



**Parks Canada input into the 2012 C-NLOPB for the Western Newfoundland and Labrador Offshore Area Strategic Environmental Assessment update**

December 3, 2012

Steve Bonnell,  
AMEC  
133 Crosbie Road  
St. John's, NL

Dear Mr. Bonnell,

The attached document provides information and data from Parks Canada for your consideration as you prepare the draft Strategic Environmental Assessment update for the C-NLOPB's Western Newfoundland and Labrador Offshore Area (WNLOA). In most cases this material relates specifically to resources and activities that fall clearly within the mandate and jurisdiction of Parks Canada. However where we were in possession of additional information that we felt may aid you in preparing the SEA update but which fell outside of our boundaries or jurisdiction we have included that for your consideration as well. In most cases this consists of observations of species at risk and other important biological resources in community enclaves and subtidal marine areas adjacent to Parks Canada lands. Typically these are trans-boundary resources or populations of wildlife that regularly move in and out of the park, and will contribute directly to helping you address known data gaps listed in section 5.2 of the 2005 SEA.

We look forward to reviewing the draft SEA once that document is ready. In the meantime please contact us if you need any clarification, supporting documentation, or additional information.

Sincerely,



Michaela Kent  
Acting Superintendent  
Western Newfoundland and Labrador Field Unit  
Parks Canada , P.O. Box 130, Rocky Harbour, NL, A0K 4N0

cc. Francine Mercier, Parks Canada, Gatineau (Parks Canada representative on the C-NLOPB Western Newfoundland and Labrador Offshore Area SEA Working Group).

## **1. Jurisdictional Boundaries and Agency Mandate**

Parks Canada has jurisdiction over two sites bordering on the C-NLOPB's Western Newfoundland and Labrador Offshore Area (WNLOA): Gros Morne National Park (GMNP; Figure 1) and Port au Choix National Historic Site (PaCNHS; Figure 2), both established under the *Canada National Parks Act*. Along most coastal portions of both sites the marine boundary is the ordinary low water mark, placing ownership, protection and management of shoreline including the intertidal zone under the jurisdiction of Parks Canada. A notable exception for GMNP is the inner (i.e. eastern) portion of St. Paul's Inlet, where the entire marine area including portions below the low tide line also falls within the park boundary (see Figure 1). It should also be noted that there is some potential for oil and gas activity to affect several sites in other provinces that are also administered by Parks Canada. For example a major offshore oil spill in the Gulf of St. Lawrence could conceivably affect Cape Breton Highlands National Park (NS), Kouchibouguac National Park (NB), Forillon National Park, Mingan Archipelago National Park Reserve(QC) and Prince Edward Island National Park (PEI).

Parks Canada's legal obligations with regards to management of these sites are set out in the Canada National Parks Act (2000). These responsibilities are paraphrased in the Parks Canada Agency mandate:

*On behalf of the people of Canada, we protect and present nationally significant examples of Canada's natural and cultural heritage, and foster public understanding, appreciation and enjoyment in ways that ensure the ecological and commemorative integrity of these places for present and future generations.*

In particular this requires that Parks Canada protect the ecological and commemorative integrity of National Parks and National Historic Sites and also offer meaningful visitor experiences.

Parks Canada also has jurisdiction over and is responsible for maintenance and safety along portions of Routes 430 and 431 running through GMNP. Any increases in traffic on these highways as a result of potential oil and gas activity could have impacts on park management.

## **2. Physical Environment**

With reference to section 2.3.1 [Wind Conditions] of the 2005 Strategic Environmental Assessment (SEA), it should be noted that extreme katabatic winds, at times exceeding 150 km/h, are a regular occurrence along the western front of the Long Range Mountains in GMNP. Because of the mountainous topography these winds are particularly pronounced around Bonne Bay, Western Brook Pond, St. Paul's Inlet and Parson's Pond. These winds cause considerable damage to local infrastructure (e.g. overturning tractor trailers and damaging boats, wharves, and buildings) and should be taken into consideration when securing onshore and offshore industrial sites.

# Gros Morne National Park



## Key to locations

1. Shallow Bay and Belldowns Island
2. Stearin Island
3. Cow Head
4. St. Paul's Bay
5. St. Paul's Inlet
6. Broom Point
7. Western Brook Beach
8. Sally's Cove
9. Baker's Brook
10. Rocky Harbour
11. Bonne Bay
12. Norris Point
13. Deer Arm
14. Lomond River
15. Trout River

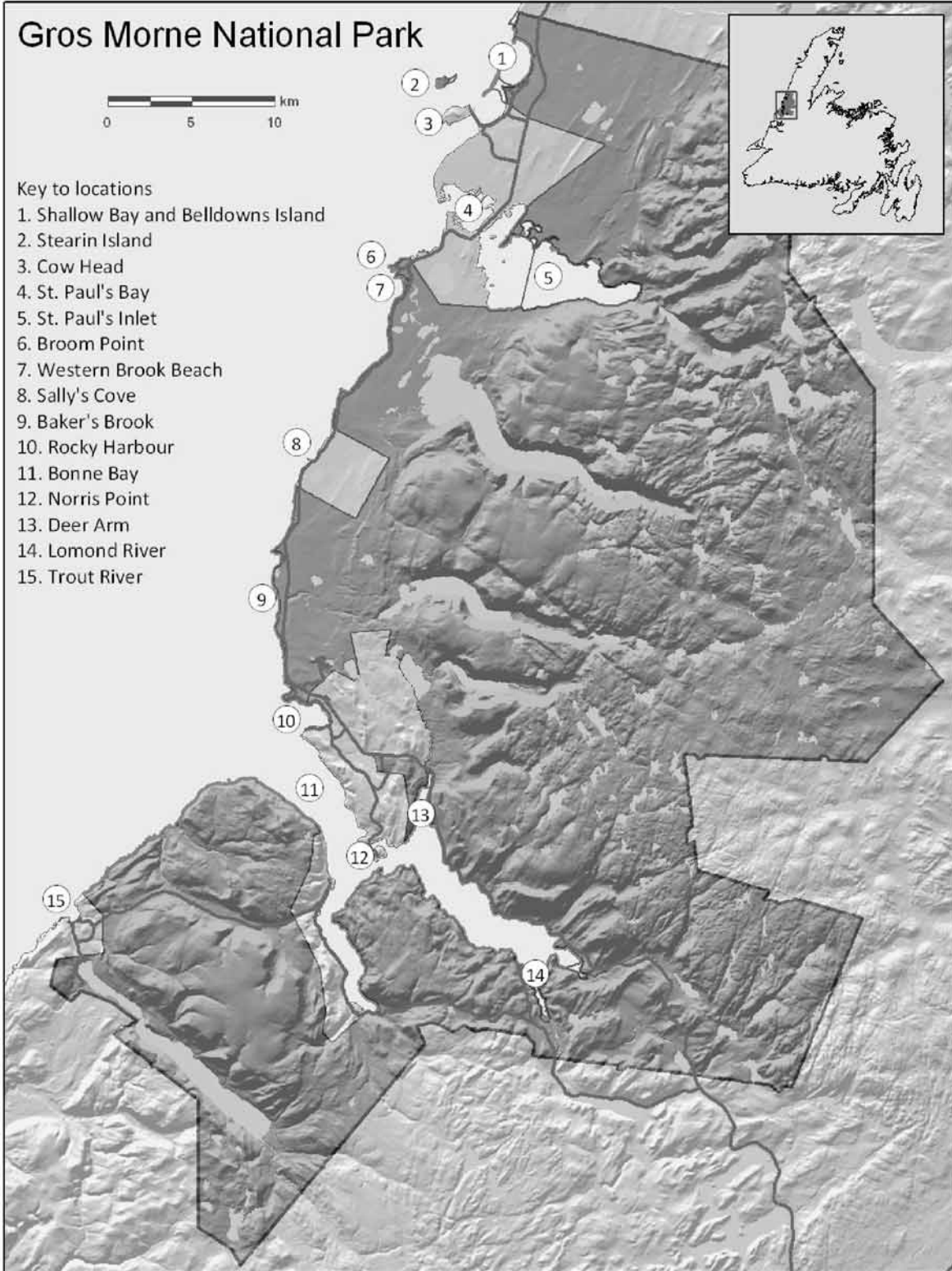


Figure 1. Map of Gros Morne National Park including names of areas discussed in the text. Parks Canada requests that this map be included in the updated SEA.

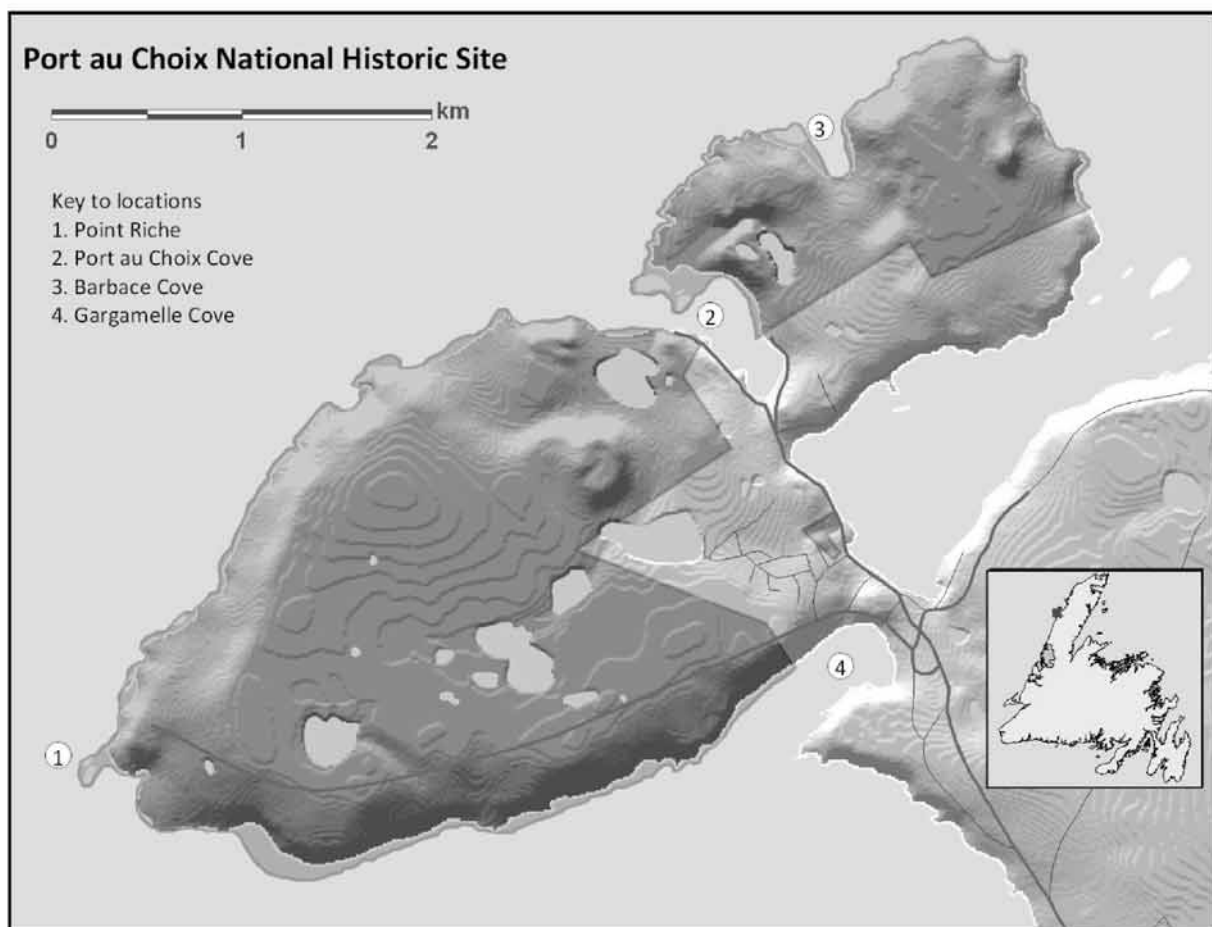


Figure 2. Map of Port au Choix National Historic Site. Parks Canada requests that this map be included in the updated SEA.

### **3. Biological Environment**

#### **3.1 Fish and Shellfish**

**3.1.1 Atlantic Herring** (Section 3.4.2.3 in the 2005 SEA): Individual herring stocks may show high spawning site fidelity and in late May of 2011 and 2012 herring spawned within 250 m off shore of Sally's Cove. Local fishermen indicate that these shoals at Sally's Cove have been an important herring spawning area for many years (D. Major, Parks Canada, personal communication). Spawning occurred within ~2 km north and south of 49.7266° N × -57.9437° W (D. Whitaker, Parks Canada, unpublished data).

It should be noted that herring spawning events are a strong attractant for many other species of coastal and marine wildlife; for example >1,000 gulls (various species including Herring, Black-backed, and Ring-billed Gulls) became concentrated around this spawning area and remained in the area for up to two weeks.

**3.1.2 Capelin** (Section 3.4.2.4 in the 2005 SEA): Capelin spawned on the beach at Trout River in June of 2011 and 2012 (49.4821° N × -58.1256° W), and the beach south of the mouth of Baker's Brook is another important capelin spawning site (D. Major and D. Whitaker, Parks Canada, personal observations). Information on other contemporary beach spawning sites within the WNLOA should be available from the DFO Capelin Observers Network (<http://www.gc.dfo-mpo.gc.ca/signaler-report/ROC-CON/reseau-network-eng.asp>).

**3.1.3 Atlantic Salmon** (Section 3.4.3.1 in the 2005 SEA): Atlantic Salmon are an important sport fish for anglers in GMNP, with an average of 398 salmon angling licences being sold annually from 2006-2011. There are five scheduled Atlantic Salmon Rivers that fall partly or entirely within the boundaries of GMNP and which have outflows within the WNLOA. These are:

Humber River (River mouth: 48.9539° N × -57.8870° W)

Trout River (River mouth: 49.4806° N × -58.1327° W)

Lomond River (River mouth: 49.4312° N × -57.7331° W)

Deer Brook (also known as Deer Arm Brook; River mouth: 49.5657° N × -57.8367° W)

Western Brook (River mouth: 49.8314° N × -57.8626° W)

Of note Western Brook is closed to angling to recover the salmon run on that river, and a closure is being considered for Trout River for the same reason.

Four unscheduled rivers that also fall partially or entirely within the boundaries of GMNP and have outflows within the WNLOA support diadromous Atlantic Salmon populations. These are:

Wallace Brook (River mouth: 49.5285° N × -58.0568° W)

Baker's Brook (River mouth: 49.6571° N × -57.9611° W)

Black Brook (River mouth: 49.8520° N × -57.7429° W)

Bottom Brook (St. Paul's Inlet; River mouth: 49.8257° N × -57.6628° W)

Data on the size and timing of many of these runs is available from Parks Canada on request.

**3.1.4 Brook Trout** (Diadromous): Brook Trout are an important sport fish for anglers in GMNP, with an average of 795 fishing permits sold annually from 2006-2011. While sea run Brook Trout spawn in many small coastal rivers in GMNP, eight rivers support major sea trout populations and have outflows within the WNLOA. These rivers are:

Trout River (River mouth: 49.4806° N × -58.1327° W)

Wallace Brook (River mouth: 49.5285° N × -58.0568° W)

Lomond River (River mouth: 49.4312° N × -57.7331° W)

Deer Brook (also known as Deer Arm Brook; River mouth: 49.5657° N × -57.8367° W)

Baker's Brook (River mouth: 49.6571° N × -57.9611° W)

Western Brook (River mouth: 49.8314° N × -57.8626° W)

Black Brook (River mouth: 49.8520° N × -57.7429° W)

Eastern Brook (River mouth: 49.8402° N × -57.6982° W)

Data on the size and timing of some of these runs is available from Parks Canada on request.

**3.1.5 American Eel** (Diadromous): American Eel has been listed as *Threatened* by COSEWIC but to date has not been added to Schedule one of SARA. In the Gros Morne area eels occur in virtually all watersheds that drain into the Gulf of St. Lawrence (Anions 1994), though little is known about the status of individual populations.

**3.1.6 Atlantic Lobster:** As with the Trout River lobster rearing area identified in the 2005 SEA (section 3.4.1.1), inshore waters throughout the Gros Morne area are recognized by fishermen as highly productive lobster fishing areas.

### 3.2 Marine-associated Birds

#### 3.2.1 Seabirds (Section 3.5.1 in the 2005 SEA):

**Seabird Colonies:** There are a number of seabird colonies on islands in or adjacent to GMNP. These colonies are all located in the vicinity of Cow Head (Stearin and Belldowns Islands) and in St. Paul's Inlet (Little, Middle, and Western Islands; these three islands are outside of GMNP). Note that seabirds nesting on Islands in St. Paul's Inlet regularly forage outside the inlet along the coast of the Gulf of St. Lawrence.

Table 1. Five-year average nest counts (2008-2012) and all time maximum nest counts for seabird colonies near Cow Head and in St. Paul's Inlet. Stearin and Belldown's Islands are in GMNP, while Little, Middle, and Western Islands are adjacent to the park in St. Paul's Inlet.

Species <sup>1</sup>	Stearin Island Mean / Max (year)	Belldowns Isl. Mean / Max (year)	Little Island Mean / Max (year)	Middle Island Mean / Max (year)	Western Island Mean / Max (year)
B-I Kittiwake	57 / 270 (2006)	25 / 51 (2008)	0 / 0	0 / 0	0 / 0
Large Gulls	359 / 838 (1989)	94 / 114 (2011)	0 / 0	3 / 15 (2008)	0 / 0
R-b Gull	0 / 0	0 / 0	547 / 745 (2011)	0 / 0	0 / 0
Small Terns	8 / 319 (1973)	114 / 258 (1985)	534 / 1,040 (2003)	157 / 394 (2008)	202 / 361 (2010)
Caspian Tern	0 / 0	0 / 0	1 / 3 (2012)	0 / 0	0 / 0
Cormorants <sup>2</sup>	69 / 122 (2012)	0 / 0	0 / 0	0 / 0	0 / 0
C. Eider	201 / 255 (2012)	61 / 72 (2008)	0 / 0	0 / 0	0 / 0

<sup>1</sup> B-I Kittiwake = Black-legged Kittiwake; Large Gulls = Great Black-backed and Herring Gulls combined; R-b Gull = Ring-billed Gull; Small Terns = Common and Arctic Terns combined; Cormorants = Great and Double-crested Cormorants combined; C. Eider = Common Eider.

<sup>2</sup> The species composition of cormorants nesting on Stearin Island in 2012 was ~2/3 Double-crested Cormorants and 1/3 Great Cormorants.

**Common and Arctic Terns:** Common and Arctic Terns are well known for their propensity to regularly shift colonies among a group of neighbouring islands. Along these lines the number of terns nesting on any one of the islands listed in Table 1 has been highly variable over time, but the total population of terns nesting on all five islands has been quite stable from year-to-year. This indicates that these five islands support a single tern “metapopulation” that includes islands inside and outside of GMNP. With an average of >1,000 nesting pairs each year over the past 5 years this is likely the largest tern population in Newfoundland. Terns are also likely nest on the small islands in Port au Choix Cove and Barbace Cove, PaCNHS (Figure 2), though these islands have not been surveyed.

**Caspian Tern:** A small number of Caspian Terns began nesting on Little Island (St. Paul’s Inlet) in 2010 (Table 1), and adult and juvenile Caspian Terns are abundant in the Gros Morne area from mid-July through mid-October. During this time roosting aggregations of 20-40 individuals are typical at coastal locations including Shallow Bay / Cow Head, St. Paul’s Bay, Western Brook Beach, Sally’s Cove, and Rocky Harbour (D. Whitaker, Parks Canada, personal observation). Breeding locations for these individuals are not known but numbers nesting on the west coast of Newfoundland are low, suggesting that they come from elsewhere in the Gulf of St. Lawrence or farther afield. However these aggregations include many dependent juveniles that are still being fed by adults, so even though GMNP is not an important nesting area for Caspian Terns it may still play a key role as brood-rearing habitat and so be important to the health of regional breeding populations.

**Northern Gannet:** While there are no gannet colonies in the Gros Morne area, this is an important foraging area for adult gannets from mid-July through late September when groups of up to 100 individuals can be observed plunge-feeding in near-shore waters (D. Whitaker, Parks Canada, personal observation). Similarly, groups of up to 100 gannets have been observed feeding at Pointe Riche, PaCNHS (see Figure 2). It is not entirely clear where these individuals come from but they are likely breeders from colonies elsewhere in the Gulf of St. Lawrence (e.g., the Magdalen Islands or Bonaventure Island; W.A. Montevicchi, Memorial University, personal communication). Consequently industrial activity in the WNLOA could directly affect gannet colonies elsewhere in the Gulf of St. Lawrence.

**Pelagic Seabirds:** The WNLOA is an important area for a broad range of pelagic seabirds, including several species of gulls, terns, auks, shearwaters, and phalaropes, and the 2005 SEA indicates that additional data on these species is desirable for planning oil industry activities (section 3.5.8, page 164). While Parks Canada does not hold any data on offshore seabird distribution or abundance the

Canadian Wildlife Service (CWS) is in possession of a wealth of relevant pelagic survey data and we strongly encourage the proponent to include this information in the updated SEA document. In particular the CWS data identifies concentrated feeding areas for pelagic seabirds within the WNLOA (Karel Allard, Canadian Wildlife Service, personal communication), many of which are likely vital to the success of seabird colonies in and around GMNP. Consequently Parks Canada requests that these important offshore seabird foraging areas be identified in the SEA so that they can be considered when looking at potential hydrocarbon industry activity in the WNLOA.

### 3.2.2 Coastal Waterfowl (Section 3.5.2 in the 2005 SEA):

The Gros Morne area is important for waterfowl, most notably as a breeding area for Common Eiders and Harlequin Ducks and as a fall staging area or migration stopover for a broad range of species.

Table 2. Five-year average and maximum numbers of coastal waterfowl observed in the St. Paul's-Cow Head [NLSC; 49.8500° N × -57.8000° W] and Bonne Bay [NLBB; 49.5167° N × -57.8833° W] Christmas Bird Count circles<sup>1</sup>. Count circles have a radius of 12 km and both circles encompass large portions of the coast of GMNP as well as community enclaves.

Species <sup>2</sup>	NLBB average (2007-2011)	NLBB maximum count (Year)	NLSC average (2007-2011)	NLSC maximum count (Year)
American Black Duck	62.4	161 (2001)	103.4	199 (2007)
<b>Barrow's Goldeneye (SC)</b>	0.2	1 (2011)	0	3 (1981)
Black Scoter	0	1 (1992)	0	3 (1980)
Canada Goose	3.8	18 (2010)	1.6	94 (1981)
Common Eider	7.0	49 (2000)	7.4	16 (2011)
Common Goldeneye	71.0	98 (2007)	105.2	172 (1983)
Common Merganser	6.8	31 (2003)	29.2	65 (2007)
Greater Scaup	-	-	1.0	5 (2011)
<b>Harlequin Duck (SC)</b>	0.2	1 (2008)	0.2	1 (2011)
Long-tailed Duck	0	2 (1976)	0.4	4 (1982)
Mallard	0	2 (1999)	0.8	2 (2011)
Red-breasted Merganser	4.4	11 (1988)	48.0	119 (2007)
Ring-necked Duck	0	11 (2006)	-	-
Surf Scoter	0	1 (2006)	0.2	1 (2011)
White-winged Scoter	0.6	5 (1997)	0	1 (1983)

<sup>1</sup> Similar CBC data are available for other count circles in the WNLOA; see <http://birds.audubon.org/christmas-bird-count>

<sup>2</sup> Species at risk are indicated in bold type; SC = Special Concern.



**Common Eider:** More than 250 pairs of Common Eiders nest on Stearin and Belldowns Islands (Table 1). Once nesting is complete large brood rearing crèches disperse throughout Shallow Bay, Cow Head Harbour, Cow Cove, and at least as far as Broom Point and Western Brook Beach (D. Whitaker, Parks Canada, personal observation). Eiders then disperse along the coast in the Gros Morne area and remain through late fall, with some individuals staying through winter unless driven farther south by sea ice (e.g., Table 2).

**Common Goldeneye:** Large wintering flocks of Common Goldeneye form along the coast adjacent to Gros Morne in December, with groups of 20-150 individuals occurring at Shallow Bay / Cow Head, St. Paul's Bay and St. Paul's Inlet, Western Brook Beach, Sally's Cove, Rocky Harbour, Norris Point, and the South Arm of Bonne Bay (Table 2; D. Whitaker, Parks Canada, unpublished data). These flocks remain throughout winter unless driven farther south by sea ice.

**American Black Duck:** Hundreds of American Black Ducks congregate in sheltered bays and coves along the coast adjacent to Gros Morne in fall, and some remain into winter (Table 2; D. Whitaker, Parks Canada, personal observation). During this time they feed in intertidal zones, with the largest flocks typically occurring in Bonne Bay, Rocky Harbour, Western Brook Beach, and St. Paul's Bay and Inlet. During fall these ducks afford important waterfowl hunting opportunities for local residents, particularly in St. Paul's Bay.

**Red-breasted Merganser:** Flocks of up to 200 Red-breasted Merganser congregate in sheltered bays during fall and winter, particularly near large rivers (Table 2; D. Whitaker, Parks Canada, personal observation). In the Gros Morne area, the largest flocks are found at Shallow Bay / Cow Head, St. Paul's Bay, Western Brook Beach and in Bonne Bay.

**Canada Goose:** St. Paul's Bay and Inlet is one of the most important fall staging areas for Canada Geese in Newfoundland, where up to 500 individuals can be found from mid-August through late fall (D. Whitaker, Parks Canada, unpublished data). During this period geese typically roost on the bay or inlet and fly inland to forage in GMNP, likely even travelling as far as the Long Range highlands. They also forage in the extensive salt marshes and eelgrass beds around St. Paul's Bay and Inlet. Most geese migrate south by early December (Table 2), but prior to their departure this area offers important goose hunting opportunities for local residents.

### 3.3.3 Shorebirds (Section 3.5.3 in the 2005 SEA):

The coast of GMNP and associated community enclaves affords habitat for shorebirds throughout the year, including fall migration stopover sites for >20 species, wintering habitat for Purple Sandpipers, and breeding habitat for endangered Piping Plovers and other species. The earliest southbound migrants start arriving at these sites during the first half of July, peak migration lasts from mid-August through early October, and migrants of some species are still present until mid to late November. Detailed information regarding Piping Plovers and Red Knots, two species listed as *Endangered* under the *Species at Risk Act*, is provided in section 3.3.5, below.

While virtually all coastlines in the Gros Morne area are used by a variety of species of shorebirds for breeding or during migration there are three key shorebird sites: Shallow Bay, St. Paul's Bay and Inlet, and Western Brook Beach.

**Shallow Bay** (including Belldowns Island; ~49.9472° N × -57.7740° W): Shallow Bay is a migration stopover site for more than a dozen species (Table 3), and in particular the tidal flats around Belldowns Point and Belldowns Island are one of the most important stopover sites for *Endangered* Red Knots on the island of Newfoundland. Shallow Bay is also a breeding site for Piping Plovers and the beach from the park boundary south of Belldowns Point to Lower Head in the north has been designated as critical habitat in the Piping Plover Recovery Strategy (Environment Canada 2012).

**St. Paul's Bay and St. Paul's Inlet** (~49.8700° N × -57.8200° W): The salt marshes and tidal flats around St. Paul's are widely recognized as one of the most important shorebird migration stopover sites in Newfoundland; the only site of comparable significance is Stephenville Crossing, which also falls within the WNLOA. At least 28 species of shorebirds have been observed in the area (Table 3) and during peak migration >2,000 individuals of 15+ species may be present. Two at risk species of shorebirds have been observed at St. Paul's Bay in recent years – Red Knot (*Endangered*) and Buff-breasted Sandpiper (*Special Concern*) (Table 3). In addition, during the 1970s Piping Plovers were observed in St. Paul's Bay, and Tickle Point remains one of the only breeding sites for Killdeer in Newfoundland (Lamberton 1976; D. Whitaker, Parks Canada, personal observation).

**Western Brook Beach** (~49.8260° N × -57.8600° W): *Endangered* Piping Plovers first nested at Western Brook Beach in 2012; while this new breeding site was not included in the list of critical habitat in the 2012 Piping Plover Recovery Strategy it now meets the definition provided in that document and will be gazetted during the next revision of the recovery strategy (A. Boyne, Canadian Wildlife Service, personal communication). Consequently Western Brook Beach should be regarded as critical habitat for Piping Plovers. Western Brook Beach is also an important fall migration stopover site for a range of shorebirds, in particular including Semipalmated Plovers, Sanderlings and Ruddy Turnstones (Table 3).

**Purple Sandpiper:** Purple Sandpipers are an Arctic nesting shorebird that winters on rocky, surf-washed headlands along the Newfoundland coast. There are several sites where flocks of Purple Sandpipers winter in the Gros Morne area unless driven farther south by sea ice. These sites include the islands and rocky headlands around Shallow Bay and Cow Head, Broom Point, Green Point, Lobster Cove Head, Salmon Point (Rocky Harbour), and Norris Point. Of these Broom Point typically supports the largest and most stable flock, with >100 individuals being observed at times (D. Whitaker, Parks Canada, unpublished data). Average numbers reported during Christmas Bird Counts over the past 5 years are 23.4/year for the St. Paul's-Cow Head count circle (NLSC; maximum count 131 in 1982) and 2.6/year for the Bonne Bay count circle (NLBB; maximum count 49 in 1985) (National Audubon Society 2012).

Table 3. Summary of peak daily shorebird counts made during fall migration at Atlantic Canada Shorebird Survey (ACSS)<sup>1</sup> sites at Western Brook Beach, Tickle Point (St. Paul's Bay), and Belldowns Point (Shallow Bay). Mean is the average of the highest annual one-day totals over the past 5 years (2008-2012), while Max is the highest one day count for that site in all years. Note that the ACSS survey areas at Tickle Point and Belldowns Point represent <20% of available shorebird habitat at each of these sites.

Species <sup>2</sup>	Western Brook Beach Mean / Max (year)	Tickle Point Mean / Max (year)	Belldowns Point <sup>3</sup> Mean / Max (year)
American Golden Plover	0 / 21 (1995)	3.6 / 162 (1989)	0 / 0
Baird's Sandpiper	0 / 0	0 / 2 (1995)	0 / 0
Black-bellied Plover	0.6 / 12 (1995)	43.2 / 105 (1990)	4 / 8 (2012)
<b>Buff-breasted Sandpiper (SC)</b>	0 / 0	1.4 / 6 (2010)	0 / 0
Dunlin	4.8 / 12 (2009)	22.2 / 60 (1990)	0.3 / 1 (2012)
Eurasian Golden Plover	0 / 0	0 / 1 (2007)	0 / 0
Greater Yellowlegs	15 / 28 (1994)	18.4 / 108 (1989)	27.3 / 42 (2012)
Hudsonian Godwit	0.2 / 1 (2012)	1.2 / 5 (1990)	0.3 / 1 (2012)
Killdeer	0 / 0	1.4 / 6 (1993)	0 / 0
Least Sandpiper	1.4 / 3 (2012)	7.2 / 95 (1997)	1 / 2 (2011)
Lesser Yellowlegs	0 / 0	1.2 / 18 (2006)	0 / 0
Pectoral Sandpiper	0.2 / 1 (2012)	7.8 / 53 (1984)	2.7 / 8 (2011)
<b>Piping Plover (E)</b>	0.4 / 2 (2012)	0 / 1 (1975)	0 / 0
Purple Sandpiper	0 / 5 (1995)	15.2 / 55 (2008)	0 / 0
<b>Red Knot (E)</b>	0 / 2 (1995)	5.4 / 45 (1989)	32.7 / 60 (2010)
Ruddy Turnstone	65 / 169 (1995)	26.2 / 135 (1982)	4.3 / 7 (2011)
Sanderling	85.4 / 150 (2011)	5.4 / 73 (1990)	32.3 / 80 (2011)
Semipalmated Plover	27.8 / 55 (1995)	40.2 / 90 (1993)	36.3 / 62 (2012)
Semipalmated Sandpiper	31.6 / 351 (1995)	107 / 348 (1990)	11.7 / 14 (2010)
Short-billed Dowitcher	0 / 0	11.4 / 77 (1990)	1.3 / 4 (2012)
Spotted Sandpiper	0.2 / 10 (1995)	0.6 / 7 (1995)	0.3 / 1 (2012)
Stilt Sandpiper	0 / 0	0 / 1 (2006)	0 / 0
Western Sandpiper	0 / 0	0 / 8 (1997)	0 / 0
Whimbrel	0 / 1 (2005)	6.6 / 82 (1980)	0 / 0
White-rumped Sandpiper	20.8 / 250 (1995)	243.8 / 418 (1982)	13 / 39 (2012)
Willet	0 / 0	0 / 2 (1990)	0 / 0
Wilson's Phalarope	0 / 0	0 / 1 (1990)	0 / 0
Wilson's Snipe	0 / 0	2.4 / 51 (1980)	0 / 0
Species Total	17	28	14

<sup>1</sup>The ACSS is administered by the CWS; additional ACSS survey sites are located within the WNLOA with data available on request (Contact: J. Paquet, Canadian Wildlife Service).

<sup>2</sup> Species at risk are indicated in bold type; E = Endangered, SC = Special Concern.

<sup>3</sup> Surveys at Belldowns Point began in 2010 so only 3 years of data are available.

#### **3.2.4 Bird Species at Risk** (Section 3.5.5 in the 2005 SEA):

**Ivory Gull** (Schedule 1: Endangered): Some Ivory gulls winter at sea in the Gulf of St. Lawrence, where they are generally associated with the ice edge. During strong onshore winds, possibly in combination with low sea ice concentrations, they may be blown inshore in the Gros Morne area. Such an event occurred from January 11-24, 2009 when up to 12 individuals were seen daily (D. Whitaker, Parks Canada, personal observation). Data on the abundance and at-sea distribution of wintering Ivory Gulls in the Gulf of St. Lawrence may be available from the CWS and you are encouraged to contact them for details (K. Allard, Canadian Wildlife Service, personal communication).

**Barrow's Goldeneye** (Schedule 1: Special Concern): A small number of Barrow's Goldeneyes winter along the west coast of Newfoundland during which time they typically associate with large flocks of Common Goldeneyes in sheltered bays and coves. Barrow's Goldeneyes have been observed in the WNLOA at Portland Creek, Shallow Bay / Cow Head, St. Paul's Bay, Western Brook Beach, Rocky Harbour, Norris Point, and Corner Brook (D. Whitaker, Parks Canada, unpublished data). One or more Barrow's Goldeneyes have wintered in Rocky Harbour every winter since 2007/2008.

**Harlequin Duck** (Schedule 1: Special Concern): Harlequin ducks typically breed in fast-flowing mountain streams and GMNP supports one of the most southerly breeding population in eastern North America. Prior to nesting pairs sometimes stage at the mouths of these rivers waiting for ice to break up in the highlands (e.g., at Deer Brook), and females with broods sometimes move downstream to the coast near river mouths during July and August (e.g., at Western Brook) (Darroch Whitaker, Parks Canada, unpublished data). There is also a Harlequin Duck staging and moulting area around Stearin and Belldowns Islands in Shallow Bay / Cow Head. This is one of just three such sites in Newfoundland and from May through September as many as 31 individuals have been seen in this area (Thomas 2008). Small numbers of Harlequin Ducks are also seen at rocky, surf-washed headlands in the Gros Morne area during ice free periods in winter (e.g., Table 2).

**Piping Plover** (Schedule 1: Endangered): Piping Plovers have nested at Shallow Bay since 2009, and also began nesting at Western Brook Beach in 2012; there are also historical records from St. Paul's Bay during the 1970s (Lamberton 1976). Piping Plovers are present on Newfoundland beaches from late April through late August. With reference to section 3.8.2.1 [Critical Habitat of Piping Plover] in the 2005 SEA, Shallow Bay is included on the list of designated Piping Plover critical habitat (Environment Canada 2012) and Western Brook Beach meets this definition and will be gazetted during the next revision of the species recovery plan (A. Boyne, Canadian Wildlife Service, personal communication). Several other critical habitat beaches within in the WNLOA have also been gazetted in the Piping Plover recovery strategy (Environment Canada 2012).

**Red Knot** (Schedule 1: *rufa* subspecies - Endangered): Surveys conducted since 2010 indicate that Shallow Bay is, along with Stephenville Crossing, is one of the two most important migration staging areas for Red Knots on the Island of Newfoundland (Table 3). The tidal flats between Belldowns Island and Belldowns Point are heavily used from mid-August through late September when flocks of up to 60 individuals have been observed (Table 3; D. Whitaker, Parks Canada, unpublished data). It is suspected that this site offers particularly high quality habitat because of its limestone geology, because the shelter provided by Belldowns Island stabilises the bottom sediment, and because the island affords a safe offshore roosting site. Red Knots are also observed at St. Paul's Bay in most years and have been observed in small numbers at Western Brook Beach and in Rocky Harbour (Table 3; D. Whitaker, Parks Canada, personal observation).

**Buff-breasted Sandpiper** (COSEWIC-Special Concern [2012]; not yet listed on Schedule 1): Small numbers of Buff-breasted Sandpipers were observed in salt marshes around St. Paul's Bay in 1994, 2010, and 2012 (Table 3; D. Whitaker, Parks Canada, personal observation).

**Peregrine Falcon** (Schedule 1: *anatum* and *tundrius* subspecies – Special Concern): Peregrine Falcons migrate southwards along the west coast of Newfoundland during fall, during which time they seek out areas having high densities of shorebirds or other avian prey. In the Gros Morne area they have been observed hunting migrating shorebirds at St. Paul's Bay on several occasions and also occasionally at Western Brook Beach (D. Whitaker, Parks Canada, personal observation).

**Short-eared Owl** (Schedule 1: Special Concern): Short-eared Owls nest in low numbers along the west coast of Newfoundland, where they are often associated with coastal barrens and grasslands. In the Gros Morne area this species has nested at Summerside (i.e. "the Head") at Cow Head on several occasions in recent years (I. Schmelzer, Newfoundland and Labrador Wildlife Division, personal communication), and has been observed hunting in dunegrass habitats at Shallow Bay, Tickle Point (St. Paul's Bay), and Western Brook Beach (D. Whitaker, Parks Canada, personal observation).

**Bank Swallow** (currently under assessment by COSEWIC): A colony of approximately 20 pairs nests along the back shore of the beach ~200 m south of Tickle Point, St. Paul's (~49.8530° N × -57.8290° W; D. Whitaker, Parks Canada, personal observation). Other colonies exist along the coast of the WNLOA (e.g., there is a colony of ~100 pairs at Parson's Pond [~50.0260° N × -57.7230° W] that has been present since the 1970s or earlier; Lamberton 1976); we encourage the proponent to consult the Canadian Wildlife Service regarding the location of these colonies as they may be sensitive to nearby onshore-to-offshore drilling and fracking operations (e.g., excess ground vibrations may cause nest burrows to collapse).

### 3.3 Mammals

**Harbour Seal** (section 3.6.3.1 in the 2005 SEA): A resident, highly watchable population of Harbour Seals is present in St. Paul's Bay and St. Paul's Inlet. To our knowledge this population has not been censused but at times up to 100 individuals can be seen hauled out on the rocks in St. Paul's Bay and many more can be observed in St. Paul's Inlet.

### 3.4 Species at Risk (Section 3.7 in the 2005 SEA)

See sections 3.1.5 and 3.2.5 for information on at-risk fish and bird species in the Gros Morne area. Also note that the following species have been added to Schedule 1 of the Species at Risk Act since the 2005 SEA and occur within the WNLOA or along coastal areas that could be affected by oil and gas industry activity:

Barrow's Goldeneye (eastern population; *Special Concern*)  
Fin Whale (Atlantic population; *Special Concern*)  
Harlequin Duck (eastern population; *Special Concern*)  
Ivory Gull (*Endangered*)  
Peregrine Falcon (*anatum* and *tundrius* subspecies – *Special Concern*)  
Red Knot (*rufa* subspecies; *Endangered*)  
Short-eared Owl (*Special Concern*)

The following species have been assessed as at risk by COSEWIC and occur within the WNLOA but (to date...) have not been added to Schedule 1 of the Species at Risk Act:

Acadian Redfish (Bonne Bay Population; *Special Concern*)  
American Eel (*Threatened*)  
American Plaice (Maritime population; *Threatened*)  
Atlantic Bluefin Tuna (*Endangered*)  
Atlantic Cod (Laurentian North population; *Endangered*)  
Blue Shark (Atlantic population; *Special Concern*)  
Buff-breasted Sandpiper (*Special Concern*)  
Deepwater Redfish (Gulf of St. Lawrence – Laurentian Channel population; *Endangered*)  
Killer Whale (Northwest Atlantic – eastern Arctic population; *Special Concern*)  
Porbeagle Shark (*Endangered*)  
Smooth Skate (Laurentian-Scotian Population; *Special Concern*)  
Spiny Dogfish (Atlantic population; *Special Concern*)

### 3.5 Potentially Sensitive Areas (Section 3.8 in the 2005 SEA)

Three areas along the section of coast spanned by GMNP are deserving of consideration as potentially sensitive areas. Two of these are trans-boundary areas, including portions of both GMNP and adjacent community enclaves, while the area around Western Brook beach falls entirely within the park (Figure 1). With the exception of the inner portion of St. Paul's Inlet, sub-tidal components of all three areas also fall outside the jurisdiction of Parks Canada yet marine habitat are critical to biological resources at all three locations. Areas inside and outside of GMNP are also important to park visitors at all of these locations, for example for beach walking, swimming, boating, wildlife watching, waterfowl hunting, and scenic value.

**Shallow Bay / Cow Head:** The area around Shallow Bay and Cow Head supports a broad range of important biological resources including 5 species at risk listed on schedule 1 of the Species at Risk Act. Specifically this includes:

- Two of the largest seabird colonies on the west coast of Newfoundland (Stearin and Belldowns Islands; Table 1).
- Brood rearing and post-breeding habitat for Caspian Terns.
- Breeding and brood rearing habitat for more than 250 pairs of Common Eiders.
- Fragile dune grass ecosystems.
- Breeding habitat for *Endangered* Piping Plovers that is designated as *critical habitat* (Environment Canada 2012).
- Migration stopover habitat for at least 14 species of shorebirds including one of the most important sites for *Endangered* Red Knots in Newfoundland (see section 3.3.3 and Table 3).
- One of three known moulting and staging sites for Harlequin Ducks (*Special Concern*) in Newfoundland (Thomas 2008).
- Breeding and foraging habitat for Short-eared Owls (*Special Concern*).
- Wintering habitat for large numbers of Red-breasted Mergansers and Common Goldeneyes and in some years for a small number of Barrow's Goldeneyes (*Special Concern*).

**St. Paul's Bay / St. Paul's Inlet:** The area around St. Paul's includes one of the single most important bird areas in Newfoundland and also supports a range of other noteworthy coastal and marine resources. Specifically this includes:

- Three seabird colonies on islands in St. Paul's Inlet (Little, Middle, and Western Islands; Table 1).
- Brood rearing and post-breeding habitat for Caspian Terns.
- One of the most important shorebird migration stopover sites in Newfoundland, with at least 28 species observed and in excess of 2,000 birds present at peak migration (see section 3.3.3 and Table 3).
- Migration stopover habitat for moderate numbers of Red Knots (*Endangered*) and Peregrine Falcons (*Special Concern*) in most years and Buff-breasted Sandpipers (*Special Concern*) in some years.
- Historical habitat for *Endangered* Piping Plovers.
- One of the most important moulting, staging, and wintering areas for waterfowl in Newfoundland. This includes upwards of 500 Canada Geese as well as large numbers of American Black Ducks, Green-winged Teals, Red-breasted Mergansers, Common Mergansers, Common Goldeneyes and in some years small numbers of Barrow's Goldeneyes (*Special Concern*).
- A shoreline breeding colony of ~20 pairs of Bank Swallows (currently under assessment by COSEWIC) and occasional foraging habitat for Short-eared Owls (*Special Concern*).
- A large, watchable population of Harbour Seals.
- Extensive eelgrass beds that serve as important habitat for waterfowl and juvenile fish.
- Some of the largest tidal flats and salt marshes on the island of Newfoundland.
- Two fast-flowing tidal rapids that support a high diversity of marine organisms.

- Atlantic Salmon runs in Bottom Brook and Black Brook.
- Sea run Brook Trout populations in Black Brook and Eastern Brook.

**Western Brook Beach and Broom Point:** The area around Western Brook including Broom Point provides important habitat for a broad range of species. This includes:

- A scheduled river that supports a run of 500-1,000 Atlantic Salmon as well as a large population of sea run Brook Trout (Parks Canada, unpublished data).
- Fragile dune grass ecosystems.
- Brood rearing and post-breeding habitat for Caspian Terns.
- An important shorebird migration stopover site used by at least 17 species including large numbers of Ruddy Turnstones and Sanderlings (Table 3).
- A new breeding site for *Endangered* Piping Plovers that will be listed as *critical habitat* in future.
- Brood rearing habitat for Harlequin Ducks (*Special Concern*).
- An important migration stopover and wintering site for waterfowl including a sea ducks such as Common Eiders, Black Scoters, Surf Scoters, and Long-tailed Ducks, as well as large flocks of Common Goldeneyes, Red-breasted Mergansers, and American Black Ducks. In some years a small number of Barrow's Goldeneyes (*special concern*) are also present.
- One of the most important wintering sites for Purple Sandpipers on the west coast of Newfoundland.

#### **4. Environmental Effects of Exploration and Production Activities**

In addition to the activities covered in section 4 of the 2005 SEA Parks Canada requests that onshore-to-offshore drilling and well stimulation via fracking be addressed in the updated SEA, as these activities are currently being undertaken or proposed for the WNLOA. This is of particular importance to Parks Canada because one of the proposed onshore exploration sites is in close proximity to GMNP (~500 m) in a trans-boundary watershed, will rely on Parks Canada infrastructure (i.e. portions of Route 430 that run through the park), and if done poorly could directly affect ecological integrity and visitor experiences in GMNP.

We acknowledge that some of the issues raised below may be beyond the scope of the SEA. However they relate to real concerns associated with these types of activity and we expect that they will be addressed to the extent that it is appropriate in the SEA.

**4.1 Onshore-to-offshore Drilling:** Onshore to offshore drilling brings with it a host of potential concerns for Parks Canada. These issues will have to be carefully addressed and managed because this type of activity will necessarily occur in close proximity to the coast, potentially adversely affecting the experiences of park visitors travelling along Routes 430 and 431 (e.g., impaired views, traffic congestion, or air, noise, and light pollution) or damaging terrestrial and coastal ecosystems in GMNP or PaCNHS. We realise that the types, intensity and amount of activity will be very different for exploration versus production and ask that both phases of industry activity be address in the updated SEA. Specific issues and questions related to onshore-to-offshore drilling that we would like to see addressed include:



**Industrial vehicle traffic:** How much heavy truck traffic will be added to Routes 430 and 431 for any one drilling site and, more importantly, all sites combined? Will these trucks be transporting dangerous goods such as crude oil and if so what form of emergency / environmental response capacity will be required of proponents?

**Aesthetics:** The presence of drilling rigs can adversely affect views, and this effect continues after dark due to safety and operational lighting requirements. However drill rigs are portable and may no longer be necessary once production begins. Consequently we would like estimates of the approximate amount of time needed to drill exploratory and production wells and are interested in measures that can be taken to minimize the period over which drill rigs are present at sites in the Gros Morne area.

**Produced water:** In addition to crude oil and natural gas, wells also typically produce water that can be contaminated with such compounds as hydrocarbons and salts from the shale as well as additives such as biocides. Disposal of this produced water from an onshore drilling site is fundamentally different from that at an offshore production platform. Consequently we would like to see information on the volume of produced water that may result from different phases of exploration and production as well as how it will be stored, decontaminated, tested, and disposed of.

**Air emissions:** Oil exploration and production can generate air emissions that are offensive to people, including in particular fugitive emissions from storage tanks and exhaust from natural gas flares. Unlike offshore drilling, where other than oil workers there are few people in the vicinity of the production facility, emissions related to onshore drilling could directly affect local residents and park visitors (e.g., persons travelling on Route 430). Consequently we would like to see information on the types, amount and periods over which any air emissions can be expected, as well as steps that will be taken to minimize or mitigate such emissions. In particular we are concerned about whether gas flaring will be necessary or permitted, and if alternatives approaches are possible and can be mandated in licensing.

**Gas flaring:** In addition to potential effects on air quality (see previous) we are concerned about potential impacts of natural gas flaring on both aesthetics (i.e., views for park visitors) and bird populations. Gas flares can attract large numbers of seabirds and landbirds during migration (Gauthreaux and Belser 2006, Montevecchi 2006), and the west coast of Newfoundland including GMNP is an important migration route for many species of birds including more than 20 species of shorebirds (e.g., Table 3). Birds attracted to flares can become disoriented, exhausted, or even killed by flying into the gas flare or associated structures, and these problems can be exacerbated during migration and during specific environmental conditions (e.g., fog) (Gauthreaux and Belser 2006, Montevecchi 2006). Thus if natural gas flaring is necessary and permitted, we would like to see information on the anticipated timing and duration of flaring during exploration and production, and also how effects on birds and aesthetics will be minimized or mitigated (e.g., through restriction on the times and environmental conditions during which flaring is permitted).

**Industrial noise:** as with air pollution the potential for industrial noise to affect people away from a drilling site is much greater for onshore activities. In particular industrial noise could adversely affect the opportunity for visitors to enjoy the natural setting of GMNP. Consequently we would like to see information on the volume and duration of industrial noise that can be expected during exploratory and production drilling, as well as steps that will be taken to minimise or mitigate excessive or prolonged noise.

**Cooling water:** Will cooling water be required at onshore drilling facilities and if so will closed cooling systems be required? If open systems are permitted will discharged water contain any additives and what steps will be taken to prevent thermal or chemical pollution of groundwater or freshwater ecosystems?

**Site decommissioning:** Will measures be put in place to ensure that drilling sites are decommissioned and remediated once exploration or production activities are complete? How will drilling sites be remediated and will proponents be required to post a bond to guarantee that sufficient funds are available to do this work?

**4.2 Fracking:** Fracking is currently being proposed for onshore-to-offshore drilling activities in the WNLOA, including for license area 1097R adjacent to GMNP. We would like to see the following issues and questions addressed with respect to fracking of exploratory and production wells:

**Well casings:** Environmental problems at fracked wells are often caused by failure of the well casing. What steps will be taken to ensure the integrity of well casings? Will casing steel and cement require certification or inspection? Will there be any on-site inspection of the well before fracking can commence?

**Amount and composition of fracking fluid:** The majority of fracking fluid is water and during production this can exceed 10 million litres per well. We would like to see estimates of the amount of water that is required to stimulate exploratory and production wells, as well as information on potential sources of this water and any restrictions on sourcing this water. Also, we would like to see estimates of the amount of sand or proppant and chemical additives that might be used. Will proponents be required to disclose the composition of fracking fluids and total amount of each chemical additive being used at each well?

**Storage, treatment, and disposal of fracking fluid and flow-back:** A large proportion of fracking fluid is returned to the well head after well stimulation and in addition to chemical fracking additives this used fluid (i.e. flow-back) likely contains both contaminants originating from the explosives used to perforate the well casing and other contaminants from the shale itself. Consequently we would like to see information on the volume of fracking fluid flow-back that may result from fracking of both exploration and production wells as well as how any flow-back will be securely stored, decontaminated, tested, disposed of, and (if necessary) transported. What steps will be taken to ensure that proponents have a viable operational plan in place to safely dispose of the anticipated volume of flow-back from stimulated wells?

**Frequency of fracking:** Stimulated production wells often have to be re-fracked at regular intervals (e.g., annually) to maintain production. How typical is it that stimulated wells need to be re-fracked and what is the typical range of fracking intervals? This information is necessary to estimate the potential amount and duration of ongoing fracking and other industrial activity at a production well site after the initial drilling and stimulation are completed.

**Environmental monitoring:** Fracking is a highly controversial process that has been implicated in environmental degradation in many areas. What types of environmental monitoring (e.g., ground water and surface water testing, etc.) will be carried out in the vicinity of fracking operations to ensure that this activity is not causing environmental contamination and to assuage public concern? Will any such monitoring data be publicly available?

#### 4.3 Other Issues

**Cumulative effects:** Because extraction of “tight oil” from shale via fracking is a relatively low yield, highly localized production method this form of development typically leads to proliferation of wells dispersed throughout an oil-bearing shale formation. Consequently, from Parks Canada’s perspective it is important that all potential impacts of oil development in the vicinity of GMNP be evaluated and regulated at a regional level, not just on a well-by-well basis. This includes any reasonably foreseeable impacts on the environment, tourism, and infrastructure.

**Emergency preparedness:** If oil exploration activity is undertaken in the vicinity of GMNP Parks Canada would like assurance that all reasonable steps have been taken in terms of planning for potential environmental emergencies. This would include, for example, onshore and offshore oil spill preparedness that is sufficient to deal with the full range of possible spills.

**Environmental monitoring:** A key step towards building strong public support for the petroleum industry will be the availability of publicly available environmental monitoring data. For example, on the east coast of Newfoundland an independent, industry-funded beach survey program has been developed by the CWS and implemented by the Canadian Parks and Wilderness Society to provide data on deposition rates of oiled seabirds. Parks Canada supports the development of such programs in the region in and around Gros Morne if oil exploration or production activities are undertaken.

**Effects of stationary offshore platforms on coastal viewscapes:** As with onshore-to-offshore drilling rigs, stationary offshore drilling platforms have the potential to affect coastal viewscapes if they are stationed within sight of the Gros Morne coast. This may be particularly true if activities such as flaring of natural gas are being undertaken.

## 5. Socioeconomic Considerations

Gros Morne National Park is one of the most important tourism destinations in Newfoundland and Labrador, attracting upwards of 180,000 visitors each year and bringing in excess of \$37 million in

spending to the local economy. Similarly, Port au Choix National Historic Site brings approximately 10,000 visitors to the Port au Choix area each year. A key aspect of Parks Canada's mandate is the presentation of Canada's natural and cultural heritage to the public, so the agency is interested in working closely with the C-NLOPB and proponents to help us continue to be successful in this area.

### **5.1 Significance of Gros Morne National Park**

Gros Morne National Park was established in 1973 and has been designated a UNESCO World Heritage Site, which recognizes the park for its "exceptional natural beauty and outstanding examples of major stages in the earth's geological evolution". This World Heritage Site designation brings the park the same level of international recognition as the Great Barrier Reef of Australia, the Great Wall of China and the Galapagos Islands of Ecuador, to name a few. The Gros Morne area is recognized as a primary tourist attraction due to its geological diversity, scenic beauty and cultural heritage.

Tourism is a significant contributor to the economic development of many rural communities in Newfoundland and Labrador and is especially important to the Gros Morne area. Parks Canada has been working with local communities, tourism providers and businesses, as well as with communities along the Northern Peninsula since the park was established in 1973. The result of this collaboration has been the development of a successful, sustainable tourism product in the Gros Morne area that is recognized internationally. The region has a growing business sector, much of which is associated with tourism, and more than 40 businesses have either opened or been enhanced in the region during the last 5 to 10 years.

Gros Morne National Park is a major travel generator and marketing icon for the provincial tourism industry. The approximately 180,000 people who visit GMNP each year also spend time in the nearby communities dining, shopping, sleeping, being entertained, or experiencing any number of other ways to connect with the region's natural and cultural heritage. The province of Newfoundland and Labrador has created a highly successful, award winning marketing campaign which uses images and footage of Gros Morne National Park to market Newfoundland and Labrador to other regions of the country and internationally as a world class tourism destination. In addition, GMNP has been the subject of numerous television and radio documentaries. *National Geographic Adventure* recently named The Long Range Traverse in Gros Morne as one of the 15 best hikes in the world and a recent readers' choice survey of favourite Canadian National Parks in Canada by *Explore Magazine* ranked Gros Morne fourth of 31 National Parks among readers.

### **5.2 Economic Value of Gros Morne National Park to Newfoundland and Labrador**

An assessment of the economic impact of GMNP is provided in Parsons (2010; available from Parks Canada on request). During 2009, the 174,000 visitors to the Gros Morne area spent a total of \$107.5 million in Newfoundland and Labrador while on vacation. This represented 11% of all tourism-related expenditures in the province that year. Of this \$96.1 million was spent by people coming from outside of the province, accounting for 26% of total non-resident spending. Non-resident visitors to Gros Morne

comprised 26.8% (125,280) of the 467,000 air and auto visitors to the province during 2009. This means that approximately 1 in 4 visitors from outside the province travelled to Gros Morne.

Spending in Newfoundland and Labrador that occurs due to the presence of GMNP is referred to as being incremental (i.e. additive) to other spending in the province and can be attributed to the region's tourism development. Questionnaire results indicate that 45% or \$48.8 million of the \$107.5 million in expenditures by visitors to GMNP in 2009 was incremental. Non-resident spending comprised the majority of this amount (\$41.8 million).

One in four non-resident visitors to the province in 2009 visited the Gros Morne National Park area. These visitors accounted for 26% (\$96.1 million) of the \$373.3 million in non-resident visitor expenditures during that year. When the role of the park in vacation decisions is considered, the region was directly responsible for 11.2% of total non-resident expenditure in the province in 2009. Assuming per capita visitor spending remained constant and given that the park saw an increase in visitation from 174,000 in 2009 to 182,000 in 2012, it is estimated that non-resident visitors to the GMNP area spent a total of \$112.5 million in Newfoundland and Labrador while on vacation in 2012.

The GDP impact on the province of the \$48.8 million in incremental expenditures was estimated at \$31.8 million. This expenditure yielded \$4.8 million in tax revenue for the Government of Newfoundland and Labrador and supported almost 1,600 seasonal tourism jobs (1,000 person years of employment).

### **5.3 Economic Value of Tourism to the Gros Morne Area**

Visitor spending within the Gros Morne area during 2009 totalled \$37.6 million - \$26.9 million from non-residents and \$10.7 million from provincial residents. This represented 4.5% of total tourism-related spending in the province and 7.2% of total non-resident spending in the province. The associated total GDP impact of this expenditure is estimated at \$17.6 million, with \$10.7 million spent on wages and salaries being paid to local people. This expenditure supported in excess of 550 person years of employment or more than 1,400 seasonal jobs. Assuming per capita visitor spending remained constant and given that the park saw an increase in visitation from 174,000 to 182,000 from 2009 to 2012, spending in the Gros Morne area in 2012 is estimated at 39.3 million. The park is an anchor attraction for the province with 8% (~10,000) of the non-resident visitors to the park indicating that the park was the primary reason for their trip to Newfoundland and Labrador.

Tourism-related expenditures in the Gros Morne National Park area play a significant role in the regional economy. Employment from tourism-related spending accounts for approximately 28% of total employment in the region and 42% of seasonal employment.

Gros Morne is also a significant driver for visitors to travel north of the park. An estimated 106,809 travelers to the area also vacationed in the area north of the park - on the Northern Peninsula and/or in Southern Labrador. These visitors spent an estimated total of \$13.3 million in the area north of the park.

### **5.4 Reasons that Visitors Travel to Gros Morne National Park**

An assessment of the values and opinions of visitors to GMNP is provided in Horne (2010; available from Parks Canada on request). This survey of visitors illustrated that the outstanding natural beauty of GMNP is the main reason visitors come to the area. In 2009, visitors were asked the importance of various attributes in their decision to visit the park; “scenery” was the most important attribute at 96%. ‘Wildlife’ (64%), ‘Because it is a National Park’ (58%), the iconic ‘Western Brook Pond’ located between the communities of Sally’s Cove and St. Paul’s (55%), ‘Hiking’ (51%) and ‘Tablelands Geology’ (47%) located between Woody Point and Trout River were also given high importance. The effect of the UNESCO designation is also significant at 43%. In addition, responses to the open ended question “what was the most enjoyable part of your visit overall”, also revealed that the scenery of the area resonates most with visitors and was more important than all other factors.

### **5.5 Potential Influence of the Oil Industry on the Experiences of Park Visitors**

Communities in the Gros Morne area are an important part of the local landscape and while the scenery of the park plays the most significant role in motivating visitors to travel to the park, interactions with the communities are also an important part of the visitor experience. Visitors do not make a strong distinction between communities within the park and the park itself and the boundaries between the two are not obvious. Further many tourism operators provide offers that span the boundaries between GMNP, the associated enclave communities, and the marine environment (e.g., tour boat operators, sea kayak and hiking guides, tour buses and cruise ships). Efforts have also been made to highlight to visitors the culture of the park communities and the relationship that the communities have with the land that is now contained within the park. Consequently any impressions that the oil and gas industry has on visitors to GMNP may be reflected in their perceptions of the park and the region as a whole.

Any elements associated with oil and gas industry development that could negatively impact the experience of visitors to GMNP are of concern to Parks Canada. These impacts may include but are not limited to increased industrial traffic on highways through the park, light pollution from area and safety lighting at drill sites as well as gas flaring, air pollution and any associated noxious odours from drill sites, noise pollution from drill sites, and the visual impact that onshore and offshore drill rigs and associated infrastructure could have on the viewscape and surrounding landscape of the park. It should also be noted that, in addition to direct effect on park visitors, these negative impacts could also be felt by individuals outside of the area if they have a diminished perception of the Gros Morne area and so choose not to visit. Consequently Parks Canada is interested in working closely with the C-NLOPB and industry to find solutions to mitigate and minimize any of these potential negative consequences for park visitors.

### **Literature cited**

Anions, M. 1994. The freshwater fish of Gros Morne National Park: resource description and analysis. Unpublished Government Report, Parks Canada, Rocky Harbour.

- Environment Canada 2012. Recovery Strategy for the Piping Plover (*Charadrius melodus melodus*) in Canada. *Species at Risk Act Recovery Strategy Series*. Environment Canada, Ottawa. v + 29 pp.
- Gauthreaux, S.A. and C.G. Belser 2006. Effects of artificial night lighting on migrating birds. Pages 67-93 in C. Rich and T. Longcore (editors). *Ecological Consequences of Artificial Night Lighting*. Island Press, Washington D.C.
- Horne, G. 2010. Gros Morne 2009 visitor study. Unpublished report, Parks Canada, Halifax, NS.
- Lamberton, R.D. 1976. Avifaunal survey of Gros Morne National Park. Mount Allison University, Sackville, New Brunswick.
- Montevecchi, W.A. 2006. Influences of artificial light on marine birds. Pages 94-113 in C. Rich and T. Longcore (editors). *Ecological Consequences of Artificial Night Lighting*. Island Press, Washington D.C.
- National Audubon Society 2012. Christmas Bird Count online database.  
<http://birds.audubon.org/christmas-bird-count>
- Parsons, P. 2010. 2009 Gros Morne National Park economic impact analysis. Unpublished report, Atlantic Canada Opportunities Agency, Newfoundland and Labrador.
- Thomas, P.W. 2008. Harlequin ducks in Newfoundland. *Waterbirds* 31 (sp. 2): 44-49.

### **Sources of Unpublished Data and Personal Communications**

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# Gros Morne National Park



## Key to locations

1. Shallow Bay and Belldowns Island
2. Stearin Island
3. Cow Head
4. St. Paul's Bay
5. St. Paul's Inlet
6. Broom Point
7. Western Brook Beach
8. Sally's Cove
9. Baker's Brook
10. Rocky Harbour
11. Bonne Bay
12. Norris Point
13. Deer Arm
14. Lomond River
15. Trout River





# Port au Choix National Historic Site



## Key to locations

1. Point Riche
2. Port au Choix Cove
3. Barbace Cove
4. Gargamelle Cove

