10 Top Tips

for a

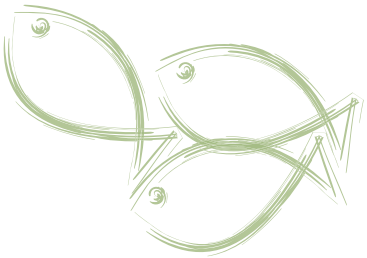
Fish Friendly Council

Did you know that one in five people enjoy going fishing?

Recreational fishing is not only a popular pastime; it provides social and economic benefits to local areas. Recreational fishers are not only interested in wetting a line every once in a while, they are also interested in activities that affect their favourite fishing spot and the fish they hope to catch.

This is good news for local councils. This passion for fish can support councils' work in key areas, such as improving stormwater infrastructure, ensuring weirs and road crossings are fish friendly, replanting riverbanks, restoring wetlands and managing floodplains.

*Being a **Fish Friendly Council** will improve fish habitat but it will also enhance recreational and tourism opportunities and support a healthy vibrant community.*



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1 Find out about your local fish populations

Southern pygmy perch (3 in image) and mountain galaxias (1 in image) are two of the smaller native species found in our waterways. Of the 300 species of native freshwater fish known in Australia, 40 % are considered of conservation concern. Southern pygmy perch is one fish that has undergone serious decline and population fragmentation in some regions. (Image PIRSA Fisheries)

Diverse and abundant native fish populations are an excellent indicator of healthy waterways which provide many benefits to local communities. However, in many areas, communities do not know what fish are in their local river or creek.

Together the iconic species, such as Murray cod or Australian bass and the largely unrecognised, smaller species, such as gudgeons and galaxiids, can tell us a lot about the health of local waterways.

COUNCIL CAN ...

- learn about the species, distribution and status of native fish in the local region
- discover if there are introduced species in local waterways
- establish a fish monitoring program to collect data to support management decisions
- adopt a native fish species to represent your local rivers and creeks and use it to engage with the local community

2 Help protect key fish habitat in Council planning processes

Macquarie perch were once common in the middle and upper reaches of the Murray River and its tributaries. Now listed as endangered, they are found in isolated pockets of habitat such as Hughes Creek, a tributary of the Goulburn River in Victoria. (Image F. Hames)

Key fish habitats are areas which support or are likely to support native fish. These areas include, but are not limited to, perennially flowing rivers, wetlands, estuaries and oceanic bays, intermittently flowing creeks, billabongs and lakes and any waterbody known or likely to support threatened species. Councils use local planning regulations to manage land use and development within their local government areas. When reviewing these regulations council can identify key fish habitat and land use zones and clauses to ensure these important habitat sites are managed according to best practice guidelines. State agencies can assist with this habitat identification process and provide recommendations for best practice.

COUNCIL CAN ...

- protect key fish habitat within local planning regulations
- ensure that land use planning and development assessment processes avoid or minimise impacts on key fish habitat
- ensure works avoid or minimise impacts on key fish habitat

COUNCIL CAN ...

- obtain advice from appropriate state government agencies on fish passage requirements and permits
- identify barriers and incorporate their remediation into works programs
- remove redundant weirs and road crossings
- modify structures that are barriers such as installing fishways on existing weirs
- include a fishway or otherwise allow for fish passage in new structures
- ensure flood mitigation infrastructure is fish-friendly

Ensure council infrastructure is fish friendly

3

Being able to move freely upstream and downstream is critical to the survival of native fish. Different species of fish move at different times to find food and shelter, to avoid predators and to reach breeding sites. Unfortunately, thousands of structures, including dams, regulators, weirs and road crossings, have been constructed throughout Australian river systems.

These structures impede fish passage and reduce water quality, change natural flows and accumulate sediment in upstream pools. These structures may also be unsafe and unreliable for residents especially when rivers rise. There is a range of options available for Councils who want to address these structures and restore fish passage.

Over 5 km of upstream habitat in Halls Creek, a tributary of the Namoi River, was opened for fish passage following the remediation of this piped causeway with box culverts by Tamworth Regional Council. Funding assistance was provided by the Namoi Catchment Management Authority and the MDBA. (Images NSW DPI)

COUNCIL CAN ...

- make the installation of water sensitive devices a condition of consent for new developments
- retrofit GPTs to existing stormwater drainage systems
- seal unsealed roads adjacent to waterway crossings to reduce sediment run-off
- construct artificial wetlands to treat stormwater
- minimise stormwater pollutants by educating the local community with initiatives such as the 'Drain is just for Rain', 'Follow the Yellow Fish Road' and 'Bin your Butts'

Treat stormwater prior to discharge

4

Many innovative water sensitive design features are available to assist with stormwater quality management. For example constructed wetlands can perform the same important ecological functions that natural wetlands do: remove nutrients and settle-out suspended sediments from water before it flows into the main waterway. However, it is important that constructed wetlands are not sited over natural wetlands or other key fish habitat.

Constructed wetlands can be used in conjunction with other stormwater quality improvement devices such as Gross Pollutant Traps (GPT) which trap large pollutants such as litter, or grassed swales and bio-retention systems which filter finer sediments. Such measures can reduce the impacts on river systems and town water supplies and have long term benefits for the environment, native fish and public health.

Egret Park in the City of Dubbo is an urban wetland which serves as a passive recreation area and assists in stormwater management. A GPT and natural wetland processes aid the removal of pollutants before the water enters the Macquarie River. (Image Dubbo City Council)

5 Protect and manage buffer areas

Native trees, shrubs or grasses on river banks and areas adjacent to wetlands are vital. This riparian vegetation buffer helps stabilise riverbanks and reduce erosion and subsequent siltation. The vegetation contributes food for fish such as organic matter and insects.

The buffer strip will also help filter nutrients and sediments from run-off, reducing the likelihood of algal blooms. Well-developed riparian vegetation also provides a greater diversity of in-stream habitat for fish and shade for the creek. These areas help protect biodiversity by providing wildlife corridors that enable animals and birds to move freely. Buffer areas also provide open space and community recreation opportunities.

Setbacks of 50-100 metres for key fish habitat are recommended to ensure the water quality and habitat are adequately protected from adjoining developments.

Involving the community in the care of buffer areas provides opportunities to recognise the value of these green spaces for the neighbourhood, the environment and native fish. Activities such as tree planting days, like this one on the banks of the Ultima Thule Creek, a tributary of the Goulburn River, are popular and effective. (Image F.Hames)

COUNCIL CAN ...

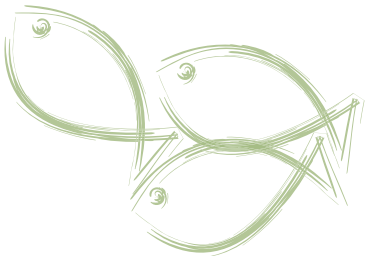
- recognise the value of riparian and aquatic habitat and ensure new developments have appropriate setbacks
- manage and maintain existing buffer areas for community recreation and river health

6 Maintain and enhance public reserves for river health

Dubbo Macquarie River Bushcare Inc. works in association with Dubbo City Council to restore the riparian zone of the Macquarie River. The adjacent park lands, maintained by Council, provide a popular cycle track, picnic spots and public amenities for the local community and visitors to the city. (Image NSW DPI)

Public parks and reserves are important areas for community recreation and leisure. These areas are often of natural, cultural and economic value. These green spaces frequently have rivers or creeks flowing through them, which provide additional passive recreation opportunities such as fishing, swimming and kayaking.

Maintaining and enhancing these areas provides social and economic benefits and helps keep waterways healthy.



COUNCIL CAN ...

- identify Council reserves that are adjacent to key fish habitat and review their management
- establish a council bush regeneration team
- work with community groups to improve riparian zones
- implement a policy of planting trees and shrubs that are native to your area
- control willows and other invasive weeds
- formalise access points to reduce erosion of riverbanks
- provide litter bins

COUNCIL CAN ...

- develop regional river enhancement programs with neighbouring councils
- obtain advice from your local Catchment Management Authority or natural resource management agency or native fish strategy coordinator on priorities for river rehabilitation
- apply for funding to support regional fish habitat rehabilitation initiatives

7 Collaborate with your neighbouring councils

Many impacts on river health and native fish populations are not concentrated in one area but affect whole catchments. Also, Council boundaries often don't align with catchments. By working with neighbouring councils you can:

- access more resources
- tap into expertise available in other councils
- develop more comprehensive and innovative programs
- attract greater amounts of funding (funding bodies usually look favourably on partnerships to address issues at a regional level).

Migrating fish will have a better chance of survival following the success of a collaborative project which opened up over 100 km of the Condamine River. The reconstruction of a vertical slot fishway at Loudoun Weir, near Dalby, was a partnership between Dalby Regional Council, the Murray-Darling Basin Authority, Queensland Primary Industries and Fisheries, Ostwald Brothers, GHD and Arrow Energy. (Image Condamine Alliance)

COUNCIL CAN ...

- support local groups and communicate with them on a regular basis
- recognise and acknowledge the work done by community groups
- develop collaborative projects, which can often bring more funding to your community
- work with these groups and government agencies to achieve shared goals
- help create new groups

8 Support local groups working on fish-friendly projects

(for example, Rivercare, Landcare, Indigenous and recreational angling groups)

Coonabarabran Aboriginal Men's Association volunteers assisted with tree planting at the Upper Castlereagh demonstration reach project, an initiative of the Central West Catchment Management Authority and NSW Department of Primary Industries. (Image NSW DPI)

Community groups often provide valuable services for the community, some of which may not be widely recognised.

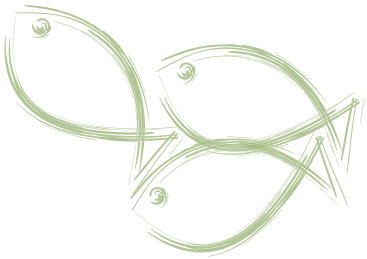
These groups involve people of all ages who have immense enthusiasm for protecting the environment. They also have great knowledge in local issues, plant regeneration, fauna and flora identification and fish habitat requirements.

By working with these groups and applying for joint funding for projects, a council can build good relationships and link projects and groups together to achieve beneficial outcomes.

9 Educate your local community about fish and river health

Community information days such as this one which included a waterbug survey can help raise awareness in the local community to river health and native fish habitat requirements. (Image F. Hames)

A growing amount of high quality information on native fish, river health and rehabilitation initiatives is readily and often freely available from other sources such as government departments, Catchment Management Authorities, natural resource management agencies and the Murray-Darling Basin Authority. Community engagement and education will encourage others to support and become involved in native fish and river health activities.



COUNCIL CAN ...

- share information and knowledge via the Council's website, in foyer displays and over the front counter
- provide links to websites with information and resources about river health and rehabilitation such as the Native Fish Strategy website
- work with local schools to facilitate the establishment of a school education program
- host a community river-side tree planting day
- arrange for materials on native fish and river health to be distributed through visitor information centres or rates notices

10 Promote your fish friendly work to the wider community

This community event on the banks of the Murrumbidgee River was held during the Murray-Darling Basin Authority's 2008 Native Fish Awareness Week and attracted a large crowd of local residents and people interested in river health and native fish. (Image MDBA)

Local councils are increasingly taking an interest in the health of their aquatic habitats and each year invest millions of dollars on managing the environment at the local level. Your council may already be doing great work but do the ratepayers know? Involving the community in your fish-friendly projects will increase awareness of the positive things being done to maintain and improve river health and the multiple benefits this provides to the community.

Active community involvement will also encourage respect of the natural environment and support for your works.

COUNCIL CAN ...

- develop positive stories of fish habitat rehabilitation and raise awareness in the local community
- use the expertise of a sustainability or environment officer to build capacity in your local community, identify issues requiring attention and manage rehabilitation projects
- support and promote local schools involved in caring for rivers, creeks, wetlands and fish
- hold or encourage community events such as World Environment Day, World Wetlands Day, Clean Up Australia Day or develop your own annual event

For more information on native fish, habitat management, rehabilitation initiatives and contact details go to:

www.dpi.nsw.gov.au/fisheries/habitat

www.mdba.gov.au/programs/nativefishstrategy

www.dpi.qld.gov.au

www.pir.sa.gov.au/fisheries

www.dse.vic.gov.au/ari

The *Native Fish Strategy* is a response by the Federal and State Governments to declining fish populations in the Murray Darling Basin. The strategy aims to rehabilitate native fish populations over the next 50 years. It recognises the need for community-government partnerships such as with Local Government.

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MURRAY–DARLING BASIN AUTHORITY

aquatic habitat rehabilitation making more fish ...naturally

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