## Options for minimizing adverse effects from fishing on fish habitat

Note: all of these Options have high interaction effects and would need to be packaged into discrete Alternatives for analysis. This is a decision-making structure for creating Alternatives and not a list of the Alternatives themselves.

Various areas discussed in the options list below are shown on the chart on the last page of this document.

- 1. Options for minimizing the use of otter trawl gears on vulnerable habitats (gear modification options)
  - a. No action current gear requirements remain unchanged
  - b. Restrictions within portions of all LISA cluster areas
    - i. Roller gear restrictions
      - 1. Size 1 (ex: 12 inches)
      - 2. Size 2 (ex: 20 inches)
      - 3. Size 3 (ex: 28 inches)
    - ii. Ground cable restrictions
      - 1. Max length 1 (ex: ?? meters)
      - 2. Max length 2 (ex: ?? meters)
  - c. Restrictions within the Gulf of Maine RMA
    - i. Roller gear restrictions
      - 1. Size 1 (ex: 12 inches)
      - 2. Size 2 (ex: 20 inches)
      - 3. Size 3 (ex: 28 inches)
    - ii. Ground cable restrictions
      - 1. Max length 1 (ex: ?? meters)
      - 2. Max length 2 (ex: ?? meters)
  - d. Domain-wide restrictions
    - i. Roller gear restrictions
      - 1. Size 1 (ex: 12 inches)
      - 2. Size 2 (ex: 20 inches)
      - 3. Size 3 (ex: 28 inches)
    - ii. Ground cable restrictions
      - 1. Max length 1 (ex: ?? meters)
      - 2. Max length 2 (ex: ?? meters)

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## Options for restricting fishing in highly vulnerable habitats (area closure options)

- a. No action current Habitat Closed Areas remain unchanged<sup>1</sup>
- b. Modify some or all of the current Habitat Closed Areas<sup>2</sup>, including: NLCA Habitat Closed Area, CAI N Habitat Closed Area, CAI S Habitat Closed Area, CAI Habitat Closed Area, WGOM Habitat Closed Area, CL Habitat Closed Area, JB Habitat Closed Area
  - i. Eliminate area entirely
  - ii. Change current gear restrictions in area
- c. Restrictions only within portions of LISA cluster areas
  - i. GOM cluster areas (areas 1, 2, 3, 4 on Map)
    - 1. Closed to all bottom-tending gear (trawls, dredges, fixed gears)
    - 2. Closed to all mobile bottom-tending gear (trawls, dredges)
    - 3. Closed to selected mobile bottom-tending gears
  - ii. GB/SNE cluster areas (areas 5, 6, 7 on Map)
    - 1. Closed to all bottom-tending gear (trawls, dredges, fixed gears)
    - 2. Closed to all mobile bottom-tending gear (trawls, dredges)
    - 3. Closed to selected mobile bottom-tending gears
- d. Restrictions only within potentially vulnerable areas not identified by modeling
  - i. Areas in and around SBNMS
    - 1. Closed to all bottom-tending gear
    - 2. Closed to all mobile bottom-tending gear
    - 3. Closed to selected mobile bottom-tending gears
  - ii. Nantucket Shoals areas
    - 1. Closed to all bottom-tending gear
    - 2. Closed to all mobile bottom-tending gear
    - 3. Closed to selected mobile bottom-tending gears
  - iii. Shelf-break and canyon areas
    - 1. Closed to all bottom-tending gear
    - 2. Closed to all mobile bottom-tending gear
    - 3. Closed to selected mobile bottom-tending gears

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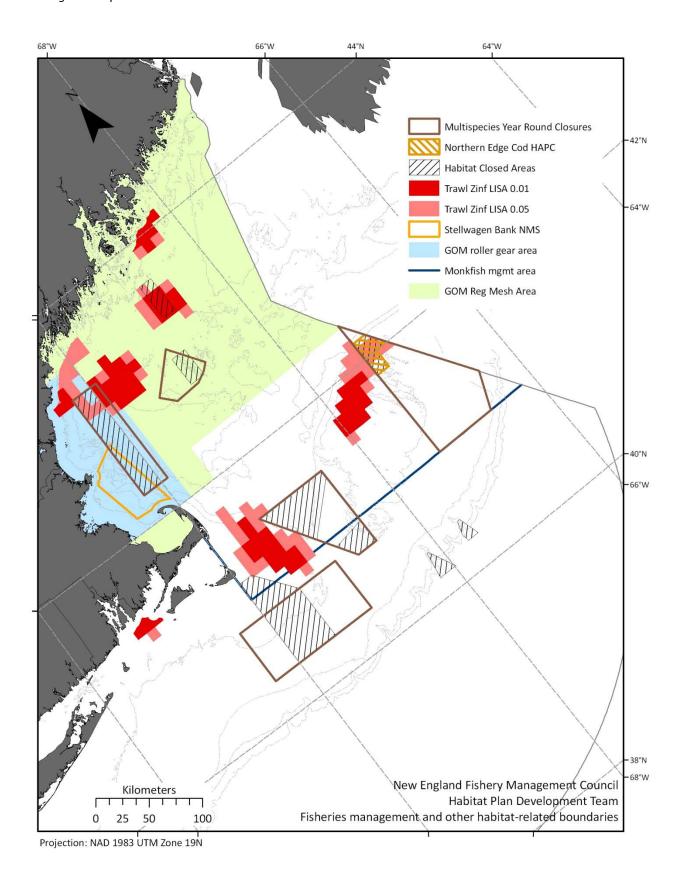
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<sup>&</sup>lt;sup>1</sup> This option assumes that the boundaries of Habitat Closed Areas in scallop plan will be modified to be the same as those in the Multispecies Plan (recommended Scallop A15 alternative)

<sup>&</sup>lt;sup>2</sup> As above, this option assumes that the boundaries of Habitat Closed Areas in scallop plan will be modified to be the same as those in the Multispecies Plan (recommended Scallop A15 alternative)

- 3. Options for reducing adverse fishing effects on habitat due to fishing effort displacement (area closure removal options)
  - a. No action all current groundfish rebuilding closure areas (WGOM, CAI, CAII, NLCA) remain closed
  - b. Open non-spawning areas within all groundfish rebuilding closures year-round
  - c. Open all current groundfish rebuilding closures year-round with specific seasonal spawning closures
  - d. Open all current groundfish rebuilding closures year-round
- 4. Options for Dedicated Habitat Research Areas (options to include areas both open and closed to fishing across contiguous, comparable habitats)
  - a. SBNMS
  - b. Cashes Ledge
  - c. Northern Edge HAPC

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