



Where science meets litigation

Tom Holden and Melissa Jolley

Environmental Defender's Office NSW

Introduction and outline

- The role of science in law
 - Part 1 – EDO's Scientific Advisory Service
 - Part 2 – EDO case studies
 - Part 3 – Discussion: PNG case studies

Part 1: Scientific Advisory Service

- Role: To provide objective scientific advice to EDO staff and our clients
- Rationale: To better enable the EDO to influence decisions before they are made
- Key aim: To increase the public's capacity to participate effectively in decision-making processes
- Scientific Advisory Service comprises:
 - 2 in-house environmental scientists
 - Technical Advisory Panel
 - Expert Register

Part 1: Scientific Advisory Service

- Technical Advisory Panel
 - Academic experts
 - Provide strategic advice to the EDO on scientific issues and act as advisors to in-house scientists
 - Professor Richard Kingsford (UNSW, water)
 - Dr Iain MacGill (UNSW, energy)
 - Professor Clive Hamilton (ANU, economics)
 - Professor Chris Dickman (USYD, ecology)

Part 1: Scientific Advisory Service

- Expert Register
 - A list of scientific experts willing to provide advice to the EDO on public interest issues on pro-bono basis
 - Includes academics, government scientists, consultants, policy makers, and PhD students
 - Includes a range of expertise: planning, ecology, hydrology, water, air, noise and soil pollution, engineering, public health, and economics
 - Currently over 125 members

Part 1: Scientific Advisory Service

- Five main types of work:
 - Pre-approval – Advice on the environmental impacts of developments and the adequacy of assessment reports
 - Post-approval - Advice on compliance of developments with approval conditions or regulations
 - Casework – Advice to the litigation team on scientific issues associated with Court cases
 - Policy and law reform – Advice on the environmental implications of new government policies
 - Community education – Scientific input into EDO's educational activities (eg. fact sheets/presentations)

Part 1: Scientific Advisory Service

- Typical examples of work:
 - Helping clients understand EIA reports or the implications of developments/activities on environment
 - Assisting clients to prepare submissions to decision-makers on the impacts of developments/activities
 - Advising the litigation team on the significance of the environmental impacts of an approval decision
 - Assisting the litigation team to run Court cases by facilitating the provision of expert evidence
 - Advising the policy team on the environmental implications of new government policies

Identifying opportunities for scientific input – pre-approval

Step	Opportunities for Scientific Input
Application	<ul style="list-style-type: none"> □ Identifying physical scope and components of the project – e.g. airstrip □ Determining level of impact assessment / types of impacts □ Identifying other approvals that are required (possibly from other agencies)
EIA Requirements	<ul style="list-style-type: none"> □ Formal or informal opportunity to write submission on scope of EIA Reqs – e.g. coal mine □ Lobbying other government agencies with formal opportunity for input – e.g. DECC
Community consultation	<ul style="list-style-type: none"> □ Lobby the proponent and consultant on scope of EIA – e.g. quarry
Public exhibition of EIA and conditions	<ul style="list-style-type: none"> □ Formal opportunity for input into EIA – most important time to give evidence □ Lobby other government agencies with formal opportunity for input
Revised EIA	<ul style="list-style-type: none"> □ Informal opportunity for input on any major changes to project
Consideration by decision maker	<ul style="list-style-type: none"> □ Informal opportunity for input – e.g. Gerroa
APPROVAL GRANTED	<ul style="list-style-type: none"> □ Review approval and conditions and consider grounds for appeal

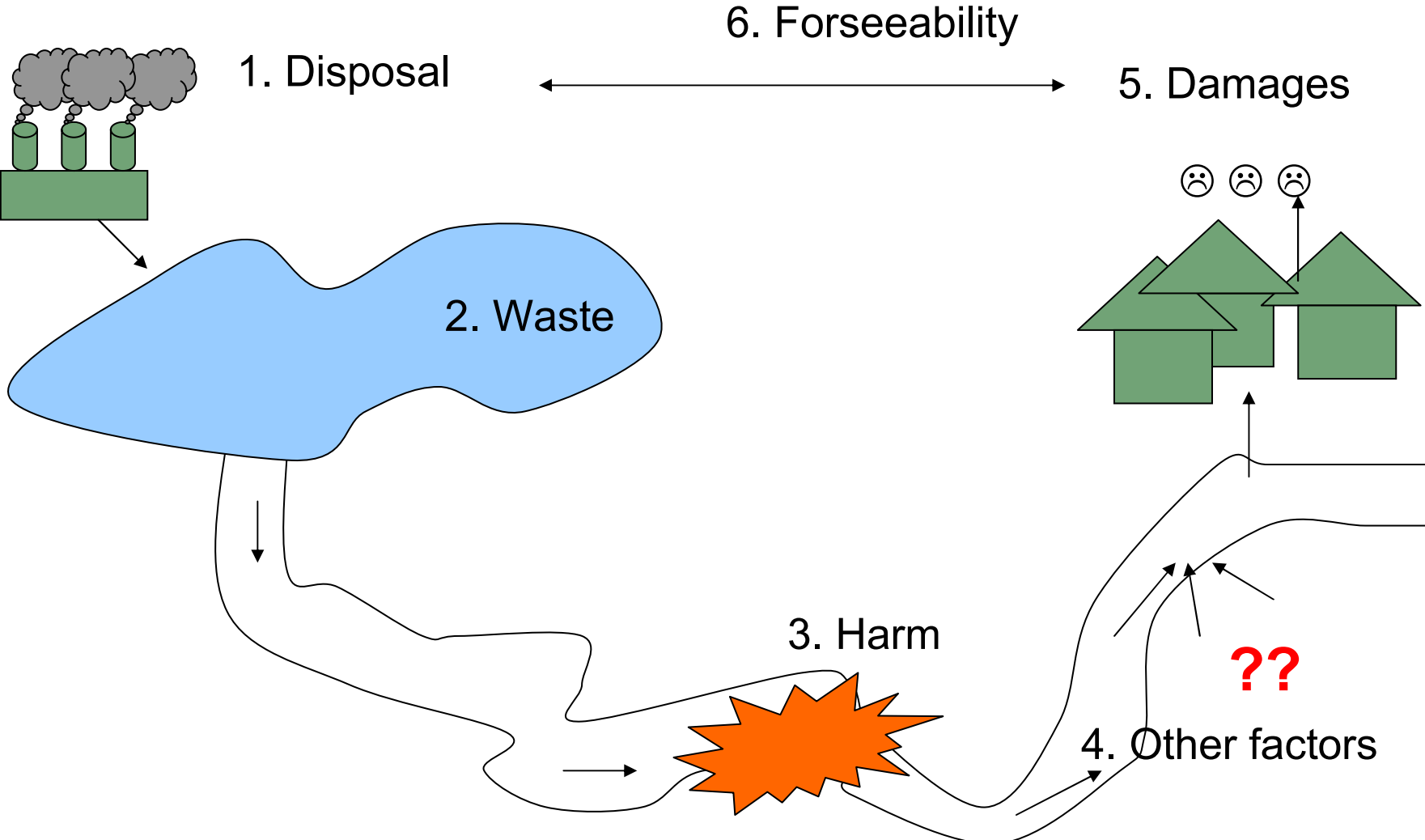
Identifying opportunities for scientific input – post approval

Step	Opportunities for scientific input
Ongoing compliance	<ul style="list-style-type: none">□ Compliance with other laws (pollution, illegal land clearing) e.g. Delta
Reporting requirements	<ul style="list-style-type: none">□ Reporting under laws□ Opportunity for keeping a close watch□ Technical evaluation of performance□ Making sense of the results / reports e.g. Bayswater
Modifications	<ul style="list-style-type: none">□ Is the modification permissible? e.g. Lake Cowal gold mine□ Evaluation of scale and impacts from modification
General compliance with conditions	<ul style="list-style-type: none">□ Opportunity to keep a close watch e.g. Gerroa□ Technical evaluation of performance e.g. targets and standards□ Source of evidence – may need more data

Identifying opportunities for scientific input – litigation

Step	Opportunities for scientific input
Commencing	<ul style="list-style-type: none"> □ Expert evidence before commencing
Standing	<ul style="list-style-type: none"> □ Judicial review - expert evidence to establish 'special interest' e.g. anthropologist?
Judicial review	<ul style="list-style-type: none"> □ Unusual – except where jurisdictional fact – e.g. significant impact (“backdoor merits”) e.g. Anvil Hill coal mine
Merits review	<ul style="list-style-type: none"> □ Are the impacts acceptable having regard to the scope of the required assessment? □ Evidence on impacts you consider unacceptable □ Expert report / expert witness
Interim / interlocutory injunctions	<ul style="list-style-type: none"> □ Arguable case / serious question to be tried e.g. Flying foxes □ Balance of convenience – expert evidence to establish irreversible harm
Civil enforcement	<ul style="list-style-type: none"> □ Standing □ Elements of the offence – dispose / waste / harm / recklessly or negligently
Torts	<ul style="list-style-type: none"> □ Trespass, nuisance, negligence □ Cause and effect □ Damages

Scientific connection between cause and effect

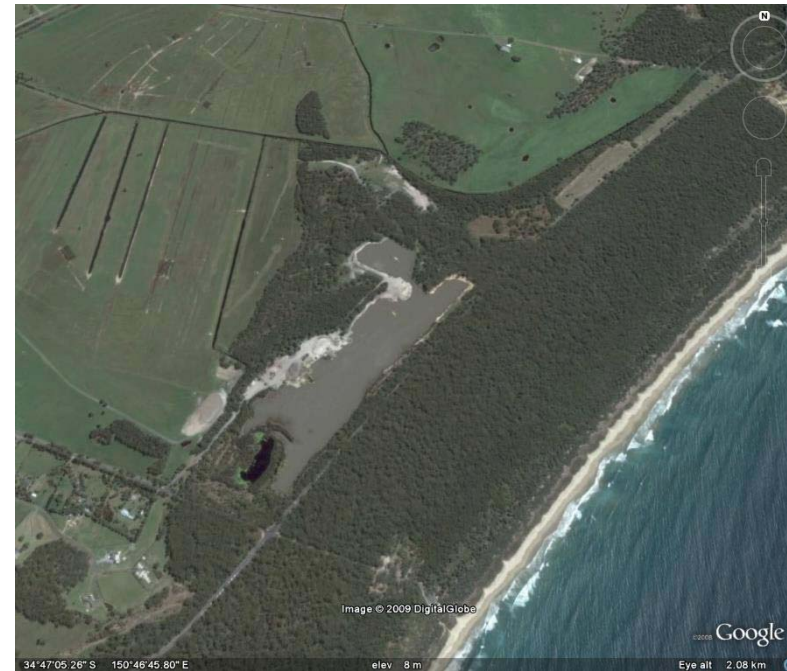


Part 2: Expert witnesses - practical and legal considerations

- Who is an expert?
- Duty to the court – UCPR, Code of Conduct, Practice Notes
- Finding / choosing experts – fees?
- Briefing experts
- Expert's reports
- Conferencing / joint reports

Part 2: EDO case studies

- *Case study #1: Sand mine on NSW south coast*
- Background and legal context
- How we used science
 - Initial discussions with client
 - Prepared submission
 - Assisted to lobby
 - Assisted to run Court case
- Value of using science



Part 2: EDO case studies

- *Case study #2: Cox's River water pollution*
- Background and legal context
- How we used science
 - Check accuracy of client's data
 - Collected more existing data
 - Engaged water quality expert to:
 - check accuracy of data
 - identify pollution source
- Value of using science

Part 2: EDO case studies

- *Case study #3: Bayswater power station*
- Background and legal context
- How science and law interacted
 - Elements of the offence
 - Pleadings
 - Terminology
- Value of using scientists early



Part 3: How can we help?

- Do you use science in your work?
- What opportunities are there for scientific input?
- Could science be used more? How or when?
- What types of scientific expertise do you require?