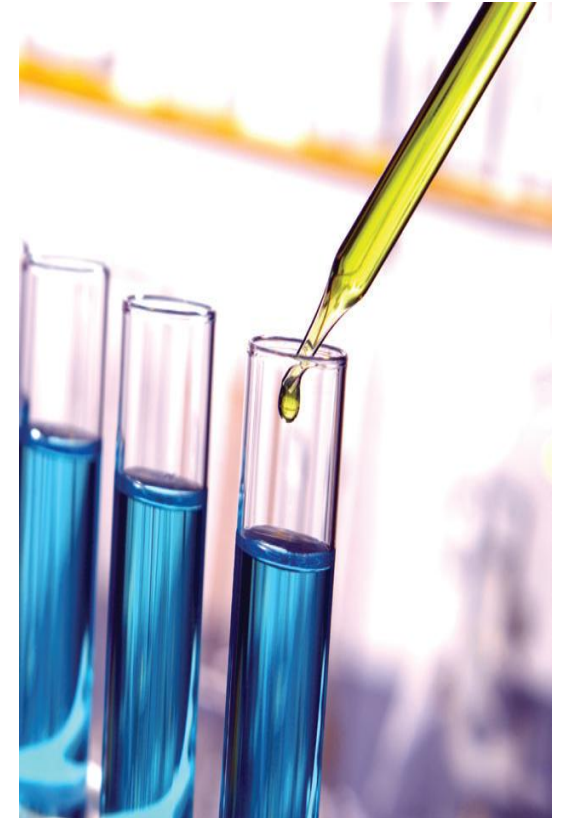


Water Research Commission

National Consultation on Water Research
Levy for financial year 2018-19

Presenter : Fazel Ismail

25 August 2017

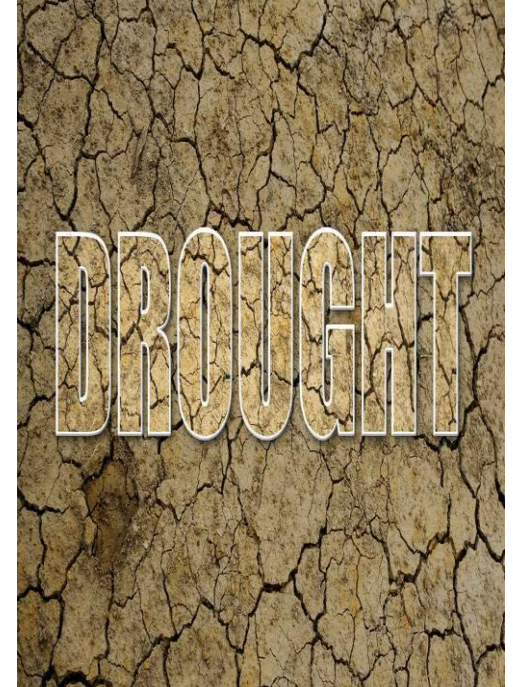


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A SOBERING PICTURE

- South Africa as a country is emerging from the world's highest impact el Nino event in 20 years
- We have been through one of the worst droughts in recent history, and for the Western Cape, the worst since 1904
- We will require three consecutive years of reasonable rainfall to effect a full recovery
- South Africa's water balance continues to be at risk, with most models predicting a supply deficit of around 1 billion cubic metres by 2035 if the current high demand pattern continue, this is despite a supply increase of more than 16% on current and planned augmentation projects
- Even in non-drought years South Africa ranks 18 out of 180 countries with respect to water availability per capita

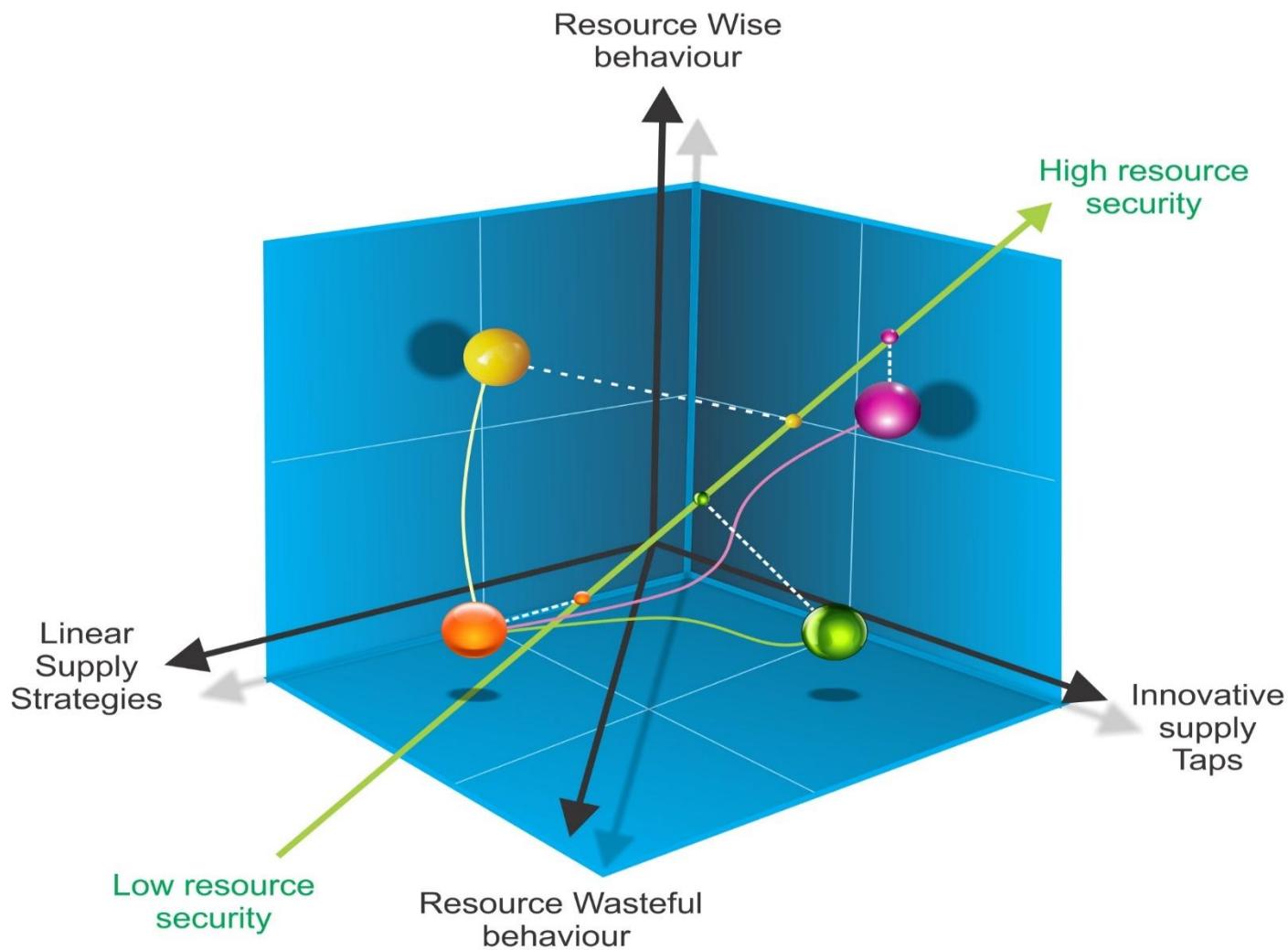


DISCUSSION POINTS

1. A multi-dimensional approach
2. WRC core functions, goals and underlying principles
3. Research Portfolio Progress against Performance targets for 2016/17
4. Identified Research focus areas for 2017/18 and beyond
5. Income and expenditure projections for 2018/19
6. Number and value of projects currently in progress
7. Proposed levy increase for 2018/19 and the rationale



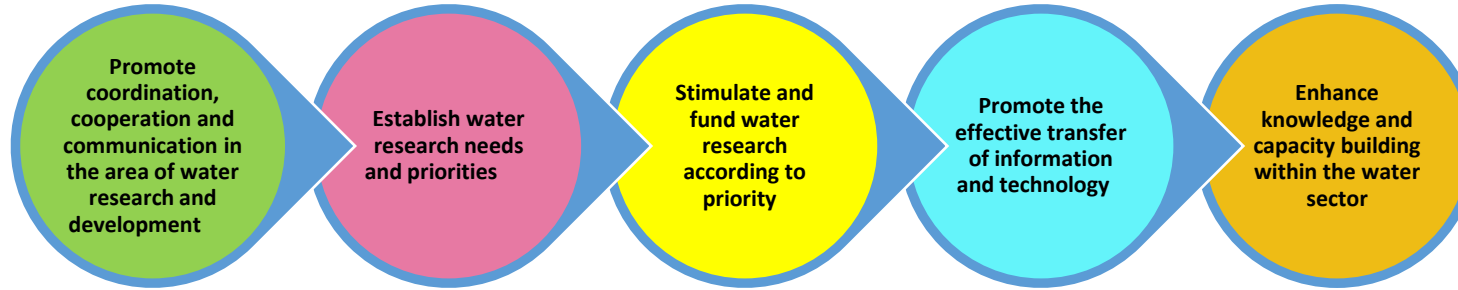
A multi-dimensional approach



The diagram illustrates that a high resource security given the water complexities requires not only a linear increase in water supply but also behaviour change and other innovative water supply solutions



WRC CORE FUNCTIONS



OUTCOME-ORIENTATED GOALS

- **Inform policy and decision-making** – Research based knowledge generation that guides policies, practices, behaviour and reframing debates
- **Develop new products and services for economic development** – increased focus on projects that can develop new intellectual property, innovations that create new or improved technologies, products and services that can be used in the real economy
- **Enhance human capital development in the water and science sectors**- The high levels of student participation in its projects
- **Empower communities** – emphasise projects that include communities as end users, active research participants and beneficiaries
- **Drive sustainable development solutions** – Prioritise projects that provide sustainable development solutions that have a positive effect of the environment, economy and society including the protection of water resources, we also focus on knowledge products that are fit-for-use to ensure the uptake of research.

CORE UNDERLYING PRINCIPLES

- **Investment in the “multiplier effect”** - in essence relates to choosing a significant proportion of new projects that build and deepens the existing knowledge base
- **Focus on solutions development** - This allows the WRC to move from laboratory tested solutions to larger scale demonstrations and finally supporting the commercialisation

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Research portfolio progress against performance targets for 2016/17

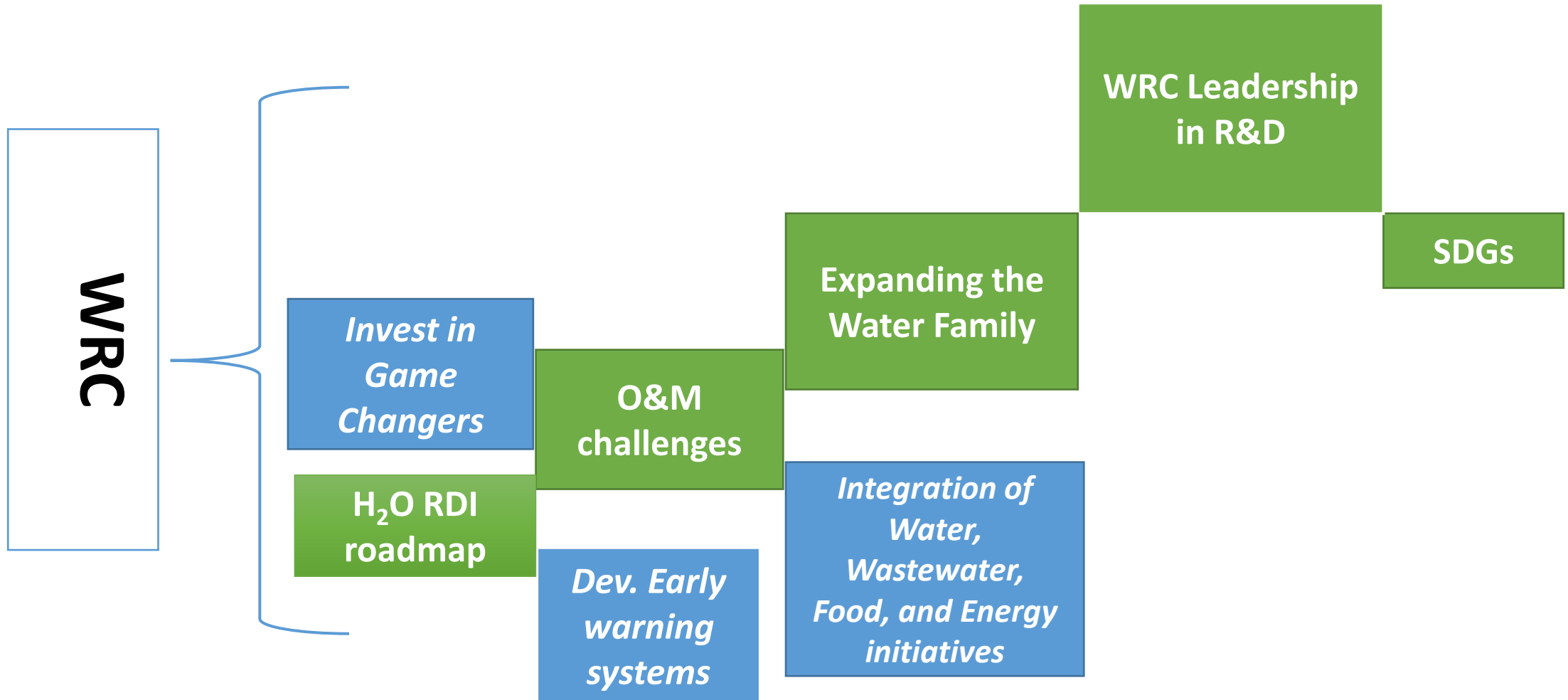
Results have been audited by AGSA and the WRC received a Clean Audit for 2016/17

| Objective | Performance indicator | Target | Actual | Variance | Notes on variance |
|--|--|--------|--------|----------|--|
| To enhance knowledge through new research Number of new research | Number of new research projects initiated | 87 | 106 | +19 | New contracts were initiated as funding became available |
| To complete and finalise research projects scheduled for the financial year | Number of completed research projects | 84 | 87 | +3 | There have been increased efforts to address outstanding finalisations |
| To continuously accommodate students as active participants in WRC projects | The minimum number of students supported on WRC research projects | 400 | 495 | +95 | More students than anticipated showed an interest in WRC projects |
| To increase emphasis on projects that have a direct impact on the lives and livelihoods of communities through water-related interventions | The number of community-based research projects funded by the WRC | 24 | 24 | 0 | No variance |
| To enhance economic development in communities supporting small, medium and micro enterprises (SMMEs) | The number of WRC projects with SMMEs as lead organisation | 27 | 29 | +2 | New contracts were initiated as funding became available |
| To focus on growing the previously disadvantaged individuals | The number of WRC project leaders from designated groups | 57 | 60 | +3 | New contracts were initiated as funding became Available |
| To enhance the profile of Project leadership to promote continuous transformation of the water R&D sector | The number of projects with participation from historically disadvantaged institutions | 10 | 12 | +2 | New contracts were initiated as funding became Available |

Research portfolio progress against performance targets for 2016/17 continued...

| Objective | Performance indicator | Target | Actual | Actual Variance Notes on variance | Actual Variance Notes on variance |
|---|--|--------|--------|--------------------------------------|---|
| To increase the number of new innovations/products and services produced from WRC research | The number of new innovations/products and services produced from WRC research | 23 | 28 | +5 | The year 2016/17 saw an increase in the number of innovations from research projects |
| | The number of demonstrated innovations/ products and services produced from WRC research | 13 | 13 | 0 | No variance |
| To ensure that the WRC increasingly contributes to sustainable solutions for the water sector by creating knowledge products and events that disseminate knowledge produced from WRC research | The number of dialogues held during the financial year | 18 | 31 | +13 | The financial year saw an increase in demand for knowledge sharing events |
| | The number of manuals and guidelines published in the financial year | 26 | 33 | +7 | The WRC had the opportunity to produce extra publications from its research projects |
| | The number of issues of the <i>Water Wheel</i> magazine published in the financial year | 6 | 6 | 0 | No variance |
| | The number of issues of the journal, <i>Water SA</i> , published in the financial year | 4 | 4 | 0 | No variance |
| | The number of conferences/workshops/ summits held by the WRC | 20 | 27 | +7 | There was increased demand for knowledge sharing events |
| | The number of policy briefs produced and distributed to relevant government departments and entities | 14 | 15 | +1 | The target was exceeded due to important issues identified that the DWS needed to be briefed on |
| | The number of ministerial briefs produced by the WRC and received by the Minister's office | 14 | 14 | 0 | No variance |
| | The number of WIN-SA publications produced and distributed to relevant institutions | 30 | 30 | 0 | No variance |

Identified R&D Areas for 2017/18 and beyond



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Income and Expenditure projections for 2018/19

| DESCRIPTION | 2018/19 | |
|--------------------------------|--------------------|-------------|
| | (R) | |
| INCOME | | |
| Water Research Levies | 232 666 156 | 72% |
| Interest Received | 10 350 160 | 3% |
| Leverage Income | 80 635 643 | 25% |
| Other sundry | 633 995 | - |
| TOTAL INCOME | 324 285 953 | 100% |
| EXPENDITURE | | |
| Research & Development Funding | 210 908 988 | 65% |
| Human Resource Costs | 87 211 540 | 27% |
| Operating costs | 24 352 211 | 7% |
| Capital Expenditure | 1 813 214 | 1% |
| TOTAL EXPENDITURE | 324 285 953 | 100% |



Number and Value of project deliverables currently in progress

| Levy funded projects | | # of Projects | Total |
|----------------------|--------------------------------------|---------------|-----------------------|
| KSA1 | Water Resource Management | 95 | 65 899 436.91 |
| KSA2 | Water Linked Ecosystems | 51 | 39 371 087.22 |
| KSA3 | Water Use and Waste Management | 113 | 98 342 178.72 |
| KSA4 | Water Utilisation in Agriculture | 52 | 117 628 262.50 |
| KSA5 | Knowledge Dissemination | 4 | 143 400.00 |
| KSA9 | Business Development and Innovations | 1 | 100 000.00 |
| TOTAL | | 316 | 321 484 365.35 |

| Leverage funded programmes | | # of Projects | Total |
|---|--|---------------|----------------------|
| Sanitation demonstrations and pilots | | 8 | 9 862 009.53 |
| Economic and Enterprise development | | 13 | 19 676 747.19 |
| Waste water treatment and water savings | | 6 | 15 207 129.17 |
| Acid Mine Drainage research & development | | 1 | 1 815 696.24 |
| Water Resources Management including capacity building and training | | 14 | 12 755 521.68 |
| TOTAL | | 42 | 59 317 103.82 |

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Total value of
Project
deliverables
R380.8 Million





Proposed levy increase for 2018/19 and rationale

- The impact of climate change and extreme weather conditions means that science and technology solutions are imperative
- The WRC is a critical player within this space and have experienced a greater demand for research generated knowledge that must move rapidly closer towards implementation and scale-up.
- Moving to an increased impact portfolio means a major change in the investment strategy that involves pilots and demonstrations of new solutions which involves larger scale equipment and technology investments at a much higher cost
- Generally this involves working in partnership which still requires own funds in the order of 50%, for the WRC it means a five-fold increase in project budget for the high impact-potential projects.
- We also have the compounding factor of "Science inflation". Due to South Africa predominantly importing scientific equipment and associated consumables, the science inflation figure is closer to 20%.

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Proposed levy increase for 2018/19 and rationale



- The cost of conducting research and the associated demonstration of solutions are clearly escalating at a rate above our normal SA inflation. These factors collectively dictate that for future water research levy determinations the WRC has to request an above-inflation increase.
- The levy increase for the current financial year (effective 1 July 2017) is still being finalized

Based on all factors considered the WRC would like to see levy increases on a multi year basis at least 3 years this will provide stability for planning purposes



Water Research Levy Rates Impact Analysis

| Sector | 2016/17 cents | 2017/18 cents | 2018/19 cents | %increase proposed |
|--|------------------|------------------|------------------|-----------------------|
| Irrigation (cents per hectare of irrigation land) | 5,9 | 6,3 | 6,9 | 10% |
| Metred water from Government Water Works other than for irrigation (cents per cubic metre) | 5,7 | 6,1 | 6,7 | 10% |
| Domestic and industrial (cents per cubic metre) | 5,7 | 6,1 | 6,7 | 10% |
| Average | 5,8 | 6,2 | 6,8 | 10% |

- To ensure that the WRC achieves optimum impact a levy increase of some 10% will be required for 2018/19 and ideally for planning stability this should be fixed for a three year period
- The impact of a 10% increase effectively amounts to 0,6 cents i.e. less than 1 cent increase in nominal terms

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Thank
you

