

Main items during maintenance work are categorised as follows:

- |                  |   |   |
|------------------|---|---|
| Daily Patrol     | : | - removal of floating obstacles around the gates<br>- water pollution<br>- function of discharging irrigation water, etc.   |
| Emergency Patrol | : | - removal of floating logs around the spillway<br>- rise of water level<br>- confirmation of gate function  |
| Maintenance      | : | - mowing of the dam slope and its surroundings;<br>3 times/year<br>- painting of the mechanical equipment; 1 time/year<br>- dredging of the settling basin; 3 times/year<br>- repair of the gully and undulation of the crest of the dam;<br>3 times/year |

### **6.6 O & M of the Irrigation Facilities**

O & M works of the irrigation facilities shall be carried out following the current procedure which are used by DID. In case of the implementation model (ii) after handing over these facilities to the farmers' association, it could be recommended that the future O & M work will be entrusted to the farmers' association based on an agreement between the farmers' association and implementing agency, DID.

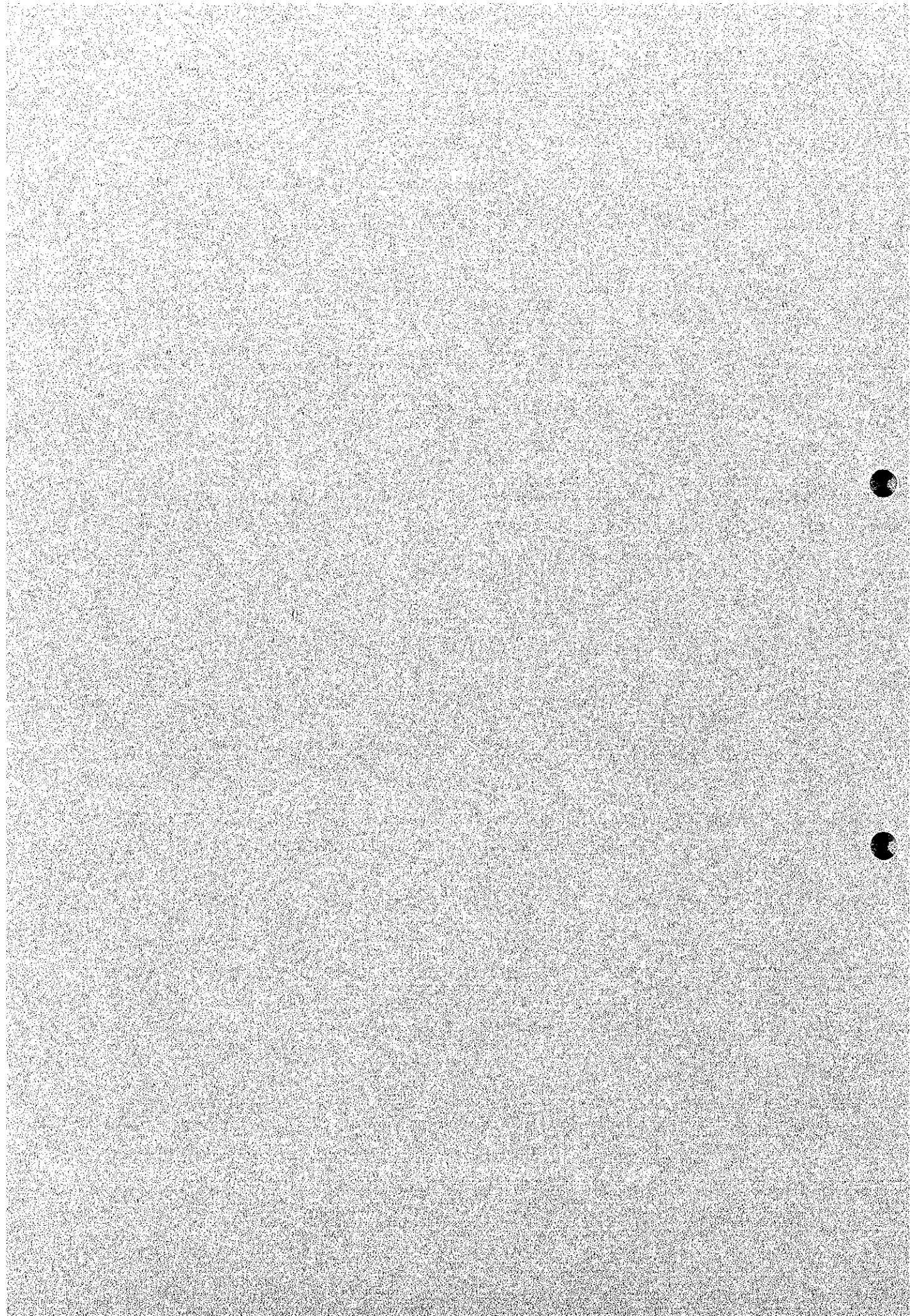
### **6.7 The Articles of Farmers' Association**

In case of the implementation model (ii) the farmers' association shall prepare the articles of the association under the guidance of the implementing agency. The articles of the association shall include the following items.

- name, address and purpose of the association
- membership
- rights and duties of members
- termination and suspension of membership
- membership fee and dues
- membership meeting
- board of director and committee
- officers of association
- education and training committee
- finance and development committee
- operation and maintenance committee
- dissolution and liquidation
- other rules and regulations
- use and disposition of association funds
- miscellaneous provisions
- amendments

### **6.8 Share of O & M Cost**

All the O & M cost of dam and its appurtenant structures shall be shouldered by the implementing agency and farmers' association in case of the implementation (ii). The implementing agency and farmers' association shall discuss and settle the share of O & M cost before official handing over of the project.



ENVIRONMENTAL QUALITY ACT 1974

ENVIRONMENTAL QUALITY (PRESCRIBED ACTIVITIES)  
(ENVIRONMENTAL IMPACT ASSESSMENT) ORDER 1987

In exercise of the powers conferred by section 34A of the Environmental Quality Act 1974, the Minister, after consultation with the Environmental Quality Council, makes the following order:

1. This Order may be cited as the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987 and shall come into force on the 1st April 1988.
2. The activities specified in the Schedule are prescribed to be prescribed activities.

SCHEDULE

1. AGRICULTURE
  - (a) Land development schemes covering an area of 500 hectares or more to bring forest land into agricultural production.
  - (b) Agricultural programmes necessitating the resettlement of 100 families or more.
  - (c) Development of agricultural estates covering an area of 500 hectares or more involving changes in type of agricultural use.
2. AIRPORT
  - (a) Construction of airports (having an airstrip of 2,500 meters or longer).
  - (b) Airstrip development in state and national parks.
3. DRAINAGE AND IRRIGATION
  - (a) Construction of dams and man-made lakes and artificial enlargement of lakes with surface areas of 200 hectares or more
  - (b) Drainage of wetland, wildlife habitat or virgin forest covering an area of 100 hectares or more
  - (c) Irrigation schemes covering an area of 5,000 hectares or more
4. LAND RECLAMATION

Coastal reclamation involving an area of 50 hectares or more.

5. FISHERIES

- (a) Construction of fishing harbors.
- (b) Harbor expansion involving an increase of 50 percent or more in fish landing capacity per annum.
- (c) Land based aquaculture projects accompanied by clearing of mangrove swamp forests covering an area of 50 hectares or more.

6. FORESTRY

- (a) Conversion of hill forest land to other land use covering an area of 50 hectares or more.
- (b) Logging or conversion of forest land to other land use with the catchment area of reservoirs used for municipal water supply, irrigation or hydro power generation or in areas adjacent to state and national parks and national marine parks.
- (c) Logging covering an area of 500 hectares or more.
- (d) Conversion of mangrove swamps for industrial, housing or agricultural use covering an area of 50 hectares or more.
- (e) Clearing of mangrove swamps on islands adjacent to national marine parks.

7. HOUSING

Housing development covering an area of 50 hectares or more.

8. INDUSTRY

- (a) Chemical : Where the production capacity of each product or of combined products is greater than 100 tonnes/day.
- (b) Petrochemicals : All sizes
- (c) Non-ferrous : Primary smelting : Aluminium - All sizes, Copper - All sizes,  
Others : Producing 50 tonnes/day and above of product.
- (d) Non metallic : Cement - for clinker throughput of 30 tonnes/hour and above.  
Lime : 100 tonnes/day and above burnt lime rotary kiln or 50 tonnes/day and above vertical kiln.
- (e) Iron and steel : Require iron ore as raw materials for production greater than 100 tonnes/day. Or Using scrap iron as raw materials for production greater than 200 tonnes/day.
- (f) Shipyards : Dead weight tonnage greater than 5000 tonnes.

- (g) Pulp and paper industry - Production capacity greater than 50 tonnes/day.

9. INFRASTRUCTURE

- (a) Construction of hospitals with outfall into beachfronts used for recreational purposes.
- (b) Industrial estate development for medium or heavy industries covering an area of 50 hectares or more.
- (c) Construction of expressways.
- (d) Construction of national highways.
- (e) Construction of new townships.

10. PORTS

- (a) Construction of ports.
- (b) Port expansion involving an increase of 50% or more in handling capacity per annum.

11. MINING

- (a) Mining of minerals in new areas where the mining lease covers a total area in excess of 250 hectares.
- (b) Ore processing including concentrating for aluminium, copper, gold or tantalum.
- (c) Sand dredging involving an area of 50 hectares or more.

12. PETROLEUM

- (a) Oil and gas fields development
- (b) Construction of off-shore and on-shore pipelines in excess of 50 kilometers in length.
- (c) Construction of oil and gas separation, processing, handling, and storage facilities.
- (d) Construction of oil refineries.
- (e) Construction of product depots for the storage of petrol, gas or diesel (excluding service stations) which are located within 3 kilometers or any commercial, industrial or residential areas and which have a combined storage capacity of 60,000 barrels or more.

13. POWER GENERATION AND TRANSMISSION

Dams and hydroelectric power schemes with either or both of the following :

- (a) Dams over 15 meters high and ancillary structures covering a total area in excess of 40 meters.
- (b) Reservoirs with a surface area in excess of 400 hectares.

14. QUARRIES

Proposed quarrying of aggregate, limestone, silica, quartzite, sandstone, marble and cooperative building stone within 3 kilometers of any existing residential, commercial, or industrial or any area for which a license permit or approval has been granted for residential, commercial or industrial development.

15. RAILWAYS

- (a) Construction of new routes
- (b) Construction of branch lines

16. TRANSPORTATION

Construction of Mass Rapid Transport projects

17. RESORT AND RECREATIONAL DEVELOPMENT

- (a) Construction of coastal resort facilities or hotels with more than 80 rooms.
- (b) Hill station resort or hotel development covering an area of 50 hectares or more
- (c) Development of tourist or recreational facilities in national parks.
- (d) Development of tourist or recreational facilities on islands in surrounding waters which are gazetted as national marine parks.

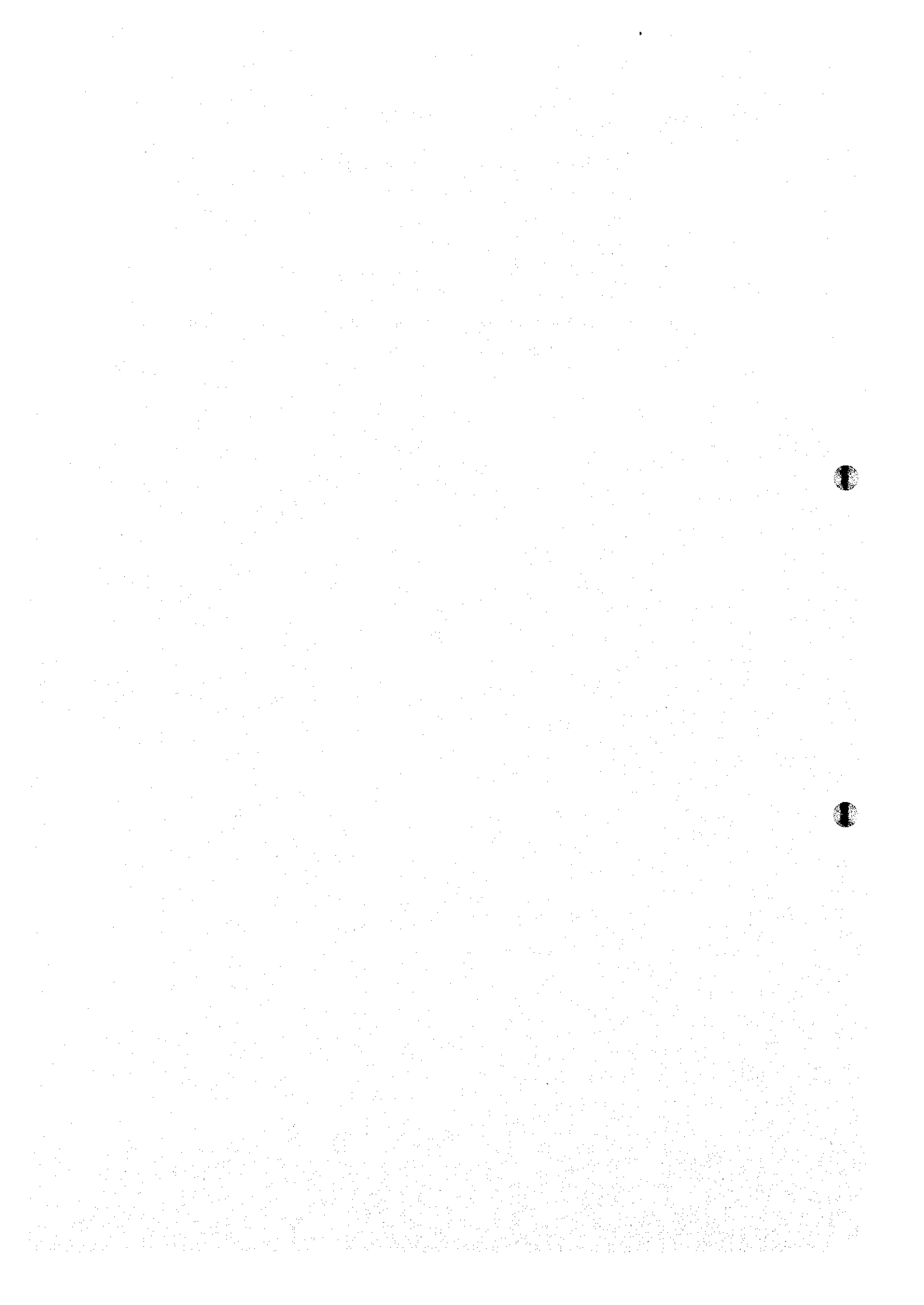
18. WASTE TREATMENT AND DISPOSAL

- (a) Toxic and Hazardous Waste
  - (i) Construction of incineration plant
  - (ii) Construction of recovery plant (Off-site)
  - (iii) Construction of wastewater treatment plant (Off-site)
  - (iv) Construction of secure and landfill facility
  - (v) Construction of storage facility(Off-site).
- (b) Municipal Solid Waste
  - (i) Construction of incineration plant
  - (ii) Construction of composting plant
  - (iii) Construction of recovery recycling plant
  - (iv) Construction of incineration plant
  - (v) Construction of municipal solid waste landfill facility

- (c) **Municipal Sewage**
  - (i) Construction of wastewater treatment plant
  - (ii) Construction of marine outfall.

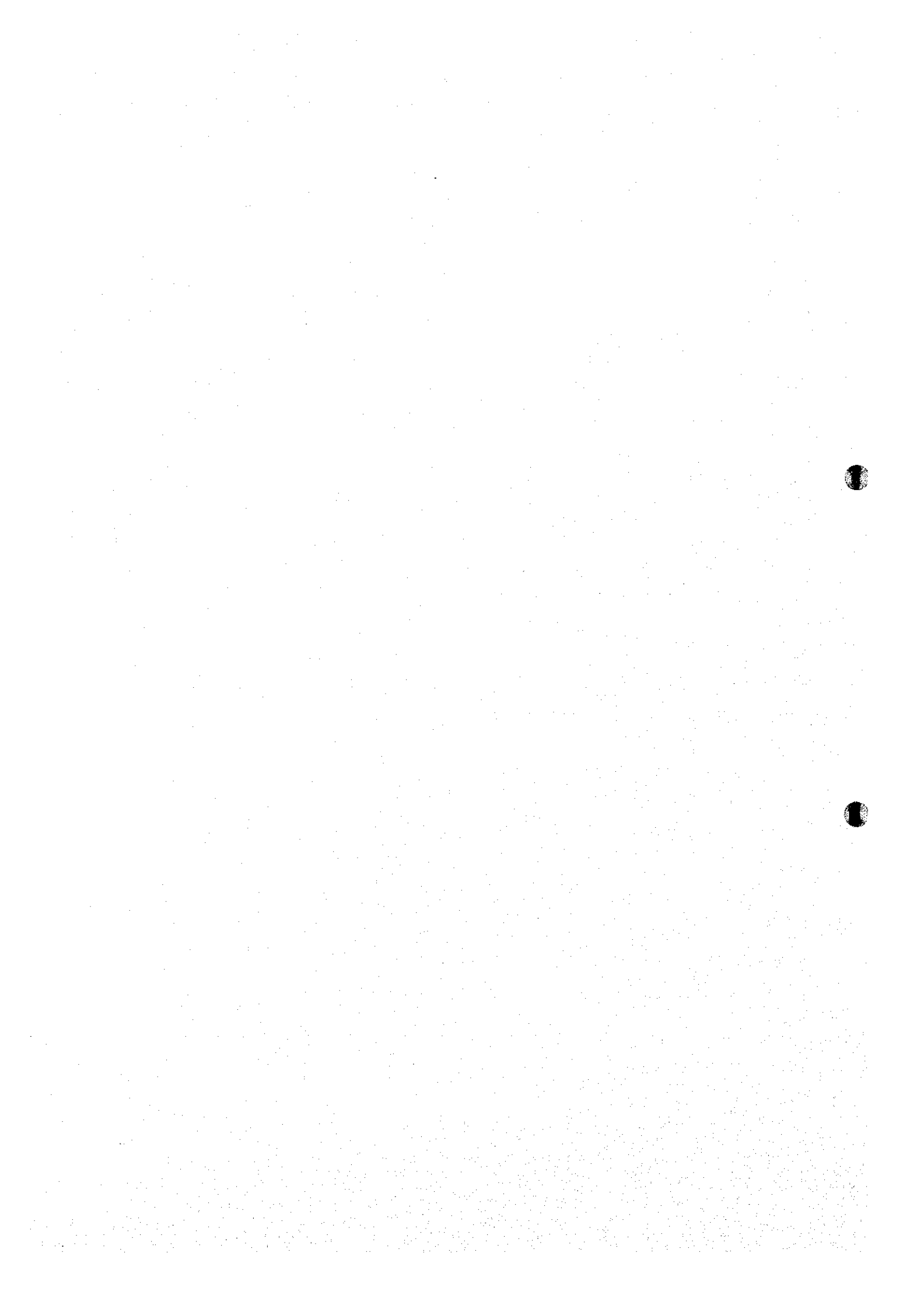
19. **Water Supply**

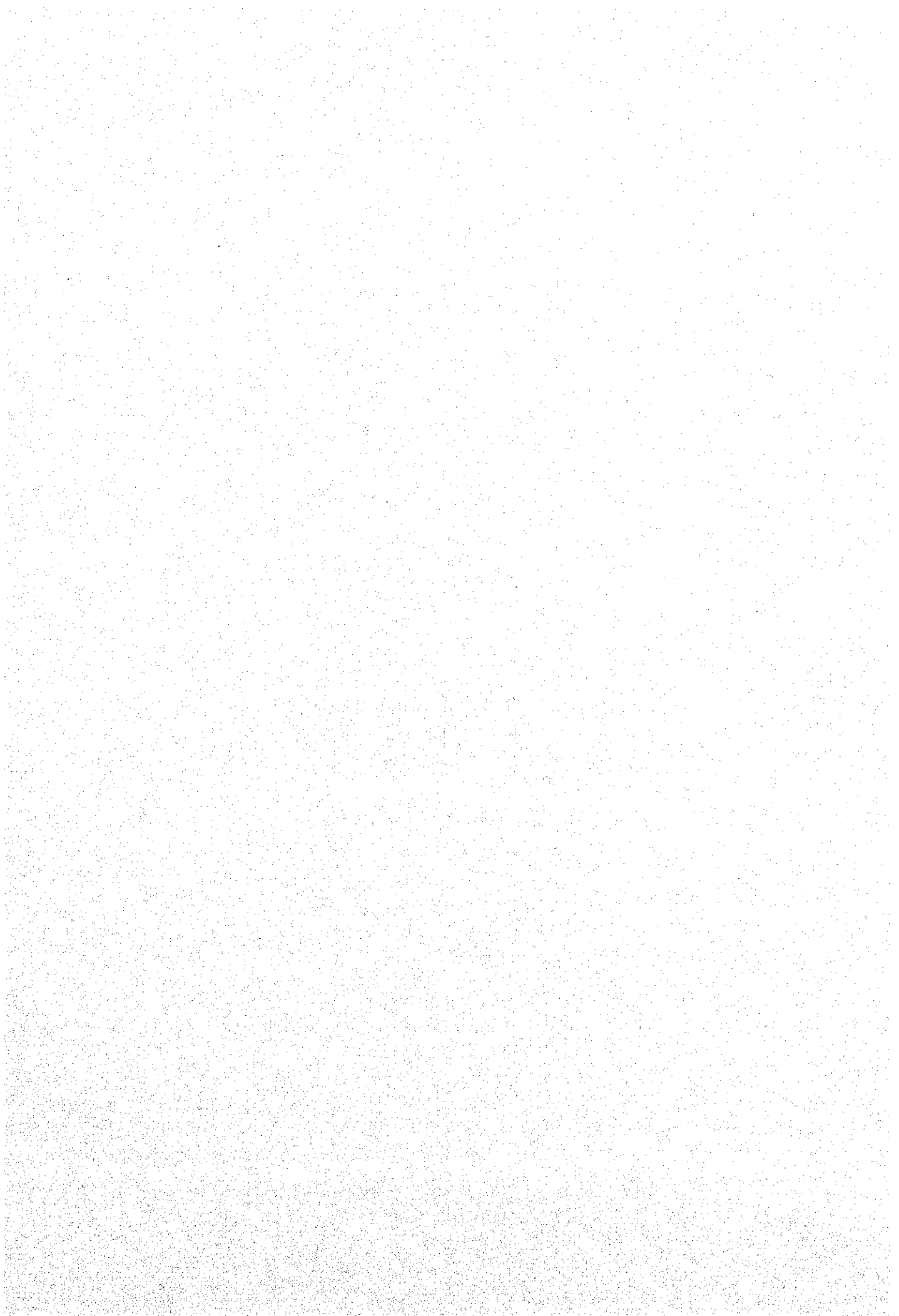
- (i) Construction of dams or impounding reservoirs covering an area of 200ha or more.
- (ii) Groundwater development for industrial, agricultural or urban water supply of greater than 4,500 cubic meters per day.











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