

Greens (WA) policy initiative



The Swan River and Drainage – Better drain management for healthier rivers

What is needed to Save Our Swan? Urban drains may not be the most lovable feature of our city but they are key to protecting one that is – the Swan-Canning river system.

The Swan and Canning rivers are on life support.

Additional oxygenation machines have been installed in the rivers' middle and upper reaches to try to breathe life back into low-oxygen water resulting from too many nutrients. While this has helped kept algal blooms at bay and fish alive, it has not fixed the underlying pollution problem, demonstrated by events such as the relatively recent deaths of river dolphins.

In 2009, an inter-agency report, the *Swan-Canning Water Quality Improvement Plan*, found that nearly double the sustainable levels of nitrogen and phosphorus was entering the system each year. The plan found that while the source of nutrients ranged from farmland run-off to excessive fertiliser use on urban parks and gardens, residential and recreational land was the biggest source of nitrogen and the second biggest source of phosphorus.

Our urban drain system is the main conduit whereby by this urban pollution enters the river.

While improving the quality of water that goes into the drain in the first place is essential – such as managing fertiliser use – it remains necessary to clean up the water before it exits the drain for the river.

One way to do this is to turn drains into 'living streams' where appropriate vegetation and drain design help strip nutrients from the drain water, at the same time creating a pleasant natural feature. Unfortunately, our drains were originally built with the sole purpose of moving water as fast as possible out of low-lying areas, and changing them is costly.



To date, implementation of such work has been piecemeal, inadequate and hampered by a lack of funds and buck-passing over who is responsible. Yet the necessary action has been researched and is known, and these improvements must be made now if we are to save our river system.

Below I detail a three-part strategy to improving our river system health, as well as some specific steps. I welcome your feedback.

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What needs to be done now

1. Identify funding opportunities for drainage

Despite a number of studies identifying the necessary action to protect our rivers and reverse damage that has already been done, no plan has dealt with finding a sustainable funding source to ensure that we can implement them.

In November 2012, an agreement was reached between the WA Local Government Authority (WALGA), the Swan River Trust, the Department of Water and the Water Corporation, committing the parties to working collaboratively on drainage management. While a positive step, this agreement is valid for just a year, and no funding has been allocated to it, although one of the key activities to be undertaken under the agreement is to source sustainable funding for drainage works.

The Greens will monitor this development closely but in the meantime propose that the following funding options should also be investigated:

- Water Corporation to be obliged to spend some of its annual profit on drainage management (Water Corporation owns and is responsible for managing 828km of main arterial drains in the metropolitan area.);
- A catchment-wide flat fee for all landowners, as employed by Melbourne Water in its Waterways and Drainage Charge;
- A catchment-wide flat fee with variable discount according to the quantity and quality of permeable and impermeable surfaces on the land owned (reversing a fee system used in the Emscher catchment, western Germany, whereby fees are charged for area of land covered by impermeable surfaces).

The Greens note that the Economic Regulation Authority (ERA) recently made recommendations regarding water and wastewater pricing, which if adopted would see a considerable majority of Perth households better off by around \$100 a year, largely through a reduction in current wastewater charges and in Water Corporation profits returned as a dividend to Government. It is proposed that the ERA might be the appropriate agency tasked with investigating options for funding drainage works.



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2. Clarify responsibilities in regards to drainage

The authorities involved in drainage management are:

- Department of Water - provides scientific advice and technical data;
- Water Corporation - owns and manages 828km of arterial main drains and is explicitly responsible by law for moving water, not enhancing or maintaining quality of water;
- Swan River Trust - responsible for managing the river and adjacent land and for the prevention and control of pollution of the river; yet has no direct responsibility or influence on drainage. Its water quality control actions are limited to commentary on development proposals and running the river oxygenation plants;
- Local governments - responsible for the larger and more extensive local drainage network, estimated to amount to many hundreds of kilometres more than the Water Corporation-managed arterial main drain system.

Currently, there is no central repository of information about our drainage system, which parts of the drainage system need to be tackled first and who is responsible for co-ordinating that activity.

WALGA estimates that at least \$650 million is needed to simply undertake priority maintenance on local government-managed drains.

The existing drainage system exists across 76 sub-catchments and 27 local government jurisdictions. Each sub-catchment contains between one and four local government drainage networks.

The Greens believe this complexity requires a central management body with catchment-wide responsibility and authority. This could be done by either expanding the range of the Swan River Trust or by instituting a new body.



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3. Pursue a range of interventions

As identified in the *Swan-Canning Water Quality Improvement Plan*, no single intervention will reduce nitrogen and phosphorus levels in the river enough to bring it back to full health.

A range of responses are required including:

- sewerage infill (especially in industrial areas that are not currently sewered);
- increasing urban fertiliser efficiency;
- developing water quality improvement plans at a local scale (for each sub-catchment);
- ensuring minimum flows to sustain environmental values; and
- protecting those sub-catchments that are currently in good shape.

Noting this, the Greens believe that in addition to implementing the identified actions necessary to fix the drains, other interventions must continue, including fertiliser regulation. Regulations have been changed to reduce the amount of nitrogen and phosphorus that can be in lawn and garden fertiliser. Fertiliser use in rural areas is also being investigated.

What is being done about Perth's drains now:

Under the State Government's 'Healthy Rivers' program, due to expire in 2013, some limited work is being undertaken:

Nutrient Interception Program – This involves the construction of artificial wetlands at critical sites where drains enter the river. Monitoring of the water quality entering and exiting these wetlands is underway, revealing that while the wetlands are making a difference to water quality they are not making enough of a difference – and the quality of the water entering the wetlands is not improving over time.

Living Streams - Local drains and degraded streams and confluences are being developed into 'Living Streams' that slow the flow of water, strip nutrients and provide habitat for native fauna and flora. This excellent program lacks sufficient funding.

Urban Waterways Renewal Initiative - This five-year initiative funded by the Federal, State and local governments focuses on the arterial drainage network. Detailed regional catchment plans will be produced, but once again costing of, and funding to implement these programs and maintain the systems set in place is left to local service providers.



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The Greens call for these immediate actions to Save Our Swan.

1. Request the Economic Regulation Authority to analyse a range of sustainable funding options for improved catchment and drainage management.
2. Develop an independent management body with catchment-wide responsibility and authority by either expanding the range of the current Swan River Trust or by instituting a new body.
3. Conduct drain status assessment over the whole urban drainage network and collate this material centrally.
4. Develop an order of priority for metropolitan drainage works.
5. Provide Department of Water with the resources to undertake catchment-wide strategic planning functions.
6. Continue and expand catchment-specific research necessary to the effective implementation of best practice drain management in Perth.
7. Water quality management provisions based on local water quality improvement plans to be added into the license conditions of drainage licencees as that information becomes available.



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