

11. CWTP RESOURCE CONSENT FOR WASTEWATER EFFLUENT DISCHARGE

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The purpose of this report is to advise the Council further regarding the process since it passed the following resolutions at its 24 October 2002 meeting.

BACKGROUND

The resolutions that have been passed are as follows:

1. That the Council **not proceed with options to discharge into the estuary on a long-term basis.**
2. That **legal appeals** to the short-term five-year consent to discharge to the estuary **be pursued** so that acceptable conditions can be obtained to allow continued discharge into the estuary until a longer-term solution is available.
3. That the Council immediately undertake an **information initiative with affected residents** and groups in the Pegasus Bay area so that they are informed of the investigations and of the evidence available to the Council which have resulted in the Council not proceeding in the long term with an estuary discharge, and such further information which shall include a programme for the investigation and consultation on the pipeline options which are available.
4. That the Council proceed with the preparation of an **Assessment of Environmental Effects for an ocean outfall via a pipeline** no less than 2km into the ocean, and such assessment to include immediate work on an ecological baseline study and further ocean modelling.
5. That the **pipeline options to be investigated** will include alternative routes to Bridge Street, having regard to the social and environmental costs as well as the engineering costs of such routes.
6. That a **further report be presented to the Sustainable Transport and Utilities Committee** meeting detailing **project timetable, costings and budget provisions, and a process for consultation** on the pipeline options, methods of construction and water quality.
7. That the **report also include discussion and options** to continue the original strategy for long term investment in improving estuary and wastewater quality (irrespective of the dilution advantages inherent in a direct to ocean outfall) including:
 - (a) Improving the **quality of river water** via better performance of constructed sewer overflows and storm water outlets.
 - (b) Examining options to reduce **sea lettuce** growth especially the McCormacks Bay 'sea lettuce trap' and seeding problems, and areas of accumulation within the Estuary.
 - (c) Using **natural systems** to reduce nutrients in the wastewater by the application to land, including the proposed estuary green edge project.
 - (d) Research into and trialing **new technology for** wastewater recycling and reuse.
8. That in developing its **wastewater Strategic Plan**, Council continue to pursue ways of reducing the quantity of water and nutrients being discharged, and consider whether it may be possible in the long term to remove the need for discharge to the ocean at all.

At the October 2002 meeting of the Sustainable Transport and Utilities Committee a report was presented advising on the way forward for the wastewater outfall. From that meeting a resolution was passed which was subsequently amended at full Council to the resolution above. This report provides further information on how each of these latest resolutions are being progressed.

Resolution 1: Discharge to Estuary

No further staff input required on this.

Resolution 2: Appeals to Resource Consent Decision

Appeals to the short term five year consent to discharge to the estuary, and the provision of UV within two years, is to be undertaken as negotiations of consent orders with Ecan and other parties who have registered as having an interest in the process. In conjunction with this, wide ranging appeals were also lodged on the consent decisions listed below in order to maintain the Council's position while it considered its options. Now that a direction has been confirmed to pursue a consent for an ocean outfall, these appeals need to be negotiated or settled through the Environment Court. Apart from UV disinfection and discharge duration to the estuary, appeals are generally of a minor or technical nature, and any settlement would expect to have a low impact on the budget. It is therefore proposed that the Council delegate authority to staff to negotiate consent orders for items appealed on the following resource consent applications.

CRC 012012	Discharge of toe drain seepage and stormwater to estuary.
CRC 012013	Discharge pond water to land.
CRC 012014/012015	Reclaim land.
CRC 012016	Discharges to air,

A number of appeals have also been lodged for consent:

CRC 012011	Discharge 500000m ³ /day wastewater to estuary.
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The duration of this consent and the provision of UV within two years represent the two most significant issues to be resolved which could have an impact on budget provisions. It is therefore proposed the council delegate authority to staff to negotiate a resolution of these matters but that the power to settle the appeals in respect of duration and UV treatment be delegated to the Sustainable Transport and Utilities Committee. It is expected that staff will undertake the early negotiations with respect to all matters appealed on this decision and the Sustainable Transport and Utilities Committee will meet towards the end of the process to consider recommendations that have been reached. Staff at Environment Canterbury have indicated that a structure such as this will be suitable.

Resolution 3: Communication and consultation

A communication plan has been prepared to be implemented immediately which has the following key elements:

1. Advise the public how the Council arrived at the position we are at now.
2. Advise what the process will be for consultation, and what the timeline will be for consultation and construction of a pipeline.
- 3 Advise what aspects of an ocean pipeline the public can have influence on and input into with regards to the options available.
- 4 To keep the public informed of progress, through regular information bulletins.
- 5 Educate the public regarding construction methods, and water quality, and what effects each of these will have on rates and health risk in order to make informed judgements when responding to consultation.

An information/education programme will be run over the next five years to:

- Communicate with internal and external stakeholders about what's happening with the ocean outfall, and
- Consult with them about what the outcomes they would like to see in an ocean outfall.

The initial two year schedule is broken down into:

A	January - June 2003	Education/information
B	July - September 2003	Formal submissions /information
C	October - December 2003	Collation/ analysis/ feedback/ education/information
D	January - December 2004	Education/information

Attachment A shows the consultation plan through to December 2004 plus the proposed channels of communication through to September 2003.

Resolution 4: Assessment of Effects on the Environment

Preparation of an Assessment of Effects on the Environmental for an ocean outfall pipeline has commenced. Work has been commissioned for a further 12 months data collection for ocean modeling. A baseline ecological study is being scoped and priced at present.

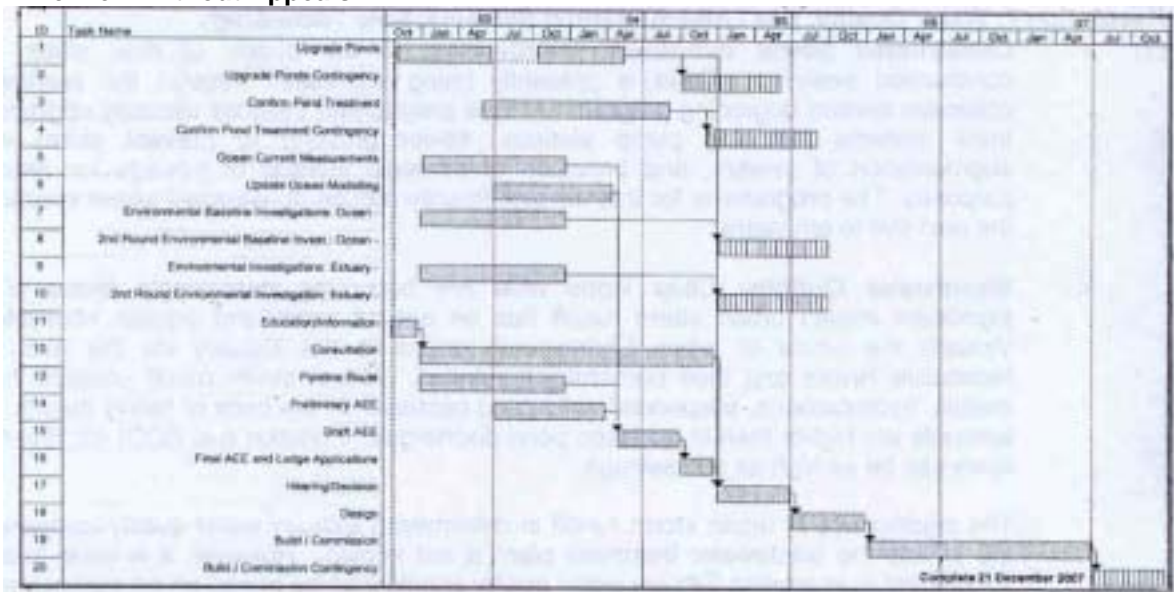
Resolution 5: Pipe Route

Alternative routes to Bridge Street are being investigated. At this stage engineering feasibility studies are being undertaken for Beatty Street, Caspian Street, and Godwit Street. These studies are designed to show if/how a pipeline can be achieved using these routes by the best practical means and taking account of social, environmental, and economic costs. The results of these investigations should be available prior to Christmas in order to communicate the issues to the community during the communication and consultation process regarding a preferred pipe route. If other practical routes are identified during the communication and consultation process, a similar feasibility study can be undertaken and included in the consultation process.

Resolution 6: Timeline and Budget

The chart below represents an optimistic assessment for achieving completion of the ocean outfall pipeline.

Timeline – Without Appeals



This chart had been prepared on the assumptions that there will be no appeals and that progress will be relatively unhindered by unforeseen circumstances. Apart from that, the programme is considered to be realistic and achievable, it also demonstrates to the Environment Court the Council's willingness to proceed diligently towards removing the existing discharge from the estuary. Registered interested parties to the consent appeals are likely to be more sympathetic to negotiating consent orders if they can see the Council is prepared to move to an ocean outfall at the earliest opportunity.

The budget provision to appear in next year's plan is amended as shown below, to reflect the shorter completion date as demonstrated in the time line above.

Budget

Possible 2003/04 Plan	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	Total
Consenting and investigations	0.4	0.6	0.6	0.4	0.4						2.4
Pond modifications (ie stage 1 works)	2.0	2.2									4.2
Ocean Pipeline (ie stage 2 works)					20	25					45.0
UV Plant (possible)						0.4	6.0				6.4
Green Edge								7.1	7.3		14.4
Total	2.4	2.8	0.6	0.4	20.4	25.4	6.0	7.1	7.3	0	72.4
Current 2002/03 Budget	2.6	8.3	8.2	7.1	7.3						33.5
Difference	(0.2)	(5.5)	(7.6)	(6.7)	13.1	25.4	6.0	7.1	7.3	0	38.9

Figures represent millions of dollars.

When the detail regarding the pipeline route options becomes available, this will be presented to the Council for information, along with the construction method proposed for each route. The consultation process to assist the council in finalizing the pipe route is outlined under Resolution 3 above.

The method to determining the preferred effluent quality will be through feedback from the consultation process.

Information is required from the community regarding the outcomes they prefer. For example, suggested outcomes might be that no evidence of any effluent discharge is seen, no evidence of any effluent discharge is smelt, there is minimal risk to health from gathering shellfish or swimming in the water. That being the case, appropriate engineering technology would be applied to achieve these agreed outcomes.

Resolution 7: Water Quality, Sea Lettuce, Natural Systems, New Technology

- (a) (i) **Constructed Sewer overflows:** Improvement to the quality of river water from constructed sewer overflows is presently being addressed through the wastewater collection system upgrading programme. This programme includes capacity upgrades of trunk systems including pump stations, sewer grouting to prevent storm water augmentation of sewers, and provision of strategic storage of sewage for retention purposes. The programme for this will significantly reduce constructed sewer overflow in the next five to ten years.
- (ii) **Stormwater Outfalls:** Cities world wide are becoming increasingly aware of the significant impact urban storm runoff has on natural water and aquatic ecosystems. Virtually the whole of urban Christchurch drains to the Estuary via the Avon and Heathcote Rivers and their numerous tributaries. Urban storm runoff contains heavy metals, hydrocarbons, suspended solids and bacteria. In the case of heavy metals, total amounts are higher than in oxidation pond discharges. Pollution (ie BOD) for 'first-flush' flows can be as high as raw-sewage.

The significance of urban storm runoff in determining Estuary water quality compared to the effects the wastewater treatment plant is not known. However, it is clear that any investment in improving Estuary water quality should also be based on an assessment of urban runoff treatment needs.

A joint Christchurch City Council/Environment Canterbury Stormwater Quality Management Strategy for Christchurch has been recommended by the Council in its submission to ECan's draft Natural Resources Regional Plan, Chapter 5 Water. Discussions with ECan staff are to be commenced on this matter this year.

It is proposed to provide the Parks, Gardens and Waterways Committee with a separate report on Stormwater Quality Management early next year. The promised report will of course be a Parks and Waterways undertaking aided by City Solutions and other consultants.

- (b) A project to address the **reduction of sea lettuce growth**, especially within McCormacks Bay and areas of accumulation within the estuary is presently under way, and is being managed by Mr Ken Couling of City Solutions.
- (c) Reduction of nutrients in the wastewater using **natural systems** such as an estuary green edge and application to land will be addressed within the Wastewater Strategic Management Plan which is presently being prepared. Further information on this was the subject of a separate report to the 5 November 2002 Sustainable Transport and Utilities Committee.
- (d) The **Wastewater Strategic Management Plan** will present options for trialing new technology for wastewater recycling and reuse. This plan will be presented to the Sustainable Transport and Utilities Committee mid 2003.

Resolution 8: Nutrient and Water Reduction

The Wastewater Strategic Management Plan will present options for reduction of water and nutrients, and associated costs.

- Recommendation:**
1. That the Council delegate to the Planning and Projects Manager, City Water and Waste Unit the power to commit the Council to a binding agreement to resolve the appeals lodged on the following resource consent decisions:

CRC 012012	Discharge of toe drain seepage and stormwater to estuary.
CRC 012013	Discharge pond water to land.
CRC 012014 / 012015	Reclaim land.
CRC 012016	Discharges to air.
 2. That the Council delegate to the Sustainable Transport and Utilities Committee the power to commit the Council to a binding agreement to resolve the appeals lodged against this resource consent granted for application CRC012011 (discharge 500,000m³/day wastewater to estuary) in respect of duration of consent and the conditions requiring UV treatment.
 3. That it be recommended to the Annual Plan Working Party that provision for the construction of an ocean outfall be allowed for in the ten year budget with construction commencing in the 2006/07 year.