

# **MARINE SCIENCE PROGRAM**

## **MSP GUIDELINE No. 1**

---

**PROCESS FOR PLANNING, APPROVAL AND REPORTING ON  
MARINE SCIENCE PROJECTS SUPPORTED BY DEC**

---

**Science Division  
Department of Conservation and Environment**

# MSP GUIDELINE No. 1

---

## PROCESS FOR THE PLANNING, APPROVAL AND REPORTING ON MARINE SCIENCE PROJECTS SUPPORTED BY DEC

---

The processes outlined below have been in place in the Science Division for a number of years and have been developed to ensure appropriate levels of quality assurance, accountability of participating DEC staff and that science funding is used efficiently and effectively. The process includes all marine science projects that are partly or wholly supported by DEC (e.g. cash and/or *in kind* contributions such as staff time, equipment, cars, boats etc). The processes have been instituted to ensure high quality and timely science outputs, accountability for marine science funding, promote opportunities and synergies, avoid duplication and maintain records of historical and current research. The principal investigator of each project is responsible for ensuring that this process is adhered to.

### 1. Science Project Concept Plan (~2 pages)

The first step is to fill out the standard Science Division 1-2 page Science Project Concept Plan (SPCP). The purpose of the SPCP is to provide a broad overview of the key elements (e.g. specific objectives, expected outputs, duration, budget etc) of the project with the aim of allowing an assessment of the need, relevance, priority and the technical and logistical feasibility of the project to be made. The SPCP will also ensure that collaborators/potential collaborators have an agreed understanding of the project before detailed project planning begins.

The SPCP will be approved by the Science Division senior management team (SMT) on advice from the Program Leader, Marine Science Program. The SPCP will be posted on the DEC website to facilitate communication of the details of science projects to internal and external stakeholders. The SPCP proforma is at Attachment 1.

### 2. Marine Science Project Proposal (~10 or more pages)

The detailed scientific basis of the project is outlined in a Marine Science Project Plan (MSPP). The MSPP is a modified version of the standard SPP used by the terrestrial science programs of the Science Division and:

- Ensures that the project leader devises detailed science plans that address the study objectives, methods, outputs and relevance to departmental activities;
- ensures that the data can be robustly analysed;
- ensures the project leader is accountable for the delivery of the project outputs and outcomes, on time and on budget;
- enables the SMT to assess the proposal and answer the following questions:
  - a) does the design address the study aims specifically?
  - b) are the methods scientifically robust? Will the data lead to robust conclusions?
  - c) does the design maximize the information obtained about the research question(s)?
  - d) does the proposal complement or duplicate other research activities elsewhere in WA?
  - e) how will the results improve management of WA's marine environment?
- will include a broad overview of field operations, demonstrating that the objectives can be achieved given time, budget, personnel, equipment and safety constraints.

The MSPP is required to ensure appropriate quality control, accountability, project transferability (if necessary), data management and an archived record of the project. The successful completion of a project is based around the degree of coherence

between the MSPP and the annual progress reports in the Science Division's and the MSP's annual reports on activities and outputs. Individual staff performance management requirements will be largely based on activities and outputs outlined in the MSPPs and the MSP Business Plans. The MSPP proforma is at Attachment 2.

### 3. Field Operations Program

Once the MSPP is approved a Field Operations Program (FOP) will be required to provide a detailed outline of proposed field work. The FOP is aimed at ensuring field operations are conducted in the most efficient and effective manner with due regard to departmental boating and SCUBA diving policies. Once completed, the Field Operations Program can be attached to the Marine Science Project Proposal and distributed to relevant DEC managers as well as SDCA, and archived for future reference. The Project Leader is responsible for ensuring the implementation of the FOP.

### 4. Reporting

The project leader is responsible for reporting of results in the manner described in the Marine Science Project Proposal and ensuring data management complies with Science Division policies and practices.

For any project, the reporting requirements must conform to the outputs outlined in Attachment 3. Examples could consist of all or some of the following:

- A **data report**, within three-six months of the field work finishing, containing at minimum a brief introduction, aims, methods, summarised results, tabulated raw data and quality assurance information;
- a departmental **Technical Report** (if appropriate)<sup>1</sup> in the standard scientific format;
- publication of a **peer-reviewed paper** in an appropriate scientific journal; and
- a summary of **science communication** outputs;
- policy, planning and management **guidelines** resulting from the marine science project.

Distribution of copies of reports/papers and archiving of all data, in both hard copy and digital form, according to departmental protocols are the responsibility of the Project Leader.

---

<sup>1</sup> Departmental technical reports should be produced if important results and findings of the research are required well in advance of journal publication timeframes and/or can not be included in journal publications. Local peer reviews (2) are a minimum requirement for DEC technical reports. Technical reports should include a section on the implications of the research for marine policy, planning and management.

# ATTACHMENT 1

---

## Marine Science Project Concept Plan

---

1. Project title:

Rationale:

Objectives:

Outputs<sup>2</sup>:

2. Expected outcome/s:

3. Proposed period of the project:

4. Expected collaborations:

5. Strategic context (in relation to Corporate Plan, Business Plan and relevant marine park management plans etc):

6. **Staff (FTEs):**

	Year 1	Year 2	Year 3
<b>Scientist</b>			
<b>Technical</b>			

7. Indicative Operating Budget (\$):

	Year 1	Year 2	Year 3
<b>Consolidated Funds (DEC)</b>			
<b>External Funds</b>			
<b>Total</b>			

8. Proponent: ..... Date: .....

9. Supported by Program Leader: ..... Date: .....

10. Forwarded to Director, Science Division Date .....

---

<sup>2</sup> Outputs must conform to Attachment 3

11.	Forwarded to Director of NC or SFM	Date .....
Considered at SMT Meeting No. .... / .....		
Decision:	<input type="checkbox"/>	Rejected (return to proponent)
Approved subject to approval of SPP (forward to Biometrician for allocation of Concept Plan Number. Copy to proponent).		
Comment .....		
.....		
Director .....	Date .....	
Concept Plan No (Biometrician): .....		
Science Project Plan Received: .....	Date .....	

**(Note:** SPPs not received within 3 months of the Science Project Concept Plan being approved become void)

This is the Marine Science version of the controlled document available on the DEC web.  
 Printed versions of this document may not be current.  
 Last amended May 2008.

ATTACHMENT 2

---

# Marine Science Project Plan

---

Important: Refer to the *Explanatory Notes* (Staff Guideline No. 7) when preparing an SPP.

## PART A: Title and Location

**SPP Number:** [allocated by Biometrician]  
**Request No:** [allocated by WASPP]  
**Concept Plan No:** [allocated by Biometrician]

1. **Project Title:**
2. **Science Division Program:**
3. **Staff** [Names and estimates of percentage of time]:

Investigators	Names	FTE
Supervising Scientist		
Other Scientists		
Technical Officers		
External Collaborators		
Volunteer(s)		

4. a) **Output Program:**  
b) **Relevant Departmental KRAs:**
5. a) **IMCRA Region(s):**  
b) **NRM Region(s):**  
c) **CALM Region(s)/District(s):**  
d) **Geocode(s):**
6. **Related SPPs:**
7. **Proposed commencement date:** .....  
**Proposed completion date:** .....
8. **Signature of Supervising Scientist and submission date of SPP:**  
..... Date: .....
9. **Nomination of an external scientist/s capable of providing expert advice on the scientific merit of the SPP:**  
(i) .....  
  
(ii) .....

## PART B: Endorsements

10. **List the relevant Regional Ecologist(s), Marine Park Co-ordinators and Nature Conservation Leader(s) whom you have consulted about the SPP:**  
*What opportunities exist for collaboration with other Science Division Programs, other Departmental Staff, Universities, other Government agencies, Industry, traditional land owners and the broader community? Explain how these linkages were investigated/developed.*
11. **Biometrician:**  
*Return comments to Program Leader*
12. **Animal Ethics Committee:** (If applicable)  
*Return comments to Program Leader*
13. **Program Leader, Flora Conservation and Herbarium** (If applicable; see Point 22 below):  
*Return comments to Program Leader*
14. Program Leader:  
**Program Leader to arrange a copy of the SPP to be sent to the nominated external scientist (See No. 8) for a confidential assessment if required.** Yes/No
15. **After endorsement please forward to Biometrician:**  
*Biometrician to load approved SPP on WASPP, arrange filing at Directorate, publish in Science Communications, send photocopy of completed SPP to Supervising Scientist, copy cover sheet to Regional Manager, District Manager and relevant Program Leader (for their information)*

## PART C: Relevance and Outcomes

16. **Background and literature review** (help us to understand why the proposed research is important)
17. **Project aims** (state these very clearly):

18. **Anticipated outputs<sup>3</sup>:**
19. **Anticipated outcome(s):** (including benefits to DEC. Include specific reference to management plan KPIs, or similar indications that this is a high priority area for research).
19. **Knowledge transfer:** (Who are the anticipated users of the knowledge to be gained? How will they access and take up the information?)
20. **Major tasks and Milestones** (Detailed timeline describing major tasks and milestones (including reports) and when they will be completed in table form):
21. **Summarise entire project in an attached Gantt Chart** (to be used for project management):
22. **References:**

## PART D: Study Design

23. **Detailed methods** [including statistical analysis]:

## PART E: Data management and reporting

24. **Estimated number of vouchered specimens:**
25. **Data management including data custodian** [how and where are raw data being archived/maintained? - see Guideline No 16]:
26. **Reporting** (how will this research help improve DEC's marine policy, planning and/or management? Describe with specific reference to outputs listed in C18):

## PART F: Budget

27. **Budget Estimate** [anticipated expenditure]:

### Consolidated Funds (DEC)

	Year 1 (\$)	Year 2 (\$)	Year 3 (\$)
FTEs – Scientist			
FTEs – Technical			
Equipment			
Vehicle/Vessel			
Travel			
Other			
<b>TOTAL</b>			

### External Funds

	Year 1 (\$)	Year 2 (\$)	Year 3 (\$)
Salaries/Wages/Overtime			
Overheads			
Equipment			
Vehicle/Vessel			
Travel			
Other			

<sup>3</sup> Outputs must conform to Attachment 3



TOTAL			
-------	--	--	--

## PART G: Operational scope

Maps (if not already provided):

28. **Mode of field operations** (will operations will be vessel- or land-based? Camping or town accommodation? What kinds of vehicles/vessels will be required?):
29. **Approximate duration of field operations** (days per field trip if multiple operations):
30. **Approximate number of personnel that will be in the field for this project, and their roles** (eg Dive Supervisor, Coxswain, Project Leader, Field Assistant):
31. **Safety** (indicate how relevant DEC boating, diving and communications policies/codes will affect field operations):

## PART H: Marine science communication/education

32. **What science communication products/activities will be associated with this project** (specify outputs and audience in each case)?

NOTE: This is the Marine Science Program version of the controlled document which is available on the DEC web. Printed versions of this document may not be current. Last amended May 2007.

**ATTACHMENT 3: FRAMEWORK FOR ASSESSING SCIENTISTS PRODUCTIVITY**

OUTPUTS								
SCIENCE <i>What did we learn?</i>			COMMUNICATION <i>Who did we tell?</i>			KNOWLEDGE TRANSFER <i>What difference did it make?</i>		
Type	Purpose	Importance rating <sup>4</sup>	Type	Purpose	Importance rating	Type	Purpose	Importance rating
<b>Science Project Plan<sup>5</sup></b>	Ensures projects are properly planned and approved. <i>Timing: prior to project starting.</i> <i>Expectation: See Staff Guideline #171</i>	2	<b>Media interviews (radio/TV/print)</b>	Communicates research findings to wider community. <i>Expectation: Minimum of 1 in 5 years.</i>	1	<b>Advice (e.g. EIA) (verbal)</b>	Promotes best practice by DEC <i>Expectation: Ongoing, as &amp; when necessary.</i>	1-2
<b>Data report<sup>6</sup></b>	Ensures project data (incl. data quality statements) are accessible, archived and easily retrievable for alternative and future uses. <i>Timing: within 3-6 months of data collection ending.</i> <i>Expectation: For all approved SPPs</i>	4	<b>Pamphlets / Information sheets/ Newsletters etc</b>	Communicates research findings to key internal and external stakeholders and wider community. <i>Expectation: Minimum of 2 in 5 years.</i>	1	<b>Advice (e.g. EIA) (written)</b>	Promotes best practice by DEC. <i>Expectation: Ongoing, as &amp; when necessary.</i>	2-5
<b>Technical Report<sup>7</sup></b>	Ensures timely delivery of research findings and policy/planning/management implications for departmental purposes. <i>Timing: within 12 months of data collection ending.</i> <i>Expectation: Variable, depending on nature of research</i>	10	<b>Briefings/formal discussions etc (verbal)</b>	Communicates research findings to key stakeholders <i>Expectation: Minimum of 1 per year.</i>	1	<b>Planning/ Management guideline (contributing author)</b>	Promotes best practice approach to species and protected area management	1-5
<b>Conference paper</b>	Ensures accessibility and longevity of research findings to wider scientific community; promotes	14	<b>Web-based communications</b>	Electronic communication of research findings to	2	<b>Planning/ Management guideline (primary)</b>	Promotes science-based approach to species and protected	10

<sup>4</sup> Importance rating to be equitably 'shared' among contributors

<sup>5</sup> Externally refereed

<sup>6</sup> Data reports should document the what, why, when, where and how of the project and include summaries of data collected, data quality control statements, as per the SPP, and a record of the edited raw data archive location. Data reports should not contain results, discussion and implications for policy, planning and management.

<sup>7</sup> Externally refereed; Technical reports follow standard scientific reporting conventions plus a section on the implications for policy, planning and management.

	professional networks etc <i>Timing: as appropriate.</i> <i>Expectation: Minimum of 2 over 5 years</i>			wider community <i>Expectation: Minimum of 1 per year</i>		author)	area management <i>Expectation: Minimum of 1 per 5 years.</i>	
<b>Journal paper<sup>8</sup></b>	Ensures accessibility and longevity of research findings to wider scientific community; promotes DEC science capability; reinforces science-based approach of DEC's conservation programs <i>Timing: within 3 years of data collection ending.</i> <i>Expectation: Minimum of 10 over a 5 year period</i>	24	<b>Popular article (e.g. Landscape)</b>	Communicates science findings to wider community <i>Expectation: Minimum of 2 over a 5 year period.</i>	5	<b>Species and Protected Area management plans</b> (contributing author)	Ensures science-based approach to conservation planning <i>Expectation: Ongoing, as &amp; when necessary.</i>	1-5
<b>Book chapter</b>	Contribution to 'big picture' science <i>Timing: as appropriate.</i> <i>Expectation: Minimum of 1 over a 5 year period</i>	30	<b>Milestone reports/final reports etc</b>	Communicates progress to external funding agencies <i>Expectation: For all externally funded projects.</i>	5	<b>Species<sup>9</sup> and Protected Area management plans</b> (primary author)	Ensures science-based approach to conservation planning <i>Expectation: Ongoing, as &amp; when necessary.</i>	10
<b>Major review</b>	Major update and summary of existing knowledge <i>Timing: as appropriate.</i> <i>Expectation: Minimum of 1 over a 10 year period</i>	40	<b>Conference / seminar / lecture/ workshop abstract and presentation / poster/ formal field days</b>	Communicates science findings to scientific community / stakeholders <i>Expectation: Minimum of 5 over a 5 year period</i>	5	<b>Policy/strategy statement</b> (contributing author)	Ensures science-based approach to policy/strategy development in DEC. <i>Expectation: Ongoing, as &amp; when necessary.</i>	1-5
<b>Book</b>	Major contribution of new scientific knowledge <i>Timing: as appropriate.</i> <i>Expectation: Not expected but encouraged</i>	50				<b>Policy/strategy statement</b> (primary author)	Ensures science-based approach to policy/strategy development in DEC. <i>Expectation: Ongoing, as &amp; when necessary.</i>	10

<sup>8</sup> Multiplier could be used to reflect journal quality

<sup>9</sup> Includes species recovery plans and species management plans