

A step by step guide to running a Fishing Line Recovery Program



For the use of Councils, Businesses & Community groups wishing to reduce fishing line and associated litter.

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Background

The Fishing Line Recovery Project was an environmental initiative of Ocean Watch Australia, supported by the Noosa Integrated Catchment Association (to be referred to as NICA) in the ecologically sensitive Noosa Shire.

An initial four-month trial was conducted as a University of Queensland student project, with the installation of 'Fishing Line Recovery Bins' at recreational fishing spots throughout the Shire.

The trial was overseen by Ocean Watch and NICA to ensure the effects of discarded recreational fishing line were properly assessed and evaluated. In limiting the scale of the project and emphasising the impact of waste monofilament, the potential for achieving practical results and project expansion was enhanced.

At the conclusion of these trials the project was evaluated, bins relocated where necessary, new bins installed and then handed over to the Noosa Volunteer River Ranger Program to manage.

This guide details an eight-part process, for starting your own Fishing Line Recovery Bin Program. It addresses the need for sustainability and encourages public acknowledgment, approval and adoption.

- 5. Identifying the issues;**
- 6. Identify Key stakeholder**
- 7. Scoping your sites;**
- 8. Constructing your fishing litter Recovery Bins**
- 9. Installation of your Fishing Line Recovery Bin**
- 10. Collection and maintenance program**
- 11. Raising public awareness**
- 12. Project monitoring**

1. Identifying the Issues

To tackle the problems associated with fishing litter we firstly need to identify all the issues.

1. The need to protect wildlife (aquatic and terrestrial) from injury or death by entanglement and digestion associated with fishing line, hooks and bait bags.
2. The need to protect intertidal and tidal zones (mangroves, seagrasses, sand flats) directly threatened by waste build-up.
3. The decline in public amenity of often high profile areas.

2. Identify Key Stakeholders & possible supporters

Your key stakeholders are your most important factor in the sustainability of your Fishing Line Recovery Bin Program.

They come with a mixture of assets including knowledge, passion, time, financial assistance, resources and networks.

The following are examples of possible key stakeholders that would likely be in your geographical area.

- Council staff
- Councillors
- Recreational Fishing Clubs
- Bait and Tackle shops
- Bait suppliers
- Boat Hire businesses
- Plumbing supplies
- Environment Groups
- Community interest groups
- High school marine studies students

This is a suggested list only.

Research your local area to maximize community ownership.

Other Suggestions

- Make a list of all your stakeholders and ask if they would like to be on an email list. Then send info and updates.
- Have you got a Local Identity who could Champion the program?
- If resources allow, start a stakeholder group or tap into an existing group such as a Recreational Fishing Club Volunteer Rangers, etc.

3. Scoping your sites.

Prior to installation, appropriate locations for bin installation must be determined to maximise public use and reduce the volumes of waste fishing line and associated litter entering the environment.

1. Recruit the knowledge and assistance of key stakeholders such as listed above.
2. Spend time at all the known fishing spots.
3. Collect data on fishing litter present at each site.
4. Map, photograph and number sites.

4. Constructing your Fishing Litter Recovery Bins.

The Australian first 'Fishing Line Recovery Project' was based on the Florida Fish and Wildlife Conservation Commission Monofilament Recovery Project (United States Model).

See: <http://www.floridaconservation.org/mrrp/aboutmrrp.htm>.

Cost of constructing the bins is approximately \$1,500 per dozen. This includes the 12 x 1metre lengths of 150mm PVC stormwater pipe (sold in 6 metre lengths), end caps , elbows, bin stickers, primers, glues. Per unit cost is approximately \$125 plus mounting costs.



1m x 150mm heavy duty stormwater PVC pipe (\$9.00)



150mm x 90D stormwater PVC elbow (\$8.70)



1 x cap threaded access DWV PVC 150mm (\$9.50)



1 x screw cap DWV threaded access PVC 150mm (\$9.00)

NB: the above images are taken from The U.S. Monofilament Recovery and Recycling Program website: <http://www.fishinglinerecycling.org/index.asp>.

Specifications and price list

For the construction of 12 Fishing Line Recovery Bins.

Item	Price
2 x 6m x 150mm heavy duty stormwater PVC pipe @ \$56.58 a length	\$113.15
12 x 150mm coupling access DWV (Sewer Pipe) PVC @ \$19.50ea	\$234.00
12 x 150mm cap thread DWV threaded access DWV (Sewer pipe) PVC @ \$24.70 each	\$296.40
12 x 150mm x 90D stormwater PVC elbow @ \$20.07 ea	240.84
1 x priming fluid PVC clear 500ml	8.64
1 x solvent cement non pressure type Clear 500ml	\$8.04
12 large stickers (waterproof vinyl) @ \$10ea	120.00
24 150mm pipe mounting brackets @ \$8.36 each	\$481.36
Total including GST	\$1502.43
Cost per bin	\$125.20

(Prices quoted at August 2006)

Prices include brackets but not installation.

See page 6.. Installation of your Fishing Line Recovery Bin

Signage

The best installed, perfectly placed bin will be useless without a bold, simple to read message.

(See Appendix 1.) This sticker is Intellectual Property Free: however we would appreciate an email leisa@qldlitter.com for our monitoring and evaluation purposes.

Good quality, waterproof stickers are expensive to buy especially if ordering a small quantity.

It is important though not to skimp on the quality of the stickers as they are carrying an important message and need to look their best for as long as possible.

5. Installation of Your Fishing Line Recovery Bins

Professional installation of the Fishing Line Recovery Bins is imperative. All bins installed on public owned land must be approved by Council and be installed by a Council approved contractor.

We use and recommend 2 x 150 pipe mounting brackets
As the end caps are wider than the actually bin the brackets need to stand out from the attachment points so that it can be easily screwed off for servicing.

Pictured below: As the below bin was a 4 month trial bin it was originally installed using metal strapping. This has since been replaced and reinstalled by the Council approved contractor. This covers you for both the safety and liability aspects.



There were several problems with the original “Trial method” of attaching including:

- Proved to be dangerous to public because of rough strapping ends.
- Strapping not strong enough leading to vandalism.
- Inability to tighten, leading to bins slipping down.
- Looked unprofessional, lowering standard of unit.

Selecting the placement of Fishing Line Recovery Bin

Exact bin placement can often be crucial to the success or failure of any waste reduction infrastructure program.

Bins need to be:

- visible to fishers but not obstruct pathways, bike paths, etc.
- placed where people fish. Not at the car park.
- at an optimum height for easy disposal of waste.
- at optimum height for ease of cleaning. Base no less that 300mm above ground.

6. Collection and maintenance program

You will need

- 1 program manager
- nominated collectors whether it be a volunteer group or individuals
- to develop a central data base *

- **A Collection and Maintenance Kit containing the following:**
 1. Collection equipment (*see Appendix 2. Instructions for servicing*)
 2. Cleaning equipment including environmentally friendly cleaner, scourer, bucket to rinse bins
 3. A Sharps container.

* Keeping data of all the bins and the amounts of rubbish collected maximises the efficiency of your program.

We have included a folder containing the following:

- Safety procedures laminated (*See Appendix 2.*)
- Data collection sheet templates (*see Appendix 3.*)
- Incident report templates (*see Appendix 4.*)

NOTE: For the safety of wildlife

Plastic bags are unsuitable as collection bags as wildlife at the landfill sites can break through them and become entangled.

It is advised that volunteers use feed bags and ensure the bags are tied securely.

7. Raising Public awareness

Raise public awareness (for tourists and locals) regarding the hazards associated with waste fishing line and associated fishing litter.

Following installation of the bins, initiate a public information campaign to raise awareness.

- Clear signage and message.
- Media releases in local newspapers ;
- Television news exposure
- Radio broadcasts
- publication through Environmental Organisations.
- The local Council staff and Non-Government Organisation “spreading the word”

8. Monitoring Program

It is important to monitor each site to ensure that you are running the most efficient program possible.

If a bin is not functioning in a particular area, you may need to re-evaluate your positioning and either replace it in a higher foot traffic area or take it out and install in another location.

Alternatively if the Fishing line recovery bin is full of general rubbish it indicates a lack of or inadequate general waste bin infrastructure. In this instance the appropriate Council department needs to be informed.

Inevitably the occasional Fishing Line Recovery Bin will be vandalised. In this instance keep a couple of bins as replacements and replace as soon as possible as fishers who frequent this spot will have become accustomed to using the bin.

If the vandalism continues it may be advisable to remove the bin.

See Appendix 4. for collection data template sheets.

Program Limitations

The trial project had few limitations.

Those identified were primarily due to the project being the first of its kind in Australia involving aspects of trial and error.

The limitations and possible solutions have been identified as:

	Limitation	Solution
1	Vandalism (See picture 5. Installation of bins. This bin was only strapped on and was lost due to vandalism.)	Bins need to be attached very securely by a Council approved contractor.
2	Bins retained water developing odours from bait bags etc.	This was easily rectified by drilling 5-10mm drainage holes in the end cap of each bin. Cleaned with bucket water after collection of rubbish.
3	Long term sustainability of program. Servicing & maintenance of bins.	Enlist the help of a reliable group to take ownership of the whole program.
4	Funding Program	Enlist assistance of key stakeholders to reduce start up costs.

Appendices

- Appendix 1. Fishing Line Recovery Bin Sticker**
- Appendix 2. Safety Procedures for the servicing and maintenance of Fishing Line Recovery Bins.**
- Appendix 3. Data Collection Sheets**
- Appendix 4. Incident report template**

Appendix: 1



FISHING LINE RECOVERY BIN



**Cast your used Fishing Line
& Bin your Bait Bags Here.**

**This is a community service
maintained by
*insert your name here.***

**Sponsored by
*Insert Logos***

Safety Procedures for the servicing and maintenance of Fishing Line Recovery Bins.

Firstly welcome and thank you for volunteering!

The following instructions must be read and understood by all volunteers before you commence working with the Fishing Line Recovery Bin Program.

You need to be aware of possible risks associated with the servicing and maintenance of Fishing Line Recovery Bins.

Some of the possible risks include:

Needle stick injury, Fishing hook injury, Boating injury, and Natural hazards such as weather, environmental and water related conditions.

All volunteers are required to wear protective clothing which includes the following: Leather gloves (provided), Safety boots, hat, protective clothing, sunscreen, bottle of drinking water.

NOTE: Volunteers must work at the least in pairs. no volunteer should ever be out alone servicing bins!

Instructions for servicing

A servicing and maintenance kit is provided for servicing and maintenance.

This kit comprises a lidded plastic tub including:

- First aid kit
- 1 pair Leather gloves
- Extraction hook and plastic bottle. (To dislodge waste jammed in bin)
- Feed Bags(please use 1 bag for all sites)
- Cleaning gear (orange power cleaner, scouring pad & cloth, brush & vaseline)
- Folder containing data collection sheet, incident report forms
- Sharps container

To empty bins

1. Place bucket or bag under unit.
2. Unscrew screw cap from base of unit.
3. If contents do not easily fall into bucket use the hook type device provided to pull contents into bag.
4. Alternately use the plastic bottle provided to push contents from the top.
5. Clean bin before replacing base cap.

WARNING:

**NEVER PUT YOUR HAND IN THE BINS TO DISLODGE RUBBISH
EVEN WHILST WEARING GLOVES PROVIDED.**

Please turn over and read the back of this safety sheet.

Disposal of Syringes

A sharps container has been provided in case of disposal of syringes into the bins. Place the syringe in the sharps container ensuring you are wearing leather gloves provided.

Fill out the incident report and contact Co-ordinator who will then notify council.

Return sharps container with syringe to the office where it will be disposed of by the Coordinator.

Carrying and disposal of bags

- **All fishing line to be bagged securely and tied up so that it is not accessible to wildlife when it reaches the council landfill.**
- **Please use the feed bags provided. (1 should cover all sites.)**
- **Do not carry the bag over your shoulder.**

Incident reporting procedure

As staff supervisors can't always be on hand it is important to be prepared in case of any unexpected incident.

"Incidents" can be anything from an accident, heat exposure, violence or even a heated discussion with a disgruntled local to a serious injury.

An incident report form is included in the Kit folder.

If an incident, no matter how small, does occur you must fill in an Incident report form.

If the incident is in any way serious take the appropriate action such as calling an ambulance, or taking volunteer to hospital or Doctor.

NOTE: No volunteer should ever be out alone servicing bins!

Cleaning of Fishing Line Recovery Bins

Units to be cleaned using an environmentally friendly cleaner such as "orange power" and cloths provided. *(External only)*

A brush and Vaseline have been provided to lubricate the screw on bottom. Please ensure all sand is removed before lubricating.

Smelly bins can be sprayed then tip a bucket of water down the chamber. Spray again.

Many thanks for being a part of this program.

Insert logos



Appendix 3. DataCollection Sheet.

Fishing Line Recovery Bin Data Collection Sheet Template

Date of collection:					
Collected by:					
Site Code.	Site name/ Location	GPS co-ordinates	% Fishing Line & Tackle	% General Waste	Number Bait Bags
A					
B					
C					
D					
E					
F					
G					
H					
I					
J					
K					
L					

Weather conditions in last week:

Other factors: Eg school or public holidays

Notes:

Incidents to report: **NO** **YES attached completed incident report sheet**

Signed:

Insert supporters logos Here



Appendix 4: Incident Report Template

Insert name of group/ Council Here	
Fishing Line Recovery Bin Program	
INCIDENT REPORT FORM	
***** Please Print Legibly*****	
Information about the person involved in the incident:	
Full name:	
Home address:	
Email contact:	Home phone:
Information about the incident: PLEASE BE AS SPECIFIC AS POSSIBLE (attach separate sheet if Necessary)	
Date of the incident:	Time:
Location of incident:	Police notified: NO YES
Factors leading to the event:	
Describe what happened:	
How it happened:	
Substances or objects involved:	
Were there any witnesses to the incident? (circle) NO YES If yes who?	
Name:	Contact phone:
Was medical assistance required? NO YES If YES (circle one of the below)	
Hospital emergency Doctor surgery Other: (please specify)	
Reporter Information:	
Please print name of reporter:	
Contact phone:	Date Report completed:
Postal address:	
Email:	
Signed	
Please submit this report to coordinator of volunteers.	