

South African Estuarine Database

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Version 1*

Project Charter and Work Programme

This document details the objectives, conceptual design, work programme, and resources required to establish the South African Estuarine Database (SAED), based on prior work funded by the Water Research Commission (South African Estuaries Information System, SAEIS).

Objectives

The project will have the following objectives:

1. Re-deploy the information assets of SAEIS in a manner that increases its re-usability within different contexts;
2. Make the software framework more extensible and maintainable, ideally directly by scientists and their collaborators;
3. Integrate the data and information collection with the SAEON Data Portal and its meta-data search capabilities;
4. Make future additions and amendments to the data and information base accessible to scientists and technicians within SAEON.

Conceptual Design

In concept, SAEON builds systems within a framework that allows the following:

1. Description of information resources, data, and documents using one of several standardized meta-data schema. The schema to be used depends on the type of data or information;
2. Presenting the resource collections in a variety of formats, depending on context: Typically these are lists of resources meeting criteria, charts and tables summarizing the available resources, and maps to summarise availability or provide details of the same.
3. User-defined searches that supplement the predefined views of resource collections are also available;
4. Access to and download of information resources and data in the public domain;
5. Contribution of information resources and discussion/ annotation of available material by designated collaborators and partners;

6. Visualisation and exploration of data sources that are available in standardized formats (composite maps, charts, tables, and other means of presentation);
7. Composition of dedicated websites with appropriate static and dynamic content – project information, biographies of researchers, news and events, information on funders and collaborators, and similar.

Specific Extensions Required

Within the framework described above, the SAED will require the following specific extensions:

1. Search facilities are at present generic (what, where, when): this has to be tailored to a specific community, and allow aspects such as ‘Organisation’, ‘Journal Name’, ‘Literature Type’, etc. to be specified explicitly. The requirement is twofold: more specifics in respect of the publication, and more specifics in respect of estuaries. This component becomes an extended version of the generic portal search component.
2. There is, within the generic information objects such as ‘maps’, ‘reports’, ‘images’, and the like, a small relational database that contains estuary-specific information. This needs to be retained, with editing capabilities, but presentation becomes integrated into the framework capabilities by way of an automatically generated web page per estuary. Such a web page can contain predefined search facilities for literature, reports, images, and predefined visualisations for images, maps, etc.
3. There appears to be an extension to accommodate species observations per estuary – not used at present. User input is required.

User Requirements Specification (URS)

The URS, in a separate document, details the following:

1. Conceptual Design and Architecture
2. General Design Considerations
3. Typical Users and System Components (Actors)
4. Use Cases to be Supported
5. Data and Information Objects to be Supported.

Systems Specification (SRS)

The SRS, in a separate document, details the following:

1. Interface specifications – machine and user interfaces.
2. Applicable standards and guidelines for data and meta-data
3. Implementation specifications: site layout and structure, static and dynamic content

Test Schedule (UAT and FAT)

Formal engineering requires two sets of tests as a minimum:

1. User Acceptance Tests (UAT): proving and demonstrating that users can achieve their requirements – typically by testing all the use cases;
2. Factory Acceptance Tests (FAT): proving that standards and interfaces are implemented correctly.

A separate document will be developed to contain both UAT and FAT schedules.

Scope of Work, Human and Financial Resources

The work breakdown schedule is as follows:

Aspect		Responsible	22- Apr	29- Apr	06- May	13- May	20- May
Project Management							
1.1	Scope of work and Charter	WH/ SD					
1.2	URS and SRS	WH/ SD					
Site Creation and Migration							
2.1	Create Website	WT/ WH					
2.2	Migrate Static Content	WH/ SD					
2.3	Migrate Literature/ Reports to Meta-Data	WH/ SW					
2.4	Migrate Images and Create Meta-Data	WT/ WH					
2.5	Create 'Published Page' per Estuary	SW/ WH					
Meta-Data Extensions							
3.1	Extended Search Facility	SW/ WH					
3.2	Automated Meta-Data/ Page Updates	SW/ WH					
3.3	Develop Editor for 'Estuaries' RDB	SW/ WH					
Testing							
4.1	FAT	SW/ WT/ WH					
4.2	UAT	SW/ WT/ WH/ SD					
Launch							
5.1	Internally	All					
Approximate Figures							
	Literature: 2700 entries						
	Images: 3000 images						
	Estuaries: 270						

The project is funded as follows:

1. Project Management/ Systems Architect/ System Engineering Role:
 - a. W Hugo (funded internally)
2. User Liaison and System Ownership:
 - a. S Deyzel (internally funded)
3. Site Setup and Configuration
 - a. Webtide (within current SLA)
 - b. Softwave (within current SLA)
4. Data Repositories
 - a. Spatial Data
 - i. Softwave (Project Funding)
 - ii. T Bangira (funded internally)
 - b. Documents and Reports
 - i. W Hugo (funded internally)
 - ii. C Woolls (funded internally)
 - c. Images
 - i. W Hugo (funded internally)
 - ii. Webtide (within current SLA)
5. Meta-Data Repository
 - a. Softwave (Project Funding)
 - b. W Hugo (funded internally)
6. Extensions to Search Facilities
 - a. Softwave (Project Funding)
7. Static and Semi-Dynamic Content
 - a. S Deyzel (internally funded)
 - b. W Hugo (internally funded)
8. Test Execution
 - a. Softwave (Project Funding)
 - b. S Deyzel (internally funded)
 - c. W Hugo (internally funded)

Elwandle has made 8 person-days of funding available for the 'Project-Funded' requirement in respect of Softwave (system development and assistance with testing).