

Linking short-term and longer term evaluation



Tony Varcoe
Manager Research and Management
Effectiveness
Parks Victoria



The big evaluation questions for park managers

- How do we know if, and to what extent, our park management objectives are being met ?
- How do we know whether our management actions are effective?
- How do we know whether the condition of our parks and visitor experiences are changing?

How healthy are our parks?

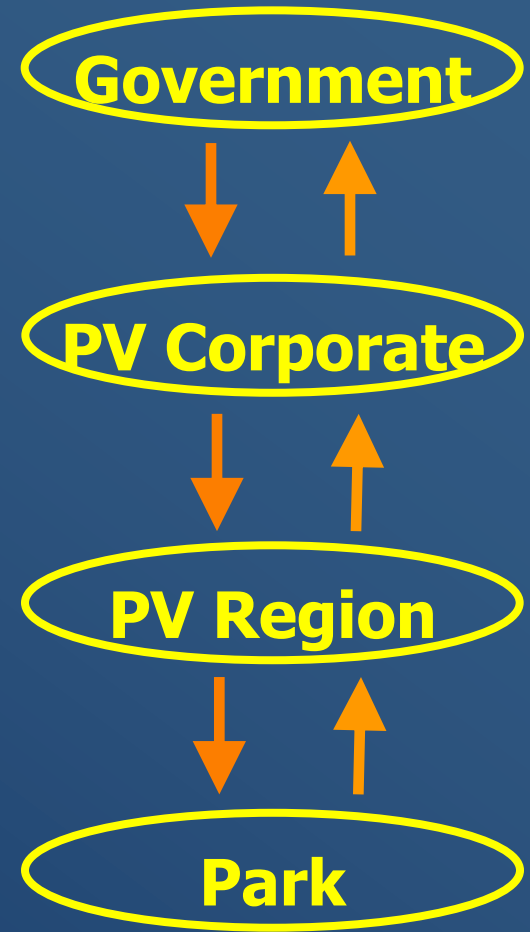


Monitoring and Evaluation - Context

- **International context:**
 - e.g. Management Effectiveness Framework (WCPA); “State of the Parks” reporting; “EI”; “Vital signs”
- **National context:**
 - e.g. National Land and Water Resources Audit - focus on regional “report cards” using standard indicators
- **Victorian context:**
 - e.g. Land and Biodiversity White Paper - need for major improvements in monitoring and information systems to report on condition and effectiveness;
- **Regional/catchment context:**
 - e.g. CMA condition reporting



PV's Park Management Framework



How has PV evaluated its effectiveness?

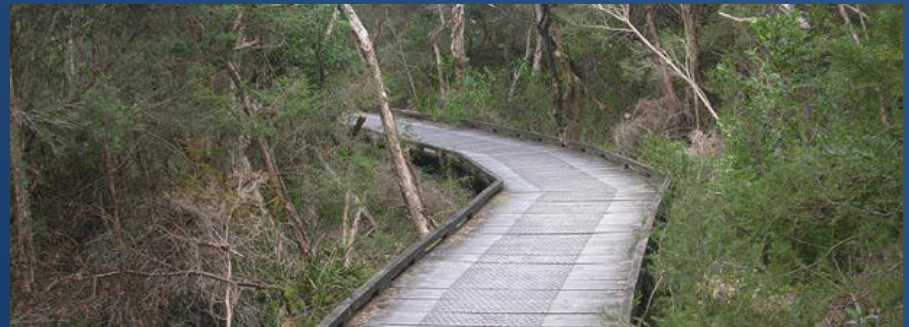
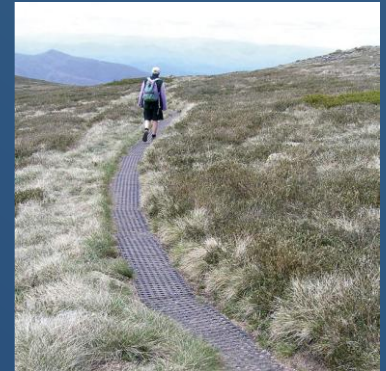
1. Short-term evaluation

- Annual Reporting
 - Actions and level of activity (e.g. number of projects completed, number of hectares treated for pest plants and animals)
 - Financial (\$ spent)
- Corporate Plan reviews
- Data collection via “on-ground” monitoring programs (NVM, asset condition)
- Informal and ad hoc evaluation/reviews at park, regional corporate levels



Parks Victoria's visitor monitoring program

- Visitor Number Monitoring (VNM)
- Visitor Satisfaction Monitoring (VSM)
- Community Perception Monitoring (CPM)
- Asset condition reporting

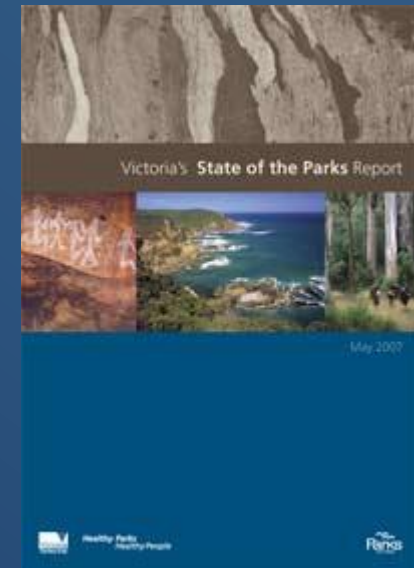


How has PV evaluated its effectiveness?

2. Medium to longer-term (3-5 year) evaluation

– State of the Parks

- Typically parks network scale
- Review of management processes
- Current status of park values & assets
- Status of risks / threats
- Trends in managing risks / threats
- Trends in condition of values & assets
- Assessment of outcomes (i. e. meeting management objectives)



How can monitoring inform effectiveness?

Monitoring is a process of systematic observation of one or more elements of the environment over time

Monitoring is a tool that can help us become more effective managers by providing data on which to base decisions



Not enough monitoring ?

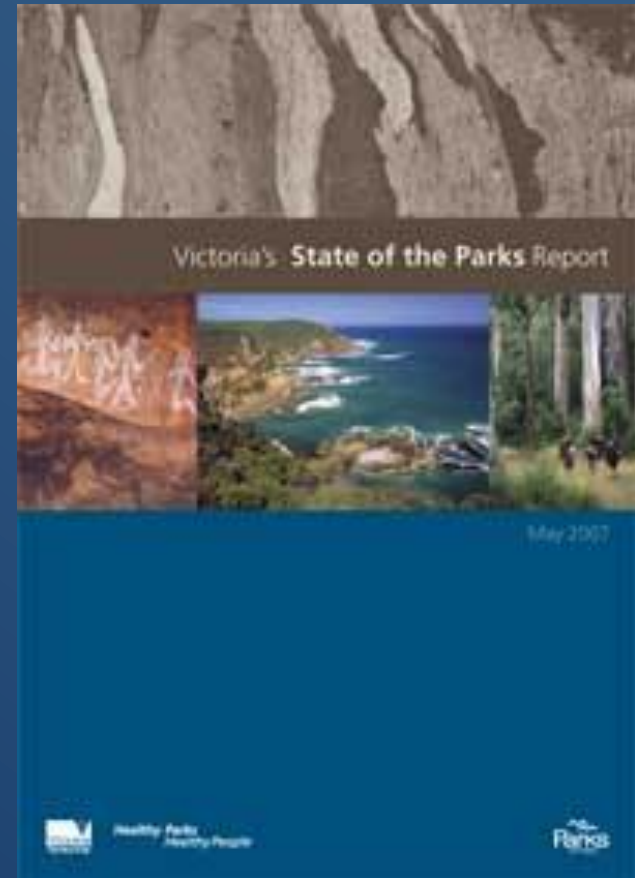


So what's the problem?

- Lots of NVM monitoring activity but.....
 - Unclear monitoring objectives
 - short, medium and longer term
 - Inconsistent and unrepeatable methods
 - Limited defined indicators and measures for evaluation
 - Poor links between park or site based monitoring programs and ecosystem management objectives
 - Data “ownership” and sharing problems
 - No systematic approach to data management storage and queries
- = Few examples where we can track monitoring programs to achievement of long term management objectives

So what's the problem?

- Victorian State of the Parks (2007) report:
 - PV effective at implementing on-ground programs but high levels of uncertainty in impacts of management and trends in outcomes for NVM



Signs of Healthy Parks Monitoring program

“ An integrated monitoring program based on good science to detect change in park health and quantify effectiveness across representative landscapes within Victorian parks ”



Signs of Healthy Parks Monitoring program

SoHP objectives:

To improve our management based on evidence and good science

To detect change and trends in park condition

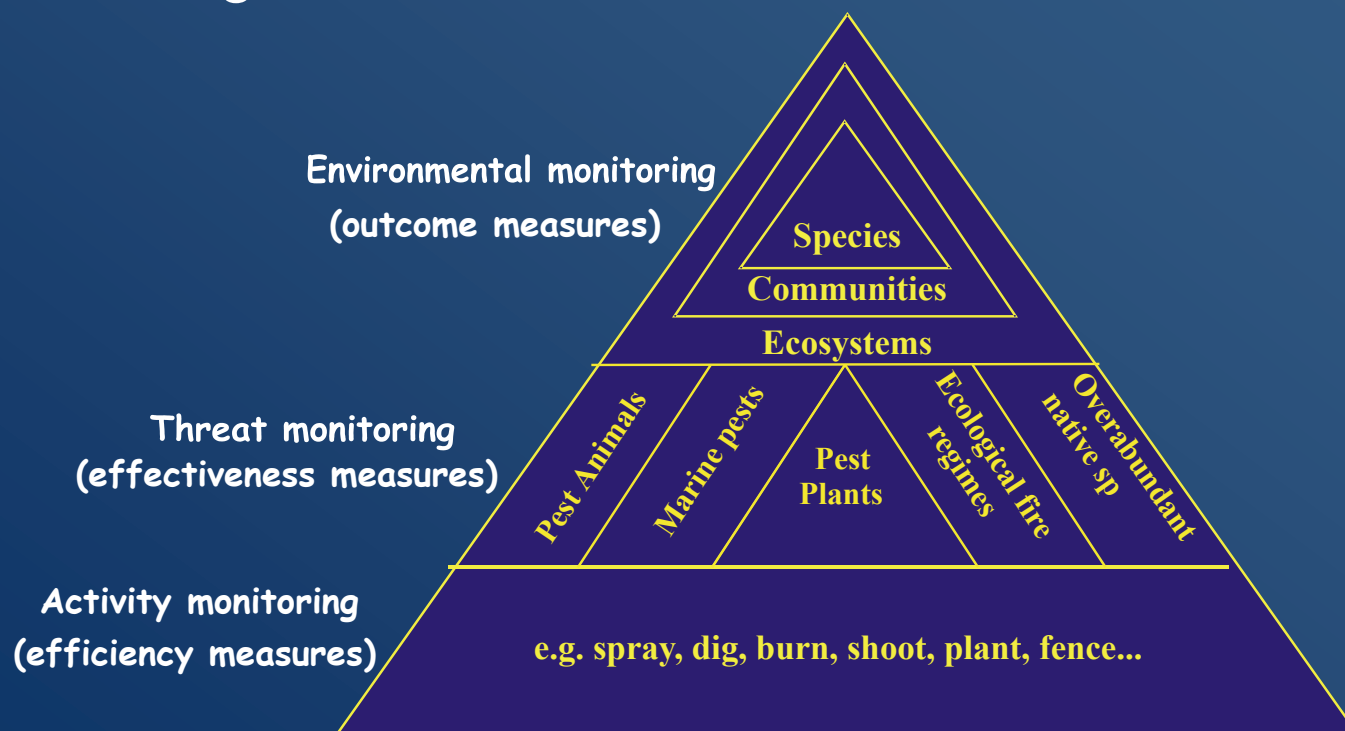
To determine the effectiveness of actions so we can adjust our management

To provide early warning systems for impending threats

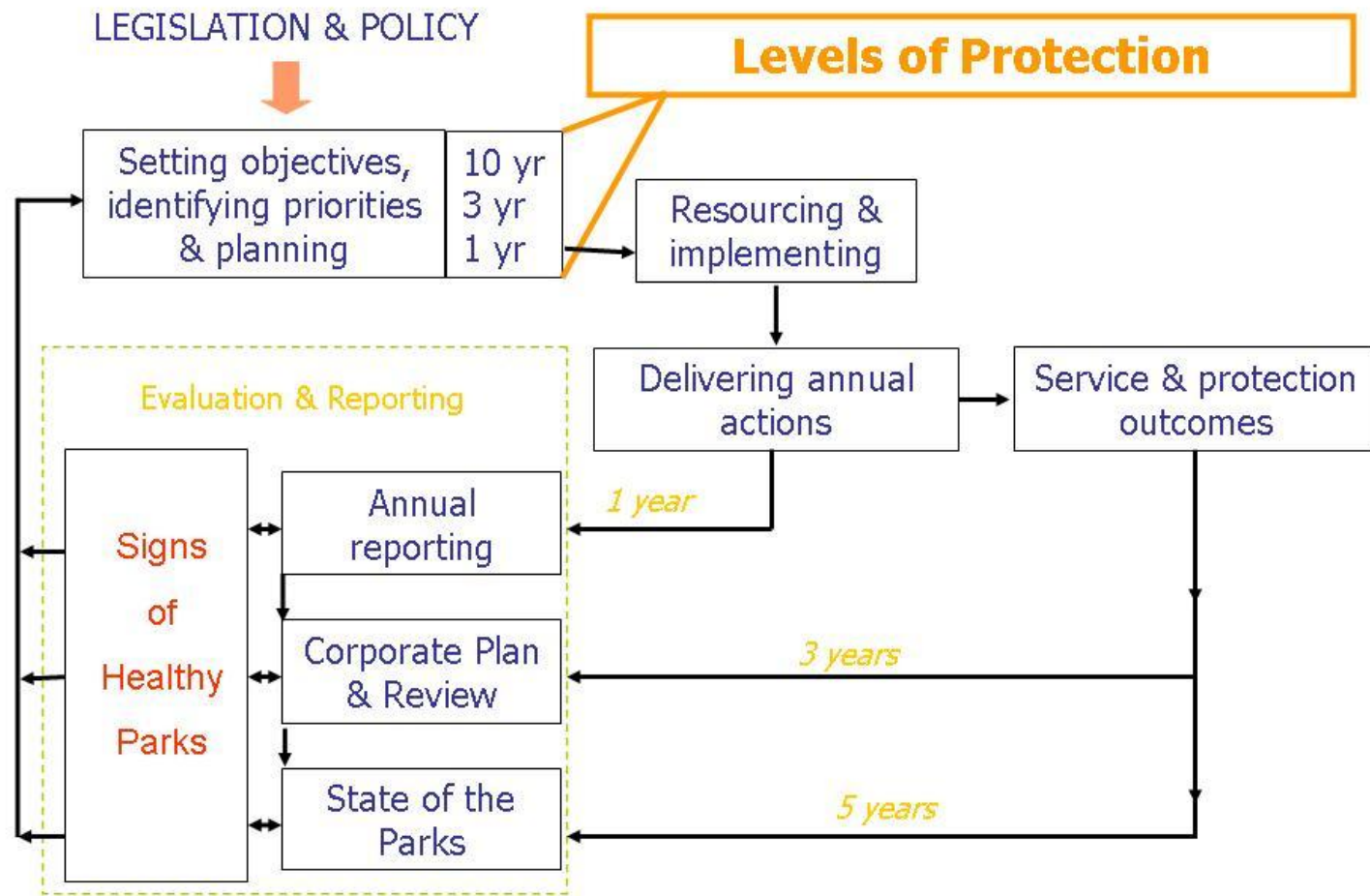


Signs of Healthy Parks Monitoring program

- SHP recognises three components of PV's Environmental Monitoring Framework:



Links between different types of evaluation



Signs of Healthy Parks Monitoring

Elements of SoHP monitoring program

- SoHP framework
- Ecosystem models
- SoHP indicators
- Monitoring plans (why, how, where who)
- Monitoring Protocols
- Delivery (Partnerships and Training)
- Data management
- Data analysis
- Communication
- Links to State of the Parks

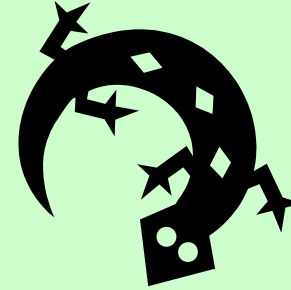


SHP Framework



STOCKTAKE

- What info do we already have?
- What are our management and monitoring aims?



FEEDBACK

- How do we improve management and monitoring?



PLANNING

- Monitoring plans
- Feasibility



APPLY AND INFORM

- Data analysis
- Interpret and report
- Feed into SoP evaluation



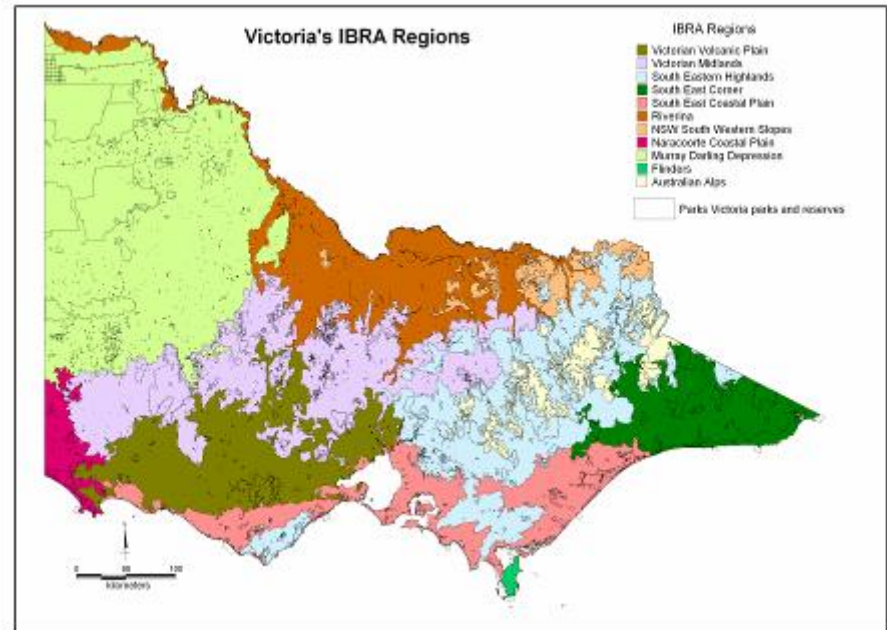
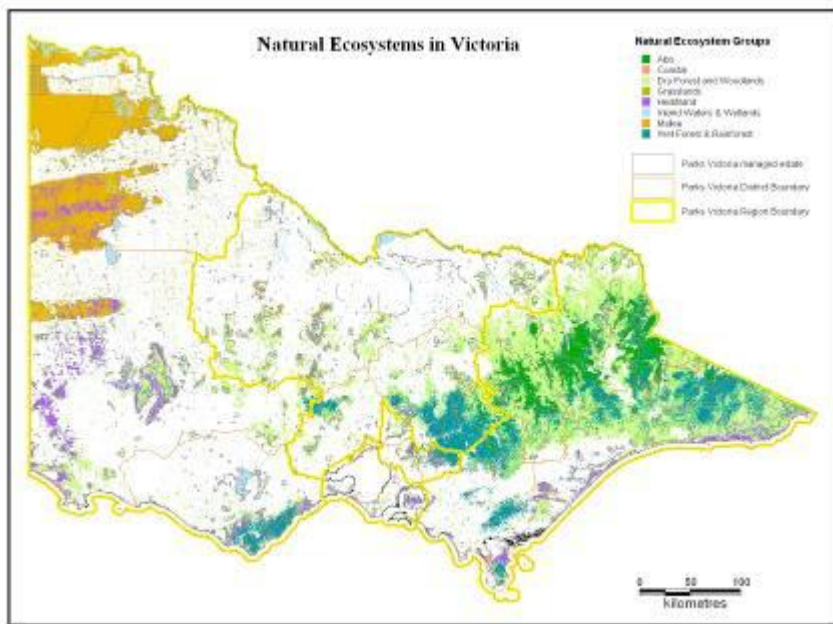
IMPLEMENT

- Data collection and storage

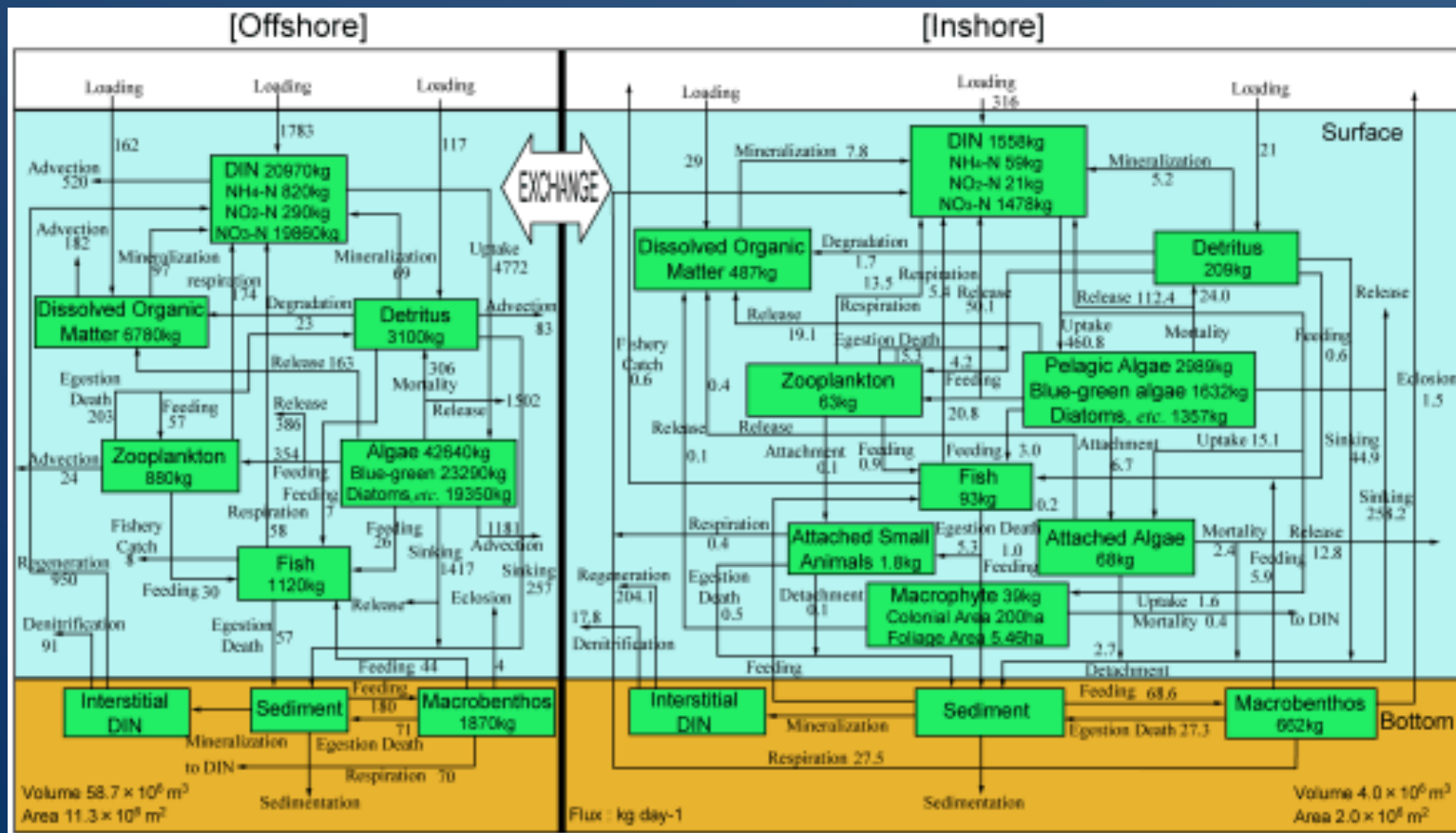


Signs of Healthy Parks Monitoring program

How do we select SHP parks?



Signs of Healthy Parks Ecosystem models



What are the indicators of "healthy parks"?

- Three categories of indicators covering:
 - Landscape processes (desktop/remote)
 - e.g. Park connectivity; Adjacency to native vegetation; Impacts of population change
 - Disturbances and threatening processes
 - e.g. Fire regime/history, Pest plant extent/impact, Introduced predator extent/impact; Introduced and overabundant native animal grazer extent/impact; Water flow and quality, Pathogens, Park fragmentation, Visitor activity impacts; Marine threats
 - Ecosystem "condition" and environmental outcomes
 - e.g. Vegetation structure / composition, stream condition, Wetland condition, population trend of threatened or focal species, marine biodiversity



Associated systems to inform evaluation

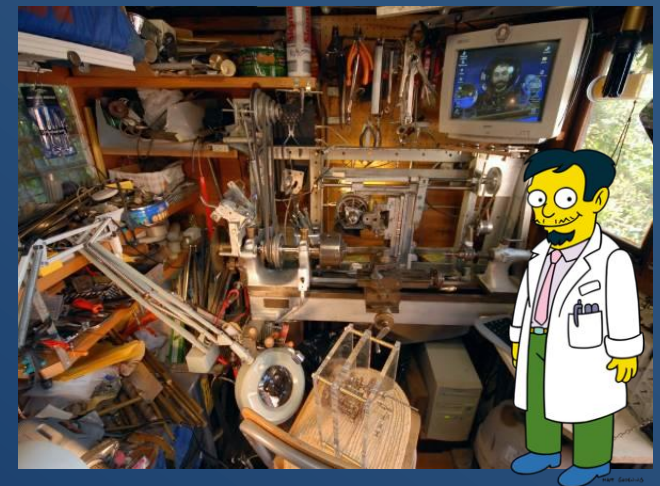
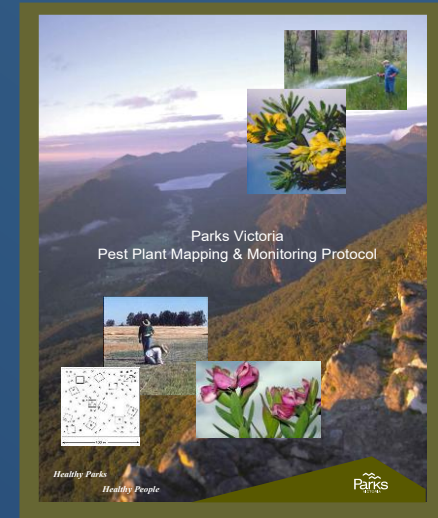
- Actions for Biodiversity Conservation (“ABC”)
 - DSE “Whole of landscape” reporting system
 - Currently species focussed (threatened species)
 - Includes:
 - Reporting against FFG Action Statement actions
 - Evaluation of trends in threat
 - Evaluation in trend of populations



Signs of Healthy Parks Monitoring SHP tools

Monitoring protocols

- Standardised monitoring protocols for robust and consistent application
- Monitoring guide
- “Field-friendly”
- Training and field implementation



Partnerships and Training

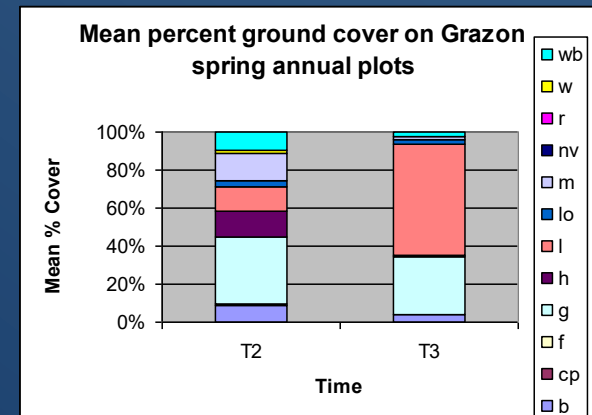
- Build on existing partnerships and networks
- Establish new partnerships
- Work to an agreed monitoring plan
- Share data
- “buy-in” expertise where needed
- Link to existing systems
- (e.g. “ABC” database)



Linking research, monitoring and effectiveness Weed AEM

To examine:

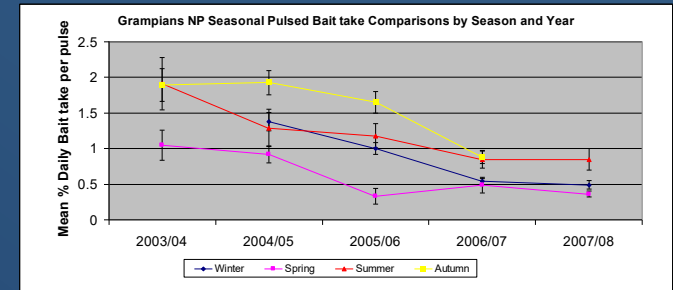
- efficiency (costs/benefits) of different weed control strategies
- effectiveness
 - reducing broom cover & abundance
- environmental outcomes
 - vegetation species' response




Linking research, monitoring and effectiveness

Fox AEM

- To examine
- the applicability of AEM to broad-scale pest management by Parks Victoria,
- the effectiveness of different spatial and temporal intensities of baiting on fox and prey abundance, and
- the costs and benefits of each strategy.



Signs of Healthy Parks Monitoring program Challenges

- “Evaluation culture”
- How can we make use of existing data and monitoring programs?
- Monitoring partnerships (ecological and scientific skills and resources)
- The right ecosystem-based indicators
- Data management and access (e.g. “Parkview”)
- Capacity for analysis and evaluation
- Complex data  Simple reporting

Signs of Healthy Parks Monitoring program

Who benefits

Park staff

- understand changes at park scale
- track changes/trends over time;
- quantify condition change and effectiveness of actions to inform programming priorities

Park managers

- Understand how parks are meeting objectives at regional scale;
- Inform resource allocation, planning systems, gaps

SHP users

PV and DSE Executive

- understand changing condition of parks network
- Understand major and emerging issues and threats;
- understand status of knowledge and skills in PV

Government and community

- report to the community on health of parks
- justify application of taxpayers funds to NVM objectives
- community participation and ownership

Linking monitoring to longer term evaluation

Clever use of data

Data sources:

- Quantitative /scientifically robust monitoring programs



Build detailed datasets and trends for subset of parks network (covering each major ecosystem)

- Staff /expert opinion



Review effectiveness of management outcomes across network, region, ecosystem, parks)



Linking monitoring to longer term evaluation?

Short-term

Signs of Healthy Parks Monitoring Program

- Subset of parks across each of our major ecosystems
- more **quantitative**
- link between measurable SHP indicators and SoP indicators

Management Effectiveness Evaluation - Systematic evaluation of Action Plan targets and threats

- **most** parks
- more **qualitative** /expert opinion

Long-term

State of the Parks (SoP) evaluation

- **Objectives:** Network-wide review of “condition “ of parks network and management effectiveness: Assessment of performance against long-term objectives
- **Audience:** network *report* for public/Gov’t; SoP *information* for PV staff (local/district/region)
- **Focus:** Summary of **activity, effectiveness** and **outcomes** based on SoP indicators. Also summary of achievements and challenges.
- **Coverage:** Network-wide review but ecosystem focussed. Every 3-5 years
- **Data:** based on information collected through SHP (quantitative) and MEE (qualitative)

