

**SKILLS FRAMEWORK FOR ENVIRONMENTAL SERVICES
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT**

TSC Category	Business Management					
TSC	Data and Statistical Analytics					
TSC Description	Analyse and interpret data sets to uncover trends or patterns in order to locate and define new business and/or services improvement opportunities by identifying relevant statistical tools					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			EVS-LDR-3002-1.1	EVS-LDR-4002-1.1	EVS-LDR-5002-1.1	EVS-LDR-6002-1.1
			Apply the application of data analytics across the organisation	Facilitate the application of data analytics to address existing gaps and identify emerging trends	Devise the next generation of data science with the use of big data analytics	Transform the organisation through the use of big data analytics to drive solutions and create business opportunities
Knowledge			<ul style="list-style-type: none"> Types of relevant statistical analysis software Characteristics of data Types of data management cycle Types of data production applications Data mining techniques Data warehousing Best practices in big data analytics and pitfalls 	<ul style="list-style-type: none"> Types of statistical techniques Test conditions required for statistical techniques Interpretation of the results from statistical modelling Limitations of different types of data Predictive analytics Segmentation modelling 	<ul style="list-style-type: none"> Strengths and limitations of statistical techniques in evaluating big and complex data sets Methods to manipulate statistical techniques for customised big data analytics Factors that determine applicability of statistical models for big data analytics 	<ul style="list-style-type: none"> Relevance of big data analytics in creating business outcomes Knowledge of how big data analytics transforms business decision making Knowledge of how big data analytics works in tandem with other forms of business analytics solutions
Abilities			<ul style="list-style-type: none"> Analyse data sets using basic statistical techniques to identify trends and patterns Generate report on trends to aid management decision making Generate report on risks to aid management decision making Collaborate with stakeholders to identify more specific data for further analysis Design data infographics for presentation 	<ul style="list-style-type: none"> Review and/or interpret data sets uncover trends or risks Develop new methods to conduct analysis of large complex data sets specific to each issue Facilitate the discussion on areas for application of big data analytics to examine trends or risks Assess and evaluate analytical performance in addressing business objectives 	<ul style="list-style-type: none"> Use of relevant statistical analysis software to generate data for analysis Evaluate and assess the strengths and weaknesses of various big data modelling techniques Identify and implement data analytics solution Use relevant software to improve backward-looking and forward-looking analysis 	<ul style="list-style-type: none"> Build a culture of the usage of big data science as a tool for more business opportunities Help the organisation and stakeholders on the importance of big data analytics to discover solutions that could lead to profitability Determine the type of analytical software required for data analysis Determine the use of big data analytics with other forms of business analytics to improve services and create business opportunities