Bouchard B. No. 120 Oil Spill Buzzards Bay, Mass.

SHORELINE CLEANUP PLAN 6/27/03 UPDATE

The following document summarizes the cleanup of shorelines affected by the Buzzard Bay oil spill. Shoreline cleanup is an ongoing and dynamic process. This plan reflects the current status of shoreline assessment and cleanup operations as of the date listed. Information contained herein is subject to change and will be update on approximately a weekly basis.

6/27/03 Shoreline Cleanup Plan Update

Segment	Segment Name	Cleanup/ Inspection Status	Satisfies IRAC Criteria	Further Cleanup Warranted
E1-01	Grey Gables-Gilder Road Beach	IRAC Inspected	Yes	No
E1-02	Mashnee/Hog Islands North	Unoiled ¹		
E1-03	Mashnee Island	Unoiled ¹		
E1-04	Mashnee/Hog Islands South	Unoiled ¹		
E1-05	Monument Beach	Unoiled ¹		
E1-06	Phinney's Harbor South	Unoiled ¹		
E1-07	Wings Neck	IRAC Inspected	Yes	No
E1-08	Barlow's Landing	Unoiled ¹		
E1-09	Patuisset	Unoiled ¹		
E1-10	Scraggy Neck North	IRAC Inspected	Yes	No
E1-11	Scraggy Neck South	Maintenance ²		
E1-12	Megansett Beach	IRAC Inspected	No	Yes
E1-13	Nye's Neck	Ongoing Cleanup ³		
E1-14	New Silver Beach (Wild Harbor)	Maintenance ²		
E1-15	Crow Point	Ongoing Cleanup ³		
E1-16	Old Silver Beach	Unoiled ¹		
E2-01	Falmouth Cliffs	Unoiled ¹		
E2-02	West Falmouth Harbor	Unoiled ¹		
E2-03	Chappaquoit Beach	Unoiled ¹		
E2-04	Black Beach	Unoiled ¹		
E2-05	Saconesset Beach	Maintenance ²		
E2-06	Hamlin's Point Beach	Maintenance ²		
E2-07	Wood Neck Beach	Maintenance ²		
E2-08	Racing Beach	Maintenance ²		
E2-09	Quissett Harbor	Unoiled ¹		
E2-10	Long Neck to Gansett Point	Maintenance ²		
E2-11	Penzance Island	Maintenance ²		
E3-01	Penikese Island	Maintenance ²		
E3-02	Cuttyhunk Island	Maintenance ²		
E3-03 E3-04	Nashaweena Island	Maintenance ²		
E3-04 E3-05	Pasque Island Naushon Island	Maintenance ² Maintenance ²		
E3-05	Uncatena Island	Maintenance ²		
E3-07	Weepecket Islands	Maintenance ²		
W1B-01	Taylor Point Canal	Unoiled ¹		
W1B-02	Taylor Point North	Unoiled ¹		
W1B-02 W1B-03	Butler Cove	Unoiled ¹		
W1B-03	Jacob's Neck	Unoiled 1		
W1B-04 W1B-05	Pleasant Harbor			
		Unoiled ¹		
W1B-06	Broad Cove	Unoiled ¹		

¹ No documentation of oiling

² Period walk-through and cleanup by small team

³ Portion or all of segment requires further treatment beyond maintenance

Segment	Segment Name	Cleanup/ Inspection	Satisfies IRAC	Further Cleanup
W4D 07	Stony Point Dike	Status Maintananae ²	Criteria	Warranted
W1B-07 W1B-08	Temples Knob	Maintenance ² IRAC Inspected	Yes	No
W1B-08 W1B-09	,		res	INO
	Little Harbor Beach	Unoiled ¹		
W1B-10	Little Harbor	Unoiled ¹		
W1B-11	Bourne Cove	Unoiled ¹		
W1B-12	Warren Point (MA)	Maintenance ²		
W1B-13	Indian Neck	Maintenance ²		
W1B-14	Long Beach	IRAC Inspected	Yes	No
W1B-15	Wareham River East Shore	IRAC Inspected	Yes	No
W1B-16	Minot Forest Beach	IRAC Inspected	Yes	No
W1B-17	Wareham Neck North	Maintenance ²		
W1B-18	Pinehurst Beach	Unoiled ¹		
W1B-19	Broad Marsh River East	Unoiled ¹		
W1B-20	Broad Marsh River West	Unoiled ¹		
W1B-21	Swift's Neck Beach	Maintenance ²		
W1B-22	Swift's Beach	Maintenance ²		
W1B-23	Mark's Cove	Maintenance ²		
W1B-24	Nobska Beach	Unoiled ¹		
W1B-25	Cromeset Beach	Unoiled ¹		
W1B-26	Briarwood Beach	Unoiled ¹		
W1B-27	Rose Point	Unoiled ¹		
W1B-28	Weweantic River West Shore	Maintenance ²		
W1B-29	Delano Road North	Unoiled ¹		
W1B-30	Delano Road South	Unoiled ¹		
W1B-31	Great Hill Point	Maintenance ²		
W1B-32	Piney Point Beach	Maintenance ²		
W1B-33	Piney Point South	Maintenance ²		
W1C-00	Bird Island	Ongoing Cleanup ³		
W1C-01	Butler's Point	Maintenance ²		
W1C-02	Planting Island Causeway	Ongoing Cleanup ³		
W1C-03	Planting Island Cove	Unoiled ¹		
W1C-04	Blankinship Cove	Maintenance ²		
W1C-05	Sippican Harbor East	Maintenance ²		
W1C-06	Hammet's Cove Beach	Unoiled ¹		
W1C-07	Little Neck	Unoiled ¹		
W1C-08	Tabor Academy Beach	Unoiled ¹		
W1C-09	Marion Town Beach	Unoiled ¹		
W1C-10	Silvershell Beach	Maintenance ²		
W1C-11	Sippican Harbor West	Maintenance ²		
W1C-12	Converse Point East	Maintenance ²		
W1C-13	Little Ram Island	Maintenance ²		
W1D-01	Aucoot Cove	IRAC Inspected	Yes	No

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Segment	Segment Name	Cleanup/ Inspection Status	Satisfies IRAC Criteria	Further Cleanup Warranted
W1D-02	Harbor Beach	IRAC Inspected	Yes	No
W1D-03	Holly Woods / Hiller Cove	IRAC Inspected	Yes	No
W1D-04	Holly Woods / Peases Point	IRAC Inspected	Yes	No
W1D-05	Point Connett Beach	IRAC Inspected	Yes	No
W1E-01	Nye Cove / Strawberry Cove	Natural Attenuation		
W1E-02	Strawberry Cove	Maintenance ²		
W1E-03	Strawberry Point West	Natural Attenuation		
W1E-04	Crescent Beach	Maintenance ²		
W1E-05	Mattapoisett Harbor East	Maintenance ²		
W1E-06	Mattapoisett Town Beach	Maintenance ²		
W1F-01	Brandt Beach	Ongoing Cleanup ³		
W1F-02	Brandt Island West	Ongoing Cleanup ³		
W1F-03	Brandt Island East	Ongoing Cleanup ³		
W1F-04	Brandt Island Cove	Maintenance ²		
W1F-05	Mattapoisett Neck West	Maintenance ²		
W1F-06	Mattapoisett Neck South	Ongoing Cleanup ³		
W1F-07	Mattapoisett Shores	Ongoing Cleanup ³		
W1F-08	Mattapoisett Neck East	Ongoing Cleanup ³		
W1F-09	Mattapoisett Harbor North	Ongoing Cleanup ³		
W1G-00	Ram Island	Maintenance ²		
W2A-01	Fort Phoenix	IRAC Inspected	Yes	No
W2A-02	Harbor View	IRAC Inspected	Yes	No
W2A-03	Pope's Beach	IRAC Inspected	Yes	No
W2A-04	Manhattan Ave	IRAC Inspected	Yes	No
W2A-05	Sunset Beach	Maintenance ²		
W2A-06	Silver Shell Beach	Maintenance ²		
W2A-07	Sconticut Neck West	Maintenance ²		
W2A-08	Wilbur Point	Ongoing Cleanup ³		
W2A-09	Sconticut Neck East	Maintenance ²		
W2A-10	Long Island and Causeway South	Ongoing Cleanup ³		
W2A-11	West Island West	Ongoing Cleanup ³		
W2A-12	Rocky Point to East Cove	IRAC Inspected	No	Yes
W2A-13	East Cove	Maintenance ²		
W2A-14	Pine Creek to North Point	Maintenance ²		
W2A-15	West Island North	Maintenance ²		
W2A-16	Long Island and Causeway North	Maintenance ²		
W2A-17	Sconticut Neck Northeast (Marsh)	IRAC Inspected	Yes	No
W2A-18	Little Bay (Marsh)	IRAC Inspected	Yes	No
W2A-19	Shaw Cove	Ongoing Cleanup ³		
W2B-01	Round Hill to Barekneed Rocks	Maintenance ²		
W2B-02	Padanaram Harbor	Unoiled ¹		
W2B-03	Clarke's Cove West	Maintenance ²		
W2B-04	Clarke's Cove East	Maintenance ²		

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6/27/03 Shoreline Cleanup Plan Update

Segment	Segment Name	Cleanup/ Inspection Status	Satisfies IRAC Criteria	Further Cleanup Warranted
W2B-05	Fort Taber	IRAC Inspected	No	Yes
W2B-06	Clarke's Point East	IRAC Inspected	Yes	No
W2B-99	New Bedford Harbor (inner)	Unoiled ¹		
W3A-01	Mishaum Point East	Maintenance ²		
W3A-02	Salters Point West	Maintenance ²		
W3A-03	Pier Beach (Salter's Point)	Maintenance ²		
W3A-04	Salters Point East	Maintenance ²		
W3A-05	Round Hill Beach West	Maintenance ²		
W3A-06	Round Hill Beach East	Maintenance ²		
W3B-01	Slocum's River	Ongoing Cleanup ³		
W3B-02	Mishaum Point West	Ongoing Cleanup ³		
W3C-01	East Beach (Westport)	Ongoing Cleanup ³		
W3C-02	Little Beach	Maintenance ²		
W3C-03	Barney's Joy (W of barbed)	Maintenance ²		
W3C-04	Barney's Joy (E of barbed)	Maintenance ²		
W3C-05	Demarest Lloyd State Park Beach	IRAC Inspected	Yes	No
W3C-06	Demarest Lloyd State Park Marsh	IRAC Inspected	Yes	No
W3D-01	Quicksand Point	IRAC Inspected	Yes	No
W3D-02	Cockeast Pond Beach	IRAC Inspected	Yes	No
W3D-03	Elephant Rock Beach	IRAC Inspected	Yes	No
W3D-04	Horseneck Beach West	IRAC Inspected	Yes	No
W3D-05	Horseneck Beach East	IRAC Inspected	Yes	No
W3D-06	Gooseberry Neck East	Maintenance ²		
W3D-07	Gooseberry Neck West	Maintenance ²		

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Shoreline Cleanup Methods List

1A. Heavily Utilized, Public Recreational Sand Beaches

- A Manual removal with minimal clean sediment removal
- B Mechanical removal with in-kind sediment replacement
- O Vacuum removal with minimum clean sediment removal
- P Natural Attenuation

1B. Less utilized, Semi-Public and Private Sand Beaches

- A Manual removal with minimal clean sediment removal
- B Mechanical removal with in-kind sediment replacement
- O Vacuum removal with minimum clean sediment removal
- P Natural Attenuation

1C. Mixed Sand and Gravel, Gravel (pebble to boulder) and Rip Rap Groins (jetties)

Mixed Sand and Gravel

- A Manual removal with minimal clean sediment removal
- B Mechanical removal with in-kind sediment replacement
- C Snare (staked in intertidal zone)
- D Warm water deluge into collection
- O Vacuum removal with minimum clean sediment remova
- P Natural Attenuation

Gravel/Cobble (pebble to boulder)

- E Manual wiping
- F Manual wiping with subtidal relocatio
- G Manual wiping with cleaning agent
- H High pressure/hot water wash with containmer
- I On-site high pressure/hot water wash of piled rocks with containment
- J Off-site high pressure/hot water wash of piled rocks
- K Warm water deluge into collection
- O Vacuum removal with minimum clean sediment remova
- P Natural Attenuation

Rip Rap Groins (jetties)

- L Snare in/around groins
- H High pressure/hot water wash with containmer
- P Natural Attenuation

1D. Rip Rap Seawalls, Bulkhead, Piers, Docks and Pilings

- L Snare in/around groins
- H High pressure/hot water wash with containmer
- P Natural Attenuation

1E. Rocky Shorelines (bedrock outcrops)

- C Snare (staked in intertidal zone)
- H High pressure/hot water wash with containmer
- P Natural Attenuation

1F. Salt Marshes

- A Manual removal with minimal clean sediment removal
- M Removal of floatable oil
- N Manual removal of oiled wrack
- P Natural Attenuation

Immediate Response Action Completion (IRAC) Shoreline Classifications

- 1A. Heavily Utilized, Public Recreational Sand Beaches
- 1B. Less utilized, Semi-Public and Private Sand Beaches
- 1C. Mixed Sand and Gravel, Gravel (pebble to boulder) and Rip Rap Groins (jetties)
- 1D. Rip Rap Seawalls, Bulkhead, Piers, Docks and Pilings
- 1E. Rocky Shorelines (bedrock outcrops)
- 1F. Salt Marshes
- 2. Roseate Tern Habitat
- 3. Piping Plover Habitat

Definitions

<u>Maintenance</u> – periodic inspection of clean shorelines for the purpose of removing new oil, tar balls, etc. that may come ashore after gross oil removal has been completed. Maintenance typically requires a lower level of effort than initial oil removal and is performed by teams of 2 to 4 cleanup personnel that systematically patrol the shoreline at regular time intervals (e.g., every other day). Maintenance is an on-going activity that begins when initial gross oil removal is complete and ends when the threat of significant shoreline re-oiling no longer exists. If maintenance patrols or shoreline inspection teams discover significant amounts of oil, shoreline areas are removed from maintenance status and more aggressive cleanup tactics are re-started.