

# SESSIONAL PAPER NO. 182<sup>F</sup>

FRIDAY JUN 9 1950

NOTE

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Room 167, House of Commons.

June 6th, 1950.

The Honourable D. C. Abbott,  
Minister of Finance,  
Ottawa, Canada

and

The Honourable D. L. Campbell,  
Premier of Manitoba,  
Winnipeg, Manitoba.

Gentlemen:-

In accordance with instruction received by Privy Council Order Number 2536, dated May 17th, 1950, your Commission met for the first time on Friday morning, May 19th, in Winnipeg, and has been in continuous session since that date, addressing itself to the problem of inquiring into

- (a) "The nature and extent of the damage caused by the flood";
- (b) "The cost of fighting the flood";
- (c) "The cost of providing emergency relief";
- (d) "The cost of emergency precautions to guard against the recurrence of such flood conditions".

The instruction to your Commission was "to make available at the earliest possible date a complete statement of all the essential facts ....."

*Tabled - Abbott  
E. P. Thompson  
C. A.*

June 6th, 1950.

We have now come to a stage in our work when we must pause for some time to permit the river to go down and further reveal these "essential facts".

The time element, however, is becoming most disturbing. We suggest to you that never before in our experience has a situation arisen where the old Latin proverb is so apt - "Bis dat qui cito dat" - "He gives twice who gives quickly."

With thousands of people still evacuated from the area, their homes seriously damaged and their goods and chattels in many cases completely destroyed; with good honest citizens being forced to live on the county of their neighbours or with the assistance of the Red Cross, Premier Campbell cannot delay, and is not delaying, the creation of his rehabilitation machinery.

The Flood Relief Fund has now reached a point where the officials of that fund will probably be starting in a matter of days to provide cash or credits without which many families cannot get back to work.

A Rehabilitation Authority has been created to deal with the damage to all property below the level of Municipal assets. This Authority must perforce cover the same ground as your Commission is covering, analysing the detailed damage to thousands of homes.

June 6th, 1950.

The whole situation suggests that we should give you now the broad general picture as we see it, with the thought that our interim findings may be in sufficient detail and sufficiently accurate to permit the two governments to discuss their respective responsibilities.

~~We would further suggest that it might be~~ wise to adjourn your Commission at this stage and, if found necessary, to instruct it to resume work after a period of, say, three or four months, leaving Premier Campbell to set the date for its recall.

Several months from this date the rehabilitation of personal property should be nearly completed; the reconditioning of privately owned buildings should be well on the way and a definite cost pattern emerging; the load on the Province, both direct and by reason of certain struggling Municipalities, will be factual, and finally, the intangible situation will be in better focus.

Our working papers are in the hands of Millar Macdonald & Company, the firm of Chartered Accountants

June 6th, 1950.

employed by the Commission, and from these papers we have extracted the data submitted in the attached memorandum, which has been prepared for discussion at our forthcoming meeting.

All of which is respectfully submitted.

Yours very truly,

JOINT COMMISSION ON FLOOD DAMAGE IN MANITOBA,

J. B. Carswell  
Commissioner

D. Bruce Shaw  
Commissioner.

M E M O R A N D U M  
TO ACCOMPANY LETTER TO THE HONOURABLE D. C. ABBOTT  
MINISTER OF FINANCE, AND THE HONOURABLE D. L. CAMPBELL,  
PREMIER OF MANITOBA, DATED JUNE 6TH, 1950.

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THE FLOODED AREA

The flooded area along the Red River in Manitoba increased in area progressively from April 20th, expanding first in the vicinity of Emerson and gradually extending northerly and outwardly along the tributary streams which were approaching flood flow, particularly in the Plum River area when large quantities of water drained off in the vicinity of Winkler, Plum Coulee, Rosenfeld. By May 13th the flooded area between Winnipeg and Emerson reached maximum proportions covering an area roughly 550 square miles. During the next few days this lake shifted somewhat in position affecting a total of some 700 square miles. During this period water depth over the flooded area varied from zero at the perimeter to from 15 - 20 feet in low lying lands adjacent to the normal river bed. It is interesting to note that on May 8th water began passing from the Red River to the Seine River and on May 10th from the Red River to the Sale River, both of which had a noticeable effect on the ponded areas.

## GENERAL OBSERVATIONS

Your Commissioners inspected the flooded area while the water was at its peak, and also during its recession, on foot, by car, by boat and from the air. The disaster is appalling in magnitude and unprecedented in Canadian history.

Publicly owned property, and property of the larger business concerns and public utilities have undoubtedly suffered serious damage, but these are impersonal losses which can be repaired. The greatest loss has been suffered by domestic households, both rural and urban, and while part of this loss can be measured physically in dollars and cents, the receding waters will leave behind a spirit of unrest and uncertainty which will represent an intangible but yet very real loss to the Province of Manitoba, until such time as it can be eradicated.

## GENERAL APPROACH TO THE APPRAISAL

Because of time limitations, your Commission decided to proceed on the basis of asking all public authorities and representative groups from a very broad cross-section of the community to wait upon the Commission and submit their own estimates of the damage which had been suffered. Simultaneously the Commission gathered together a staff

of specialists, some working for the Commission on a voluntary basis and others being paid. The Commission engaged as its Executive Secretary Mr. E. G. V. Evans, of the Sanford Evans Statistical Service, and both Mr. Evans and his office have been most helpful in tabulating the mass of figures and statistics which have been submitted. The Commission also engaged the services of Millar Macdonald & Company, Chartered Accountants, which Company supplied to the Commission the services of one of their leading executives, Mr. Peebles Kelly. Details which have been submitted to us on a confidential basis are in the custody of Millar Macdonald & Company.

All submissions to the Commission have been carefully scrutinized, and by the employment of qualified engineers and appraisers, the Commission has been able to check the validity of these statements.

In assessing the damage to private homes, which is perhaps the largest single item of damage, the Commission worked out an empirical formula for a quick appraisal of the damage on a bulk basis. This formula, as it applied to urban areas, was checked and cross-checked by the Central Mortgage & Housing Corporation, by the Appraisal Institute of Canada and by a group of experienced builders, so that in arriving at its conclusion on damage to houses



the Commission had three independent check appraisals made by physical measurement in a group of selected houses, and we are satisfied that we have arrived at a very close approximation to the true facts on this particular item. In the case of farm homes, the basis of our estimate was a physical count of the damaged homes and barns in the ravaged area by the Royal Canadian Mounted Police, followed by a field survey carried out by Mr. R. F. Legget, Director of Building Research, National Research Council, Ottawa, and Dr. H. B. Sommerfeld, Farm Manager, Canada Colonization Association, who were guided over the flooded area by the Royal Canadian Mounted Police. Their findings were checked against estimates made by Municipal authorities and by the Provincial Department of Agriculture, and certain adjustments made to look after omissions unavoidable in the conditions under which the count and survey were made.

The Provincial Government, through a committee of Deputy Minister<sup>s</sup>, presented a very complete report to the Commission on damage to Provincial property; a similar carefully prepared submission was received from the City of Winnipeg. The detail and work sheets from these two sources were carefully examined. Our own engineers carried out spot checking on certain items that appeared doubtful, and finally the Commission used its best judgment in placing a figure on the total damage involved.

All other submissions were treated in the same way, and all the doubtful items have been scrutinized carefully.

The Armed Services have submitted careful estimates of their total costs in this area, excluding the costs of the Regular Forces.

The following is a list of the more important groups and individuals who have appeared before the Commission:

Cities, Towns and Municipalities.

Mayors or Reeves and other Municipal officials, from all cities, towns and municipalities involved, as listed below:

	<u>Represented by:</u>
Winnipeg	Garnet L. Coulter All department heads
St. Boniface	George C. McLean B. Hughes
East Kildonan	E. L. Bodie S. F. C. Byars
West Kildonan	C. J. Lyon
Fort Garry	L. R. Fennell
St. Vital	E. F. Bole
St. James	R. F. Wightman
Tuxedo	D. R. Finkelstein
Emerson	W. R. Forrester
Morris	H. F. Shewman Andrew Swain
Gretna	A. C. Nickel J. W. Dyck A. L. Friesen
St. Pierre	A. Joubert R. Belenger
R.M. De Salaberry	Joseph LaRoche G. Chenard

Cities, Towns and Municipalities - continued.

Represented by:

R. M. Franklin	W. R. Johnston R. W. Witty N. G. Baskerville R. F. Curran N. C. McLean
R. M. Macdonald	H. F. Mills G. C. Catley
R. M. Montcalm	Arthur S. Beaubien
R. M. Morris	B. W. Thiessen
R. M. Rhineland	Ed. Pokrant W. C. Miller, K.C., M.L.A.
R. M. Ritchot	David Proteau Edmond Brodeur
R. M. Tache	Henri E. Legal
R. M. West St. Paul	J. S. Fulsher

Armed Services.

Brigadier R. E. A. Morton and certain of his staff.  
Colonel Fleury and representatives of Army, Navy and Air Force Treasury and Pay Sections.

Provincial Government Officials.

R. M. Fisher, K.C.	Deputy Minister of Municipal Affairs.
D. M. Stephens	Deputy Minister of Mines and Natural Resources.
J. S. Anderson	Deputy Provincial Treasurer.

Provincial Government Officials - continued.

J. R. Bell	Deputy Minister of Agriculture
George Collins	Deputy Minister of Public Works.
Dr. C. Donovan	Deputy Minister of Health and Public Welfare.
N. C. MacKay	Director of Extension Services, Department of Agriculture, and seven Field Agricultural Representatives.

University of Manitoba.

F. W. Crawford	Comptroller.
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Public Utilities.

William Fallis	General Manager, Manitoba Power Commission.
Peter Millar	Commissioner
William Backhouse	Comptroller Manitoba Telephone System.

Executive Officers of the Winnipeg Electric Company.

Executive Officers of the City of Winnipeg Hydro.

Welfare Agencies.

The Red Cross.

The Community Chest.

The Welfare Council	representing approximately 80 separate welfare agencies.
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The Associated Community Clubs.

A Committee representing all the Churches.

Individuals and Organizations  
connected with Building

Central Mortgage & Housing Corporation.

The Appraisal Institute of Canada.

The Winnipeg Builders Exchange.

House Builders Association.

Mr. Hubert Bird  
of Bird Construction Co. Ltd.

Individuals and Organizations  
representing Private Business.

The Winnipeg Chamber of Commerce.

The Retail Merchants Association.

The Canadian Manufacturers Association.

Manitoba Wholesale Co-operative Ltd.

Representative from Manitoba Pool Elevators.

Representative from North-West Line Elevators.

Representative from United Grain Growers.

Private Schools.

Ravenscourt.

Rupertsland.

Riverbend.

St. John's College School.

Others.

The Royal Canadian Mounted Police.

Mr. D'Arcy Baldwin and Mr. Lyle Macken, formerly of the Fraser Valley Rehabilitation Authority.

The Manitoba Flood Relief Fund.

The Manitoba Hospital Association.

The Red River Valley Board.

Mr. R. F. Swaine, Chairman of the Emergency Committee of Insurance Underwriters.

LIMITATIONS ON EXACTNESS

In a fast appraisal of this kind there are certain unavoidable factors tending toward error. Fortunately these factors also tend to cancel each other.

On the one hand, it is inevitable that many minor items will have been omitted, which in total might well add up to an appreciable figure.

On the other hand, the injured parties are naturally prone to over-estimate their losses, and on top of this

your Commissioners themselves are apt, where a reasonable doubt exists, to accept the doubt as a fact.

One should add to this a rather unique situation which appears in the Red River Valley and which can be bracketed with the omissions -

The nature of the soil in this area, commonly referred to as Gumbo, when water-logged by a flood becomes in some measure unstable and might possibly aggravate the foundation problems which have always existed in the Winnipeg area. What this may mean in the future in undisclosed damage no one can tell, but it certainly is a factor.

INTANGIBLE DAMAGE

It should be remembered that on top of the usual disturbance to business caused by a flood of this kind, in this particular instance the authorities asked the citizens of the threatened parts of the Province to leave their homes voluntarily, and some 80,000 people followed this advice, in addition to which another close on 20,000 people were forced to evacuate their homes very quickly as the water came up. The absence from urban centres of over 100,000 people, together with the fact that probably another 50,000 were away from their usual occupations, working on the dykes as volunteers, caused both a serious

and unusual disturbance to business, and in fact in many cases a complete closing down of trade and industry. Practically every submission to the Commission has dwelt on this phase of the flood damage. Some examples of losses of revenue will be found in Appendix B.

#### PERMANENT FLOOD PROTECTION WORKS

Still dealing with intangible damage, your Commission notes with satisfaction the public statement by General McNaughton, a member of the International Joint Commission, that an engineering solution can be found for permanent flood protection. Only by the creation of such a project can this continuing intangible damage be entirely eradicated.

#### EMERGENCY PRECAUTIONS TO GUARD AGAINST THE RECURRENCE OF FLOOD CONDITIONS

It is obvious that, even with the most prompt action and the best industry, a permanent flood protection scheme cannot be brought into operation for some time. Qualified engineers who have appeared before the Commission suggest an interval of five years.

To bridge this gap with some temporary measures in the thickly populated Greater Winnipeg area would seem logical so long as the cost-benefit ratio is reasonable. The cost of these temporary measures would not be entirely lost when the permanent scheme is brought into being, since the dykes contemplated would probably become an integral part of the final scheme, or, at the worst, would form a secondary line of defence. Furthermore,



the temporary dyking measures carried out both in 1948 and during the present flood would be incorporated in and become part of this emergency scheme.

The Deputy Minister of Public Works (Manitoba), the Deputy Minister of Mines and Natural Resources (Manitoba), and the City Engineer of Winnipeg were asked to discuss this subject with the Commission.

In 1949 the City of Winnipeg prepared a scheme of dyking around its own area to protect the City against a water level of 24.5 feet, which could be further built up by emergency measures. Although the present flood reached a peak of 30.3 feet, the record of flood frequency would indicate that Winnipeg might enjoy relatively good security for this short interval with protection of this nature.

The City of Winnipeg's project is estimated to cost \$1,500,000.00, and to expand this scheme to protect the surrounding urban areas would, in the opinion of these engineers, increase the figure to \$2,500,000.00.

This, of course, must, in the absence of plans and specifications, be considered a very rough figure, and your Commission submits it with these reservations.

Under this same heading, your Commission wishes to submit these general observations -

Viewing the Greater Winnipeg area from the air, one is immediately struck by the spectacle of thousands of

new homes, and homes under construction, creeping closer and closer to the lower levels of the river bank.

It is most significant that the heaviest flooding was, in general, suffered by the newest houses. All of which raises the broad problem of uncontrolled improvident settlement.

THE FLOOD COST AND DAMAGE, SO FAR AS DETERMINABLE AT THIS STAGE

P.C. 2536 required the Commission "to make available at the earliest possible date a complete statement of all the essential facts necessary to determine the amount of the grant which the Federal Government should make to the Government of Manitoba in order to assist that Government in discharging its responsibilities in respect of the said flood."

Within the short period of its existence, and with the Red River Valley still under flood conditions, many such essential facts have been beyond the reach of the Commission. So far as they could be obtained they have been assembled. Where the actual facts have remained hidden by the flood waters or obscured by processes not yet run their course, the Commission has had to fall back upon estimates. Every effort has been made to test and cross-check these estimates.

Your Commission is reasonably well satisfied that the conclusions reached are as realistic as the present circumstances permit.

The nature and extent of the damage caused by the Red River flood, expressed in dollars and as closely as can be determined at this point, is in the neighbourhood of \$16,424,646.00

The cost of Flood Fighting is placed at 7,089,056.00

The cost of Emergency Relief made necessary by the flood is placed at 618,178.00

The cost of Emergency Precautions to be taken to guard against recurrence of such flood conditions, judged necessary by Provincial and Municipal engineers, is estimated at 2,500,000.00

In the aggregate, and subject to necessary further detailed investigations, excluding intangibles, personal effects and crop losses, the total is \$26,631,880.00

THE BREAK-DOWN OF TOTAL COSTS AND DAMAGE

In order to facilitate a review of the responsibilities of public and private bodies, the total of \$26,631,880.00

set down on page 14 is again broken down under three main headings:

- (1) Provincial costs, and damage to property.
- (2) Municipal costs, and damage to property.
- (3) Private costs, and damage to property.

~~These main divisions are again broken down into~~  
further categories, as shown on Appendix A.

(1) PROVINCIAL COSTS, AND DAMAGE TO PROPERTY

These estimates have been obtained from Provincial department heads. Each item has been carefully scrutinized and, where considered desirable, checked by the Commission's engineers, and modified where necessary.

(2) MUNICIPAL COSTS, AND DAMAGE TO PROPERTY  
(WITH SPECIAL REFERENCE TO MUNICIPALITIES  
IN FINANCIAL DIFFICULTIES)

As explained above, one of the first actions of your Commission was to summon the Mayors and Reeves together with Secretary-Treasurers and individual members of ~~Municipal Councils.~~ The terms of reference of your Commission were read to these authorities, and their assistance was requested in the assembly of essential facts. Emphasis was placed on our desire to ensure the inclusion of all pertinent data and at the same time to take all reasonable precautions against duplication and over-statement. The Municipal authorities responded with

- 16 -

promptness and energy, and their compilations of costs and damages, so far as they could be determined under difficult circumstances, reached us in a matter of a few days. The same process of scrutinizing and checking was applied to this material.

Your Commission wishes to point out that the distress occasioned by the flood, and the responsibilities devolving upon the Government of Manitoba, will be heightened by the weak financial status of many of the Municipalities involved. St. Boniface, St. Vital, Fort Garry, East and West Kildonan, all heavily inundated, and St. James less seriously affected, have all been in financial difficulties. All have passed through debt adjustment proceedings. Lacking access to financial markets, they have had extreme difficulty maintaining their municipal services for over twenty years. Replacements and renewals have been few, if any. In consequence their streets, sidewalks, sewers, bridges and water systems were ill-equipped to meet the stress and strain of the flood. Serious disintegration of services can be anticipated. If these urban Municipalities and some of the rural Municipalities are to furnish minimum standards of municipal services to their citizens, they will need substantial aid. They have not the resources

either in equipment, cash, taxation potential or credit, to deal with the problem themselves.

(3) PRIVATE COSTS AND DAMAGE TO PROPERTY

Utilities.

The only affected utilities not publicly owned are the Winnipeg Electric Company and the two central-heating companies, the Northern Public Service Corporation Limited and the Winnipeg Heating Company Limited. The submissions received from these corporations appear amongst the statements of costs and damage to private business.

Religious Institutions.

All communions were requested to survey the extent to which their properties were affected. Submissions have been received from each of them, and include injury to churches, church homes, hospitals, convents and church schools. To avoid duplication, these submissions have been broken down, and, wherever applicable, transfers mad to other categories already established.

Hospitals.

The Maritoba Hospital Association has submitted a brief setting out the position of the hospitals holding membership in this Association. To these figures have been added submissions from other hospitals not members of this Association.

### Schools.

There are a number of private schools in the flooded areas, some of which are under the control of one or other of the churches, and some are controlled by their own Boards of Management. All such educational institutions have been grouped together. Public schools have, of course, been included in the Municipal submissions.

### Community Clubs and Community Halls.

Unique in the Red River Valley and Greater Winnipeg area is the highly developed character of Community Clubs, many of which have quite elaborate buildings and club facilities. In the early efforts to hold back the flood waters, these Community Clubs became the headquarters for flood fighting. The Club properties suffered considerable damage, and in some cases the losses of equipment were heavy.

### Homes - Urban and Rural.

This type of damage, and the manner in which it has been assessed, has already been dealt with.

### Farm Buildings other than Homes.

The Royal Canadian Mounted Police have reported that, on the basis of an actual count, 795 barns have been submerged and damaged, and 67 barns destroyed. It has been

impossible to obtain an accurate count of granaries, workshops and other farm buildings affected. Mr. Legget in his report comments on the fact that in the heavily flooded areas the local farm buildings are small but good and simple, and that the farms have more out-buildings than usual.

In estimating the damage to farm buildings, we have followed the practice of treating each farm as a unit, and have added to the estimated damage to farm homes an amount considered sufficient to cover barns and other farm buildings.

#### Business Premises.

The assistance of the Retail Merchants Association, the Winnipeg Chamber of Commerce and the Canadian Manufacturers Association was drawn upon to obtain an estimate under this heading. We have an accurate count of the business premises affected in the towns of Emerson and Morris, but there may be omissions in the Greater Winnipeg area.

#### Farm Implements, Trucks and Automobiles.

We express no opinion as to whether or not this category of loss should be treated as "instruments of production" analogous to machinery damage in urban industrial areas, or bracketed with personal effects.

Your Commission has made no independent check, but would not quarrel with the estimate by the Provincial



Deputy Minister of Agriculture that the necessary repairs would cost some 2,000 farm units involved an average of \$200.00 per unit, or \$400,000.00.

Livestock and Poultry Lost.

The cost of evacuating, and the estimated cost of returning livestock is included in the costs submitted by the Provincial Department of Agriculture.

The same authority, together with the Provincial Department of Mines and Natural Resources for fur farms, estimate that the flood killed stock to the value of \$375,000.00, which we feel is a reasonable figure.

Loss of Stock in Business Premises  
both Urban and Rural.

Detailed statements have been submitted from the towns and villages in the rural areas and from the Retail Merchants Association and the Chamber of Commerce in Winnipeg. At this stage of the flood this type of damage is most difficult to assess.

Seed Grain, Seed Potatoes and  
Vegetable Transplants.

The Commission has had no means of appraising this damage, but is prepared to accept the estimate of the Deputy Minister of Agriculture that the loss under this heading is \$400,000.00.

Commercial Grain.

The value of commercial grain held on farms and destroyed by water, as estimated by the Canadian Wheat

Board and checked with figures submitted by the Municipalities and further figures submitted by the Department of Agriculture, is placed at \$600,000.00

SUMMARY

- A. TOTAL TANGIBLE COSTS AND DAMAGE  
as already reported \$26,631,880.00
  
- B. INTANGIBLE DAMAGE  
This has been fully discussed above \$ -
  
- C. PERSONAL EFFECTS  
No attempt has been made to assess this damage, the restoration of which we assume will be cared for by the Manitoba Flood Relief Fund \$ -
  
- D. CROP LOSSES  
Your Commission has made no effort to analyse this item \$ -

RED RIVER FLOOD - 1950

STATEMENT OF TOTAL COSTS AND DAMAGE

	<u>Provincial Costs and Damage to Property</u>	<u>Municipal Costs and Damage to Property</u>	<u>Private Costs and Damage to Property</u>	<u>TOTAL</u>
FLOOD FIGHTING	2,872,720	3,138,905	1,077,431	7,089,056
FLOOD DAMAGE				
Publicly owned utilities	1,260,475	86,000		1,346,475
Publicly owned build- ings, equipment and property	250,800	490,900		741,700
Highways, roads and lanes	361,550	1,252,700		1,614,250
Drainage ditches, bridges and culverts	572,000	356,670		928,670
Sewers and water mains		622,185		622,185
Sidewalks		102,470		102,470
Parks and boulevards		80,150		80,150
EMERGENCY RELIEF	597,878	20,300		618,178
DAMAGE TO PRIVATE PROPERTY				
Home and auxiliary build- ings - Urban and Rural			7,500,000	7,500,000
Business premises and stock in trade			1,492,514	1,492,514
Seed grain, seed potatoes and vege- table transplants			400,000	400,000
Livestock and poultry lost			375,000	375,000
Farm implements, trucks and automobiles			400,000	400,000
Commercial grain			600,000	600,000
Churches, charitable and welfare organ- izations, community clubs, etc.			221,232	221,232
	<u>5,915,423</u>	<u>6,150,280</u>	<u>12,066,177</u>	<u>24,131,880</u>
COST OF EMERGENCY PRE- CAUTIONS TO GUARD AGAINST THE RECURRENCE OF FLOOD CONDITIONS				<u>2,500,000</u>
<b>T O T A L</b>				<u><u>\$26,631,880</u></u>

RED RIVER FLOOD - 1950

Examples of Losses of Revenue

Hospitals and other public institutions - continuing costs while revenue patients evacuated.

Municipalities - losses on taxable assessment and revenue bearing utilities.

Manufacturing concerns - continuing costs and loss of production.

Radio stations - loss of revenue due to broadcasting of flood bulletins.

Real estate companies - loss of rentals.

Distributing organizations - loss through shipping from points other than Winnipeg.

Public utilities - loss of revenue through failure of power services and loss of traffic.

General - loss of services of staff absent protecting own homes and fighting flood generally.