GOVERNMENT NOTIFICATION.—No. 532.

The following Statement shewing action taken to give effect to the Recommendations in Mr. Chadwick's Report on Sanitation was laid before the Legislative Council at a meeting held on the 3rd September, 1902, and is published.

By Command,

F. H. MAY, Colonial Secretary.

Colonial Secretary's Office, Hongkong, 4th September, 1902.

SANITATION.

STATEMENT SHOWING ACTION TAKEN TO GIVE EFFECT TO THE RECOMMENDATIONS IN Mr. O. Chadwick's Report of 10th April, 1902.

Water Supply.

Para. of Report.

25. Arrangement of water statistics by the "water-year," 1st May to 30th April.

26. Water Authority to report to Government soon after 1st October in each year as to stock in hand on 1st of October and maximum stock in the reservoirs during the wet season and at its conclusion; and the measures of restriction which should be taken during the coming dry season.

Another report should be furnished soon after 1st May shewing the quantity of water collected and the total supply given during the elapsed water-year with balance carried forward.

- **30.** Taitam District.—Additional gathering ground with appropriate storage required below existing reservoir.
- 31. Survey of Taitam-tuk Valley and its ramifications, from about high-water mark up to about 250 ft. O.D. to ascertain what storage accommodation can be obtained by the construction of one or more reservoirs.

Gauges required to measure flow of main Taitam stream.

- **32.** Immediate relief can be gained by pumping from the low-level into the Taitam Tunnel.
- **34.** Taitam Works to have precedence over those at Pokfulum.
- **35.** If low-level reservoir constructed at *Pok-fulam* its contents should be pumped into existing conduit.
- 37. Intermittent System of Supply. If resorted to, hours of supply should be limited to 3 hours in 24 in order to bring about a reduction of one-half of the consumption. If reservoirs not full in September restriction advised till sufficient stock accumulated to carry on unrestricted supply till end of water-year.

Will be adopted.

Will be done.

Will be done.

Recommendation adopted.

Work in progress up to 200 ft, O.D.

Work in progress.

Steps being taken to carry out.

This is recognised.

Noted for guidance.

Noted for guidance.

- 40. Intermittent System.—Subsidiary ("Rider") mains to be laid alongside walks and parallel to principal mains to lessen evils resulting from the intermittent system, and enable houses to be supplied in blocks.
- **41.** Streets to be asphalted or otherwise improved.

It having been decided to disconnect the houseservices in tenement houses, this system will hardly be required.

Enquiries being made regarding the success of this in Malta.

PREVENTION OF WASTE.

- 45. Universal Meterage recommended;
- 49. and an adequate charge for water consumed beyond a prescribed quantity.
- **50.** Charge of 50 cents instead of 25 cents per 1,000 gallons and an ascending scale advised.
- **54.** New Territory gathering grounds
- **55.**(p.) and reservoir sites to be reserved when settling the land, so that when required for Hongkong, the New Territory or Kowloon they may not be found to be in occupation.
- **55.**(h.) Preparation of a comprehensive scheme for the ultimate and full development of the sources of supply in Hongkong.
- **55**.(j.) Amendment of the law.
- **55.**(*m.*) Proposal to shut off all house services where meters not provided.

It has been decided to disconnect the house services with tenement houses and to apply the meterage system to all other houses.

Power has been taken to charge up to \$1 per 1,000 gallons for excess consumption.

This has been noted.

This has been noted.

See Ordinance No. 29 of 1902.

Provision made in Water Ordinance for necessary powers

Pillars and taps being obtained and their fixing in position will begin at once.

Sewerage.

- **63.** Record drawings. Great inconvenience caused by the want of.
- **65.** Trees in towns are a nuisance and should be removed or cast-iron sewer pipes will have to be laid.
- 65. Occurrence of deposit in low-level sewers. Reconstruction of sewers on the Reclamation, necessary when reclamation works completed, site fully occupied by buildings, and soil consolidated.
- **66.** Deposit in low-level sewers composed of solid foreign matter.
- 68. Flushing low-level sewers with great vigour by use of sea-water from tanks filled by pumping.
- 69. Flushing by means of water of nullahs and streams. More use might be made of it preferably for the Drains.

Flushing by sea-water of high-level street sewers unnecessary and of house sewers impracticable.

70. Salt-water flushing of gutters, storm-water drains and low-level sewers, in some cases at least desirable.

Noted.

Noted.

Noted.

Proposed to adopt improved gulleys to remedy this.

Awaiting consideration of another report by Mr. Chadwick.

No great difficulty, but sites for tanks will have to be found. No staff at present available, but may be taken up in about 18 months' time.

See paragraph 68.

- 71. Traps for gulleys connected with the street sewers wanted. A suitable type of trapped gulley to be evolved.
- 72. More trapped sewer-gulleys required near the foot of downpipes where side channels are nearly level.
- 74.) Scavenging of street sewers, drains and nul-92.) lahs to be under direction of Medical Officer of Health.

Extensions, alterations and new works to be executed as now by Public Works Department.

75. Sewer-vents, not ventilation desirable in many places.

Ventilation of Sewers.—Ventilation by grating in man-hole-covers or by untrapped gulleys, objectionable.

- **77.** Application of combined ventilation of house and street sewer to Hongkong.
- 78. Sewer-ventilation.—Tentative procedure recommended. Suggests nature of experiment that might be tried in one district.
- 82. Sewer Pipes for house sewers. Advisable to inspect and test them before use.
- 83. Tests required explained.
- 84. Tests to be made at a depôt.
- 85. Standard of quality to be established.
- **86.** Fee for inspection of house-sewers.—Recommends \$10 for every inspection necessary beyond the first.
- 87. Cast iron house-sewers recommended.— They should be coated with Dr. Angus Smith's composition.
- 88. Cast iron down-pipes and ventilating pipes to be made compulsory.
- 89. Ventilation of house-sewers.
- **90.** House-sewer construction.—Improvement required.

Type devised by the Director of Public Works is suitable. 1,400 required. Proposed to insert \$42,000 on 1903 Estimates.

Adoption of new gulleys will probably render this unnecessary.

Being arranged.

New gulleys will all be trapped.

Will be adopted wherever practicable.

Noted for guidance.

When Standard Specification received from Mr. Charwick it is proposed to refer it to the Green Island Company asking if they are prepared to guarantee to turn out goods in accordance with it. A small consignment of Standard goods will be imported.

 Provision made under the new Buildings and Health Bill.

Adopted in new Buildings and Public Health Bill.

Drainage Bye-law No. 25 requires ventilating pipes to be of iron; proviso to Bye-law 28 requires down-pipes abutting on streets to be of iron but allows down-pipes in private yards to be of glazed stone-ware. This is considered to meet the requirements of the case.

Dealt with in No. 77.

Awaiting the "Instructions for construction of House-sewers" referred to therein.

Drains, Storm-water Channels and Nullahs.

91. Covered-drains, surface water channels or nullahs objectionable, but if covered should be easy of access for a man. They should be avoided at Kowloon and in the New Territory.

Noted for future guidance.

93. Drainage System to be completely revised.

It may be possible to take this up in about 18 months' time.

- 94. Designing of drains.—Guiding principles laid down-
 - (a.) Abolish all unnecessary drains and reduce lengths of any that cannot be dispensed with to a minimum.
 - (b.) Covered drains to be opened where
 - practicable.
 (c.) Careful scavenging and management of sewers required to keep filth out of drains.
 - (d.) Flush branch drains with water of streams above.

95. Maintenance and Scavenging to be entrusted to Medical Officer of Health.

> New Works to be carried out as now by Public Works Department.

Record drawings to be first supplied to Medical Officer of Health and a Draughtsman appointed to keep plans up to date.

Involves a good deal of preliminary work. Impossible to estimate cost.

Being arranged.

Scavenging and Removal of Excreta.

96. Dry refuse in sewers and drains. Too much finds its way into them.

Already referred to.

House Construction and Overcrowding.

99. Insanitary Properties.—General resumption and reconstruction will have to be faced.

Noted.

 Taipingshan.—Suggests advantage of locating Medical School and dwellings for subordinate officials here.

Suggestion noted.

102. Public Works Staff.—Refers to its inadequacy for work to be performed.

Recommendations made for increasing the staff.

Statement showing action taken to give effect to Mr. Chadwick's Report of ASTH APRIL, 1902, ON THE WATER SUPPLY.

Taitam.

- 1. Taitam gathering-ground to be immediately developed.
- 2. Pumping necessary.
- 3. Position of Pumping Station indicated.
- 4.) Plant recommended.
- 6. Reservoirs.—Whatever others may be found necessary, one as near sea-level as possible should be first constructed.
- 7. Rising-main.—Diameter and length required.
- 8. Staff for Pumping Works.
- 9. Gathering-ground East of Taitam-tuk Village.—Small subsidiary reservoir suggest-
- 9. Catchwater channels.—Surrounding Taitam Bay suggested.
- **10.** Further pumping engines to be decided on according to the additional supply obtained.

This is guiding the action of the Government.

Being arranged.

Surveys in progress.

Requisition already forwarded.

Must wait result of surveys and borings now in progress.

Survey in progress.

Will be considered when time arrives for doing so.

Survey in progress.

Noted for future guidance.

No action necessary at present.

12. Preliminary expenditure.—Recommends \$20,000 be provided for surveys, gauging streams, etc.

Vote taken for \$20,000.

- 13. Programme of operations.
 - (a.) Accurate survey of the whole Taitam gathering-ground.
 - (b.) Demarcation and reservation of gathering-grounds to be attended to. Leading survey points to be permanently recorded.
 - (c.) Erection of two gaugeweirs on main Taitam-tuk Stream, provided with a self-recording instrument.
 - (d.) First pumping engine. Steps to be at once taken to obtain it.
 - (e.) Preliminary design and estimate to be submitted later as the survey progresses.
 - (f.) Pipes of nature indicated to be ordered with the first pumping engine.
- 14. Pumping-plant to be erected and pipes laid.
- **14.** Temporary expedients. Small dam and conduit.
- **15.** Water question pressing and should take precedence of all other sanitary improvements.
- **16.** Saiwan and other gathering-grounds to be surveyed and reserved.
- 17. Population of Island must be kept within bounds by restricting issue of leases.
- 17. Industrial Establishments should in future only be permitted on mainland, and minor establishments which do not possess independent water supplies should be pressed to remove there.
- 17. Waste of water must be prevented and consumption reduced, by universal meterage coupled with an appropriate water charge.
- 17. Water Ordinance to be amended.
- **19**. Measuring apparatus at Reservoirs and Filter-beds.

Improvements necessary, Venturi meter recommended.

Proposed to provide \$150,000 on 1903 Estimates for carrying out Taitam proposals.

Noted for guidance.

In hand.

Necessary particulars to enable tenders to be called for already sent to England.

Requisition will be prepared when scheme is further advanced.

Will follow in due course.

Arrangements will be made.

Action being taken accordingly.

Noted for guidance.

Impolitic.

Noted.

Amending Ordinance now passed.—No. 29 of 1902.

Will not be lost sight of.

Peak Water Supply.

20. Reserve pumping-plant required at Bonham Road.

21. No. 2 Tank to be promptly reconstructed.

26. Bonham Road.—New steam engine and boiler recommended.

27. Rising-main from Bonham Road to Peak.

New and longer one recommended. Old one to be removed, and cleaned and recoated for use elsewhere.

Proposed to insert \$70,000 on 1903 Estimates for these works.

See para. 26.

Will be undertaken as early as possible. Plans in course of preparation.

Requisition being prepared.