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**EIGHTH
ANNUAL
REPORT**

**ON ACTIVITIES UNDER THE
MARITIME MARSHLAND
REHABILITATION ACT
FOR THE FISCAL YEAR
ENDED MARCH 31, 1957**

**MARITIME MARSHLAND REHABILITATION ADMINISTRATION
CANADA DEPARTMENT OF AGRICULTURE**

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EIGHTH ANNUAL REPORT ON ACTIVITIES UNDER THE
MARITIME MARSHLAND REHABILITATION ACT 1956/57

INTRODUCTION

The Maritime Marshland Rehabilitation Act was passed by the Parliament of Canada on June 30, 1948. This Act defines the responsibilities of Canada and provided for the establishment of an organization, under the direction of the Minister of Agriculture to carry them out. The passing of the Act permitted the signing of agreements with the Provinces of Nova Scotia, New Brunswick and Prince Edward Island for the joint reclamation and development of tidal marshland.

The terms of the agreements define the responsibilities of Canada and the Provinces, and are briefly as follows:

Canada provides the necessary engineering services for all works and undertakes the construction or reconstruction of protective works required to prevent tidal flooding (dykes, aboiteaux and breakwaters). Canada also maintains the protective works until this responsibility is assumed by the Province concerned.

The Provinces organize and negotiate agreements with groups of marshland owners before any work is commenced. They undertake the construction and maintenance of fresh water drainage ditches, arrange for the necessary rights-of-way and responsible for the development and promotion of an effective land-use program.

The marshland areas of the Maritime Provinces are, for the most part, adjacent to rivers flowing into the Bay of Fundy, or lie along the banks of the upper reaches of the Bay itself. They are estimated to comprise some 100,000 acres, not all of which can or will be ultimately reclaimed. These particular lands or soils high in potential fertility, have contributed greatly to the agricultural production and economy of the areas in which they are located. Some were originally reclaimed over 320 years ago and as development progressed they formed essential parts of many Bay of Fundy farms, supplementing adjacent upland holdings. Various factors have contributed to the need for national assistance in maintaining protection for these areas. Without assistance the farms concerned could not survive as productive enterprises because the upland fields alone would be inadequate.

ORGANIZATION OF THE MARITIME MARSHLAND REHABILITATION ADMINISTRATION

The headquarters of the Administration was established during 1949 at Amherst, Nova Scotia. Work performed under the terms of the Act is directly controlled by a Director who is responsible to the Deputy Minister of Agriculture in Ottawa. The organization is as follows:

- (a) Administration and Accounting Branch
- (b) Engineering Branch -
 - (1) Surveys and design
 - (2) Construction
 - (3) Workshop and Equipment

The Engineering Branch is directed by a Chief Engineer and is primarily composed of professional and technical personnel. District Offices are maintained at Moncton, New Brunswick and Windsor, Nova Scotia. Field construction offices, and sub-district offices are established and maintained according to the requirements of the work to be undertaken. A limited amount of construction equipment is maintained and operated to supple-

that which is available from local construction firms.

MARITIME MARSHLAND REHABILITATION ADVISORY COMMITTEE

In accordance with Section 8 of the Maritime Marshland Rehabilitation Act an Advisory Committee was established in 1949. The Act states "No work shall be undertaken in any Province..... unless (a) the work has been recommended by an Advisory Committee.....".

The Committee convened on three occasions during the past year (twenty eight meetings to date) to consider matters placed before it and to make recommendations respecting works to be undertaken to protect marsh areas, or projects, from tidal flooding.

To date the Provinces of Nova Scotia and New Brunswick have requested that consideration be given to 82 and 42 areas respectively (See Appendix I Active and Non-Active Projects). (Note: Variance with previous project listings is due to grouping or consolidating several smaller areas into large areas for purposes of administration). The recommendations of the Committee with respect to the reclamation of these areas has been as follows:

	<u>N. S.</u>	<u>N. B.</u>
Recommended complete reclamation	- 54	29
Recommended reclamation, portion of area-	15	5
Recommended no reclamation	- 3	7
Recommended no reclamation other than temporary maintenance	- -	1
Decision pending	- 3	-
Not yet considered	- 7	-
	<u>82</u>	<u>42</u>

It will be noted from the above table that the Committee has considered and dealt with all present projects or areas in New Brunswick.

Prince Edward Island requested that consideration be given to one area and the area and the Committee recommended it be reclaimed.

ACCOMPLISHMENTS TO DATE

(a) Projects and Acreages

No project or area is considered for reclamation unless it has been appropriately recommended by the Province concerned. During the past year the Province of Nova Scotia requested consideration be given to five areas, comprising 430 acres. No requests were received from New Brunswick or Prince Edward Island.

Appendix I lists those areas, Active and Non-Active Projects, with acreages, which have been, or are being considered as of March 31st, 1957.

A summary of acreages is as follows:

A. Active Projects

	<u>Protected</u>	<u>Unprotected (Salt marsh)</u>	<u>Total</u>
Nova Scotia	37,376	10,065	47,441
New Brunswick	35,737	3,437	39,174
Prince Edward Island	275	-	275
	<u>73,388</u>	<u>13,502</u>	<u>86,890</u>

It is considered the above acreage forms an integral part of some 500,000 acres

of farmland.

B. Non-Active Projects

Nova Scotia	2, 217
New Brunswick	1, 887
	<hr/> 4, 104

Total acreage for which the Provinces have requested consideration

- 90, 994.

Note: The discrepancy between this total and that of the previous report, except as noted above, is a result of additional areas being included with, or added to, projects which has been in existence for some time.

(b) Protection to Various Utilities

The program of marshland protection is usually considered to protect agricultural land. However, the following utilities and urban properties are also afforded protection in that they are located on areas protected by dykes:

- Nova Scotia - 19.2 miles paved road
- 18.2 miles gravel road
- 9.4 miles market road
- 22.6 miles railroad grade
- 12.7 miles power and telephone line poles
- 1 sewage control station
- 2 sewage disposal lines
- 2 grave yards and connecting road
- 1 gypsum plant
- Town streets and property in 4 towns.
- 12 Aboiteaux which are also highway or road crossings.

- New Brunswick - 9.8 miles paved road
- 20.2 miles gravel road
- 0.9 miles market road
- 10.5 miles railroad grade
- 0.5 miles narrow gauge railroad
- 0.2 miles sewage disposal line
- 2 C.N.R. Stations
- 1.2 miles town streets and other property in town of Sackville.
- 1 Gypsum plant
- 5 aboiteaux which are also highway or road crossings.
- 1 aboiteaux which is also a railroad river crossing Canadian Broadcastings Corporation (C. B. A.)
- Transmission towers and property.

(c) Property Owners

The number of property owners by counties according to information available, who are involved in the program of rehabilitation, and who have been organized into incorporate Marsh Bodies by the Provinces is approximately as follows:

Nova Scotia:

Annapolis Co.	-	359
Colchester Co.	-	268
Cumberland Co.	-	290
Digby Co.	-	16
Hants Co.	-	369
Kings Co.	-	400
Yarmouth Co.	-	81
		<hr/> 1783

New Brunswick:

Albert Co.	294
Westmorland Co.	- 1210
	<u>1504</u>

Prince Edward Island:

Queens Co.	- 17
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(d) Acreeage gained by reclamation

During the process of reconstructing dykes and aboiteaux it is frequently necessary that the dyke lines and aboiteaux locations be set back from existing sites. In doing so some land previously protected is "turned out to sea". Conversely the new locations are sometimes outside existing structures and additional land is protected.

In the case of several projects land not previously protected, or land which has been "out to sea" for a number of years, is provided protection by new or relocated dykes and aboiteaux.

The net acreage gained to date has been as follows:

Nova Scotia	3759 acres
New Brunswick	4594 acres
Prince Edward Island	<u>275 acres</u>
	8,628 acres

(e) Construction of Works - 1956

Construction of protective works continued at a rapid pace during 1956. Several new contracts were awarded for dyke construction. These, and those carried over from 1955, were completed. Progress was made in the installation and repair of aboiteaux, the placing of special dyke facing and stream bank protective works. The establishment of vegetative cover on dykes continued with generally satisfactory results. Work of this nature was mainly carried out on the following projects, others receiving clean up and maintenance care only:

Nova Scotia:

- N.S. 4 Queen Anne, Anna. Co. - continuation of protective dyke facing and facing and river bank control.
- N.S. 8 Grand Pre, Kings Co. - reconstruction of large aboiteau and maintenance of other structures.
- N.S. 13 Dentiballis, Anna Co. - continuation of protection dyke facing.
- N.S. 14 Elderkin, Hants Co. - construction of dyke and an aboiteau to reclaim additional land also clean up of works on other portions of this project.
- N.S. 15 Isgonish, Col. Co. - repair to spillway structure
- N.S. 18 Ryerson, Anna Co. - continuation of protective dyke facing.
- N.S. 20 Advocate Cumb. Co. - continuation of protective dyke facing.
- N.S. 23 Masstown, Col. Co. - construction of dyke and an aboiteau to reclaim additional land.

- N. S. 24 Noel Shore, Hants Co. - construction of dyke and aboiteaux to protect land already reclaimed as well as to protect new areas.
- N. S. 27 Newport Town, Hants Co. - protective dyke facing.
- N. S. 30 Allan River, Anna Co. - maintenance of old structures and some protective dyke facing.
- N. S. 45 Barronsfield, Cumb Co. - clean up of previous construction work and protective dyke facing.
- N. S. 53 John Lusby, Cumb Co. - dyke facing and bringing protective structures up to standard.
- N. S. 54 Minudie, Cumb Co. - completion of works, and preparation for dyke seeding as well as placement of dyke facing.
- N. S. 55 Seaman, Cumb Co. - dyke facing.
- N. S. 56 Wellington, Kings Co. - replacement of an aboiteau, reconstruction of dyke and dyke protection.
- N. S. 65 Bishop Beckwith, Kings Co. - completion of dyke reconstruction and dyke protection.
- N. S. 69 Martock, Hants Co. - Dyke facing and repair of large aboiteau.
- N. S. 71 Goose Bay, Yarmouth Co. - installation of an aboiteau and sealing connecting dyke.
- N. S. 80 Starr's Point, Kings Co. - completion of dyke and aboiteau construction.
- N. S. 82 Kentville, Kings Co. - reconstruction of dyke and installation of aboiteaux.
- N. S. 85 Mantua Poplar Grove, Hants Co. - reconstruction of dyke, installation of aboiteaux and stream bank control measures.
- N. S. 87 Chignecto, Cumb Co. - installation of an aboiteau to protect this marsh and that contained in Project N. B. 55 Missaquash, Westmorland Co. N. B.
- N. S. 102 Belcher Street, Kings Co. - construction and reconstruction of dyke and aboiteaux to continue protection to certain areas and reclaim others; also installation of stream bank control measures.

New Brunswick

- N. B. 5 Westcock, West Co. - continuation of protection to dyke.
- N. B. 6 Taylor Village, West Co. - continuation of protection to dyke.
- N. B. 13 Dorchester, West Co. - completion of large rock fill aboiteau.
- N. B. 17 New Horton, Albert Co. - construction of dyke and two aboiteaux and placing of dyke facing to protect area.
- N. B. 27 College Bridge, West Co. - construction of dyke and one aboiteau to reclaim additional area.

- N. B. 51 Shepody River Dam, Alberta Co. - Completion of dam and adjacent dyke and repairs to aboiteau. The work carried on completed that required except for final grading, fencing, guard rails, etc.
- N. B. 54 Jones Creek, West Co. - construction to an aboiteau and dyke required to protect area.
- N. B. 55 Missaquash, West Co. - protection was provided for this area by means of the aboiteau constructed to protect marsh on Project N. S. 87 Chignecto, Cumberland Co. N. S.

(f) Special Projects

1. Annapolis River Dam. A complete study of this Project, which was an investigation to determine the feasibility of erecting a dam across the Annapolis River, was made prior to the current year. Such a structure, complete with adequate fresh-water discharge facilities, would protect approximately 4,300 acres of marshland and could be modified to serve as a highway crossing. During the past year discussions were continued with the Province of Nova Scotia with a view to jointly undertaking the construction of such a dam. These discussions brought about a satisfactory agreement and it is expected construction will commence late in 1957.

X 2. Tantramar River Dam. This project is similar to the one mentioned above and a similar study had been completed. A dam across the Tantramar river would add to existing protective works for the protection of 18,000 acres of marshland. Such a dam could be so located that it would serve as a highway crossing. Discussions with the Province of New Brunswick about an agreement for jointly undertaking the construction of this structure which will form a part of the Trans Canada Highway System replacing a timber bridge. Construction can be commenced late in the 1957-58 fiscal year.

MARITIME MARSHLAND REHABILITATION PROJECTS

A. Active Projects - Nova Scotia.

Note: Acreages are based on information available as at 31st March, 1957.

In most cases the salt marsh acreage indicated lies outside existing dyke and can not be reclaimed;

(x) indicates that a portion of the salt marsh may be reclaimed;

(o) indicates the entire area is salt or unprotected marsh. Protected Marsh includes dyke right-of-way creeks and roads.

Project No.	Name of Marsh	Location	Acreage	
			Protected or Unprotected Marsh	Unprotected Marsh (Salt)
N. S. 2	Windsor Forks	Hants Co.	465	41
N. S. 3	Falmouth Great Dyke	Hants Co.	975	42
N. S. 4	Queen Anne	Anna Co.	477	70
N. S. 5	Dugau	Anna Co.	172	27
N. S. 6	Saulnierville	Digby Co.	73	-
N. S. 8	Grand Pre	Kings Co.	2533	176
N. S. 11	Truro Dykeland Park	Col. Co.	878	36
N. S. 12	Victoria Diamond Jubilee	Col. Co.	527	75
N. S. 13	Dentiballis	Anna. Co.	348	62
N. S. 14	Elderkin	Hants Co.	223	53
N. S. 15	Isgonish	Col. Co.	491	4
N. S. 16	Castle Frederick	Hants Co.	142	22
N. S. 17	Falmouth Village	Hants Co.	97	10
N. S. 18	Ryerson	Anna Co.	86	7
N. S. 20	Advocate	Cumb. Co.	489	89
N. S. 21	Upper Nappan	Cumb. Co.	462	30
N. S. 23	Masstown	Col. Co.	919	372
N. S. 24	Noel Shore	Hants Co.	217	294
N. S. 27	Newport Town	Hants Co.	338	68
N. S. 28	Scott's Bay	Kings Co.	-	71 (o)
N. S. 30	Allan River	Anna Co.	123	246

Project No.	Name of Marsh	Location	Acreage	
			Protected or Marsh	Unprotected Marsh (Salt)
N. S. 41	Habitant	Kings Co.	677	-
N. S. 42	Amherst Point	Cumb. Co.	2249	302
N. S. 44	Converse	Cumb. Co.	811	26
N. S. 45	Barronsfield	Cumb. Co.	234	26
N. S. 46	River Hebert	Cumb. Co.	1065	150
N. S. 47	Selmah	Hants Co.	171	12
N. S. 48	Centre Burlington	Hants Co.	143	80
N. S. 49	Scotch Village	Hants Co.	87	3
N. S. 50	Herbert River	Hants Co.	59	10
N. S. 53	John Lusby	Cumb. Co.	818	1205
N. S. 54	Minudie	Cumb. Co.	2528	452
N. S. 55	Seaman	Cumb. Co.	425	20
N. S. 56	Wellington	Kings Co.	3103	25
N. S. 57	New Minas	Kings Co.	253	84
N. S. 61	Kennetcock	Hants Co.	170	22
N. S. 62	McKay	Cumb. Co.	152	1
N. S. 63	Maccan	Cumb. Co.	150	78 (x)
N. S. 64	Glenholme	Col. Co.	240	171 (x)
N. S. 65	Bishop Beckwith	Kings Co.	587	116
N. S. 66	Flemming	Col. Co.		304 (o)
N. S. 67	Onslow North River	Col. Co.	496	48
N. S. 68	Tregothic	Hants Co.	576	20
N. S. 69	Martock	Hants Co.	1478	42
N. S. 70	Chegoggin	Yar. Co.	425	-
N. S. 71	Goose Bay	Yar. Co.	230	5
N. S. 72	Horton	Kings Co.	237	229 (x)
N. S. 75	Armstrong	Hants Co.	53	3
N. S. 76	Farnham Dyke	Kings Co.	192	26

Project No.	Name of Marsh	Location	Acreage	
			Protected Marsh	Unprotected Marsh (Salt)
N.S. 77	Princeport	Col. Co.	43	9
N.S. 78	Athol	Cumb. Co.	116	32
N.S. 79	Chambers	Hants Co.	56	2
N.S. 80	Starr's Point	Kings Co.	280	304
N.S. 81	Lower Truro	Col. Co.	399	25
N.S. 82	Kentville	Kings Co.	60	18
N.S. 85	Mantua Poplar Grove	Hants Co.	321	80
N.S. 86	Central Onslow	Col. Co.	296	26
N.S. 87	Chignecto	Cumb. Co.	512	8
N.S. 88	Burlington	Hants Co.	48	98 (x)
N.S. 90	Old Barns	Col. Co.		178 (o)
N.S. 91	Belcher Street	Kings Co.	302	120
N.S. 92	Avonport	Kings Co.	132	140 (x)
N.S. 93	Green Hill	Hants Co.	28	60 (x)
N.S. 95	Fort Lawrence - Amherst	Cumb. Co.	3400	-
N.S. 96	Shipley	Cumb. Co.	223	14
N.S. 97	Highland Village	Col. Co.	-	246 (o)
N.S. 98	Stewiacke	Col. Co.	-	178 (o)
N.S. 100	Wentworth	Hants Co.	127	38
N.S. 101	Pereaux	Kings Co.	109	32
N.S. 102	Chebogue River	Yar. Co.	-	1150 (o)
N.S. 103	Annapolis River Dam	Anna. Co.	2583	1717
N.S. 104	Sunny Slope	Hants Co.	30	-
N.S. 105	Belmont	Hants Co.		113 (o)
N.S. 106	Fort Ellis	Col. Co.	176	-
N.S. 107	Hicks	Cumb. Co.	-	50 (o)
N.S. 108	Argyle	Yar. Co.	-	60 (o)
Total			37,376	10,065

A. Active Projects - Prince Edward Island

P.E.I 1 Johnston's River Queen's Co. 275

APPENDIX I

MARITIME MARSHLAND REHABILITATION PROJECTS

B. Non-Active Projects - Nova Scotia.

Note: These projects are those which:

- (a) have been incorporated into larger projects
- (b) were established for purposes of investigation
- (c) were established for purposes of investigation at the request of the Provinces.
- (d) were incorporated by the Provinces who have since requested they be dropped.
- (e) the Advisory Committee have recommended be dropped.

Acres are indicated only for those projects included in (c) or (d) or (e) above.

Project No.	Name of Marsh	Location	Acres
N. S. 1	Comeau	Anna. Co. (a)	
N. S. 7	Annapolis River Survey	Anna. Co. (b)	
N. S. 9	Woodworth	Anna. Co. (a)	
N. S. 10	Upper Belleisle	Anna. Co. (a)	
N. S. 19	Bridgetown	Anna. Co. (d) & (a)	
N. S. 22	Gaspereau River Survey	Kings Co. (b)	
N. S. 25	Maitland	Hants Co. (d)	34 (No survey)
N. S. 26	Stirling Brook	Hants Co. (e)	99
N. S. 29	Pre Rond	Anna Co. (a)	
N. S. 31	Fox Bow	Anna Co. (a)	
N. S. 32	Mount Anne	Anna Co. (a)	
N. S. 33	Windermere	Anna Co. (a)	
N. S. 34	Moschelle	Anna Co. (a)	
N. S. 35	Ricketson	Anna Co. (a)	
N. S. 36	Rossette	Anna Co. (a)	

Project No.	Name of Marsh	Location	Acreage
N.S. 37	Walker	Anna Co. (a)	
N.S. 43	Annapolis Royal Town	Anna Co. (a)	
N.S. 51	Morse	Anna Co. (a)	
N.S. 52	Rossway	Digby Co. (c)	718
N.S. 58	Granville Centre	Anna. Co. (a)	
N.S. 59	Brown Salt Pond	Yar. Co. (d)	277
N.S. 60	Morse Bishop	Anna. Co. (a)	
N.S. 73	Mill	Anna. Co. (a)	
N.S. 74	Tupperville	Anna. Co. (a)	
N.S. 83	Messenger	Anna. Co. (a)	
N.S. 84	Bartlett's Beach	Digby Co. (d)	284
N.S. 89	Cogmagun	Hants Co. (e)	637
N.S. 94	Mosherville	Hants Co. (d)	102
N.S. 99	Upper Burlington	Hants Co. (e)	66
		Total	2,217

MARITIME MARSHLAND REHABILITATION PROJECTS

A. Active Projects - New Brunswick.

Note: Acreages are based on information available as at 31st March, 1957.

In most cases the salt marsh acreage indicated lies outside existing dyke and can not be reclaimed;
 (x) indicates that a portion of the salt marsh may be reclaimed;
 (o) indicates the entire area is salt or unprotected marsh.

Protected marsh includes dyke right-of-way creeks and roads.

Project No.	Name of Marsh	Location	Acreage	
			Protected or Unprotected Marsh	Marsh (Salt)
N. B. 4	Allison	West Co.	197	15
N. B. 5	Westcock	West Co.	800	225
N. B. 6	Taylor Village	West Co.	444	105
N. B. 8	Coyle Landry	West Co.	305	37
N. B. 11	Belliveau Village	West Co.	185	15
N. B. 12	Pre d' en Haut	West Co.	113	28
N. B. 13	Dorchester	West Co.	1716	61
N. B. 14	Lower Coverdale	Albert Co.	154	15
N. B. 15	Middle Coverdale	Albert Co.	31	21
N. B. 16	Dixon Island	West Co.	330	70
N. B. 17	New Horton	Albert Co.	789	107
N. B. 18	Fox Creek	West Co.	96	13
N. B. 19	Beaumont	West Co.	207	33
N. B. 20	Gautreau Village	West Co.	209	21
N. B. 21	Memramcook West	West Co.	1019	95
N. B. 24	Aulac	West Co.	1957	534
N. B. 25	Dock	West Co.	52	4
N. B. 26	Dover	West Co.	43	9
N. B. 27	College Bridge	West Co.	931	142
N. B. 28	Upper Coverdale	Albert Co.	45	6
N. B. 30	Calkins	Albert Co.	229	20

Project No.	Name of Marsh	Location	Acreage	
			Protected Marsh	Unprotected Marsh (Salt)
N.B. 33	West Coverdale	Albert Co.	246	31
N.B. 36	Boundary Creek	West Co.	51	1
N.B. 37	Sackville	West Co.	473	590
N.B. 40	Woodpoint (The Advisory Committee has recommended that only maintenance of dyke and aboteau be carried out and that there be no reconstruction of protective works).		43	194
N.B. 41	Turtle Creek	Albert Co.	103	115
N.B. 43	Creek' s	Albert Co.	99	-
N.B. 45	Chartersville	West Co.	349	31
N.B. 46	Wilson	West Co.	157	23
N.B. 47	Hillsboro	Albert Co	955	82
N.B. 50	Black River	St. John Co.	-	31 (o)
N.B. 51	Shepody River Dam	Albert Co.	5576	299
N.B. 54	Jones Creek	West Co.	45	21
N.B. 55	Missaguash	West Co.	231	-
N.B. 56	Tantramar River Dam	West Co.	17,557 ^x	443 (x)
			^x includes 5497 of Class 4 & Peat.	
Total			35,737	3,437

B. Non-Active Projects - New Brunswick

Note: These Projects are those which:

- (a) have been incorporated into larger projects
- (b) were established for purposes of investigation
- (c) were established for purposes of investigation at the request of the Provinces.
- (d) were incorporated by the Provinces who have since requested they be dropped.
- (e) the Advisory Committee have recommended be dropped.

Acreages are indicated only for those projects included in (c) or (d) or (e) above.

Project No.	Name of Marsh	Location	Acreage
N. B. 1	Upper Dyke	Albert Co. (a)	
N. B. 2	Germantown	Albert Co. (a)	
N. B. 3	Tantramar West	West. Co. (a)	
N. B. 7	Hopewell Hill	Albert Co. (a)	
N. B. 9	Harvey	Albert Co. (a)	
N. B. 10	Shepody River Survey	Albert Co. (b)	
N. B. 22	Tantramar River Survey	West Co. (b)	
N. B. 23	Mamramcock River Survey	West Co. (b)	
N. B. 29	Log Lake	West Co. (a)	
N. B. 31	Baie Verte	West Co. (e)	488
N. B. 32	Salem	Albert Co. (d)	65
N. B. 34	Coverdale	Albert Co. (e)	59
N. B. 35	Waterside	Albert Co. (e)	684
N. B. 38	Rockland	West Co. (e)	234
N. B. 39	Chance Harbour	St. John Co. (c) & (e)	25
N. B. 42	Jones	West Co. (d)	135
N. B. 44	Coles Island	West Co. (a)	
N. B. 48	McAlmon	Albert Co. (e)	67
N. B. 49	La Coupe	West Co. (a)	
N. B. 52	Little River	St. John Co. (e)	130
N. B. 53	Great Marsh	West Co. (a)	
Total			1,887

TOTALS BY PROVINCES

	<u>Active Projects</u>		<u>Non-Active Projects</u>	<u>TOTAL</u>
	<u>Protected</u>	<u>Unprotected</u>		
N. S.	37,376	10,065	2,217	49,658
N. B.	35,737	3,437	1,887	41,061
P. E. I.	275	-	-	275
	<u>73,388</u>	<u>13,502</u>	<u>4,104</u>	<u>90,994</u>

APPENDIX II

Expenditures - Fiscal Years:

	<u>1949 - 1956</u>	<u>1956 - 1957</u>
Administration	\$ 326,404.24	35,912.53
Surveys and Engineering	1,169,368.11	120,453.19
Workshop and Construction Supervision	1,499,354.44	366,406.60

Construction and Maintenance of Projects, and
Special Surveys:

		1949 - 1956	1956 - 1957
Advocate Marsh	Nova Scotia	110,890.18	4,868.52
Allan River Marsh	" "	6,075.23	6,337.62
Amherst Point Marsh	" "	136,922.33	1,188.11
Annapolis Royal Town Marsh	" "	25,373.03	2,124.03
Annapolis River Survey	" "	27,049.60	-
Annapolis River Dam	" "	-	-
Armstrong Marsh	" "	13,366.98	292.64
Argyle Marsh	" "	-	-
Athol Marsh	" "	16,225.29	988.35
Avonport Marsh	" "	5,680.70	-
Barronsfield Marsh	" "	64,961.78	4,481.70
Bartlett's Beach Marsh	" "	2,644.17	-
Belmont Marsh	" "	-	-
Belcher Street	" "	356.12	102,994.03
Bishop Beckwith Marsh	" "	126,690.06	34,801.40
Burlington Marsh	" "	312.85	28.80
Burntcoat Marsh	" "	-	-
Castle Frederick Marsh	" "	44,337.15	204.24
Central Onslow Marsh	" "	35,255.33	1,092.94
Centre Burlington Marsh	" "	32,009.00	76.20
Chambers Marsh	" "	14,988.11	220.32
Chegoggin Marsh	" "	30,626.03	-
Chignecto Marsh	" "	572.01	36,703.34
Comeau Marsh	" "	36,603.80	1,361.60
Converse Marsh	" "	125,455.44	1,459.78
Dentiballis Marsh	" "	87,223.04	4,877.75
Dugau Marsh	" "	24,072.01	296.46
Elderkin Marsh	" "	40,715.53	18,737.68
Falmouth Great Dyke Marsh	" "	108,483.26	3,086.04
Falmouth Village Marsh	" "	31,369.86	1,369.46
Farnham Dyke Marsh	" "	32,563.04	115.00
Fort Belcher Marsh	" "	38,220.28	2,572.89
Fort Ellis Marsh	" "	-	-
Fox Bow Marsh	" "	16,701.02	128.06
Fort Lawrence - Amherst Marsh	" "	-	735.55
Glenholme Marsh	" "	2,256.37	174.35
Grand Pre Marsh	" "	113,989.87	49,251.92
Goose Bay Marsh	" "	-	27,985.33
Granville Centre Marsh	" "	22,992.80	1,531.70
Greenhill Marsh	" "	353.61	558.30
Habitant Marsh	" "	12,415.84	439.33
Herbert River Marsh	" "	21,805.30	281.78
Horton Marsh	" "	2,153.33	217.35
Hicks Marsh	" "	-	-
Isgonish Marsh	" "(See below)	164,741.82*	6.925.70

*This is a joint project with the Province of Nova Scotia. Of the above amount \$56,821.10 was refunded by the Province and in addition to it expenditures of \$46,745.42 were made, which amount was also refunded. Total Provincial contribution was \$103,566.52.

Construction and Maintenance of Projects, and Special Surveys: (Cont'd)

John Lusby Marsh	Nova Scotia	98,679.36	13,848.24
Kennetcook Marsh	" "	45,146.66	536.65
Kentville Marsh	" "	582.05	13,650.64
Lower Truro Marsh	" "	48,874.78	941.21
Maccan Marsh	" "	27,622.62	2,393.56
Mantua-Poplar Grove Marsh	" "	4,420.36	67,207.26
Martock Marsh	" "	121,360.10	12,273.22
McKay Marsh	" "	16,636.51	367.11
Masstown Marsh	" "	62,418.88	85,145.98
Messenger Marsh	" "	1,085.95	1,150.16
Mill Marsh	" "	5,147.85	849.30
Minudie Marsh	" "	114,831.30	9,945.39
Morse Marsh	" "	2,623.67	-
Morse Bishop Marsh	" "	997.59	131.50
Moschelle Marsh	" "	26,767.74	1,875.94
Mount Anne Marsh	" "	57,376.11	878.94
Nappan River Marsh	" "	-	-
New Minas Marsh	" "	90,086.54	1,888.99
Newport Town Marsh	" "	45,900.79	8,646.87
Noel Shore Marsh	" "	23,207.63	85,063.87
Onslow North River Marsh	" "	57,922.65	1,726.46
Pre Rond Marsh	" "	7,007.51	401.85
Princeport Marsh	" "	8,891.36	1,032.67
Pereaux Marsh	" "	-	2,450.25
Queen Anne Marsh	" "	158,123.29	4,651.65
Ripley Marsh	" "	-	-
Ricketson Marsh	" "	985.75	40.95
River Hebert Marsh	" "	219,742.02	4,319.89
Rosette Marsh	" "	1,156.35	482.40
Round Marsh	" "	30,177.27	1,771.21
Ryerson Marsh	" "	33,054.30	3,564.35
Rhynds Creek Marsh	" "	-	-
Saulnierville Marsh	" "	6,917.39	-
Scotch Village Marsh	" "	13,546.86	8.00
Seaman Marsh	" "	20,862.80	4,934.33
Selmah Marsh	" "	25,745.19	21.25
Shipley Marsh	" "	679.97	600.33
South Side Marsh	" "	-	-
St. Croix Marsh	" "	71,591.06	6,942.79
Starr's Point Marsh	" "	70,633.74	17,781.18
Sunny Slope Marsh	" "	-	-
Tregothic Marsh	" "	38,866.39	7,499.63
Truro Dykeland Park Marsh	" "	95,483.20	5,258.47
Tupperville Marsh	" "	12,232.25	733.35
Upper Belleisle Marsh	" "	31,299.45	220.38
Upper Nappan Marsh	" "	52,200.40	222.08
Victoria Diamond Jubilee Marsh	" "	77,782.81	103.98
Walker Marsh	" "	2,480.51	471.60
Wellington Marsh	" "	24,477.42	27,975.93
Windermere Marsh	" "	44,419.17	4,185.33
Windsor Forks Marsh	" "	61,131.19	688.59
Woodworth Marsh	" "	21,021.71	451.38
Wentworth Marsh	" "	-	508.75
Sub-total for Nova Scotia Projects		\$3,558,650.67	\$724,352.13

Construction and Maintenance of Projects, and Special Surveys: (Cont'd)

Allison Marsh	New Brunswick	18,590.06	169.18
Aulac Marsh	" "	231,736.09	9,069.14
Baie Verte Marsh	" "	923.03	-
Beaumont Marsh	" "	50,131.41	178.13
Belliveau Marsh	" "	21,756.25	-
Boundary Creek Marsh	" "	4,143.80	124.30
Calkins Marsh	" "	94,534.55	4,286.63
Chartersville Marsh	" "	46,127.33	2,968.92
Coles Island Marsh	" "	43,539.46	2,603.22
College Bridge Marsh	" "	45,549.42	31,410.68
Coverdale Marsh	" "	19.31	-
Coyle Landry Marsh	" "	40,340.32	715.23
Creek's Marsh	" "	9,689.23	229.55
Dixon Island Marsh	" "	61,471.31	505.18
Dock Marsh	" "	7,164.85	-
Dorchester Marsh	" "	216,789.71	38,708.22
Dover Marsh	" "	12,499.30	114.35
Fox Creek Marsh	" "	30,638.03	130.64
Great Marsh	" "	4,229.92	1,341.42
Gautreau Village Marsh	" "	70,947.74	187.05
Germantown Marsh	" "	11,909.61	-
Hillsboro Marsh	" "	131,594.11	2,587.97
Hopewell Hill Marsh	" "	72,406.13	-
Jones Marsh	" "	4,803.31	6,816.35
Log Lake Marsh	" "	36,428.90	4,649.59
Lower Coverdale Marsh	" "	32,088.39	39.60
Memramcook West Marsh	" "	164,392.73	3,406.43
Middle Coverdale Marsh	" "	13,605.62	1,107.62
Missaguash Marsh	" "	-	10,821.00
New Horton Marsh	" "	1,008.95	79,578.49
Pre d'en Haut Marsh	" "	30,791.61	307.44
Sackville Marsh	" "	56,289.11	305.82
Shepody River Dam	" "	1,270,142.71	240,253.67
Shepody River Survey	" "	26,334.47	-
Tantramar River Survey	" "	23,201.48	-
Tantramar West Marsh	" "	27,207.83	2,942.85
Taylor Village Marsh	" "	75,810.86	3,738.13
Turtle Creek Marsh	" "	21,154.11	1,496.67
Upper Coverdale Marsh	" "	16,405.57	404.25
Upper Dyke Marsh	" "	11,149.33	-
Westcock Marsh	" "	136,840.36	7,672.05
West Coverdale Marsh	" "	51,217.87	2,474.47
Wilson Marsh	" "	27,720.71	-
Woodpoint Marsh	" "	676.01	-
Sub-total for New Brunswick Projects		<u>\$3,254,000.90</u>	<u>461,344.24</u>
Johnston's River Marsh	P. E. I.	<u>19,712.52</u>	<u>-</u>
Total expenditure for Projects apart from administration, engineering and supervision.		<u>6,832,364.09</u>	<u>1,185,696.37</u>
Total Expenditure		<u><u>\$9,827,490.88</u></u>	<u><u>1,708,468.69</u></u>



Noel Shore Marsh, Hants Co., N.S.—Advantage was taken of a rock ledge by using it as a foundation for the aboiteau sluice. Normally sluices are set on marsh earth foundations, rock ledges not being common. A cement bed was laid and the timber sluice anchored to it and the rock formation below.

(Photo N.S. 24//27)



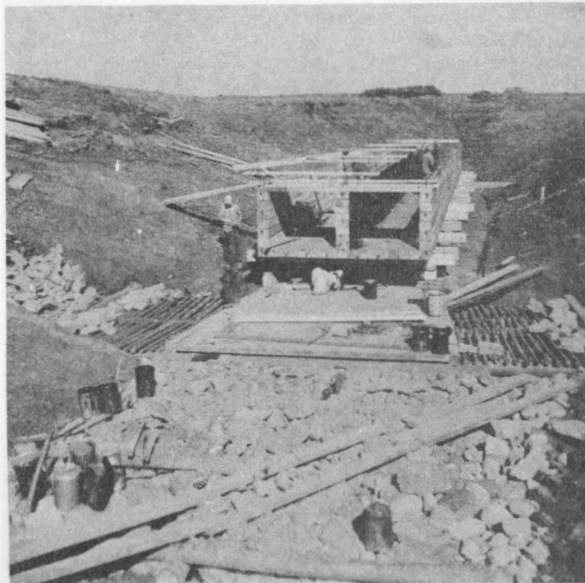
Rock fill, just prior to closure at low tide, during construction of the large aboiteau at Noel Shore. This structure eliminated the need for rebuilding other aboiteaux and adjacent dyke and also reclaimed an area of marsh which would not otherwise be protected.

(Photo N.S. 24//28)



Mantua-Poplar Grove Marsh, Hants Co., N.S. — Rock facing placed to prevent undercutting of the road grade which also serves as a section of dyke to protect this marsh.

(Photo N.S. 85//1)



Missaguash Marsh, Westmorland Co., N.B. and Chignecto Marsh, Cumb. Co., N.S. — The sluice under erection above, forms a part of a single aboiteau constructed to protect these marshes. This single structure, when completed eliminated the need for rebuilding several miles of dyke and several aboiteaux which were located upstream from this site. The fill placed in this structure, after the above sluice was completed, was earth supported with brush and pickets appropriately placed. Steel gates were installed.

(Photo N.S. 87//10)



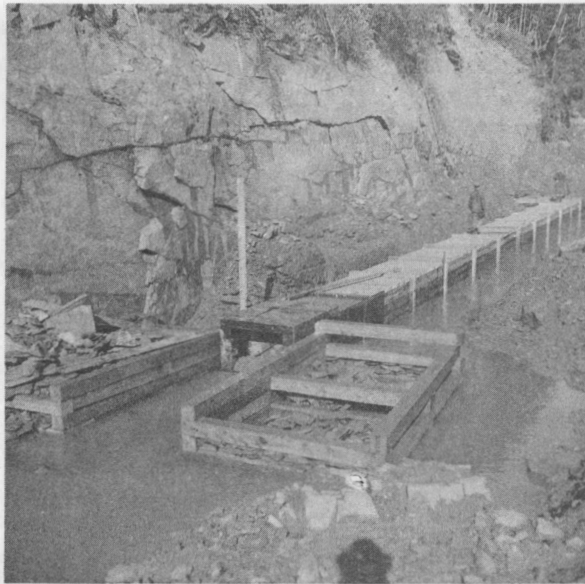
New Horton Marsh, Albert Co., N.B.--The fill of one of two aboiteaux required to protect some 800 acres of marsh which had been "out to sea" for a number of years. The fill in this instance was quarried rock blanketed with finer material. At the time the above photo, closure across the tidal stream had not been made. One cribbed wingwall protecting the upstream end of the discharge sluice may be observed in the lower right corner. Across the tidal stream an old dyke is in evidence. A new dyke was constructed in approximately the same location to connect with the completed aboiteau.

(Photo N.B. 17//69)



The newly constructed earth dyke referred to above. The sea side of this dyke has been protected against wave action by the rock facing shown.

(Photo N.B. 17//68)



New Horton Marsh, Albert Co., N.B. — This is the sluice of the second aboiteau required to protect this marsh. Physical features were such that an aboiteau at this location, with a very short section of connecting dyke was all that was required. Advantage was taken of the rock formation to provide a solid sluice foundation. Note the tide mark on the rock face. This sluice was floated into place on a falling tide after the bed and cribbed wingwalls had been placed.

(Photo N.B. 17//28)



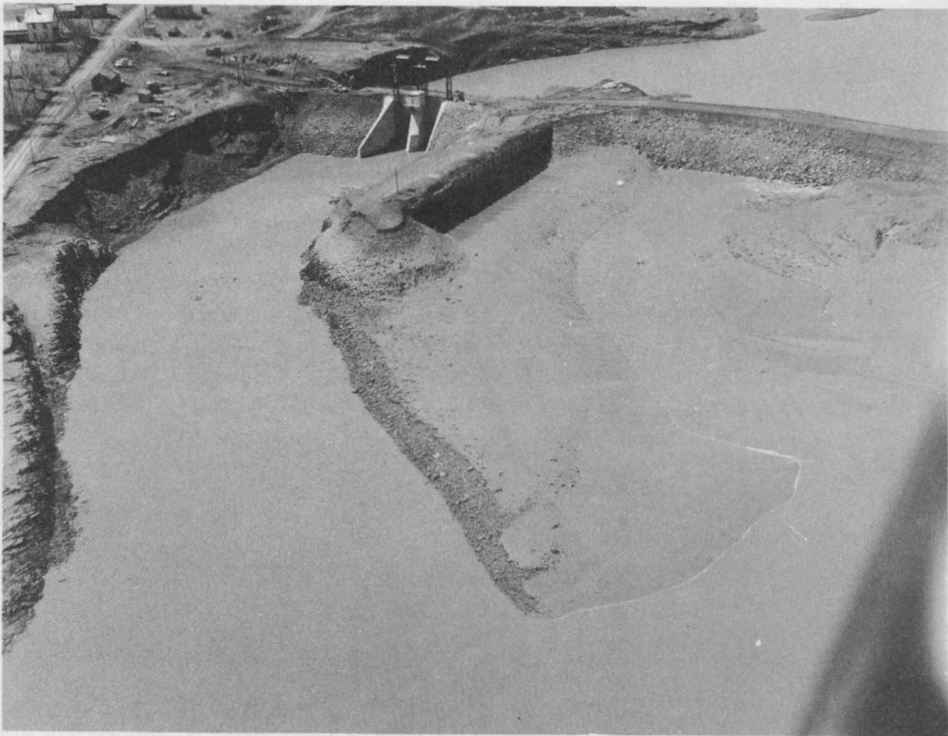
Placing of the fill in the second aboiteau protecting New Horton Marsh. Rock fill is being advanced on the downstream portion of the fill. A core of fine material was placed to reduce and almost eliminate the flow through the fill as shown above. The sluice shown in the previous photo is located below the cut bank in the very immediate foreground.

(Photo N.B. 17//36)



The Shepody River Dam, Albert Co., N.B.—Rock fill and fresh water discharge facilities prior to the fill being brought to final grade and cross-section. This is the upstream side of the structure as one looks towards the mouth of the Shepody River. The marsh shown in the upper right corner is protected by dyke which connects with the left or north end of the dam. The balance of the marsh protected lies upstream of this structure.

(Photo N.B. 51//526)



The downstream side of the Shepody River dam as one looks upstream. The flow through the dam was reduced considerably as additional fill was placed and silting in the old river channel took place. Since the above two photos of this structure were taken the fill has been brought to final cross-section, guard rails placed and the sight generally graded and cleaned up.

(Photo N.B. 51//530)