated at night.

**According to the normal operating hours of the SSSH's slaughter lines for pigs in 2000 (see inset (ii) above), the daily slaughtering capacity of the slaughter lines would be 5,950 pigs (Note 12). Therefore, if the number of slaughter lines for pigs at night was increased from two to three, it would be feasible to increase the SSSH's slaughtering throughput of pigs from the daily average of 4,427 in 2000 (see paragraph 1.5 above) to more than 6,000. This could meet the demand for fresh pork in the whole territory; and**

- (b) ***Waste water treatment capability.*** The waste water treatment plant of the SSSH (with a daily capacity of waste water flow of 5,000 cubic metres) is designed to cope with the daily slaughtering capacity of 5,000 pigs, 400 cattle and 300 goats. According to the Drainage Services Department's report of March 2000 on the commissioning of the SSSH's waste water treatment plant, the SSSH's average daily slaughtering throughput for the period 1 March 2000 to 21 March 2000 was 4,381 pigs, 172 cattle and 11 goats (which is approximately equal to the SSSH's actual average daily slaughtering throughput in 2000 of 4,427 pigs, 159 cattle and 11 goats), generating an average waste water flow of 2,955 cubic metres per day. **Based on the slaughtering throughput, there would be a spare waste water capacity of 2,045 (5,000 - 2,955) cubic metres per day at the SSSH, as its design capacity is 5,000 cubic metres per day. This spare waste water capacity would be able to cope with additional slaughtering of at**

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**Note 12:** *The SSSH's daily slaughtering capacity of the slaughter lines for pigs would be:*

*[2 lines × 350 pigs per line per hour × 5 hours (from 1 a.m. to 6 a.m.)] + [1 line × 350 pigs per line per hour × 2.5 hours (from 6:30 a.m. to 9 a.m.)] + [1 line × 350 pigs per line per hour × 4.5 hours (from 6:30 a.m. to 11 a.m.)] = 5,950 pigs*



least 3,000 pigs (Note 13), which is more than the TWSH's actual average daily slaughtering throughput in 2000 of 1,860 pigs. Therefore, in terms of waste water treatment capability, the SSSH could absorb the TWSH's slaughtering throughput of pigs in 2000 and meet the demand for fresh pork in the whole territory.

3.17 Based on the audit findings mentioned in paragraph 3.16 above, Audit considers that the SSSH is capable of meeting the current demand for fresh pork and fresh beef in the territory within the normal slaughtering operating hours. This is substantiated by the facts that:

- (a) on a normal day, if two slaughter lines for pigs are operated during the normal slaughtering operating hours and one additional slaughter line for pigs is operated at night for only one hour, the daily slaughtering throughput would be 6,300 pigs (Note 14). This would be sufficient to handle the average daily slaughtering throughput of 6,287 pigs in 2000 (for the TWSH and the SSSH); and
- (b) at a few major Chinese festivals in a year, if all four slaughter lines for pigs are operated for five hours at night and three slaughter lines for pigs are operated for three and a half hours during day time, the daily slaughtering throughput would be 10,675 pigs (Note 15). This would be sufficient to handle the highest daily slaughtering throughput of 10,321 pigs in 2000 (for the TWSH and the SSSH).

3.18 In response to Audit's suggestion that the FEHD should examine the feasibility of increasing the slaughtering throughput of pigs at the SSSH, the FEHD has informed Audit that:

- (a) as rightly pointed out by Audit, the SSSH is presently not capable of absorbing the TWSH's slaughtering throughput of pigs (see Table 3 in paragraph 3.15 above). With the average daily slaughtering throughput of 6,287 pigs in 2000 for both the TWSH and the SSSH, there would have been a daily shortfall in slaughtering capacity of 1,287 (i.e. 6,287 – 5,000) pigs, had the TWSH been closed down. Moreover, at one festival in 2000, the number of pigs slaughtered in the territory increased to over 10,000, of which 7,100 were slaughtered at the SSSH. The SSSH alone would not be able to cope with the entire slaughter load by itself;

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**Note 13:** *The spare waste water capacity of 2,045 cubic metres per day could cope with:*

$$\frac{4,381 \text{ pigs}}{2,955 \text{ cubic metres}} \times 2,045 \text{ cubic metres} = 3,032 \text{ pigs (say 3,000 pigs)}$$

**Note 14:** *For three slaughter lines for pigs operated under such a mode, the daily slaughtering throughput of pigs would increase from 5,950 (see Note 12 to paragraph 3.16 above) to 6,300 [5,950 pigs + (1 line × 350 pigs per line per hour × 1 hour)].*

**Note 15:** *For four slaughter lines for pigs operated under such a mode, the daily slaughtering throughput of pigs would be 10,675 [(4 lines × 350 pigs per line per hour × 5 hours) + (3 lines × 350 pigs per line per hour × 3.5 hours)].*

- (b) regarding Audit's findings on the SSSH's slaughtering capability mentioned in paragraph 3.16(a) above, it is pertinent to note that:
- (i) as the SSSH only slaughtered 7,100 pigs at one festival in 2000, it is not feasible to maintain the slaughtering operation in excess of the SSSH's design capacity on a day-to-day basis; and
  - (ii) if the SSSH operates three slaughter lines for pigs all year round, the normal trading hours of the meat retail outlets have to be rescheduled, which will directly affect the consumers' shopping pattern;
- (c) the technical and operational constraints spelt out in paragraph 3.5(a) and (b) above have rendered the expansion of the SSSH's design capacity to cater for increased slaughtering throughput not feasible. Apart from the unforeseeable contingency situations mentioned in paragraph 3.5(d) above, there are other incidents which may disrupt fresh meat supply. For example, a breakdown of the waste water treatment plant may necessitate the total shutdown of the SSSH. It may take a long time for the SSSH to resume operation. Furthermore, the environmental impact (including noise and smell) brought about by increasing the slaughtering facilities at the SSSH needs to be assessed in full; and
- (d) in addition to the technical constraints of the SSSH's existing supporting facilities (see paragraph 3.20 below), the FEHD has also identified the following specific areas for consideration:
- (i) the reaction of the nearby residents in the North district;
  - (ii) the impact on meat retailers as a result of unavailability of meat for sale at the peak market hours;
  - (iii) the impact on meat hygiene standards if meat is delivered earlier to the retailers, as a result of earlier slaughter in order to cope with the peak market hours;
  - (iv) the impact on, and the reaction of, the TWSH operator and related meat traders/workers (i.e. meat transporters, butchers, pig buyers, pig drovers, other staff in the TWSH and meat retailers); and
  - (v) the inherent costs involved such as modification works to the SSSH.

**3.19 Notwithstanding its comments mentioned in paragraph 3.18 above, the FEHD has said that it will continue to closely monitor the slaughtering throughput of livestock in the territory, which should reflect the consumption of fresh meat, and review the adequacy of the SSSH's existing slaughtering facilities.**

3.20 In response to Audit's suggestion that the FEHD should examine the feasibility of increasing the slaughtering throughput of pigs at the SSSH, the ArchSD has informed Audit that, there may be the following physical and technical constraints of the SSSH's existing slaughtering and supporting facilities:

- (a) **Waste water treatment plant.** The overall capability of the waste water treatment plant and its impact on the whole slaughtering operation have not been fully assessed. Pig slaughtering would use more hot water than cattle slaughtering in the vertical scalding tank and dehairing machine. The additional hot water required increases the temperature of the bioreactor. This would in turn affect the efficiency of the waste water treatment plant. In the worst-case scenario, the treated waste water may not be able to meet the environmental standard. The Drainage Services Department has also raised concern about the high temperature of waste water discharged from the waste water treatment plant, which would affect the normal operation of the Shek Wu Hui Sewage Treatment Works (Note 16);
- (b) **Waiting lairage.** As the existing maximum holding capacity of waiting lairage for pigs on the third floor of the SSSH is 5,000, there is no space for expansion. If the existing cattle pens on the third floor of the SSSH are modified to hold more pigs, the impact on ventilation, noise and odour should be examined as pigs generate more heat, noise and odour than cattle. If the ground floor of the SSSH is used to hold additional pigs, their long travelling distance prior to slaughtering would cause animal welfare and meat quality problems;
- (c) **Meat despatch system.** The maximum handling capacity of the existing nine mechanical unloading arms for meat despatch is 1,000 carcasses per hour. There is no spare capacity. Due to limited space, the possibility of adding expensive mechanical unloading arms should be reviewed;
- (d) **Slaughtering and offal handling equipment.** The SSSH's design slaughtering throughput is 350 pigs per slaughter line per hour. Increasing the slaughtering throughput requires early start or late finish of the slaughtering operation. The impact on meat quality and meat delivery should be examined. The offal handling capacity can be increased by extending the working hours. A review should be carried out on the handling capacity;
- (e) **Boilers.** The boiler capacity could supply heating to three pig slaughter lines in operation. However, the heat input requirement should be reviewed, in particular when one boiler is shut down for routine maintenance; and

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**Note 16:** *The Drainage Services Department has said that: (a) increasing the daily slaughtering throughput to more than 6,000 pigs on normal days would probably increase the waste water temperature, especially during summer, due to the use of hot water in the upstream slaughtering process and (b) the waste water treatment plant's capability of handling the increased flow at a higher temperature during summer has yet to be verified as the biological waste water treatment process is highly temperature-dependent.*

- (f) **Emergency power supply.** The emergency power supply of the SSSH is only designed for operating two pig slaughter lines for four hours. Increasing the slaughtering throughput requires a review of the existing contingency plan for power failure.

3.21 In the light of the physical and technical constraints of the SSSH's existing slaughtering and supporting facilities, the ArchSD has said that a detailed study on the feasibility of increasing the slaughtering throughput at the SSSH with due consideration of the inter-related impacts of the constraints should be conducted.

#### **Audit observations on the feasibility of increasing the slaughtering throughput at the SSSH**

3.22 In the light of the FEHD's and the ArchSD's comments mentioned in paragraphs 3.18, 3.20 and 3.21 above, Audit recognises that some modification works to the SSSH would be required for the SSSH to absorb the additional slaughtering throughput displaced by the TWSH. Audit has noted that the FEHD will continue to closely monitor the slaughtering throughput of livestock in the territory (see paragraph 3.19 above). **In order to facilitate the FEHD to ascertain the feasibility of centralising the slaughtering operation of livestock at the SSSH, Audit considers that there is a need for the FEHD to carry out a detailed study with a view to:**

- (a) **determining the SSSH's consequent practical slaughtering capability if modifications are made to the SSSH's existing facilities to increase the slaughtering throughput of pigs at the SSSH. In Audit's view, the slaughtering throughput of pigs resulting from the change in the demand for fresh pork in the territory should be monitored with reference to the SSSH's practical slaughtering capability; and**
- (b) **estimating the time required to complete the associated modification works. In Audit's view, without such information, it is difficult for the Administration to plan ahead the modification works.**

#### **Audit recommendations on the feasibility of increasing the slaughtering throughput at the SSSH**

3.23 **Audit has recommended that the Director of Food and Environmental Hygiene should:**

- (a) **carry out a detailed study to ascertain the feasibility of centralising the slaughtering operation of livestock at the SSSH. In the study, the Director should:**
  - (i) **determine the SSSH's consequent practical slaughtering capability if modifications are made to the SSSH's existing facilities to increase the slaughtering throughput of pigs at the SSSH; and**
  - (ii) **estimate the time required to complete the associated modification works; and**

- (b) **closely monitor the change in the demand for fresh pork in the territory for the coming years. If the daily slaughtering throughput of pigs in the territory does not show an increasing trend and there are indications that the SSSH's practical slaughtering capability will be capable of absorbing the additional slaughtering throughput of pigs displaced by the TWSH, the Director should promptly conduct a cost and benefit analysis on centralising the slaughtering operation of pigs at the SSSH. If the result of the analysis indicates that it is justified to do so, the Director should take immediate action to carry out the necessary modification works to the SSSH's existing facilities so that the SSSH's enhanced facilities will be completed on time to take over the entire slaughtering operation in the territory.**

### **Response from the Administration**

3.24 The Director of Food and Environmental Hygiene has said that:

- (a) the figure of 5,950 pigs, being the daily slaughtering capacity of two slaughter lines for pigs at the SSSH, is derived by Audit from a mathematical calculation, without taking into consideration the actual market demand for fresh pork at different times of the day and the following operational factors:
- (i) the majority of market demand for fresh pork is met by night slaughter so that most pig carcasses can reach the market around 6 a.m. (Note 17);
- (ii) the first 20 minutes immediately after a slaughter line is operated in each shift is virtually non-productive, as no pigs are actually sent to the meat despatch bank during this period. The vast majority of night slaughter lines finish at 5:30 a.m. instead of 6 a.m. Therefore, the daily slaughtering capacity of the two slaughter lines operated at night is 2,917 pigs (2 lines × 350 pigs per line per hour × 4 <sup>1</sup>/<sub>6</sub> hours from 1:20 a.m. to 5:30 a.m.) instead of 3,500 pigs (Note 18);

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**Note 17:** *Audit does not agree with the FEHD's comments because, as explained below, the bulk of the slaughtering of 5,950 pigs would be finished before 5 a.m. and hence most pig carcasses would reach the market before 6 a.m. The market demand in the night slaughter of the SSSH and the TWSH in 2000 was 4,121 [6,287 – 2,166 (see paragraph 3.24(a)(iii) below)] pigs. If two night slaughter lines are operated from 1 a.m. to 6 a.m. and the third night slaughter line is **only** operated from 1 a.m. to 3 a.m. (see Note 19 to paragraph 3.24 below), the slaughtering throughput during the period 1 a.m. to 5 a.m. would be 3,500 pigs. This represents 85% of the slaughtering throughput of the night slaughter of the SSSH and the TWSH.*

**Note 18:** *Audit considers that the FEHD's comments are not valid for the following reasons. First, upon analysing the FEHD's daily slaughtering statistics of the SSSH for the months of April, July, November and December in 2000, Audit found that the majority (68%) of the night slaughter lines finished after 5:30 a.m. Second, about 10% of the slaughter lines finished at and after 6 a.m. Third, it is misleading to state that a slaughter line is virtually non-productive within the first 20 minutes after a slaughter line is operated. It merely indicates that the slaughtering process of a pig takes 20 minutes to finish.*

- (iii) the daily slaughtering capacity of 2,450 pigs at the SSSH in the day slaughter shift calculated by Audit is in excess of the market demand of 2,166 pigs (on average, 1,476 slaughtered at the SSSH and 690 slaughtered at the TWSH in the day slaughter shift) in 2000 (Note 19); and
  - (iv) there is a one-hour break between the night slaughter shift and the day slaughter shift instead of a half-hour break mentioned in Note 12 to paragraph 3.16(a) above. The break is to allow thorough cleansing of the venue and equipment and to prevent accumulation of blood and waste for a long time;
- (b) given the high demand for pork during major Chinese festive periods, operating all four slaughter lines for pigs at the SSSH without the provision of a standby facility is risky (Note 20). Any breakdown of the slaughtering lines would cause disruption to the supply of fresh pork. According to the Chinese culture and consumption pattern, any disruption of supply of fresh pork would affect the supply of roasted pork and fresh pork to meet market demand during the festive periods. This would inevitably lead to strong complaints and grievances from the meat traders and members of the public. Inadequate supply of fresh pork to meet market demand during the festive periods would also bring about an increase in smuggling of pork and illegal slaughtering activities. As a result, public health and food safety would be jeopardised;
- (c) the design capacity of the meat despatch bank at the SSSH is not capable of absorbing the TWSH's slaughtering throughput of pigs, as explained below:
- (i) of 51 docks at the SSSH, 38 are involved in the despatch of pig carcasses. If the TWSH's slaughtering throughput of pigs is to be absorbed by the SSSH, during the peak hours, the existing 38 docks of the meat despatch bank at the SSSH is incapable of meeting the need of the additional 43 meat despatch vehicles presently serving the TWSH (Note 21). This would bring about delay in the delivery of fresh meat to the retail outlets. Consequently, the demand for fresh meat during the market peak hours in the morning cannot be met in full, which would lead to grievances and protests from the meat traders and consumers; and

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**Note 19:** *In Audit's view, this problem can be easily solved. To address the marginal excess of 284 (2,450 – 2,166) pigs, the operating hours of one day slaughter line of the SSSH can be shortened by one hour and those of its third night slaughter line can be extended by one hour.*

**Note 20:** *In Audit's view, at major Chinese festivals, there is low risk in operating all four slaughter lines for pigs without a standby facility. This is because there are only a few days in a year, which require such mode of operation. Furthermore, Audit notes that presently, there is no standby slaughter line for cattle at the SSSH.*

**Note 21:** *In Audit's view, the problem can be easily solved by converting the spare docks for cattle and goat to handle pig carcasses because the slaughtering throughput of cattle and goats at the SSSH is below the design capacity (see paragraph 1.5 above).*

- (ii) the design slaughtering throughput of three slaughter lines is 1,050 pigs per hour. However, according to the actual mode of operation of the meat delivery trade, under which the meat traders need to wait for their own pigs to arrive intermittently at the meat despatch bank, the average output capacity of the meat despatch bank is below 1,050 pigs per hour. Therefore, operating three slaughter lines for pigs simultaneously for the whole night is a non-starter with the present slaughtering facilities (Note 22);
- (d) the FEHD considers that it is not an opportune time now to carry out a detailed study for the following reasons:
- (i) as the SSSH (after undergoing a seven-month commissioning period running from 22 August 1999 to 21 March 2000) only started full-scale operation from 22 March 2000, it has less than one year's actual operational experience. Close monitoring by various government departments is still required. Improvement measures are still being carried out to ensure that all key operational aspects meet the project design. These include noise control, ventilation and waste treatment. The FEHD's present top priority is to ensure the smooth operation of the SSSH; and
  - (ii) as the authority responsible for overseeing uninterrupted and safe fresh meat supply to the community and as the licensing authority, the FEHD has to ensure that the SSSH is operated in full compliance with the project design and licence conditions. From a value-for-money point of view, the SSSH has to operate at its designed optimal level. There is also a need to keep the TWSH as a fallback slaughtering facility, especially in the early years of the SSSH's operation; and
- (e) the FEHD will, however, keep in view the slaughtering figures and closely monitor the demand for slaughtering facilities. The FEHD considers that there is a need to allow sufficient time for the slaughtering and supporting facilities at the SSSH to run in and to be fully tested. The FEHD will consider undertaking a feasibility study on modifying the SSSH at that stage. In the meantime, the FEHD will observe whether there is a discernible trend in the actual slaughtering throughput.

3.25 The **Secretary for the Environment and Food** has said that she supports the views put forward by the Director of Food and Environmental Hygiene. She considers that presently, it is still necessary to maintain two slaughterhouses in the territory, having regard to the facts that:

- (a) the SSSH does not have spare capacity to cope with the entire slaughtering throughput of livestock in the territory; and

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**Note 22:** *In Audit's view, this is merely an operational problem. To ensure that full value of money is obtained, the FEHD should take prompt action to increase the output capacity of the meat despatch bank so as to achieve the design slaughtering throughput of the slaughter lines.*

- (b) the TWSH provides an indispensable fallback facility to ensure uninterrupted supply of fresh meat to the community in case of breakdown of the SSSH.

3.26 The **Director of Architectural Services** agrees with Audit's recommendation that a feasibility study should be carried out to explore possible extensions to the SSSH so as to maximise/optimize its slaughtering capacity. However, the appropriate timing for carrying out the feasibility study should be determined by the FEHD which, as the client department, would take a broader view in reviewing the market demand for fresh meat and the whole operation of the SSSH. He has also said that:

- (a) the spare waste water treatment capacity is derived by Audit on the basis of the average waste water flow for a short period 1 March 2000 to 21 March 2000. During this period, the SSSH had not yet been fully commissioned as its operation was not in a fully stable mode. According to the available information obtained from the FEHD and the Drainage Services Department for the period 1 November 2000 to 31 January 2001, the average waste water flow was 3,900 cubic metres per day for an average slaughtering throughput of 4,560 pigs and 152 cattle on a normal day. However, the highest waste water flow of 4,466 cubic metres was noted on 15 November 2000. During the Lunar New Year festival, the average waste water flow was about 4,700 cubic metres for a slaughtering throughput of about 6,900 pigs and 160 cattle. It is pertinent to note that the sources of waste water flow include contributions from the slaughtering process, cleaning, lairage operation, lorry washing and domestic use (Note 23). Therefore, the number of livestock slaughtered may not totally correlate with the volume of waste water generated;
- (b) the fourth slaughter line for pigs is provided for standby purpose, in order to ensure reliable operation of the processing equipment with minimum disruption (in the event of equipment or other breakdown), and in order to allow maintenance of essential equipment. Therefore, it cannot be treated as a normal operation line in calculating the slaughtering output (see Note 20 to paragraph 3.24 above); and
- (c) the statistical records of the SSSH's operation in different seasons are essential for properly and accurately carrying out the detailed study. These include measurements on noise, air quality and temperature both inside and outside the SSSH, water consumption rate, slaughtering throughput and waste water flow.

3.27 The **Director of Environmental Protection** has said that:

- (a) centralising the slaughtering operation at the SSSH would result in a significant increase in slaughtering throughput there. The EPD considers that:

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**Note 23:** *In Audit's view, the waste water flow at the SSSH can be reduced through some water-saving measures (which had been adopted during the commissioning period), particularly for activities other than the slaughtering process (such as washing and domestic use). Furthermore, consideration should be given to diverting waste water generated from activities other than the slaughtering process to the Shek Wu Hui Sewage Treatment Works directly.*



- (i) this change/modification will likely cause adverse environmental impacts on the local residents, particularly noise (as the existing level is already close to the statutory limit); and
- (ii) there will likely be an increase in noise impact, arising from the traffic of more meat delivery vehicles, on the villages adjacent to the access route.

Thus, the change/modification would likely be subject to the control of the Environmental Impact Assessment Ordinance (Cap. 499); and

- (b) under the Environmental Impact Assessment Ordinance, an environmental permit would likely be required for the modification works to the SSSH before the commencement of the modification works.

### **Future provision of chilling facilities at the SSSH**

3.28 Following the outbreak of the “Avian Flu Crisis” in late 1997, the Government has imposed stringent requirements on the slaughtering and transportation of poultry. In April 1998, the Government anticipated that in future, pigs and cattle carcasses might need to be chilled after slaughtering (Note 24). To allow for the future provision of chilling facilities at the SSSH, Audit noted that additional piling works, at a cost of about \$30 million, had been carried out at the construction stage to cater for the future extension of the SSSH.

### **Audit observations on future provision of chilling facilities at the SSSH**

3.29 **Audit has found that, if pigs and cattle carcasses are required to be chilled after slaughtering, the SSSH is presently the only slaughterhouse capable of handling this mode of processing fresh pork and fresh beef. The main reasons are that:**

- (a) **additional piling works have already been carried out for the SSSH to allow for the future provision of chilling facilities; and**
- (b) **the TWSH may not have enough space to accommodate the required chilling facilities.**

**Audit considers that the FEHD needs to closely monitor the eating habits of the population, with particular reference to the demand for fresh and chilled meat in the territory.**

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**Note 24:** *In Singapore, since 1999, with the aims of improving food hygiene standards, preserving freshness and nutritional value and prolonging shelf life, fresh pork and poultry have been kept chilled in the entire process of meat handling from slaughtering to retailing. Starting from November 2000, fresh beef and mutton have been treated similarly.*

**Audit recommendation on future provision of chilling facilities at the SSSH**

3.30 Audit has *recommended* that the Director of Food and Environmental Hygiene should closely monitor the eating habits of the population, with particular reference to the demand for fresh and chilled meat in the territory, and consider the desirability of chilling fresh meat at the SSSH before it is delivered to the retailers.

**Response from the Administration**

3.31 The Director of Food and Environmental Hygiene has said that:

- (a) the FEHD will consider the audit recommendation to closely monitor the eating habits of the population, with particular reference to the demand for fresh and chilled meat in the territory; and
- (b) it is pertinent to note that eating habits change for various reasons. Changes in demand for fresh meat may not necessarily imply that there will be a corresponding demand for chilled meat. The desirability of chilling fresh meat at the SSSH before it is delivered to the retailers, depends on consumers' eating habits and the operational practice of the trade. These are matters which do not change quickly and which are beyond the Government's control. However, the FEHD will closely monitor the situation.

**Appendix A**  
 (paragraphs 2.38(a),  
 2.39(a) and 2.39(b) refer)

**Annual operating loss of the CSWA between 1992-93 and 1999-2000**

<b>Financial year</b>	<b>Annual operating loss</b>	
	<b>(\$ million)</b>	
1992-1993	86	
1993-1994	94	
1994-1995	112	
1995-1996	124	} \$591 million
1996-1997	131	
1997-1998	129	
1998-1999 (Note 1)	138	
1999-2000 (Note 2)	69	
	<hr/>	
<b>Total</b>	<b>883</b>	
	<hr/> <hr/>	

*Source:* FEHD's records and Audit's computation

*Note 1:* The USD estimated that the CSWA's operating loss for 1998-99 was \$138 million.

*Note 2:* As the USD had not prepared the CSWA's operating accounts for 1998-99 and 1999-2000, the CSWA's actual operating results of these two financial years were not available. Based on the estimated operating loss for 1998-99, Audit estimated that the CSWA's operating loss for the period April 1999 to September 1999 (i.e. before the closure of the CSWA in October 1999) was \$69 million.

*Summary:* Had the CSWA been privatised in 1992, the UC would have been able to reduce its operating loss incurred by \$883 million during the period 1992-93 to 1999-2000.

**Percentage changes in average daily slaughtering  
throughput of pigs after the privatisation of the KTA in 1990**

Year	Average daily slaughtering throughput of pigs					
	Total		CSWA		KTA, TWSH and YLSH	
	(Number)	(Percentage change since 1990)	(Number)	(Percentage change since 1990)	(Number)	(Percentage change since 1990)
1990	8,733	—	3,571	—	5,162	—
1991	8,361	(4%)	3,180	(11%)	5,181	0%
1992	8,036	(8%)	2,945	(18%)	5,091	(1%)
1993	7,434	(15%)	2,710	(24%)	4,724	(8%)
1994	7,388	(15%)	1,755	(51%)	5,633	9%
1995	7,109	(19%)	1,547	(57%)	5,562	8%
1996	6,890	(21%)	1,439	(60%)	5,451	6%
1997	6,608	(24%)	1,391	(61%)	5,217	1%
1998	6,416	(27%)	1,349	(62%)	5,067	(2%)
1999 (Note)	6,120	(30%)	1,348	(62%)	4,772	(8%)

*Source:* Audit's analysis of FEHD's records

*Note:* The figures for 1999 cover the period January to July 1999 because the SSSH commenced operation in August 1999.

*Summary:* During the period 1990 to 1999, the average daily slaughtering throughput of pigs (excluding the CCSH's throughput) in the territory decreased by 30%. As compared with 1990, the CSWA's average daily slaughtering throughput of pigs decreased by 11% in 1991 and by 57% in 1995.

**CSWA's market share of the slaughtering throughput  
of pigs after the privatisation of the KTA in 1990**

Year	Average daily slaughtering throughput of pigs				
	Total	CSWA		KTA, TWSH and YLSH	
	(Number)	(Number)	(Percentage)	(Number)	(Percentage)
1990	8,733	3,571	41%	5,162	59%
1991	8,361	3,180	38%	5,181	62%
1992	8,036	2,945	37%	5,091	63%
1993	7,434	2,710	36%	4,724	64%
1994	7,388	1,755	24%	5,633	76%
1995	7,109	1,547	22%	5,562	78%
1996	6,890	1,439	21%	5,451	79%
1997	6,608	1,391	21%	5,217	79%
1998	6,416	1,349	21%	5,067	79%
1999 (Note)	6,120	1,348	22%	4,772	78%

*Source:* Audit's analysis of FEHD's records

*Note:* The figures for 1999 cover the period January to July 1999 because the SSSH commenced operation in August 1999.

*Summary:* The CSWA's market share of the slaughtering business for pigs dropped from 41% in 1990 to 38% in 1991 and further to 22% in 1995.

**Spare capacity of licensed slaughterhouses  
available for absorbing the CSWA's slaughtering throughput — PIGS**

Year	CSWA	KTA, TWSH and YLSH		
		Average daily slaughtering throughput	Spare capacity available for absorbing the CSWA's slaughtering throughput (Note)	Remaining spare capacity after the CSWA's slaughtering throughput was absorbed
	(a)	(b)	(c) = 8,000 - (b)	(d) = (c) - (a)
1990	3,571	5,162	2,838	N.A.
1991	3,180	5,181	2,819	N.A.
1992	2,945	5,091	2,909	N.A.
1993	2,710	4,724	3,276	566
1994	1,755	5,633	2,367	612
1995	1,547	5,562	2,438	891
1996	1,439	5,451	2,549	1,110
1997	1,391	5,217	2,783	1,392
1998	1,349	5,067	2,933	1,584
1999	1,348	4,772	3,228	1,880

*Source:* FEHD's records

*Note:* During the period 1990 to 1999, the KTA, the TWSH and the YLSH had a total licensed capacity for daily slaughtering throughput of 8,000 pigs.

*Summary:* Based on the slaughtering throughput of pigs in the territory, the CSWA could have been closed down since 1993 because the CSWA's slaughtering throughput of pigs could be fully absorbed by the licensed slaughterhouses.

**Spare capacity of licensed slaughterhouses  
available for absorbing the CSWA's slaughtering throughput — CATTLE**

Year	CSWA		KTA and YLSH	
	Average daily slaughtering throughput (a)	Average daily slaughtering throughput (b)	Spare capacity available for absorbing the CSWA's slaughtering throughput (Note) (c) = 350 - (b)	Remaining spare capacity after the CSWA's slaughtering throughput was absorbed (d) = (c) - (a)
1990	181	271	79	N.A.
1991	172	260	90	N.A.
1992	166	245	105	N.A.
1993	151	223	127	N.A.
1994	148	213	137	N.A.
1995	124	175	175	51
1996	93	126	224	131
1997	74	87	263	189
1998	82	95	255	173
1999	78	91	259	181

*Source:* FEHD's records

*Note:* During the period 1990 to 1999, the KTA and the YLSH had a total licensed capacity for daily slaughtering throughput of 350 cattle.

*Summary:* Based on the slaughtering throughput of cattle in the territory, the CSWA could have been closed down since 1995 because the CSWA's slaughtering throughput of cattle could be fully absorbed by the licensed slaughterhouses.

**Acronyms and abbreviations**

ArchSD	Architectural Services Department
CCSH	Cheung Chau Slaughterhouse
CSWA	Cheung Sha Wan Abattoir
EPD	Environmental Protection Department
ExCo	Executive Council
FC	Finance Committee
FEHD	Food and Environmental Hygiene Department
HKSAR Government	Hong Kong Special Administrative Region Government
KTA	Kennedy Town Abattoir
LegCo	Legislative Council
PELB	Planning, Environment and Lands Branch
PWSC	Public Works Subcommittee
RSD	Regional Services Department
SSSH	Sheung Shui Slaughterhouse
TPSH	Tai Po Slaughterhouse
TWSH	Tsuen Wan Slaughterhouse
UC	Urban Council
USD	Urban Services Department
YLSH	Yuen Long Slaughterhouse