Appendix 1 Originally proposed Desired State

To support wise decision-making in the sustainable use of water resources, DWAF has, by 2004, coordinated in stakeholders and itself implemented the practices and technologies to facilitate the effective creation and exchange of knowledge to report increasingly accurate assessments and predictions of the nature and status of water resources

Appendix 2 Obstacles identified at the workshop

Lack of stakeholder empowerment   **Obstacle 01**

Non-availability of sufficient number of people to convert information into knowledge out there

Unequal capacity in stakeholders

Lack of understanding and defining who stakeholders are (who are the customers?)

Lack of alignment around the emerging vision   **Obstacle 02**

Information on other initiatives not readily available

Lack of culture of cooperative governance – transparency; communication

Lack of or uncoordinated cooperative governance between departments

Lack of clarity on national cooperative IT framework

Recognition, incentives, and rewards are not aligned with emerging vision

Lack of agreed conceptual models   **Obstacle 03**

Lack of integration of system

Uncoordinated and unaligned IT research and development to support decision makers

Incomplete standards and processes for transfer/maintenance

Lack of conceptual models to define data

No overarching framework to coordinate development

Future uncertainties   **Obstacle 04**

Inflexibility and lack of compatibility in terms of technology

Changing needs: technology

Inadequate technology for efficient and effective transfer of information

Uncertainties from external   **Obstacle 05**

Political agenda/imperatives override the logical development plan

Lack of political will; other social issues

There is an inadequate and inappropriate distribution of resources   **Obstacle 06**

Lack of resources, e.g. budget, skills, capacity

Lack of financial resources

Insufficient resources and training

Inadequate capacity building in science and technology at secondary and tertiary level

Budget constraints, low priority

Scarcity of skilled resources

Lack of data sharing   **Obstacle 07**

Lack of understanding of the difference between rights based and interest based bargaining

Restrictions to data sharing created by high data charges

Security/safeguard databases

Unsure of risk of sharing

Lack of data sharing

Limited data accessibility

Inadequate data acquisition and management   **Obstacle 08**

Long feedback time between monitoring and data use

Lack of managing scale aggregation/disaggregation - national-local

Incomplete data sets and need to invest in improved data collection

Lack of data collection standards

Quality control standards for data not adequate

Lack of reference data sets

Lack of integrity and usefulness of information/data   "official DWAF"

No monitoring and data collection policy and capacity is very limited – farsightedness

Limited data availability

Legacy of past IT failures   **Obstacle 09**

Risk that playing safe in performance agreements will seriously impede progress if there is no culture of fault tolerance

Hangover of past failures of integrated IT development

Lack of understanding of what coordination/integration really entails

Insufficient common understanding of current reality   **Obstacle 10**

Lack of business process; ie ineffective and ill-defined functional integration and understanding of user requirements

Lack of clarity on DWAF business

Performance measurement tools (auditing) absent

Business understanding and support including size and complexity

Unclear delegation of responsibilities and unknown future structure

Undefined business

Lack of centralized common vision and commitment by DWAF management to the process

Vague decision processes (also in lack of agreed models)

**Lack of understanding of appropriate use of information generation systems (models)
Obstacle 11**

Inability to meet both short and long term needs

Appendix 3 Guiding principles that underlie the Intermediate Objectives

Sustainability

Coordination

Integration

Standardisation

Relationships

Improved water resources management

Continuous innovation

"Wise " includes ideas of:

Empowerment

Integrity

Inclusive

Justifiable

Just

Equity

Lasting

Sustainable

Effective

Efficient

Appropriate

Timely

Affordable

Objective

Politically sensitive