

Murray-Darling Basin Authority
SUBMISSION COVER SHEET
Developing Sustainable Diversion Limits in the Murray-Darling Basin

Boating Industry Association of SA

Principal Contact: Glen Jones

Position: General Manager

Email address: [material omitted]

Street Address

BIASA
Marine House
300 Morphett Street
Adelaide SA 5000

Postal address:

BIASA
Box 10262
Adelaide Business Centre SA 5000

Phone: 08 8212 6000

Fax: 08 8410 0688



BOATING INDUSTRY ASSOCIATION of SOUTH AUSTRALIA Inc

300 Morphett Street ADELAIDE SA 5000

PO Box 10262 Adelaide Business Centre ADELAIDE SA 5000

Telephone: (08) 8212 6000

Facsimile: (08) 8410 0688

e-mail: info@boatingsa.com.au

The Manager
Stakeholder Engagement Branch
Sustainable Diversions Limits Issue Paper
Murray-Darling Basin Authority
GPO Box 1801
CANBERRA ACT 2601
2009
Dear Sir/Madam

23 November

Please accept our thanks for your invitation to make comment on your "*Developing Sustainable Diversion Limits in the Murray-Darling Basin*" paper.

This letter will serve:

1. to introduce this organisation,
2. to outline the scope of the economic impact that the industry and its associated industry sectors have in South Australian waters,
3. particularly in rural South Australia,
4. to outline a number of issues connected with the current drought and
5. to introduce to you a new and proven technology to treat, onboard, greywater accumulated on rivercraft, to treat it to agreed standards the to return it, overboard into the River

BIASA

The BIASA is the peak industry body in South Australia for Recreational and Light Commercial Boating and is one of six stakeholders of the national body, the Australian Marine Industries Federation Ltd (AMIF) the peak industry body in Australia for Recreational and Light Commercial Boating. AMIF boasts the operation of two other industry groups, one involved in export and the other is the Marina Industries Association of Australia (MIAA).

All members (of all groups) are required to abide by a strict Code of Ethics. The Code contains issues connected with commercial dealings and also in guaranteeing "best practice" in matters affecting safety and the natural environment.

Our members are diverse in their interests:

- Boat Builders,
- Boat and Engine Retailers and Service Agencies,
- Industry Development Organisations,
- Industry Training Bodies,
- Insurance and Finance Houses,
- Naval Architects,
- Industry Environment Consulting Groups,
- Sports Boats Associations,
- Charter Operators,
- Hire Operators,
- Chandlery Suppliers,
- Heritage/Historic Wooden Boats builders and re-builders,
- Marina Operators,
- Sail Industry Operators,
- Technical Equipment Development and Distribution Agencies.

Our essential objective is to maintain/improve the sustainability of the Recreational and Light Commercial Boating Industry in South Australia.

BIASA promotes *holiday and recreational boating* and related marine/riverine activities as safe, environmentally sound and responsible past-times for all members of the community.

In the conduct of our daily business, in SA, BIASA shares constructive relationships with organisations from all three levels of Government

BIASA has regular contact with organisations positioned within a wide range of portfolios:

- Aboriginal Affairs,
- Consumer Affairs,
- Environment and Heritage,
- Education,
- Emergency Services,
- EPA,
- Local Government,
- Natural Resource Management Boards,
- Police,
- Primary Industries,
- Ramsar Taskforce,
- Recreation and Sport,
- River Murray,
- Tourism,
- Treasury,
- Transport and
- Water, Land Biodiversity Conservation
- and others.

BIASA provides policy advice and consulting services to a number of these agencies and on behalf of BIASA I serve a number of public and private sector working parties and policy groups including several tourism bodies at Local, State and National levels and a range of other policy groups that enfold:

- Ramsar,
- Fishing Councils,
- Several Regional Consultative Committees,
- Bureau of Meteorology Working Parties,
- National Marine Safety Commission,
- Numerous Drought Amelioration Working Parties,
- PWC (Jet Ski) Consultative Committees,
- Port and Harbours Committees,
- Standards Australia, various capacities,
- Marine Parks/Protected Areas,
- Boating Facility Advisory Committee whose role is in planning and development of capital facilities/projects in inland and coastal waters
- Australian Marine Industries Federation, CEOs Group, Perth
- International Council of Marine Industry Associations, Chicago, London and Brussels
- Others

Over 40 Local Government Areas are also connected to/involved in the work of this organisation.

The members of the nearly 400 communities, for reasons connected with the tourism and leisure sectors and for the financial bounties that those sectors deliver have a close interest in the work of BIASA.

There is no doubt that whether it is inter or intrastate tourism; these facilities have an enormous positive impact on many regional communities throughout this State.

A Measure of the Economic Impact of Boating Holidays in SA

1. PIRSA Research

Some time ago Primary Industry, Resources South Australia, PIRSA: finalised a review of the impact of Recreational Fishing on South Australia: Paper No. 36

Paper No. 36 provides an interesting set of statistics/ a profile of the recreational fishery in South Australia:

Number of Recreational Fishers over 5 years who fish at least once annually: 453 000

Number of fishers living in the metro area: 268 000

Extrapolation #1: 185 000 fishers reside in country/regional areas

Proportion of metro based fishers who fish mainly in country regions: 68%

Extrapolation #2: 182 200 metro based fishers fish in country regions

Proportion of country based fishers who fish mainly in the country: 93%

Extrapolation #3: 7% of country based fishers fish in metro areas: 12 950

This material suggests that over 180 000 metropolitan based fishers visit country venues and nearly 13 000 country based fishers visit metropolitan areas at least once each year in pursuit of their recreation. That is; a total of nearly 200 000 recreational fishers "take a "short/s" holiday (to adopt SA Tourism Commission nomenclature) annually. The largest proportion of these 180 000 (90%) are annual visitors to country localities in SA. From our own research, we believe that the direct, positive economic impact delivered to country communities in South Australia exceeds \$100 Million annually. A very significant figure.

The economic impact of these "holidays" in South Australia is enormous: probably the essential sustenance for many coastal/River/Lakes communities.

2. Federal Government Studies

The Federal Government's Australian Institute of Marine Science recently commissioned the internationally regarded commercial/audit/accounting company Deloitte to estimate the total value of the Marine Industry (which includes activities on inland waters) in Australia.

Their findings on the "total measurable value of economic activity of the national marine industry", based on operations for the 2006/07 financial year was \$38Billion. Of this, \$11.6Billion was attributed to "the domestic consumption of tourism goods and services".

Traditionally South Australia is recognised as being a very worthwhile contributor, to the extent of over 11% of such national figures. Given this "share of the action" the South Australian recreational boating industry's contribution to "total measurable value of economic activity of the national marine industry", for 2006/07 was around \$4.2Billion and of this, \$1.3Billion was attributed, in SA, to "the domestic consumption of tourism goods and services".

This "SA tourism figure of around \$1.3Billion, delivered to the South Australian economy" is largely provided by our State's boaties and others who seek a "water-view and/or to engage in on-water activities" on their "free

days/"taking their weekend" and/or "annual holiday/s trips", on an intrastate basis, around our State's Coastal and Inland waterways.

Our research, generally funded by the Federal DOTARS organisation, confirms that up to 50% of the \$1.3Billion benefit is delivered to communities along the River, Lakes and Coorong "below Blanchetown/Lock 1".

The economic impact of these "holidays" in South Australia is enormous: the essential sustenance for many Lower River/Lakes communities.

Existing and continuing drought conditions together with "over extraction" practises are having a wide-ranging, negative and most significant impact on lives and livelihoods across much of Australia, see below...

Drought

Much of the following material is extracted from a paper we delivered in mid 2008 to the Australian Senate Enquiry into Water Management in the Coorong and Lower Lakes Water Storages.

Hopefully these notes will provide an outline of our/community concerns *of the economy's "tertiary sector"* /tourism sector regarding the ongoing drought and diminishing water levels in the River Murray, Lower Lakes, Coorong and the Murray Mouth in South Australia.

The paper was not written as an appeal from the Australian Recreational Boating Industry or South Australian boaties, it was delivered as an appeal, on behalf of the rural/regional communities of South Australia.

"Existing and continuing drought conditions together with "over extraction" practises are having a wide-ranging, negative and most significant impact on lives and livelihoods across much of Australia.

In South Australia, businesses of the leisure, tourism and recreational sectors and those that support them (and, generally all of them are small, rural family concerns) located on/close to River Murray waters, particularly those waters "below" Lock 1 at Blanchetown through to the Murray Mouth and Coorong at Goolwa are suffering enormously.

We need to confirm that:

- what we need, for the communities located close to the River Murray, Lakes, Coorong and Murray Mouth, particularly those located within the following Local Government Areas:
 - City of Murray Bridge,
 - DC Alexandrina,
 - DC Coorong,
 - DC Karoonda East Murray,
 - DC Mid Murray and
 - DC Victor Harbor

.... is replenishment of water stocks, to provide a reasonable level of fresh water, for the environment and for the community.

- water for the Environment = Water for the Community = Water for the Economy.
- in addition to essential environmental and human needs, we need water for tourism, water for leisure and water for recreation.
- and for the health of the environment and for the health of the communities, we need it now.

In the stretch of River Murray Waters below Blanchetown through to the Murray Mouth, it's worth restating that:

- forward houseboat and charter bookings have never been worse,
- the fleet is presently operating at around 50% of normal capacity. This delivers a negative impact to rural communities of around \$15Million annually,
- the use of the (privately) owned houseboat and cruising fleets is also down, by at least, 50% and this delivers a negative impact to the rural communities of around \$25Million annually,
- holidays and leisure visitation is way down on the Murray, in the Lakes and in the Coorong as people anticipate “no water at all within the River and Lakes and Coorong” and
- with these conditions, with “nowhere to go” boats are relocating from inland waters of the Lakes and Lower Murray to marinas upstream and to coastal moorings,
- more than 1000 large (non-trailerable, cruising craft) which offer overnight accommodation and/or galley services have gone from Lakes Albert and Alexandrina and
- the economic loss, to rural communities, incorporating aspects of boat servicing/fuelling/ provisioning is estimated to be in the order of \$5Million annually,
- the economic loss delivered by the loss of revenues on moorings/berthing in rural communities is estimated to be in the order of \$2Million annually,
- “boating” and other “water based” day trippers and holiday makers numbers are down with a loss to the “rural economy” of at least \$200Million annually,
- despite the recent investment of millions of dollars on dredging, extending and rebuilding facilities most marinas, slips and ramps are unserviceable or becoming unserviceable,
- many of the larger commercial craft are now unable to undergo biannual surveys a mandatory requirement of the State Department of Transport, Energy and Infrastructure,
- although many have been modified, the operation of “cross River ferries” will become untenable and road traffic will be diverted to those communities where “cross River bridges” exist, to the detriment of the “have nots”,
- so far as the tourism, recreation and leisure sectors (incorporating boat sales/boat repair, boat service/boat hire and charter operators) are concerned, things have never been worse.

The recent construction of “temporary regulators” at Clayton and Currency Creek, together with the pumping of water from the Goolwa Channel upstream of Clayton, has recently provided a form of “life-line” to the economies of communities located in the environs of the “new” Goolwa Pool which stretches for about 13 Kms, (with a width of up to 3Kms) from the “new” Clayton regulator through to the Barrages.

Similarly, the recent agreement given to provide “limited lockages” to allow craft to transit the Goolwa Lock to the Murray Mouth and Coorong (and vice-versa) has also provided a degree of relief.

But little consideration has been given to those South Australians of over 70 communities (particularly to those 40 communities located below Lock 1 through to the “new regulator” at Clayton) who have vital commercial connections with recreational, leisure and tourism/holiday activities:

- the heartbreak of the owners, managers, and staff of such businesses, who have spent decades, in some cases generations, in developing their assets and the reputation of their businesses,
- the increasing numbers of “holiday/recreation/leisure boating industry connected people” and those individuals from “related operations”:
 - the caterers,
 - the fuellers,
 - the cleaners and the moppers,
 - those who build, sell, service and maintain boats,
 - the local provisioning organisations:

- ❖ the pubs,
- ❖ the dellies,
- ❖ the newsagents,
- ❖ the bakeries,
- ❖ the take-aways,
- ❖ the sellers of fuel and
- ❖ the purveyors of tackle and bait
- ❖ all the others

... are suffering enormous "social and economic difficulties" and many are joining the ranks of the unemployed and the disheartened.

The social costs: the damages to lives and relationships are inestimable.

We do hope that the various State and Territory Governments and the Australian Government is able to assist the generally:

- small,
- family owned,
- rural businesses

... which are so drastically affected by the drought and by significant reductions of water supply due to "upstream extractions.

A New Development to Save Water: On-board Greywater Treatment

Greywater is water that has been used for washing, laundering, bathing or showering.

This water contains dissolved and undissolved by-products such as fat and oil, food scraps that contain nutrients, household chemicals, soaps and detergents (which are rich in phosphates and nitrates etc) and microbiological pathogens (bacteria and viruses). The discharge of greywater into the aquatic environment will damage ecosystems and maybe cause algal blooms.

As noted previously, the River Murray and Lakes and their immediate surrounds are presently under serious environmental stress and every reasonable initiative must be considered in seeking to correct this critical situation.

And we must be cognisant of the potential threats that the use of River water delivers to humans.

Greywater "created" onboard river craft is sometimes "modestly" filtered (but not treated for bacterial contamination) prior to its ultimate disposal overboard. Then, in most cases water, direct from the river is drawn on board and used for food preparation, for drinking and washing, for showers and spas. In many cases this fresh water very likely contains pollutants released by an adjacent vessel, or even one's own vessel.

The Environment Protection Authority, South Australia, through its *Code of Practice for Vessel and Facility Management: Marine and Inland Waters 2007* (gazetted in South Australia in August 2008) has introduced a range of options for the management of greywater, depending on the size of, and the purpose for which the vessel is used.

Management options include greywater retainment and greywater treatment.

These greywater management options must be considered in the very near future (and one of them must subsequently be adopted) by the "masters" of over 2 000 craft (which offer galley and or overnight accommodation) and are presently operating on the River Murray and Lower Lakes in this State. As a starting point, all new vessels registered from January 2008 must "offer a form of compliance".

For many craft, retainment onboard is actually not an option due to the weight and volume of greywater involved, in some cases up to fifteen tonnes being generated per week.

Retainment on board carries other problems as well and these include:

- the lack of capacity of the Government's existing pumpout facilities along the River where greywater may be disposed,
- the time required to pump the greywater out, we estimate that, for larger craft, up to four hours will be required, and further, it is our concern that
- the large volumes of greywater that are pumped out are wasted, that is, they could have been better used by being returned, clean, to the River, after treatment.

The EPA has introduced these greywater management requirements after extensive consultation and with the full support of:

- the Boating Industry Association of South Australia (BIASA),
- its sister offices in all other capital cities in Australia,
- its national peak industry body the Australian Marine Industries Federation (AMIF),
- by another nearly fifty overseas peak bodies via our global peak industry body the International Council of Marine Industry Associations (ICOMIA) together with the
- State's Houseboat Hirers Association (HHA) and with
- other related peak industry bodies of the tourism, leisure and recreation sectors.

This support has been delivered due to the increasing recognition of environmental and public health risks associated with discharging a vessel's greywater into the aquatic environment.

Thanks to the interest of the South Australian EPA and the excellent industry/government relationships that it has developed, this State is leading the way (nationally and globally) from both a legislative and industry point of view, in areas of greywater management and in other areas of critical concern.

The BIASA, in its routine endeavours in the early years of this decade, scoured the globe, in:

- the Americas, in
- Western Europe and the UK (with their most extensive canal and lakes networks) in the
- Eastern Mediterranean and in
- the Middle East

... in the search for an effective treatment system for greywater, suitable for smaller craft, up to 20 metres in length.

To its surprise, and to its delight, the BIASA found that a retired professional engineer, a resident of Mannum, 80 kilometres from Adelaide, had succeeded in this development work where all other known innovators have, to date, failed.

The "Mannum Grey Water Treatment System" works and it's not just "another" filter system:

- it does filter out grease and fats and all the normal other horrible things and
- it also treats the waste water and takes out enterococci and the like.

After rigorous Government testing and with EPA and Health Agency agreements in place, the use of "the Mannum Grey Water Treatment System" allows recreational boaters to return the treated/cleaned grey water into the River Murray/Lakes.

In the Murraylands Region in South Australia, where the quality of the water is often questioned, the "Mannum Greywater Treatment System" has proven to the State Government that it actually returns cleaner water to the Murray than that which was originally extracted for onboard purposes.

I am closely and continuously connected to the worldwide recreational boating scene:

- by way of the Australian BIAs and their national peak industry body, the AMIF
- to "our" global body, the ICOMIA which operates from London and which represents and champions the recreational boating sectors of nearly 50 nations.

It is through this ICOMIA relationship that I am confident that the "Mannum Grey Water Treatment System" is the only known, economically viable unit which is suitable for installation on smaller craft, five to six metres and up, any where in the world.

Our day to day relations with the ICOMIA are largely centred on "common" recreational boating issues (that we share with the rest of the world) in view of the fact that the millions of craft operating are doing so under closer and closer observation of the various Governments, worldwide.

During early June 2008, with a senior South Australian EPA representative, Paul De Ionno, I attended and addressed the ICOMIA's Annual (Global) Congress, held in Barcelona, Spain and outlined the EPAs' "recreational Boating Code of Practice" and also "internationally" launched the "Mannum Greywater Treatment System" to enormous positive response.

My close colleagues Tony Rice of the UK, Eivind Amble, from Norway, our EU connection and Thom Dammrich of the USA, who plays a similar role in the USA and Canada have, together, an interest and perhaps a level of influence over the majority of recreational boating interests worldwide. They and others are vitally aware of the "Mannum Greywater Treatment System" and are extremely keen to "get hold" of the "Mannum technology".

Both the "Code" and, maybe more importantly for Australians and our economy, the "Mannum Greywater Treatment System" are now being pursued by Government Agencies and private sector organisations from around the world. In the last three months we have welcomed visitors from Canada and China who were visiting Adelaide and Mannum in pursuit of the "Mannum Greywater Treatment System".

To illustrate the South Australian EPA's outlook on the "Mannum System", the following is an extract from a brochure which "they" assembled for consideration by the attendees of a high level industry/government forum/round-table conference held in Adelaide in mid 2007.

1. "Regulation is not often recognised as a driver of innovation, but along the River Murray, it's led to a world first.
2. A new greywater treatment system for houseboats and other recreational craft, developed in response to regulatory requirements, is providing a green edge in the tourism market for recreational boaters operating on inland waters.
3. Industry leaders, notably the Boating Industry Association of South Australia (BIASA) and other key stakeholders worked with the EPA to develop a Code of Practice to articulate, inter-alia, the greywater treatment requirements of the Environment Protection Policy (Water Quality). Public forums were held in

Goolwa, Mannum and Berri to explain what it would mean for boat owners and operators and provided an opportunity for manufacturers to display and demonstrate their greywater treatment systems.

4. A locally developed greywater treatment system, understood to be the first of its type in Australia and in the world that is both economically and environmentally sound, participated in the on-board vessel trials. It is now available and being installed on commercial "hire and drive" houseboats along the River Murray.
5. Glen Jones from the BIASA said the recreational boating industry had been keen to work with the EPA to ensure practices were sustainable, both for the industry and the environment.
6. "An average houseboat or cruiser on the River Murray can discharge thousands of litres of greywater from showers, kitchens and washing machines over a four-day period, so greywater treatment systems have the potential to significantly reduce the amount of nutrients and bacteria being discharged into the river system," Glen said.
7. "Improvements in water quality help the river, and also support our industry by making swimming and other water activities more enjoyable for tourists."

The Code of Practice mentioned in the third paragraph of the EPA's paper, above, insists that all craft which generate grey water and which operate on the River Murray and its Lower Lakes will be required to have an accredited grey water treatment system or other suitable arrangement in place:

- all new boats from December 2007,
- all commercial, for charter/hire, by December 2009 and
- all other craft from December 2010.

Due to the "commercial impacts of the drought" the EPA has now agreed, in some circumstances, to grant a form of moratorium to some operators.

Thanks to independent funding found by the EPA, more widespread testing of the "Mannum Grey Water Treatment System" has occurred, on a continuous basis since March 2008, through the installation of a total of eight units on eight commercial houseboats, operating between Mildura and Goolwa.

With independent funding arranged by the EPA again, Standards Australia, Sydney has now finalised its work to "create" an Australian Standard for the "Mannum System".

The houseboat hire industry in South Australia, which leads national (and at least equals international) houseboating trends, is entirely based on the River Murray, from Wellington through to the NSW border. The South Australian houseboat fleet is:

- comprised of approaching 1 000 vessels,
- of between two and 12 berths and
- deliver an enormous annual economic benefit to the Murraylands and Riverland communities.

The industry has relentlessly driven this greywater issue and other related environmental initiatives and we are delighted with the results delivered by the EPA and the support provided by a number of other South Australian Government Agencies including Trade and Economic Development, the SA Tourism Commission and the Department for Transport Energy and Infrastructure.

With the "Mannum System" we have a world first, it will enjoy extensive markets (on boats and on the dry land) in South Australia, Australia and worldwide.

It's been Government tested and sanctioned and we're ready to go *but we face a challenge in cashflow and therefore in production arrangements which are inhibiting the introduction of efficient mass manufacturing methods.*

We are of the firm opinion that, if at all possible, manufacturing should be undertaken in the Mannum area rather than in metropolitan Adelaide (or interstate or overseas which is the stated intent of third parties).

As outlined previously, given the deplorable commercial conditions and uncertain futures facing our commercial houseboat fleet, at present due to the drought and low water conditions and public misperceptions, many of our commercial operators are facing extinction and are therefore unable/unwilling to commit what is presently around \$20,000 per unit to proceed.

Through the introduction of modern manufacturing techniques, this \$20,000 cost should, realistically, in our minds, be reduced to not more than \$10/11,000 per unit (including installation).

Further, the Government's thirteen Waste Disposal Stations - WDS (Sewerage Pumpouts) located along the Murray and Lakes from Goolwa to Lock 6 have nowhere near the capacity to manage the greywater pumpouts requirements for the over 2 000 craft which eventually will require such service. The costs to be incurred in upgrading the existing WDS to cope with greywater volumes, a factor of twenty over blackwater volumes, and adding to their number will be enormous. It is understood, for example, that costs incurred by the Department of Water, Land and Biodiversity Conservation in the recent delivery of the new WDS at Hettner Landing exceeded \$700,000.

In the mean time:

- the EPA,
- representatives of Standards Australia and
- the recreational boating industry's peak bodies across Australia and world-wide

... are absolutely committed to the development and installation of greywater treatment systems on recreational craft:

- for environmental purposes,
- to bring to an end the practice of dumping raw greywater overboard (and therefore),
- to minimise the use/net extraction of (very) scarce fresh water supplies. The Newtreat System very effectively cleans the waste water and allows it to be placed back into the environment rather than pumping it ashore (thereby wasting it).

We have a world first, it will enjoy extensive markets (on boats and on the dry land) in South Australia, Australia and worldwide. It's been Government tested and sanctioned and we're ready to go but we face a challenge in cashflow and therefore in production arrangements which are inhibiting the introduction of efficient mass manufacturing methods.

Due to the drought and the over-allocation/over-extraction of water

And the disastrous situation being faced by the operators within the tourism and leisure industry sectors who are situated within and/or remotely but who provide services to the communities and visitors to the environs of the River Murray and Lower Lakes in South Australia and who are reliant on:

- reasonable flows,

- “normal or close to normal pool levels” and
- a reasonable level of water quality ...

so far as “the tourism/leisure industry comment” is concerned on “Developing Sustainable Diversion Limits in the Murray-Darling Basin” ...

... we contend that the existing volumes being extracted are entirely unsustainable and that such level of extraction must be immediately, halved.

Further, this proposal of ours to immediately reduce extraction levels by 50% will likely need (in view of our expectations of the real results of your studies) be significantly reduced again.

I would be happy to discuss this paper at any time.

Yours sincerely

Glen Jones
General Manager