

NATIONAL NRM CONFERENCE

MONITORING AND EVALUATING TO IMPROVE NRM OUTCOMES

9-10 November 2010, Sydney

HIGHLIGHTS:

- Many links between Monitoring and Governance
- Environmental Account (Balance Sheet) – national and global standard being developed.
- Big projects happening on National level on data dispersion; National Plan for the Environment and Information (NPEI) and the Bureau for Meteorology will be the leading Govt Agency in the data collection and storage (Focus on water)
- A lot of the presentations were focused on water quality collection (pretty obvious with a lot of CMA's/Groups in the Murray-Darling basin)
- Connectivity in biodiversity conservation - interesting presentation given by Dr Julian Wall, an ecologist from Eco Logical (private company) on a connectivity study they did for the Namoi Catchment Authority on the importance of paddock trees for small woodland birds.
- In a couple of presentations it was mentioned that a lot of data is spent on monitoring but the correct data is not always captured. Think why and what you are monitoring. Also that the Social-Economic monitoring and evaluation data is easier to collect than the resource condition data. Physical change is often only measurable after a longer period of time and monitoring should continue once a project has finished.
- Reiterated several times through different speakers that monitoring, evaluating and reporting should enable informed decision making.
- The QLD government spent 6 million dollars so far on a NRM project/contract management database with an annual budget of \$800,000. Database has been offered 'free' to all states, and to date only ACT has taken it up.
- New online reporting tool being developed by the Australian Government for Caring for Our Country reporting – looking for volunteers. Wheatbelt NRM and Northern Agricultural Catchment Council has put up their hand to trial this tool. Tool includes functionality for mapping onground works and links with Google Earth.
- Quite a few regions across Australia in the process of re-writing their strategies, e.g., Ian Morgans, Port Phillip CMA, Steve Wickson, Glenelg Hopkins
- Citizen Science Program – community waterway monitoring and engagement program in Victoria. Low cost and effective way of engaging the community by having them participate in monitoring activities. Other benefits include doubling of data gathered and filled temporal gaps in data, enabling crisis and emergency decision making, and capitalizing on local knowledge.
- Updates provided from QLD, NSW, VIC and SA
- Materials/booklets/brochures available for:
 - Eco Logical
 - Spot Image
 - Murray-Darling Basin Sustainable Rivers Audit
 - Workshop materials
 - CFOC Report Card 2008-2009
 - Decision Point Magazine (Connecting conservation policy makers, researchers and practitioners)
 - Interpreting River Health Data, Waterwatch Victoria
 - NSW Native Vegetation Report Card

- Some presentations outlined below.
- Conference website at <http://www.nrmoutcomes.com/>

ENVIRONMENTAL ACCOUNTS / UPDATES FROM AUSTRALIAN GOVERNMENT

ENVIRONMENTAL ACCOUNTS MEETING

CONVENED BY THE NRM REGIONAL CHAIRS WORKING GROUP

Background/ Purpose:

The “Environment Accounting” model is a regionally based system of National Environmental Accounts for monitoring the health of our key environmental assets and the change in condition of these assets over time. It is largely based on the [System of Integrated Environmental and Economic Accounting](#) (SEEA).

Peter Cosier, Director of the Wentworth Group presented at the Conference. More information about the Wentworth Group of Concerned Scientists can be found on their website at <http://www.wentworthgroup.org/>

What the Wentworth group wants the regions to do is:

Set the reference condition level (what was the state of the asset/features before human intervention). These reference condition levels need be set for the 4 Asset Classes (Land, Water, Atmosphere and Marine and Coastal).

Every region then has to decide on the indicators that they will use to determine the “health score”

Determine the score they think is reasonable for that asset.

CONFERENCE PRESENTATIONS:

BUILDING A NATIONAL PLAN FOR ENVIRONMENTAL INFORMATION

Sebastian Lang, Director, Environmental Information Policy

- New Australian Government initiative to build a National Plan for Environmental Information (NPEI – pronounced ‘nipee’).
- First steps towards long term reform of Australian Environmental information base.
- Budgeted in 2010-11 with \$18million over the first four years and flagged as ongoing program.
- Will be a source of reliable and trusted information.
- Will focus on needs of AG first, considering others.
- Joint program between BOM and AG.
- Allows for environmental and other planning for goods and services which impact or have an environmental component.
- Involvement of ABS will shift the debate from state of data to state of environment.
- In some ways drowning in information, but it’s patchy, inconsistent, not repeated, unable to be integrated. In other areas we simply don’t collect the data we need.
- Recognised need to reform current systems, including short term funding streams, needs driven (for multiple needs/users), collaborative, trusted information.
- Thematic Scope and standards:
 - Information products
 - Research
 - Datasets

- Accounts (standard presentation SOE)
- Outlooks
- Reporting products
- Do not intend to centralize, but ensuring collectively we have data collection systems available.
- What they will do:
 - Legislate
 - Establish a central authority (BOM)
 - Establish a governance and priority setting mechanism (committee)
 - Review existing information sources and processes.
 - Develop key products and infrastructure.
- What they won't do:
 - Deliver 'National Accounts'
 - Fund new data collection programs
- BOMS Role:
 - Maintain committee
 - Conduct review of data
 - Establish partners and panels to develop products
 - Develop an Environmental Information System
 - Issue standards
- National Environmental Accounts are key driver for environmental reform.
- Key requirements of the Accounts system will be ongoing data collection, provision of enduring institutional arrangements and relevance to decision making.
- NPEI will establish the systems that will make this possible and improve coordination across jurisdictions.
- NPEI initially only about the AG, but will look at others in time.
- Not seeking to direct monitoring and evaluation, but on the collection and storage of information.
- Not a 'catch-all' system, but focuses on key areas.
- Not specifically to address the information needs of environmental groups at this stage, but will make the information available.
- A relatively small initiative, but one which will have significant benefits over time.
- BOM and Bureau of Statistics working together.

CFOC MERI AND MID TERM EVALUATION

Drue Edwards, Director, Program Performance and MERI Team

- MERI Plan template NOT mandatory – a guide only to what might be included.
- Two reviews this year:
 - Progress towards outcomes
 - CFOC Review – due before Christmas; ensuring we achieve outcomes; building on learning's (looking at State Plans)
- First report card is out for 2008-2009 and is available on the website at <http://www.nrm.gov.au/me/report-cards/index.html> and is supported by information sheets and case studies.
- Next Report Card is being prepared for 2009-2010.
- Developing an on-line Reporting tool linked to Google Earth and are looking for volunteers to trial tool.
- A request from the audience was put to Drue Edwards to include community monitoring in the next Business Plan so that it can be built into programs.

LEVERAGING AUSTRALIA'S WATER INFORMATION

Rob Vertessy, Bureau of Meteorology

“Success stories help build the value proposition for community and stakeholders”

- Australian Government funded initiative - \$450M and 130 new staff.
- Administered funding support for data providers.
- Legislative backing.
- Rely's on collaboration with data collectors.
- New program will enable satellite monitoring to complement observational field monitoring across the country.
- In 12-18 months all data should be available to public.
- Modernisation and extension program to reduce time lag of info (telemetry).
- Funding for monitoring and evaluation of \$80M over 5 years for 'persons' named in legislation.
- A series of 'Dashboards' will be available via web (coming in December), e.g. Seasonal streamflow forecasting service. Will be starting with Murray-Darling Basin before rolling out to rest of country, depending on skill of collectors.
- Geo-fabric – national elevation data building information – goes down to individual stream segments. Developing groundwater geo-fabric to provide info model on hydro-metric data on ground water.
- All this will be turned into knowledge for a catchment and every river in the country.
- National Water Account pilot published late last year.
- Data covered by Creative Commons license (able to share and manipulate).

INTEGRATED ENVIRO-ECONOMIC ACCOUNTING AT THE ABS

Paul Williams, ABS

“What we measure affects what we do. If our measurements are flawed, so too may our decision making be”

“It's not the first time you produce data that's important – it's the 10th time (or 100th!)”

- Poor enviro-economic and link to social impacts.
- Enviro-Economic Accounting:
 - Helps to make sense of the larger picture
 - Helps to identify the pieces that are missing;
 - Can help to make some social connections.
- There is a local and international focus on Environmental Accounting, but accounts are only part of the way forward.
- Why an accounting approach?:
 - Integrates basic data and the cause/effect from different sources
 - Improves consistency
 - Good information for policy makers to make decisions
 - Defines ownership and responsibility for environment
- BOM and ABS working on integrating info – Pilot for Great Barrier Reef Catchment in 2011 (trail land account)
- What enviro-accounts are:
 - Vary in form
 - Organizing framework
 - Define concepts
 - Define data items

- Develop conventions for data management
- Provides a platform for consistent collection, consolidation and presentation of data.
- A 'Balance Sheet' style, using opening/closing stocks and any transactions in between.
- Issues:
 - Separation of natural and anthropogenic changes.
 - How to value things that aren't 'transacted'
 - Incorporation of a broader suite of social data
 - Great potential for misunderstanding
 - Only as good as the data underpinning them
 - Littered with 'one-off' accounts reducing the value.
- Working with other researchers (ANU) to understand values (\$) of things like ecosystem services – some things are priceless.
- Looking at reconciling enviro-economic values and how this might inform policy.
- Values differ across boundaries and cultures
- Limited in its scope, but provides a framework around some things, e.g. water allocation
- Always a chance that Ministers will use for evil.
- Question from audience: How can we be involved to understand these accounts and communicate to the man on the street?. Answer:
 - Will take time to achieve – relatively young (financial accounting system took 20-30 years to get accepted). Is an issue on how to translate and deliver to community – work needs to be done here.

ESTABLISHING A COMMON ENVIRONMENTAL CURRENCY TO BUILD ENVIRONMENTAL ACCOUNTS

Peter Cosier, Director, Wentworth Group

Pam Green, Convenor, Regional Environmental Accounts Working Group

- Establishing a common environmental currency to build environment accounts.
- Measure change using common indicators, giving a reference condition score.
- Ecosystem health indicators based on reference condition – change over time.
- A lot of data being collected, but not in a form that can be used.
- Regional accounting could inform decision making.
- In the next 12 months there will be trials in up to 10 volunteer NRM regional groups to build a set of accounts through their monitoring and evaluation, before being rolled out. (no WA volunteer regions)
- Will test whether they can construct State and National Accounts.
- Pam Green provided background to regional group role in environmental accounting.
- Has been worked on for a while at the higher echelons, but appears to be hitting the ground now – this is the beginning.
- Appears to be a recognition that lack of support for data management side of MER (quality, measures)
- Suggestion from audience that the Working Group communicate progress so that we know what's going on.

CREATING ENVIRONMENTAL ACCOUNTS FOR DIFFUSE-SOURCE ENVIRONMENTAL GOODS AND SERVICES

Gary Stoneham, Dept Treasury and Finance, VIC

- System of integrated environmental and economic accounting in 2012 – a world wide standardized approach.
- Will become part of the System of National Accounts in 2012.
- National Environmental transactions (fish, timber, animal products), but no transactions for ecosystem services – missing and vital information on state of stocks.
- Problems – measures of wealth, no idea of stocks.
- New developments in economics can create markets for environmental goods and services e.g.:
 - Tradable permits (carbon)
 - Smart markets (native veg)
 - Markets for conservation contracts (e.g. BushTender and ecoTender in VIC)
- Modify incentives – a contract to restore environment.
- Develop metrics for what is being bought and produced.
- EnSym database.
- Contribution of environmental production to GDP.
- Balance Sheet Style of accounting, E.g. Terrestrial Ecosystem Account: Corangamite (habitat ha)

Opening Stock	34968448 (ha)
Change due to transactions	12700 (ha)
Additions to stock levels	
Deductions from stock levels	
Closing stock	34981148
% change	0.03632

- Don't develop new reporting methods – new standard coming in 2012
- Info to public:
 - Which stocks have been severely degraded
 - Where has the money been spent
 - What did it achieve
 - What wealth was generated.
- BUT, remember what Repetto said:
 “A country could exhaust its mineral resources, cut down its forests, erode its soils, pollute its aquifers and hunt its wildlife to extinction, but measured income would steadily increase as these assets disappear”

GENERAL

SATELLITE IMAGERY

Rob Lees, Spot Imagery

- Spot Imager part of Astrium Group of companies.
- Have five satellites, currently using two – Spot 4 and Spot 5.
- Used by Government and at the farm level.
- Some free data available through Government purchased licence, which can be used by NRM groups, NGO's and any consultants doing work for them. Access data through State and AG.
- Spot 4 – 10 and 20 m resolution; Spot 5 – 2.5 – 10m resolution (60km swatch).

- 2.5m resolution natural colour seamless mosaic of Australia
- Images are GIS ready and high resolution.
- Can be used by farmers too (carbon trading).
- Aiming to map all of Australia. All of QLD done under whole of government license (paid for through CFOC Reef Rescue) and Tasmania (was test site). Next will be far North QLD. NW of WA is also a priority, driven by mining, resource and infrastructure needs.
- 10m ha of imagery has been provided to farmers to help with action planning. Other uses include:
 - Land clearing monitoring
 - Protection of bush
 - Property management planning
 - Infrastructure mapping
 - Mining – revegetation reclaim.
- Question from audience about whether could be used for weeds of national significance – answer was ‘no’, better to go GEO (?), 50 cm resolution, multi-spectral analysis.
- Can do point of investment monitoring as frequently as every two days, depending on weather (i.e. if no cloud cover). Cost is per km², 20-100 km².

CONNECTIVITY MEASURES FOR MERI – A SPATIAL APPROACH TO ASSESS LANDSCAPE CONNECTIVITY

Dr Julian Wall, Eco Logical

- Vegetation connectivity is overlooked in favour of condition and extent (increase in the recovery of threatened species, populations, communities, ecosystems)
- Fragmentation is the major contributor to species decline – by clearing and isolation. Need connectivity to restore.
- Connectivity can be either structural (rock outcrops) or functional (use by species).
- Farm scale connectivity – paddock trees help to connect patches. This is critically important and also good for landscape function and habitat, as well as providing agricultural benefits.
- Paddock trees are the stepping stones.
- Existing paddock trees need to be replaced.
- Connectivity measures should be incorporated into NRM.
- Have run project looking at linking patches with paddock trees. Very cost effective. Framework for MER:
 - Define spatial rules for patch size and functional connectivity
 - Map patches and function connection
 - Prioritise corridors
 - Target investment
 - Manage function connectivity (maintain and restore)
 - Monitor paddock trees (e.g. expected vs observed metric, species richness over 20 minutes, vegetation condition. Simple but effective measures.
 - Evaluate and report change.

CONNECTING MONITORING GOALS WITH EFFECTIVE NRM GOVERNANCE

Dr Sarah Ryan, Chair National NRM Regions Working Group and Chair, ACT Natural Resource Management Council

- Stop-start programs, lack of clarity about roles, silo-decision making, perverse incentives, poor ability to compete for Treasury funds against more qualified propels and wicked problems.

- Need to work together and think holistically.
- **M&E should enable informed decision making.**
- Be aware of the limitations of monitoring.
- Many links between monitoring and governance.
- Regional bodies have the ability to look up (to Government) and down (to local level) to make the links between these two sectors.
- Silo decision making - we keep dividing things up with many plans from different agencies and groups (water plans, asset plans etc) across disciplines and departments.
- Need to convince government that it takes time, and therefore monitoring takes time, i.e. it takes a 200 years for a 200 year old redgum to grow – easy enough concept to understand! But we need to know that we are on the right trajectory.
- Chairs are working on the National Environmental Account.

RESOURCE CONDITION INDICATORS AND THEIR USE IN DECISION MAKING

Neil McKenzie, CSIRO

- Monitoring and forecasting should go hand in hand.
- Almost 20 years of trying to find the right indicators.
- When is knowledge valuable:
 - When it reduces uncertainty for decision makers, farmers, politicians
 - When it contributes to Earth System Science.
 - When it educates people (land literacy, informed citizens, intergenerational equity)
- Pannell and Glenn (2000) paper on value of information.
- Indicator must relate to the question facing the decision maker
- Needs to reduce the overall uncertainty for the decision maker
- Must have an estimation of uncertainty, i.e. can decision maker trust the information
- Need to bring together all forms of monitoring – remote sensing and community field monitoring.
- Focus needs to be on technically defensible systems for survey, monitoring and forecasting rather than indicators per se.

IMPROVING NRM PLANNING BASED ON DECISION-THEORY/ADAPTIVE MANAGEMENT

Hugh Possingham, University of Queensland

- No lack of data, and biggest issue is the lack of analysts and communicators.
- Data collection can cost and delay decisions.
- M&E for decision making (trends, forecasts).
- If you can't monitor in the longer term don't do it. Instead hire an analyst to look at the data that's already available and a communicator to present the messages and outcomes.
- Explored decision theory and active vs passive adaptive management – see paper 'Monitoring does not always count', Trends in Ecology and Evolution Vol. 25 No. 10
- Monthly magazine called 'Decision Point' (Smart Science for Wise Decisions – connecting conservation policy makers, researchers and practitioners). Subscribe at <http://www.aeda.edu.au/news>

STATE UPDATES

VICTORIA:

VICTORIAN MONITORING AND REPORTING PROGRAM – LOGICAL DRIVERS

Adam Hood, Manager, Monitoring and Reporting, Natural Resources Department of Sustainability and Environment

- 6 year NRM Plan (due next year), 3 year review process with 1 year program report.
- Focus on coordination, standards and systems and sorting the information they have so far.
- Need to make sense of the information they currently have.
- Have many processes, systems, tools to collect info, but disparate and don't often know exactly what we need.
- Focus on standards in data quality and onground works.

CITIZEN SCIENCE

Victoria Penko, Engagement Manager, Sustainable Water, Dept. Sustainability and Environment, VIC

“Citizen Science has the potential to accumulate ecological data across unprecedented scales and with considerable economy. By involving groups in significant monitoring programs, these networks will play an important role in education and NRM, and increase society's capacity to understand, manage and respond to change” Jason Alexandra, Murray Darling Basin Authority.

- Community environmental monitoring has been occurring through rainfall data collection for over 100 years.
- Victorian River Health has been using community monitors for 16 years.
- The purpose is to collect data and aid in community engagement and increasing community awareness.
- 600 groups monitor regularly at 1900 sites. Cost of \$60,000 per year.
- Monitors are collecting data:
 - Monthly data may not be specific enough
 - Fills in spatial and temporal data gaps
 - Helps to observe trends, including subtle impacts following an intervention
 - Emergency monitoring (after an event)
 - General surveillance in decision making (e.g. Estuary Watch – helps determine when estuary is opened, and watching what happens for rehab projects)
- Monitors are provided with training in water quality and biology monitoring as well as photopoint monitoring.
- Data contributes to Victorian River Health Report Card.
- Helps to drive planning.
- Engages public and increases knowledge.
- Contains costs and increases human resources.
- Can help agencies fill spatial and temporal gaps in official monitoring systems.
- Taps in to intimate local knowledge.
- Monitors have a duty of care – they do a good job because they really care about the importance of what they are doing.
- Monitors are trusted conduits of information.
- Issues include:
 - Data quality (methodologies, monitoring experience, data control), but this is addressed through:

- statewide confidence framework and guidelines (equipment, methods, frequency, storage)
 - regular annual quality assurance and control testing weeks (test coordinators and monitors using mystery samples of water and bugs). Results identify any problems, and this includes with the testing equipment.
 - Professional development for coordinators
 - Monitoring and interpretation resources (Interpreting River Health Data booklet available in Wheatbelt NRM Library (hard copy) and on web at [http://www.vic.waterwatch.org.au/file/file/Data%20Interpretation%20Manual/Pages%20from%20WW_DI_MANUAL_PART%20A%20\(p_1-18\).pdf](http://www.vic.waterwatch.org.au/file/file/Data%20Interpretation%20Manual/Pages%20from%20WW_DI_MANUAL_PART%20A%20(p_1-18).pdf))
 - Four different standards of data collection, ranging from Standard 1 (by kids – used for awareness and knowledge increase rather than management) to Standard 4 (more rigorous and data used for management decisions).
 - Guidelines ensure continuity.
- Buy-in from management is critical to achieving a program of this nature, and a recognition that this IS ONGROUND WORK.
 - Also using for acid sulphate soil sampling at 130 sites across Northern Victoria on behalf of the Murray Darling Basin Authority.
 - Monitoring drought refugia in conjunction with Melbourne Water.
 - Have been able to monitoring the 224 gauging stations where data was missing.
 - Community monitors doubled the amount of data being collected.

NEW SOUTH WALES:

USING INTEGRATED MONITORING, EVALUATION AND REPORTING TO GUIDE NRM ACROSS GOVERNMENT

Simon Smith, Deputy Director General, Dept. of Environment, Climate Change and Water, NSW

John Williams, Commissioner, Natural Resource Commission, NSW

- Observation that monitoring programs are generally external or project funded on a temporary basis or by true believers in the organisational refugia.
- Observation that evaluation 'ok' provided no-one touches the dollars. It's better to let old programs wither than ever make a decision.
- NSW MER Objectives:
 - Refreshed MER Strategy to build links between all sectors and link data to make decision making.
 - Upgrade quality of information so they can make better decisions.
 - **Make MER central to decision making.**
- NSW Formal Framework:
 - Standard quality for NRM
 - Getting Local Governments involved
 - Commitment of all CEO's of regional bodies.
 - Have set up a Senior Officers Group, which includes representation from all departments, local governments and gaining consensus on data management strategies.
 - Have strategic MER logic.
- Priorities:
 - Indicators for resource condition monitoring (long term against State wide targets) which informs policy.

- Key indicators include native vegetation (extent), native vegetation (condition and pressure), native fauna, threatened species, invasive species, river health, Groundwater and dependant ecosystems. Short-medium indicators – program performance focus on outputs including Area (ha) protected under conservation agreements, kms fenced.
- Develop a new program performance monitoring and reporting system.
- Information Sharing:
 - Data sharing agreements through:
 - CEO agreement – have been working on this for a decade.
 - Getting \$s for incentives for CEO's do to monitoring;
 - New freedom of info laws – no place for secrecy
 - Data availability and access critical
 - Data is for people, not government
 - Standard platforms, but people still doing their own things – need more work on this.
 - NSW metadata standards.
- Evaluation at multiple scales:
 - State level – State of Environment (SOE) Report
 - CMA Regional Scale – State of Catchment Reports (for the first time)
 - Program or project scale.
- The MER we would want:
 - Regional, State and National all contribute to one body of information and is an authoritative and nested suite of parameters and reporting products that tell decision makers and community what is happening with our stocks of natural resources and environment.
 - Results guide resource allocation.
- See Report Card on State Scale Vegetation Monitoring at <http://www.environment.nsw.gov.au/resources/vegetation/09144nvrjanjun08.pdf>
- Remote sensing information critical to telling story, especially tree cover, but can also do grasses.
- Data at the scale of intervention and expected impact are the most useful for adaptive management and decision making.
- What Next?:
 - Learning from use of standards, targets and audits.
 - Future improvement of state wide targets
 - Improving institutional arrangements
 - Exploration of complimentary tools.
- NSW professional approach to NRM:
 - A vision for healthy, productive, resilient landscapes.
 - 13 State wide targets.
 - A non-prescriptive 'Standard for Quality NRM'
 - An independent audit process.
 - Continuity from standards, targets and audit process.
- Role of community in monitoring:
 - A great pool of resources
 - Have gotten community involved by running competitions using hand held devices such as mobile phones to GPS and log sightings of threatened species which then becomes available on website.
- Catchment Action Plans (CAPs):
 - Local goals are represented in CAPs and are reconciled with State objectives when they are put together for the State NRM plan, allowing flexibility to work on local as well as State priorities.

- Not trying to impose conformity – we're not 'neat freaks', but trying to avoid the 'cottage industry', so can attract funds.

Queensland:

LINKING MONITORING AND EVALUATING MEASURES TO RESOURCE CONDITION PREDICTIONS AND INVESTMENT DECISIONS: SOUTH EAST QLD HEALTHY WATERWAYS PARTNERSHIP

Dr Eva Abal, Chief Scientific Officer

- Have developed a predictive decision support tool (modeling system).
- A collaboration between business, local government, government, industry and community.
- Tool has looked at impact of population increase and N, P and sediment loads in Morton Bay (do nothing scenario vs do something)
- Provided the rationale for plan and framework for action, aiming at 'better than current situation'.
- Targets derived from community values, including cultural and spiritual values, e.g. Community wanted to be able to swim in river and this was converted to a water quality target, community wanted to see turtles and dugong's in the bay, and for this to happen there need to be seagrass, so a reveg program was developed.
- Also identified the willingness of the community to pay for socio-economic trade offs, with an opportunity for community to review their values based on the cost of onground works, goal for asset and any associated trade-offs (what the community willing to accept environmental, economically, socially).
- Information feeds Report Card, which they have done for past 10 years using an A-F rating – A meaning community value has been achieved. Rating system must be defensible and rigorous, with no 'surprises' (confidential briefings to stakeholders prior to launch).
- Report Card is presented to politicians prior to being launched to public (by politicians). Heaps of media is generated and this helps increase community awareness.
- The maps and diagrams help to tell the story over time.