# BTAG/ORJPB Northern Red River Valley Flood Mitigation: 2009 Historic Event Ex: 81,910 cfs 144 Ex: 1.55' - 28.25 days Pro: *No O.T.* Ex: 1.28' - 25.0 days 2.25 days 220 Ex: 0.63' - 11.75 days Pro: No O.T.

## WITH YOUR VOTE WE CAN MANAGE THIS PROBLEM

## Reduced Roadway Overtopping Frequency

Increased ND/MN transportation over Red River
Increased access to homes and businesses during floods
Allows the Railroad working through the flood
Allows I-29 to remain open during floods

## **Reduction to Ag Land Inundation**

Reduced time of flooding-more chance to get the crop planted Reduce overall flooded acres

## **Total Project Phases**

# Construction and Non-Construction Costs Opinion of Probable Cost

65 主义是《第二章》(195 <del>章)</del> 第二章	North Dakota	Minnesota	Total Cost
<u>Phase 1-Bridges/Bridge Modifications</u> (Properly Sized Conveyance Areas)	\$51,656,438	\$33,924,628	\$85,581,065
<u>Phase 2-Infrastructure Protection</u> (Interstate, State Highways, Railroad Flood Protection)	\$15,949,378	\$4,545,513	\$20,494,891
<u>Phase 3-River Restrictions Removal</u> (Ag Levee Modifications, Abandoned Driveways, etc.)	\$15,865,202	\$11,492,050	\$27,357,252
Grand Total:	\$83,471,018	\$49,962,191	\$133,433,209
DOT Portion of Project	North Dakota	Minnesota	Total
DOT Phase 1	\$37,250,000	\$28,065,571	\$63,315,571
DOT Phase 1  DOT Phase 2	\$37,250,000 \$6,093,040	\$28,065,571 \$1,598,140	\$63,315,571 \$7,691,180

BTAG Contact Information 20487 470th Ave NW Oslo, MN 56744

218-965-4660 ext. 1# 218-965-4902 Fax 218-686-0804 Cell

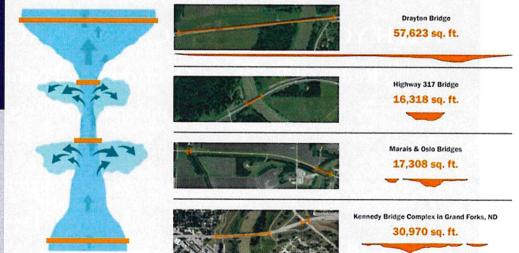
## North Dakota Townships

Pulaski-Gary Babinski Walshville-Craig Jones Turtle River-Derek Gowan Ferry Township Financial Support

## **Minnesota Townships**

Fork-Cary Osowski Big Woods-Curtis Haugen Oak Park-David Nelson Higdem-James Bergman City of Oslo-Tim Solem

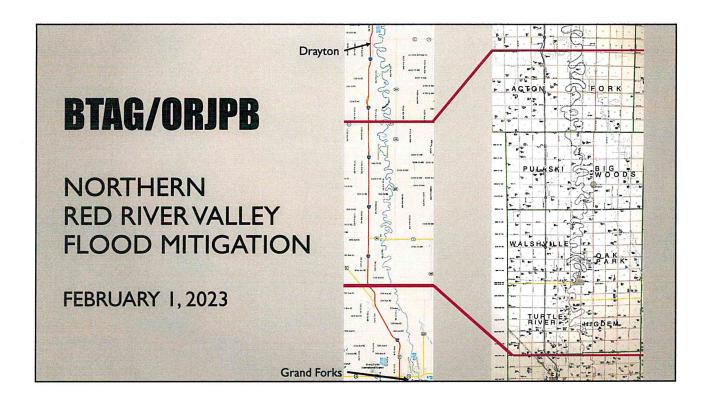
#### **Existing Waterway Opening Comparison**



To watch a 8 minute video go to:

fixtheflood.org or scan here.

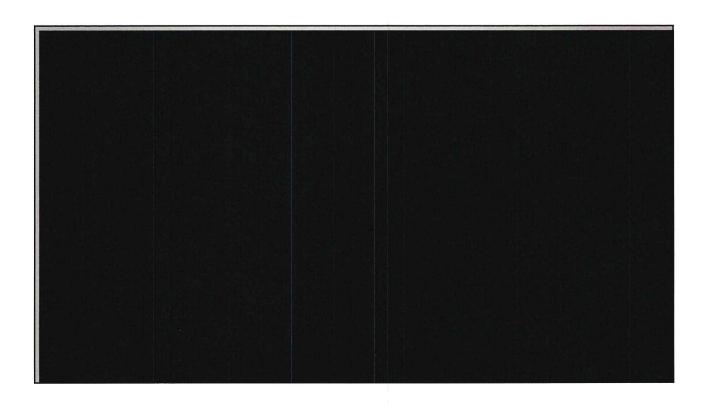


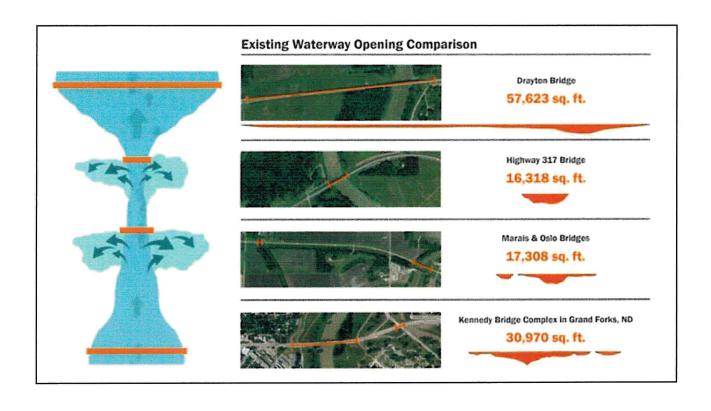


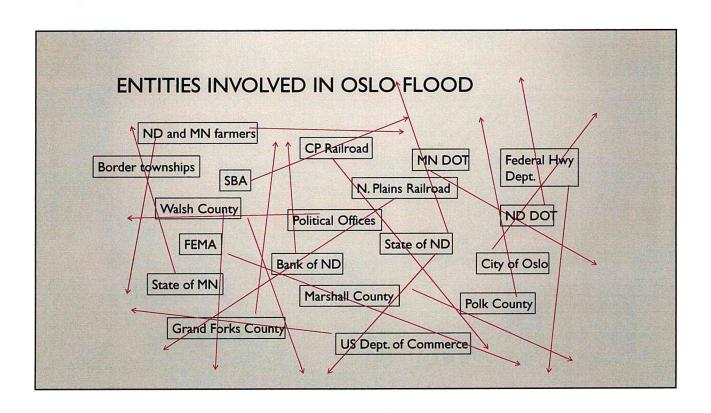
## **BORDER ASSOCIATIVE** GROUP North Dakota Minnesota Marshall County Walsh County City of Oslo-Tim Solem Pulaski Township-Gary Babinski Fork Township-Carey Osowski Walshville Township-Craig Jones Big Woods Township-Curtis Haugen Oak Park Township-David Nelson **Grand Forks County** Turtle River Township-Derek Gowan Ferry Township-financial support Higdem Township-James Bergman

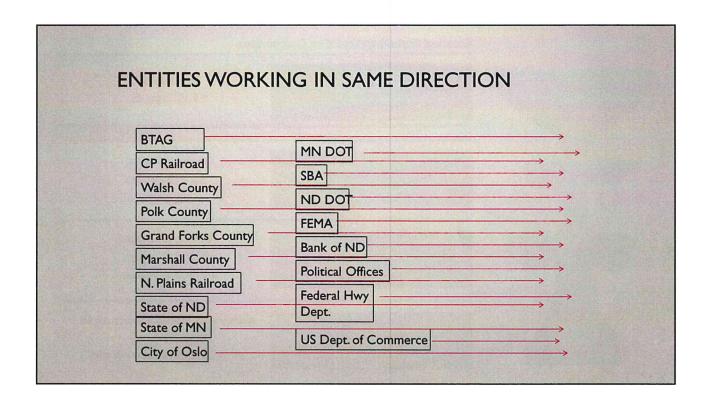
# **BTAG GOALS**

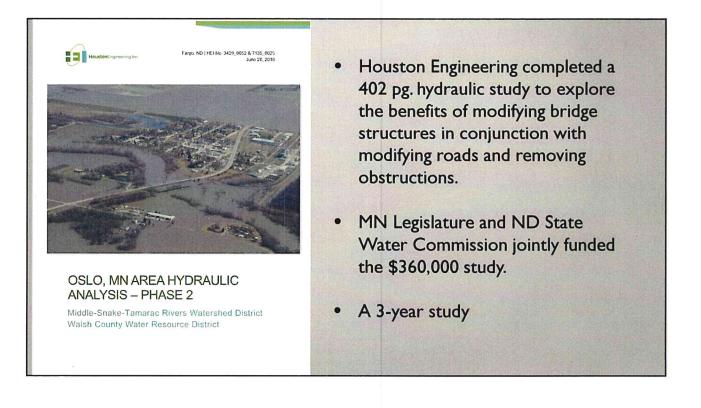
- Contain flows as close to the main channel center line as possible.
- · Serve as local experts on water decisions.
- Work cooperatively with other entities to facilitate local water management.
- Promote inter-state cooperation on cost-effective transportation improvements.
- Establish bridges proportional to GF/EGF upstream and Drayton downstream.











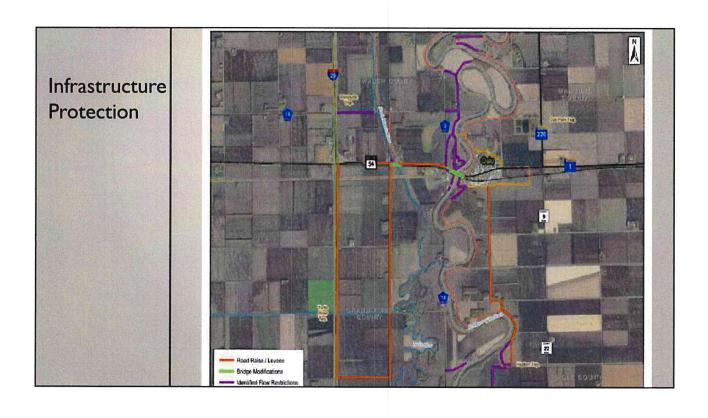
#### WATER-FLOW OBSTRUCTIONS

BTAG as local experts identified 70 obstructions to Red River waterflow. Houston study included 40 of the most obvious obstructions, including:

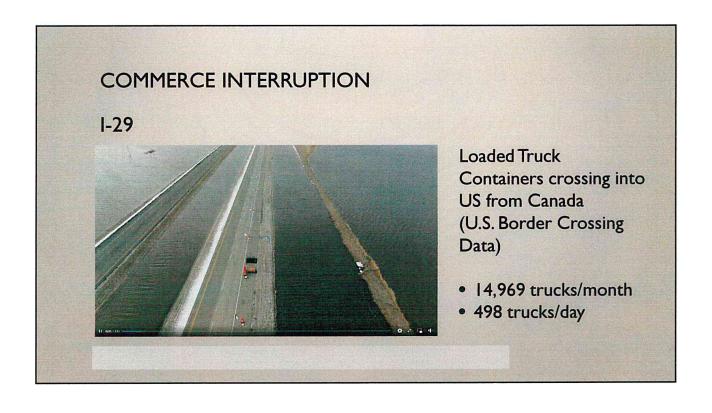
- MN Hwy I/ND Hwy 54 bridge at Oslo
- Northern Plains Rail Bridge (1905) at Oslo
- ND Hwy 17/ MN Hwy 317 bridge
- Spoilbanks
- Abandoned driveways
- Field roads
- Old farmer dike

#### **UPSTREAM/DOWNSTREAM EFFECTS**

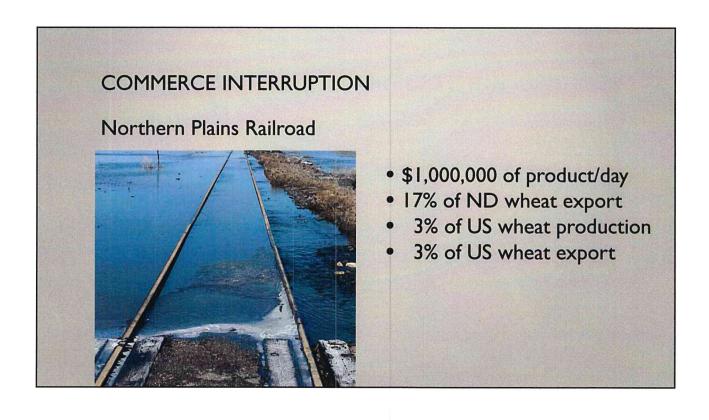
- Houston study considered water levels from EGF/GF to Drayton, ND.
- Removing obstructions lowers water levels.
- Adding protections for infrastructures, requires management of water levels.
- Downstream water levels never showed concerns.
- The project specifications were adjusted to address upstream water level concerns.

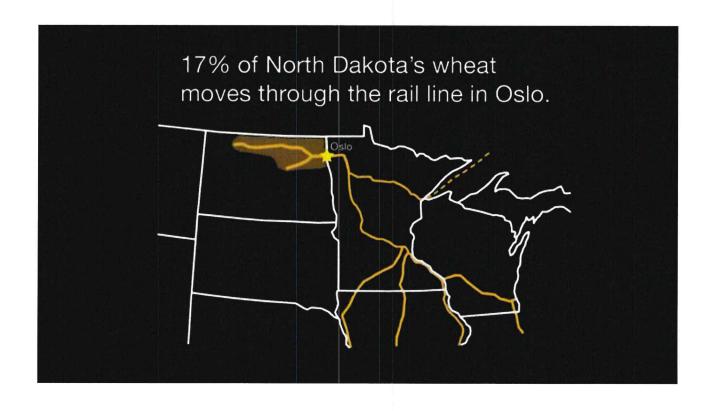




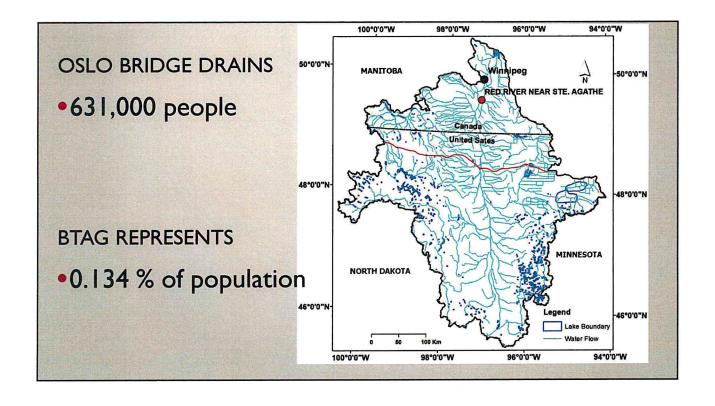


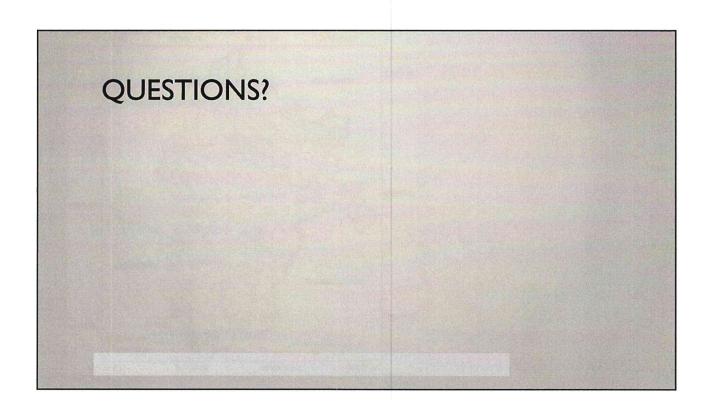


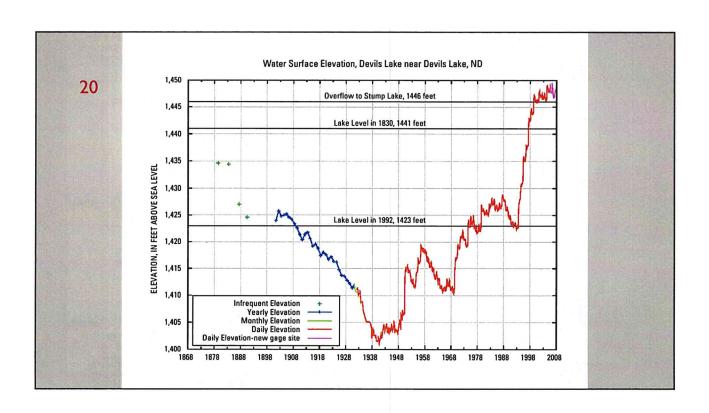


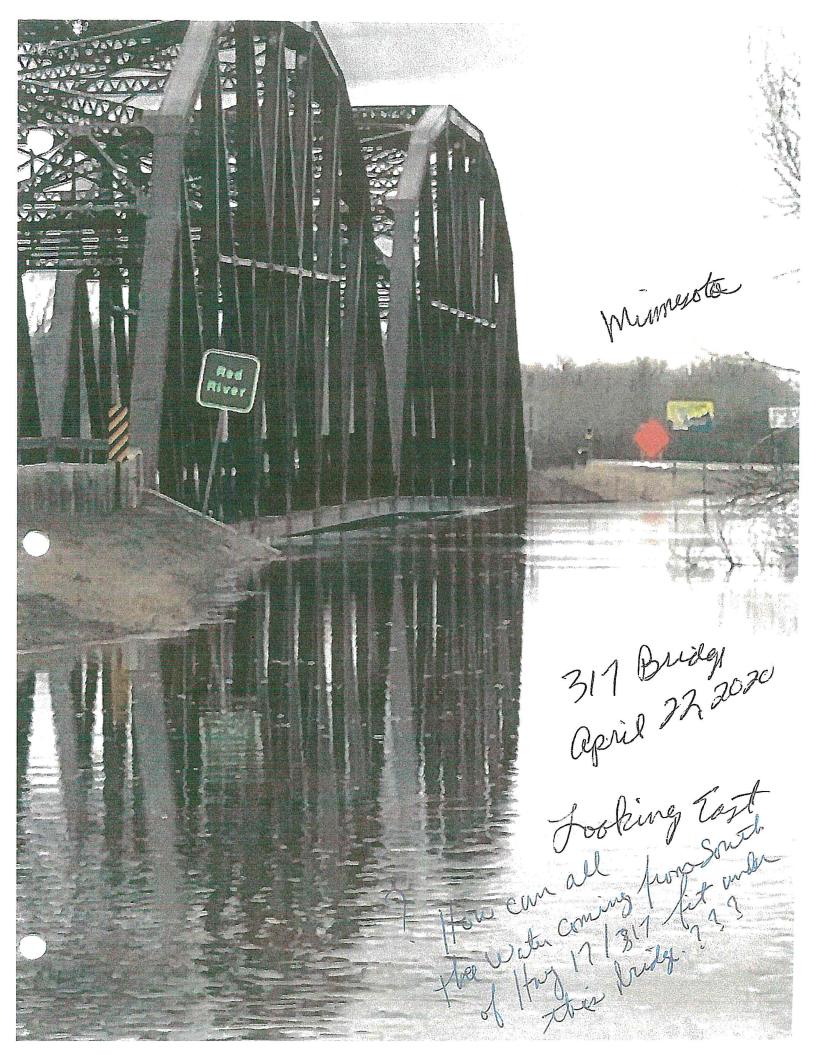


100°0'0"W 96°0'0"W 94°0'0"W **OSLO BRIDGE DRAINS** MANITOBA 50°0'0"N • 32,290 mi<sup>2</sup> •20,665,000 acres • 3 states 48°0'0"N 48°0'0"N **BTAG REPRESENTS** MINNESOTA NORTH DAKOTA •0.706 % of area 46°0'0"N 46°0'0"N 98°0'0"W 96°0'0"W 94°0'0"W

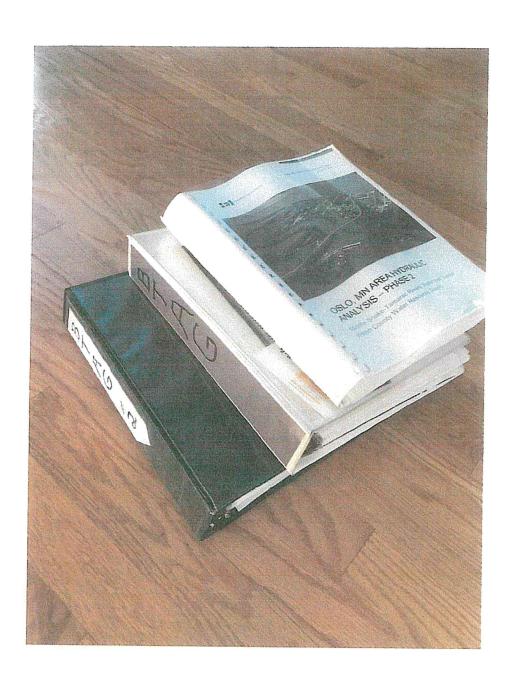








a contract of the contract of	
	9
,	



\* ; , ,

		÷
		9

:201	lo Flood		M	(cata remu
	County Sites (all)	1,120,705.85		16 Food
	Co. Red River Sites	458,980.45		( = prents)
AM	Acton Twp	21,773.21 一	all	expenses
<u> </u>	Pulaskî Twp	183,355.70		18-Event 1999
	St Andrews Twp	16,923.46		10 81 00
	Walshville Twp	→ 201,192.06		2000
	Total RRV Twps	423,244.43	30%	7/10(
	Total All Twps	1,405,907.96		
		0.505.640.04		2002
	Total County Wide	2,526,613.81		2004
	Total RRV	882,224,88	35%	2005
201	L1 Flood			2004
	County Sites (all)	732,002.48		2009
	Co. Red River Sites	610,966.09		2010
	Acton Twp	50,371.80		
	Pulaski Twp	145,977.85		2011
	Walshville Twp	173,752.83		2013
	Total RRV Twps	370,102.48	63%	2013R
	Total All Twps	585,451.23		$\omega$
				2017
	Total County Wide	1,317,453.71		70.10
	Total DES	004 000 27	~ 40/	2019
	Total RRV	981,068.57	74%	20194
201	3 Spring Flood			2820
	County Sites (all)	313,051.25		
	Co. Red River Sites	17,924.63		
	Acton Twp	1,761.13		
	Pulaski Twp	26,244.49		been al Co. For
	St Andrews Twp	2,814.95		77 APING
	Walshville Twp	11,961.61		
	Total RRV Twps	42,782.18	18%	Se Challe Chance
	Total All Twps	235,590.19		PA FLANS
	Total County Wide	548,641.44	100	Been w/ Co. for  27 years  1 64 % Chance of Floori event.

Total RRV

60,706.81

11%

### 2013 Rain Event

County Sites (all)	95,807.75
Co. Red River Sites	674.43
Acton Twp	0.00
Pulaski Twp	0.00
St Andrews Twp	0.00
Walshville Twp	0.00
Total RRV Twps	0.00

Total All Twps 123,398.68

Total County Wide 219,206.43

Total RRV 674.43 0%

#### 2017 Flood

County Sites (all)	657,136.00	
Co. Red River Sites	251,645.14	\$200,000 Silewski Site
Acton Twp	0.00	
Pulaski Twp	0.00	
St Andrews Twp	0.00	
Walshville Twp	0.00	
Total RRV Twps	0.00	0%
Total All Twps	233,005.88	

0%

Total County Wide 890,141.88

Total RRV 251,645.14 28%

### 2019 Spring Flood

County Sites (all)	1,182,442.13	
Co. Red River Sites	719,165.96	
Acton Twp	14,097.47	
Pulaski Twp	93,429.30	
St Andrews Twp	5,470.47	
Walshville Twp	249,089.78	
Total RRV Twps	362,087.02	78%
Total All Twps	463,276.17	

Total County Wide 1,645,718.30

Total RRV 1,081,252.98 66%

	N.

#### 2019 Fall Flood

County Sites (all)	81,782.46	
Co. Red River Sites	81,782.46	
Acton Twp	0.00	
Pulaski Twp	91,799.90	
St Andrews Twp	0.00	
Walshville Twp	14,893.65	
Total RRV Twps	106,693.55	100%
Total All Twps	106,693.55	
Total County Wide	188,476.01	
Total RRV	188,476.01	100%

### 2020 Spring Flood (ESTIMATED)

County Sites (all)	853,347.41	
Co. Red River Sites	827,447.41	
Acton Twp	0.00	
Pulaski Twp	58,884.90	
St Andrews Twp	12,180.00	
Walshville Twp	430,785.10	
Total RRV Twps	501,850.00	96%
Total All Twps	523,741.82	

Total County Wide 1,377,089.23

1,377,089.23

Total RRV

1,329,297.41

11 years

In Costo REBION
In the past

In the past

Syears

Multi Peril Crophyly

has paid out

One BTLLION

Sollars For

Prevent Plant.

teach County Conly

	د <sub>د د</sub> د