

## Exhibit 5-2: Ecological Condition - Questions and Indicators

### Forests

Question	Indicator Name	Category	Section
What is the ecological condition of forests?	<i>Extent of forest area, ownership, and management</i>	1	3.1.4
	<i>Nitrate in farmland, forested, and urban streams and ground water</i>	2	2.2.4.b
	<i>Deposition: wet sulfate and wet nitrogen</i>	2	1.2.2
	<i>Changing stream flows</i>	1	2.2.4.a
	Extent of area by forest type	1	5.2
	Forest age class	2	5.2
	Forest pattern and fragmentation	2	5.2
	At-risk native forest species	2	5.2
	Populations of representative forest species	2	5.2
	Forest disturbance: fire, insects, and disease	1	5.2
	Tree condition	2	5.2
	Ozone injury to trees	2	5.2
	Carbon storage	2	5.2
	Soil compaction	2	5.2
	Soil erosion	2	5.2
Processes beyond the range of historic variation	2	5.2	

### Farmlands

Question	Indicator Name	Category	Section
What is the ecological condition of farmlands?	<i>Extent of agricultural land uses</i>	1	3.1.2
	<i>The farmland landscape</i>	1	3.1.2
	<i>Nitrate in farmland, forested, and urban streams and ground water</i>	2	2.2.4.b
	<i>Phosphorus in farmland, forested and urban streams</i>	2	2.2.4.b
	<i>Pesticides in farmland streams and ground water</i>	2	2.2.4.c
	<i>Potential pesticide runoff from farm fields</i>	2	3.2.4
	<i>Sediment runoff potential from croplands and pasturelands</i>	2	3.1.6
	Pesticide leaching potential	2	5.3
	Soil quality index	2	5.3
	Soil erosion	2	5.3

### Grasslands and Shrublands

Question	Indicator Name	Category	Section
What is the ecological condition of grasslands and shrublands?	<i>Extent of grasslands and shrublands</i>	1	3.1.3
	<i>Number/duration of dry stream flow periods in grasslands and shrublands</i>	2	2.2.4.a
	At-risk native grassland and shrubland species	2	5.4
	Population trends of invasive and native non-invasive bird species	1	5.4

*Note: Italicized indicators are presented in other chapters.*

## Urban and Suburban Lands

Question	Indicator Name	Category	Section
What is the ecological condition of urban and suburban areas?	<i>Extent of urban and suburban lands</i>	1	3.1.1
	<i>Ambient concentrations of ozone: 8-hour and 1-hour</i>	2	1.1.1.b
	<i>Nitrate in farmland, forested and urban streams, and ground water</i>	2	2.2.4.b
	<i>Phosphorus in farmland, forested, and urban streams</i>	2	2.2.4.b
	<i>Chemical contamination in urban streams and ground water</i>	2	2.2.4.c
	<i>Patches of forest, grassland, shrubland, and wetland in urban/suburban areas</i>	2	5.5

## Fresh Waters

Question	Indicator Name	Category	Section
What is the ecological condition of fresh waters?	<i>Wetland extent and change</i>	1	2.2.2
	<i>Altered fresh water ecosystems</i>	2	2.2.1
	<i>Contaminants in fresh water fish</i>	2	2.5.1
	<i>Phosphorus in large rivers</i>	2	2.2.4.b
	<i>Lake Trophic State Index</i>	2	2.2.1
	<i>Chemical contamination in streams and ground water</i>	2	2.2.4.c
	<i>Acid sensitivity in lakes and streams</i>	2	2.2.4.c
	<i>Changing stream flows</i>	1	2.2.4.a
	<i>Sedimentation index</i>	2	2.2.4.a
	<i>Extent of ponds, lakes, and reservoirs</i>	1	5.6
	<i>At-risk native fresh water species</i>	2	5.6
	<i>Non-native fresh water species</i>	2	5.6
	<i>Animal deaths and deformities</i>	2	5.6
	<i>At-risk fresh water plant communities</i>	2	5.6
	<i>Fish Index of Biotic Integrity in streams</i>	2	5.6
<i>Macroinvertebrate Biotic Integrity Index for streams</i>	2	5.6	

## Coasts and Oceans

Question	Indicator Name	Category	Section
What is the ecological condition of coasts and oceans?	<i>Chlorophyll concentrations</i>	2	2.2.3
	<i>Water clarity in coastal waters</i>	2	2.2.3
	<i>Total nitrogen in coastal waters</i>	2	2.2.4.b
	<i>Total phosphorus in coastal waters</i>	2	2.2.4.b
	<i>Dissolved oxygen in coastal waters</i>	2	2.2.3
	<i>Total organic carbon in sediments</i>	2	2.2.3
	<i>Sediment contamination of coastal waters</i>	2	2.2.4.c
	<i>Sediment toxicity in estuaries</i>	2	2.2.4.c
	<i>Extent of estuaries and coastline</i>	1	5.7
	<i>Coastal living habitats</i>	2	5.7
	<i>Shoreline types</i>	2	5.7
	<i>Benthic Community Index</i>	2	5.7
	<i>Fish diversity</i>	2	5.7
	<i>Submerged aquatic vegetation</i>	2	5.7
	<i>Fish abnormalities</i>	2	5.7
<i>Unusual marine mortalities</i>	2	5.7	

Note: *Italicized indicators are presented in other chapters.*

## The Entire Nation

Question	Indicator Name	Category	Section
What is the ecological condition of the entire nation?	Ecosystem extent	2	5.8
	At-risk native species	2	5.8
	Bird Community Index	2	5.8
	Terrestrial Plant Growth Index	1	5.8
	Movement of nitrogen	1	5.8
	Chemical contamination	2	5.8

*Note: Italicized indicators are presented in other chapters.*