



Swan and Canning Rivers Management Act 2006

PART 5

DETERMINATION OF DEVELOPMENT APPLICATION

FILE NUMBER : 2015-4867
APPLICANT : Department of Water
APPLICANT'S ADDRESS : Attn: Leanne Hartley
Project Coordinator – Kent Street Weir Upgrade
Department of Water
Swan Avon Region
7 Ellam Street
VICTORIA PARK WA 6100
LANDOWNER : Swan River Trust (Lot 4162), City of Canning (Lots 25 and
3812), Department of Lands (Lot 8)
LAND DESCRIPTION : Lot 4162 on Plan 93607 (Reserve 48327) (Weir),
Lot 25 on Diagram 1594 and
Lot 3812 on Plan 54948, Wilson, and
Lot 8 on Plan 28671 (unallocated Crown land), Ferndale
DEVELOPMENT : Refurbishment of Kent Street Weir
VALID FORM 1 RECEIVED : 17 March 2016
DETERMINATION : **APPROVAL WITH CONDITIONS**

The application to commence development in accordance with the initial information received on 25 November 2015, and the supplementary information (including valid application form) received on 16 March and 17 March 2016, is APPROVED subject to the following conditions:

1. Approval to implement this decision is valid for two (2) years from the date of approval. If substantial on-site works have not commenced within this period, a new approval will be required before commencing or completing the development.

Prior to the commencement of works

2. The applicant shall notify the Department of Parks and Wildlife in writing not less than seven (7) days prior to the commencement of works (see **Advice Note 1**).
3. Prior to the commencement of works, site investigations are to be conducted and provided to the Department of Parks and Wildlife (see **Advice Note 2**).
4. At least 30 days prior to the commencement of works, an Acid Sulfate Soil Management Plan shall be submitted for the approval of the Department of Parks and Wildlife.
5. At least 30 days prior to the commencement of works, a Construction Environmental Management Plan shall be submitted for the approval of the Department of Parks and Wildlife on advice from the City of Canning (see **Advice Note 3**).

6. At least 30 days prior to the commencement of works, a Bank Stabilisation and Revegetation Management Plan shall be submitted for the approval of the Department of Parks and Wildlife (see **Advice Note 4**).
7. At least 30 days prior to the commencement of works, a Dilapidation Survey shall be submitted for the approval of the Department of Parks and Wildlife on advice from the City of Canning.
8. Prior to the commencement of works, final design drawings for the proposed works, including the fishway if it is to proceed, are to be submitted for the approval of the Department of Parks and Wildlife, on advice of the City of Canning (see **Advice Note 5**).
9. At least 30 days prior to commencement of works, a Public Access Management Plan shall be submitted for the approval of the Department of Parks and Wildlife, on advice from the City of Canning.

During works

10. All works shall be implemented in accordance with the Acid Sulfate Soils Management Plan, Construction Environmental Management Plan, Bank Stabilisation and Revegetation Management Plan, Dilapidation Survey, final design drawings and Public Access Management Plan approved under **Conditions 4, 5, 6, 7, 8 and 9**.
11. Pedestrian access along the foreshore and across the river reserve within close proximity to the existing weir is to be provided at all times, or an alternative solution provided, to the satisfaction of the Department of Parks and Wildlife, on advice from the City of Canning.
12. All fill and landscaping materials shall be clean, uncontaminated, and dieback disease free in accordance with the definition of 'clean fill' outlined in the Department of Environment Regulation's *Landfill Waste Classification and Waste Definitions 1996 (As amended December 2009)*.
13. The applicant shall rectify at its expense any damage to the foreshore, riverbank, or waterway (including infrastructure) that occurs as a result of the works. The applicant shall take all precautions to ensure no damage occurs but should any damage occur, the applicant is required to notify the Department of Parks and Wildlife within 48 hours.
14. All incidents of pollution or spills within the Development Control Area shall be reported immediately to the Department of Parks and Wildlife, contacted on 9278 0900 or a/h 0419 192 845.

On completion of works

15. Upon completion of the works, all waste materials, equipment and machinery shall be removed and the site cleaned-up to the satisfaction of the Department of Parks and Wildlife, on advice from the City of Canning.

Ongoing

16. The applicant is responsible for the ongoing maintenance of vegetation, including weed control, until such time that the revegetation sites are taken over by another authority (that is City of Canning and/or Department of Parks and Wildlife).

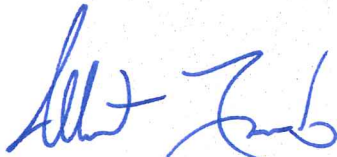
ADVICE TO APPLICANT

1. Notification of commencement of work and plans can be emailed to rivers.planning@dpaw.wa.gov.au.
2. The purpose of the site investigations required under **Condition 3** is to characterise the quality of sediment and water within the vicinity of the works, and should be designed and conducted on advice from the Department of Parks and Wildlife. The investigations require sampling and testing for contaminants and shall be used to identify the appropriate method and management of water from the cofferdam.
3. The Construction Environmental Management Plan required under **Condition 5** should address, but not be limited to:
 - sediment management during construction of the cofferdam and other works;
 - management of water discharged from the cofferdam to manage sediments, nutrients and contaminants;
 - erosion control and contingencies;
 - public safety (including appropriate warning signage);
 - procedures that provide for the potential discovery of the original weir during works for the cofferdam;
 - site access;
 - on-site storage and bunding of materials and equipment;
 - machinery and refuelling;
 - map showing the final development footprint;
 - identification and protection of existing vegetation, including establishing tree protection zones;
 - measures to manage the bushfire risk;
 - excavation and any stockpiling of soil;
 - waste management;
 - dust management;
 - protection of the river from inputs of debris, litter, fill, rubbish or other deleterious material;
 - parking for contractors; and
 - complaints and incidents.

The plan should address the most appropriate means of sediment and turbidity management for the proposed works as determined by the applicant. This may include the use of silt curtains. Where relevant, the plan should also include timeframes and responsibilities for tasks identified.

4. The Bank Stabilisation and Revegetation Management Plan required under **Condition 6** shall include bank stability, management of weeds and revegetation with local native species on the southern foreshore reserve.
5. In relation to **Condition 8**, the inclusion of a fishway in the refurbishment of the weir is strongly supported.

6. The applicant is advised that it is an offence under the Swan and Canning Rivers Management Regulations 2007 to destroy, pull up, cut back or injure any tree, shrub or perennial plant that is on land within the Development Control Area, except with the approval of the Department of Parks and Wildlife or unless otherwise exempt by the Regulations. Should any clearing be required a clearing permit application would also need to be lodged with the Department of Environment Regulation.
7. The applicant is advised that sediments must not be discharged into the Development Control Area and/or the Canning River, in accordance with the Environmental Protection (Unauthorised Discharge) Regulations 2004. The Department of Environment Regulation may be contacted on (08) 6467 5000 or www.der.wa.gov.au.



Albert Jacob MLA
MINISTER FOR ENVIRONMENT; HERITAGE

Date: 17/5/16

DEPARTMENT OF PARKS AND WILDLIFE REPORT

PROPOSAL : Refurbishment of Kent Street Weir
LOCATION : Lot 4162 on Plan 93607 (Reserve 48327) (Weir), and Lot 25 on Diagram 1594 and Lot 3812 on Plan 54948, Wilson; and Lot 8 on Plan 28671 (unallocated Crown land), Ferndale
APPLICANT : Department of Water
LANDOWNER : Swan River Trust (Lot 4162), City of Canning (Lots 25 and 3812), Department of Lands (Lot 8)
LOCAL GOVERNMENT : City of Canning
MRS CLASSIFICATION : Parks and Recreation, and Waterways
LG CLASSIFICATION : Parks and Recreation, Town Planning Scheme No. 40
DECISION TYPE : Part 5, *Swan and Canning Rivers Management Act 2006* – Ministerial Determination
ATTACHMENTS : 1. Location map
2. Aerial photo of subject land
3. Site plan
4. City of Canning submission
5. Development footprint
RECOMMENDATION : **APPROVAL WITH CONDITIONS**

REPORT

1.0 INTRODUCTION

- 1.1 The Department of Parks and Wildlife (Parks and Wildlife) has received an application from AECOM Australia Pty Ltd on behalf of the Department of Water (DoW), to refurbish the Kent Street Weir on the Canning River in Wilson, which is within the Swan Canning Development Control Area (DCA) (**Attachments 1 and 2**). The subject land is reserved for Parks and Recreation, and Waterways.
- 1.2 The proposal involves (**Attachment 3**):
- the demolition of existing above-water elements;
 - the construction of new piers and walkways on top of the existing substructure;
 - the incorporation of cathodic protection measures to the existing sheet piling to limit future corrosion;

- provision for a fishway (fish passage may be incorporated into the final design subject to project timing and availability of funding);
 - construction of a temporary walkway across the Canning River (subject to project funding);
 - clearing of native vegetation (including pruning and/or clearing of up to four trees) within a 200 square metre development footprint on the southern side of Canning River;
 - pruning of vegetation within the development footprint on the northern side of Canning River; and
 - construction of a cofferdam to allow access for the works.
- 1.3 The proposed development is to occur on land within the DCA and therefore the proposed works require an approval under Part 5 of the *Swan and Canning Rivers Management Act 2006* (SCRM Act).
- 1.4 The Director General of Parks and Wildlife has prepared this report in accordance with Section 76 of the SCRM Act.

2.0 CONSULTATIONS

City of Canning

- 2.1 The following information is a summary of the City of Canning's (the City's) submission (**Attachment 4**):
- It is recommended that a Dilapidation Survey is undertaken by the contractor prior to work commencing, covering all aspects including vegetation, hardworks, grass areas, fences, etc.
 - The Development Footprints shown on Figure 1 Site Vegetation are indicative only and are still to be formally agreed with the City.
 - The City will be satisfied if clearing is restricted to the area shown on the plan provided and recommends that some markers are used to make it clear to contractors as to the limits of the work zone.
 - It is essential that Canning River Eco-Education Centre is provided with access to and on the river for educational classes, and that canoe access downstream is provided at all times during construction.
 - The City is of the view that it is now possible and advantageous to design and construct the fish ladder in conjunction with the weir upgrade.

Department of Water – Swan Avon Region

- 2.2 DoW has assessed the referral and supports the refurbishment of the Kent Street Weir.

Department of Aboriginal Affairs

- 2.3 The Department of Aboriginal Affairs (DAA) has reviewed the proposal and advises the area of the proposed weir refurbishment is within the boundaries of two Aboriginal sites. It is understood that consultation with Aboriginal people was undertaken in regards to the proposed works and an application under section 18 of the *Aboriginal Heritage Act 1972* was submitted to the DAA in October 2015.
- 2.4 The section 18 application is currently under consideration and the developer is advised to wait for a response regarding the outcome of the section 18 application.

State Heritage Office

- 2.5 The proposed development, in accordance with the plans submitted, is supported subject to the following conditions:
- Appropriate procedures are included in the Environment Management Plan that provide for the potential discovery of the original weir during works for the cofferdam. The original steel sheet piling and timber weir was located downstream of the current weir, and it is possible that elements of the piling are still extant.
 - In the event that excavation works for the coffer dam disturb evidence of the original weir, work should cease and the State Heritage Office is to be advised immediately. An historical archaeologist is to be consulted regarding appropriate recording of any evidence prior to works commencing.

Swan River Trust

- 2.6 In accordance with section 75(3A) of the SCRM Act, the Swan River Trust (the Trust) considered the draft report at its meeting on 5 April 2016. The Trust resolved to recommend its approval of the report to the Director General of Parks and Wildlife.

3.0 PUBLIC COMMENT – SUBMISSIONS ON DRAFT REPORT

- 3.1 In accordance with the requirements of Part 5 of the SCRM Act a copy of the draft report and proposed recommendation has been provided to the applicant, the local government, DAA and State Heritage Office. A copy was also published on the Parks and Wildlife website for a period of two (2) weeks between 13 April 2016 and 27 April 2016 with an invitation for public submissions.
- 3.2 Two (2) submissions were received, being from DAA and the City. The submissions are discussed in Sections 3.3 and 3.4 below.

Department of Aboriginal Affairs

- 3.3 DAA advised that on 12 February 2016 the Minister for Aboriginal Affairs granted consent under section 18 of the *Aboriginal Heritage Act 1972* (AHA) to the Department of Water for the purpose of refurbishing Kent Street Weir. As long as the Department of Water adheres to the land, purpose and conditions of consent they will have met their obligations with regard to the AHA.

City of Canning

- 3.4 The City advised that it is satisfied with the approval conditions identified in the draft report and request that they are all retained as they are currently written into the final approval documentation.

4.0 RELEVANT POLICIES AND PLANS

- ◆ State Planning Policy 2.10 – *Swan-Canning River System*
- ◆ SRT/DE6 - *Dewatering*
- ◆ SRT/DE19 – *Miscellaneous Structures*
- ◆ SRT/E5 - *Heritage*
- ◆ SRT/EA1 - *Conservation, Land Use and Landscape Preservation*
- ◆ SRT/EA2 - *Foreshore Reserves*

5.0 ENVIRONMENTAL AND PLANNING CONSIDERATIONS

- ◆ Dewatering
- ◆ Heritage Protection
- ◆ Vegetation Protection
- ◆ Foreshore Protection
- ◆ Public Access
- ◆ Maintenance and Monitoring

6.0 BACKGROUND

- 6.1 The proposed development refers to the refurbishment of Kent Street Weir by DoW.
- 6.2 The weir marks the point of transition from tidal-influenced saline water to a freshwater pool upstream. There has been an increasing number of tidal intrusion events recorded over the last 10-15 years. During these over-topping events, downstream saline water flows over the stop-board level, trapping saline water in the upstream freshwater pool. The saline incursion reduces water quality and has a negative effect on the upstream freshwater ecosystem.
- 6.3 The weir refurbishment aims to decrease the frequency of tidal intrusions and address the labour intensive removal of stop-boards.

7.0 DISCUSSION

Dewatering

- 7.1 Policy *Dewatering* (SRT/DE6) objectives are to: protect the river from direct and indirect environmental impacts arising from dewatering activities; and promote the use of best practice for all dewatering activities.
- 7.2 No dewatering is anticipated as part of construction works. However, prior to construction works a cofferdam will be constructed on either side of the existing weir and the water levels lowered within to provide safe access to construction areas.

Cofferdam

- 7.3 The draft Environmental Management Plan (AECOM Australia Pty Ltd 2015) outlines that during water lowering within the cofferdam, the water pumped out of the cofferdam is to be released downstream.
- 7.4 Parks and Wildlife generally discourages disposal of water directly to the river as it is likely that turbidity will be significantly increased and dissolved oxygen decreased. The controlled discharge of treated water from the cofferdam into the river may be suitable depending on such factors as the water quality and the volume of water.
- 7.5 Given that sediments may be disturbed during installation of the cofferdam and subsequent pumping out of water, additional site investigations are required, prior to commencement of works, to determine the current quality of water and sediments within the area of the proposed cofferdam. Site investigations will require sampling and testing for contaminants such as heavy metals.

- 7.6 The results of the site investigations will assist in identifying the appropriate method and management of the water from the cofferdam. Details of the proposed method and management of the disposal of the water from the cofferdam should be addressed in the Construction Environmental Management Plan (CEMP), to be submitted prior to commencement of works. During any discharge event to the river, the discharged water must be monitored for contaminants.
- 7.7 A preliminary Acid Sulfate Soils (ASS) assessment undertaken in proximity to the proposed development site identified the presence of ASS in the area. It is considered that the proposed works associated with the cofferdam are likely to disturb ASS.
- 7.8 An Acid Sulfate Soils Management Plan specific for the project is required. The plan is to be developed and implemented in consultation with the Department of Environment Regulation, Contaminated Sites Branch in order to adequately manage any potential impacts associated with ASS.
- 7.9 These matters outlined above can be addressed through conditions and advice on the approval.

Heritage Protection

- 7.10 Policy *Heritage* (SRT/E5) states that places of cultural and heritage significance, both Aboriginal and European, and of natural heritage are to be conserved.
- 7.11 Kent Street Weir is within the boundaries of two Aboriginal sites, Site ID 3536 (Swan River) and Site ID 3538 (Canning River).
- 7.12 The DAA advised that consultation with Aboriginal people was undertaken in regards to the proposed works and an application under section 18 of the *Aboriginal Heritage Act 1972* was submitted to the DAA in October 2015.
- 7.13 DAA advised that consent to the use of the land, under section 18 of the *Aboriginal Heritage Act 1972*, for the purpose of undertaking the proposed works was granted to the applicant on 12 February 2016.
- 7.14 The Kent Street Weir is listed on the State Register of heritage places for its values, including historic values. The original weir was completed in 1927 to meet the needs of agriculturists and market gardeners by preventing ingress of salt water over agricultural land. In 1940 the current weir was built upstream of the earlier weir.
- 7.15 The State Heritage Office recommends that appropriate procedures are included in the Environmental Management Plan that provide for the potential discovery of the original weir during works for the cofferdam. The original steel sheet piling and timber weir was located downstream of the current weir, and it is possible that elements of the piling are still extant.
- 7.16 If evidence of the original weir is discovered, works are to cease and the State Heritage Office notified. This issue can be addressed through conditions and advice on the approval.

Vegetation Protection

- 7.17 Policy *Conservation, Land Use and Landscape Preservation* (SRT/EA1) states that the maintenance and restoration of natural vegetation is to be promoted and the retention and reinforcement of existing native vegetation is actively encouraged.
- 7.18 The project area is mapped as a conservation category wetland and floodway. The river and foreshore reserves form part of Bush Forever site 224, and the foreshore reserve forms part of the Canning River Regional Park.

Northern foreshore

- 7.19 The foreshore reserve on the northern side of the Canning River is a highly modified landscape, being a parkland cleared area. In an isolated area, weed species arum lily (*Zantedeschia aethiopica*) was recorded. Within the development footprint there are four planted *Callistemon* sp., one plant *Melaleuca* sp., one *Eucalyptus camaldulensis* and three mature *Casuarina obesa* (AECOM Australia Pty Ltd 2015).
- 7.20 A vegetation assessment (AECOM Australia Pty Ltd 2015) indicated that the banks on the northern side showed no signs of erosion and were stable and vegetated with introduced grasses and native sedges. The banks may be impacted through the installation of sheet piles for the cofferdam.
- 7.21 The northern foreshore area is vested with the City. The City has advised that the development footprints are indicative only and are still to be formally agreed with the City.
- 7.22 The project will require some removal or pruning of the planted trees to facilitate operations, placement of site office and a construction laydown area.
- 7.23 The City has advised that the contractor for the works will be responsible for reinstating any area of the embankment disrupted/damaged during the weir construction process and if required, any remedial/reinstatement works to the canoe launch area downstream of the weir. The City will be responsible for undertaking development work on the northern embankment immediately upstream of the weir and the fenced vegetated area, in line with an endorsed master plan of the area.
- 7.24 The City recommends that a Dilapidation Survey is undertaken by the contractor prior to work commencing, covering all aspects including vegetation, hardworks, grass areas and fences. This will allow the City to monitor the works and any adverse impacts requiring remediation. This Dilapidation Survey, for the northern foreshore reserve will be a condition of approval.

Southern foreshore

- 7.25 The foreshore reserve on the southern side of the Canning River is native vegetation, identified as *Melaleuca raphiophylla* and *Eucalyptus rudis* open forest with little native understorey.
- 7.26 A vegetation assessment (AECOM Australia Pty Ltd 2015) indicated that the banks on the southern side showed no signs of erosion and were stable and vegetated with introduced grasses and native sedges. The banks may be impacted through the installation of sheet piles for the cofferdam.
- 7.27 The assessment also identified seven native trees, one sapling and a dead habitat tree that are located within the original development footprint of 400 square metres, where the potential clearing was required. After consultation between the consultant and Parks and Wildlife, the development footprint was reviewed and subsequently reduced to 200 square metres (**Attachment 5**).
- 7.28 The project may require the clearing of native vegetation (including pruning and/or clearing of up to four trees) in a footprint area up to 200 square metres, to facilitate the placement of piling along the southern river bank and for construction of the proposed temporary walkway.

- 7.29 The applicant has been advised that the clearing within the foreshore, including the banks, is to be avoided and is generally not supported; and the issue is to be addressed in further detail in the CEMP.
- 7.30 The applicant has submitted some preliminary plans that provide an outline of the proposed bank stabilisation and revegetation measures, which should be developed further and a final Bank Stabilisation and Revegetation Management Plan (BSRMP) submitted prior to the commencement of works.
- 7.31 The BSRMP should focus on bank stability, management of weeds and revegetation with local native species on the southern foreshore reserve.

Foreshore Protection

- 7.32 *Policy Conservation, Land Use and Landscape Preservation* (SRT/EA1) aims to ensure that land use and development on and adjacent to the river system maintains and enhances the quality and amenity of the river environment.
- 7.33 The applicant has provided a draft Environmental Management Plan (AECOM Australia Pty Ltd 2015) for the project. The project will involve the following specific works:
- Fencing and formalisation of the site laydown area and access including stripping and stockpiling of topsoil. Installation of safety booms in the river to demarcate construction areas.
 - Rerouting of pedestrian paths where required, formalisation of Canning River Eco Education Centre river access and erection of public advisory signage (land and water). Installation of temporary access across Canning River.
 - Pruning of the trees to be retained, where possible and clearing of vegetation necessary to enable access for construction works.
 - Establishment of erosion and sedimentation controls.
 - Installation of a temporary sheet piled cofferdam approximately five metres upstream and downstream of the existing structure. Once the cofferdam is in place and the water removed, a membrane will be placed on the river bed and then certified clean fill placed on top. This will provide a stable surface for a crane to drive onto the river bed to undertake works.
 - Dewatering and installation of bypass pipe(s) to accommodate sweetening flow (that is a small continuous flow to prevent stagnation upstream and a requirement requested by Aboriginal elders) followed by installation of plant temporary working platforms within the cofferdam.
 - Sheet piling will be required to connect (tie in) to the bank at each end of the cofferdam. Access to the cofferdam will be from the northern side so disturbance on the southern side will be confined to the bank connection.
 - Demolition and removal of the existing walkway followed by demolition and removal of the concrete piers to sill level. The mass concrete gravity wall, existing steel sheet piles and associated capping/sill beam are proposed to be retained.
 - Construction of new concrete piers to the same width and spacing as the original piers and concrete infill, to accommodate the preferred flow control and walkway.
 - Installation of fixed crest weirs and stop boards (for future fish passage), tilting weirs, new walkway as well as new power supply, hydraulics, electrical and communications.

- Installation of the new flow control mechanism.
- Cleaning and coating of existing sheet piles followed by installation of cathodic protection sacrificial anodes to the existing sheet piles.
- Commissioning of the weir and removal of temporary works platforms. Removal of the cofferdam.
- Landscaping and revegetation of the southern bank. Removal of temporary access across the Canning River as well as site compound and temporary site access.
- Respreading of topsoil, landscaping and revegetation of the northern bank and site compound.

7.34 The potential impacts from the works may include:

- loss or degradation of vegetation,
- loss or degradation of fauna habitat,
- introduction or spread of weeds and disease,
- disturbances to fauna (e.g. fish species) activity or behaviour,
- disturbance of Aboriginal sites or artefacts or to other heritage sites,
- reduced visual amenity of and public access to the foreshore reserve,
- destabilisation of the river banks,
- contamination of surface or ground water from disturbance of acid sulfate soils, and
- risk of reducing water quality through discharge of dewatering tailwater.

7.35 The draft Environmental Management Plan outlines management actions to address the potential impacts, including:

- Demarcate approved site boundary with flagging and permanent fencing.
- Conduct baseline surveys of the site to determine the current level of weed and *Phytophthora* disease infestation.
- Conduct weed control as necessary.
- Notify nearby landowners of construction activities and likely noise and vibration emissions.
- Install erosion and sediment control measures around the perimeter of the site and on slopes subject to run off, including silt fences, silt booms/curtains, or other sediment control measures.
- Provision of suitably sized bypass pipe/channel to accommodate sweetening flows and flows from low order rainfall events. The arrangement shall also include local erosion control measures.
- Ensure no ASS spoil is placed into the river.

7.36 A more detailed final CEMP is required and will need to be submitted for endorsement once the contractors have been appointed. One aspect of the plan that will require a review and update is the monitoring of water quality throughout the project.

- 7.37 The CEMP is required to identify potential impacts from the works within the river and foreshore reserves, and outline management measures to prevent such impacts.
- 7.38 The applicant has advised that data collected from fish surveys in the area has suggested that a fishway may be of value to the ecology of the system. As a result, development of design specifications has commenced, with the possibility of including a fishway into the overall construction of the weir refurbishment. Should sufficient funding be available and the fishway is deemed to be viable, detailed drawings shall be submitted with the final design drawings for the project and any potential construction impacts will need to be addressed in the final CEMP.

Public access

- 7.39 State Planning policy 2.10 - Swan-Canning River System states that public access to the river and foreshore should be maintained while protecting the river.
- 7.40 The existing weir includes a steel walkway structure that provides pedestrian access across the Canning River. The weir refurbishment will include replacement of the attached walkway. The new walkway will maintain the public access across the Canning River on completion of works.
- 7.41 Temporary pedestrian access will be provided during construction in order to maintain the connection between the Parks and Recreation reserved land on the northern and southern sides of the river.
- 7.42 The Canning River Eco Education Centre (CREEC) requires river access for its educational activities and specific alternative access will be provided during construction in consultation with CREEC.
- 7.43 Access by canoes to the river will be maintained during construction, either at the current launch area, if safe, otherwise a temporary alternative site will be identified.
- 7.44 Public access can be addressed through conditions on the approval.

Management and Monitoring

- 7.45 The applicant's preliminary plans outline a commitment to maintain and monitor the revegetation areas prior to handover to the land managers (that is, City of Canning and Department of Parks and Wildlife).
- 7.46 Ongoing management and monitoring details will be addressed through a final BSRMP in consultation with the City of Canning and the Department of Parks and Wildlife.

Conclusion

- 7.47 The project will ensure the integrity of the weir and provide an improved outcome for public amenity and the Canning River upstream of the weir. Therefore it is recommended that the proposal be approved, subject to appropriate conditions and advice.

7.0 RECOMMENDATION – APPROVAL WITH CONDITIONS

That the Director General of the Department of Parks and Wildlife advises the Minister for Environment that the Department of Water proposal to refurbish Kent Street Weir on Lots 4162, 25 and 3812, Wilson; and Lot 8, Ferndale, as described in the initial application received on 25 November 2015, and the supplementary information (including valid application form) received on 16 March and 17 March 2016, be approved, subject to the following conditions:

1. Approval to implement this decision is valid for two (2) years from the date of the approval. If substantial on-site works have not commenced within this period, a new approval will be required before commencing or completing the development.

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2. The applicant shall notify the Department of Parks and Wildlife in writing not less than seven (7) days prior to the commencement of works (see **Advice Note 1**).
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On completion of works

15. Upon completion of the works, all waste materials, equipment and machinery shall be removed and the site cleaned-up to the satisfaction of the Department of Parks and Wildlife, on advice from the City of Canning.

Ongoing

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ADVICE TO APPLICANT

1. Notification of commencement of work and plans can be emailed to rivers.planning@dpaw.wa.gov.au.
2. The purpose of the site investigations required under **Condition 3** is to characterise the quality of sediment and water within the vicinity of the works, and should be designed and conducted on advice from the Department of Parks and Wildlife. The investigations require sampling and testing for contaminants and shall be used to identify the appropriate method and management of water from the cofferdam.
3. The Construction Environmental Management Plan required under **Condition 5** should address, but not be limited to:
 - sediment management during construction of the cofferdam and other works;
 - management of water discharged from the cofferdam to manage sediments, nutrients and contaminants;
 - erosion control and contingencies;
 - public safety (including appropriate warning signage);
 - procedures that provide for the potential discovery of the original weir during works for the cofferdam;
 - site access;
 - on-site storage and bunding of materials and equipment;
 - machinery and refuelling;
 - map showing the final development footprint;
 - identification and protection of existing vegetation, including establishing tree protection zones;
 - measures to manage the bushfire risk;
 - excavation and any stockpiling of soil;
 - waste management;
 - dust management;
 - protection of the river from inputs of debris, litter, fill, rubbish or other deleterious material;
 - parking for contractors; and
 - complaints and incidents.

The plan should address the most appropriate means of sediment and turbidity management for the proposed works as determined by the applicant. This may include the use of silt curtains. Where relevant, the plan should also include timeframes and responsibilities for tasks identified.

4. The Bank Stabilisation and Revegetation Management Plan required under **Condition 6** shall include bank stability, management of weeds and revegetation with local native species on the southern foreshore reserve.
5. In relation to **Condition 8**, the inclusion of a fishway in the refurbishment of the weir is strongly supported.
6. The applicant is advised that it is an offence under the Swan and Canning Rivers Management Regulations 2007 to destroy, pull up, cut back or injure any tree, shrub or perennial plant that is on land within the Development Control Area, except with the approval of the Department of Parks and Wildlife or unless otherwise exempt by the Regulations. Should any clearing be required a clearing permit application would also need to be lodged with the Department of Environment Regulation.
7. The applicant is advised that sediments must not be discharged into the Development Control Area and/or the Canning River, in accordance with the Environmental Protection (Unauthorised Discharge) Regulations 2004. The Department of Environment Regulation may be contacted on (08) 6467 5000 or www.der.wa.gov.au.

FINAL REPORT ENDORSED

Signed: _____

Jim Sharp
Director General

Date: _____

11.5.16

City of Canning

City of South Perth

Canning River









Leach Hwy

Kent Street Weir

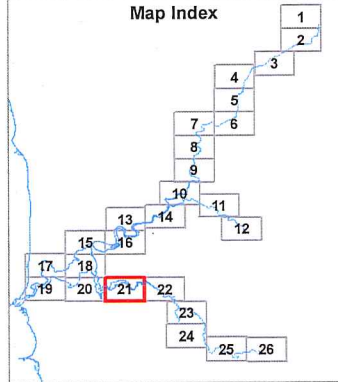
City of Canning

Leach Hwy

Legend

-  Swan River Trust Development Control Area (2014)
-  Swan River Trust Riverpark boundary (2012) - where it deviates from the Development Control Area
Note: Unless otherwise defined, the Riverpark coincides with the Development Control Area (red line).
-  Local Government Authority boundary
-  Cadastre
-  Bridge
Note: The area above the high water mark or the 1:100 year flood level (whichever is applicable) on the bridge alignment, is excluded from the Development Control Area and Riverpark
-  Parks and recreation reserve
-  Waterway
-  Railway

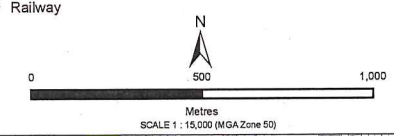
Map Index



The Swan Canning Riverpark does not include any private property within the meaning of that term in regulation 2 of the *Swan and Canning Rivers Management Regulations 2007*.

The Development Control Area (DCA) managed by the Swan River Trust may be described as comprising the waters of: the Swan River upstream of the Fremantle Port Authority boundary, the Avon River to its confluence with Moodyne Brook; the Helena River to the lower diversion dam on the river; the Southern River to Allen Road crossing and the Canning River to its confluence with Stinton Creek. The DCA includes the area reserved under clause 12 of the Metropolitan Region Scheme for "waterways" and lands adjoining those waters that are reserved as "parks and recreation."

The Riverpark managed by the Swan River Trust may be described as comprising all of the above, excluding freehold land in private ownership.



DEPOSITED PLAN
47465

SHEET 21 OF 26
VERSION 5

Department of Parks and Recreation
SWAN RIVER TRUST
Landgate
DCA GAZETTED 27 JUNE 2014

Attachment 2



LEGEND

- ▣ Cadastre
- Road Centrelines
- Swan River Trust Development Control Area

Perth Metropolitan Area
Central 15cm Orthomosaic -
Landgate 2014



Scale 1:1429
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

Prepared by:
Prepared for:
Date: 29/01/2016 1:06:30 PM

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of
Parks and Wildlife



WA Crown Copyright 2002

PROJECT
KENT STREET WEIR UPGRADE

KENT STREET WEIR PARK
 WILSON, WESTERN AUSTRALIA

CLIENT
 GOVERNMENT OF WESTERN AUSTRALIA
 DEPARTMENT OF WATER
 7 ELLAM STREET
 VICTORIA PARK, W.A. 6100
 6250 8000 Int
 www.water.wa.gov.au
 Prepared for: GOVERNMENT OF W.A.
 DEPARTMENT OF WATER
 A.B.N 28 420 443 05

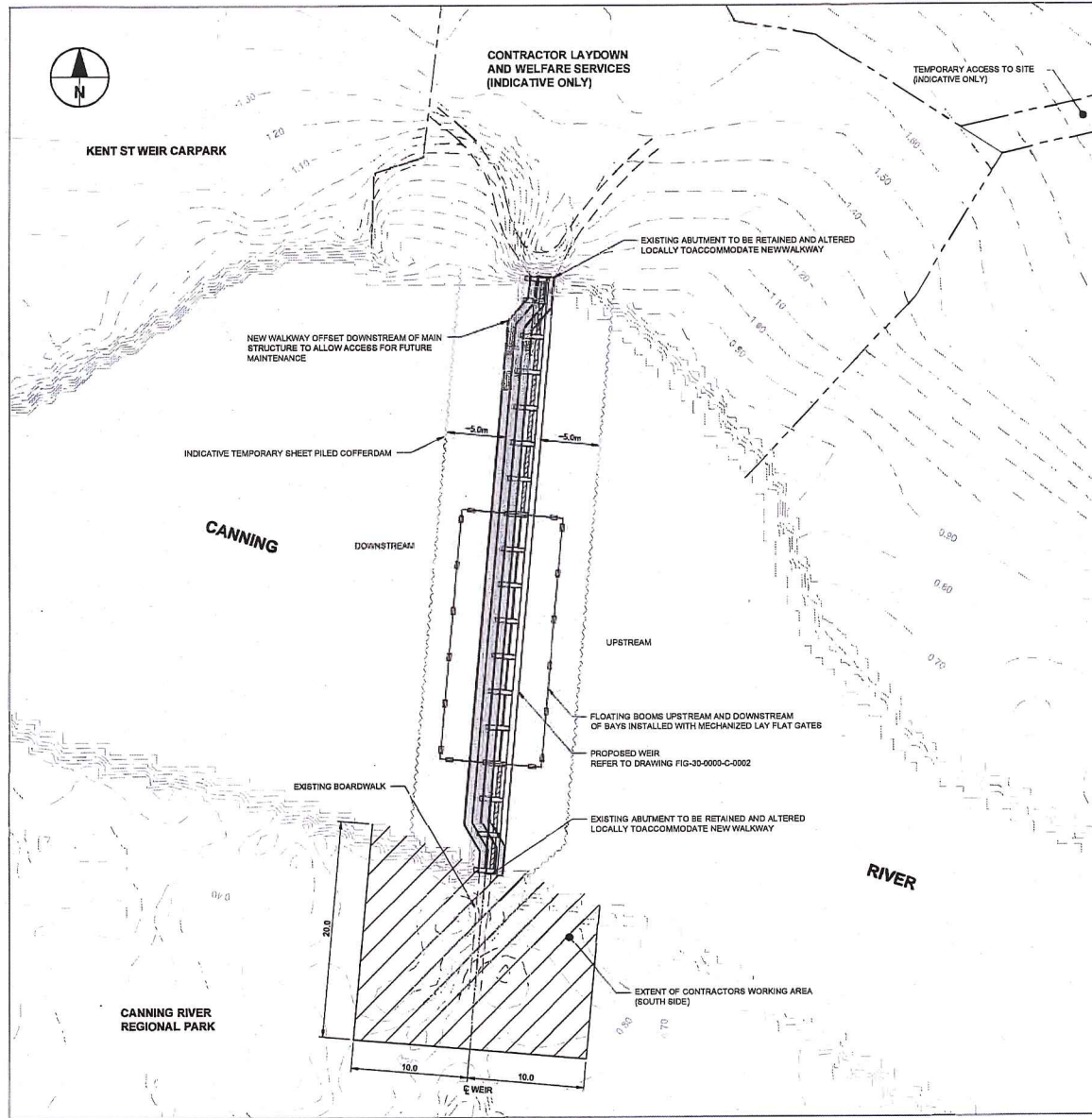
CONSULTANT
 AECOM Australia Pty Ltd
 A.B.N 20 093 846 925
 www.aecom.com



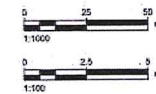
LOCALITY PLAN
 Scale 1:1000

NOTES:

1. NO VEHICULAR ACCESS FROM REGIONAL PARK TO CONSTRUCT THE WORKS.
2. WORKING AREA AND ACCESS TO BE CONFIRMED WITH THE CITY OF CANNING



SITE PLAN
 Scale 1:100



REGISTRATION

PROJECT MANAGEMENT INITIALS

DESIGNER	CHECKED	APPROVED

ISSUE/REVISION

IR	DATE	DESCRIPTION

KEY PLAN

PROJECT NUMBER
 60341979

SHEET TITLE
 LOCALITY PLAN
 GENERAL ARRANGEMENT

SHEET NUMBER
 0001



Our Ref: PR.H11.3; D15/271131; D16/9865
Your Ref: 2015/4867

Date 29 January 2016

Department of Parks and Wildlife
Rivers & Estuaries
Locked Bag 104
BENTLEY DELIVERY CENTRE, WA 6983

By Email to rivers.planning@dpaw.wa.gov.au

For the attention of Glen McLeod-Thorpe

Dear Mr McLeod-Thorpe

Kent Street Weir Refurbishment – Canning River

Thank you for your letter dated 7 December 2015 "Part 5 - Kent Street Weir Refurbishment - Canning River, Lot 4162 On Plan 93607, Wilson - Reserve 48327 " and please accept this letter as the City's response to your own.

1. Dilapidation Survey

It is recommended that a Dilapidation Survey is undertaken by the contractor prior to work commencing, covering all aspects including vegetation, hardworks, grass areas, fences etc.

2. Development Footprint

It is noted that the Development Footprints as shown, including in Figure 1 Site Vegetation, are indicative only and are still to be formally agreed with the City and in particular the Development Footprint on the northern bank of the Canning River.

3. Vegetation Clearance

- a) With regard the clearance of up to 400m² of endemic vegetation on the southern bank of the river it is noted this is within DPaW (Regional Parks) management area and is the responsibility of that agency for ongoing maintenance and management. However it is appropriate for the City to provide comment as clearance of this vegetation does have a material effect on the visual amenity of the area.

It is recognised that some clearing work will have to be undertaken to enable the works to proceed and the City will be satisfied if clearance is able to be restricted to the area shown on the plan as provided by you. In order to facilitate that limited clearance it is recommended that some markers (fencing is preferred if not too intrusive) be used. This will make it clear to any contractors as to the limits of their work zone and help protect against unnecessary damage.

- b) Vegetation management on the northern bank of the river refers to the 'developed' park area. It is recommended that some individual tree management programmes be undertaken (such as appropriate under-pruning) to assist in accidental damage to those trees. Apart from that it is also required that protective TPZ (Tree Protection

Above all - Service

1317 Albany Highway Cannington (enter from George St West)

Tel: 1300 422 664

Email: customer@canning.wa.gov.au

Please address correspondence to: Locked Bag 80, Welshpool WA 6986

Fax: (08) 9458 2353

www.canning.wa.gov.au

Zones) be identified (and confirmed as appropriate by the City) prior to work commencing. TPZ areas are typically established to protect the root zones of trees from damage by vehicles, spillage of chemicals etc. They usually take the form of fencing, with signs, on the canopy 'drip line'.

As referred to in 1) above it is recommended that a Dilapidation Survey is undertaken prior to commencement of the works. This will assist in identifying any remedial work that may be required by, and funded by, the contractor. Note that Dilapidation Surveys usually reference 'hard' materials but in this instance it is important that the trees are assessed by a qualified arborist. The City has data that may assist this process.

- c) Revegetation applies only to the southern bank of the river. Whilst it is within land under DPaW management, it is the City's view that the plant selection and revegetation process is appropriate.
- d) Replanting and turf restoration only applies to the northern bank of the river. The City's expectation in this instance is to have the area restored to pre-construction levels. This includes healthy trees and grass reinstated.

4. CREEC River Access during Construction

It is essential that CREEC is provided with access to and on the river for educational classes at all times during construction. It will not be acceptable for a 'gravel track' or similar to be laid through the bush area. Such a track would cause irreparable damage the vegetation the location and this vegetation is part of the Canning River Regional Park protected vegetation area.

5. Canoe River Access during Construction

It is essential that canoe access downstream is provided and ensured at all times during construction.

6. Temporary River Crossing during Construction

The City is of the view that the temporary river crossing service level and physical form should be confirmed prior to a contract being let, notwithstanding that the tenderers can be provided with rights to offer an alternative solution.

7. Aboriginal Heritage

It is understood that a Section 28 has been signed off in relation to this project.

8. Permanent river crossing

The City has made comment on this previously in the context that with the construction of a new bridge, the opportunity should be taken to provide functionality to current standards. City officers have had discussion with the DPaW landscape design unit as to appropriate designs for the bridge, and it is our understanding is that the view of DPaW officers is consistent with the City's.

9. Acid Sulphate Soils

The City is of the view that AECOM will have personal in their office who are better able to advise on appropriate management regimes for ASS in this environment.

10. Fish Ladder

It is noted that any fish ladder is proposed as a later consideration and the intent remains to leave one set of removable weir boards in place to accommodate the fish ladder after the construction of the weir. Any subsequent construction of the fish ladder will cause disturbance to the landscape setting.

It is not indicated which side the weir boards will be left in place. It is understood that ideally, the fish ladder should be located at the deepest part of the river and this would mean that it would be constructed against the northern embankment. This could be problematic as this is where the public have access.

Given the deference in the construction of the weir, the City is of the view that it is now possible and advantageous to design and construct the fish ladder in concert with the weir upgrade.

If you would like to discuss this matter further please contact Terry Thompson from the City's Parks and Environment unit on (08) 9231 0732

Yours sincerely



Leroy Amprimo
Manager Assets and Property Services

Cc Department of Water, Attention Don Cummins

