



CORPORATE POLICY STATEMENT NO. 47

PLANNING FOR DREDGING IN THE SWAN CANNING DEVELOPMENT CONTROL AREA

March 2023

1. OBJECTIVE

The objective of this policy is to ensure that dredging in or affecting the Swan Canning development control area (DCA) is necessary, does not unacceptably impact the Swan Canning river system and is undertaken in accordance with best practice management.

2. SCOPE

Dredging in the DCA requires development or permit approval. This policy is applied by the Department of Biodiversity, Conservation and Attractions (the department) when assessing development and permit applications for dredging in accordance with the *Swan and Canning Rivers Management Act 2006* (SCRM Act) and Swan and Canning Rivers Management Regulations 2007 (SCRM Regulations). It is also applied by the department and Swan River Trust when providing advice to other Government agencies and local governments on dredging proposals. This includes proposals in the DCA and those that may affect waters in the DCA. Proposals that may affect waters in the DCA include, but are not limited to, those that might mobilise sediment, nutrients and non-nutrient contaminants to the DCA, or that might alter the hydrology of the waterways and wetlands in the DCA.

This policy applies to applications for new dredging and maintenance dredging. Applicants, decision-making authorities and other Government agencies and local governments should have due regard to this policy for dredging proposals in or affecting the DCA.

The DCA is defined in Schedule 3 of the SCRM Act ([maps available](#)). In this policy, the Swan Canning river system means the named waterways within the Swan Canning Catchment as defined in Schedule 1 of the SCRM Act, but excluding the Avon catchment area.

All guidance documents identified in this policy should be taken to refer to the most current published version.

3. CONTEXT

Dredging involves the removal of sediment from the bed of a waterway, generally to deepen it for a defined purpose. Dredging can be an element of proposals for new facilities or extensions to existing facilities. It may also be proposed to maintain waterway system function, re-establish ecological features, such as pools, remove contaminants or maintain existing navigation channels.

The dredging process and resulting altered bathymetric conditions can have adverse ecological impacts, including:

- degradation of water quality by introducing sediment and porewater bound contaminants to the water column, increasing turbidity, decreasing dissolved oxygen levels and altering pH;
- mobilisation or exposure of contaminants, nutrients or algal cysts from disturbed sediments;
- direct and indirect damage to fauna and habitats, particularly benthic communities; and
- changes to shorelines, water movement, sediment type and sedimentation processes.

Increased sediment in the water column can affect aquatic fauna by physical abrasion or clogging of respiratory systems, and can reduce light penetration to and smother aquatic flora. Exposure of underlying sediments to the water column can release nutrients and contaminants, making them biologically available and able to have a range of negative impacts. Several harmful algal species produce resting cysts that can survive in benthic sediments for many decades. These can germinate and potentially result in harmful algal blooms if re-exposed to the water column during favourable conditions. Dredging is to be planned and managed to minimise potential impacts and ensure that those impacts do not persist beyond the short-term.

The creation of visible sediment plumes and alteration of riverine processes and water circulation resulting from dredging can adversely impact amenity, which affects the community's use and enjoyment of the river system.

Dredge spoil (excavated material) might be contaminated and require treatment and/or off-site disposal. However, clean dredge spoil may be used for beach renourishment, erosion control structure backfilling, or habitat creation.

This policy is to be applied in conjunction with the department's [Swan Canning Planning and Development Policies, Plans and Procedures Manual](#).

For policy measures that apply to all Western Australian waterways and additional measures and guidelines that apply to the Swan Canning river system, refer to draft *State Planning Policy 2.9 – Planning for Water* and its associated guideline.

4. LEGISLATION

The State Government has recognised the importance of the Swan Canning river system by legislating specifically for its protection and management through the SCRM Act. The SCRM Act establishes the Swan Canning catchment area, DCA, Riverpark and River reserve, and creates a governance structure, and regulatory and approval process for decision-making relating to the river system.

The department, Swan River Trust, Western Australian Planning Commission (WAPC) and State and local governments are responsible for the effective planning and management of land use and development within, abutting and affecting the waters in the DCA.

Under section 70 of the SCRM Act, all development in the DCA is subject to approval and control. The term 'development' is defined in section 3 of the SCRM Act to mean:

- a) the erection, construction, demolition, alteration or carrying out of any building, excavation or other works, in, on, over or under land and waters; and
- b) any material change in the use of land or waters; and
- c) any other act or activity declared as development under the SCRM Regulations.

In undertaking its statutory roles, the department assesses and provides advice and recommendations to the Minister for Environment for development in the DCA under Part 5 of the SCRM Act. The Minister may approve such development under section 70, unless the development is in a class which the Chief Executive Officer (CEO) of the department is authorised to approve under section 85. The CEO is also responsible for approving under a permit other works, acts and activities declared not to constitute development or controlled for Riverpark and DCA protection by the SCRM Regulations.

The SCRM Regulations define maintenance dredging as dredging that is necessary for the maintenance of access by vessels to marinas and jetties in the Riverpark or DCA. Regulation 16B provides an offence for maintenance dredging without the authority of a permit.

In performing their statutory functions, the department and the Swan River Trust also provide advice and recommendations to other decision-making authorities, Government agencies and local government on dredging proposals affecting and adjoining the DCA. These proposals are subject to control under clause 30A of the Metropolitan Region Scheme (MRS), the *Planning and Development Act 2005* and other State legislation.

5. POLICY

There is a general presumption against dredging. Dredging may be supported for ecological purposes, such as the re-establishment of river pools, and to maintain existing navigation channels, subject to approval. In all instances, dredging is to be minimised and managed so that it does not have an adverse effect on the ecological and community benefits, and amenity of the river system.

In undertaking its statutory roles and functions, the department and Swan River Trust will:

Justification for dredging

5.1 Require applications to demonstrate the necessity for the dredging and provide details regarding:

- past and expected future sedimentation rates;
- the proposed use(s) of the dredged area; and
- considered alternatives to dredging.

Potential impacts

5.2 Require dredging applications to demonstrate they are minimising and managing effects on water movement and the ecological health of the river system, including flora, fauna and their habitats. Applicants will likely be required to provide site specific details regarding:

- the extent and distribution of benthic habitats and identification of present species;
 - baseline water quality data;
 - sediment quality and composition (including contaminants);
 - potential risk of mobilising harmful algal species (i.e. analyse cyst occurrence in sediments);
 - waterway hydrodynamics (i.e. impact on water movement – flow direction, velocity, etc.);
 - predicted direct and indirect impacts of dredging, including extent, severity and duration;
 - consideration of spoil disposal options; and
 - need for, amount and frequency of any ongoing maintenance dredging.
- 5.3 Require dredging applications to demonstrate they are minimising and managing effects on landscape character, amenity, and community use. Consider potential secondary impacts, such as altered erosion and deposition patterns and affects to the shoreline. In some instances, turbidity and hydrodynamic modelling will be required.
- 5.4 Advise applicants to address Aboriginal and non-Aboriginal cultural heritage requirements in accordance with the *Aboriginal Cultural Heritage Act 2021* and *Heritage Act 2018*, respectively.

Dredge spoil

- 5.5 Require dredging applications to demonstrate that the feasibility of a range of dredge spoil management and disposal options has been considered and justify the selected method and site, with particular regard for spoil quality and characteristics. The department will require contaminated dredge spoil to be removed from the DCA and disposed offsite in accordance with the requirements of the Department of Water and Environmental Regulation. Temporary storage or disposal of dredge spoil in-water will not be supported unless there is a clear ecological and community benefit. The department may approve the use of clean dredge spoil in the DCA, for example, for beach re-nourishment. Applicants are directed to the sediment quality guidance provided in the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (2018), including default guideline values for toxicants. Evidence of the physical nature of the spoil and toxicity must be submitted to the department.

Management and monitoring

- 5.6 Require dredging applications to include a methodology, management and monitoring plan that addresses how the dredging is to be undertaken to ensure best possible protection of the ecological health, community benefit, amenity, and cultural heritage values of the river system. This includes optimising dredging and management technology with the aim of minimising disturbance, the physical effects of the spoil, any contamination (including algal cysts), effects on water quality and addressing noise and air quality (dust and odour). Applicants are directed to the methodology outlined in the *Technical Guidance – Environmental Impact Assessment of Marine Dredging Proposals* (EPA WA, 2016) and the environmental controls identified in *Dredge Guideline* (EPA SA,

2020) and *Best Practice Environmental Management Guidelines for Dredging* (EPA VIC, 2001).

- 5.7 Require a sediment ecotoxicology survey to support dredging applications, where necessary, considering the size of the disturbance area and volume of sediment to be removed.
- 5.8 Require water quality monitoring to be undertaken in accordance with the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (2018). The department considers the Swan Canning river system a slightly to moderately disturbed system and typically expects trigger levels for 95 per cent species protection to be applied. Trigger values based on local conditions may be considered where it can be demonstrated that adequate background data has been collected. Phytoplankton monitoring will likely be required to provide early warning against the potential for a toxic or noxious bloom.

Maintenance dredging

- 5.9 Require maintenance dredging applications to be in accordance with the original development plans and current best practice dredging methodology, management, and monitoring. The application is to provide information addressing the provisions of this policy proportionate to the level of risk associated with the proposal. Wherever possible, ongoing maintenance dredging should be minimised.

6. POLICY IMPLEMENTATION STRATEGIES

To implement this policy, the department will:

Swan River Trust

- 6.1 Consult with the Swan River Trust when assessing applications under Part 5 of the SCRMA Act and preparing strategic documents and corporate policies and guidelines.
- 6.2 Implement delegated powers from the Swan River Trust under the MRS.
- 6.3 Keep the Swan River Trust informed of development, and permitted works, acts and activities approved in the DCA.

Planning authorities (WAPC, other State agencies, and local governments)

- 6.4 Consult regularly with relevant planning authorities when providing advice on planning applications and assessing development and other permitted works, acts and activities in and around the DCA.

Referral agencies

- 6.5 Ensure there is a clear understanding of the role of referral agencies, how their advice will be considered in assessing applications and 'clearing' conditions of approval.

Assessment of applications

- 6.6 Seek appropriate advice when assessing applications. Advice may be sought from planning authorities, referral agencies, contractors, consultants, or other stakeholders and from the department's specialist branches and regional locations. Where expertise is available from within the department, it will be utilised prior to seeking advice from external parties.
- 6.7 Ensure relevant staff, contractors and consultants have the necessary qualifications, skills and expertise when assessing planning and development applications.
- 6.8 Maintain records of discussions, advice and decisions when undertaking the department's and Swan River Trust's statutory planning roles in accordance with the *State Records Act 2000*.

7. CUSTODIAN

Executive Director, Conservation and Ecosystem Management.

8. PUBLICATION

This policy will be made available on the department's website and intranet.

9. KEY WORDS

Swan, Canning, river, development control area, dredging, dredge spoil, maintenance dredging, bathymetry, benthic, water quality.

10. REVIEW

Further reviews will be at the discretion of the Director General, with a review undertaken after five years from the date it is signed.

11. SWAN RIVER TRUST ENDORSEMENT

Endorsed by



Hamish R Beck
CHAIR

Date: 28 February 2023

12. APPROVAL

Approved by



Peter Dans
ACTING DIRECTOR GENERAL
ACTING CHIEF EXECUTIVE OFFICER

Date: 2 March 2023