

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

APPROVAL UNDER SECTION 115B(2) IN RELATION TO THE PROPOSED NEW KURRI KURRI WASTEWATER TREATMENT WORKS

I, the Minister for Urban Affairs and Planning after:

1. examining and considering various matters including the:
 - a) environmental impact of the proposed new Kurri Kurri Wastewater Treatment Works under Section 111 of the *Environmental Planning and Assessment Act 1979*;
 - b) environmental impact statement (EIS) for the proposed new Kurri Kurri Wastewater Treatment Works dated January, 2000 prepared by Sinclair Knight Merz Pty Ltd;
 - c) representations made in respect to the exhibition of the EIS for the proposed new Kurri Kurri Wastewater Treatment Works;
 - d) Representations Report from Hunter Water Corporation dated November, 2000; and
 - e) report from the Director-General of the Department of Urban Affairs and Planning dated June 2001 in respect of the EIS for the proposed new Kurri Kurri Wastewater Treatment Works.
2. after consulting and considering the matters raised by the Minister for Information Technology, Minister for Energy, Minister for Forestry, and Minister for Western Sydney, and pursuant to Section 115B(2) of the *Environmental Planning and Assessment Act 1979*, give approval for Hunter Water Corporation to carry out the proposal subject to the conditions stated in Schedule 1 to this approval. The reasons for the imposition of these conditions are set out in a report entitled "Hunter Water Corporation – Proposed New Kurri Kurri Wastewater Treatment Works - Director-General's Report".

Dated this 23 day of July, 2001

Andrew Refshauge MP
Deputy Premier
Minister for Urban Affairs and Planning
Minister for Aboriginal Affairs
Minister for Housing

Schedule 1

Conditions of Approval – Kurri Kurri Wastewater Treatment Works

The following acronyms and abbreviations are used:

Department, The	Department of Urban Affairs and Planning
Director-General, The	Director-General of the Department of Urban Affairs and Planning (or delegate)
DLWC	Department of Land and Water Conservation
DMP	dust management plan
DUAP	Department of Urban Affairs and Planning
EIS	environmental impact statement
EMP	Environmental Management Plan
EMR	Environmental Management Representative
EP	Equivalent Population (1 EP = 230 L)
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA	NSW Environment Protection Authority
HIPAP	Hazardous Industry Planning Advisory Paper
HWC	Hunter Water Corporation
ML/d	Megalitres per day
Minister, The	Minister for Urban Affairs and Planning
RTA	Roads and Traffic Authority
SMS	Safety Management System
UV	ultra violet
WWTW	Wastewater Treatment Works

General

1. The proposal shall be carried out in accordance with:
 - the proposal contained in the EIS entitled "Proposed New Kurri Kurri Wastewater Treatment Works", prepared for Hunter Water Corporation by Sinclair Knight Merz, dated January, 2000 and incorporating such changes as described in the "Proposed New Kurri Kurri Wastewater Treatment Works – Representations Report" prepared by Hunter Water Corporation, dated November, 2000; and
 - the Conditions of Approval granted by the Minister.
2. Despite the above, in the event of any inconsistency with the EIS, the Conditions of Approval granted by the Minister shall prevail.
3. Any modification to the proposal which would be inconsistent with the Conditions of Approval shall only be carried out with the prior written approval of the Minister.
4. It shall be the ultimate responsibility of HWC to ensure compliance with the conditions of this approval.
5. These conditions do not relieve HWC of the obligation to obtain all other approvals and licences from all relevant authorities required under any other Act. Without affecting the generality of the foregoing, HWC shall comply with the terms and conditions of such approvals and licences.

Compliance

6. Hunter Water Corporation shall:
 - comply with all reasonable requirements of the Director-General in respect of the implementation of any measures arising from the conditions of this approval;

- bring to the attention of the Director-General any matter that may require further investigation and the issuing of instructions from the Director-General; and
- shall implement these instructions to the satisfaction of the Director-General within such time that the Director-General may specify.

Pre-Construction Compliance Report

7. At least one month prior to commencement of any construction works (or within such period as otherwise agreed by the Director-General), HWC shall submit for approval of the Director-General a compliance report detailing compliance with all relevant conditions that apply prior to commencement of substantial construction and shall address:
 - the dates of submissions of the various studies and/or requirements of various relevant conditions, and their approval and terms of approval; and
 - action taken or proposed to implement the recommendations made in terms of approvals and/or studies.

Pre-Operational Compliance Report

8. At least one month prior to commencement of operation (or within such period as otherwise agreed by the Director-General), HWC shall submit for approval of the Director-General a compliance report detailing compliance with all relevant conditions that apply prior to commencement of operation and shall address:
 - the dates of submissions of the various studies and/or requirements of various relevant conditions, and their approval and terms of approval; and
 - action taken or proposed to implement the recommendations made in terms of approvals and/or studies.

Dispute Resolution

9. In the case of a dispute between HWC and any public authority (but excluding any dispute between HWC and its contractors and/or subcontractors involved in the construction or operation of the project) in the implementation of the Conditions of Approval, the matter shall be referred to the Director-General for resolution, or if not resolved, to the Minister whose determination of the disagreement shall be final and binding on all parties.

Project Commencement

10. Hunter Water Corporation shall notify the Director-General and all relevant authorities in writing of the project commencement date(s) prior to construction and operation.

Contact Telephone Number

11. Prior to commencement of construction, HWC shall provide to the Director-General, EPA, DLWC, RTA, NSW Fisheries, Cessnock City Council, and all relevant government agencies, a 24 hour contact telephone number which will reach a person who can arrange, within a reasonable time as appropriate to the nature of the issue, appropriate action to be taken. The contact telephone number shall also allow any member of the public to contact HWC with respect to seeking information or making a complaint.

Complaints

12. An initial response to any complaint is to be made to the complainant within 24 hours of receipt. Hunter Water Corporation shall then:
 - investigate the concerns raised by the complainant and undertake all reasonable attempts to determine the cause of concern; and
 - if adverse impacts are identified, undertake all practicable measures to modify the activity which may be causing the impacts.

Complaints Register

13. Hunter Water Corporation shall maintain a Complaints Register which shall be:
- used to record details of all complaints received and actions taken by HWC during the construction and operation stages; and
 - available to all relevant government agencies including but not limited to DUAP, EPA, DLWC, RTA, NSW Fisheries, NSW Health, and Cessnock City Council.

Community Notification and Liaison

14. Hunter Water Corporation shall:
- prior to commencement of construction, place an advertisement in a relevant local newspaper and prepare a brochure that is circulated to nearby residents, which describe:
 - the type and locations, and where possible the timing, of works to be undertaken;
 - any anticipated traffic disruptions and controls including temporary detours;
 - work required outside of the nominated working hours; and
 - provides contact details in accordance with Condition of Approval No. 11.
 - regularly contact adjacent landowners over the duration of the construction to provide updated information on the project and community feedback.

Intended Processing Capacity of the Kurri Kurri Wastewater Treatment Works

15. Hunter Water Corporation shall review its projected average dry weather sewage flow every five years, or at such other more frequent period as required by the Director-General, for the catchment serviced by the Kurri Kurri WWTW. The review shall be submitted to the EPA and the Director-General and be accompanied by a report which:
- revises the average dry weather flow projections to indicate the anticipated date when the intended design capacity of 21,400 EP or 4.9 ML/day at average dry weather flow is likely to be attained at Kurri Kurri WWTW (predicted in the EIS to occur in 2019);
 - identifies a program of any necessary works, and the timing of these works, that it intends to undertake to provide Stage 2 capacity of 25,000 EP.
 - recommends strategies (including upgrade and/or amplification works) that it proposes to undertake in time to ensure the intended processing capacity of 4.9 ML/day at average dry weather flow (Stage 1) and 6 ML/day at average dry weather flow (Stage 2) is not exceeded, or design and/or operational changes to ensure that the effluent quality is equivalent to, or better than, design criteria implemented for this project.

Treatment Levels at the Kurri Kurri Wastewater Treatment Works

16. Following commissioning of the new Kurri Kurri WWTW, all flows up to 3 x ADWF must receive full tertiary sewage treatment. Flows in excess of 3 x ADWF and up to 7 x ADWF may bypass the bioreactor to the clarifiers for secondary treatment including UV disinfection. All flows in excess of 7 x ADWF must be stored in the existing maturation ponds, until the flow falls below 3 x ADWF, and then be pumped back for full treatment.
17. Effluent shall at least meet the following quality limits unless otherwise modified in any licence issued by the EPA:

Parameter	50 percentile	90 percentile
TSS mg/L	2	10
BOD ₅ mg/L	5	10
NH ₃ -N mg/L	1	3
Total N mg/L	10	15
Total P mg/L	0.1	0.5
FC (CFU/100 mL)	150	200

Environmental Management Representative

18. A suitably qualified Environmental Management Representative (EMR) shall be available during construction activities at the site and be present on-site during any critical construction activities as defined in the Environmental Management Plan at Condition of Approval No. 23. The EMR shall have responsibility for considering and advising on matters specified in the conditions of approval and compliance with such and facilitation of an induction and training program for all persons involved with the construction activities. The following information shall be provided to the Director-General:
- appropriateness of the qualifications of the EMR including demonstration of general compliance with the principles of AS/NZS ISO 14012:1996 *Guidelines for Environmental Auditing : Qualifications criteria for environmental auditors*;
 - role and responsibility of the EMR; and
 - authority of the EMR including details of HWC's internal reporting structure. This shall include the authority to stop work immediately if in the view of the EMR an unacceptable impact is likely to occur or to require other reasonable steps to be taken to avoid or minimise any adverse impacts.
19. The appointment of the person nominated to serve as the EMR shall be approved by the Director-General prior to commencement of construction.
20. The EMR shall immediately bring to the attention of the Director-General any major issues resulting from the construction of the project which have not been dealt with expediently or adequately by HWC.

Environmental Management System

21. In the assessment of tenders for construction and operation of the proposal, HWC shall include as a key evaluation criterion, the tenderer's demonstrated commitment to environmental management. Demonstration should be by way of commitment of a recognised Environmental Management System (such as ISO 14000, BS 7750-1994 or similar) and/or a proven satisfactory environmental management performance record.
22. All sampling strategies and protocols undertaken as part of the monitoring programs required by these Conditions of Approval shall include a quality assurance/quality control plan and shall require approval from the relevant regulatory agencies to ensure the effectiveness and quality of the monitoring program. Only accredited laboratories shall be used for the laboratory analysis.

Environmental Management Plan(s) (Construction Stage)

23. A project specific Environmental Management Plan(s) (Construction Stage), for the new Kurri Kurri WWTW shall be prepared by HWC to the satisfaction of the Director-General following consultation with the EPA, DLWC, Cessnock City Council, and any other relevant government agency nominated by the Director-General, prior to commencement of construction works. The EMP shall be prepared in accordance with the conditions of this approval, all relevant Acts and Regulations and accepted environmental management best practice.
24. The EMP(s) shall be made publicly available on request and shall:
- address construction activities associated with the site and the decommissioned site of the old works;
 - cover specific environmental management objectives and strategies for the main environmental system elements and include, but not be limited to: water quality; noise; air/odours; erosion and sedimentation; access and traffic; property acquisition and/or adjustments; groundwater contamination; waste/resource management; terrestrial and aquatic flora and fauna; hydrology and flooding; recreation areas; visual screening, landscaping and rehabilitation; heritage items, hazards and risks; resource use and recycling; and utilities.

- address, but not be limited to:
 - identification of the statutory and other obligations which HWC is required to fulfil during project construction including all approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies which control HWC's construction of the proposal;
 - definition of the role, responsibility, authority, accountability and reporting mechanism applicable to people having responsibilities under the EMP;
 - measures to avoid and/or control the occurrence of environmental impacts;
 - measures (where practicable and cost effective) to provide positive environmental offsets to unavoidable environmental impacts;
 - the role of the EMR;
 - environmental management procedures for all construction processes which are important for the quality of the environment in respect of permanent and/or temporary works;
 - monitoring, inspection and test plans for all activities and environmental qualities which are important to the environmental management of the project including performance criteria, specific tests, protocols (eg. frequency and location) and procedures to follow;
 - environmental management instructions for all complex environmental control processes which do not follow common practice or where the absence of such instructions could be potentially detrimental to the environment;
 - steps HWC intends to take to ensure that all plans and procedures are being complied with;
 - rehabilitation measures to be undertaken upon decommissioning the old works (Refer Condition of Approval No. 53); and
 - requirements arising from consultation with relevant government agencies, and Cessnock City Council.

Specific requirements for some of the main environmental system elements referred to above shall be as required under the conditions of this approval and/or as required under any licence or other approval.

Environmental Monitoring (Construction)

25. Hunter Water Corporation shall submit reports to the Director-General in respect of the environmental performance of the construction works and compliance with the Environmental Management Plan (Construction Stage) and any other relevant conditions of this approval. The reports shall:

- be prepared at six-monthly intervals or at other such periods as requested by the Director-General to ensure adequate environmental performance over the duration of the construction works;
- include, but not be limited to information on:
 - applications for consents, licences and approvals, and responses from relevant authorities;
 - implementation and effectiveness of environmental controls and conditions relating to the work undertaken;
 - identification of construction impact predictions made in the EIS and any supplementary studies and details of the extent to which actual impacts reflected the predictions;
 - details and analysis of results of environmental monitoring;
 - the number and details of any complaints, including a summary of the main areas of complaint, action taken, response given and intended strategies to reduce complaints of a similar nature; and
 - any other matter relating to the compliance by HWC with the conditions of this approval or as requested by the Director-General.
- submitted to the EPA, DLWC, Cessnock City Council, and any other relevant government agency nominated by the Director-General;

- made publicly available; and
- certified by the EMR.

Environmental Management Plan (Operation Stage)

26. Hunter Water Corporation shall prepare an Environmental Management Plan for the operation stage of the proposal prior to commissioning. The EMP (Operational Stage) shall be prepared to the satisfaction of the Director-General, following consultation with the EPA, DLWC, Cessnock City Council, and any other relevant government agency nominated by the Director-General.
27. The EMP (Operational Stage) shall be prepared in accordance with the conditions of this approval, all relevant Acts and Regulations and accepted best practice management procedures.
28. The EMP (Operational Stage) shall be made publicly available on request and shall address the site of the new WWTW, but not be limited to:
 - identification of the statutory and other obligations which HWC is required to fulfil including all licences/approvals and consultations/agreements required from authorities and other stakeholders, and key legislation and policies which control the HWC's operation of the project;
 - requirements of and compliance with relevant EPA guidelines;
 - sampling strategies and protocols to ensure the adequacy of the monitoring program including any specific requirements of the EPA and the DLWC;
 - monitoring, inspection and test plans for all activities and environmental qualities which are important to the environmental performance of the project during its operation, including description of potential site impacts, performance criteria, specific tests and monitoring requirements, protocols (eg frequency and location) and procedures to follow;
 - detailed contingency procedures for dealing with: power failures; overflows within the treatment plant; and bushfires;
 - steps HWC intends to take to ensure that all plans and procedures are being complied with;
 - quantities and method of storage of the chemicals likely to be used and compliance with the requirements of the *Dangerous Goods Act*;
 - summary of management strategies employed for:
 - effluent management including monitoring at discharge points in terms of quality and quantity;
 - biosolids disposal;
 - noise;
 - access and traffic;
 - water quality (including erosion and sedimentation controls) at the effluent discharge points;
 - air quality (including dust and odours);
 - health and public safety;
 - landscaping and maintenance and issues relating to flora and fauna;
 - security;
 - groundwater including monitoring in relation to the sludge lagoon and maturation ponds;
 - waste/resource minimisation, management, removal and disposal;
 - hydrology and flooding; and
 - hazards and risks and contingency plans (emergency response).

Specific requirements for some of the main environmental system elements referred to above shall be as detailed under the conditions of this approval and/or as required under any licence or approval.

Environmental Impact Prediction Verification

29. An Environmental Impact Prediction Verification Report which assesses the key impact predictions made in the EIS and any supplementary studies, shall:
- be submitted to the Director-General, the EPA and, upon request, to any other relevant government agency. The reports shall cover the first 12 months, and 5, 10, and 15 years of operation after commissioning of the plant operation and at any additional intervals the Director-General may require. Reports shall be submitted within 3 months of the end of each reporting period and:
 - be prepared at HWC's expense;
 - detail the extent to which actual impacts reflect the predictions including, but not limited to, the following:
 - water quality in relation to nutrients and algal concentrations in Swamp Creek; and
 - wet weather overflow and bypass frequency for the WWTW;
 - assess the suitability of implemented mitigation measures and safeguards;
 - assess compliance with the Environmental Management Plan (Operational Stage) and Conditions of Approval; and
 - discuss any community feedback on the project and issues of concern raised following commencement of plant operations.
30. The technical studies required as part of the Report in Condition of Approval No. 29 shall be prepared by appropriately qualified, independent specialists.
31. Hunter Water Corporation shall implement all the requirements of the Director-General with respect to any measures arising from the report prepared in accordance with Condition of Approval No. 29.

Water Quality

32. As part of the EMP (Operational Stage) referred to in Condition of Approval No. 26, HWC shall prepare, in consultation with the EPA and DLWC, a detailed Water Quality Management Procedure. The Procedure shall:
- provide details of pollution control measures to be undertaken during the operation of the Kurri Kurri WWTW;
 - satisfy all relevant Environment Protection Licence requirements; and
 - reference environmental issues and goals set out in relevant EPA and other guidelines.
33. The Procedure shall address, but not be limited to, the:
- identification of baseline surface water and groundwater quality monitoring locations;
 - design and implementation of monitoring programs to validate the predictions and to provide a basis for future decision making processes;
 - asset management and means of limiting overflows and bypass frequency, the frequency of all untreated discharges, and contamination of groundwater. (For groundwater this could mean re-lining the sludge lagoon or lining the maturation ponds);
 - emergency response and clean-up procedures; and
 - notification procedures for potentially affected parties during periods when emergencies, such as bypasses or power failures, occur.
34. The Procedure shall be prepared prior to commissioning of the new plant and shall be forwarded to the EPA and the DLWC.

UV Light Disinfection

35. Prior to the commissioning of the new plant, HWC shall prepare a detailed procedure in consultation with the EPA and to the satisfaction of the NSW Health Department, with the objective of optimising the UV light disinfection process for all likely operational modes of Kurri Kurri WWTW.

36. The procedure shall make explicit provision for:
- periods when complete treatment would be completely or partially bypassed and when suspended solids levels are found to be elevated and light transmissivity is being reduced; and
 - an appropriately designed monitoring program to facilitate:
 - optimisation of the UV light disinfection process; and
 - ongoing monitoring of its UV light disinfection efficiency.
37. With respect to the procedures for optimisation of disinfection, Hunter Water Corporation shall comply with all reasonable requests of the NSW Health Department to ensure that the disposal of wastewater does not pose a potential hazard to public health.

Effluent Reuse

38. Hunter Water Corporation shall prepare a report on reuse for the treated effluent at the Kurri Kurri WWTW within the first year of this approval, and thereafter as requested by the Director-General. The report shall:
- identify progress on all investigations to establish and expand reuse markets as identified in the EIS ie. the Kurri Kurri Golf Course and the Kurri Kurri TAFE; and
 - examine any likely future reuse markets, including water quality requirements.

Energy Use

39. Prior to finalising of detailed design of the plant, HWC shall identify all practical measures in relation to the reduction of on-site energy consumption during operation. Where practicable, such measures shall be incorporated into the WWTW design and shall be operational at the time of commissioning.

Air Quality

40. As part of the EMP (Operational Stage) referred to in Condition of Approval No. 26, HWC shall prepare a detailed Odour Management Procedure in consultation with the EPA and Cessnock City Council. The Procedure shall detail:
- all response actions to reduce the expected odour emission rates from the proposal to existing or lower levels than those currently emitted;
 - all aspects of odour management eg. identification of odour sources, control devices, treatment, adopted criteria and implementation of any necessary additional mitigation strategies, methodology for monitoring odour emissions (including representative meteorological conditions), reporting procedures, measures for dealing with exceedances, arrangements to inform residents and contact points, complaints handling systems, reporting of complaints; and
 - procedures for monitoring and assessing the operational effectiveness of the soil bed filters and, should problems be experienced, identify measures HWC shall take to eliminate such problems.
41. A specific Dust Management Procedure shall be prepared as part of the EMP (Construction) referred to in Condition of Approval No. 23. The Procedure shall:
- detail all dust control measures to be implemented during construction; and
 - include measures to reduce dust generation from stockpiles, cleared areas and other exposed surfaces.
42. All construction vehicles shall be maintained and covered as needed to prevent any loss of load, whether in the form of dust, liquid, solids or otherwise. The vehicles shall be maintained in such a manner that they will not track mud, dirt or other material onto any street which is opened and accessible to the public.

Noise

Noise Management Procedures

43. As part of the EMPs referred to in Conditions 23 and 26, HWC shall prepare, in consultation with Cessnock City Council, Noise Management Procedures. The Procedure shall provide details of noise control measures to be undertaken during both the construction and operation stages.
44. The Procedures shall be prepared prior to construction, shall be made publicly available, and shall include, but not be limited to:
- tests for ascertaining acoustic parameters;
 - anticipated airborne noise for all major noise generating activities and locations and durations of these activities;
 - impacts from site compounds/construction depots;
 - noise control equipment to be fitted to machinery;
 - temporary noise mitigation measures such as noise barriers;
 - shrouds around stationery plant to be installed prior to the commencement of noisy activities;
 - predicted noise levels at sensitive receivers (such as schools, churches, hospitals etc.);
 - noise monitoring and reporting procedures;
 - measures for dealing with exceedances; and
 - arrangements to inform residents of construction activities likely to affect their noise amenity ie. contact point for residents.

Construction Noise

45. Hunter Water Corporation shall meet EPA construction site noise criteria specified in the Environmental Noise Control Manual, 1994 (or its latest version).

Construction Hours

46. All construction activities including entry and departure of heavy vehicles shall be restricted to the hours 7.00 am to 6.00 pm (Monday to Friday); 8.00 am to 1.00 pm (Saturdays) and at no time on Sundays and public holidays. Works outside these hours which may occur include:
- any works which do not cause noise emissions to be audible at any nearby residential property;
 - the delivery of materials which is required outside these hours requested by police or other authorities for safety reasons; and
 - emergency work to avoid the loss of lives and/or property and/or to prevent environmental harm.

Operational Noise

47. Hunter Water Corporation shall review the operational noise (with particular attention given to compressors, blowers associated with the aeration tanks, aeration tanks, sludge dewatering plant, return activated sludge pumps, odour control plant, sludge pumps, reuse pumps, and effluent pumps) and undertake an analysis of daytime and night time noise levels at the surrounding residential areas during the normal operation of the Kurri Kurri WWTW. Should the review indicate a clear trend in noise levels which is inconsistent with the general predictions made in the EIS, HWC shall implement further noise mitigation measures.

Hazard Management

48. No later than two months prior to the commencement of commissioning of the WWTW, or within such further period as the Director-General may agree, HWC shall prepare and submit for the approval of the Director-General a Safety Management System report (SMS). Commissioning shall not commence until approval has been given by the Director-General.
49. The SMS shall cover all operations at the Kurri Kurri WWTW and associated transport activities involving hazardous materials. The SMS shall clearly specify all safety related procedures,

responsibilities and policies, along with details of mechanisms for ensuring adherence to procedures. Records shall be kept on-site and shall be available for inspection by the Director-General upon request. The SMS shall be developed in accordance with the Department's Hazardous Industry Planning Advisory Paper (HIPAP) No. 9, "Safety Management".

50. The SMS shall also cover assessment and management of hazards associated with the storage and use of chemicals.
51. Twelve months after the commencement of operations of the WWTW or within such further period as the Director-General may agree, HWC shall carry out a comprehensive hazard audit of the Kurri Kurri WWTW, and within two month of the audit submit a report to the Director-General. The audit shall be carried out at HWC's expense by a duly qualified independent person or team approved by the Director-General prior to commencement of the audit. Further audits shall be carried out every three years or as determined by the Director-General and a report of each audit shall within two months of the audit be submitted to the Director-General. Hazard audits shall be carried out in accordance with the Department's HIPAP No. 5 *Hazard Audit Guidelines*.

The audit shall include a review of the site safety management system and a review of all entries made in the incident register since the previous audit.

Limitations to Development in the Vicinity of the Proposed F3 Branxton Link Freeway Extension

52. Hunter Water Corporation shall ensure that no structures associated with the WWTW are constructed within 35 metres of the RTA's proposed F3 to Branxton freeway corridor. The corridor is described by the ISG coordinates provided by the RTA in its letter to HWC of 13 July, 2000.

Rehabilitation Management Plan for the Old Plant

53. As part of the EMP (Construction) referred to in Condition of Approval No. 23, HWC shall prepare a Rehabilitation Management Plan for the old treatment plant. The Plan shall address, but not be limited to:
 - procedures for treating any contaminated soils including disposal;
 - occupational health and safety procedures;
 - safeguards to prevent the migration of excavated material, leachate, or runoff;
 - demolition and earthwork requirements (Refer Condition of Approval 61); and
 - landscaping requirements (Refer Condition of Approval No. 58).

Soil and Water Management

54. As part of the EMPs (Construction) referred to in Condition of Approval No. 23, HWC shall prepare a comprehensive Soil and Water Management Procedure in accordance with the Department of Housing's guideline "Managing Urban Stormwater – Soils and Construction" (1998). The Procedure shall provide full details of all pollution control measures to be undertaken during the construction stage and satisfy all requirements for pollution control approval/licences. The plan shall be prepared in consultation with the EPA, DLWC, NSW Fisheries and Cessnock City Council.
55. The Soil and Water Management Procedure shall incorporate a detailed Erosion and Sedimentation Control Plan which shall be prepared in consultation with DLWC and shall satisfy all relevant pollution control approvals and licence conditions. A copy of the Erosion and Sedimentation Control Plan shall be forwarded to the DLWC and the EPA.

Traffic and Road Works

56. Traffic control plans shall be prepared in consultation with the RTA, Cessnock City Council and relevant stakeholders where traffic restrictions will be required.
57. A road dilapidation report shall be prepared for all roads nominated by Cessnock City Council likely to be used by construction traffic. The report shall be prepared in consultation with Cessnock City Council prior to commencement of construction activities. Hunter Water Corporation and Cessnock

City Council shall review the report as soon as practicable after construction is complete. Any road/footpath/cycleway damage (aside from that resulting from normal wear and tear) attributable to the construction of the proposal, shall be repaired to a standard at least equivalent to that existing prior to any disturbance.

Landscape Plan

58. As part of the EMP (Operation) referred to in Condition of Approval No. 26, HWC shall prepare a Landscape Plan designed to ensure both the protection of habitat and improve the values of the site for native species. The Plan shall include, but not be limited to:
- landscaping within and adjacent to the constructed WWTW lands incorporating the buffer between the new WWTW and the proposed RTA F3 Freeway corridor;
 - the use of *Eucalyptus parramattensis* subsp *decadens*, propagated from locally collected seed stock;
 - the use of other locally indigenous species for revegetation works as identified in Appendix 1 of Appendix G to the EIS¹;
 - specific management measures adopted to protect and preserve individual species of *Eucalyptus parramattensis* subsp *decadens* from outside influences in order to prevent ongoing simplification and degradation;
 - the use of tree species of known value to the Squirrel Glider ie. Swamp Mahogany, Grey Gum, Cabbage Gum, Forest Gum, Banksias, Acacias, and Ironbark; and
 - the incorporation of measures to ensure no net loss of hollows eg. marking trees for retention; erection of nesting boxes to compensate for any loss of potential bat or parrot roost sites.
59. All landscaping works shall be monitored and maintained at regular intervals to ensure their effectiveness. All costs of such monitoring and maintenance shall be borne by HWC unless otherwise agreed by the relevant property owner.

Property

60. Land owned by nearby residents shall not be used for any construction purposes unless otherwise agreed to by the owner.

Heritage

61. Hunter Water Corporation shall, prior to demolishing any of the structures of the old plant:
- prepare a report which assesses the heritage values of the Kurri Kurri Dortmund sedimentation tanks relative to the condition and values of Dortmund sedimentation tanks located elsewhere in NSW; and
 - undertake a full documentation and photographic record of the existing treatment plant for HWC's archives.

Waste Disposal and/or Recycling

62. As part of the EMPs referred to in Conditions 23 and 26, HWC shall prepare detailed Waste Management Procedures to address the management of wastes during both the construction and operation stages. The Procedures shall be prepared prior to construction and operation, as appropriate, and shall identify requirements for waste avoidance, reduction, reuse and recycling. They shall also detail requirements for handling, stockpiling and disposal of wastes specifically spoil, concrete, contaminated soil or water, demolition material, cleared vegetation, oils, greases, lubricants, sanitary wastes, timber, glass, metal, etc. The procedures shall also identify any site for final disposal of any material and any remedial works required at the disposal site before accepting the material. Any waste material which is unable to be reused, reprocessed or recycled shall be disposed at a landfill licensed by the EPA to receive that type of waste.

¹ "Threatened Species Assessment for the Proposed Construction of a New Wastewater Treatment Plant at Kurri Kurri", Ecotone Ecological Consultants Pty Ltd, prepared for Sinclair Knight Merz Pty Ltd and Hunter Water Corporation, Appendix 1. Flora Species Recorded Within the Study Area, 23 September, 1999.

Utilities and Services

63. Hunter Water Corporation shall, in consultation with the relevant service authority, identify all services potentially affected by construction activities to determine requirements for diversion, protection and/or support. Any alterations to utilities and services shall be carried out to the satisfaction of relevant authorities. The costs of any alterations shall be borne by HWC unless otherwise agreed to by the affected service/utility authority.