

PORT RIVER SHELLFISH RESTORATION PROJECT

Draft PROJECT PLAN

Background

This project is occurring in a wider context of projects to restore the Port River estuary and to enhance our environment's and our community's capacity to respond to climate change.

Nature is very different from patch to patch e.g. pests, depth of sediment in the Port River, and there's a lot that we don't know about shellfish restoration. However experience in USA through The Nature Conservancy, suggests that learning by trial and error is the way to proceed.

We're seeking, in the short term, ecological benefits from shellfish restoration; however in the long term we envisage consumption of local shellfish.

Our approach to our project includes addressing history, science, education and community engagement.

We envisage this as multi-generational project, many benefits of which will be derived beyond our lifetimes.

Short term priorities (1-2 years)

Learn history of shellfish in Port River estuary and have it inform our plans.

Mussels

Understand life cycle of mussels and collaborate with Prof Sean Connell in research projects about them.

Engage students (e.g. Portside Christian and Ocean View) in research, monitoring and growth of our mussel population

Native oysters

Understand what's known about native oysters (Angasi) and what's not re life cycle, habitat etc

Identify prospective sites for native oyster trials based on history, existing shellfish species, accessibility of sites, approvals to access, river conditions etc

Bring together materials and people to implement native oyster trials

- Plates
- Spat (there are hatcheries in Port Lincoln)
- Recruit volunteers (need to determine roles, numbers of volunteers needed etc)
- Expertise in research methods and co-ordination of research project
- Bring plates and spat together (e.g. seeded substrate from this area) and undertake placement
- Monitoring, recording and analysing results

Community Engagement

Seek opportunities for involvement/collaboration with

- Kurna people
- Schools

- Local businesses e.g. fish processors, restaurants, pubs
- People interested in local environment
- Oyster industry

Present the project and our plan at a Port Environment Forum meeting in 2016 to build awareness and attract volunteers

Share what we're learning with local community and with other communities/groups interested in shellfish restoration. This might include presentations (for schools and community groups), own website etc.

Oyster Shell Collection

Investigate the possible nature of our involvement with oyster shell collection, recycling and reuse and decide the timeframe for our involvement e.g. is it a short term or medium term issue?

(See pp3 for more questions about this issue)

Long term vision (20 years +)

Restoration of a healthy Port River estuary ecosystem

Native oysters are cleaning the River and native oyster reefs are attenuating wave action from rising sea levels

Port River estuary provides a healthy environment for humans (e.g. swimming, food) and for our dolphins, and is more bountiful as a fish nursery and habitat for birds and other living beings.

Across generations of locals, people understand and value the ecology of the Port River estuary.

Community is connected to the Port River; engaged in monitoring and protecting its well-being.

There is growing, sustainable consumption of shellfish with reduced carbon miles from locally grown and sustainably harvested shellfish

What will we be doing with oyster shells at this stage?

Learning from our project – science, history, community engagement, partnerships etc – is documented and shared widely to encourage and support other communities in shellfish restoration and marine ecology

The Port River's transformation, and the local community's role in this, provides positive recognition for our area at State and national level. This includes recognition of the practical things that community members did/can do to assist our environment respond to climate change.

Oyster Shell Collection, Recycling and Reuse *(ideas for discussion)*

Heidi has indicated that there will be demand for shell and that the oyster industry would welcome an alternative to paying to dump oyster shell which is classed as biological waste.

In the short term it seems that we don't need oyster shells for our trials – need to confirm this with Sean and Heidi – since we are doing them on plates and it will be some time before the oysters are spawning and need substrate material. We also need to confirm that native oysters will readily attach themselves to Pacific oyster shell in the Port River context.

In the medium term we might need significant amounts of shell, as they do in the Hudson River. Given that we have local restaurants, pubs and fish factories that sell oysters, we'd like to have those shells used locally in our restoration of our local environment.

Oyster shell is currently a waste material, going to landfill and doesn't need to be. Should we better understand the economics of dumping vs recycling e.g. what are the dumping fees, how much does industry spend, what if any price would be paid for recycled shell? For how long will there be a demand for shell? Is there any money to be made by the recycler, over an extended period, that would justify investing in this?

Do we want to do anything about recycling and reuse? Who would benefit if we did and who would do the work? Could the oyster industry do recycling on its own or would our collaboration with industry be worthwhile? Given our recycling facilities at Wingfield are there any synergies with those parties?

Does anyone wish to investigate this area for our project?