

# VICTORIAN REGIONAL CHANNELS AUTHORITY

## GEELONG DREDGING PROGRAM 2015 & GEELONG TRIAL DREDGE – WILSON SPIT

### FREQUENTLY ASKED QUESTIONS

#### **RESPONSIBILITY & RATIONALE**

#### WHO IS THE AUTHORISED SPOKESPERSON FOR THE VRCA WITH REGARDS TO THESE PROJECTS?

---

Captain Peter McGovern, Chief Executive Officer.

#### WHY DO YOU NEED THIS?

---

One of the Victorian Regional Channels Authority's (VRCA) principal functions is to exercise general direction and control of the movement of vessels and the safety of all vessels in port waters is a priority. Since its establishment, the VRCA has been investing in a series of risk remediation strategies to maintain and improve safety in Corio Bay. These include the complete refurbishment of 77 steel piled beacons in the shipping channel equipped with high visibility markings and solar-powered lights, new state-of-the-art tidal gauges and the latest ship monitoring systems. In 2014, the VRCA conducted a dredging program to ease the City Bend and to increase the maintained depth at Corio Quay No 4 berth.

As part of an ongoing assessment of safe access, the VRCA, in consultation with the Port Phillip Sea Pilots has in the past four to five years been undertaking a series of studies to establish the changes that have occurred and the trends that are likely to occur in ship sizes in the various trades that service the port of Geelong.

What is clear from these studies is that the size of vessels using the port is continually increasing. The VRCA has also undertaken navigation simulations of various larger ships entering and leaving the port and has done a review of the internal geometry of the Corio Bay Channel comparing it with the international standard. The VRCA is obliged by its statute to plan to safely accommodate the larger vessels that are coming into the port's key trades. A 24 stage development plan for the shipping channels has been prepared to meet the future needs of port users. Due to the configuration of the shipping channels in Corio Bay, from time to time certain restrictions need to be placed on ship movements to maintain safety standards. The need for such restrictions will increase as larger ships visit the port. The Geelong Dredging Program 2015 will reduce the need for such restrictions and will enhance the efficiency and productivity of the port.

Concurrently with the GDP 2015, the VRCA will undertake a trial dredge of basalt at the eastern end of Wilson Spit Channel. This trial will determine whether the type of dredge used in the GDP 2015 is viable for the removal of the hard rock present at the eastern end of Wilson Spit Channel. Whether the trial succeeds or fails, it will provide valuable information on the integrity of the rock and potential removal methods. This information will assist in the planning of future channel improvements.

#### WHOSE RESPONSIBILITY IS IT TO KEEP THE SHIPPING CHANNEL OPEN?

---

The Victorian Regional Channels Authority (VRCA) is charged with the safe, secure and environmentally responsible operation of the port waters of Geelong.

## ARE THE GEELONG CHANNELS UNSAFE?

---

The VRCA's role is to exercise general direction and control of the movement of vessels and the safety of all vessels in port waters is a priority. The VRCA has an excellent safety record and works actively to maintain high safety standards in its waters.

## WILL SHIP MOVEMENTS BE IMPACTED BY THE WORK?

---

No.

## WHAT COULD HAPPEN IF THIS WORK IS NOT DONE?

---

Ship sizes are increasing steadily each year and this trend is forecast to continue. It is imperative that in order to minimise risk, the area mentioned be dredged to a width necessary to allow safe access. Failing to do so may result in a vessel running aground. It is the responsibility of the VRCA to do everything in its power to avoid this type of incident occurring and that all risks are minimised.

## WHY DOESN'T THE VRCA OWN A DREDGER ITSELF?

---

The cost of purchasing and maintaining a dredging vessel is far too great for the VRCA to justify.

## WHAT IS THE TIDAL RANGE IN CORIO BAY?

---

The tide rises and falls by around 80cm.

## WILL THERE BE ANY EFFECT ON TIDES?

---

No, the tide heights are governed by the amount of water moving through the entrance to Port Phillip Bay. This cannot be influenced by the dredging in Corio Bay.

## **THE PROJECT**

### HOW MUCH AND WHAT TYPE OF MATERIAL WILL BE DREDGED?

---

The VRCA has estimated from surveys of the seabed that approx. 240,000 cubic metres of material will be removed from the area between Lascelles Wharf and Refinery Pier No 4. This estimate is preliminary, and the final dredged volume may vary from the estimate.

The dredged material will consist of soft surface sediments, and silty clays and clays ranging from soft to hard in consistency.

The Rock Trial Dredge will attempt to remove a small volume of basalt rock from an outcrop that intersects the eastern end of Wilson Spit Channel.

### WHO HAS BEEN CONSULTED ABOUT THESE PROJECTS?

---

A wide range of stakeholders including community groups and industry representatives have been consulted and will continue to be informed throughout the course of the projects. The VRCA recognises that, although dredging may be deemed to be part of routine port operations, there is a genuine interest from the broader community. Therefore, the authority's aim is to provide clear, consistent and timely information to the stakeholders and the broader community with regards to this project. The aim is for information to be clear and easily accessed through the VRCA website.

## HOW LONG WILL THE CHANNEL IMPROVEMENT WORK TAKE?

---

At this stage, we estimate up to three months. We must emphasise that the scale of these projects is minor. They are approximately six percent of the scale of the Geelong channel deepening program which was carried out in 1997 without significant environmental and social impact.

## WHY HAS THERE BEEN SO LITTLE DREDGING SINCE 1997?

---

The VRCA uses the latest hydrographical and survey equipment to ensure ships with deep draughts can travel into the port. The authority maintains shipping channels in the port of Geelong to a depth of 12.3 metres. Annual testing is done using advanced, highly accurate multi-beam technology to ensure the depth has not decreased. As ship size increases and new trades emerge, safe channel access becomes increasingly important, which is why it is necessary to perform further dredging for the berthing of large ships at Refinery Pier No 4.

## WHAT IS THE PRE-APPROVAL PROCESS?

---

The VRCA has worked with DELWP to obtain approval under the Coastal Management Act and the sediment investigation was done in accordance with the National Assessment Guidelines for Dredging.

## ON WHAT GROUNDS WERE THE PROJECTS APPROVED?

---

The projects were only approved when they met all necessary approval requirements to describe how the environmental standards expected by the community would be met.

## WHEN WAS APPROVAL GRANTED?

---

Consent under Victoria's Coastal Management Act 1995 for the GDP 2015 was issued on 10 August 2015. The consent authorised dredging of outlined areas at Refinery Pier No 4 and placement of dredged material at the existing dredge material ground located east of Point Wilson.

The consent for the trial dredge was issued on 1 October 2015.

## WERE THE APPROVALS SUBJECT TO ANY CONDITIONS?

---

Yes, VRCA must provide to the satisfaction of DELWP an Environmental Management Plan (EMP) and supporting risk register, a community and stakeholder engagement plan. The VRCA must appoint an auditor approved by DELWP, to undertake audits of the performance of the program. .

## DOES THE VRCA HAVE TO PUT UP ANY MONEY IN ADVANCE FOR REMEDIAL WORK OR POST-DREDGING RECOVERY?

---

No.

## HOW MANY DREDGING CRAFT WILL BE INVOLVED IN THIS PROJECT?

---

The work will be undertaken by a back hoe dredge (BHD). A BHD is like a land-based excavator which will operate with tugs and barges to transport dredge material to the dredge material ground (DMG). This type of dredge can remove very stiff clays to softer material. It can also be used in confined areas.

## HOW DEEP DO YOU PROPOSE TO DREDGE?

---

The work won't affect the maintained depth at Refinery Pier Berth No 4. The berth will be locally widened to ease the navigation of ships.

The rock trial dredge will attempt to excavate a small number of trenches in the floor of the channel where the rock exists.

#### WHERE WILL THE DREDGERS COME FROM?

---

The dredging contract has been awarded to Heron Construction Co Ltd following an open tender process. The dredge has been relocated from its current work in Melbourne to Geelong for the duration of the project.

#### HOW MUCH WILL THE DREDGING COST?

---

Approximately \$9m.

#### WHEN WILL THE WORK BE DONE?

---

The work will be carried out during the months of September – November 2015. Precise dates are still to be arranged.

#### IS THERE LIKELY TO BE FURTHER DREDGING IN ADDITION TO THE WORK YOU ARE OUTLINING?

---

The VRCA has a development plan for future improvements to the shipping channels, which will be implemented in response to the needs of port users.

#### WHAT ARE THE FUTURE PLANS FOR THE DEVELOPMENT OF GEELONG?

---

The VRCA is the governing body for port waters in and around the port of Geelong. Geelong Port is privately owned by GeelongPort Pty Ltd and GrainCorp. For more information, view the *Port of Geelong Development Strategy 2013* at [www.regionalchannels.vic.gov.au](http://www.regionalchannels.vic.gov.au) and the *Geelong Port-City 2050: Geelong Port and Land Infrastructure Plan* at [www.geelongaustralia.com.au](http://www.geelongaustralia.com.au)

### **ENVIRONMENT MANAGEMENT**

#### WHAT ARE THE ENVIRONMENTAL IMPACTS OF THE PROPOSED DREDGING?

---

There will be short-term effects from dredging, with the most obvious being elevated turbidity (cloudy water) near the dredge itself. This is expected to subside within a few days after dredging. The dredging is not expected to have any long-term implications for the health of Corio Bay.

#### WHAT ARE THE MAIN CONSIDERATIONS OF THE ENVIRONMENT MANAGEMENT PLAN?

---

The Environmental Management Plan (EMP) sets out rules that this project must meet. These are sensible rules that the community would expect in this day and age. They outline when, where and how dredging can occur and specify how it is to be monitored, reported and audited. The EMP has been approved by the DELWP.

#### WHAT SUPPORTING DOCUMENTATION HAS VRCA PROVIDED TO THE DELWP WITH ITS APPLICATION?

---

- 2 Geotechnical report, Worley Parsons - February 2011
- 3 Environmental risk assessment
- 4 Sediment characterisation, URS, July 2014, March 2015
- 5 Report on turbidity from dredging - Cardno November 2011
- 6 Environmental Management Plan

## WHAT MONITORING SYSTEMS WILL BE IN PLACE?

---

Monitoring will be carried out to verify that dredging activity is being undertaken in accordance with the EMP rules. Those rules set out where, when and how dredging can take place, and were designed to minimise the environmental risks from the project.

## WHAT MONITORING SYSTEMS HAVE BEEN IN PLACE SINCE THE LAST DREDGING?

---

The VRCA undertakes monitoring of sediment chemistry in Corio Bay, the most recent being in 2014. Ecological investigations of marine life have been carried out in 2007 and 2009 and 2010.

## HOW CAN THE COMMUNITY BE CONFIDENT THAT THE RULES WILL BE FOLLOWED?

---

We are closely monitoring dredging activity, including where, when and how dredging is done, to ensure the rules are followed. The project will also be audited independently to verify compliance with the EMP.

## WHAT IMPACT WILL THE CHANNEL WORK HAVE ON THE MARINE ENVIRONMENT, INCLUDING THE SEA GRASSES AND OTHER MARINE LIFE?

---

Our experience from the much larger 1997 project and the Geelong Dredging Program 2014 demonstrated that the impacts were small and of short duration. The proposed dredging will have only minimal impact on sea grasses in Corio Bay. Most of the other marine life that will be removed in the area to be dredged are foreign species introduced to Corio Bay over the past 100 years. Mobile species such as fish will avoid the dredging area.

## WILL ANY CONTAMINATED MATERIAL BE REMOVED?

---

Material to be removed has been assessed in accordance with the National Assessment Guidelines for Dredging as being suitable for unconfined marine disposal.

## WON'T THE TURBIDITY FROM DREDGING AFFECT SEAGRASS IN OTHER PLACES?

---

Seagrass was intensively monitored during a much larger dredging project in Corio Bay in 1997. That experience, together with the Geelong Dredging Program 2014 showed that seagrass was not adversely affected by the turbidity from dredging. This project is of similar size to that undertaken in 2014. We do not expect any adverse effect on seagrass from turbidity in this project.

## WHERE WILL THE DREDGED MATERIAL GO AND WHAT MEASURES WILL BE IN PLACE TO MINIMISE THE IMPACT ON THE BAY'S BIRDS, FISH AND MAMMALS?

---

The dredged material will go to an existing dredge material ground area east of Point Wilson. The dredging and disposal sites are some distance from the nearest Ramsar wetlands. There were no problems from the much bigger 1997 or from the 2014 dredging. Every effort will be made to minimise the impact on and protect these important areas. Visiting species would tend to avoid the dredger during operation, as they do with normal shipping activity in the bay.

## WILL THERE BE MAJOR TURBIDITY FROM THE DREDGING? HOW LONG WILL IT TAKE TO SETTLE?

---

There is often background turbidity in Corio Bay due to waves generated by strong winds blowing over areas of shallow muddy sea bed and also from heavy rain in Geelong area. Turbidity from these natural causes may last 24 to 36 hours. Past experience of turbidity from dredging was shown in 1997 and 2014 not to be a significant issue. The dredging plume will settle locally, near the dredge.

## WILL WORK BE ROUND THE CLOCK 24/7?

---

Yes.

## HOW MUCH NOISE WILL BE CREATED BY THE DREDGER?

---

This depends on the technology that is chosen to carry out the project. However every effort will be made to minimise the impact of noise. It will of course comply with the EPA State Environmental Noise Limits.

## IS THERE LIKELY TO BE ANY SMELL EMANATING FROM THE DREDGED MATERIAL?

---

No.

## WHAT WILL BE THE IMPACT ON FISHING?

---

The impact will be negligible. The area where dredging work will be carried out is small and not an accessible fishing location. Any impact will be minor and short term.

## WILL I STILL BE ABLE TO GO FISHING IN CORIO BAY DURING THE DREDGING?

---

Yes. There will be an exclusion zone around the dredge for safety reasons, but there are no restrictions on fishing elsewhere.

## WILL THERE BE ANY RESTRICTIONS ON YACHTS, FISHING BOATS AND PLEASURE CRAFT DURING THE DREDGING?

---

Yes. There will be a restricted safety zone around the dredge, however, this will be minimal and will be designed to ensure the safety of the boating public.

## HAS DREDGING IN THE PAST CAUSED SPIKES IN ABUNDANCES OF INVASIVE SPECIES IN CORIO BAY?

---

No.

## HAS CLIMATE CHANGE BEEN CONSIDERED IN RELATION TO DREDGING?

---

VRCA gets a trend analysis from the National Tidal Centre and there is no evidence of any changes in the trend.