

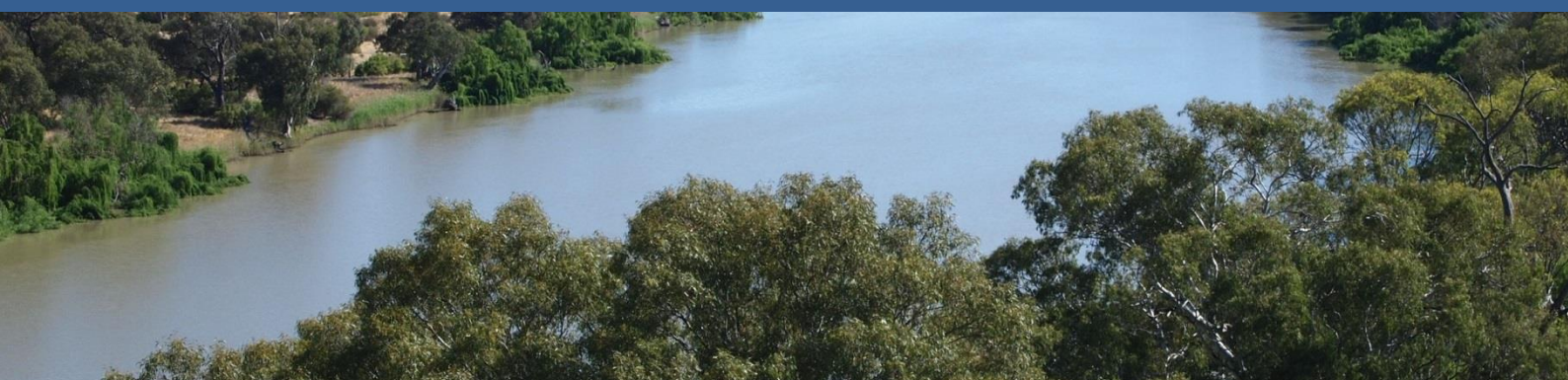


**Government  
of South Australia**

Department of Environment,  
Water and Natural Resources

NATURAL RESOURCE MANAGEMENT  
**TREND AND CONDITION**  
**REPORTING FRAMEWORK**  
SOUTH AUSTRALIA

**Stakeholder Review**



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### **Abbreviations**

DEWNR	Department of Environment, Water and Natural Resources
KEQ	Key Evaluation Question
MERI	Monitoring, Evaluation, Reporting and Improvement
NGO	Non-government Organisation
NRM	Natural Resources Management
PIRSA	Department of Primary Industries and Regions SA
SAMDB	South Australian Murray-Darling Basin
SMK	Science, Monitoring and Knowledge Section of DEWNR
SOE	State of the Environment (Reporting)

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## Executive Summary

This report presents the findings of a review of the State NRM Report Cards and Regional NRM Snapshots produced as part of the NRM Reporting Framework to report on the State NRM Plan (2012).

The review is part of a broader evaluation across the Government of South Australia that examines: the value of State NRM Report Cards and Regional NRM Snapshots; the use of these products and their influence on planning, reporting and monitoring effort; improvements to the products; the effectiveness and satisfaction with stakeholder engagement during development of the products. This review used an online survey and semi-structured interviews with key informants from Departmental Executive Directors and Directors, NRM Agency Managers and staff, NRM Council and Board members and Managers of the State of the Environment Reporting interstate.

The State NRM Report Cards report well on the representative measures in the State NRM Plan and collectively provide a comprehensive statement of the condition and trend in natural resource assets of South Australia. The approach to reporting data gaps and reliability was generally supported. There is some belief that the approach will contribute to more efficient, responsive and integrated State of the Environment reporting. There was some concern that the State-level report cards are interesting but may not drive desired planning and engagement processes.

Regional NRM Snapshots were valued for the information and underlying data they provide, often because this data has not previously been reported. However, there were some concerns that some regional snapshots do not adequately report the condition and trend of resources, especially where regional data was not used due to accessibility and compatibility. Many regional informants believe that the regional NRM boards are in the best position to report on the resource condition at a regional scale, and to do so within a context that integrates targets, activities and achievements.

Interstate informants involved in similar reporting exercises were very interested in and supportive of the approach taken and were positive about the potential for this model of environmental reporting. State-level managers and informants were also generally supportive of the reports at both regional and State levels. Regional managers and staff expressed need for greater alignment between reporting products and NRM plans, including investment level plans.

Suggestions were made on improving some of the products and for improving engagement and communication in developing these reporting products in future.

## Purpose of this Report

This report provides an independent summary of interviews and feedback on a series of Report Cards on the State NRM Plan. The stakeholders who were interviewed or surveyed were from regional NRM boards, the State NRM Council, Government of South Australia, government agencies in other states, and the Federal Government. This report also provides summaries of stakeholders' suggestions to improve future NRM reports, including the State of the Environment Report for South Australia. These summaries are provided as one of several inputs that will inform decisions about the future of NRM reporting.

## Summary of Findings

**Continue to produce single page reports on resource condition and management for a broad audience, and highlight data gaps and reliability issues.** The State NRM Report Cards provide a comprehensive assessment of the condition and trend in natural resource assets and issue in the State NRM Plan. There was general agreement that the level and type of information in a one-page format was useful for a broad audience and sufficiently highlighted data gaps and reliability issues. The State-level report cards are thought to be a useful communication tool for awareness-raising and to further promote discussion between stakeholders about filling data gaps. Interstate observers working in other forms of natural resource condition reporting were very supportive of the report cards, the approach they have taken to showing condition, trend, data gaps and reliability. There is some belief that the approach will form part of more efficient responsive and integrated reporting than that offered by current State of the Environment reporting.

**Improve the way the State builds future NRM plans and reports on them (including SOE) based on regional priorities.** A criticism of the usefulness of the State-level report cards was that they report on the State NRM Plan, a high-level document above the business planning operations of NRM stakeholders. The result of this is that report cards may have only indirect influence on planning and investment. This outcome would mean that only part of the original intention of the integrated NRM Reporting Framework would be achieved through report cards. Despite this, only two State-level report cards were clearly identified as undesirable for updating in the future, assuming the reporting drivers remain the same. However, there was considerable disagreement about the usefulness of many of the report cards and it was not possible to use the online survey alone to determine whether some report cards should be updated in the future or not.

**Review the indicators for the next State NRM Plan and related report cards.** A number of indicators for future report cards were submitted by informants. Most of these would expand the scope of reporting beyond the bounds of the State NRM Plan or categorise issues in a different way than the asset approach taken in the State NRM Plan (eg. ecological systems). There were also differences of opinion as to the usefulness of some report cards. The selection of indicators should be reviewed with any revision of the State NRM Plan and in light of responses in this report.

**Find alternatives to presenting regional information in the manner used in the current round of report cards.** The presentation of regional information in State-level report cards was not unanimously supported because the format makes it difficult to explain why regions have the score they do, particularly when there are data discovery or access issues, leading to perceptions of incomplete or inaccurate reporting. There is also a concern that difference between regions with respect to population and investment may be misinterpreted as a result of regional performance rather than capacity. There are also some indicators which are not relevant to some regions and therefore regional information on State-level report cards can be misleading or unnecessary.

The issues raised with respect to the display of regional information on State-level report cards were more acutely felt by many regional informants when considering Regional NRM Snapshots. There were also other issues with the production and release of State-level construction of regional snapshots which link to each other to result in significant opposition to the snapshots in some regions. It was reported that data that could have improved reporting at regional scale was not always used because of discovery and access constraints. While only a few examples of this were cited, a number of regional informants indicated scepticism about the accuracy, relevance and completeness of information in regional snapshots. This lack of support may reduce the use of snapshots and could potentially lead to conflicting information in the community and to some undermining of the NRM Reporting Framework.

**Further align the State NRM Plan with regional NRM plans.** The indicator set used for both levels of reports is not adequately aligned with regional NRM business priorities and investment or with approaches to regional planning within a resilience framework. This issue is rooted in alignment between the State and regional NRM plans and has a flow-through effect on the report cards. There is also an effect of indicator selection under data availability constraints which might be more easily managed with greater planning alignment.

**Regional NRM boards should be a lead partner in resource condition reporting and communication, particularly where reporting relates to prioritisation and performance of investment for engagement of regional communities.** A number of informants raised the issue that regional NRM boards are best placed to communicate on resource condition issues and outcomes, particularly where they relate to prioritisation and performance of investment for engagement of regional communities. While part of this issue is related to control over communication, most regional informants were interested in using the regional snapshots, or data from which they are constructed, to assist in reporting and communication at the regional level. This indicates that a return to the original intentions of the integrated NRM Reporting Framework is likely to be supported by regions and could build on the benefits of increased regional access to the wide range of data and information pulled together for report cards and snapshots.

**Improve planning and engagement for regional stakeholders involvement in reporting product development.** Most of the issues reported on engagement of stakeholders in development of the report cards and snapshots could be managed in the future with additional engagement and communication planning.

## Background

The Department of Environment, Water and Natural Resources (DEWNR) has developed a suite of State NRM Report Cards and Regional NRM Snapshots as part of an integrated NRM Reporting Framework. The integrated NRM Reporting Framework aims to improve understanding of natural resource condition as a necessity for NRM planning and as a tool for reporting on the State NRM Plan (2012). The NRM Report Cards and Regional NRM Snapshots have been developed to report on the state and condition of natural resources and NRM issues (through 34 representative measures) identified as priorities in the State NRM Plan (2012).

The report cards and snapshots aim to improve reporting on changes to natural resource assets by providing an accessible, up-to-date and simple stock take of existing information on natural resource condition and associated issues, and to produce summaries that alert managers to knowledge gaps and data reliability issues that require further consideration. Additional elements of report card development were that resource status would be reported with integrated contextual information, that conceptual models would underpin asset condition reporting to improve communication and that the products would help to guide the further development of indicators and monitoring methods.

After an initial trial of six Statewide report cards, the South Australian NRM Council directed DEWNR to produce report cards for all 'representative measures' in the State NRM Plan. This represented an adjustment of direction for the reporting team who had been working towards report cards tailored to reporting against a prioritised set of indicators underpinned by conceptual models and potentially requiring the collection of additional primary data. The change in reporting direction moved the emphasis of the work from assisting regional reporting at the level of regional priority to regional- and State-level reporting on representative measures under the State NRM Plan. This change in direction prioritised consistent reporting on a set of State-level themes using available and accessible data over custom reporting linked more directly to regional planning and monitoring priorities (in terms of current monitoring effort and data gaps). The use of available data for report cards placed a constraint on the range of indicators that could be selected to report against representative measures. Report cards were pragmatically designed to report on appropriate indicators where data was available.

Report cards and snapshots have been developed over several years using data from many sources and in consultation with data managers and agency and regional NRM planners, managers and monitoring and evaluation personnel (Appendix 1).

## Aim of the Review

This review focusses on the usefulness of the NRM Report Cards and Regional NRM Snapshots and forms part of the evaluation of the effectiveness and utility of the NRM Reporting Framework. The review will assist the NRM Council to fulfil its obligation under the Natural Resources Management Act (2004) to audit, monitor and evaluate the state and condition of natural resources across the State, and review and evaluate the effectiveness of the State NRM Plan. The review aims to provide DEWNR with a better understanding of value, use and influence of the report cards and snapshots and how they could be improved and how the process for developing them could better engage with stakeholders and issues.

The review uses semi-structured interviews of a selection of key informants and an online survey to answer four Key Evaluation Questions:

- 1) **Value** - Which report cards or regional snapshots would you like updated?

- 2) **Influence & Use** - How will the report cards/snapshots, or the data that they synthesise (on representative measures) be useful for you if they continue to be produced? (e.g. for SOE, regional reporting, management and planning)?
- 3) **Improvement** - How can the report cards be improved?
- 4) **Engagement** - How could engagement of regional or agency staff be improved to improve reporting (State or regional level)?

## Methodology

### Data collection

#### Use of existing documents

The review used existing documents for background and to guide the development of the interview guide and online survey. The NRM Reporting Framework Project has been a long and involved one which has generated a large number of documents for information, influence and reporting as well as receiving feedback on the Project and its products. Documents consulted include The NRM State and Condition Reporting Framework, Discussion Papers, Review of the NRM Reporting Framework, Summaries of Condition, Trend and Reliability, the review process for NRM Report Cards, Minutes of the NRM Reporting Framework Workshop (December 2013) and internal (DEWNR), and external review of State NRM Report Cards / Regional NRM Snapshots.

#### Semi-structured interviews

The purpose of the semi-structured interviews was to understand stakeholder and expert informant perspectives on the State NRM Report Cards / Regional NRM Snapshots and the process for producing them, with respect to the Key Evaluation Questions (KEQs). An interview guide was developed (Appendix 2) and used with modifications for different groups of stakeholders / expert informants. The stakeholders and expert informants were from six informant cohorts based on level of involvement and interaction with NRM planning and reporting in South Australia:

- Departmental (DEWNR) Executive Directors and Directors (and executive advisors)
- NRM Agency Managers and staff
- Regional Managers – NRM Boards
- Regional Planning and Monitoring / Reporting staff – NRM Boards
- NRM Council and NRM Board Members
- Managers of State of the Environment Reporting (and equivalent) interstate

An information sheet (Appendix 3) outlining the ethics and confidentiality protocols for the interviews was sent to interviewees ahead of interviews. The interviews were conducted face-to-face or by telephone and where permission was given interviews were digitally recorded as a data source for analysis and accurate back-up of notes. The semi-structured interview method used aimed to promote free conversation from informants and allow them to find and discuss issues of most relevance to them and their role with respect to the report cards and snapshots. The approach used high level questions to initiate conversation, the interviewer prompting respondents to discuss sub-question topics or provide details which would assist in answering the KEQs.

#### Online survey

The purpose of the online survey was to allow respondents to provide more detailed information on the usefulness of individual State NRM Report Cards / Regional NRM Snapshots. The online survey was distributed as a link to all contacts provided by the DEWNR project management team. All



report cards and regional snapshots were listed on the survey (113 items), even those that were not produced or had not yet been released. Participants could respond to one or more of the report cards and snapshots and were not required to respond to every item.

## Sampling approach

For both the semi-structured interviews and online surveys, the project management team supplied lists of names for interview and survey. Twenty-eight semi-structured interviews were undertaken with 40 individuals (sometimes in groups of 2 or 3). The sample covered the six informant cohorts listed above and provided some opportunity for multi-level responses from respondents working at a technical, policy or reporting level and their managers.

There was a total of twelve respondents to the online survey, including respondents from five of the eight NRM regions (see Table1. Below).

**Table 1. Number of online survey respondents from statewide and regional perspectives**

Statewide or regional perspective	Number of respondents
Statewide	3
Adelaide and Mt Lofty Ranges	1
Eyre Peninsula	2
SA Arid Lands	2
SA Murray-Darling Basin	2
South East	2
Total	12

Overall, more responses were made in relation to State NRM Report Cards (370 responses, 60 report cards listed), than Regional NRM Snapshots (287 responses, 53 regional snapshots listed), and a greater number of responses indicated a State NRM Report Cards / Regional NRM Snapshot was useful (482) compared with not useful (175).

## Data analysis and synthesis

### Approach to data analysis and synthesis

Thematic analysis of interviews was conducted through an iterative process of identifying themes raised by individuals and then checking for evidence of emergent themes in other interview notes and recordings. Themes were clustered under headings for each KEQ. The sources of themes were determined to link them to informant cohorts where that was considered informative.

### Limitations

Every effort was made to manage the limitations of the sample, method of data collection and analysis used in the review. Most issues were overcome by checking later interviews for redundancy (ie. few new issues or topics were raised in the later interviews) and by triangulation with documents supplied by the project management team. However, a number of limitations remain.

- **Engaging all potential informants in the review was not possible within the timeframe.** There are many competing demands on informants and participation in the review could not be prioritised by some. The review engaged more than one informant from each of the six informant cohorts. However it would have been ideal to engage several more Regional NRM Managers, Planners and MERI staff, especially where representation from an NRM region was low. A greater response to the online survey would have provided more detailed feedback on individual State NRM Report Cards / Regional NRM Snapshots, however, the large number of documents and the mixed level of relevance to individual respondents reduced the utility of the online survey. Given the small number of respondents, the results for individual report cards or snapshots must be interpreted with caution and should only be used to elaborate on the findings of the semi structured interviews.
- **Qualitative data analysis while systematic, inherently involves some judgement or bias of the person conducting the analysis due to their experiences and world views.** The triangulation from a number of methods helped to limit this bias but inevitably the findings presented in this report involve the views of the review team.
- **Individual interview respondents often had only a general knowledge of the State NRM Report Cards / Regional NRM Snapshots or were familiar with only a selection of them.** Knowledge of the details of report cards and snapshots was limited, for many respondents, to general knowledge or to detailed knowledge of only a few of the products. Issues affecting how familiar respondents were with the products included: the length of time since the respondent last looked at the products, the time in the job (some respondents were relatively new to their roles or organisations), and the distance of the respondent from NRM reporting in SA (some respondents were asked to provide perspective from their roles in reporting in other jurisdictions). Incomplete familiarity with the report cards and snapshots meant that respondents would usually use a report card or snapshot as an example without providing detail on other report cards. Many of the respondents could not comment directly during interviews on many or most of the report cards or snapshots and were offered the online survey as a mechanism to provide more detailed feedback if they wished.
- **Overlap of feedback mechanisms and responses on State NRM Report Cards / Regional NRM Snapshots.** Some respondents reported that they had provided input on previous iterations of the products but were unaware of updates or changes made as a response to the feedback. This highlighted a timing issue for the review but did not result in feedback being lost and respondents were able to refer to previously made comments or to refresh their comments during interviews or through the online survey.

## Review Findings

### VALUE: Which report cards or regional snapshots would you like updated?

This section provides a synthesis of findings on the utility of updating report cards and snapshots as a measure of the value and usefulness of the current set of report cards and snapshots. Findings supporting judgement around value centre on the broad themes of

- Relevance
- Alignment
- Evidence
- Communication

## State NRM Report Cards

### Relevance

There was general support for relevance of the State-level report cards as a point-in-time report on the condition and trend of natural resources of South Australia. It was agreed that accountability for the condition and trend of natural resources and NRM issues is important and that transparency and consistency are achieved through the report cards at this level. However, some representative measures were not considered relevant in some regions or were more reflections on population size or investment level eg. The report card on the number of volunteers involved in natural resource management does not reflect participation rates relative to population. There were mixed responses on the value of highlighting regional information in the State report cards. State-level informants were generally happy with being able to report at the State-level with some regional detail. Regional managers and staff were, in general, only in favour of regional information being shown at this level if they believed that the measure was relevant for their region, that the best data had been used (particularly that regional data be included in analysis), and that interpretation of the data was consistent with the regional perspective. This illustrates a difficulty for reporting with available datasets against expectations for both high coverage and strategic level planning as well as localised and business, investment or action level planning. Greater alignment of plans and targets at regional and State-level would enable greater benefit from State-level reporting of progress at multiple scales. Most informants recognised the benefits of reporting on progress towards well devised natural resource targets. Other informant cohorts were generally in favour of highlighting regional information on State report cards as long as it was relevant for the region included.

Informants involved in reporting environmental condition and trend in other jurisdictions (eg. SOE reporting in other jurisdictions) were very supportive of the coverage of indicators, the content of the single-page reports and the approach to reporting data gaps and reliability. There were several comments about other jurisdictions taking note of what was being done and interest in following the example in some way, particularly if it could be demonstrated to improve SOE reporting efficiency and/or timeliness (ie. there is a general desire to be able to report natural resource condition more regularly). This was supported by informants at the State level, with a general belief that the report cards could potentially improve on SOE reporting through better articulation of representative measures, more scope for consistency in updates and more flexibility to report more frequently.

### Alignment

There was general agreement that the report cards are well aligned with the State NRM Plan and that they close the reporting loop for that plan.

### Evidence

The State report cards were generally thought to be effective at reporting the condition of natural resources and NRM issues to a wide range of audiences, including NRM managers and the community. The primary qualification on this effectiveness was trust in the evidence used to develop the report card. Critical issues raised for some report cards were that:

- Some issues are changing rapidly and evidence can quickly be out of date even if it has been collected relatively recently (eg. the report cards under the guiding target *Improve capacity of individuals and community to respond to climate change* were thought to be based on data that was already or soon would be out of date).
- Discovery and use of datasets (regional datasets were mentioned several times) did not meet the expectations of regional staff.
- That it can look worse for a region to have data showing a poor resource condition or trend than to be categorised as 'unknown' (the report cards on native vegetation condition was mentioned in reference to this issue).

Conversely, a number of respondents saw value in data from their region being used in reporting at the state level.

There was general agreement that the presentation of data gaps and reliability was important and that highlighting of data gaps and reliability on the report cards was adequate in most cases. Some respondents considered the reporting of data gaps to be critical and that report cards should still be produced even where data gaps were sufficient to make reporting of condition and trend impossible at this stage. There was some agreement that reporting of data gaps may assist in prioritising where funding on monitoring should be spent.

Some respondents were surprised at some of the data gaps and reliability scores, either because they believed there were data that could be used or that significant investment has been made in management of a resource and reporting of the condition and trend has now been shown to be difficult or limited (the report card on native vegetation condition was highlighted in this category).

Several respondents noted that they believed the threshold could be higher on when low data reliability and significant data gaps mean that condition and trend should be reported as 'unknown'.

### **Communication**

The value of the State report cards was reported to be tied up with how they are released into the public domain and how responses to the release are managed, particularly in relation to the business of NRM agencies and regional boards. There were mixed responses on the value of the State NRM Plan as a driver of reporting on natural resource and NRM condition and trend, primarily because respondents believed that regional NRM plans are a more relevant driver of NRM action and investment. Only a few respondents indicated that some report cards would be useful to them in their work, however, there was general agreement that they would be useful to a wide audience, particularly the 'informed' public and people in the NRM business.

## **Regional NRM Snapshots**

### **Relevance**

Informants from regional boards (Board members, managers, planners and MERI staff) generally did not see the value in the regional snapshots. The main reasons given (addressed under theme headings below) were the lack of alignment with regional priorities and business, a lack of support for the evidence provided (either a belief that the best available data has not been used, that the interpretation of the data is insufficient or incorrect, or that the condition and/or trend in the resource or NRM issue is different to what has been reported). Exceptions to this were evident where there was agreement that the best available data had been used or where the respondent had no other access to data on the condition and trend of a resource. In this case, regional informants were happy to have the reports and information on underlying data because they may not have known about the data or previously had the capacity to access and synthesis the data for reporting at the regional level.

Informants working at the statewide or interstate levels were generally supportive of the regional snapshots; however, several respondents recognised the concerns of some regional operators with respect to alignment of this reporting with regional priorities, investment and community engagement.

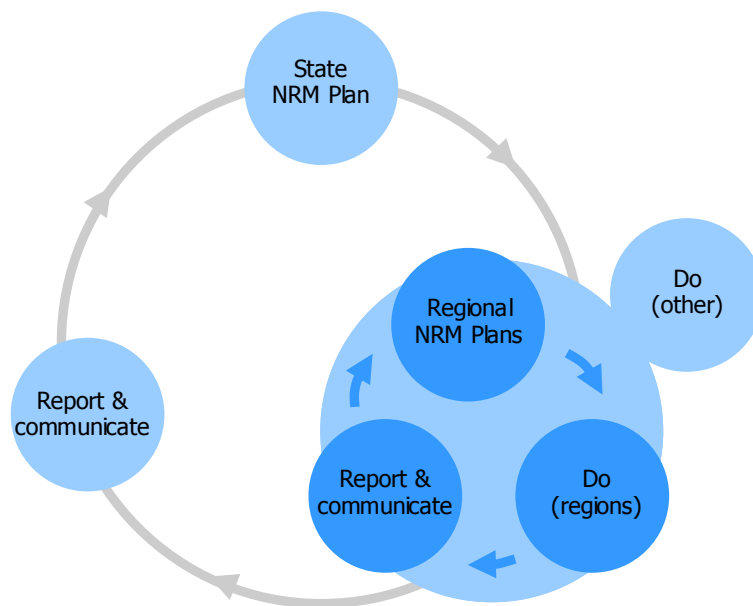
### **Alignment**

A key concern of regional and some other informants was the lack of alignment or perceived lack of alignment of regional snapshots with the regional plans and business. The alignment issue raised by many informants is illustrated in Fig 1, highlighting that the regional NRM Plan-Do-Review (report) cycle is a subset of the State NRM Plan Plan-Do-Review (report) cycle. The regional subset requires review and reporting on natural resource condition and trend but is undertaken in the context of the

business of the NRM Boards and their priorities, investments and approaches to engaging the regional community in NRM. The lack of alignment of regional and State NRM plans was a consistent theme raised by informants and was reported to be one of the issues at the heart of concerns with regional snapshots.

Most respondents saw the value of regional snapshots as a part of overall communication on natural resource condition and NRM issues but recognised that other approaches were necessary and coordination for integrated reporting was desirable. Many respondents valued regional achievement reporting and reporting against targets at a regional level. It was generally acknowledged that resource condition reporting of the type shown in snapshots would be more valued if it was better aligned with regional plans, priorities and investment.

**Fig 1. Relationship between State and regional NRM Plan-Do-Review (report) cycles.**



## Evidence

There was clear support from regional informants for State-level provision of information and data on resource condition (such as in the regional snapshots) but that regional boards would like to manage the communication of the information themselves. Some regional informants were very pleased to have some of the snapshots as it represents one of the only points of access they have to data of this type and is very useful in regional reporting. However, some respondents indicated dissatisfaction with the data used or analysis and reporting provided for some of the snapshot reports. Where regional respondents believed that better data was available but was not used, they indicated a lack of support for the snapshots and a potential problem arising from contradictory reporting of resource condition and trend. A lack of support from regional staff for the veracity of statements in some snapshots could reduce the value and use of that snapshot, or have a wider impact on trust in the suite of regional snapshots.

Informants were generally accepting of the difficulty of bringing disparate evidence sources together for this type of reporting and understood that discoverability and accessibility issues for some data would mean that not all snapshots would be up-to-date or use all possible data. State agency and interstate informants were willing to accept this situation in the short term, with hope that monitoring and data alignment would improve over time, while regional informants indicated that they were unlikely to support or use snapshots that did not corroborate their understanding of the condition and trend in a resource (based on data not used in the construction of the snapshot).

## Communication

Regional informants were strongly in support of regional communication of the type of information contained in the snapshots. Some regional informants were comfortable with the snapshots as they stand; however, many felt that State-level release of the snapshots would undermine the communication and community engagement processes managed in the regions. The emphasis from most regional informants was on the need to communicate natural resource and NRM issue condition and trend as part of overall engagement with regional communities and within a context which integrates understanding of targets, activity and achievement. It was also important to some regional informants that communication on condition and trend was focussed at scales meaningful to the informed NRM community, which in many cases is not the scale bounded by NRM boards (eg. reporting on specific soil or pest types, challenges and progress).

The communication issues discussed above, combined with concerns about data not used and/or condition and trend statements not supported by some regional informants, resulted in a strong preference in some regions for regional control of the release of information gathered for the snapshots. A number of regional informants asserted that messaging was best managed at a regional level in the context of the region but with State-level support for data access and synthesis. In this context, some regional informants reported that the snapshots do not replace regional achievement reporting or State-of-the-Region reporting but that they were a step towards more integrated and potentially efficient reporting at the regional level.

## Report cards for updating

The large number of report cards and regional snapshots and the multiple levels of engagement of informants to the review meant that interviews were only partially effective at eliciting responses on which report cards and snapshots should be updated in the future. To overcome this challenge, an online survey form was developed and all informants were offered the opportunity to note which report cards they would like to see updated or would not like to see updated. Twelve responses to the online survey were received (1 or 2 from each region and three with a statewide perspective). The online responses and interview comments have been combined to produce a table of report cards and snapshots for which there is/is not support for updating, or uncertainty or contest over the utility of updates (Appendix 4).

## INFLUENCE AND USE: How will the report cards/snapshots, or the data that they synthesise, be useful if they continue to be produced?

This section provides a synthesis of findings on the how the report cards and snapshots will be used and how they might influence monitoring, reporting and planning.

## Reporting

There was general support for the usefulness of the State NRM Report Cards for reporting on the State NRM Plan. Some informants questioned the usefulness of reporting on the State NRM Plan when the plan itself is not well aligned with NRM priorities and investments, particularly through regional NRM. Some informants questioned whether the State NRM Report Cards would make any difference through reporting if they were just an intellectual exercise. However, other informants indicated belief in the importance of being able to make statements on condition and trend of natural resources and NRM issues as done by the State NRM Report Cards.

For many of the indicators the report cards and snapshots represent the only or most recently synthesised information. Informants were generally enthusiastic that they could use the information or the data underlying report cards and snapshots for some of their reporting requirements. There

was also some hope expressed that the overarching project would make it possible to access some data types more readily to meet future reporting needs.

It was generally felt that regional snapshots were not sufficient or adequate to completely meet regional reporting requirements for reporting on the state of the region, regional investment or performance against the regional plan. However, it was acknowledged that much of the work to develop the snapshots would provide useful inputs to reporting. Regional informants generally preferred that regional NRM boards have control of reporting and communication on regional resource condition.

Other suggestions of potential to assist reporting include:

- Reporting by the Coastal Protection Board
- Native Vegetation group (DEWNR) for strategic planning
- DEWNR business units

## Monitoring

It was generally agreed that the production of report cards and snapshots would be a contributor to ongoing attempts to align monitoring with reporting and planning needs but that additional work was required. All informants agreed that the production of the report cards and snapshots had assisted in making data gaps, data consistency gaps, data discoverability and accessibility gaps and data reliability issues more transparent and that the project would act as one level of audit on the availability of datasets for some purposes. However, there was recognition that there are limited resources for filling data gaps and that prioritisation of effort is required. Informants indicated that highlighting data gaps was of some assistance in prioritising where future effort in monitoring could go, however, misalignment between the State NRM Plan reporting and regional reporting needs meant that further prioritisation and data gap analysis may be required. Several informants reported that the process had highlighted a need for a clear reporting framework across NRM to assist with coordination of data/information/knowledge management systems.

## Planning

Some informants indicated that the process of developing the report cards had highlighted the disconnection between regional and state level planning, and consequently, monitoring and reporting. There was general agreement that the report cards would act as a reference point for future planning, adding in areas that were not already covered by other reporting instruments.

Some informants reported that the process has influenced regional NRM planning and MERI approaches, particularly in developing targets. Several informants mentioned that the approach may be useful in helping with new regional resilience planning approaches.

## IMPROVEMENT: How can the report cards be improved?

This section reports on suggested improvements to the report cards, including suggestions for additional report cards.

### Format & design

There was general recognition of the difficulty of communicating complex information in a simple and restricted format and appreciation of the link to technical documents.

There was disagreement between informants about the effectiveness of the single-page format. Some like the format, others believe that it would have been better extended to two pages. The



main comment type on format was that some score cards were ‘cluttered’ and that more graphic design input might assist. One informant reported that the central message of the condition and trend of the resource or issue was obscured by other information.

Comments on layout included that some maps were difficult to read, that photos were not labelled and that a casual reader might not know that the report cards report on the State NRM Plan. Other comments included endorsement of the background information or, conversely, recommended that the background information be reduced in favour of greater explanation or interpretation of the results. There were several comments that the background information on regional snapshots had not always been regionalised enough – a comment connected to the previously mentioned desire from regional informants to have control over how the content is communicated.

There was general support for the method and criteria used for demonstrating data reliability and for how reliability is highlighted on report cards and snapshots. This support recognised the importance of highlighting spatial, temporal and relevance limitations on the evidence used and the importance of promoting learning about data limitations in reporting. However, several informants believed that there are additional cases where reliability is low, and no statement of condition or trend should be provided and that if a report card is produced it should be produced to highlight data gaps not inform about the resource.

### **Reporting on Drivers, Achievement or Targets**

There was general recognition that the framework for State NRM Report Cards and Regional NRM Snapshots was the State NRM Plan and regional downscaling of the representative measures in the State NRM Plan. However, many informants were interested in the link between the condition and trend reporting and the planning and reporting of actions. At the State-level it was recognised that the reports stop short of directing subsequent action and that more development is required for reporting on drivers and progress towards addressing drivers and pressures on natural resources and NRM issues.

Regional informants believed that they were reporting on achievements and that the information contained in report cards and regional snapshots could be used to help close the loop in Plan-Do-Review cycles. However, it was acknowledged that the report cards and snapshots alone would be insufficient for this work.

There was little discussion of the value of reports and snapshots for development of targets, except for mention of potential within the resilience planning frameworks being developed within some regions.

A number of additional report cards or reporting areas were suggested by informants during interviews. These are listed in Appendix 6.

### **ENGAGEMENT: How could engagement of regional or agency staff be improved to improve reporting (State or regional level)?**

This section provides a synthesis of findings on the engagement of the project with stakeholders. No issues were raised by all informants and some were raised by only one informant. However, they are listed here without weighting to inform future planning.

An overarching theme from comments on engagement is that almost all respondents consider that they work in a ‘small’ team (including the NRM Reporting Framework team) with few free resources to respond to external requests for information, action and response in a timely manner. General



comments were that engagement was reasonable given the size and complexity of the task but that there were some areas of weakness.

### **Timeframes and resources**

Several respondents indicated that the timelines, resources required, processes, responsibilities and expectations were not clear from the outset and that it was difficult to plan for timely responsiveness. One regional informant referred to taking staff 'offline' to respond to drafts of report cards and workshops. The timely allocation of resources to engage in the process was reportedly constrained for regional staff by the nature of the funding which supports them (often Australian Government grant funds) and their other duties determined under that funding. It was reportedly difficult for some regional staff to justify time spent responding to SMK requests. This situation was not helped where regional staff believed that the product would not be useful for their reporting responsibilities.

Timeframes for responses were reported as 'often short' or 'ad hoc' and did not always allow for comments on the approach taken or the measure or data used. A number of informants reported that there were sometimes large volumes of information provided to them which were difficult to handle in terms of time to respond and even in terms of data transfer in some cases.

### **Communication**

There was comment that the project did not have a communication strategy until well into the process. There was reportedly not formal identification of regional contacts so that the process of linking people was not clear. Regional informants reported that they could not plan adequately to participate because they were not informed about expectations and timelines. Some informants reported good response to feedback, others reported that their feedback was not dealt with, or that a number of attempts were required to communicate feedback.

It was reported that a working group set up for NRM reporting was discontinued after an initial meeting and that did not encourage engagement. It was also commented that there were few opportunities for face-to-face discussions between regional staff and the project team and that development of a trusting relationship would have benefited from this type of contact.

### **Influence**

Some informants reported that regional staff were not engaged in the process of what data/measures would be used and how data would be interpreted, and so could not resolve problems with data/measures/interpretation. These informants would have preferred SMK to spend time with regions working through how to present information and establishing agreement on a way to account for all the differences between regions.

There was some concern about how the latest round of feedback has been received by the project team and that the report cards and snapshots may be released without further opportunities to correct errors.

## Appendix 1: Agencies That Contributed to Report Cards

This list is based on the agencies recorded in the technical documents for each state report card (provided by DEWNR February 2015):

GUIDING TARGETS	AGENCIES THAT CONTRIBUTED TO REPORT CARDS
<p>1. Ensure people are better informed and improve capacity in NRM decision making</p> <p>2. Involve more people in the sustainable management of natural resources</p> <p>4. Improve capacity of individuals and community to respond to climate change.</p> <p>5. All NRM planning and investment decisions take into account ecological, social and production considerations</p> <p>6. Maintain the productive capacity of our natural resources</p> <p>7. Improve soil and land condition.</p> <p>8. Increase extent and improve condition of native vegetation</p> <p>9. Improve condition of terrestrial aquatic ecosystems.</p> <p>10. Improve condition of coastal and marine ecosystems</p> <p>11. Increase understanding of the condition of landscapes (geological and culturally important features).</p> <p>12. Improve the management of species and ecological communities</p> <p>13. Limit the establishment of pests and diseases and reduce the impacts of existing pests</p>	<p>DEWNR, ABARES</p> <p>DEWNR, Aboriginal Statewide Advisory Committee</p> <p>CSIRO, University of Adelaide, DEWNR</p> <p>DEWNR , DPTI</p> <p>DEWNR, SA Water, BOM, Angas Bremer Water Management Committee, EPA, ABS, local government councils, MDBA, ABARES, PIRSA, SARDI, FRDC, EconSearch Pty Ltd., Australian Government-Department of Agriculture, SA Tourism Commission</p> <p>DEWNR</p> <p>DEWNR, NCSSA, SA Water, Forestry SA</p> <p>DEWNR, EPA, MDBA</p> <p>DEWNR, EPA, SARDI, Westphalen Consulting, ReefWatch, Conservation Council of SA, SARDI, GeoScience Australia</p> <p>DEWNR, DSD, Geological Society of Australia, SA Geological Heritage subcommittee, Aboriginal Affairs and Reconciliation</p> <p>DEWNR, Australian Government – Department of the Environment</p> <p>DEWNR, PIRSA, SA Museum</p>

**All agencies that contributed to report cards**

Department of Environment, Water and Natural Resources (DEWNR)  
Department of Planning, Transport and Infrastructure (DPTI).  
Aboriginal Affairs and Reconciliation  
Aboriginal Statewide Advisory Committee  
Angas Bremer Water Management Committee  
Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES).  
Australian Bureau of Statistics (ABS)  
Australian Government - Department of the Environment  
Australian Government- Department of Agriculture  
Bureau of Meteorology (BOM)  
Commonwealth Scientific and Industrial Research Organisation (CSIRO).  
Conservation Council of SA  
Department of State Development (DSD).  
EconSearch Pty Ltd  
Environment Protection Agency (EPA)  
Forestry SA  
Geological Society of Australia  
Local government councils  
Murray-Darling Basin Authority (MDBA)  
Nature Conservation Society of South Australia (NCSSA)  
ReefWatch  
SA Geological Heritage subcommittee  
SA Tourism Commission  
SA Water  
The Australian Government Fisheries Research and Development Corporation (FRDC).  
The Department of Environment, Water and Natural Resources (DEWNR).  
The Department of Primary Industries and Regions South Australia (PIRSA)  
The South Australian Research and Development Institute (SARDI) – Aquatic Sciences.  
University of Adelaide  
Westphalen Consulting

## Appendix 2: Interview Guide

Items covered in the conversation with the interviewee before beginning the interview.

- Briefly describe the Evaluation (as per docs sent out).
- Briefly describe the Ethics and Confidentiality Statement including how the information will be used (as per doc sent out).
- Ask the interviewee to give verbal consent for and understanding about their participation in the evaluation.
- Ask the participant if it is ok to record the interview – if not you will need to take detailed notes.

Question	Prompts
Can you briefly tell me about your knowledge of the report cards & NRM Reporting Framework to this stage?	Specific report cards? Level of previous engagement?
How are report cards / regional snapshots effective at communicating the condition of natural resources and NRM issues to the community and NRM managers?	Why? Can you provide me with an example? Do they adequately report on the State NRM Plan? Do they help reporting on the NRM Plan (regional)? Compared to other reporting ie SOE, regional achievement reports, project or State of Region Reports Structured, single-page format? Is it useful for State-level production of regional summaries & trends on cards? Should they present regionally-based information (eg. maps in corner)?
What other influence might the reports/snapshots have on State or regional NRM monitoring and reporting?	Influence monitoring? Influence reporting requirements? Data collection / method alignment? Cross-regional or cross agency collaboration (on above)? Develop targets for the indicator in report card/ snapshot?
Which report cards /snapshots are useful or would be useful for your region / agency if they were updated in the future? (NB already sent via e-survey; overview here)	Why? Can you provide me with an example? Reporting on NRM Plan? Which are most useful (x3)?
3 report cards from State NRM Plan not produced – would they be useful to you/your agency/region?	Why?

Question	Prompts
<i>Trends in the knowledge and skills of natural resource managers and their advisers to support sustainable NRM; Trends in the development of leaderships skills and effective governance; Trends in paddock condition on pastoral lands.</i>	
What additional reports/snapshots would be useful to your region?	Why?
Which report cards /snapshots are not useful to your region/agency? (NB already sent via e-survey; overview here)	Why? Can you provide me with an example?
Will you use data from the report cards / snapshots in your reporting for the region/agency?	Which data? Which level of reporting?
Is the reporting of <b>data gaps</b> clear and useful and are the <b>reliability summaries</b> useful?	Can you provide me with an example of usefulness? Is highlighting adequate? Do you agree with the approach?
How could reports/snapshots be improved?	Information on management activity? Data on pressures/drivers? Data on relevant targets? New state & condition information? Coordination of cross-regional work?
Will you consider new cross-regional or cross-agency collaboration to improve future monitoring and reporting?	What might you do?
Were you satisfied with the engagement process and timeframes for development / review of the report cards / snapshots?	Satisfied? Satisfied review comments considered appropriately? Additional data that could have been used? Your resource constraints?
Is there anything else that you would like to comment on?	

## Appendix 3: Ethics and confidentiality information sheet

### About the review

O'Connor NRM is conducting an evaluation of the NRM Reporting Framework. The focus of the review is on the usefulness of the State-level and regional snapshot report cards. We are also interested in how the report cards and the process of developing them can be improved. To this end, we are collecting information via semi-structured interviews with Regional Managers, NRM planners, M&E staff and other key informants.

The information will be used to generate an evaluation report for the Department of Environment, Water and Natural Resources.

### If I agree to take part, what will I be asked to do?

One of the O'Connor NRM consultants will interview you about your views of the State-level and regional snapshot report cards. The interviews will take about 30 minutes however we have allowed 45 minutes if you want to spend a bit more time giving your comments.

### Do I have to take part?

It is your choice to be part of the evaluation. If you decide not to take part, you are free to change your mind at any time. You can contact Patrick O'Connor if you decide later you do not want to be part of the review. Contact details for Patrick are at the end of this document.

### Will my views be confidential?

O'Connor NRM and the Department of Environment, Water and Natural Resources have a commitment to the confidentiality of your responses so that you are not identifiable personally or any comments you make are not traceable to you personally. To ensure this, the following protocols will be followed:

- **there will be no discussions between the researcher and research participants concerning comments made by others at separate interviews**
- **transcripts of interviews will be identified or coded in a way that is only recognisable to the researcher (names and locations will be stored separately from interview transcripts). In this way anonymity will be preserved.**

On your agreement, the interview will be digitally recorded by the interviewer. If you agree to this, your words may be quoted in documents, but your identity will be disguised. Any quotations used will be sourced in terms of the category of informant and individual identity will be protected at all times.

### How will my privacy be protected?

O'Connor NRM and the Department of Environment, Water and Natural Resources are committed to protecting personal information provided in accordance with the principles of the Australian Government Privacy Act 1988. To this end individual responses will be:

- **stored in a secure location by O'Connor NRM**
- **identified by code rather than by name**
- **contact details will not be passed onto a third party.**

From your interview transcripts we may use short quotes or stories to illustrate themes from the evaluation that will feed into the evaluation report. This review report will be used and stored by the Department of Environment, Water and Natural Resources, will be made available to other government agencies and stakeholders, and may also be placed on its website or presented in other reports. Individual names will not be mentioned in this report.

### Contacts for the review

Should you wish to contact the Department of Environment, Water and Natural Resources or O'Connor NRM with any queries, change of information or to access the information held about you, please contact:

O'Connor NRM (Review Lead)	Department of Environment, Water and Natural Resources (Program information)
Patrick O'Connor Senior Consultant O'Connor NRM 08 8363 4448 <a href="mailto:patrick.oconnor@oconnornrm.com.au">patrick.oconnor@oconnornrm.com.au</a>	Brad Page Principle Advisor Science, Monitoring and Knowledge Branch Strategy and Advice Department of Environment, Water and Natural Resources 08 822 29479 <a href="mailto:bradley.page@sa.gov.au">bradley.page@sa.gov.au</a>

## Appendix 4: NRM Report Cards and Regional NRM Snapshots-online survey results

### Classification scale used for online survey results

Support / Don't Support Updating	Level of Support for Classification
Supported	4-7 "useful" responses and 0-1 "not useful" responses
Not Supported	0-2 "useful" responses and 4-5 "not useful" responses
Contested	3-6 "useful" responses and 3-4 "not useful" responses where total responses >6
Undetermined	all other ratios

The following table provides feedback from the online survey on the usefulness of the State NRM Report Cards and Regional Snapshots. Comments and caveats are a combination of comments provided through the online survey and those provided during interviews.

Guiding target	Report card/indicator	Statewide report card/ Regional snapshot	Supported/ Not supported/ Contested	Comment/caveat
1. Ensure people are better informed and improve capacity in NRM decision making	How are we engaging people to improve awareness of natural resource management issues and priorities?	State	Contested	Some see this activity indicator as relevant for informing NRM agencies, others don't think it is relevant. Caveats: difficult to establish consistent measures across all regions and comparison between regions must consider the substantial variation in population and funding between regions.
		Region	Contested	
	Trends in the knowledge and skills of natural resource managers and their advisers to support sustainable NRM	State	Not supported	Not supported due to difficulty in definition and measurement. Concern that some regional data was available but not used.
		Region	Not supported	
	How many stakeholders are contributing to NRM projects?	State	Contested	Some see this activity indicator as relevant for informing NRM agencies, others don't think it is relevant. Caveats: difficult to establish consistent measures across all regions and comparison between regions must consider the substantial variation in stakeholders, population and funding between regions.
		Region	Contested	



Guiding target	Report card/indicator	Statewide report card/ Regional snapshot	Supported/ Not supported/ Contested	Comment/caveat
2. Involve more people in the sustainable management of natural resources	How many volunteers are involved in natural resource management?	State	Undetermined	Caveat: comparison between regions must consider the substantial variation in population and funding between regions.
		Region	Supported	
	How many Aboriginal people are involved in NRM?	State	Supported	Caveats: need to improve definition of “involved” and comparison between regions must consider the substantial variation in population and funding between regions and the specific priorities of the AW region.
		Region	Supported	
	How many people are involved in NRM training activities?	State	Undetermined	Caveats: difficult to establish consistent measures across all regions and comparison between regions must consider the substantial variation in population and funding between regions.
		Region	Undetermined	
3. Improve institutional and organisational capacity to support people to manage natural resources.	Trends in the development of leaderships skills and effective governance	State	Undetermined	
		Region	Undetermined	
4. Improve capacity of individuals and community to respond to climate change.	How many South Australians understand the causes and consequences of climate change?	State	Undetermined	Caveat: this issue is rapidly evolving in a political climate and the data supporting the report may be out of date before publication.
		Region	Not supported	
	How many climate change adaptation plans have been completed?	State	Undetermined	Caveat: short term measure only.
		Region	Not supported	Caveat: short term measure only.
	How good is the scientific understanding of the causes and consequences of climate change?	State	Not supported	Relevance questioned and lack of confidence in measurement. Caveat: this issue is rapidly evolving in a political climate and the data supporting the report may be out of date before publication.
		Region	Undetermined	

Guiding target	Report card/indicator	Statewide report card/ Regional snapshot	Supported/ Not supported/ Contested	Comment/caveat
5. All NRM planning and investment decisions take into account ecological, social and production considerations	How many NRM boards have conservation goals in their regional NRM plans?	State	Undetermined	This indicator is not of interest to regions, and NRM plans are required to conserve the natural environment.
	How many of our Structure Plans include native vegetation maps?	State	Undetermined	Some support for this indicator, but of limited relevance in some regions e.g. SAAL which only has one Structure Plan in region.
		Region	Undetermined	
	Are the Planning Strategy of South Australia and regional NRM Board priorities well aligned?	State	Undetermined	There is some support for this indicator.
		Region	Undetermined	Caveat: Difficulties with measurement make undermine its usefulness.
6. Maintain the productive capacity of our natural resources	Are our groundwater resources being sustainably used?	State	Supported	Generally supported
		Region	Supported	Caveat: minor issues with data quality and scale of reporting
	Are surface water resources being used within their allocated limits?	State	Supported	Generally supported
		Region	Supported	
	Is irrigation efficiency improving in agricultural areas?	State	Undetermined	Generally supported but not relevant in all regions. Caveat: difficulties in obtaining consistent and accurate data
		Region	Undetermined	
	How much of our stormwater and wastewater is recycled?	State	Supported	Generally supported
		Region	Supported	
	Are the water levels and salinity of our prescribed groundwater resources improving?	State	Supported	Generally supported
		Region	Supported	
	Is the quality of the water from the River Murray that we drink, swim in and irrigate with improving?	State	Supported	Widely supported
	Is the productivity of our primary industries improving?	State	Supported	Widely supported, however, PIRSA reported that data for regions other than EP is probably insufficient and that the analysis did not use the full suite of industries.
		Region	Supported	
	Are our recreational and commercial marine fish stocks being used sustainably?	State	Supported	Widely supported
		Region	Undetermined	
		State	Contested	

Guiding target	Report card/indicator	Statewide report card/ Regional snapshot	Supported/ Not supported/ Contested	Comment/caveat
	Are practices that lead to improved management of natural resources being adopted?	Region	Undetermined	
	How many people visit regional South Australia?	State	Undetermined	Uncertainty about relevance to NRM and data already available through Tourism SA
		Region	Undetermined	
	How many people visit parks?	State	Supported	Generally supported
		Region	Supported	
	How much carbon is stored in our trees?	State	Supported	Generally supported
		Region	Undetermined	
	How much carbon is stored in our soils?	State	Supported	Generally supported
		Region	Undetermined	
7. Improve soil and land condition.	How much of our agricultural land is protected from erosion?	State	Supported	Generally supported
		Region	Undetermined	
	Trends in paddock condition on pastoral lands	State	Undetermined	Caveats: large variability expected in response to seasonal conditions
		Region	Undetermined	
	Is soil acidity decreasing in our agricultural areas?	State	Supported	Generally supported. Caveat: Lime sales used as measure so acidity not measured directly
		Region	Undetermined	
	Is water-use efficiency improving in our agricultural areas?	State	Supported	Generally supported. Caveat: some concerns remain about expression in the report card text
		Region	Supported	
	Is soil fertility improving in our agricultural areas?	State	Supported	Generally supported. Caveat: concerns over data consistency and accuracy. Interest expanding fertility definition from Phosphorus only to include Nitrogen in recognition of the impact of changing farm practice effects on Nitrogen balance.
		Region	Supported	
		State	Supported	Generally supported.

Guiding target	Report card/indicator	Statewide report card/ Regional snapshot	Supported/ Not supported/ Contested	Comment/caveat
8. Increase extent and improve condition of native vegetation	Is the condition of our native vegetation improving?	Region	Supported	Caveats: presentation in regional report cards could be improved by providing more detail. Concern that data from one responding region was not sufficiently representative.
	Are the extent and connectivity of our native vegetation improving?	State	Undetermined	
		Region	Supported	Indicator generally supported. Caveat: strong concerns over quality of data used and coarse level of reporting obscuring poor extent and connectivity state/trends in some vegetation types.
	How much of our native vegetation is protected?	State	Supported	Generally supported Caveat: some concern about the scale of reporting and consistency with other reporting.
		Region	Undetermined	
9. Improve condition of terrestrial aquatic ecosystems.	What is the ecological condition of rivers, streams and drains?	State	Contested	
		Region	Supported	Generally supported. Collaboration with EPA and use of their data acknowledged. Caveat: Concern over extrapolation from data relevant to a small part of the region to the whole of the responding region.
	Is the ecological condition of the River Murray improving?	State	Supported	Generally supported
	Are water flows and water quality of the River Murray good enough to support ecosystems?	State	Supported	Generally supported.
	Are water flows out the Murray Mouth flushing sufficient salt?	State	Undetermined	
10. Improve condition of coastal and marine ecosystems	Are the extent and condition of our seagrass improving?	State	Supported	Generally supported.
		Region	Supported	Caveat: some regions may have more accurate data that was not accessed for the report card responding regions
	Is the condition of our subtidal reefs improving?	State	Supported	Generally supported.
		Region	Undetermined	Not applicable to all regions.

Guiding target	Report card/indicator	Statewide report card/ Regional snapshot	Supported/ Not supported/ Contested	Comment/caveat
	Are the extent and condition of our mangroves improving?	State	Supported	Generally supported.
		Region	Undetermined	Not applicable to all regions.
	Are the extent and condition of our saltmarshes improving?	State	Contested	
		Region	Undetermined	Not applicable to all regions.
	Are the extent and condition of our coastal dunes improving?	State	Undetermined	
		Region	Undetermined	Not applicable to all regions.
	Is the condition of our estuaries improving?	State	Supported	Generally supported.
		Region	Supported	Caveats: concern about age of data used to report on condition of the Coorong and Lower Lakes (2002), despite significant investment in management and monitoring since then. Report therefore presents condition of asset more than 10 years ago and prior to investment.
	South Australia's marine parks effective in protecting marine habitats and species?	State	Supported	Widely supported.
		Region	Supported	
11. Increase understanding of the condition of landscapes (geological and culturally important features).	Is the condition of our geological features and iconic landscapes improving?	State	Undetermined	Uncertainty about whether condition can improve, and relevance to NRM.
		Region	Undetermined	
	Are landscapes that are culturally important to Aboriginal communities being managed appropriately?	State	Supported	Caveats: concern about subjectivity of measure and difficulty with synthesising information into meaningful report.
		Region	Undetermined	
12. Improve the management of species and ecological communities	How many of our species are extinct or threatened with extinction?	State	Supported	Generally supported. Some concern there is ambiguity in the text as to whether species are threatened with extinction in Australia or only South Australia. Caveats: concern about data accuracy/gaps, data based on listing/administrative processes rather than real changes in species or community status, need for more
		Region	Supported	
		State	Supported	

Guiding target	Report card/indicator	Statewide report card/ Regional snapshot	Supported/ Not supported/ Contested	Comment/caveat
	How many of our ecological communities are extinct or threatened with extinction?	Region	Undetermined	explanation/interpretation of results. For many species with range extending across regions or state boundaries, status can't be influenced by a single NRM region, so may not be appropriate measure at regional level.
	Are activities being undertaken to conserve our threatened plants and animals?	State	Undetermined	Caveats: concern about which activities were selected for reported (not all the activities that contribute to recovery, but monitoring should not be included), better explanation/ interpretation needed to show that current action is not sufficient.
		Region	Undetermined	
	Are activities being undertaken to conserve our threatened ecological communities?	State	Undetermined	
		Region	Supported	
13. Limit the establishment of pests and diseases and reduce the impacts of existing pests	What are the distribution and abundance of weeds?	State	Undetermined	Some support for indicator but concerns over data quality and interpretation. Caveats: occupancy data available, abundance data would be more useful but not available
		Region	Undetermined	
	What are the distribution and abundance of pest animals?	State	Undetermined	Some support for indicator but concerns over data quality and interpretation. Caveats: occupancy data available, abundance data would be more useful but not available
		Region	Undetermined	
	What are the distribution and abundance of aquatic pests?	State	Supported	Generally supported.
		Region	Undetermined	
	How are diseases affecting our aquatic species?	State	Undetermined	
		Region	Undetermined	
	How are diseases and invertebrate pests affecting our crops?	State	Supported	Generally supported.
		Region	Undetermined	
	How are diseases affecting our livestock?	State	Supported	Generally supported.
		Region	Undetermined	
	How are diseases affecting our native plants and animals?	State	Supported	Generally supported.
		Region	Undetermined	

Guiding target	Report card/indicator	Statewide report card/ Regional snapshot	Supported/ Not supported/ Contested	Comment/caveat
	Are control programs focused on high priority weeds and pest animals?	State	Supported	Generally supported although some question its relevance of the measure used and the ability to report a meaningful trend in the future.
		Region	Undetermined	

## Appendix 5: Usefulness of Report Cards Not Produced

Report Card	Response
<i>Trends in the knowledge and skills of natural resource managers and their advisers to support sustainable NRM</i>	There was some support for production of a State report card, less support for regional snapshots. It was recognised that trend would be difficult to measure and the benefit may not support the cost. Some regional informants indicated that they believed it was something which could be measured at the regional level.
<i>Trends in the development of leaderships skills and effective governance</i>	There was some support for production of a State report card, less support for regional snapshots. It was recognised that trend would be difficult to measure and the benefit may not support the cost.
<i>Trends in paddock condition on pastoral lands</i>	There was support for production of a State report card with regional data available for regional communication.



## Appendix 6: Additional Report Cards Suggested by Interviewees

Report cards on:

- Mineral assets (eg. gold, silver, iron ore)
- Natural resource systems – eg. report on wetlands as systems with reports on weed impacts and pest impact, water quality.
- Social indicators that measure progress in engaging communities with the sustainable use and protection of natural resources (ie. beyond ‘awareness’ and ‘participation’ indicators) eg. develop a ‘love of the land’ index
- An indicator of NRM impact on planning at the level of district planning decisions
- Link between Total Factor Productivity and resource condition
- The condition of off-shore islands
- Karst systems of the State