



MINISTER FOR THE ENVIRONMENT

Statement No.

000643

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

**DAMPIER PORT AUTHORITY – PORT EXPANSION
AND DREDGING PROGRAM**

Proposal: The expansion of port facilities near the existing Dampier Cargo Wharf, including the improvement and extension of the current Dampier Cargo Wharf, the construction of a new jetty and associated shipping infrastructure, and the dredging, loading and disposal of up to approximately 4.6 million cubic metres of sediments, as documented in schedule 1 of this statement.

Proponent: Dampier Port Authority

Proponent Address: PO Box 285, Dampier WA 6713

Assessment Number: 1495

Report of the Environmental Protection Authority: Bulletin 1116

The proposal referred to above may be implemented by the proponent subject to the following conditions and procedures:

1 Implementation and Changes

- 1-1 The proponent shall implement the proposal as documented in schedule 1 of this statement subject to the conditions of this statement.
- 1-2 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment determines, on advice of the Environmental Protection Authority, is substantial, the proponent shall refer the matter to the Environmental Protection Authority.

Published on

17 DEC 2003

- 1-3 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment determines, on advice of the Environmental Protection Authority, is not substantial, the proponent may implement those changes upon receipt of the approval of the Minister for the Environment.

2 Proponent Nomination and Contact Details

- 2-1 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.
- 2-2 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.
- 2-3 The nominated proponent shall notify the Department of Environmental Protection of any change of contact name and address within 60 days of such change.

3 Commencement and Time Limit of Approval

- 3-1 The proponent shall substantially commence the proposal within three years of the date of this statement or the approval granted in this statement shall lapse and be void.

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

- 3-2 The proponent shall make application for any extension of approval for the substantial commencement of the proposal beyond three years from the date of this statement to the Minister for the Environment, prior to the expiration of the three-year period referred to in condition 3-1.

The application shall demonstrate that:

1. the environmental factors of the 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 three years for the substantial commencement of the proposal.

4 Compliance Audit

4-1 The proponent shall prepare an audit programme and submit compliance reports to the Department of Environmental Protection which address:

1. the status of implementation of the proposal as defined in schedule 1 of this statement;
2. evidence of compliance with the conditions and commitments; and
3. the performance of the environmental management plans and programmes.

Note: Under sections 48(1) and 47(2) of the *Environmental Protection Act 1986*, the Chief Executive Officer of the Department of Environmental Protection 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.

4-2 The proponent shall submit a report prepared by an auditor approved by the Department of Environmental Protection under the "Compliance Auditor Accreditation Scheme" to the Chief Executive Office of the Department of Environmental Protection on each condition/commitment of this statement which requires the preparation of a management plan, programme, strategy or system, stating that the requirements of each condition/commitment have been fulfilled within the timeframe stated within each condition/commitment.

5 Port-wide Coral Reef Surveys

5-1 Prior to 31 December 2005, the proponent shall conduct a field survey of the current distribution of coral reef habitat (see note 1 below) within the Dampier Port area, as defined in the *Port Authorities Act 1999*, outside periods when water clarity is affected by dredging in the vicinity of the survey area, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

As part of the survey, the proponent shall:

- 1 Identify the location, spatial extent and percentage cover of the different scleractinian coral communities in the area; and
- 2 Record existing scleractinian corals observed within the communities to species level as far as practicable.

Where there are scientific difficulties in determining the taxonomy of corals to species level, the proponent shall obtain the advice of appropriate scientific authorities on the practicability of a determination to that level, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Note 1: "Coral reef habitat" is defined as "areas of the seafloor which support scleractinian corals at a density of greater than 10 per cent cover".

- 5-2 Prior to 31 December 2005, the proponent shall conduct a survey to determine both the original historical* distribution of scleractinian coral reef habitat within the Dampier Port area, as defined in the *Port Authorities Act 1999*, and the cumulative coral loss resulting from human activity, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

As part of the survey the proponent shall:

- 1 Employ historical aerial photographic records, previous environmental review documents, management plans, monitoring programmes and other relevant information to assist in determining the original extent of coral habitat and historical losses; and
- 2 Provide best, most probable and worst-case estimates of coral reef habitat loss and the assumptions used for each estimate.

*Note: "Historical distribution of scleractinian coral reef habitat" is defined as "the original distribution of coral reef habitat with a density of greater than 10 per cent cover of the seafloor prior to European impact".

6 Water Quality Monitoring

- 6-1 During dredging and spoil disposal activities, at intervals not exceeding three days between measurements, the proponent shall undertake water quality monitoring at potential impact sites and appropriate reference sites as specified in the Dredging and Spoil Disposal Management Plan required by condition 8-1, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Water quality measurements shall be taken at "near surface", "near bottom" and at other appropriate depths within the water column.

The objectives of this monitoring are to:

- calibrate numerical models of turbidity generated through dredging and spoil disposal;
- validate the calibrated numerical models;
- establish and document the extent and severity of turbidity plumes associated with dredging and spoil disposal in Mermaid Sound; and
- facilitate the establishment of relationships between coral health and dredging- and spoil disposal-induced turbidity.

The parameters to be measured shall include:

1. turbidity (in NTUs);
2. total suspended solids (mg/L);
3. Dissolved oxygen (mg/L);
4. pH; and

5. depth in the water column at which each measurement is taken.
- 6-2 The proponent shall report the results of monitoring required by condition 6-1 to the Department of Environmental Protection for the duration of dredging and spoil disposal activities, at monthly intervals on the same day of each successive calendar month, with the first report being submitted one month after the commencement of dredging.

7 Control and Management of Dredging and Spoil Disposal

- 7-1 Irrespective of the requirements of conditions 7-2 to 7-8, the proponent shall not conduct dredging and/or spoil disposal activities during the anticipated four-day coral mass spawning periods of 14 to 17 March 2004 and 12 to 15 April 2004.
- 7-2 The proponent shall commence a fortnightly coral health monitoring programme as set out in the Coral Health Monitoring Plan required by condition 10-1 at least 14 days prior to the commencement of dredging and/or spoil disposal activities, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

This monitoring programme shall also include prior baseline measurements of coral health for:

1. potential impact monitoring sites likely to be affected by dredging or disposal associated with the adjacent proposal to dredge and dispose of spoil (Environmental Protection Authority Bulletin 1117, assessment no. 1493); and
 2. appropriate reference sites outside the zones of influence of dredging and spoil disposal activities.
- 7-3 The proponent shall continue the coral health monitoring programme referred to in condition 7-2 during dredging and/or spoil disposal activities and for at least two months after cessation of all dredging and spoil disposal activities, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
 - 7-4 Subject to condition 7-5, the proponent shall report the results of each fortnightly coral health monitoring survey to the Department of Environmental Protection for the duration of coral health monitoring, at monthly intervals on the same day of each successive calendar month, with the first report being submitted one month after the commencement of monitoring.
 - 7-5 If at any time net coral mortality exceeds the 'threshold' level, but is less than the 'limit' level specified in condition 10-5, the proponent shall, within 24 hours:
 1. implement one or more management measures set out in schedule 2; and
 2. report the exceedence and the management measures implemented to the Department of Environmental Protection,but may continue dredging and/or spoil disposal activities.
 - 7-6 If at any time during dredging and/or spoil disposal activities, net coral mortality at any potential impact monitoring site exceeds the 'limit' level specified in condition 10-5, the

proponent shall immediately cease all dredging and/or spoil disposal activities which are contributing to the observed mortality at the site(s) where that 'limit' level is exceeded, and shall report the exceedence to the Department of Environmental Protection within 24 hours.

7-7 The proponent shall not recommence dredging and/or spoil disposal activities following any cessation required by condition 7-6 until such time as it can be demonstrated to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority that:

- 1 the recommencement of such activities will not contribute to further net mortality of corals at any potential impact monitoring site at which the 'limit' level specified in condition 10-5 has been exceeded; and
- 2 the ambient environmental conditions at any potential impact monitoring site at which the 'limit' level has been exceeded are such as to not prevent recovery.

7-8 If for any reason other than as a result of a cyclone or other natural phenomenon which has affected underwater visibility or safety of personnel, the regular fortnightly coral health monitoring surveys have not been undertaken during any four-week period (ie. two consecutive coral health monitoring surveys) at any potential impact monitoring site, the proponent shall immediately cease dredging and disposal activities which may affect water quality at that site until such time as the level of net coral mortality at that site can be assessed and demonstrated to be below the 'limit' level specified in condition 10-5.

7-9 The proponent shall report any cessation of dredging and/or disposal activities and subsequent recommencements which occur as a result of meeting the requirements of condition 7-8 to the Department of Environmental Protection within 24 hours.

8 Dredging and Spoil Disposal Management Plan

8-1 Prior to commencement of dredging and/or spoil disposal activities, the proponent shall prepare a Dredging and Spoil Disposal Management Plan, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Note: In preparation of advice to the Minister for the Environment, the Environmental Protection Authority expects that advice of the following agencies will be obtained:

- Commonwealth Department of the Environment and Heritage;
- Department for Planning and Infrastructure (Maritime Division);
- Department of Fisheries; and
- Department of Conservation and Land Management.

The objectives of this Plan are to:

- evaluate the zone of influence of turbidity plumes generated by dredging and spoil disposal;

- protect the sensitive marine ecological attributes (ecological values) from the effects of sedimentation, deterioration in light climate, contamination and other impacts associated with dredging and spoil disposal; and
- protect the long term values of seafood quality, aquaculture production, recreational values and existing industrial water supply (social values) from the environmental effects of dredging and spoil disposal.

Note: The term "sensitive marine ecological attributes" means "coral reefs, seagrass meadows and mangrove forests, and the biota associated with these habitats".

This Plan shall:

1. address monitoring requirements and management measures to protect sensitive marine ecological attributes and social values of Mermaid Sound consistent with the operational requirements of the Port, and any other areas within the potential zone of influence of the environmental effects of dredging and spoil disposal;
2. identify the ecological and social values to be protected;
3. identify and spatially define appropriate environmental quality objectives to be met during dredging and spoil disposal activities;
4. establish the environmental quality criteria to protect social values in the long term;
5. describe the type of dredge(s) to be used and mode of operation;
6. determine most probable and worst-case timing and duration of dredging and spoil disposal activities and contingencies for unforeseen delays;
7. contain the potential zones of influence of dredging and spoil disposal activities on water quality, and explain the rationale underpinning the predictions;
8. using information gathered to meet the requirements of point 7 above, specify appropriate reference sites outside the potential zones of influence of dredging and spoil disposal activities on water quality and coral health;
9. specify potential impact sites adjacent to and between the source(s) of turbidity and sensitive marine ecological attributes which require protection from the effects of dredging and spoil disposal activities;
10. set out procedures, including frequency, probable flight paths and methods of recording information (eg. photography), for routine aerial monitoring of the plume and the appropriateness of reference sites for the duration of dredging and spoil disposal activities and for a period after the completion of dredging and spoil disposal to confirm the time taken and area required for dispersion of residual turbidity;
11. set out the procedures for monitoring water quality at appropriate reference sites and potential impact sites;
12. specify the management actions and contingency measures to be implemented in the event of exceedance of the levels specified in condition 10-5; and
13. specify reporting procedures.

- 8-2 The proponent shall implement the Dredging and Spoil Disposal Management Plan required by condition 8-1, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 8-3 The proponent shall make the Dredging and Spoil Disposal Management Plan required by condition 8-1 publicly available, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

9 Introduced Marine Pests and Ballast Water

- 9-1 Prior to commencement of dredging and within 48 hours following entry of the dredging equipment and other vessels associated with the proposal into the Port of Dampier, the proponent shall arrange for an inspection to be carried out by an appropriately qualified marine scientist to ensure that;
 - 1. there is no sediment in the dredging equipment; and
 - 2. any fouling organisms on the dredging equipment and other vessels associated with the proposal and any organisms in the ballast waters of the equipment and vessels do not present a risk to the ecosystem integrity of the marine waters of the Dampier Archipelago,

to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 9-2 Prior to commencement of dredging, the proponent shall report to the Department of Environmental Protection on the results of the inspection referred to in condition 9-1, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 9-3 The proponent shall manage any sediment or fouling organisms found as a consequence of the inspection required by condition 9-1, to the timing and other requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 9-4 If, following the completion of dredging and disposal activities, the dredging equipment is to be transferred to another location within Western Australia's territorial waters, the proponent shall undertake an investigation employing an appropriately qualified marine scientist to identify the presence of / the potential for introduced marine pests, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 9-5 In the event that any introduced marine pests are detected, the proponent shall put in place a Marine Pests Management Strategy to ensure that introduced marine pests are not transferred to other locations within Western Australia's territorial waters, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Note: In the preparation of the report required by condition 9-2, and in the development of any actions required by conditions 9-3 to 9-5, the Environmental Protection Authority expects that advice of the following agencies will be obtained:

- Department of Fisheries; and
- Australian Quarantine Inspection Service.

10 Coral Health Monitoring

10-1 Prior to commencement of dredging or spoil disposal activities, the proponent shall prepare a Coral Health Monitoring Plan, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The objectives of this Plan are to:

- establish the baseline health condition of coral prior to any dredging or spoil disposal activities undertaken as part of this proposal or the adjacent proposal to dredge and dispose of spoil (Environmental Protection Authority Bulletin 1117, assessment no. 1493) as indicated by the extent of living coral at appropriate reference and monitoring sites;
- monitor and assess any changes in the health of corals, as indicated by the net extent of coral mortality which occurs subsequent to the commencement of dredging and/or spoil disposal activities; and
- compare net coral mortality at potential impact monitoring sites with 'threshold' and 'limit' levels for net coral mortality set out in condition 10-5, within the zones of influence of dredging and spoil disposal activities.

This Plan shall include the following:

1. the location of appropriate coral health potential impact monitoring sites and reference sites;
2. protocols and procedures for monitoring and quantitatively assessing the extent of coral mortality using fortnightly coral health monitoring surveys at all of the potential impact monitoring sites;
3. calculations of statistical power of the monitoring procedures referred to in point 2 above to demonstrate that the procedures are appropriate to assess the extent of mortality against the 'threshold' and 'limit' levels set out in condition 10-5;
4. the results of pre-dredging field surveys at appropriate potential impact and reference sites to be conducted at least two weeks prior to the commencement of this proposal, establishing the baseline conditions in terms of live coral cover at those sites; and
5. reporting procedures for the regular fortnightly coral health monitoring surveys required by condition 7-4.

10-2 During dredging and spoil disposal activities, notwithstanding conditions 7-4 to 7-8, the proponent shall undertake regular fortnightly coral health monitoring at all potential impact sites and appropriate reference sites, in such a manner and at such a frequency as set out in the Coral Health Monitoring Plan required by condition 10-1.

- 10-3 Within three days following each coral health survey required by condition 10-2, the proponent shall determine the gross extent of coral mortality at each potential impact monitoring site and at each reference site, based on the survey data, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The gross extent of coral mortality shall be calculated as the total reduction in cover of living coral at a site occurring after the date of establishment of the original extent of live coral cover (see condition 10-1), expressed as a percentage of the established original extent of live coral cover at that site.

- 10-4 In the event that gross coral mortality at any potential impact monitoring site, as determined in accordance with condition 10-3, is greater than 10 per cent, the proponent shall, within five days, survey appropriate reference sites and determine the net extent of coral mortality at each potential impact monitoring site, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The net extent of coral mortality at each potential impact monitoring site shall be calculated by subtracting the gross percentage of mortality measured at the appropriate reference site/s from the gross percentage of mortality at the potential impact monitoring site.

The fortnightly coral health surveys at potential impact sites shall then continue for the duration of dredging and spoil disposal, and for at least two months after completion of dredging and spoil disposal.

- 10-5 Within twenty-four hours of calculating the net extent of coral mortality referred to in condition 10-4, the proponent shall compare the net extent of coral mortality at each potential impact monitoring site with the 'threshold' and 'limit' levels for net coral mortality which are 10 per cent and 30 per cent respectively, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

11 Coral Habitat Monitoring and Management

- 11-1 Prior to commencement of dredging and spoil disposal activities, the proponent shall prepare a Coral Habitat Monitoring and Management Plan, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Note: In preparation of advice to the Minister for the Environment, the Environmental Protection Authority expects that advice of the following agencies will be obtained:

- Commonwealth Department of the Environment and Heritage;
- Department of Fisheries; and
- Department of Conservation and Land Management.

The objectives of this Plan are to:

- establish pre-dredging baseline conditions of coral reef location, spatial extent, biodiversity and community structure (e.g. community composition and per cent cover of coral communities), the different scleractinian coral communities currently present at appropriate reference and monitoring sites;
- monitor the effects of dredging and spoil disposal activities on the biodiversity, structure, health and reproductive success of coral reef habitats which occur within predicted zones of influence of dredging and spoil disposal activities; and
- maintain the ecological integrity and biodiversity of coral reef habitats consistent with the operational requirements of the Port.

This Plan shall include the following:

1. the location of appropriate potential impact sites and reference sites;
 2. the results of pre-dredging field surveys describing baseline conditions at all sites specified in point 1 above in terms of the species of scleractinian corals present and community structure;
 3. criteria for spawning success and coral health against which to report monitoring data and to evaluate environmental performance;
 4. protocols and procedures for monitoring coral reef health;
 5. calculations of statistical power of the monitoring procedures in point 4 above to demonstrate that the procedures are appropriate to detect impacts associated with dredging and spoil disposal activities, in the event that impacts occur;
 6. the timing and frequency of coral reef health monitoring;
 7. procedures for monitoring individually-marked coral colonies to assess the extent and timing of the coral mass spawning events of March and April 2004;
 8. the management response(s) to be implemented in the event that criteria established in point 3 above are not met;
 9. completion criteria for management response(s) in point 8 above; and
 10. reporting procedures.
- 11-2 Prior to the commencement of dredging, and for at least two years following the completion of dredging and disposal activities, or until completion criteria required by condition 11-1 have been met, the proponent shall implement the Coral Habitat Monitoring and Management Plan required by condition 11-1, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 11-3 The proponent shall make the Coral Habitat Monitoring and Management Plan required by condition 11-1 publicly available, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

12 Marine Monitoring and Management

- 12-1 Prior to completion of dredging and spoil disposal activities, the proponent shall prepare a Marine Monitoring and Management Programme, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Note: In preparation of advice to the Minister for the Environment, the Environmental Protection Authority expects that advice of the following agencies will be obtained:

- Department for Planning and Infrastructure (Maritime Division);
- Department of Fisheries; and
- Department of Conservation and Land Management.

This Programme shall address the following:

1. the environmental values to be protected;
 2. the environmental quality criteria to be met;
 3. water and sediment quality surveys (eg. contaminants, turbidity, dissolved oxygen, pH);
 4. contaminant accumulation in biological tissues (eg. deployed oysters);
 5. benthic habitat health surveys, including clear objectives to measure spatial and temporal changes/variation;
 6. spatial changes to distribution of coral habitat;
 7. regular marine pest surveys (every three years);
 8. oil and chemical spill response; and
 9. a management framework which can be implemented to prevent or mitigate any identified environmental impacts.
- 12-2 Within three months following completion of dredging and spoil disposal activities, the proponent shall implement the Marine Monitoring and Management Programme required by condition 12-1 to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 12-3 The proponent shall make the Marine Monitoring and Management Programme required by condition 12-1 publicly available, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Procedures

- 1 The Environmental Protection Authority may seek advice from other agencies or organisations, as required, in order to provide its advice to the Minister for the Environment.

- 2 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 Environmental Protection.
- 3 Due to the requirement for adaptive management in the implementation of this proposal, the Minister for the Environment, following advice from the Environmental Protection Authority, may vary the 'threshold' and 'limit' levels referred to in condition 10 from time to time, provided that the result of any such changes is unlikely to lead to unacceptable impacts on the environmental values of local marine ecosystems.
- 4 The Environmental Protection Authority may vary:
 - the requirement for;
 - the area of application of; and
 - the start and finish dates of,

the cessation of dredging and spoil disposal during the coral spawning periods (specified in condition 7) in consultation with the proponent, on the basis of the results of investigations relating to the timing and extent of coral mass spawning required by condition 11.

Notes

- 1 The Minister for the Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environmental Protection over the fulfilment of the requirements of the conditions.
- 2 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

17 DEC 2003

Schedule 1

Dampier Port Authority – Port Expansion and Dredging Program (Assessment No. 1495)

The proposal by Dampier Port Authority to expand its port facilities located near the town of Dampier within Mermaid Sound, includes the following (Figure 1):

- the improvement and extension of the current Dampier Cargo Wharf;
- the construction of a new jetty and associated shipping infrastructure; and
- the dredging, loading and disposal of up to approximately 4.6 million cubic metres of sediments to the Northern Spoil Ground and East Lewis Island Spoil Ground from the deepening of the harbour area and the associated approach channel (Figure 2).

Table 1 - Key Proposal Characteristics

Element	Description
Dampier Cargo Wharf	<p>Extension of the wharf and deepening the Dampier Cargo Wharf berthing pocket and turning basin.</p> <ul style="list-style-type: none"> • Approximately 85,000 cubic metres to be dredged for confined disposal at the Northern Spoil Ground due to contamination with tributyltin (TBT); and • the balance of the inner harbour requires approximately 1,542,000 cubic metres to be dredged and disposed at the Northern Spoil Ground.
Jetty	<p>Construction of a jetty with additional berthing areas and turning basin west of the Dampier Cargo Wharf to attach to a load-out and lay-down facility.</p> <ul style="list-style-type: none"> • Approximately 212,000 cubic metres to be dredged and disposed at the Northern Spoil Ground.
Channel	<p>Creating a channel (160 metres wide and 6 kilometres long) to link the Dampier Port to deeper water.</p> <ul style="list-style-type: none"> • Approximately 2,145,000 cubic metres to be dredged and disposed at the Northern Spoil Ground.
Timing	Dredging for four to six months from commencement of dredging (nominally November 2003), followed by construction of the jetty to be completed by June 2005.
Dredging and Disposal	<p>TOTAL approximately 4,609,000 cubic metres:</p> <ul style="list-style-type: none"> • Approximately 3,996,000 cubic metres as described above suitable for unconfined disposal to the Northern Spoil Ground; • Approximately 85,000 cubic metres of TBT-contaminated material for confined disposal at the Northern Spoil Ground; and • Approximately 528,000 cubic metres allowance for over-dredge.

Figures (attached)

Figure 1 - Location of proposal; and

Figure 2 - Proposal dredging and disposal locations.

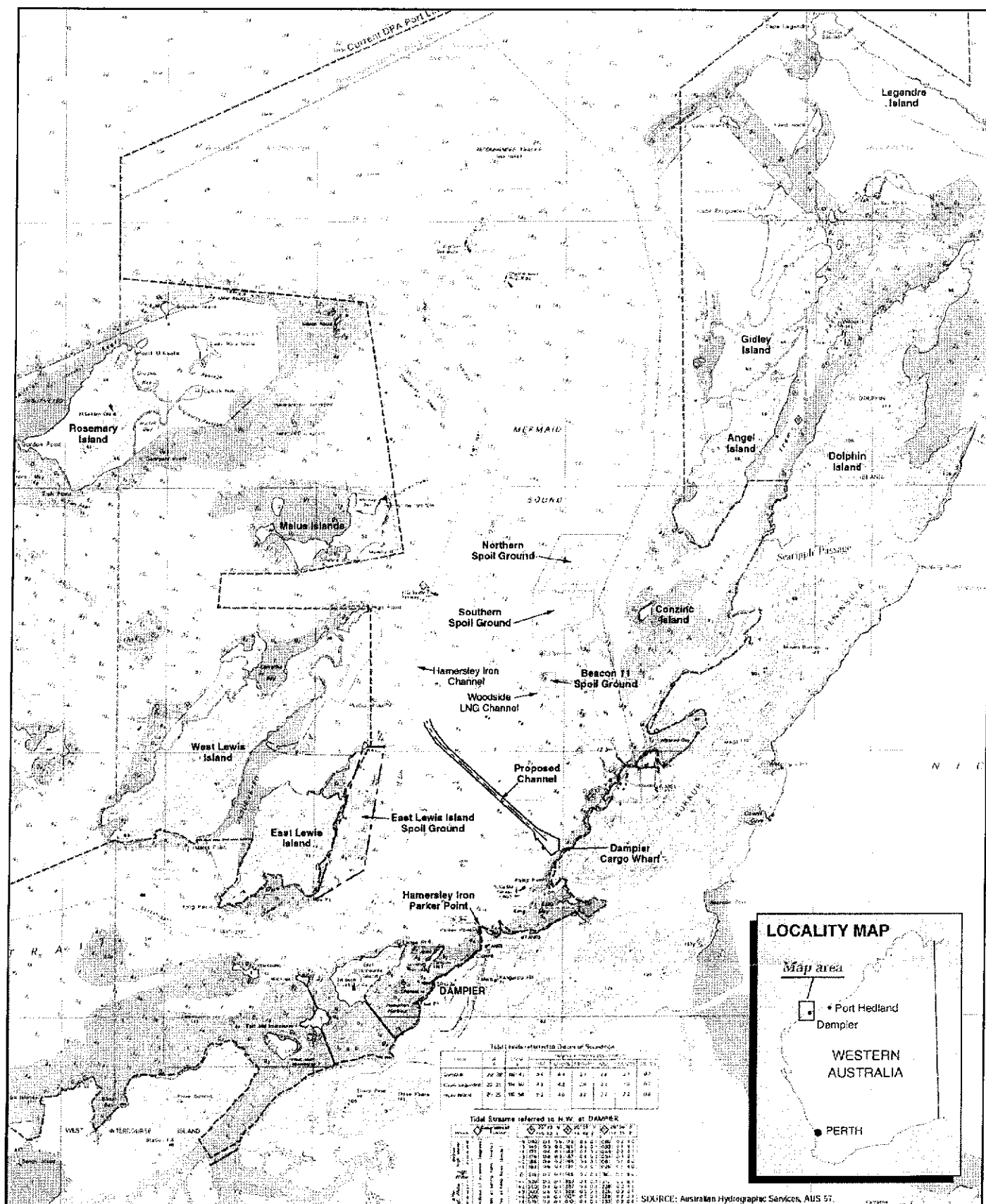


Figure 1: Location of proposal

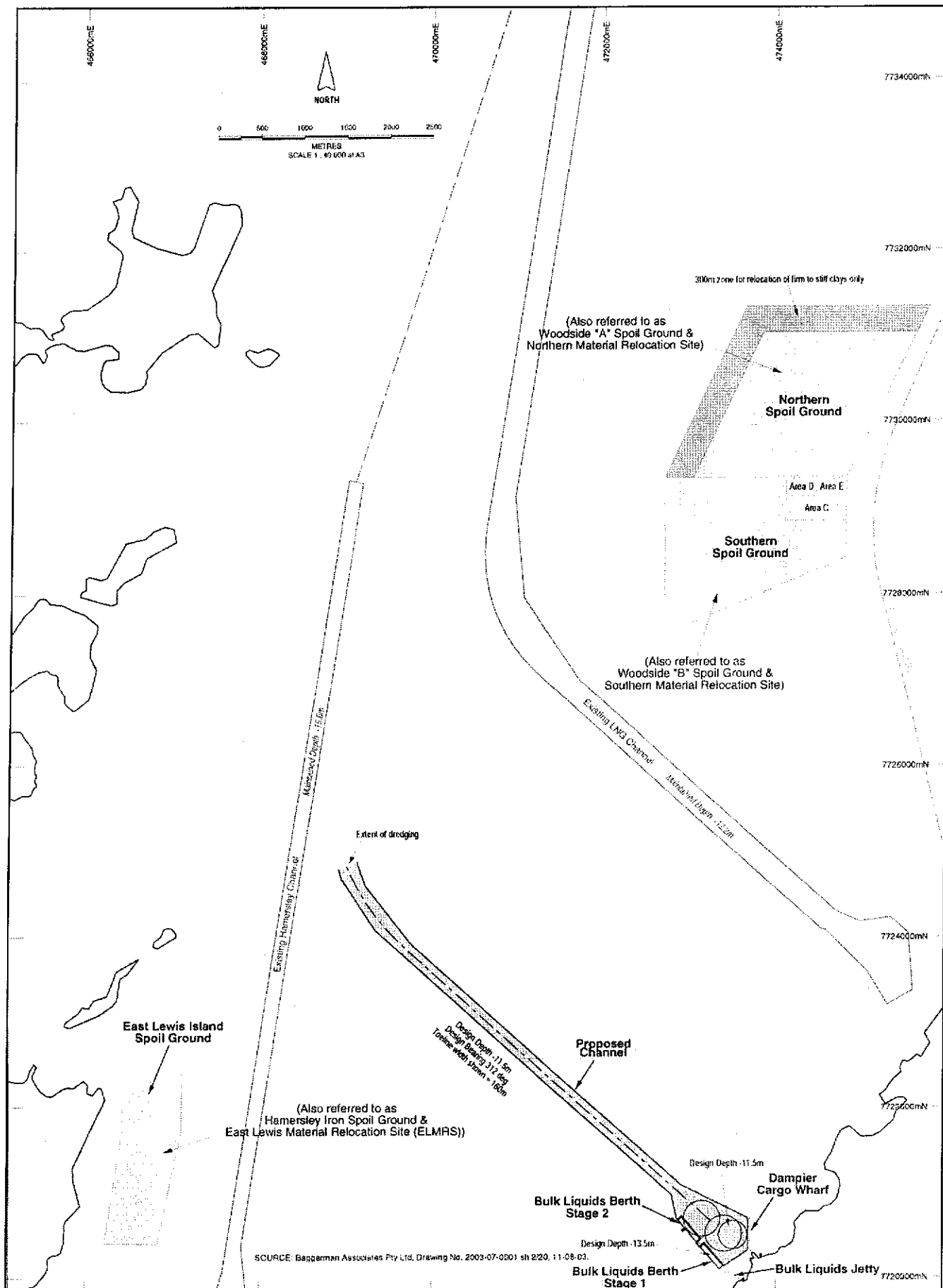


Figure 2: Proposal dredging and disposal locations

Schedule 2

Dampier Port Authority – Port Expansion and Dredging Program (Assessment No. 1495)

Possible management measures required by condition 7-5

Possible Management Measures (Any combination of at least one of the following management actions.)
<ul style="list-style-type: none">• Relocate dredge;• Relocate position for spoil disposal within spoil ground;• Use alternative spoil ground;• Reduce dredge overflow;• Deploy silt curtain barrier between dredging and/or disposal areas and coral sites;• Reduce dredging to single shift.