

Site Assessment and Reclamation Profile

Subcategory	Comp. ID	Competency Statement	Importance Type
TECHNICAL COMPETENCIES			
Conducting environmental impact assessments			
	1	Ensures the identification of the geographic, environmental, economic, social, and cultural scope and parameters to be used for the impact assessment study.	2
	6	Identifies which areas are likely to be significantly impacted either negatively or positively by development activities, e.g. biophysical, economic, social, cultural, and heritage resources.	2
	7	Assesses qualitative and quantitative environmental issues, risks or problems, including their cumulative effect and corresponding economic, social and cultural impacts.	2
	9	Prepares environmental impact assessment report(s) that may include mitigation, environmental protection, and recovery plans.	2
Conducting environmental site assessments (ESA - Phase 1 and Phase 2)			
	10	Identifies the scope of the site assessment (phase 1 and 2) project, including identification of the standards to be followed.	1
	11	Reviews historical records for the site (e.g. site plans, fire insurance maps, legal title searches, business directories, air photos, satellite images, etc.) to determine previous land use.	1
	12	Carries out visual inspection of site and neighbouring properties to inventory/identify current operations, evidence of discharges, visible contamination, buried tanks, dumping, etc.	1
	13	Collects related information from key stakeholders (e.g. owners and staff, municipalities, regulators) regarding land use, facility operations, permits, relevant legislation, etc.	1
	14	Conducts investigation, sampling, screening, and analysis (including geophysical mapping) activities of landforms, soil, ground water, sediments, airborne contaminants, etc., as required.	1
	15	Characterizes environmental aspects of site (such as landforms, drainage, plant communities, and soil properties) based on interpretation of data collected during site investigation, sampling and analysis (for example, contaminants, their concentration and general extent).	1
	16	Prepares site assessment report(s) to meet regulatory and other requirements, identifying potential risk and scope of further action by appropriate stakeholders, if necessary.	1
Developing/ Implementing site remediation (Phase 3) plans			
	19	Evaluates possible remediation/restoration/reclamation alternatives, taking into account costs, technological constraints, characteristics of the contaminant, characteristics of the affected land, and stakeholders' concerns.	1
	20	Recommends remediation clean-up targets to make the site fit for its intended use or return it to its original condition (applies to all sites including watershed restoration, forestry site reclamation, mine closures, etc.).	1
	21	Develops site remediation/restoration/reclamation plans and programs, including objectives, targets, contamination description, issue resolution process, pilot requirements, time schedule, and cost estimate.	1
	23	Conducts full-scale remediation activities (e.g. thermal, biological, chemical or physical treatment, containment, vapour extraction, excavation, removal of heritage objects, etc.).	1
	24	Monitors post-remediation conditions and results to assess if targets and regulatory requirements have been met.	1
	25	Prepares remediation completion report, including documentation of remediation and post-remediation monitoring data, and review of environmental outcomes relative to standards, for submission to regulators and stakeholders.	1
Developing/ Implementing site restoration/reclamation (Phase 3) plans			
	26	Investigates attributes of materials, such as physical, chemical, and geotechnical involved in the restoration/reclamation.	1

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	27	Develops appropriate construction and reclamation procedures and contingency plans based on best management and health and safety practices, and a minimum "footprint".	1
	28	Conducts on-site reclamation activities (including landscaping, tree-planting, and habitat development), using appropriate species and procedures for revegetation.	1
	29	Provides environmental inspection during construction and reclamation to ensure that regulatory requirements are met and that procedures and plans are being followed.	1
	30	Conducts on-site restoration activities as required, e.g. restore riparian, coastal zone, and wetland habitats.	1
	32	Monitors post-restoration/reclamation conditions and results to assess if targets and regulatory requirements have been met.	1
	33	Prepares site restoration and site reclamation report(s) for submission to the appropriate regulators and stakeholders.	1
Interpreting/ enforcing/ complying with environmental regulations and standards			
	34	Provides expert advice and/or testimony to senior management, internal staff, regulatory bodies, interest groups and the public on matters related to disputes, compliance and other environmental issues, including processes for acquiring regulatory approval.	2
	35	Applies environmental legislation regarding issues such as contaminated sites, hazardous materials and waste, pesticide use, storage tanks, etc. to specific applications as appropriate.	1
	37	Prepares regulatory applications.	2
	38	Prepares permits and operational permit reports (including air permits, waste disposal permits, resource harvesting permits, etc.)	2
	40	Develops plans and programs to meet regulatory requirements, including monitoring programs and employee information and communication plans.	2
	41	Implements programs, including monitoring activities, to ensure regulatory compliance.	2
	42	Evaluates compliance with environmental regulations, including the documentation of violations and non-compliance episodes.	2
	43	Prepares compliance and regulatory reports for internal use and for filing with regulatory agencies.	2
Developing environmental sampling, testing and monitoring programs			
	86	Determines the need and scope for sampling program, including environmental indicators, chemicals of concern, and sampling constraints (such as access to sites, fiscal or other limitations).	1
	87	Develops environmental sampling protocols, including data quality objectives, the frequency and timing of sampling, optimum locations for continuous or discrete sampling, data capture systems, sampling procedures, sampling methodology, personnel, and parameter list for analysis.	1
	88	Develops site-specific work plans, including Quality Assurance/Quality Control (QA/QC) methods, measuring/monitoring procedures and analytical equipment (both field and lab equipment) to be used for the specific application (e.g. air, water, soil, sediments, rock, fauna, flora, human, workplace, etc.).	2
	90	Modifies existing sampling programs to reflect changing research priorities and/or environmental circumstances.	2
Collecting samples and data for environmental purposes			
	92	Determines the appropriate sample size, sampling containers, protocols, preservation methods, collection apparatus and transportation, etc.	1
	93	Selects, assembles and deploys analytical test instruments or sampling equipment (such as data capture systems, continuous monitoring devices, drilling cores, water bailers, etc.), including assembly and documentation of deployment and operational conditions and other pertinent details, such as any deviation to standard procedures.	2

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	94	Collects samples and specimens as per established protocol, using more routine sampling procedures and apparatus.	1
	95	Collects samples and specimens as per established protocol, using more complex sampling procedures and apparatus.	1
	96	Uses appropriate techniques to prepare (code, preserve, pretreat and transport) samples for analysis while maintaining chain of custody requirements and sample integrity.	1
	102	Maintains appropriate records and ongoing documentation pertaining to field and laboratory analytical work, including regulatory documentation.	1
Analyzing and interpreting environmental samples and data			
	111	Interprets analytical data to identify trends, significant changes from historical patterns, deviations, or evidence of environmental stresses, etc.	1
	113	Conducts quality control reviews of data collection, processing, and analysis to ensure data is 'fit for purpose' using accepted scientific practices and proper Quality Assurance/Quality Control (QA/QC) protocols.	2
	114	Prepares summary reports of analysis results using technical formats such as tables, charts, and diagrams for integration into technical reports and/or presentation to expert and/or non-expert audience through scientific journals, oral presentations, etc.	2

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Subcategory	Comp. ID	Competency Statement	Proficiency Level
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TRANSFERABLE COMPETENCIES

Professional Ethics and Work Style

1	Maintains good standing in professional associations, practicing professional ethics and remaining current in practice requirements.	High
2	Demonstrates professional, ethical conduct, such as trust, integrity, confidentiality and discretion during the conduct of all work activities.	Exceptional
3	Demonstrates self reliance, motivation and commitment in the conduct of day to day activities.	Exceptional
4	Demonstrates flexibility and creativity in the face of unusual or unexpected circumstances.	Exceptional
5	Cooperates willingly with others in dealing with changing situations, conditions, and expectations.	Exceptional
6	Demonstrates attention to detail to ensure the thoroughness and accuracy of work results.	Exceptional
7	Balances the need for 'attention to detail' with a focus on goals and objectives to achieve the desired outcomes.	Exceptional
8	Applies principles of quality assurance and scientific rigour in all work activities.	Exceptional

Learning and Creativity

9	Stays current on the theory and practice pertinent to one's roles and responsibilities.	High
10	Integrates relevant data and information from a variety of disciplines/sources.	High
11	Continuously pursues personal learning and development opportunities to promote professional growth and development.	High
12	Uses creative approaches to develop innovative ways of working, new designs and technologies, and cost-effective solutions to technical and business challenges.	High

Communicating Effectively

13	Prepares clear, well-formatted reports and other written communications that meet established protocols and are appropriate to the target audience.	Exceptional
14	Communicates clearly and respectfully using verbal and nonverbal language appropriate to the cultural and social context.	Exceptional
15	Uses effective interviewing techniques, including appropriate and respectful questioning, clarifying and listening skills, to elicit accurate and complete information.	High
16	Conveys technical information accurately, clearly and concisely, interpreting it appropriately and effectively for the target audience.	Exceptional
17	Uses appropriate content, graphics and format in oral presentations to address the specific needs of target audiences.	High

Collaboration

18	Builds constructive networks inside and outside the organization to facilitate the accomplishment of results.	High
19	Builds strong relationships and trust with team members that make it possible to receive everyone's input and ideas, and maximize individual and team output and potential.	High
20	Works cooperatively with multiple stakeholders, demonstrating willingness to consider alternative approaches or ideas.	High
21	Deals effectively with confrontational situations, demonstrating diplomacy, tact, empathy and consideration for differing points of view.	High

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Critical Thinking/ Judgement			
	22	Carries out independent primary, secondary and tertiary research to collect sufficient data and information pertinent to the area of inquiry.	High
	23	Performs an objective and thorough analysis of information and data from multiple sources.	High
	24	Distinguishes between facts, inferences and assumptions to establish the quality of the information collected and the reliability of its source.	High
	25	Employs professional scepticism to assess the objectivity and reliability of assumptions and evidence asserted by a responsible party or client.	High
	26	Makes decisions in a timely manner, committing to a course of action that considers pertinent data, information, options and implications.	Exceptional
Planning and Organizing Work and Projects			
	27	Uses ICT (information communication technologies) as appropriate to manage work effectively and increase efficiency.	High
	28	Manages multiple priorities through the selection and application of time and project management tools and approaches.	High
	29	Develops work/project plans, identifying the work to be accomplished, the risk/contingencies that may arise, and how they will be addressed.	High
	30	Coordinates resources (including financial, logistical, supplies, etc.) needed to implement work/project plans and achieve desired results.	High
Leading/ Influencing Others			
	31	Manages the work of others, including project teams, working groups and contractors.	High
	32	Builds consensus and commitment to the team mandate, vision, goals, roles, responsibilities, and processes.	High
	33	Facilitates solutions to barriers that affect individual, team and project performance.	High
	34	Identifies the individual/and or team competencies that are required to accomplish work/project objectives and deliverables.	High
	35	Mentors peers and team members to facilitate their technical competence and on-going professional development.	High
	36	Creates an environment that promotes innovation, creativity and entrepreneurial thinking within the organization.	High
	37	Navigates effectively through political and organizational complexities to avoid or overcome potential barriers to successful completion.	High
Business Acumen			
	38	Analyzes relevant business trends, financial measures, economic factors and new regulations, assessing and articulating their impact on the organization.	Moderate
	39	Recognizes business threats and/or opportunities affecting their area of the business, recommending actions to address them.	Moderate
	40	Identifies clients' stated and underlying needs, and the work activities and methodologies that will best address these needs.	Moderate
	41	Translates the organization's vision and goals into relevant plans and actions, realigning work efforts with changes in organizational direction.	Moderate
	42	Drives the implementation of changes, tracking their impact to ensure organizational performance is improved or sustained.	Moderate