

Developing Indicators for the Bay of Fundy to Long Island Sound

6. Eutrophication

Nutrient pollution is an important threat to coastal water quality. Sources of nutrients include atmospheric, groundwater, point and non-point with potential consequences ranging from ecological changes to socio-economic impairments (e.g. fisheries), to serious human health threats. The primary impact of nutrient pollution is eutrophication.

Symptoms of eutrophication include low dissolved oxygen, excessive and unsightly algal blooms, and losses of submerged aquatic plants that serve as habitat for coastal fisheries. These impacts cause economic losses to tourism, and to commercial and recreational fisheries. Additionally, weakening or destroying native flora and fauna provides the opportunity for colonization by invasive species.

22. How important are the following eutrophication issues?

| | Very Important | Important | Somewhat Important | Not Important |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Extent of eutrophication in the region | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Rate of eutrophication in the region | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Effect of eutrophication on human use | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Effect of eutrophication on the marine ecosystem | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Major sources of nutrients | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Concern for potential eutrophication | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

23. Suggested Additional Eutrophication Issues:

- a.
- b.
- c.

24. How useful are the following themes in communicating the status and trends of eutrophication?

| | Very Useful | Useful | Somewhat Useful | Not Useful |
|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Macroalgal abundance | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Epiphyte abundance | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Presence of harmful algae | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Dissolved oxygen levels | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Chlorophyll A concentrations



Nutrient concentrations



Nutrient loading



Change in SAV abundance



25. Suggested Additional Eutrophication Themes:

a.

b.

c.