

SUBMISSION BY
CITY OF CANADA
BAY COUNCIL

KENDALL BAY REMEDIATION PROJECT

Submission by City of Canada Bay on Kendall Bay remediation project

Introduction

The City of Canada Bay Council (CCBC) has received a request from the NSW Department of Planning and Environment (the Department) to provide details of any key issues and assessment requirements for input into the Secretary's Environmental Assessment Requirements regarding the proposed Kendall Bay Sediment remediation Project. Any submission is required to be received by the Department by close of business on Friday 31st October 2014.

Details of Project

The project includes the following elements:

- Remediation of two sections of Kendall Bay, which have previously been declared SSD by Ministerial Order published in the NSW Government Gazette on 12th April 2013.
- 140 Tennyson Rd Mortlake to be used as the works site in lieu of the previously proposed staging site at Cabarita Park. The staging site is used to undertake key activities involving dewatering, waste water treatment, and sediment treatment.
- Transportation of contaminated materials via a slurry pipeline, or by barge from the remediation site to the staging site. The pipeline would be floating and not attached to the seawall.
- Replacement of the contaminated material removed from the site to be reinstated using an appropriate clean fill material.

Key Issues

Traffic:

Increased heavy vehicular traffic to transport the refuse from the site and import clean fill will result in increased noise and air pollution, congestion on the local road network and road pavement damage.

If the use of the local road network is to be considered, it is recommended that a Construction Traffic Management Plan (CTMP) and a Dilapidation Report of the affected local road network be provided. The following matters (at a minimum) must be addressed in the CTMP.

It is considered that the following matters, numbered 1 – 4 should be included as conditions or requirements for the applicants to adhere to:-

1. Construction Traffic Management Plan:

A Construction Traffic Management Plan shall be prepared for the proposed site staging works at No. 140 Tennyson Road, Mortlake and shall include the following details:

- o A detailed description and route map of the proposed truck/construction vehicle access routes,
- o The locations of any proposed Construction Works Zones along the site frontage,
- o Provide a construction schedule,
- o Tradesperson parking (parking shall be provided on-site where possible),
- o Provide relevant Traffic Control Plans (certified by an RTA accredited person i.e. red or orange ticket),
- o Provide relevant Pedestrian Management Plans,
- o A site plan which indicates site entrances and exits, turning areas within the site for construction and spoil removal vehicles allowing a forward ingress and egress for all construction vehicles on the site (superimposed truck swept path diagrams). Site entrances and exits shall be controlled by a certified traffic controller.
- o Require the proponent to log all heavy vehicle movements and loads and report to Council.

2. Impact on local road pavement:

The following measures shall be undertaken prior to the commencement of works to manage the damage caused by the spoil haulage trucks entering and leaving the site:-

- A) Provide Council with an unconditional Bank guarantee in the amount of \$200,000 to act as surety for the repair of roads impacted by haulage trucks.
- B) Provide Council with a photographic dilapidation report for the existing haul roads.
- 3. Road Pavement Inspections and Repairs:

During the haulage works the applicant shall undertake weekly road pavement inspections and repair road defects that have been caused by the haulage trucks. The applicant shall obtain the repair specification from the City of Canada Bay for each area of repair for each occasion.

4. Repair of Road Pavement Damage:

At the end of the haulage works the applicant shall inspect the road pavements with the dilapidation report. The applicant shall repair any pavements damage by the works to a condition the same as existed prior to the works. Once the pavements have been repaired to Council's satisfaction Council will refund the Bank Guarantee.

5. Road Levy

Council requests that any approval given requires the proponent to pay a fee per vehicle based on the cost of the life of the road assets consumed.

Basis for the request

It is proposed that a large volume of material is to be transported from the Kendall Bay remediation site via 140 Tennyson Road. An indicative order of magnitude may be 25,000-50,000t.

As previously mentioned, the heavy vehicle route should be defined in the consent. To minimise impact, it is assumed that Council would want to request that the material would be routed via Tennyson Rd, Gale St, Mortlake St, Cabarita Rd, Ian Pd, Broughton St to Parramatta Rd and hence out of the Municipal area to treatment facility or registered contaminated land fill site.

The proposed transport of many tonnes of contaminated waste from Mortlake may cause damage to the roads and importantly and as a separate matter, the heavy vehicles will use up a significant part of the life of the roads that make up the transport route.

The using up of the life of the asset has a cost to the community in earlier reconstruction of the pavement or resurfacing of the roads traversed.

Reimbursement of this cost as a per vehicle charge to the developer was tested in:

LEC10452-1990 AGL v North Sydney Council (Ref Council Doc # 106529777)

This LEC decision was subsequently used as a template for conditions imposed to defray the cost to the community of the export of contamination during the land-side remediation of the former AGL site at Breakfast Point which commenced c. Feb 1998.

Council would want to see similar conditions placed on any consent for the Kendal Bay remediation.

Pavement life is calculated in the number of equivalent standard axels passed over the pavement. A Standard Axle is defined as a dual-tyred, single axle transmitting a load of 80kn (or 8.2 tonne) to the pavement. The number of ESAs can be estimated from classification traffic counts.

Specific drafting of the condition would require some engineering investigation and analysis of costs, useful lives, road materials, traffic counts etc; however in simple terms, one model of the cost of the used life of the road pavement and surface is:-

*Current replacement cost of the road pavement traversed * ESAs imposed by project/Design life ESAs +*

*Current replacement cost of the road surface traversed * ESAs imposed by project/Design life ESAs.*

Allowance should be made for the following:-

1. *The trucks will be loaded in the Southbound direction and unloaded in the Northbound direction. Hence the main effect will be on one lane*
2. *There are some concrete pavements along the route and these need to be treated differently.*

Sediments and Treatment:

Removal of sediments:

- A detailed site environmental management plan should be developed which thoroughly addresses all environmental issues including noise, air, dust control and odour for Kendall Bay. A plan for monitoring, mitigating and following up complaints should be included in any proposal. The site of the waste treatment plant is in close proximity to residents. It is acknowledged that odour has the potential to be an issue however there needs to be a plan beyond mitigation (Removal of sediment).
- Any health impacts associated with potential environmental risks should be addressed.
- Validation of the Kendall Bay site in relation to the success of the remediation process as this will affect the signage and access to the bay.

Treatment on site – waste facility:

- Essentially a waste treatment facility is being established on the site – Detailed controls should be in place for its operation including a limit on the time plant is operational – Council is aware that noise and odour monitoring etc has caused issues across the river from past experience at Rhodes.
- That a site environmental management plan is developed and thoroughly addresses the issues of noise, air, dust control and odour specific to the waste treatment site. A plan for monitoring, mitigating and following up complaints should be included in any proposal. The site of the waste treatment plant is in close proximity to residents. It is acknowledged that odour and noise has the potential to be a major issue however there needs to be a plan beyond mitigation.

Treatment post works:

- The requirements of SEPP 55 should be thoroughly addressed for the site within Fairmile Cove and that any potential impacts of adjoining residents are clearly addressed in a site management plan such as containment of contaminated soil, how the site will be treated/remediated and left at the end of the project.

Site Reinstatement:

- That the end use of the site is considered as part of this application

Complaint Management and Community engagement

- That a dedicated 1800 complaint number is set up to ensure the applicant can manage all complaints in the first instance
- That community consultation forms part of the approval and that a community engagement plan is developed to map out the critical stages to inform the community of works etc

Biodiversity:

A mangrove rehabilitation plan and water quality management plan should be provided as part of any approval.

Conclusion

Due to the fact that this development is a State Significant Development, Council believes that the site should be regulated by the NSW Environment Protection Authority.

Our reference: DOC14/ 262629-01
Laura Wythes 9995 6858 (Monday – Wednesday)

Ms Deanna Burn – Industry Projects
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Ms Burn,

The Environment Protection Authority (“EPA”) refers to your email on 15 October 2014 requesting input for the Secretary’s Environmental Assessment Requirements (SEARs) for the Kendall Bay Sediment Remediation Project.

The EPA has identified a range of environmental issues from ERM’s report titled “Kendall Bay Sediment Remediation Project – Request for Secretary’s Environmental Assessment Requirements” (dated October 2014) which need to be considered in the Environmental Impact Statement (EIS). These are outlined in Attachment A.

The EPA also notes that the types of work to be undertaken for the project and their proximity to a large number of sensitive receivers and to commercial and recreational vessels operations on the Parramatta River will present particular challenges. Accordingly, the EPA recommends that the EIS includes comprehensive consideration of the following issues:

- odour and other air emission controls throughout each stage of the remediation process;
- noise from both mobile and stationary sources used in any aspect of the operations;
- sediment controls during the excavation of material at Sites A & B and for the transport of the dredged material to the staging site;
- the discharge of treated wastewater to the Parramatta River; and
- incident risks and contingencies in the event that the planned mitigation measures are insufficient.

Should you wish to discuss any of the above information please contact Laura Wythes on 9995 6858 (Monday to Wednesday).

Yours sincerely

A handwritten signature in purple ink, appearing to read 'James Goodwin'.

6 November 2014

JAMES GOODWIN
Unit Head, High Risk Facilities Unit
Environment Protection Authority

Attachment A

Request for Secretary's Environmental Assessment Requirements – State Significant Development 6701 – Kendall Bay Sediment Remediation Project

Environment Protection Licence and Appropriate Regulatory Authority role

The EPA has sought legal advice in relation to the requirements for licensing under the *Protection of the Environment Operations Act* ("POEO Act") and identifying which agency will be the Appropriate Regulatory Authority for any non-licensed activities.

The EPA has determined that at least some aspects of the project will require an Environment Protection Licence. The EPA will work with Canada Bay Council and the proponent to determine the most appropriate regulatory arrangement for administering the POEO Act requirements as they relate to the project.

Dredging activities

Further information should be provided in the EIS for the following for these activities:

- better specification of which type will be used and where - mechanical or hydraulic ;
- where mechanical dredging is used, the EPA would not support overflow dredging (discharge of excess water from the receiving barge as it is loaded);
- a detailed process to manage the potential for scour of silt curtain anchors;
- if a flocculent is being considered for use in operations then low toxicity options should be explored; and
- standard operating procedures for silt curtains should be developed including visual inspections for integrity and how to move barges and equipment in and out of curtained areas without compromising the effectiveness of the silt curtain

A general trigger value of "no visible plumes or sheens outside the silt curtain" should be incorporated in monitoring procedures for this activity in the EIS to trigger appropriate management actions. Plumes identified to be not related to the works would require no further action. Timing and frequency of visual inspections should be related to times of highest risk of plume generation or damage to curtain integrity, e.g. during dredging and on outgoing tides, following storm events.

Odour/ Air quality

As the presence of high concentrations of odorous contaminants such as polycyclic aromatic hydrocarbons (PAHs)/tars has been confirmed on this site, particular attention will be required for management of odours during the dredging of Sites A and B, the on site management of dredged materials at the staging site and potentially the off-site transport of materials.

Dust management from all dredging, transportation of dredged materials and the staging site, particularly untreated stockpiles, must be taken into specific consideration given the proximity to the large number of sensitive receivers and commercial and recreational vessels on the Parramatta River.

Any odour and/or dust suppressants being considered for use in operations must be detailed in the EIS and include investigation of low toxicity options.

An Air Quality Impact Assessment ("AQIA") should be undertaken for the project with the level of assessment being proportionate to the likely level of odour impacts and should consider the requirements of the *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (2005)*.

The AQIA should also make appropriate reference to the *Assessment and Management of Odour from Stationary Sources in NSW: Technical Framework (2006)* and *Management of Odour from Stationary Sources in NSW: Technical Notes (2006)*.

The AQIA should also consider the requirements of the Protection of the Environment Operations (Clean Air) Regulation 2010 if applicable.

Remediation/ Contamination

The EIS must make appropriate reference to the Remediation Action Plan for the project. Both documents will need to complement each other and may require updating as more detailed specification of the remediation process is completed.

Human Health and Ecological Risk Assessment

The EIS must include a comprehensive Human Health and Ecological Risk Assessment.

Acid Sulphate Soils

The potential impacts identified for the project on acid sulfate soils must be assessed and managed in accordance with the relevant guidelines in the *Acid Sulfate Soils Manual* (Stone et al. 1998) and the *Acid Sulfate Soils Laboratory Methods Guidelines* (Ahern et al. 2004).

Noise impacts

This project has the potential to impact a high number of sensitive receivers and recreational users of the land and water surrounding the project.

A Noise Impact Assessment should be undertaken which considers construction and operational noise across the project, and must include the following:

- Operational noise from stationary aspects of the project (such as the staging area) should be assessed using the *NSW Industrial Noise Policy* (EPA, 2000).
http://www.epa.nsw.gov.au/resources/noise/ind_noise.pdf
- Construction noise associated with the project should be assessed using the *Interim Construction Noise Guideline* (EPA, 2009).
<http://www.environment.nsw.gov.au/noise/constructnoise.htm>
- Vibration from any construction activities to be undertaken on the premises should be assessed using the guidelines contained in the *Assessing Vibration: a technical guideline* (EPA, 2006).
<http://www.environment.nsw.gov.au/noise/vibrationguide.htm>

Waste treatment, discharge and management

The EIS should provide details of liquid waste and non-liquid waste management, including:

- the transportation, assessment and handling of waste generated at the site;
- any stockpiling of wastes materials at the site;
- any waste processing related to the project including on-site treatment;
- the method for disposing of all waste materials; and
- the proposed controls for managing the environmental impacts of these activities.

Chemicals

The EIS should provide details of:

- the type and quantity of any chemical substances to be used or stored and describe arrangements for their safe use and storage; and
- procedures for the assessment, handling, storage, transport and disposal of all hazardous and dangerous materials used, stored, processed or disposed of, in addition to the requirements for liquid and non-liquid wastes.

Incident Management

The EIS should include a comprehensive assessment of the potential for incidents to occur at any stage of the project, the measures to be used to minimise the risk of incidents and the procedures to be employed in the event of an incident.

Community liaison

The EPA acknowledges that the project has a dedicated website and that the community has been engaged throughout the planning process for the project to date.

The arrangements for ongoing consultation throughout the project, from commencement until its completion, should be detailed in the EIS.

11 November 2014

Ms Deana Burn
Planner
Industry Projects, Development Assessment Systems and Approvals
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Our file: 05-28-09/v1

Dear Ms Burn,

KENDALL BAY SEDIMENT REMEDIATION PROJECT (SSD-6701)

I refer to the Planning Focus Meeting held on Tuesday 21 October 2014, hosted by the Department of Planning and Environment, in relation to the proposed sediment remediation works to be undertaken at Kendall Bay.

The scoping report prepared for Jemena Limited in October 2014 outlines processes which may have the potential to cause human health impacts including odours, dust, air volatiles and noise. Several technical reports including, but not limited to, a contamination assessment, odour and air quality report, traffic impact report, acoustic assessment and waste management report are all proposed to be included within the submission of the Environmental Impact Statement (EIS).

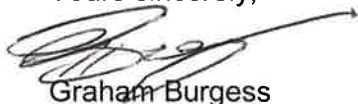
The Sydney Local Health District Public Health Unit (SLHDPHU) will review and provide further comments on the technical reports when they are released for public comment.

Good communication with the community is essential throughout this complex remediation project. Given that the Kendal Bay precinct is in such close proximity to a high density residential area we encourage the development of a comprehensive community consultation plan. As with other similar projects we are available to participate in that process.

In addition to the above technical reports we would like to have included in the EIS is that an Emergency Management Plan (EMP) is developed for the project. This is because of the nature of the contaminants being handled, and the complex operations to remove, transfer, and treat the contaminated sediments. The EMP should address the contingencies which are to be in place for responding to incidents and emergencies as a result of unforeseen event such as a fire, weather event, or a pollution incident from a system failure.

I trust the above comments are useful and thank you for the opportunity to comment. If further clarification is required or should you wish to discuss this matter further please do not hesitate to contact me on 9515 9420.

Yours sincerely,



Graham Burgess
Deputy Director Public Health Unit

From: [Wayne Jones](#)
To: [Deana Burn](#)
Subject: Kendall Bay Sediment Remediation Project [SSD_6701] SEARs
Date: Tuesday, 4 November 2014 10:12:42 AM

Hi Deana

Please see following draft DPI response to the above project. Formal response should follow shortly.

Regards
Wayne

OUT14/36068

Ms Deana Burn
Industry Projects
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Deana.Burn@planning.nsw.gov.au

Dear Ms Burn,

**Kendall Bay Sediment Remediation Project [SSD_6701]
Request for input into Secretary's Environmental Assessment Requirements**

I refer to your email dated 22 October 2014 to the Department of Primary Industries in respect to the above matter.

Comment by NSW Office of Water

The NSW Office of Water (Office of Water) has reviewed the supporting documentation accompanying the request for Secretary's Environmental Assessment Requirements (SEARs) and provides the following comments below, and further detail in **Attachment A**.

It is recommended that the EIS be required to include:

- Assessment of impacts on surface and ground water sources (both quality and quantity), related infrastructure, adjacent licensed water users, basic landholder rights, watercourses, riparian land, and groundwater dependent ecosystems, including potential impacts on bed and bank stability of the Parramatta River and Kendall Bay and measures proposed to reduce and mitigate these impacts.
- A detailed and consolidated site water balance.
- Assessment of any potential cumulative impacts on water resources, and any proposed options to manage the cumulative impacts.
- Consideration of relevant policies and guidelines.
- A statement of where each element of the SEARs is addressed in the EIS (i.e. in the form of a table).

For further information please contact Janne Grose, Planning and Assessment Coordinator (Penrith office) on 4729 8262 or at janne.grose@water.nsw.gov.au.

Comment by Fisheries NSW

Fisheries NSW is responsible for ensuring that fish stocks are conserved and that there is no net

loss of key fish habitat upon which they depend. To achieve this, Fisheries NSW ensures that developments comply with the requirements of the *Fisheries Management (FM) Act 1994* (namely the aquatic habitat protection and threatened species provisions in Part 7 and 7A of the Act, respectively), and the associated *Policy and Guidelines for Aquatic Habitat Management and Fish Conservation (1999)*.

The Kendall Bay Sediment Remediation Project is being undertaken in the Parramatta River, which is considered to be key fish habitat in the Sydney Region. It is important that the project is designed so that:

- Harm of mangroves is minimised as far as possible, and that such losses are clearly justified and offset (see below).
- The fill material used at Site A is designed so that it supports the re-establishment of mangroves at suitable tide levels.
- The fill material used at both remediation sites is clean and it supports the eventual establishment of benthic communities.
- Potential erosion and turbidity / sedimentation impacts to the river during the excavation, spoil transportation, spoil treatment and fill deposition stages are mitigated.
- Any wastewater from the treatment site to be deposited into the Parramatta River is treated so that it does not impact upon water quality.

The proposed harm of mangrove habitat is to be offset according to the *NSW Biodiversity Policy for Major Projects* - see:

<http://www.environment.nsw.gov.au/resources/biodiversity/140672biopolicy.pdf>. A fact sheet summarising the aquatic biodiversity offsetting measures, which include mangrove habitats, under this policy can be found on: <http://www.environment.nsw.gov.au/biodivoffsets/1499aquaticbio.htm>. It is recommended that the proponent discusses an appropriate offset strategy with Fisheries NSW prior to lodging the Environmental Impact Assessment.

When investigating offset options in accordance with the policy above, please note that Fisheries NSW considers that the mangrove habitat at Site A should be re-established following the remediation works. The offset strategy for harm of mangroves should include a mangrove rehabilitation plan that seeks to re-establish the same area of mangrove habitat already at this site. This needs to include:

- A description of the type of fill used to promote mangrove growth. Note that this needs to include a muddy component. Similar mangrove re-establishment activities in the past have used a 50:50 crushed shale-sandstone mix.
- A methodology for the planting of mangroves at the site. This needs to identify where mangrove seeds and seedlings will be sourced, how many will be planted and at what density, and how they will be planted. Ideally, the timing of this should coincide with the local availability of mangrove seed stock.
- Annual monitoring of the success of the mangrove planting over time.
- Follow up planting of mangrove habitat at this site where required.

Note this plan should also consider local factors, such as boat related and natural wave activity or removal of mangrove seedlings by humans, which may influence the re-establishment of mangroves at this site. It could be that some protective measure for the mangrove offset area may be required, either initially or over time. Protective measures could include fencing, educational signage, or a small rocky groyne, in the case of wave action.

Along with the offsetting requirements above, other information requirements that may be of assistance in the preparation of an environmental assessment for this proposal are listed in Attachment B.

For further information please contact Carla Ganassin, Fisheries Conservation Manager, (Wollongong Office) on 4254 5527 or at carla.ganassin@dpi.nsw.gov.au.

Attachment A

Kendall Bay Sediment Remediation Project [SSD_6701] Request for Input into Secretary's Environmental Assessment Requirements Additional Comment by NSW Office of Water

For further information visit the NSW Office of Water website, www.water.nsw.gov.au

Key Relevant Legislative Instruments

This section provides a basic summary to aid proponents in the development of an Environmental Impact Statement (EIS), and should not be considered a complete list or comprehensive summary of relevant legislative instruments that may apply to the regulation of water resources for a project.

Water Management Act 2000 (WMA 2000)

Key points:

- Volumetric licensing in areas covered by water sharing plans,
- Works within 40m of waterfront land,
- SSD & SSI projects are exempt from requiring water supply work approvals and controlled activity approvals as a result of the *Environmental Planning & Assessment Act 1979 (EP&A Act)*,
- No exemptions for volumetric licensing apply as a result of the *EP&A Act*,
- Basic landholder rights, including harvestable rights dams,
- Aquifer activity approval and flood management work approval provisions have not yet commenced and are regulated by the *Water Act 1912*,
- Maximum penalties of \$2.2 million plus \$264,000 for each day an offence continues apply under the *WMA 2000*.

Water Act 1912 (WA 1912)

Key points:

- Volumetric licensing in areas where no water sharing plan applies,
- Monitoring bores,
- Aquifer interference activities that are not regulated as a water supply work under the *WMA 2000*,
- Flood management works,
- No exemptions apply to licences or permits under the *WA 1912* as a result of the *EP&A Act*,
- Regulation of water bore driller licensing.

Water Management (General) Regulation 2011

Key points:

- Provides various exemptions for volumetric licensing and activity approvals,
- Provides further detail on requirements for dealings and applications.

Water Sharing Plans – these are considered regulations under the *WMA 2000*

Access Licence Dealing Principles Order 2004

Harvestable Rights Orders

The EIS should take into account the objects and regulatory requirements of the *Water Act 1912* (WA 1912) and *Water Management Act 2000* (WMA 2000), and associated regulations and instruments, as applicable.

Water Sharing Plans

The proposal is located within the area covered by the *Water Sharing Plan for the Greater Metropolitan Region Unregulated River Water Sources* and the *Water Sharing Plan for the Greater*

Metropolitan Region Groundwater Sources. The EIS is required to:

- Demonstrate how the proposal is consistent with the relevant rules of the Water Sharing Plan including rules for access licences, distance restrictions for water supply works and rules for the management of local impacts in respect of surface water and groundwater sources, ecosystem protection (including groundwater dependent ecosystems), water quality and surface-groundwater connectivity.
- Provide a description of any site water use (amount of water to be taken from each water source) and management including all sediment dams, clear water diversion structures with detail on the location, design specifications and storage capacities for all the existing and proposed water management structures.
- Provide an analysis of the proposed water supply arrangements against the rules for access licences and other applicable requirements of any relevant WSP, including:
 - Sufficient market depth to acquire the necessary entitlements for each water source.
 - Ability to carry out a “dealing” to transfer the water to relevant location under the rules of the WSP.
 - Daily and long-term access rules.
 - Account management and carryover provisions.
- Provide a detailed and consolidated site water balance.
- Further detail on licensing requirements is provided below.

Relevant Policies and Guidelines

The EIS should take into account the following policies (as applicable):

- NSW Guidelines for Controlled Activities on Waterfront Land (NOW, 2012)
- NSW Aquifer Interference Policy (NOW, 2012)
- Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW, 2012)
 - Australian Groundwater Modelling Guidelines (NWC, 2012)
- NSW State Rivers and Estuary Policy (1993)
- NSW Wetlands Policy (2010)
- NSW State Groundwater Policy Framework Document (1997)
- NSW State Groundwater Quality Protection Policy (1998)
- NSW State Groundwater Dependent Ecosystems Policy (2002)
 - NSW Water Extraction Monitoring Policy (2007)

Office of Water policies can be accessed at the following links:

<http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/default.aspx>

<http://www.water.nsw.gov.au/Water-licensing/Approvals/Controlled-activities/default.aspx>

An assessment framework for the NSW Aquifer Interference Policy can be found online at:

<http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/Aquifer-interference>.

Licensing Considerations

The EIS is required to provide:

- Identification of water requirements for the life of the project in terms of both volume and timing (including predictions of potential ongoing groundwater take following the cessation of operations at the site – such as seepage or inflows into below-ground structures).
- Details of the water supply source(s) for the proposal including any proposed surface water and groundwater extraction from each water source as defined in the relevant Water Sharing Plan/s and all water supply works to take water.

- Explanation of how the required water entitlements will be obtained (i.e. through a new or existing licence/s, trading on the water market, controlled allocations etc.).
- Information on the purpose, location, construction and expected annual extraction volumes including details on all existing and proposed water supply works which take surface water, (pumps, dams, diversions, etc).
- Details on all bores and excavations for the purpose of investigation, extraction, dewatering, testing and monitoring. All predicted groundwater take must be accounted for through adequate licensing.
- Details on existing dams/storages (including the date of construction, location, purpose, size and capacity) and any proposal to change the purpose of existing dams/storages.
- Details on the location, purpose, size and capacity of any new proposed dams/storages.
- Applicability of any exemptions under the *Water Management (General) Regulation 2011* to the project.

Water allocation account management rules, total daily extraction limits and rules governing environmental protection and access licence dealings also need to be considered.

Groundwater Dependent Ecosystems

The EIS must consider the potential impacts on any Groundwater Dependent Ecosystems (GDEs) at the site and in the vicinity of the site and:

- Identify any potential impacts on GDEs as a result of the proposal including:
 - o the effect of the proposal on the recharge to groundwater systems;
 - o the potential to adversely affect the water quality of the underlying groundwater system and adjoining groundwater systems in hydraulic connections; and
 - o the effect on the function of GDEs (habitat, groundwater levels, connectivity).
- Provide safeguard measures for any GDEs.

Watercourse and Riparian Land

The EIS should address the potential impacts of the project on all watercourses likely to be affected by the project, existing riparian vegetation and the rehabilitation of riparian land. It is recommended the EIS provides details on the watercourses potentially affected by the proposal, including:

- Scaled plans showing the location of:
 - o watercourses and top of bank;
 - o riparian corridor widths to be established along the creeks;
 - o existing riparian vegetation surrounding the watercourses (identify any areas to be protected and any riparian vegetation proposed to be removed);
 - o the site boundary, the footprint of the proposal in relation to the watercourses and riparian areas; and
 - o proposed location of any asset protection zones.
- Photographs of the watercourses.
- A detailed description of all potential impacts on the watercourses/riparian land.
- A description of the design features and measures to be incorporated to mitigate potential impacts.
- Geomorphic and hydrological assessment of water courses including details of stream order (Strahler System), river style and energy regimes both in channel and on adjacent floodplains.

Project specific notes

Ecology

As the project area is located adjacent to the shoreline of Fairmile Cove and in the bed of the Parramatta and Kendall Bay, it is suggested the key issues section of the SEARs includes an 'Ecology' section with:

- an assessment of the potential on-site and off-site risks and issues associated with the proposed development; and
- consideration of impacts on riparian and aquatic ecology, including watercourses, riparian land, wetlands and groundwater dependent ecosystems;
- a detailed description of the design features and mitigation measures to be incorporated into the proposal to mitigate potential impacts.

Mitigation Measures

It is recommended the project incorporates the following mitigation measures:

- where possible, remnant riparian vegetation along the Parramatta River will be protected and any affected riparian land disturbed by the project shall be rehabilitated;
- any riparian land affected by the project shall be rehabilitated with native plants species from the relevant local native vegetation community either at, or near the crossing site, or elsewhere along the river;
- a Vegetation Management Plan (VMP) shall be prepared consistent with the *Guidelines for vegetation management plans on waterfront land* that demonstrates the protection of remnant native riparian vegetation and the rehabilitation of riparian vegetation; and
- an Erosion and Sedimentation Control Plan shall be prepared for the project to limit any potential impacts on surface water and groundwater sources.

End
Attachment A

Attachment B

Kendall Bay Sediment Remediation Project [SSD_6701] Request for Input into Secretary's Environmental Assessment Requirements Additional Comment by Fisheries NSW

Note: Fisheries NSW recommends that development proposals comply with the *Policy and Guidelines for Fish Habitat Conservation and Management (2013)* (referred to hereafter as P&GLs). A list of general information requirements for developments and standard precautions and mitigation measures are outlined in Section 3.1 of this document. See <http://www.dpi.nsw.gov.au/fisheries/habitat/publications/policies,-guidelines-and-manuals/fish-habitat-conservation>

A: General Requirements

- site address and contact details.
- property description (e.g. Lot and DP numbers).
- a clear description of the proposal including details of construction methods and materials.
- map(s) of the development area and adjacent areas - this should include nearby waterways, adjacent infrastructure and land use.
- clear photographs of the site (at low and high tide in estuaries), including photographs of any riparian and aquatic vegetation present (including pest species such as *Caulerpa taxifolia*).
- a description of the potential direct and indirect impacts on recreational fishing from the development.

- a clear description of the physical and hydrological features of the development area (which may extend upstream and downstream of the development site in the case of flowing rivers or tidal waterways).
- approximate depth contours within 20 metres of the proposal.
- a clear description of aquatic environments including:
 - ❑ threatened and protected species, populations, ecological communities, pest species or presence of 'critical habitat' under the FM Act or EPBC Act,
 - ❑ an aquatic and riparian vegetation survey map of the area which shows the location and/or coverage of saltmarsh, mangrove, seagrass, macroalgae, and riparian vegetation,
 - ❑ description of aquatic habitat TYPE on site (see Table 1 in the P&GLs),
 - ❑ description of the waterway CLASS (see Table 2 in the P&GLs).
- details of the nature, timing, magnitude and duration of the proposed disturbance to the aquatic environment.
- assessments of predicted impacts upon any threatened species (fish and marine vegetation) (i.e. completion of a 7 part test and/or species impact statement(s)) and other aquatic flora and fauna.
- details of any mitigation measures to limit environmental impacts.
- details of the general regional context, any protected areas, other developments in the area, and/or cumulative impacts.
- a copy of the land owner's consent where relevant.
- notification of any other matters relevant to the particular proposal and of interest to NSW DPI.

Dredging and reclamation activities

- purpose of works,
- type(s) and distribution of marine vegetation in the vicinity of the proposed works,
- method of dredging to be used,
- timing and duration of works,
- dimension of area of works including levels and volume of material to be extracted or placed as fill,
- nature of sediment to be dredged, including Acid Sulphate Soil, contaminated soils etc,
- method of marking area subject to works,
- environmental safeguards to be used during and after works,
- measures for minimising harm to fish habitat under the proposal,
- spoil type and source location for reclamation activities,
- method of disposal of dredge material,
- location and duration of spoil stockpiling, if planned.

Activities that damage marine vegetation

- type of marine vegetation to be harmed,
- map and density distribution of marine vegetation,
- reasons for harming marine vegetation,
- methods of harming marine vegetation,
- construction details,
- duration of works/activities,
- measures for minimising harm to marine vegetation under the proposal and details of compensatory habitat development to replace lost vegetation,
- method and location of transplanting activities or disposal of marine vegetation.

B. Aquatic habitat assessment

The aim of the aquatic assessment should be to define the presence of 'key fish habitat' within the study site, adjacent areas (upstream and downstream), and the broader regional area. There may be a range of potential fish habitats that could be impacted by a particular activity. Some points to consider include:

- is it mapped as key fish habitat? (see www.dpi.nsw.gov.au/fisheries/habitat/protecting-habitats#KFH for maps of key fish habitat per Local Government Area),
- description of local wave and current regimes,
- description of the water quality (e.g. discolouration, sedimentation, turbidity, pH, dissolved oxygen, nutrients),

- types of surrounding land use (e.g. agricultural, urban, aquaculture),
- condition of riparian vegetation (i.e. present or absent. Are the species native or exotic? Is the density of vegetation thick or sparse?),
- condition of marine vegetation (i.e. information on type, species, shoot density and/or percentage cover. Is the vegetation continuous or sparse in coverage? What is the aerial extent? Is the vegetation healthy or degraded? Is wrack (dead seagrass or macroalgae) present?),
- presence of wetlands nearby (including freshwater wetlands and saltmarsh) (i.e. are wetlands protected under any legislation e.g. SEPP 14 coastal wetlands, Ramsar wetlands)? Are the wetlands in a healthy or degraded condition?),
- substrate type (e.g. rock, sand, gravel, silt),
- presence of any listed threatened or protected aquatic species or 'critical habitat' under the FM Act and EPBC Act.

▪ **C. Assessment of likely impacts**

- indicate the location, nature and extent of habitat removal or modification (both direct and indirect) which may result from the proposed action;
- discuss the potential impact of the modification or removal of habitat (potential direct and indirect sources of impact are stated in the letter with this attachment).

Note: In defining the proposal area, discussion must be provided in regard to possible indirect effects of the proposal on species/habitats in the area surrounding the subject site: for example, through altered hydrological regimes, soil erosion or pollution.

D. Ameliorative measures

The environmental assessment should consider and provide detail on how the proposal has been or may be modified and managed to minimise impacts and conserve aquatic habitat on the subject site and in the study area.

**End
Attachment B**

Regards
Wayne

Wayne Jones | Land Use Planning Coordinating Officer
Department of Primary Industries
Level 48, MLC Centre, 19 Martin Place Sydney NSW 2000
T:02 9338 6708 | E: wayne.jones@dpi.nsw.gov.au

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