

## Ecology and Natural Resources Management Program Standards Criticality Survey

1. Personal Qualities and People Skills				
Answer Choices	Nice to Know	Need to Know	Critical to Know	Rating Average
Demonstrate a positive work ethic by coming to work every day on time, a willingness to take direction, and motivation to accomplish the task at hand.	0	0	16	3
Demonstrate integrity by abiding by workplace policies and laws and demonstrating honesty and reliability.	0	2	14	2.88
Demonstrate teamwork skills by contributing to the success of the team, assisting others, and requesting help when needed.	0	4	12	2.75
Demonstrate positive self-representation skills by dressing appropriately and using language and manners suitable for the workplace.	2	8	6	2.25
Demonstrate diversity awareness by working well with all customers and co-workers.	2	5	9	2.44
Demonstrate conflict-resolution skills by negotiating diplomatic solutions to interpersonal and workplace issues.	1	6	9	2.5
Demonstrate creativity and resourcefulness by contributing new ideas and working with initiative.	0	10	6	2.38
<b>Answered</b>				<b>16</b>
<b>Skipped</b>				<b>0</b>

<b>2. Professional Knowledge and Skills</b>				
<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>
Demonstrate effective speaking and listening skills by communicating effectively with customers and employees and following directions.	1	6	9	2.5
Demonstrate effective reading and writing skills by reading and interpreting workplace documents and writing clearly.	2	7	7	2.31
Demonstrate critical-thinking and problem-solving skills by analyzing and resolving problems that arise in completing assigned tasks.	0	5	11	2.69
Demonstrate healthy behaviors and safety skills by following safety guidelines and managing personal health.	2	7	7	2.31
Demonstrate understanding of workplace organizations, systems, and climates by identifying "big picture" issues and fulfilling the mission of the workplace.	2	9	5	2.19
Demonstrate lifelong-learning skills by continually acquiring new industry-related information and improving professional skills.	3	8	5	2.13
Demonstrate job acquisition and advancement skills by preparing to apply for a job and seeking promotion.	5	6	5	2
Demonstrate time, task, and resource management skills by organizing and implementing a productive plan of work.	0	7	9	2.56
Demonstrate mathematical skills by using mathematical reasoning to accomplish tasks.	4	9	3	1.94
Demonstrate customer service skills by identifying and addressing the needs of all customers and providing helpful, courteous, and knowledgeable service.	2	11	3	2.06
			<b>Answered</b>	<b>16</b>
			<b>Skipped</b>	<b>0</b>

<b>3. Technology Knowledge and Skills</b>				
<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>
Demonstrate proficiency with job-specific technologies by selecting and safely using technological resources to accomplish work responsibilities in a productive manner.	1	9	6	2.31
Demonstrate proficiency with information technology by using computers, file management techniques, and software/programs effectively.	0	9	7	2.44
Demonstrate proper Internet use and security by using the Internet appropriately for work.	2	9	5	2.19
Demonstrate proficiency with telecommunications by selecting and using appropriate devices, services, and applications.	3	11	2	1.94
<b>Answered</b>				<b>16</b>
<b>Skipped</b>				<b>0</b>

<b>CONTENT STANDARD 1.0: EXPLORE NATURAL RESOURCE SCIENCE AND MANAGEMENT</b>				
<b>Performance Standard 1.1: Investigate The Relationship Between Natural Resources And Society, Including Conflict Management</b>				
<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>
1.1.1. Define natural resource management	3	6	5	2.14
1.1.2. Summarize the history of natural resource conservation and policies	7	6	1	1.57
1.1.3. List and compare major natural resource management agencies, industries and organizations	8	5	1	1.50
1.1.4. Describe human dependency and demands on natural resources	5	7	2	1.79
1.1.5. Explain natural resource conservation. Investigate the effects of multiple uses of natural resources (e.g., recreation, mining, agriculture, forestry, public lands grazing, etc.)	2	8	4	2.14

1.1.6.	Explore societal issues and conflicts related to natural resource management	4	5	5	2.07
				<b>Answered</b>	<b>14</b>
				<b>Skipped</b>	<b>2</b>

<b>Performance Standard 1.2: Explain Interrelationships Between Natural Resources And Humans In Managing Natural Environments</b>					
<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>	
1.2.1.	Identify the demands of population growth on natural resources and the environment	5	3	6	2.07
1.2.2.	Examine the use and management of renewable and nonrenewable resources	5	5	4	1.93
1.2.3.	Describe the role of individuals in stewardship of the environment	3	7	4	2.07
1.2.4.	the conservation or preservation of natural resources	5	6	3	1.86
				<b>Answered</b>	<b>14</b>
				<b>Skipped</b>	<b>2</b>

<b>CONTENT STANDARD 2.0: INVESTIGATE ECOLOGICAL CONCEPTS AND SCIENTIFIC PRINCIPLES RELATED TO NATURAL RESOURCE SYSTEMS</b>					
<b>Performance Standard 2.1: Explore Ecological Principles In Natural Resource Management</b>					
<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>	
2.1.1.	Define ecosystems and biomes and identify ecoregions of Idaho	4	6	4	2.00
2.1.2.	Identify natural processes that govern ecosystems over time	4	5	5	2.07
2.1.3.	Describe the interdependence of organisms within an ecosystem (i.e., food chains and webs)	3	6	5	2.14
2.1.4.	Investigate the processes associated with ecological succession	4	6	4	2.00
2.1.5.	Explain the importance of biodiversity	5	5	4	1.93
				<b>Answered</b>	<b>14</b>

<b>Skipped</b>	<b>2</b>
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<b>Performance Standard 2.2: Explore Properties Of Soil</b>				
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<b>Answer Choices</b>		<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>
2.2.1.	Summarize soil formation factors	4	7	3	1.93
2.2.2.	Identify soil texture	5	5	4	1.93
2.2.3.	Describe soil conservation practices	5	6	3	1.86
2.2.4.	Analyze and interpret soil data	6	6	2	1.71
				<b>Answered</b>	<b>14</b>
				<b>Skipped</b>	<b>2</b>

<b>Performance Standard 2.3: Explore Principles Of Hydrology</b>				
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<b>Answer Choices</b>		<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>
2.3.1.	Define watersheds and explain their hydrological and ecological function	3	6	5	2.14
2.3.2.	Discriminate between point and nonpoint pollution sources	6	5	3	1.79
2.3.3.	Analyze and interpret water quality data	5	6	3	1.86
2.3.4.	Describe the function of wetlands and importance of wetland management	3	6	5	2.14
2.3.5.	Identify laws and regulations governing water	4	7	3	1.93
				<b>Answered</b>	<b>14</b>
				<b>Skipped</b>	<b>2</b>

<b>CONTENT STANDARD 3.0: EXPLORE PRINCIPLES OF RANGELAND MANAGEMENT</b>				
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<b>Performance Standard 3.1: Identify Rangeland Types And Management Practices</b>				
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<b>Answer Choices</b>		<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>
3.1.1.	Define rangelands and identify key characteristics	4	6	4	2.00
3.1.2.	Identify major rangeland types in Idaho	6	5	3	1.79

3.1.3.	Compare public and private management of rangelands	6	4	4	1.86
3.1.4.	Identify multiple uses of rangelands	6	4	4	1.86
3.1.5.	Identify laws, policies and managing entities of rangelands	4	6	4	2.00
3.1.6.	Identify impacts of use on rangelands	4	6	4	2.00
<b>Answered</b>					
<b>Skipped</b>					

<b>Performance Standard 3.2: Understanding The Historic, Environmental, Social And Economic Importance Of Idaho Rangelands</b>					
<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>	
3.2.1.	Understand how rangelands have been important to humans throughout time	7	7	0	1.50
3.2.2.	Identify the ecological services provided by rangelands	3	9	2	1.93
3.2.3.	Recognize the value of rangelands to society	5	7	2	1.79
3.2.4.	Understand the importance of working rangelands for the economic livelihood of Idaho and other parts of the country and world	5	6	3	1.86
<b>Answered</b>					<b>14</b>
<b>Skipped</b>					<b>2</b>

<b>Performance Standard 3.3: Identify Common Idaho Rangelands Plants</b>					
<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>	
3.3.1.	Identify morphological characteristics of rangeland plants	6	6	2	1.71
3.3.2.	Use a dichotomous key to identify rangeland plants	7	4	3	1.71
3.3.3.	Assemble a plant collection	11	3	0	1.21

3.3.4.	Identify important Idaho rangeland plants and evaluate their use by animals	4	8	2	1.86
3.3.5.	Define native, introduced, invasive, noxious and poisonous plants	3	6	5	2.14
				<b>Answered</b>	<b>14</b>
				<b>Skipped</b>	<b>2</b>

<b>Performance Standard 3.4: Apply Rangeland Management Practices</b>					
	<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>
3.4.1.	Identify key components of a management plan	4	8	2	1.86
3.4.2.	Identify rangeland management tools and techniques	5	7	2	1.79
3.4.3.	Use rangeland measurement tools	7	5	2	1.64
3.4.4.	Conduct a rangeland inventory and interpret data	8	3	3	1.64
3.4.5.	Determine stocking rates based on animal demand and forage supply	5	7	2	1.79
3.4.6.	Discuss the impacts of dynamic forces of change on rangelands (e.g. fire, weather, insects,	5	5	4	1.93
				<b>Answered</b>	<b>14</b>
				<b>Skipped</b>	<b>2</b>

<b>CONTENT STANDARD 4.0: EXAMINE FOREST RESOURCES AND MANAGEMENT</b>					
<b>Performance Standard 4.1: Identify Forest Types And Management Practices</b>					
	<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>
4.1.1.	Define forests and identify key characteristics	2	7	5	2.21
4.1.2.	Identify major forest types in Idaho	2	7	5	2.21
4.1.3.	Assess different methods of forest management	3	7	4	2.07
4.1.4.	Compare public and private management of forests	3	6	5	2.14

4.1.5.	Identify multiple uses of forests	2	8	4	2.14
4.1.6.	Identify laws, policies and managing entities of forests	1	9	4	2.21
4.1.7.	Identify impacts of use on forests	2	6	6	2.29
				<b>Skipped</b>	

<b>Performance Standard 4.2: Understanding The Historic, Environmental, SocialAnd</b>					
<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>	
4.2.1.	Understand how forests have been important to humans throughout time	6	6	2	1.71
4.2.2.	Identify the ecological services provided by forests	3	8	3	2.00
4.2.3.	Recognize the value of forests to society	4	6	4	2.00
4.2.4.	Understand the important of working forests for the economic livelihood of Idaho and other parts of the country and world	3	6	5	2.14
				<b>Answered</b>	<b>14</b>
				<b>Skipped</b>	<b>2</b>

<b>Performance Standard 4.3: Identify Common Idaho Forest Plants</b>					
<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>	
4.3.1.	Identify morphological characteristics of forest plants	5	5	4	1.93
4.3.2.	Use a dichotomous key to identify trees, shrubs and other forest plants	4	5	5	2.07
4.3.3.	Assemble a plant collection	9	4	1	1.43
4.3.4.	Identify important Idaho forest plants and evaluate their use by animals	5	5	4	1.93
4.3.5.	Define native, introduced, invasive, noxious and poisonous plants	2	7	5	2.21
				<b>Answered</b>	<b>14</b>
				<b>Skipped</b>	<b>2</b>

<b>Performance Standard 4.4: Apply Forest Management Practices</b>					
<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>	
4.4.1.	Identify key components of a management plan	2	6	6	2.29



4.4.2.	Identify forest management tools and techniques	2	7	5	2.21
4.4.3.	Use forest measurement tools	3	7	4	2.07
4.4.4.	Conduct a forest inventory and interpret data	6	4	4	1.86
4.4.5.	Define silviculture and compare different timber harvest systems	5	5	4	1.93
4.4.6.	Discuss impacts of dynamic forces of change (e.g. fire, weather, insects, disease, people, animals, invasive species, etc.) on forests and identify management strategies	3	4	7	2.29
				<b>Answered</b>	<b>14</b>
				<b>Skipped</b>	<b>2</b>

<b>CONTENT STANDARD 5.0: EXPLORE FIRE ECOLOGY AND MANAGEMENT</b>					
<b>Performance Standard 5.1: Explore The Effects Of Fire On Rangeland And Forest Ecosystems</b>					
	<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>
5.1.1.	Explain the significance of each of the components of the “fire triangle”	3	7	4	2.07
5.1.2.	Discuss the fire behavior triangle (fuel, weather, topography)	3	7	4	2.07
5.1.3.	Interpret the factors affecting fire frequency in Idaho past, present and future	4	3	7	2.21
5.1.4.	Describe the social, economic and ecological effects of wildland fire	3	5	6	2.21
5.1.5.	Examine the role of fuel management and the relationship between fuel load and fire effects in rangeland and forest ecosystems	2	5	7	2.36
				<b>Answered</b>	<b>14</b>
				<b>Skipped</b>	<b>2</b>

<b>CONTENT STANDARD 6.0: UNDERSTAND THE IMPORTANCE AND APPLICATION OF</b>				
<b>Performance Standard 6.1: Investigate GPS/GIS Systems And Their Applications</b>				

	<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>
6.1.1.	Define the uses of Geographic Information Systems (GIS) and spatial analysis as it applies to natural resource management	4	6	4	2.00
6.1.2.	Describe the purpose and function of a Global Positioning System (GPS)	3	8	3	2.00
6.1.3.	Demonstrate the ability to use a GPS unit by navigating and collecting waypoints	3	6	5	2.14
<b>Answered</b>					<b>14</b>
<b>Skipped</b>					<b>2</b>

<b>Performance Standard 6.2: Demonstrate The Use Of Land Management Maps</b>					
	<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>
6.2.1.	Use legal descriptions to identify locations and acreage	3	5	6	2.21
6.2.2.	Identify symbols on topographical maps	2	6	6	2.29
6.2.3.	Predict terrain based on topographical maps	1	8	5	2.29
6.2.4.	Demonstrate the ability to find GPS locations on a topographic map	2	8	4	2.14
<b>Answered</b>					<b>14</b>
<b>Skipped</b>					<b>2</b>

<b>CONTENT STANDARD 7.0: INVESTIGATE FISH AND WILDLIFE ECOLOGY</b>					
<b>Performance Standard 7.1: Explore The Importance And Distribution of Fish And Wildlife Resources In Idaho</b>					
	<b>Answer Choices</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>
7.1.1.	Identify the seven categories of wildlife	5	5	2	1.75
7.1.2.	Connect the distribution of wildlife associated with private and public land	6	7	0	1.54
7.1.3.	Describe the importance of wildlife, including indigenous and migratory species, their physical and behavioral characteristics, habitat and management	5	4	4	1.92

7.1.4.	List impacts on wildlife habitat	3	6	4	2.08
7.1.5.	Describe techniques used in harvesting of wildlife	8	3	2	1.54
7.1.6.	Summarize appropriate outdoor safety practice	6	4	3	1.77
7.1.7.	Describe techniques of wildlife habitat improvement	4	6	3	1.92
<b>Answered</b>					<b>13</b>
<b>Skipped</b>					<b>3</b>

### Performance Standard 7.2: Understand Wildlife Management

Answer Choices		Nice to Know	Need to Know	Critical to Know	Rating Average
7.2.1.	Identify the agencies and organizations associated with wildlife management	4	8	1	1.77
7.2.2.	Explore the role of USDA - Wildlife Services, DOI – US Fish and Wildlife Service and Idaho Fish & Game concerning wildlife management	5	5	3	1.85
<b>Answered</b>					<b>13</b>
<b>Skipped</b>					<b>3</b>

## CONTENT STANDARD 8.0: EXAMINE MINERAL AND ENERGY RESOURCES MANAGEMENT

### Performance Standard 8.1: Examine Mineral Resources And Management

8.1.1.	Identify local mineral resources	8	4	1	1.46
8.1.2.	Summarize the impact of mineral resources to society	7	5	1	1.54
8.1.3.	Compare the various practices for obtaining mineral resources	7	4	2	1.62
8.1.4.	Describe the impact of mining practices on the environment	5	3	5	2.00
8.1.5.	Compare processes for reclaiming areas where minerals have been extracted	7	4	2	1.62
<b>Answered</b>					<b>13</b>
<b>Skipped</b>					<b>3</b>

<b>Performance Standard 8.2: Recognize The Types And Importance Of Energy Resources</b>					
8.2.1.	Differentiate between renewable and nonrenewable energy resources	6	4	3	1.77
8.2.2.	Investigate types of renewable resources	7	4	2	1.62
8.2.3.	Compare types of electrical power generation	7	4	2	1.62
8.2.4.	Analyze positive and negative impact of energy development on the environment	4	7	2	1.85
				<b>Answered</b>	<b>13</b>
				<b>Skipped</b>	<b>3</b>

<b>CONTENT STANDARD 9.0: EXPLORE CAREER OPPORTUNITIES IN THE NATURAL RESOURCE INDUSTRY</b>					
<b>Performance Standard 9.1: Understand Employment Fields In The Natural Resource Industry</b>					
9.1.1.	List and describe the types of employment opportunities in natural resource management	7	2	4	1.77
9.1.2.	Explore education and training for different natural resource management careers	5	4	4	1.92
9.1.3.	Describe the process of choosing a career path in the natural resource management industry	5	4	4	1.92
				<b>Answered</b>	<b>13</b>
				<b>Skipped</b>	<b>3</b>

<b>CONTENT STANDARD 10.0: PARTICIPATE IN LEADERSHIP TRAINING THROUGH MEMBERSHIP IN A STUDENT LEADERSHIP ORGANIZATION</b>					
<b>PERFORMANCE STANDARD 10.1: Recognize The Traits Of Effective Leaders And Participate In Leadership Training Through Involvement In A Student Leadership Organization</b>					
10.1.1.	Expand leadership experience by serving as a chapter officer or on a committee	8	2	3	1.62
10.1.2.	Exhibit leadership skills by demonstrating proper parliamentary procedure	7	2	4	1.77
10.1.3.	Participate in a career development event at the local level or above	7	2	4	1.77
				<b>Answered</b>	<b>13</b>
				<b>Skipped</b>	<b>3</b>

**CONTENT STANDARD 11.0: DESCRIBE THE RELATIONSHIP BETWEEN A SUPERVISED AGRICULTURAL EXPERIENCE (SAE) AND PREPARATION OF STUDENTS FOR A CAREER IN AGRICULTURE**

**Performance Standard 11.1: Maintain A Supervised Agricultural Experience**

11.1.1.	Accurately maintain SAE record books	9	1	3	1.54
11.1.2.	Apply for a proficiency award related to the SAE	10	1	2	1.38
11.1.3.	Actively pursue necessary steps to receive higher	9	3	1	1.38
				<b>Answered</b>	<b>13</b>
				<b>Skipped</b>	<b>3</b>