



WRC Research Cycle

(from WRC101 _ Heidi Snyman)

Wandile Nomquphu

22 March 2012 at 8:30

Presented at The School of Engineering, UNISA – Florida Campus (Roodepoort)

- 💧 Promoting co-ordination, co-operation and communication in the area of water research and development
- 💧 Establishing water research needs and priorities
- 💧 Stimulating and funding water research according to priority
- 💧 Promoting effective transfer of information and technology
- 💧 Enhancing knowledge and capacity building within the water sector



Research priorities

- 💧 Aim is to solve water-related problems which are critical to South Africa's sustainable development and economic growth, and are committed to promoting a better quality of life for all
- 💧 Fundamental research – it must be clear that it might lead to a solution and fit into the research priorities
- 💧 Applied research
- 💧 Innovations and novel solutions



Main steps in the life of a WRC project

- 💧 Strategic planning
- 💧 Call for proposals
- 💧 Selection process
- 💧 Project and contract management
- 💧 Technical and financial finalisation
- 💧 Report distribution and knowledge dissemination



Strategic planning

- 💧 The WRC research strategy is informed by:
 - 💧 National needs
 - 💧 Consultation with stakeholders e.g. research community
 - 💧 International trends
 - 💧 Latest developments in science and technology
 - 💧 Government initiatives
- 💧 Approval of WRC Business Plan and Budget
 - 💧 Approved by WRC Board of Directors and thereafter submitted to Minister of the Water and Environment Affairs and Minister of Finance for approval.
 - 💧 Submission is a year in advance (project for which you apply for in this year, will only start in the next Financial year)



Solicited and non-solicited research

- 💧 Solicited research – “WRC requests proposals on a defined topic”



- 💧 Influence priorities and research against needs that have been identified
- 💧 Areas where the WRC want to put more attention
- 💧 The WRC initiates the research
- 💧 Some projects are requested by strategic partners – these could run outside the normal cycle



- 💧 Non-solicited research – “Researchers submit proposals within defined programme allocation”



- 💧 The researchers interpret the research priorities and formulate innovative solutions
- 💧 “We buy your ideas” within the research priorities



WRC decides

You decide

Call for proposals

Time line:
May – July

Initiate WRC Research Cycle

Solicited Research

- Specific research aspects of national priority are addressed
- Determine needs through stakeholder or reference group consultation
- Develop draft TOR
- External review of draft TOR
- Executive approval of TOR

Non-Solicited Research

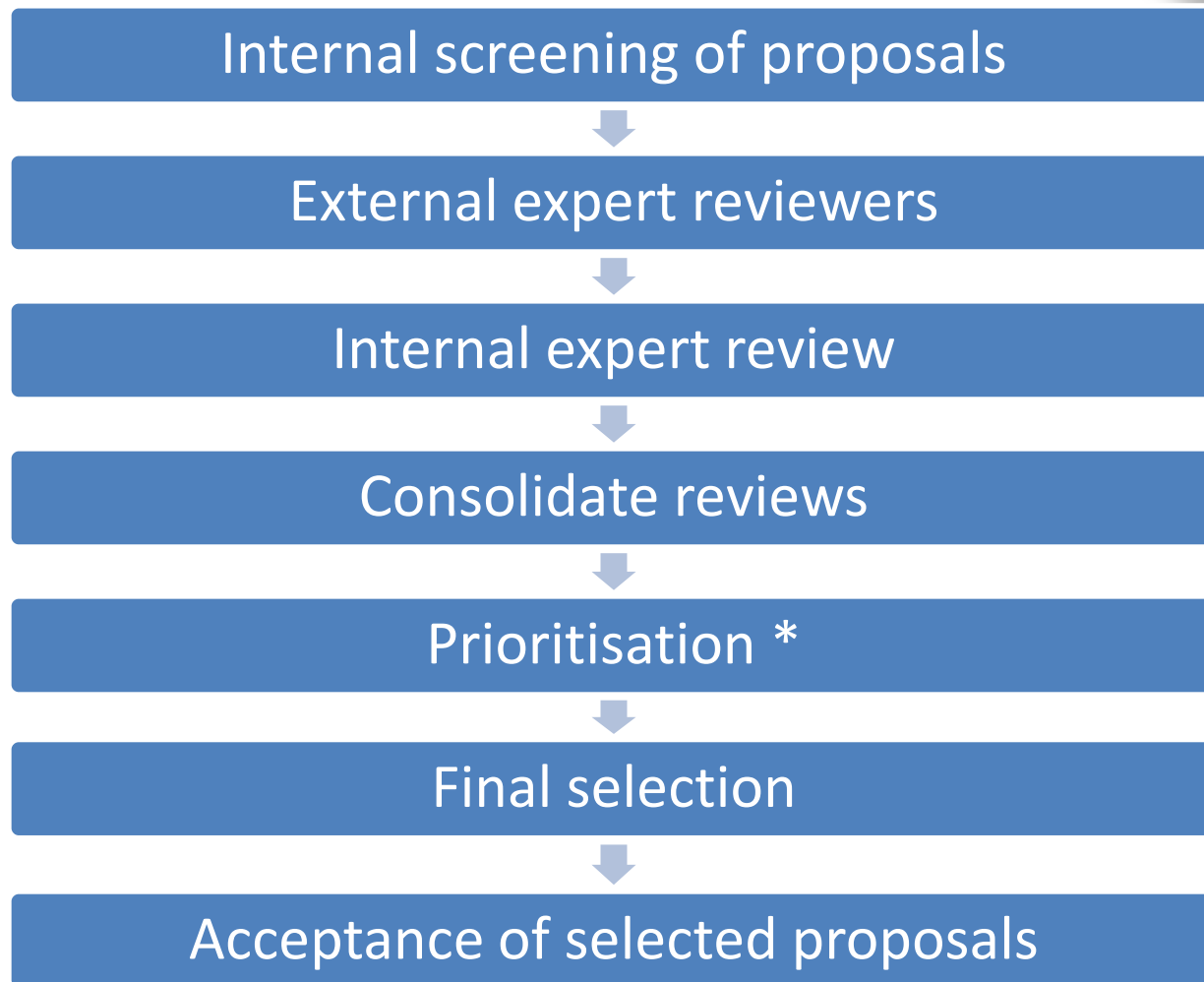
- Researchers are guided by the KSA programmes on matters of national importance and invited to submit proposals
- Define broad key strategic areas and programmes

Web based submission system: www.wrc.org.za



Selection process

Time line:
July – November



* All KSAs are involved in this process

Project management

Time line:
November to end
of project

- 💧 Proposal amendment – Nov to Feb
- 💧 Prepare and sign contract – proposal amendments must be done on line before the system closes for proposal amendments on 31 March
- 💧 Appoint reference group
 - 💧 Typically represented by experts on the subject matter, potential users (local government or industry) and regulators (DWA, DoH etc)
- 💧 Inaugural meeting with researchers and reference group
- 💧 Monitor progress and ensure deliverables are on time, on budget and of a high standard
- 💧 At least one reference group meeting per year
- 💧 Receive draft final report
- 💧 Reference group recommend acceptance of final product
- 💧 Incorporate comments from reference group
- 💧 Internal expert review
- 💧 Internal Quality Control Review
- 💧 Technical and financial finalisation/closure of contract



Report distribution

Time line:
3 months after
finalisation

- 💧 The WRC reserves the right not to publish a report
- 💧 Report on WRC website
- 💧 Prepare summary and briefs
 - 💧 The project summary is published in WRC publications such as the Water Wheel.
 - 💧 Briefs are prepared to inform users of the technical findings and possible policy advice using non-technical language.
- 💧 Distribute report – local versus international
- 💧 The following institutions receive hard copies:
 - 💧 Legal libraries throughout the country
 - 💧 Reference Group and Researchers
 - 💧 Key stakeholders
- 💧 Alert stakeholders of new research or technology transfer report
- 💧 Track report distribution and users



Knowledge dissemination

Time line:
Ongoing

- 💧 Dissemination workshops
- 💧 Open Days
- 💧 Media alerts
- 💧 Presentations at local and international events
- 💧 Conferences
- 💧 Exhibitions
- 💧 CDs
- 💧 DVDs





Preparing a proposal

Research priorities and budgets



WATER
RESEARCH
COMMISSION

[sitemap](#) [about us](#) [contact us](#) [careers](#) [terms & conditions](#) [intellectual property](#) [intranet](#) [extranet](#)



[Home](#) [Knowledge Hub](#) [Research](#) [Resources & Tools](#) [Learning](#) [WRC Water Community](#) [News & Media](#)

[Login](#) | [Register](#) [Site Actions](#)

Top Downloads.....

- ▶ Water purification works design
- ▶ National standards for drinking...
- ▶ A simple guide to the chemistry...
- ▶ Guidelines and training aids for...
- ▶ Call for proposals 2010

What others are browsing.....

- ▶ An investigation into the water...
- ▶ The economic cost effects of salinity...
- ▶ Human resources planning and management...
- ▶ Detection methods for Legionella...
- ▶ Tolerance of selected riverine...

Latest Publications.....

- ▶ WRC Research Portfolio 2011/2012
- ▶ 2011 Call for Proposals
- ▶ Guidelines for proposal preparation...
- ▶ Terms of reference for a solicited...
- ▶ Template: Research proposal format...



Water Wheel Annual Report Water SA Knowledge Review

Free WRC Community MEMBERSHIP

- Download Documents from the Knowledge Hub
- Future functionality:
- Get notifications of research procurements, latest publications
- Receive e-publications such as Water Wheel and Water SA
- Get early bird warnings of water events

[Web Guide](#)

[Register](#)

[Login](#)

WRC WATER COMMUNITY

[Events >>](#)

Start Date	Title
2011/05/15	IWA Applications of Nanotechnology in the Water Sector 2011
2011/05/16	Short course on geochemistry and contaminant transport modelling
2011/05/19	WISA Oxidation and Disinfection Division technical tour

1 - 3 ▶

NEWS & MEDIA

[Latest News >>](#)

- ▶ 'One home one garden' has become a reality in Clairwood, Durban
- ▶ Water Research Commission's 40th birthday
- ▶ A new water quality specialist joins the WRC

KNOWLEDGE HUB: Get Research Reports, Publications >>

[Search](#) ☐ Search inside docs

RESEARCH: Announcements, Research Scope, Research Documents and Guidelines >>



Fund Management System

[Login](#)

- * Proposals
- * Projects
- * Reviews
- * Meetings

RESOURCES & TOOLS: Dictionary, Water Statistics, Software >>


Go to Water Dictionary for explanation and definitions of water terms and Regional Water Statistics. Look up other Water Facts & Figures. Download Software.

LEARNING: Students, Educators, Users >>

The Water Knowledge Hub acknowledges the importance of water and provides learning materials and resources for students, educators and other water users.






www.wrc.org.za
Click on FMS login

Research priorities and budgets



**South African
WATER RESEARCH COMMISSION**
Supporting sustainable development through research
funding, knowledge creation and dissemination

[sitemap](#) [about us](#) [contact us](#) [careers](#) [terms & conditions](#) [intellectual property](#) [intranet](#) [extranet](#)

[Home](#) [Knowledge Hub](#) [Research](#) [Resources & Tools](#) [Learning](#) [WRC Water Community](#) [News & Media](#)

[Login](#) | [Register](#) [Site Actions](#)

Top Downloads.....




- ▶ Water purification works design
- ▶ National standards for drinking...
- ▶ A simple guide to the chemistry,...
- ▶ Guidelines and training aids for...
- ▶ Call for proposals 2010

What others are browsing.....

- ▶ An investigation into the water...
- ▶ The economic cost effects of salinity...
- ▶ Human resources planning and management...
- ▶ Detection methods for Legionella...
- ▶ Tolerance of selected riverine...

Latest Publications.....

- ▶ WRC Research Portfolio 2011/2012
- ▶ 2011 Call for Proposals
- ▶ Guidelines for proposal preparation...
- ▶ Terms of reference for a solicited...
- ▶ Template: Research proposal format...


Water Wheel Annual Report Water SA Knowledge Review

Free WRC Community MEMBERSHIP

- Download Documents from the Knowledge Hub
- Future functionality:
- Get notifications of research procurements, latest publications
- Receive e-publications such as Water Wheel and Water SA
- Get early bird warnings of water events


[Web Guide](#)
[Register](#) [Login](#)

KNOWLEDGE HUB: Get Research Reports, Publications >>



☐ Search inside docs

RESEARCH: Announcements, Research Scope, Research Documents and Guidelines >>



IFMIS
Fund Management System

[Login](#)

- * Proposals
- * Projects
- * Reviews
- * Meetings

RESOURCES & TOOLS: Dictionary, Water Statistics, Software >>

Go to Water Dictionary for explanation and definitions of water terms. View the latest Regional Water Statistics. Look up other Water Facts & Figures. Download free Water Software.

LEARNING: Students, Educators, Users >>

The Water Knowledge Hub acknowledges the importance of learning and collects, develops and provides learning materials and resources for learners, students, educators and other water users.

WRC WATER COMMUNITY

[Events >>](#)

Start Date	Title
2011/05/15	IWA Applications of Nanotechnology in the Water Sector 2011
2011/05/16	Short course on geochemistry and contaminant transport modelling
2011/05/19	WISA Oxidation and Disinfection Division technical tour

1 - 3 ▶

NEWS & MEDIA

[Latest News >>](#)

- ▶ 'One home one garden' has become a reality in Clairwood, Durban
- ▶ Water Research Commission's 40th birthday
- ▶ A new water quality specialist joins the WRC

[Press Release >>](#)

- ▶ Groundwater use potential for South Africa
- ▶ What happens when a pit is full?

[Hot Topics >>](#)

- ▶ Red letter year for authorities to prevent mine-water catastrophe
- ▶ Science turns water threats into

Research priorities and budgets

- 💧 Call for proposals – See handout - The current call
- 💧 Look out for the call for proposals from around the beginning of May 2012 on www.wrc.org.za
- 💧 Understand what the WRC wants: Study the documents which informs the researchers where the specific focus is for the next few years
- 💧 Make sure that researchers only apply for projects in appropriate Thrusts and programmes that have funds available. Do not pick another non-related Thrust or programme where funds are available. It reflects badly on the proposer and starts a rerouting process in the WRC
- 💧 Note all the KSAs can view all proposals – do not submit the ‘same’ proposal in more than one KSA



Research priorities and budgets

- 💧 The research call is a framework and there is some flexibility
- 💧 Please engage with the responsible research manager if you have any innovative ideas and do not know where it fits in
- 💧 Short term research projects are also available for:
 - 💧 A new research idea and/or investigate proof of concept
 - 💧 A unique opportunity
 - 💧 Solve a specific problem
 - 💧 Knowledge dissemination, including repackaging information.
 - 💧 A WRC Short Term Research Project:
 - 💧 Typically runs outside the annual research cycle
 - 💧 Is not part of the annual call for proposals
 - 💧 Has a small total contract value
 - 💧 Can start at any time of the financial year
 - 💧 Has a duration of equal or less than 12 months that can run over 2 financial years



Preparing a proposal (cont...)

💧 Motivation and knowledge contributions

- 💧 Try to capture the essence of the problem or your idea or plan in the very first few sentences
- 💧 Informative background. Give sufficient background to your intended work so that the reviewer understands:
 - 💧 what has already been done (by you and others in the peer-reviewed scientific literature)
 - 💧 why what you are proposing addresses current shortcomings
- 💧 Innovation. If your idea is a 'great new idea', don't assume the reviewers will figure it out themselves. Explain clearly and concisely why you think it is innovative.
- 💧 Realistic applications. Think specifically about who you think could apply the results of your work.



Preparing the proposal (cont...)

💧 Motivation for non-solicited proposals:

- 💧 Give enough background to show that the team understand what has been done and where this work fits in.
- 💧 What knowledge will this work bring to the water sector in the context of the strategic direction of the Thrust?
- 💧 Demonstrate that you have a good grasp of the research problem and application of the research results
- 💧 Do not allocate large amounts to do a basic literature review, develop the work plan or identify the research needs. This should have been done already.
- 💧 Do your homework – inception reports are not recommended



Preparing the proposal (cont...)

💧 Motivation for solicited proposals

- 💧 The rationale and motivation of the TOR should be reflected in the proposal
- 💧 The freedom lies in interpreting the rationale and deciding on what methods to use to achieve the objectives stated in the TOR
- 💧 Strong proposals have well considered methods
- 💧 The proposers need to show how they interpret the TOR and demonstrate why their particular team is the best for the work.
- 💧 Remember that a solicited proposal is like a bid.
- 💧 The budget and time are however fixed



Preparing the proposal (cont...)

💧 Aims

- 💧 Clear aims are very important and should link to the knowledge needs identified in the motivation
- 💧 Aims are outcomes based, not a physical deliverable or a task
- 💧 Aims need to be unpacked into deliverables or a task
- 💧 Deliverables must be do-able – remember that the success of the project is measured against the achievement of the aims



Preparing the proposal (cont...)

- 💧 Deliverables table

**THIS BECOMES THE CONTRACTUAL
CONTROL MECHANISM AND YOUR
CASH FLOW**

- 💧 Note: WRC financial year is 1 April to 31 March



Preparing the proposal (cont...)

💧 Deliverables table

- 💧 Plan deliverables well to ensure a balance between adequate cash flow and administrative burden
- 💧 We recommend up to 5 deliverables per year
- 💧 Note that our systems cannot handle sub-deliverables
- 💧 The WRC will only pay an invoice if the deliverable is acceptable in quality, value for money and full disclosure. Linked to the aim/deliverable (especially the deliverable description)
- 💧 Deliverables need to be appropriate for the cost and product.
- 💧 Do not send the invoice before the deliverable – it will be returned



Preparing the proposal (cont...)

💧 Deliverables table

- 💧 Stick to the Deliverable title/description, target date and amount and remember to reflect this and the Project number on the invoice
- 💧 Avoid deliverables with submission dates in the last month of the financial year (March)
- 💧 Value of the last deliverable must be 10% of the contract value – typically the “print” ready report. Note that this is only paid when the WRC Executive approved the finalization (report compiled by the research manager)
- 💧 If you are not able to deliver on time, it is your obligation to let the WRC know in writing– see contract!!! The contractor should initiate the amendment process.



Preparing the proposal (cont...)



💧 Deliverables table

- 💧 Deliverable target date is the last date for delivery – early delivery is welcome. Inform the RM if you are running late.
- 💧 Invoices are paid within 30 days upon approval of the deliverable. Therefore do not send the invoice with the deliverable.
- 💧 Deliverable can be a progress report – but not time sheets
- 💧 Do not provide a 5 page report for a R 200 000 deliverable, especially if the deliverable is supposed to be a model or a report
- 💧 Make provision for capital acquisition as a deliverable
- 💧 Deliverables for collecting data – give data and confidence that the data is useful. It does not have to be the full analyses. Also supply data (if the data set is large – submit it electronically in the original programme)



Preparing the proposal (cont...)

Deliverables table

-  If the contract ends on the 31 March, the final deliverable target date must be at least 3 months before this date
-  Draft final report goes to the reference group for recommendation



Preparing the proposal (cont...)

💧 Capacity building

💧 Students

- 💧 Note that the WRC will inform contractors in November whether the proposal was successful or not
- 💧 Consider a slow start during the planning stages
- 💧 Generic students are allowed at proposal stage – but remember that the actual student data and their demographic data must be submitted annually
- 💧 All WRC contract holders must report against this commitment annually as well as provide data on publications and graduates up to 5 years after the project ended
- 💧 Cost students separately as part of the team



Thank you

wandilen@wrc.org.za

