

May 18, 1885.

### Floods :

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good enough to  
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an outlay for our  
ress my views to

show you that I am in deep sympathy with  
the highly important object for which your  
committee is organised.

I remain, Sir,

Your obedient servant,

R. TURNBULL.

MONTREAL, 29th May, 1841.

SIR,—I have the honor to forward here-  
with a report, with plans and estimate of  
the probable expense of relieving St. Ann's  
suburbs of this city, as far as the levels per-  
mit, from the periodical inundation.

We have as closely as possible adhered to  
the instructions of His Excellency, and  
although the members of the Commission,  
as appointed by His Excellency the Govern-  
or-General, have not been able to meet  
together lately, yet as the outlines of the  
plan were agreed on and put in writing at  
their last meeting, and as from the first there  
was no difference of opinion as to the princi-  
ples on which the plan of relief should be  
founded, we trust that His Excellency will  
be convinced that the best endeavors of all  
the members have been used to further the  
end in view.

I have the honor to be, sir,

Your most obedient humble servant,

P. COLE,

Major R. Engineers.

T. W. C. Murdock, Esq.,  
Civil Secretary,  
etc., etc.

MONTREAL, 29th May, 1841.

### REPORT

On the causes of the periodical Inundation  
of part of the City of Montreal called  
Griffintown or St. Ann's suburbs ; on the  
possibility of removing those causes, or  
of obviating their effects.

In pursuance of the commands of His Ex-  
cellency the Governor-General as conveyed  
in the civil secretary's letter of the 15th  
January last, relative to the periodical inun-  
dations in the St. Ann's suburbs of this city,  
the commission appointed by His Excellency  
have the honor to submit the result of their  
inquiries and examinations, with plans,  
sections and estimate founded thereon of the  
probable expense of protecting the city from  
this calamity.

The subject naturally divides itself into  
several principal sections.

#### DIVISION OF THE SUBJECT.

1. The rise of water in Montreal harbor at  
the end of December, or beginning of Jan-

uary of each year, and on the breaking up of  
the ice in the Spring.

The natural and artificial causes leading  
towards this result, and the consequent  
flooding of Griffintown.

The possibility of removing those causes or  
of obviating their effects.

#### RISE OF ST. PIERRE RIVER.

2. The rise of water in St. Pierre River  
and its effects on the inundation of the city  
and neighborhood with the means of prevent-  
ing the evil.

#### SEWERS, DRAINS.

3. The sewers, drains and their courses by  
which the backwater of the St. Lawrence is  
admitted into the city before the overflow of  
the banks and upper quays.

#### STREAMS WITHIN THE CITY.

4. The small streams which usually fall  
into the St. Lawrence within the precincts of  
the city, and the means of guarding against  
their overflow when their usual course is  
stopped during the inundation.

#### RISE IN HARBOR.

First. The rise of water in the harbor is  
obviously caused by the accumulations of ice  
from the rapids above, which, being stopped  
by the field ice below, is forced under it from  
the pressure above until it grounds on the  
shoals in and below the harbor, and being  
confined by the narrow channels on each side  
of the island of St. Helen, forms a succession  
of dams as far as the head of the Island and  
the new market, from whence the inundation  
was on a dead level this winter as far as the  
canal ; and from the information we have  
obtained it appears that the deviation in  
other years is not material. The great body  
of ice in the centre of the river, when  
arrested in its course, *shoves* not only down-  
wards but sideways towards the shores, and  
even backwards when out of the current,  
as below Windmill Point.

#### ICE DAMS.

It then grounds on the shoals and forms  
accumulations which in some instances have  
done damage to the houses along the quays.

The accumulations on the shoals and  
wharves at and above the new market being  
nearly parallel to the shore do not, in our  
opinion, materially affect the rise of water in  
the river.

The communications from intelligent and  
observing residents who have favored us by  
their written or personal communications  
show that the accumulations vary in extent  
and situation. That the relative height of  
water in different years corresponds with the  
alternations of frost and thaw before the ice  
becomes fixed, and that, when the frost is  
very steady at this period, a comparatively  
small rise of water may be expected, pro-