**World class water services for a better life**

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| Position Title | Senior Engineer Metropolitan Water Security | | |
| Position Number(s) | 005557 | Manager Title | Manager Metropolitan Water Security |
| Business Group | Business Services | MoR Title | Senior Manager Water Expertise |
| Business Unit | Water Expertise | Direct Report’s Title(s) | Not applicable |

What is the unique purpose of the role?

What is the reason for the role’s existence and the key contribution to SA Water’s success?

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| Support the management and compliance of metropolitan Adelaide’s portfolio of water resources, particularly the River Murray (RM) and Western Mount Lofty Ranges (WMLR) licenses in order to affect a ‘1 in 100 year’ level of security for metropolitan Adelaide customers. |

What does the role do?

The key accountabilities unique to this role are (3-6 required):

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| Key Accountabilities | Accountability Details (2-8 per accountability) |
| Contribute effectively to the team ensuring efforts are aligned toward achieving team goals | Implement the direction set by Manager Metro Water Security.  Complete specific tasks allocated.  Collaborate effectively to ensure team goals are achieved by providing input into decision making and problem solving.  Actively contribute to creating a culture of service excellence. |
| Put safety above all else | Be aware of and apply WHS Roles and Responsibilities Procedure.  Take responsibility for the safety and wellbeing of yourself and others including your own fitness for work (e.g. under the influence of drugs, alcohol and/or fatigue). |
| Support the identification and evidence based identification of risks associated with SA Water's River Murray licences, basin plan implementation and help ensure these risks and other DEWNR initiatives are managed. | Provide input into management of SA Water's portfolio, including monitoring extractions, development of Quality Assurance (QA) tools/datasets to ensure licence compliance.  Monitor progress of implementation of basin plan and other state level policies that can pick up on emerging impacts to water resources relating to SA Water's RM and MLR entitlements.  Ensure risks are identified and support the preparation of risk mitigation strategies that may guide evidence based discussions with DEWNR on water policy issues that may impact our customers.  Support the optimisation of our River Murray licence portfolio and trading strategy and the maintenance and promotion of the management of water sensitive information throughout the corporation. |
| Lead investigations with respect to optimising water security and supply from WMLR and the River Murray including input into policy development and infrastructure planning. | Western Mount Lofty Ranges (WMLR)   * + Investigate changes to hydrological regime to WMLR reservoirs under historic and future climate scenarios.   + Investigate future headworks options   River Murray   * + Climate Adjusted Permitted Take Model for the River Murray Sustainable Diversion Limit (SDL) in partnership with DEWNR.     - Ensure model operational and up to date to the end of the most recent financial year and consider approaches to forecasting to the end of the current financial year.   + Utilise Source model to investigate changes to River Murray (including WAP, Critical Human Water Needs – CHWN, dry allocation frameworks and third party access) and Western Mount Lofty Ranges.   Develop and maintain a register of key risk factors from available data and literature that may impact on the water availability from the River Murray and WMLR. |
| Develop and optimise tools and resources that support the identification of future options identified for providing a 1 in 100 year level of security for Metropolitan Adelaide. | Maintain and consider improvements to a long term headworks model for SA Water's River Murray and WMLR supply (complete validation of headworks planning model (and if applicable, develop core assumptions documentation).  Develop and maintain @Risk decision suite analytical framework that would lead to supporting work practices and assist team members to improve their capability using @Risk.  Develop routine QA and reporting tools and processes to support compliance with our licence requirements and provide intelligence on the state of our water resources, working with the Data & Information team and Information Management Forum.  Support partnerships with DEWNR and Natural Resources: Adelaide and Mount Lofty Ranges in development of state significant tools such as the WMLR hydrological model suitable for WMLR WAP and management of SA Water risks. |
| Support other areas of the business, particularly Asset, Operations & Delivery, Business Services and Strategy, Performance & Innovation groups, to evaluate and optimise innovative, effective and ongoing service delivery relating to metropolitan water resources | Develop an understanding of operational issues and provide input into Operation's short term planning for source selection.  Monitor licence compliance in metro area in accordance with conditions as specified on the licences.  Provide input into RBP20 and RBP24 as to source selection  Support our business partners including:   * + Network Production Planning – input into relevant Decision Optimisation Tool (DOT).   + Business Development – consider innovative approaches to maximising the utilisation of our infrastructure while minimising the risk to our regulated customers.   + Asset Management/Project Delivery - capacity and water resources advice.   + Water Expertise – aspects of water resource management that has implications for water availability to treatment plants.   + Regulation – support for ESCOSA and DEWNR discussions.   DEWNR/NRMB’s – water policy and reporting requirements provided in a timely manner. |

Knowledge, skills and experience the role requires

Criteria which will be used for recruitment and selection for this role (maximum of 8):

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| Foundation Knowledge, Skills, Experience and Qualifications | Essential or Desirable |
| Tertiary qualifications in a relevant discipline (e.g. Engineering or Environmental Management or Natural Resources Management of Water Resources) | Essential |
| Experienced in the development and maintenance of complex analyses and modelling | Essential |
| Demonstrated ability to communicate the key results to a broad audience | Desirable |
| Demonstrated knowledge and experience in detailed investigation of water resources | Desirable |
| Experience in overseeing planning or policy projects | Desirable |
| Demonstrated experience in influencing and liaising with government authorities, community groups and environmental bodies to support the development of water resource policies or strategies | Desirable |

Who you work with

Key Stakeholder Relationships criticalto the success of this role (maximum of 6):

* Externally - DEWNR, EPA, MDBA, community groups and other government bodies
* Internally - Level IV managers and level V team members in Strategy, Performance & Innovation, Customer Delivery, Communications and Engagement, Governance & Regulation, Business Services and Asset, Operations & Delivery

Special conditions

Does the role have any unique requirements?

* Flexible hours and some after hours as required, some intra and interstate travel (mandatory)

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