



WATERWAYS INCIDENTS AND REPORTING: AN INDICATIVE CASE STUDY

Waterways Authority of NSW ("Waterways") and the power-boating industry have been under pressure to control the serious risks to the environment and to non-power-boating waterway users, and the loss of amenity of waterways and foreshores for other stakeholder groups, posed by high power-to-weight vessels notably 'jetskis' and 'tinnies' (but also including racing boats, hovercraft and the like).

International statistics point to intransigent management problems

The international statistics on jetski use in particular show that such vessels have a serious incident and accident rate which is typically four to five times greater than for other types of vessel. This rate persists regardless of the existence of voluntary programs, or policing regimes, which suggests that it is the intrinsic nature of the vessels and the market segment behaviours which is the problem, rather than a manageable minority engaged in aberrant behaviour¹, as is represented by the policing authorities and the industry.

A response to these calls for control has been for Waterways and the industry to present incident report statistics which purport to show the 'real' level and nature of the problems being far less than the 'anecdotal' level of complaints from other sectors of the community. The presumption is that the Waterways data is accurate and that the community reports are an over-statement. The contra position (that Waterways data is inaccurate, and that the far higher level of anecdotal reports is more accurate) has not been seriously considered by Waterways Authority or by other arms of government charged with protection of the environment and the interests of other stakeholders.

¹ Attachment 1 shows the US statistics state-by-state. Different states have different voluntary programs and policing mechanisms. What is most significant about these statistics is that in no state, excepting Hawaii and therefore under no identifiable management regime, has it been possible to bring the serious incident rate down to a level that is in any way consistent with the normal (but also unacceptable to the community) level of serious incidents from other boating activities.

Data capture systems are seriously compromised

Environment and community groups have frequently pointed to fundamental structural problems which prevent effective reporting, and which indicate the unreliability of the Waterways data. These include:

1. the absence of an accessible and reliable complaints and incident reporting mechanism;
2. embedded discouragement of reporting, through the way in which incidents are handled administratively;
3. the lack of a system to ensure that incident data are not 'lost' in the clumsy multi-stage processes for incident management; and
4. demotivation and discouragement of the community, through the difficulties in the process, the absence of an effective response when incidents are reported, the requirement for the persons reporting to bear the administrative and information gathering costs of provision of information, and the requirement that individuals press charges and be prepared to attend court to facilitate prosecution; and
5. fear of physical intimidation.

There is scientific evidence of systemic under-reporting of serious jetski incidents in other jurisdictions, reflecting structural problems of a type that would apply in the local jurisdiction. These suggest that the level of under-reporting is significant. Based on a study of hospital-presented jetski injuries compared to official statistics on jetski incidents Mark W. White, M.D., Michael L. Cheatham, M.D. from the Department of Surgical Education, Orlando Regional Healthcare System, Orlando, Florida, concluded that

*Personal watercraft injuries represent an increasing source of watersport-related trauma. Government statistics on personal watercraft injuries do not accurately reflect the true incidence and economic impact of such trauma,*²

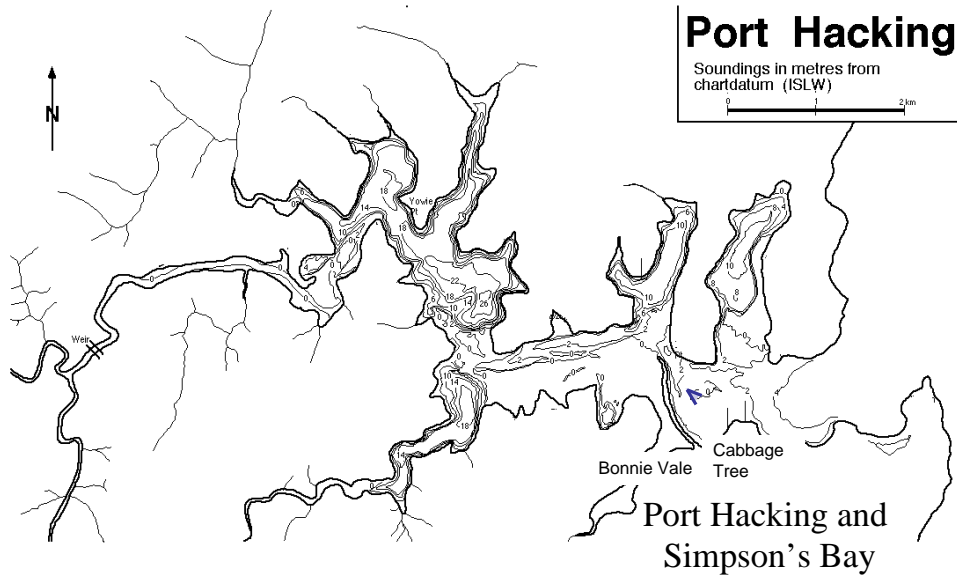
Notwithstanding repeated requests for Waterways to put in place a system that overcomes these difficulties, nothing has yet been done. This has led to a sense of Waterways being the victim of agency capture by the power boating industry, and to a feeling that the agency is culturally antagonistic to the non-boating community.

This case study

In order to objectively explore the nature and extent of the gap between the Waterways reported incidents and the level of incidents, a small area in Port Hacking was selected, and three householders were recruited to fill in simple incident notation forms.

² The Underestimated Impact of Personal Watercraft Injuries, Apr, 97, THE AMERICAN SURGEON, 865

The area



The estuary selected was within Port Hacking, south of Sydney. The sample site was Simpson's Bay, which contains an identified swimming zone, and is well known as a location for family picnics and other low impact use. It is also adjacent to a number of houses, and is favoured by swimmers, kayakers, and other use groups for its environmental attributes.

The shaded area on the map indicates the approximate extent of area where jetski use (other than for straight line transit) is permissible.

The period

The reporting period was from 9th October to 9th November. This is not a peak period of waterways use, and the climatic conditions were not ideal, so the number of vessels and other users (and therefore the number of incidents) is not likely to represent a peak

The protocol

It should be noted that:

- a. the householders were not continually present, and so the data is only partial. The level of incidents is understated by the data presented in this case study.
- b. The householders ignored trivial incidents which, whilst they may have represented breaches of the existing regulations, they were considered to be of the kind that could be properly dealt with by a caution.

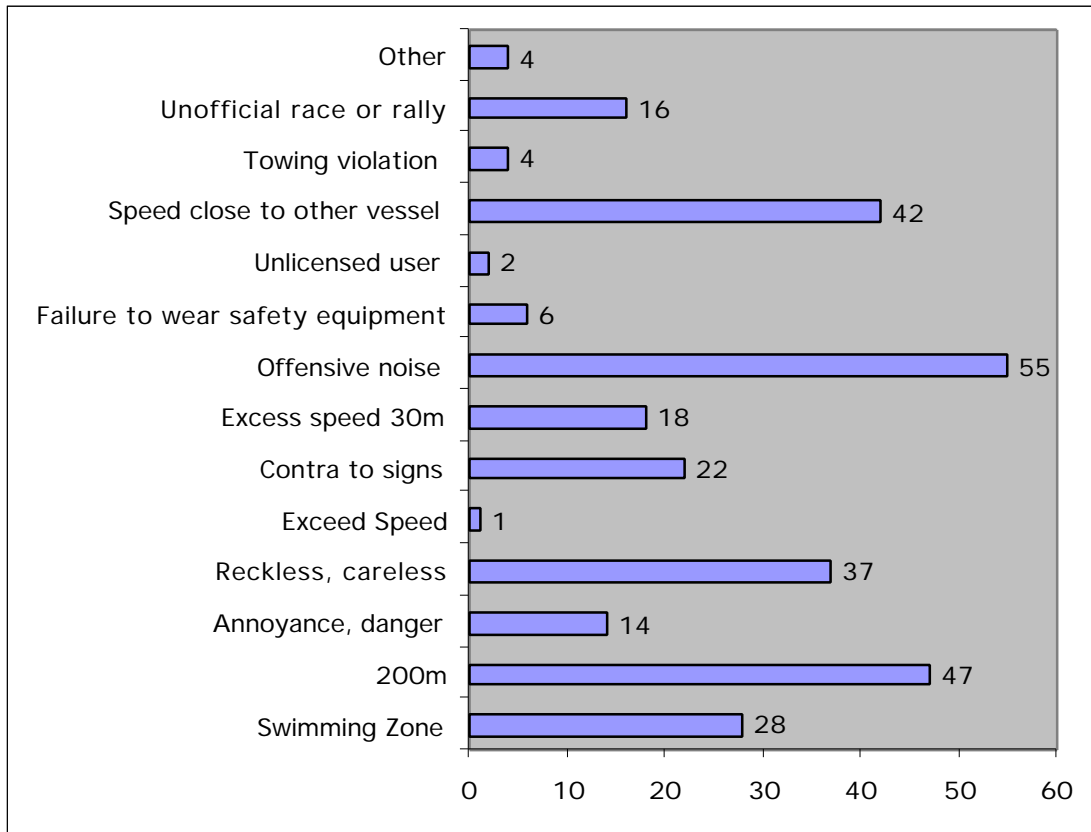
- c. The householders confined their reports to matters that are already identified in regulations as unlawful, and which therefore clearly represent the political consensus about behaviours which should not occur. These are listed below
1. Under influence of alcohol or drugs
 2. Exceeding a speed limit (ie 8 knot zones, 4 knot zones)
 3. Act in contravention of signs (ie no wash zone)
 4. Not wearing safety equipment
 5. Not clearly display registration number
 6. Navigate recklessly or carelessly
 7. Use at speed or in a way likely to cause annoyance, nuisance or danger
 8. Use outside daylight hours
 9. Towed person within 60m of swimming area, or person in water
 10. Towed person within 30m of other vessel
 11. Conduct of a race without special permit
 12. Navigate at more than 10knots within 30m of another vessel
 13. Navigate a jetski at more than 10 knots within 60m of a small vessel
 14. navigate a jetski at more than 10 knots within 30m of shore, pontoon etc.
 15. Drive jetski within 60m of the boundary of a swimming area
 16. Emit noise which interferes with the comfort or repose of, a person (bearing in mind the type of noise, the situation, timing, nearby land use etc)
 17. Engage in 'irregular driving' (ie weaving, surfing across waves or swell etc) within 200m of the shoreline. (note : Port Hacking is approximately 600m from Cabbage Tree Pt to Salmon Haul Pt, Cronulla)
- d. The participants were asked to follow their normal complaints lodgement mechanisms in addition to recording incidents. All reported that they typically will only make a complaint when the matter is at the extreme end of risk and nuisance, because of the types of matters noted earlier and also because 'we could be ringing all day, and you just become a nuisance'.

The results

The results of the observations are presented in the following table.

Date	Time	Swimming Zone	200m	Annoyance, danger	Reckless, careless	Exceed Speed	Contra to signs	Excess speed 30m	Offensive noise	Failure to wear safety equipment	Unlicensed user	Speed close to other vessel	Towing violation	Unofficial race or rally	Other
8-Oct	3:30	1													Houseboat
9-Oct	1:00	1	1						1						Jetski
9-Oct	1:30				1	1									Inflatable
9-Oct	2:00	1	1						1						Jetski
11-Oct	1:30	1						1							Jetski about 30m from shore, for about 30 mins
13-Oct	2:20							2				2			2 standup jetskis, 'playing' at speed.
14-Oct	12:00	1							1						Jetski, 100m off, donuts and turns and wave jumps, returned a number of times
22-Oct	6:20	1	1						1						Jetski doing 'laps' directly in swim zone, near houses
28-Oct	3:30											3			3 jetskis, wave jumping, racing, close to each other
28-Oct	4:00	1	1						1						Jetski with passenger, very close to shore
28-Oct	5:10	2		2	2		2	2	2						Tinnies launched into swim zone, erratic use, unlawful parking
28-Oct	5:20	2		2	2		2	2	2						Tinnies in swim zone, erratic use, unlawful parking
28-Oct	5:30						2								Boat launched into swimming zone
28-Oct	6:00								2		2		2		3 racing boats (this was the third time in a week) early in morning
28-Oct	11:00						2								Tinnie launched into swimming zone
29-Oct	4:00	1	1		1		1	1	1						Jetski launched, high speed manoeuvres in swim zone
29-Oct	4:00		1						1						Weaving and donuts close to shore
29-Oct	4:45	1	1	1	1			1	1						Jetski used at high speed in swimming zone, ignored warnings, struck swimmer
30-Oct	5:00	1						1							Houseboat in swim zone
30-Oct	11:00	1						1							Houseboat in swim zone
1-Nov	2:40											2			Jetskiers wave jumping, close to each other (weaving and donuts)
4-Nov	1:00	1	1	1					1	1	1				Jetski launched into swim zone, erratic high speed use, infant allowed to drive, no safety vest
10-Nov	1:30	1	1												Jetski
11-Nov	1:00												1		Inflatable towing people on surfboards and wakeboards. No safety equipment
11-Nov	3:00												1		Inflatable towing people on surfboards and wakeboards. No safety equipment
11-Nov	4:30	1	1						1						Jetski launched and operated at speed in and out of swim zone
11-Nov	5:00	1													Houseboat in swimming area
11-Nov	10:00		6		6				6					6	Several jetskis, informal 'rally' for about 2 hours, based on middle ground shoal
12-Nov	2:00														Jetskier (with child) harrassing dolphins
27-Oct	10:00		6		6				6			6		6	6 jetskis involved in 'precision racing'
		15	24	7	19	1	11	9	28	3	1	21	2	8	2

Identifiable 'double counting' has been excluded from the table.
The underlying pattern of the incidents is indicated in the chart below.



Some of the issues are of a nature that it is difficult from the foreshore where the observers were stationed to make judgements about incidents. This is of course the case with unlicensed use (except if the user is clearly a child) and excessive speed (except in the most extreme instances).

Further information

Of the various incidents the observers indicated that they had attempted to notify Waterways a total of 9 times.

The experience was variously

- no answer on the telephone number;
- no vessel in the area;
- complaint noted.

On two occasions was there an identified Waterways response. The first was to advise a houseboat to move on, and the second was after a swimmer was injured. In this case, a number of attempts had been made to have Waterways deal with the offending jetskier, which had not resulted in a Waterways presence.

Anecdotal supplement

These observations were supplemented with a discussion group where a number of residents outlined their experience with such matters. Anecdotal evidence was gathered of many incidents which do not show up in Waterways data including:

- a drunken jetski operator weaving among moored vessels (cautioned, not charged);
- Multiple instances of complainants being either unable to get through, discouraged from complaint, or being asked to provide evidence to support their complaint as a precondition to response (such as providing the vessel registration number)
- a jetski operator hitting a child (cautioned, not charged);
- numerous instances of jetskis entering highly sensitive areas, where Waterways Authority has previously indicated that jetskis do not enter;
- kayak-ers targeted by or accidentally hit by jetskis;
- jetskis 'wave-jumping' swimmers, including children;
- many noise complaints;
- physical confrontations by jetski operators.
- Many instances of 'tinnies' being used in a highly dangerous manner;
- Instances of excessive noise and dangerous behaviour by hovercraft.

Photographs showing jetskiers 'targeting' kayakers and engaged in other violations were produced, highlighting incidents where Waterways had either not responded or had elected to counsel the offenders.

Of course, all of this material is anecdotal. But the disparity between actual incidents and Waterways reports is of such a magnitude that it would be impossible to discount the evidence of credible citizens recounting their many personal experiences.

What this case study indicates

Why is there little reporting, and no reliable information on problems?

1. Waterways do not have an incident reporting line.
 - a. There is no number listed or advertised for making waterway complaints.
 - b. There is no system to ensure that your complaint will be recorded, let alone acted upon.
 - c. If you ring the switch number outside of hours you get no direction to any place where you can lodge a complaint.
2. Waterways do not have a reliable complaints or incidents recording system
 - a. If you do hold on you will eventually get to someone who will try to put you in contact with the boating officer. There is no process that an incident report is created.
 - b. If you ring the Boating Service Officer direct, there is no process that an incident report is created.
 - c. The only incidents that are consistently recorded are ones where there is injury (and a BSO becomes aware of it somehow) or where an infringement is issued.

Why is there a significant under-policing?

1. There are real problems of commitment and resourcing

- a. Waterways management has a culture of 'service' to their paying 'customers', and seem to be prepared to go to great efforts to protect their customer base and reflect their interests.
 - b. It is rare that a BSO will be anywhere nearby when an incident arises
2. The officers prefer not to issue infringements.
- a. It is a hassle, and it is easier to 'advise'. The typical response to a complaint is to go over and talk to the offenders. Even if this is effective, this means that the real information on breaches is never provided.
 - b. The rules are technical, and require quite specific information to support any prosecutions. For example, if you complain about irregular use within the 200m zone, the officer may say (as was the case recently) that he could not prove it because he did not have a laser rangefinder!
 - c. Some BSO's seem to prefer to use administrative guidelines of Waterways rather than enforce the rules. For example, the noise rule is rarely enforced because the BSO's state that this only requires that jetskis be below 85dBa, when in fact it is the creation of offense that is the actual rule.

The implications of this is that we will not get a sufficient response to the problems until there is more reliable information on the extent of the problems, and the failures of policing.

Why voluntarism and commitments to police cannot be relied upon

These many incidents occur within a framework of strong statements that Waterways are actively policing and dealing with problems on the waterway, and similar strong commitments from the users of high power-to-weight vessels that voluntary codes and education are in place, and are working.

The international data shows that neither of these approaches have worked elsewhere. This case study indicates that it is not working locally.

The present policing structures are virtually impossible to make effective. They rely upon substantial resourcing for a policing presence. The more effective the policing is, the less the apparent need and therefore the more likely that resources will be removed (leading to re-emergence of the problems).

Voluntarism will ameliorate some of the problems, but the evidence is that the intrinsic nature of the activities lies at the heart of the problems.

Under these circumstances, policing and voluntarism are not likely to work.

The actions that are required.

Any strategy to address these serious problems has to have real backbone. It has to be based on removing these vessels (which are highly mobile by their nature, and can move rapidly to areas where they pose a risk only to themselves) to areas where they do not conflict with other values. It may be possible to have conditional access, dependent upon objective and sustained proof of performance of policing and voluntarism. However, once the performance falls below the standard set, the automatic response (without further debate) should be exclusion.

Only with this kind of response, which is proportionate to the scientifically proven risk and costs of these uses, will result in an outcome which is fair and sustainable.

PWC Accident Statistics

State	% of boats that are PWC's	% of boating accidents involving PWC's
Alabama	6.0%	40.0%
Alaska	1.9%	4.5%
Arizona	n/a	55.0%
Arkansas	5.0%	35.0%
California	9.0%	45.0%
Colorado	7.0%	50.1%
Connecticut	5.7%	9.0%
Delaware	10.3%	24.3%
Florida	8.0%	36.0%
Georgia	6.0%	38.0%
Hawaii	6.8%	6.3%
Idaho	11.4%	25.9%
Illinois	5.0%	36.0%
Indiana	n/a	32.0%
Iowa	8.0%	44.0%
Kansas	8.0%	50.0%
Kentucky	n/a	37.0%
Louisiana	11.0%	26.0%
Maine	n/a	16.0%
Maryland	n/a	31.3%
Massachusetts	4.0%	19.0%
Michigan	10.0%	40.0%
Minnesota	3.5%	24.0%
Mississippi	8.0%	45.0%
Missouri	10.0%	38.0%
Montana	5.0%	50.0%
Nebraska	8.0%	65.0%
Nevada	8.0%	66.0%
New Hampshire	n/a	10.0%
New Jersey	n/a	27.0%
New Mexico	7.8%	20.0%
New York	7.0%	30.0%