

## EXTRACTED FROM:

Natural Resources South East (SA), *South East Flows Restoration Project*  
<<https://www.naturalresources.sa.gov.au/southeast/projects/se-flows>>

---

# South East Flows Restoration Project

## About the South East Flows Restoration Project

The South East Flows Restoration Project (SEFRP) is a \$60m investment made by the South Australian Government and the Australian Government to assist salinity management in the Coorong South Lagoon, enhance flows to wetlands in the Upper South East and reduce drainage outflow at Kingston beach.

A project update issued [September 2018](#) is available.

## Ecological objectives of the SEFRP

Historically, quantities of freshwater flowed into the Coorong South Lagoon from the South East and this source of freshwater has been reduced by drainage works in the South East over the past 150 years.

Salinity levels of the Coorong South Lagoon are determined by flows from the River Murray through the barrages, and water from the south east via Salt Creek.

To maintain a healthy ecosystem, the Coorong South Lagoon requires a target salinity range of 60 to 100g/L. Reduced inflows have raised salinity in the Coorong South Lagoon to a hypersaline range, i.e. a very high salt concentration, making it too salty to support important species.

By restoring inflows from the South East, the SEFRP seeks to assist maintaining salinity in the Coorong South Lagoon within the target range and prevent ecological degradation during periods of low flows from the River Murray.

Flows to maintain salinity levels in the Coorong from the South East are complementary to River Murray Flows over the barrages. Flow will be adjusted annually to account for the Coorong requirements and delivery to *en route* wetlands, where landholder approval is granted.

## Project overview

The SEFRP involves constructing a new flow path to connect existing elements of the South East Drainage Network providing capacity to deliver a median volume of up to 26.5 gigitalitres (GL) per year directly into the Coorong South Lagoon, with annual volumes between 5 - 45.3GL per year (1GL = 1 billion litres). The project will have capacity to deliver water to local wetlands *en route* of the flow path, where landholder approval is granted.

The project area extends 93.4 kilometres from the existing Blackford Drain to the Salt Creek outlet and into the Coorong South Lagoon.

A new channel has been constructed from the Blackford Drain to join the southern end of the Taratap Drain (approximately 13 kilometres). The Taratap and Tilley Swamp Drains (approximately 81 kilometres) have been made wider to transport up to 600ML/ day (1ML = 1 million litres). This has created a complete flow path from the Blackford Drain to the Coorong South Lagoon.

Upon completion of onground works, water will be diverted out of the Blackford Drain and will travel along the newly created flow path. As it reaches Tilley Swamp, water can travel in either the Tilley Swamp Watercourse or the Tilley

Swamp Drain. Preferentially, the Tilley Swamp Watercourse will be used to convey water as it provides a significant en route storage area. In years where water needs reach the Coorong faster, the Tilley Swamp Drain will be used.

The Tilley Swamp Watercourse, a natural wetland system, covers an area of 6100ha and allows storage of up to 42GL. This provides the South Eastern Water Conservation and Drainage Board with flexibility to deliver water to the Coorong when required to maintain salinity and the ecological health of the south lagoon.

Water storage in the Tilley Swamp Watercourse will also restore and promote wetland ecology in the region by recreating aquatic habitat for birds, fish, frogs and vegetation.

Construction works commenced in March 2017 and are scheduled for completion in late 2018.

The project has resulted from investigations that took place from 2007-2012 into the feasibility of restoring a flow path from the South East to the Coorong South Lagoon, incorporating extensive environmental, engineering, hydrology and community knowledge.

## Project delivery

The Project is delivered by the Department of Environment, Water and Natural Resources.

The project governance has broad community representation which includes landholders, Traditional Owners, the South Eastern Water Conservation and Drainage Board, the South East Natural Resources Management Board and the Limestone Coast Local Government Association.

The preferred flow path alignment has been identified through landholder and community consultation. Community engagement is ongoing throughout all stages of project delivery and is led by the South East Natural Resources Management Board.

The SEWCD Board will continue to be responsible for the operation and management of the SEFRP infrastructure once completed as an integrated part of the South East Drainage Network.

## Project schedule

Funding for the SEFRP was announced in June 2014. The following activities comprise the SEFRP schedule and their delivery status is highlighted.

### Design and Survey - Complete

This involved progressing a preliminary design to a higher level detailed design that meets required construction, operational and safety standards. Developing the SEFRP detail design involved the collective work of engineers, ecologists, landholders and traditional owners to ensure that the final design meets operational requirements and project objectives.

Design was developed in three phases of concept design, design development and design documentation:

- **Concept Design:** In this phase an initial "sketch" of the design was developed. It was refined through site surveys, landholder consultation and stakeholder advice.
- **Design Development:** In this phase, detailed information was prepared for all design parameters. When the progress point of "70% design" was reached, the design is again reviewed and refined through landholder consultation and stakeholder advice.
- **Design Documentation:** In this phase the design was finalised. It provided all documents that meet required construction, operational and safety standards.

Design for the SEFRP was completed in September 2016.

## **Environmental Program - Commenced and in progress.**

The Environmental Management Program involved a detailed flora and fauna survey of the full project alignment in June 2015 to inform project approvals which include the *Environment, Protection and Biodiversity Conservation Act (1999)* referral regarding matters of National Environmental Significance and the *Native Vegetation Act (1991)* assessment regarding native vegetation clearance. The Project has been assessed and has received environmental approvals.

The Environmental Program also includes ecosystem monitoring at representative locations within wetlands *en route* to the Coorong. These sites include wetlands on the Taratap and Tilley Swamp flats and Morella Basin.

Ecosystem monitoring in the Coorong will take place to assist understanding of how the Coorong responds to water flows and water quality (including salinity), resulting from the SEFRP.

## **Cultural Heritage Program- Commenced and in progress.**

The cultural heritage program seeks to protect and manage the unique relationship Traditional Owner's have with the lands and waters of the Coorong and South East Region.

The [South East Aboriginal Focus Group](#) and the [Ngarrendjeri Regional Authority](#) are engaged in the Project to support decision making by providing cultural advice and support in the fields of aquatic ecology, water resource management, design, planning and construction. The Aboriginal community has a lot of historical knowledge about the region's water and water plays an important role in their culture which must be taken into consideration when managing our water resources.

A cultural heritage survey was conducted as part of the design process to identify occurrence of Aboriginal cultural heritage sites (sites, objects or burials) along and adjacent to the proposed construction works. The survey was completed in January 2016.

Archaeological sites which are identified can not be disturbed without authorisation under section 23 of the *Aboriginal Heritage Act 1988*.

Cultural heritage monitoring took place during the construction phase of the SEFRP to ensure that if a heritage site was identified, it would be managed in a culturally appropriate manner.

Monthly working group meetings held with traditional owners assisted key project decisions. This includes selecting appropriate locations and design for fish passage infrastructure, identification of cultural wetland restoration opportunities and sharing cultural knowledge with landholders and construction crews. Cultural knowledge will inform long term operation principles of the flowpath to facilitate cultural outcomes that are complimentary to overarching project objectives.

Ngarrendjeri engagement is facilitated through [DEWNRs Ngarrendjeri Partnership Program](#).

South East Aboriginal Focus Group engagement is facilitated through the Natural Resources South East [Aboriginal Partnership](#).

## **Land Acquisition - Commenced and in progress.**

Land for the project is acquired by agreement or by compulsory acquisition in accordance with the *Land Acquisition Act 1969*. It is preferred to acquire land by agreement. The Department of Planning, Transport and Infrastructure are engaged to facilitate the acquisition process.

## **Community Engagement - Commenced and ongoing.**

Community engagement is facilitated through all stages of the project. An engagement strategy has been developed and its implementation is lead by the South East Natural Resources Management Board. Key objectives focus on landholder engagement, traditional owner engagement and community representation within the project governance.

## **Program Management - Commenced and ongoing.**

Project management is facilitated through all stages of the project by the Department of Environment, Water and Natural Resources.

## **Construction Delivery - Commenced.**

The Department of Planning, Transport and Infrastructure (DPTI) has been engaged to oversee contract management of SEFRP construction as per Premier and Cabinet Circular PC028 Construction Procurement Policy.

The tender process for construction works on the South East Flows Restoration Project was conducted in two stages:

- Stage 1: Registration of Interest (May – July 2016). This stage identified suitably qualified contractors to proceed to a shortlisting.
- Stage 2: Request for Tender (Oct – Nov 2016). This stage identified a preferred contractor from shortlisted companies.

The construction contract was awarded to Leed Engineering and Construction Pty Ltd on 1 March 2017. Construction commenced on 14 March 2017.