



# Environmental Protection Authority

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**Bulletin No 1279**  
**January 2008**

MINISTER FOR THE ENVIRONMENT

## **WASTEWATER TREATMENT AND DISPOSAL, ALBANY (MINISTERIAL STATEMENT 675) – PROPOSED CHANGE TO ENVIRONMENTAL CONDITIONS UNDER S46 OF THE *ENVIRONMENTAL PROTECTION ACT 1986***

On 8 January 2007, the Minister for the Environment requested that the Environmental Protection Authority (EPA) inquire into the environmental conditions and commitments set on the above project and report to him. The following is my report to you pursuant to section 46(3) of the *Environmental Protection Act 1986* ("the Act").

### **Introduction**

The request for the EPA to inquire into the environmental conditions and commitments under section 46 resulted from the Water Corporation applying to add an additional tree farm (Albany Tree Farm 2) to the existing proposal. This additional area, which did not include a treated wastewater storage dam, would not be licensed under Part V of the Act under licensing procedures applying at that time. A decision was made, therefore, to include the additional tree farm in the original proposal by a section 45C variation and section 46 change of conditions.

However, since that time the Department of Environment and Conservation (DEC) has advised that the disposal of treated wastewater to the proposed new tree farm would be regulated under Part V of the Act. DEC further advised that, as disposal of treated wastewater to the current tree farm is licensed under Part V of the Act, conditions under Part IV of the Act need not be imposed for regulation of that disposal.

### **Discussion**

The EPA has considered DEC's advice and agrees that the proposal for a new tree farm should not be included in the original proposal, but should be managed through licensing provisions under Part V of the Act. The construction of a pipeline between the storage dam at Albany Tree Farm 1 and Albany Tree Farm 2 can be managed under the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*.

Furthermore the EPA has concluded, after inquiry into the conditions and commitments of Statement 675, that all conditions and commitments should be removed from the Statement. The reasons for this conclusion are discussed below.

When originally proposed in 1992, the proposal for the broadscale land-based disposal of secondary treated municipal wastewater was the first of its kind in Western Australia. The wastewater was to be piped to the disposal site and irrigated onto trees and pasture.

The proposal generated a high level of community interest and concern about the potential environmental impacts. The EPA therefore decided to assess the proposal at the level of Public Environmental Review and in July 1992 recommended that the proposal be approved with comprehensive conditions and proponent commitments.

Since 1992 there have been no significant impacts to the environment from irrigation at the land disposal site. Several similar projects for the irrigation of trees with wastewater have been set up around the State. The EPA considers that operations of this kind represent a small environmental risk if competently managed.

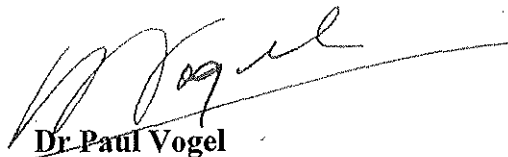
It is the EPA's opinion that regulation of such proposals is more appropriately achieved under Part V of the Act. In comparison to Ministerial conditions under Part IV of the Act, the regulatory instruments available under Part V, such as the capacity to issue environmental protection notices, allow for a more rapid and flexible response to any environmental issues which may arise.

As the environmental risk is now recognised as reduced by the experience gained in the operation of the site, not all of the original conditions may need to be replicated in the Part V licence. The Part V licence will be designed to address the main environmental risks currently recognised. The EPA also notes that a number of conditions and commitments are obsolete due to changes in the Act, have been fulfilled, or provide little additional environmental benefit. These conditions are no longer considered necessary.

#### **EPA Recommendation**

The EPA recommends that all conditions be removed from the implementation statement for this project and that the project be regulated entirely through the provisions of Part V of the Act. Regulatory controls available in Part V of the Act include Works Approval and Licensing, native vegetation clearing, environmental harm and pollution provisions of the Act and additional instruments such as environmental protection, prevention and closure notices. The attached table explains how the conditions and commitments would be addressed under Part V.

A recommended amended implementation statement is attached for your consideration and approval.



**Dr Paul Vogel**

CHAIRMAN

7 January 2008

Attachments Table 1: Alternative regulation for conditions and commitments  
Recommended Condition Statement  
Existing Statement 675

## Wastewater Treatment and Disposal, Albany, Statement 675

Table 1: Alternative regulation for conditions and commitments

	Conditions	Regulated by
1-1	<b>Implementation:</b> Implement the proposal as documented	Description of proposal on new statement and reference to previous reports
2-1	<b>Proponent commitments</b>	Commitments deleted , not required
3-1	<b>Proponent nomination:</b> Proponent responsibility	Covered by proponent nomination
3-2	Transfer of proponent	EP Act 38 6 (a)
3-3	Change of proponent address	Part V would be aware of any change of address.
4-1	<b>Commencement and Time Limit:</b> Substantial commence proposal	Not required – proposal is implemented
4-2	Extension of approval	Not required – proposal is implemented
5-1	<b>Land-based wastewater disposal:</b> Tree trials	Carried out
5-2	Unharvested 50 m visual buffer on Gunn Rd	Water Corp will be requested to include buffer similar to that for Albany Highway in the Nutrient and Irrigation Management Plan
5-3	No irrigation of native veg with wastewater	Environmental harm provisions
5-4	Outlet to holding pond submerged	Condition cleared for construction
5-5	Measure soil infiltration rates	Management under Part V licence
5-6	Monitor soil water content	Management under Part V licence
5-7	Minimise export of contaminants	Management under Part V licence
5-8	Implement contingency measures	Part V provisions e.g. environmental protection notice
6-1	<b>Timewell Rd treatment plant:</b> Retain native vegetation	Part V clearing permit requirements
7-1	<b>Operation of wastewater disposal site:</b> 3 year increase of TN load limit	Management under Part V licence
7-2	Reverts to original limit after 3 years unless increase approved	Management under Part V licence
7-3	Provide information to support load increase	Management under Part V licence
8-1	<b>Contingency measures:</b> not irrigate reserve 20948 with wastewater	Environmental harm provisions
8-2	Alternative plan for irrigation of wastewater due to insect attack, fire or decline in soil infiltration rates	Plan completed
8-3	Alternative plan for irrigation of wastewater due to nutrient losses	Plan completed
8-4	Implement contingency plans	Part V requirements, e.g. environmental protection notice

9-1	<b>Monitoring:</b> annual and triennial reports on required monitoring	Management under Part V licence
9-2	Monitoring reports	Management under Part V licence
9-3	Report breach of conditions	Management under Part V provisions eg discharge of waste
9-4	Modify and remedy performance	Part V provisions
10-1	<b>Compliance audit and Performance review:</b> audit and compliance reports	Not required, no conditions. Management under Part V licence
10-2	Performance review	Management under Part V licence
11-1	<b>Decommissioning Plans:</b> preliminary decommissioning plan	Condition cleared
11-2	Final decommissioning and closure plan	Part V provisions, e.g. closure notice
11-3	Implement closure plan	Part V provisions, e.g. closure notice
11-4	Make closure plan publicly available	Not required
	<b>Commitments</b>	
1	No 1 treatment plant	Commitment cleared
2	Discharge to Five Mile Creek	Commitment cleared
3	Nutrient discharge not to exceed 3t TN or 1t TP	Management under Part V licence
4	Upgrade treatment pond capacity	Commitment cleared
5	Upgrade treatment facilities as required	Being done, part of good management
6.1	Volume of wastewater from No 1 treatment plant	Obsolete, No 1 treatment plant no longer exists
6.2	Volume of wastewater pumped to trees to increase until discharge to Five Mile Creek ceases	Obsolete, no water discharged to Five Mile Creek
7.2	Offensive odours from treatment plant	Management under pollution prevention provisions
7.3	Odour from land disposal site	Management under pollution prevention provisions
7.4	Remedial action to be taken if odours unacceptable	Management under pollution prevention provisions
8	Disposal of sludge from plant	Management under Part V
9	Earthworks for new aerated pond and storage pond	Commitment cleared
10	Establish woodlot in environmentally responsible manner	Established, part of good management
11.1	Manage establishment to minimise sediment flow to creek	Commitment cleared
11.2	Fifteen metre buffers each side of creek	Commitment cleared
12	Management of overspray of herbicide	Health regulations, part of good management
13.1	Timing of earthworks	Commitment cleared
13.2	Drainage from disturbed areas	Commitment cleared

	during earthworks	
13.3	Dust suppression during earthworks	Commitment cleared
14	Management of land disposal site in accordance with guidelines/requirements	Part of good management
16	Dam to be managed so that it does not overflow more than 1 year in 10	Management under Part V licence or pollution prevention provisions
17.1	Irrigation to be managed so that run-off does not occur more than 1 year in 10	Management under Part V licence or pollution prevention provisions
17.2	Irrigation percolation managed to salinity requirements	Part V provisions, part of good management
17.3	Optimise evapotranspiration of trees	Part of good management
17.4	New proposal for management before capacity of land disposal site reached	Completed
18	Monitoring on land disposal site	Management under Part V licence
19	Monitor insect activity	Part of good management
20	Develop a plan to control insect attack if necessary	Part of good management
21.2	Water in dams for fire fighting	Part of good management
21.3	Provide fire control vehicle	Being done via donation
21.4	Prohibit smoking in trees	Part of good management
22.1	If land disposal system not performing as designed, expand overland flow and/or irrigated tree areas;	Tree area expanded, management under Part V
22.2	Or construct additional storage dam;	Additional dam constructed, management under Part V
22.3	Or improve Nitrogen and/or Phosphorus removal	Nitrogen removal improved, management under Part V



**RECOMMENDED CONDITIONS AND PROCEDURES**

**STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL  
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE  
*ENVIRONMENTAL PROTECTION ACT 1986*)**

**WASTEWATER TREATMENT & DISPOSAL, ALBANY**

**Proposal:** The operation of a wastewater treatment plant at Timewell Road, Albany and disposal of the treated wastewater. Treated wastewater is pumped to a site on Gunn Road, where nutrient reduction may occur by flowing over grassed bays, and is stored in Storage Dams No 1 and 2 of 300 and 600 megalitre capacity respectively (Figure 1). The treated wastewater is used for irrigation of the Albany Tree Farm No 1 at Gunn Road, Albany at a maximum rate of 6 megalitres per day. The use of treated wastewater stored at this site, but used at other sites, is not part of this proposal.

**Proponent:** Water Corporation

**Proponent Address:** P O Box 100, LEEDERVILLE WA 6902

**Assessment Number:** 1666

**Report of the Environmental Protection Authority:** Bulletin 1279

**Previous Assessment Numbers:** 654 & 1508

**Previous Statement Numbers:** 287 & 675

**Previous Reports of the Environmental Protection Authority:**  
Bulletins 638 & 1126

The proposal to which the above reports of the Environmental Protection Authority relate may be implemented.

Conditions 1-1 to 11 and commitments 1 to 22.3 of Statement 675 are *deleted*.





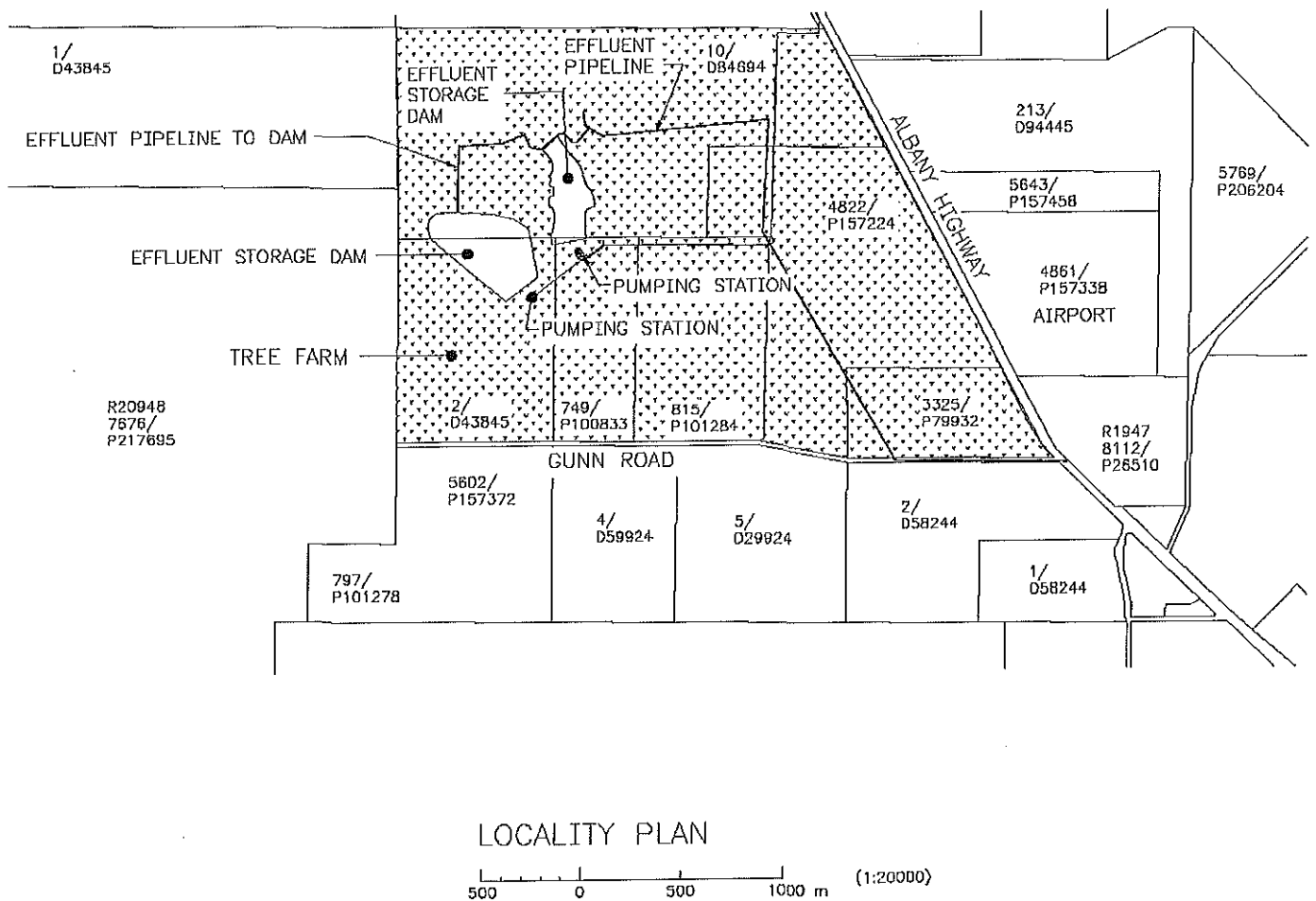


Figure 1: Site layout





MINISTER FOR THE ENVIRONMENT

Statement No.

000675

**STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL  
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE  
ENVIRONMENTAL PROTECTION ACT 1986)**

**WASTEWATER TREATMENT & DISPOSAL  
ALBANY**

**Proposal:** The operation of a wastewater treatment plant at Timewell Road, Albany and disposal of the treated wastewater (at a maximum rate of 6 megalitres per day) at a 550 hectare land disposal site on Gunn Road, Albany. The wastewater undergoes nutrient reduction by flowing over grassed bays, and is then collected in a dam and used for irrigation of a tree plantation.

**Proponent:** Water Corporation

**Proponent Address:** P O Box 100, LEEDERVILLE WA 6902

**Assessment Number:** 1508

**Report of the Environmental Protection Authority:** Bulletin 1126

**Previous Assessment Number:** 654

**Previous Statement Number:** 287 (Published 7 October 1992)

**Previous Report of the Environmental Protection Authority:** Bulletin 638

The implementation of the proposal to which the above reports of the Environmental Protection Authority relate is subject to the following conditions and procedures, which replace all previous conditions and procedures:

**Implementation**

- 1-1 The proponent shall implement the proposal as documented in the Public Environmental Review "Albany sewage - treatment and disposal of wastewater" and Environmental Protection Authority Bulletin 638 subject to the conditions of this statement.

Published on

- 5 APR 2005

## **2 Proponent Commitments**

- 2-1 The proponent shall implement the environmental management commitments documented in schedule 1 of this statement, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

## **3 Proponent Nomination and Contact Details**

- 3-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) or (7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal until such time as the Minister for the Environment has exercised the Minister's power under section 38(7) of the Act to revoke the nomination of that proponent and nominate another person as the proponent for the proposal.
- 3-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement endorsed by the proposed replacement proponent that the proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.
- 3-3 The nominated proponent shall notify the Department of Environment of any change of contact name and address within 60 days of such change.

## **4 Commencement and Time Limit of Approval**

- 4-1 The proponent shall substantially commence the modified proposal within five years of the date of this statement or the approval granted in the statement published on 7 October 1992 shall lapse and be void.

Note: The Minister for the Environment will determine any dispute as to whether the modified proposal has been substantially commenced.

- 4-2 The proponent shall make application for any extension of approval for the substantial commencement of the modified proposal beyond five years from the date of this statement to the Minister for the Environment, prior to the expiration of the five-year period referred to in condition 4-1.

The application shall demonstrate that:

1. the environmental factors of the modified proposal have not changed significantly;
2. new, significant, environmental issues have not arisen; and
3. all relevant government authorities have been consulted.

Note: The Minister for the Environment may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the modified proposal.

## **5 Land-based Wastewater Disposal**

- 5-1 Within two years following commissioning of the land disposal site, the proponent shall commence trial plantings on the land disposal site to ascertain the merits and disadvantages of alternative tree species and provenances, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 5-2 The proponent shall maintain an unharvested 50-metre wide visual buffer along the southern periphery (Gunn Road border) of the land disposal site, consisting of a combination of plantation and ornamental native species, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 5-3 The proponent shall not irrigate remnant native vegetation on the land disposal site with wastewater.
- 5-4 The proponent shall design and manage the rising main leading into the holding pond such that the outlet is submerged at all times.
- 5-5 Commencing at the time of commissioning the woodlot, the proponent shall measure soil infiltration rates on a triennial basis and shall ensure that the infiltration rate is not reduced to a level which results in water-logging or surface run-off, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 5-6 The proponent shall monitor soil water content to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 5-7 Utilising the data arising from the monitoring required by condition 5-6, the proponent shall operate the woodlot to minimise the off-site export of contaminants, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 5-8 If the requirements of conditions 5-5 and 5-7 are not likely to be met, the proponent shall implement contingency measures (see conditions 8 and 9-4), to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

## **6 Timewell Road (No. 2) Treatment Plant**

- 6-1 The proponent shall retain remnant native vegetation at the Timewell Road (No. 2) treatment plant site, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority and the Department of Conservation and Land Management.

## 7 Operation of Wastewater Disposal Site

- 7-1 For three years following the date of this statement, the proponent shall operate the overland flow area or utilize other means to remove the nitrogen content of the incoming wastewater to a level which results in not more than 150 kilograms per hectare per year of total nitrogen being applied to the area of trees being irrigated.
- 7-2 Beyond the three year period referred to in condition 7-1, the proponent shall irrigate the area of trees with wastewater such that the total nitrogen application rate does not exceed 106 kilograms per hectare per year, unless the Minister for the Environment on advice of the Environmental Protection Authority permits a higher total nitrogen application rate.
- 7-3 The proponent shall support any request for an increase in the total nitrogen application rate with further adequate information and/or trials, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

## 8 Contingency Measures

- 8-1 The proponent shall not irrigate with wastewater Reserve 20948, which is vested in the National Parks and Nature Conservation Authority.
- 8-2 Within six months following the issuing of the notice to the decision-making authorities under section 45(7) of the *Environmental Protection Act 1986*, the proponent shall review the alternative plan for the temporary irrigation of treated wastewater in the event that insect attack, fire or a decline in soil infiltration are likely to cause either:
  - 1. nutrient losses from the site to exceed either three tonnes of nitrogen or one tonne of phosphorus per year; or
  - 2. surface runoff, other than stormwater, from the site to occur more frequently than 1 year in 10 (based on long-term rainfall probabilities),to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority and the Department of Conservation and Land Management.
- 8-3 Within six months following the issuing of the notice to the decision-making authorities under section 45(7) of the *Environmental Protection Act 1986*, the proponent shall prepare a contingency plan in the event that monitoring indicates that total nutrient losses from the site to groundwater and surface water are likely to exceed either three tonnes of nitrogen or one tonne of phosphorus per year, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority and the Department of Conservation and Land Management.
- 8-4 The proponent shall implement the plans referred to in conditions 8-2 and 8-3, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

## **9 Monitoring**

9-1 The proponent shall submit to the Department of Environment brief annual and more detailed triennial reports addressing the following:

- 1 a water balance for the land disposal site, including a comparison between measured and estimated (modelled) evapotranspiration for both rainfed and irrigated woodlots;
- 2 a nitrogen balance for the land disposal site;
- 3 results of environmental monitoring;
- 4 results of infiltration rate measurements, groundwater monitoring, trends and implications for the onsite retention of water and contaminants (see condition 5-6);
- 5 results of trial plantings of alternative species (see condition 5-1); and
- 6 any proposed changes to management or monitoring of aspects of the system,

to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

9-2 Within three years following commissioning of the land disposal site, the proponent shall commence submitting the reports required by condition 9-1 to the Department of Environment and shall make them publicly available.

9-3 The proponent shall report any breach or anticipated breach of the environmental conditions and commitments to the Department of Environment within five working days.

9-4 If impacts are detected which are deemed to be unacceptable by the Department of Environment, the proponent shall modify and remedy the operations of the treatment plants and/or the land disposal site, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

## **10 Compliance Audit and Performance Review**

10-1 The proponent shall prepare an audit program and submit compliance reports to the Department of Environment which address:

1. evidence of compliance with the conditions and commitments; and
2. the performance of the environmental management plans and programs.

Note: Under sections 48(1) and 47(2) of the *Environmental Protection Act 1986*, the Chief Executive Officer of the Department of Environment is empowered to audit the compliance of the proponent with the statement and should directly receive the compliance documentation, including environmental management plans, related to the conditions, procedures and commitments contained in this statement.

10-2 The proponent shall submit a performance review report every six years after the start of operations, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority; which addresses:

1. the major environmental issues associated with the project; the targets for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those targets;
2. the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable;
3. significant improvements gained in environmental management, including the use of external peer reviews;
4. stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed; and
5. the proposed environmental targets over the next five years, including improvements in technology and management processes.

## 11 Decommissioning Plans

11-1 Within six months following the issuing of the notice to the decision-making authorities under section 45(7) of the *Environmental Protection Act 1986*, the proponent shall prepare a Preliminary Decommissioning Plan, which provides the framework to ensure that the wastewater treatment and disposal sites are left in an environmentally acceptable condition to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The Preliminary Decommissioning Plan shall address:

- 1 conceptual plans for the removal or, if appropriate, retention of plant and infrastructure;
- 2 long-term management of ground and surface water systems or soil affected by the storage and disposal of wastewater (where applicable);
- 3 a conceptual rehabilitation plan for all disturbed areas and a description of a process to agree on the end land use(s) with all stakeholders;
- 4 a conceptual plan for a care and maintenance phase; and
- 5 management of noxious materials to avoid the creation of contaminated areas.



11-2 At least 12 months prior to the anticipated date of decommissioning, or at a time agreed with the Environmental Protection Authority, the proponent shall prepare a Final Decommissioning Plan designed to ensure that the site is left in an environmentally acceptable condition to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The Final Decommissioning Plan shall address:

- 1 removal or, if appropriate, retention of plant and infrastructure in consultation with relevant stakeholders;
- 2 long-term management of ground and surface water systems or soil affected by the storage and disposal of wastewater (where applicable);
- 3 rehabilitation of all disturbed areas to a standard suitable for the agreed new land use(s); and
- 4 identification of contaminated areas, including provision of evidence of notification and proposed management measures to relevant statutory authorities.

11-3 The proponent shall implement the Final Decommissioning Plan required by condition 11-2 until such time as the Minister for the Environment determines, on advice of the Environmental Protection Authority, that the proponent's decommissioning responsibilities have been fulfilled.

11-4 The proponent shall make the Final Decommissioning Plan required by condition 11-2 publicly available, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

#### **Procedures**

- 1 Where a condition states "to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority", the Environmental Protection Authority will provide that advice to the Department of Environment for the preparation of written notice to the proponent.
- 2 The Environmental Protection Authority may seek advice from other agencies or organisations, as required, in order to provide its advice to the Department of Environment.
- 3 Where a condition lists advisory bodies, it is expected that the proponent will obtain the advice of those listed as part of its compliance reporting to the Department of Environment.

## Notes

- 1 The Minister for the Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environment over the fulfilment of the requirements of the conditions.
- 2 The proponent is required to hold a Licence for this project under the provisions of Part V of the *Environmental Protection Act 1986*.
- 3 Within this statement, to “have in place” means to “prepare, implement and maintain for the duration of the proposal”.

Dr Judy Edwards MLA  
MINISTER FOR THE ENVIRONMENT; SCIENCE

**Proponent's Environmental Management Commitments**

As revised in November 2004

**WASTEWATER TREATMENT & DISPOSAL  
ALBANY**

(Assessment No.1508)

Water Corporation

The proponent has made the following environmental management commitments (numbered in accordance with the existing audit table):

**(A) WASTEWATER DISCHARGES**

**NO. 1 (KING POINT) TREATMENT PLANT**

- 1 Discharge from the No. 1 treatment plant to cease in December 1994.

**NO. 2 (TIMEWELL ROAD) TREATMENT PLANT**

- 2 Discharge from the No. 2 treatment plant into Five Mile Creek to cease in December 1996.

**LAND TREATMENT SITE**

- 3 The nutrient discharge from the land treatment site in groundwater and surface water not to exceed either 1 tonne of phosphorus or 3 tonnes of nitrogen per annum.

**(B) NO. 2 TREATMENT PLANT**

- 4 The existing No. 2 aerated pond treatment plant to be upgraded to a capacity of 3 500 kilolitres/day by December 1994.
- 5 The treatment facilities to be further upgraded, enlarged or replaced as necessary to meet further demand, depending on their performance and that of the land treatment system.
- 6.1 From December 1994, the volume of wastewater pumped daily to the land treatment site to be not less than the volume of water diverted from the No. 1 treatment plant.
- 6.2 The volume pumped to be gradually increased as the trees grow on the land treatment site, until discharge into Five Mile Creek ceases in December 1996.

The aerated pond plant and any subsequent upgraded or new plant to be managed and operated in such a manner that:

- 7.2 • offensive odours to be only detectable at the nearest odour-sensitive premises on rare occasions;
- 7.3 • the wastewater from the plant not to create odour problems on the land treatment site.
- 7.4 Appropriate remedial action to be taken if noise or odour reaches unacceptable levels.
- 8 Sludge from the plant to be disposed of in accordance with the document *Western Australian Guidelines for Direct Land Application of Biosolids and Biosolids Products*, Department of Environmental Protection, Water and Rivers Commission and Department of Health (February, 2002) or other method approved by the Department of Environment and the Department of Health.

- 9 Earthworks for the new aerated pond and storage pond to be carried out in a manner which minimizes increased sediment flow into Five Mile Creek.

### **(C) LAND TREATMENT SYSTEM**

#### **CONSTRUCTION**

##### *Establishment of woodlot*

- 10 Establishment of the woodlot to be carried out in an environmentally responsible manner.
- 11.1 In particular, shatter ploughing and mounding to avoid developed watercourses and to be managed to minimize increased sediment flow into Seven Mile Creek.
- 11.2 Fifteen metre wide buffer zones to be maintained on each side of the creek.
- 12 The spraying of herbicide for pre-emergent and post-emergent weed control to be closely managed to avoid pollution of Seven Mile Creek or overspray onto adjoining properties.

##### *Earthworks*

- 13.1 Earthworks for the construction of the storage dam and tracks and roads on the property to take place during summer.
- 13.2 Drainage discharge from disturbed areas to be diverted onto areas of established pasture to minimize increased sediment flow into Seven Mile Creek.
- 13.3 The generation of dust to be suppressed by the use of water tankers.

#### **OPERATION**

- 14 The land treatment system to be managed and operated in accordance with the Agricultural and Resource Management Council of Australia and New Zealand, Australian and New Zealand Environment and Conservation Council, National Health and Medical Research Council Guidelines for Sewerage Systems, Use of Reclaimed Water (November 2002), or as otherwise approved by the Department of Health.

##### *Overland flow area*

- 16 The storage of wastewater in the dam to be managed so that overflow of the dam occurs not in more than 1 year in 10 (based on long-term rainfall probabilities).

### *Irrigation system*

The operation of the irrigation system to be managed in a manner that:

- 17.1 • run-off occurs in not more than 1 year in 10 (based on long-term rainfall probabilities);
- 17.2 • downward percolation is limited to the amount required to ensure that root zone salinity is maintained at a sustainable level;
- 17.3 • evapotranspiration by the trees is optimised;
- 17.4 • a proposal for the future management of the land disposal site to be referred to the Environmental Protection Authority at least one year before the design effluent volume of 6 ML/day (average) is produced for disposal to the site.

### *Monitoring*

- 18 The performance of the wastewater disposal site to be monitored in accordance with a monitoring programme agreed with the Department of Environment and amended from time to time.

### *Insect attack*

- 19 The proponent would join with an approved Forestry Manager and other landholders with tree plantations in the Albany area to monitor insect activity in order to provide early warning of insect build-up.
- 20 If serious insect attack appears likely, the proponent, in conjunction with the Department of Conservation and Land Management and the Forest Products Commission, to develop and implement a plan to control attack.

### *Fire*

- 21.2 • keep any dam reserved for combating fires at an adequate water level during the summer;
- 21.3 • provide a fire control vehicle to the site (by donating monies to the local Bush Fire Brigade to fund a vehicle);
- 21.4 • prohibit smoking in the areas planted with trees.

### **CONTINGENCY PLANNING**

If the land treatment system fails to perform to design, the proponent will as necessary:

- 22.1 • expand the overland flow and/or irrigated tree areas;
- 22.2 • construct an additional storage dam;
- 22.3 • improve nitrogen and/or phosphorus removal at the Timewell Road treatment plant.

Attachment 1— Change to Proposal (Statement 675).

**Proposal:** WASTEWATER TREATMENT & DISPOSAL, ALBANY

**Proponent:** Water Corporation

**Change:** to description of proposal; for an additional storage dam for treated wastewater at the Gunn Road site and associated wastewater supply pipework.

See figure 1. Project scheme layout

**Approval Date:** 27.09.07

