

PROGRESS REPORT 4

Coastal Acid Sulfate Soils Program (CASSP)
31st December 2002

South Australian Inventory of Acid Sulfate Soil Risk (Atlas)

Right: Building infrastructure disturbs PASS. The abundant decomposing seagrass helps maintain conditions where PASS remains in a benign, reduced state.



Left above: The black ooze, sulfidic material frequently found in drains and tidal streams, has low dry bulk density and bearing strength.



Left below: Sensitive samphire flats near beaches and urban areas (north of Adelaide) are frequently subjected to off-road motor vehicle use, dumping and fire.

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Coastal Acid Sulfate Soils Program (CASSP) Milestone Report: 31st December 2002

1. **Project title:** South Australian Inventory of Acid Sulfate Soil Risk (Atlas)

2. Contact Details

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Note: Richard Merry resigned from CSIRO in November 2002, but has continued working on the project in an honorary capacity.

3. Key Dates

Project start date: 15th October 2001

Contract completion date: 31st December 2002 (report 28th February 2003)

Project progress up to: 31th December 2002

4. Project activities

Stage 4 of the project was to start at 1/10/2002 and finish 31/12/2002. The agreed activities and milestones are shown below.

	Activities	Milestones
4.1	Publish www site Atlas and Report	Web site functioning, Report and Atlas published
4.2	Based on the outcomes of the Coastal ASS mapping, identify implications for the State. Present findings to the Planning Authority to develop an appropriate whole of government planning approach to best manage development in coastal ASS risk areas	Report detailing findings and implications to the state presented to the Planning Authority for whole of government consideration
4.3	Report outcomes to NatCASS	Report received by NatCASS
4.4	Prepare final report	Final report completed
Progress Report 4 Report against key milestones and performance indicators, including a statement of costs to be lodged with the Department within 30 days of completion of Stage 3. - Due date 31/12/2002		

All milestones have been met except as outlined below. A report against each milestone follows.

Report against Milestones

Activity 4.1 Publish www site Atlas and Report.

Milestone 4.1 Web site functioning, Report and Atlas published.

Report: Actions in place

All map coverages and associated legends are complete. These have been transferred from CSIRO to the SA Department of Environment and Heritage for attachment to the digital atlas of South Australia. The three documents endorsed by the SA Coast Protection Board (CPB) during 2002: *Interim Strategy for implementing CPB Policies on Coastal Acid Sulfate Soils in South Australia*, *Interim Development Guidelines and Risk Assessment Criteria for Coastal Acid Sulfate Soils in South Australia* and *Interim Checklist for Development in Coastal Acid Sulfate Soils, South Australia* will be placed on the Coast and Marine website following clearance from SA DEH. The *Interim Checklist* was endorsed by the CPB in December 2002 and is appended to this progress report. This information currently forms part of presentations to Planning SA for a whole of government policy approach to CASS. Hot linkages will be established with other appropriate web sites.

Activity 4.2 Based on the outcomes of the Coastal ASS mapping, identify implications for the State. Present findings to the Planning Authority to develop an appropriate whole of government planning approach to best manage development in coastal ASS risk areas.

Milestone 4.2 Report detailing findings and implications to the state presented to the Planning Authority for whole of government consideration.

Report: Actions in place

Implications for the state are now better known and general awareness has increased within other state departments, such as Transport SA. The various interim strategy and guideline documents, along with ASS distribution maps have covered more specific implications.

The Coast and Marine Branch have forwarded the CASS reports prepared for the Coast Protection Board to a senior officer in Planning SA. This officer has been asked to call a meeting once he has considered the reports to discuss a whole of government approach to best manage development in CASS risk soils. Progress awaits this meeting and its outcomes.

Activity 4.3 Report outcomes to NatCASS

Milestone 4.3 Report received by NatCASS

Report: Milestone met

Several aspects of the milestone report were presented to the NatCASS (National Committee for Acid Sulfate Soils) Steering Committee held in Melbourne on 21st November, 2002 (Metropole Hotel & Apartments & Conference Centre). The mapping component was

presented by Rob Fitzpatrick, followed by the policy component presented by Doug Fotheringham. Copies of the completed milestone reports were circulated to all members of the NatCASS committee. Rob Fitzpatrick circulated a copy of the legend for comments and received several edits, which were included in the final version (see Final Report).

Based on the mapping procedures developed in this South Australian CASSP-funded project, NatCASS requested that Rob Fitzpatrick chair a sub-committee with Bernie Powell, David Dent and Steve Appleyard to develop a full proposal to submit to the National Land & Water Resources Audit in early March 2003 to produce a National ASS Map and Atlas.

Activity 4.4 Prepare final report

Milestone 4.4 Final report completed

Report: Milestone met

The Final Report accompanies this Progress report.

Additional Note: A copy of **Report 3. DRAFT CHECKLIST FOR DEVELOPMENT IN COASTAL ACID SULFATE SOILS, SOUTH AUSTRALIA** is appended. This report was presented to and endorsed by the SA Coast Protection Board in November 2002.

5. Brief description and analysis of Program Performance Indicators as per Item K.

Demonstration

a) The CPB have approved for January 2003 a 12 page "Coastline" bulletin (No 33) titled "A strategy for implementing CPB policies on coastal acid sulfate soils in South Australia". This bulletin outlines the issues and proposed implementation policies in SA. At least 1500 copies will be printed.

b) All previous milestone reports have been amended slightly and made publicly available at the following URL (note change from earlier locations):

<http://www.clw.csiro.au/staff/FitzpatrickR/publications.html>

CSIRO Land and Water are in the process of re-developing websites but we expect that this location will be stable.

c) There have been several interactive sessions with staff at Transport SA, particularly in relation to their environmental management practices. This has resulted in greater appreciation of ASS and practices used in road building, causeways and maintenance in coastal environments. Specifically, a section on ASS has been included in their operation and policy manual: "Protecting Waterways" (first published July 2002). As well Rob Fitzpatrick gave a formal presentation on ASS in South Australia on December 12th 2002. This project will contribute updates and resources this manual (see Final Report).

Contact has been established with the SA EPA which is also interested in acid sulfate soil management.

Technique Effectiveness

Because this project does not involve remediation or otherwise disturb the natural environment, no measures of technique effectiveness are appropriate. Conventional soil chemical and physical analyses are being completed for regions where no data existed previously.

6. Provide a brief analysis of overall project progress to date.

This project is close to completion. The web publication of the atlas/mapping products and associated strategies and guidelines is in the hands of the SA DEH Environmental Information Division. A whole of government approach to policy development for coastal ASS is being discussed with Planning SA.

The project has been very effective in raising awareness of ASS and environmental problems that are potentially associated with them in South Australia. There has been good feedback and some good interaction with several state government departments that need to deal with ASS.

Declaration

As the Organisation referred to in the Financial Agreement we declare that the information given in this report is complete and correct. We consent to the public disclosure of the information in this report.

Signature of authorised representative of
recipient organisation

Printed name

Position in Organisation

Contact Telephone Number

Date

Richard H Merry/Robert W Fitzpatrick
Research Scientists
08 8303 8422/08 8303 8511
31/12/2002

CASSP

Statement of Expenditure

Project Title

(use the same title as in original
project application)

South Australian Inventory of Acid Sulfate Soil Risk
(Atlas)

Name Of Organisation

CSIRO Land and Water

Project Start Date

15 / 10 /2001

The full final statement of expenditure accompanies the Final Report for this project.