

# Salinity Engineering

— Better Ways to Manage Salinity

Newsletter of the Salinity Engineering Evaluation Initiative Issue 1—Summer 2002



## How to subscribe

To keep up to date with the Engineering Evaluation Initiative, you can subscribe to this newsletter by ringing Brad De-gens on 9278 0450; or email [eei@wrc.wa.gov.au](mailto:eei@wrc.wa.gov.au); Fax: 9278 0586.

## Latest news

Premier Geoff Gallop has announced that the EEI has been put up as a priority project for the National Action Plan for Salinity and Water Quality. The WA Government has agreed to sign the NAP and is awaiting Federal agreement to pave the way for joint WA-Federal funding of up to \$158 million for a range of activities.

The EEI steering committee will be working to ensure that its activities will be carried out with the regional Natural Resource Management groups (check out which one is near you at [www.salinity.org.au](http://www.salinity.org.au) looking under “salinity management” and “who’s involved”). Much of the National Action Plan funding will be delivered through these groups.

## Old story—new directions

This is the first issue of our quarterly newsletter to keep people informed on the various projects of the Engineering Evaluation Initiative (EEI).

We hope you find this newsletter a good way of keeping up to date with the issues, projects and people.

The EEI is a \$4 million commitment by the State Government to improve the use of engineering in dealing with salinity.

Why is the EEI important?

In the battle against salinity, thousands of kilometres of drains and surface water banks, and

hundreds of pumping and siphon wells have already been constructed.

Despite this, no one knows what the pros and cons will be for landholders, communities, the environment and the public purse. For instance, will

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## The EEI at a glance

- The EEI will examine where salinity engineering has been used, whether it worked, and why/why not;
- Set priorities where better measurements are needed;
- Call for submissions for on-the-ground schemes with regional Natural Resource Management (NRM) groups to meet priorities;
- Select schemes to monitor and measure;
- Set-up schemes with farmers and regional NRM groups;
- Measure the success of schemes; and
- Prepare and distribute guides for better salinity engineering.

## When will this be done?

Dec 2002–Feb 2003	Complete reviews of existing studies and identify priorities for on-ground measurements.
First quarter 2003	Call for submissions of on-ground actions with regional NRM groups.
By mid-2003	Select schemes in partnership with regional NRM groups.
By end-2003	On-ground evaluations started.

## What will you get out of it?

This work will produce more reliable guides for people using engineering to deal with salinity. These will help farmers, contractors and land managers more confidently locate the best engineering sites to protect or restore their land from salinity. The work will also shed light on the best ways of carrying out engineering methods so that everyone, including downstream catchments and the environment, can benefit.

# February seminar seeks feedback

A one-day seminar will be held in mid-February (date to be set) to outline the main results of the technical reviews of deep drainage, groundwater pumping, siphon and relief wells and surface water management.

The reviews aim to work out where and in what form on-ground assessments are needed to make it easier to use engineering for salin-

ity. Department of Agriculture, the Water and Rivers Commission and CSIRO staff are in the process of finishing the first cut of these reviews and will be some of the main speakers at the seminar. There will also be invited guest speakers providing information on their experiences with different salinity engineering approaches.

Following the seminar, there will

be a one-day workshop for invited participants where the recommendations of the reviews will be worked into general areas where further on-ground measurements are needed most. The seminar will be held in Perth, most likely at the Burswood-on-Swan Convention Centre and open to all. Full details will be mailed out in late January (contact Brad Degens on 9278 0450).

## Avon drainage in the spotlight

A recently completed study in the Avon Catchment highlighted concerns about large-scale or arterial drainage:

- Can a clear vision be set for regional water management?
- What does arterial drainage involve and what are the pros and cons?
- What will be the combined effects of numerous local drainage schemes?
- How can drainage water be safely disposed of?
- How will farmer/community conflicts with drainage be settled?
- What downstream problems (such as flooding and siltation) could occur?

Engineering, such as deep drain-

age and surface drainage, may be successful in dealing with salinity. But possible concerns need to be fully taken into account.

To plan an arterial drainage scheme in the Avon Catchment, it will be necessary to:

- Recognise that the catchment has regional differences (and is not all the same);
- Gain local responsibility for areas;
- Adapt management over time;
- Share gains and losses;
- Balance the pros and cons; and
- Compare drainage against predicted increases in salinity (the "do nothing" option).

For more details, contact John Ruprecht at [john.ruprecht@wrc.wa.gov.au](mailto:john.ruprecht@wrc.wa.gov.au)

## Who's in the 'steering seat'?

The members of the small, broadly skilled steering group setting the overall direction of the EEI and keeping things rolling along are:

John Ruprecht (engineering and hydrology), Gordon Davidson (farming, local government), Kevin Lyon (drainage), Garry English (farmer, State and local implementation of salinity management), Neil Coles (agricultural water management), Greg Keighery (biodiversity and nature conservation), Tom Hatton (water and ecology) and David Pannell (agricultural economist).

Environment and Heritage Minister Dr Judy Edwards appointed the EEI Steering Committee in July 2002.

## New directions—cont'd

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engineering options work and be worth it? Where will they work and where might they be disastrous?

The EEI has been set up to help farmers, contractors and land managers work out the best sites and designs for deep drains, pumping, surface water management, siphon and relief wells and safe disposal of saline water. The EEI aims to include community and industry input throughout this project.

—Steering Committee, *Engineering Evaluation Initiative*

## Share your news and views

We welcome your feedback and salinity-related news.

**The deadline for the next issue is 30 January 2003.**

Please keep items brief (about 150-200 words is fine) and email them to [eei@wrc.wa.gov.au](mailto:eei@wrc.wa.gov.au)