Case study 3: Recreational fishing and marine parks

Background
Fishing is a popular pastime for South Australians. About 1 in 5 people (277,000) partake in recreational fishing each year and fish for a total of about 1 million days annually. The estimated annual catch of targeted species like King George whiting, garfish, snapper, Australian herring, Australian salmon, southern calamary and blue swimmer crab accounts for 23–58 per cent of the total annual catch (commercial and recreational, Giri & Hall 2015).

Recreational fishing is encouraged and promoted in marine parks in those zones where fishing is allowed. Within the 19 marine parks, over 86 per cent of the marine parks (or 94 per cent of state waters) is still open to fishing. Sanctuary zones and restricted access zones are closed to fishing, but in some (15) sanctuary zones shore based line fishing is still allowed. Following full implementation of the sanctuary zones in 2014, a number of election commitments were made and A$3.25 million pledged to promote opportunities for recreational fishing. These initiatives included the formation of a recreational fishing grants program, the opening and stocking of offline freshwater reservoirs, and the creation of an artificial reef. This case study highlights the three initiatives, other promotional and monitoring activities undertaken by DEWNR, links with the marine park management plan strategies, and socio-economic and ecological outcomes as a result of the initiatives and implementation of the management plans.

Grants program and promotional activities
Between 2015 and 2017, DEWNR committed to fund up to $750,000 annually to increase recreational fishing opportunities and facilities across the state. Since 2015, 107 projects have received, or have been approved to receive, $1,994,593 in recreational fishing grants across the state. The funded projects have also attracted a further $1.5 million in co-contributions from councils and other funding bodies. The recreational fishing grants have contributed to upgrading facilities and access to popular fishing areas with projects such as modifying rock walls to improve access, and providing shelters and fish cleaning stations. The grants have also funded social events and fish stocking programs. DEWNR have also promoted fishing in marine parks by providing over 300,000 recreational fishing guides, and attending numerous shows such as World Environment Day and the Royal Adelaide Show. These activities are aimed at informing the public about what they can do and where they can fish in marine parks.

Reservoirs
To increase fishing opportunities for South Australia’s anglers, two reservoirs have been opened for recreational fishing (Williamstown and Bundaleer Reservoirs) and three more reservoirs are proposed to be opened (Tod, Aroona and Beetaloo Reservoirs). The Government of South Australia allocated up to $400,000 to improve access with a further $210,000 from the Australian Government to improve access and amenities at the proposed fishing sites.

Funding for stocking reservoirs was secured through the recreational fishing grants. A total of 209,300 fish at a cost of around $205,100 have been, or are proposed to be, stocked into the five reservoirs from DEWNR grants. The reservoirs will be stocked with a variety of native fish such as Murray cod, silver perch, golden perch and Australian bass. The Bundaleer will also be stocked with rainbow trout. Co-funding provided to RecFish SA means that additional fish will be able to be purchased and stocked into these reservoirs. In addition to this, a further 238,000 Murray cod at a cost of $250,000 are funded to be stocked into the South Australian section of the River Murray. Approximately $450,000 will be invested in fish stocking.

Windara Reef
The government is investing $600,000 towards restoring the native oyster beds in Gulf St Vincent that were prevalent before European settlement. The project is a collaboration between DEWNR, PIRSA, SARDI, DPTI, EPA, SATC,
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RecFish SA, the University of Adelaide, Yorke Peninsula Council, South Australian Oyster Growers Association, Natural Resources Northern and Yorke, and the Nature Conservancy.

Stage 1 was completed in August 2017 which saw 4 hectares of reef submerged near Rogues Point, south of Ardrossan. The reef is planned to be seeded with native oysters by the end of 2017.

Stage 2 of the project is to expand the reef to 20 hectares and is proposed to be completed by the end of 2018. Government funding has been used to leverage further funding from the Australian government and the Nature Conservancy to a total of $4.2 million to complete Stages 1 and 2.

Participation

Regular phone surveys are conducted to monitor support for marine parks and the level of participation in various marine recreational activities including fishing. The percentage of marine users who go fishing regularly or occasionally has varied annually but has remained stable since 2008, and since 2014 when sanctuary zones were fully implemented (see graph).

Management plan strategies

Activities associated with recreational fishing have addressed several strategies of the marine park management plans:

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Strategies 5 and 7: During the implementation phase of marine parks, the grants, reservoir and artificial reef initiatives were undertaken to provide positive offsets and promotional activities were undertaken to educate people. Either directly or indirectly these activities should assist in allowing public appreciation, understanding and enjoyment of marine parks to continue and grow.

Strategies 10 and 12: The participation surveys are undertaken as part of the marine parks MER Program as identified in the MER Plan. The results support the predictions of change for the 19 management plans, i.e. that there would be no change from the current (pre-2014) trend in recreation and fishing participation. The outcomes of the study are being made publically available in the current Status Report and will be used to inform whether it is necessary to continue monitoring participation as part of the MER Program beyond 2017.

Ecological outcomes

While the shellfish reef is outside of any sanctuary zone and can be fished, the project aims to increase reef habitat and restore lost native oyster populations. The future increase in habitat will have many benefits for marine species, providing food and shelter and increasing ecosystem resilience.

The reservoirs provide new, alternative locations for fishing outside of the marine environment thereby reducing potential impacts of displaced effort and increased pressure on fish stocks in areas outside of sanctuary zones.

Socio-economic outcomes

Specific evaluation questions addressed:

- Have local businesses and communities changed due to marine park management plans?

The successful delivery of the grants program and creation of Windara Reef have increased the recreational fishing opportunities within and around marine parks and thus promoted greater use of the environment. This likely has flow on effects such as increasing understanding and appreciation of the marine environment.

Including co-contributions, over $3 million has been invested into recreational fishing. Improving fishing facilities will allow fishing related tourism to expand and provide a way for families and individuals to enjoy the marine park environment in line with the Healthy Parks Healthy People SA policy found at www.environment.sa.gov.au/files/sharedassets/public/park_management/healthy-parks-healthy-people-gen.pdf.

Participation in fishing activities has not changed since the full implementation of sanctuary zones on 1 October 2014 suggesting that sanctuary zones have not had a negative impact on fishing participation.

A large amount of investment has been put into creating new opportunities for recreational fishing, and in minimising impacts through the zoning process, and it is anticipated that these initiatives have offset the relatively small loss of fishing grounds due to sanctuary zones.

References