

# Appendix G

**FY2023**

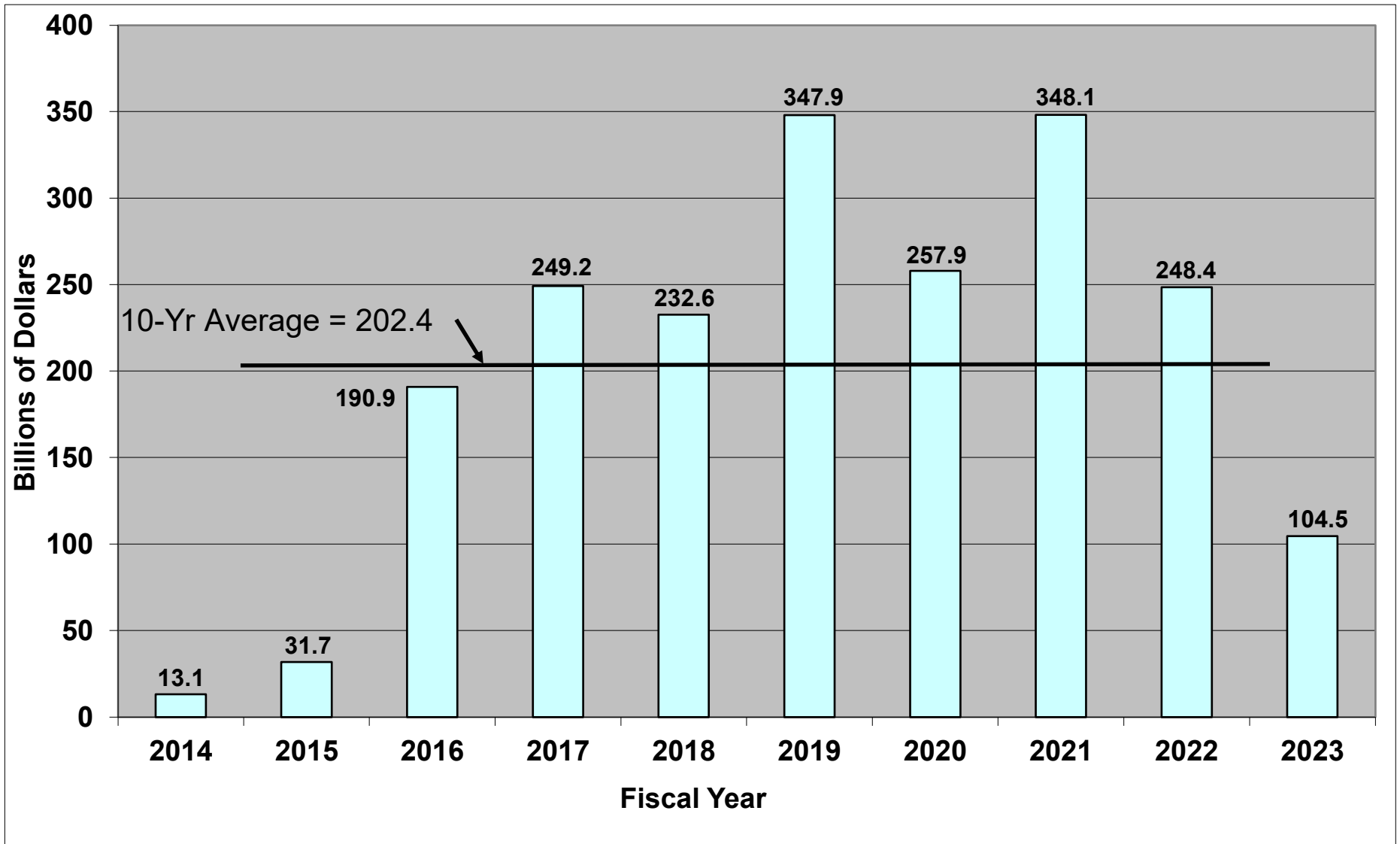
## **ANNUAL FLOOD DAMAGE REDUCTION REPORT Provided by CECW-CE (Hydrology, Hydraulics & Coastal Community of Practice)**

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# FIGURES

FIGURE 1

# Flood Damage Reduction



Flood Damages Prevented in the U.S.A. by the U.S. Army Corps of Engineers

FIGURE 2

## Potential Flood Damages

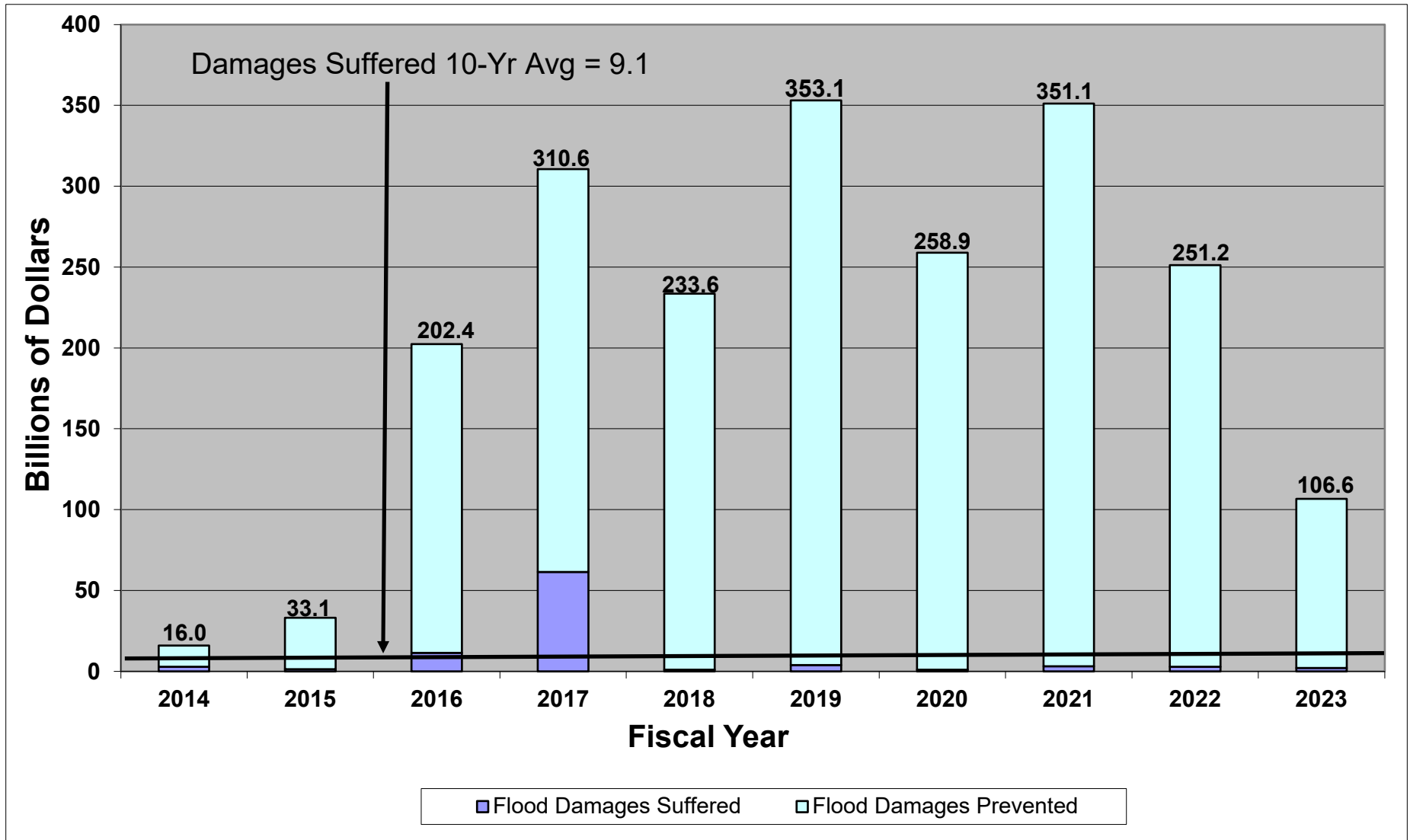


FIGURE 3

### Flood Related Lives Lost

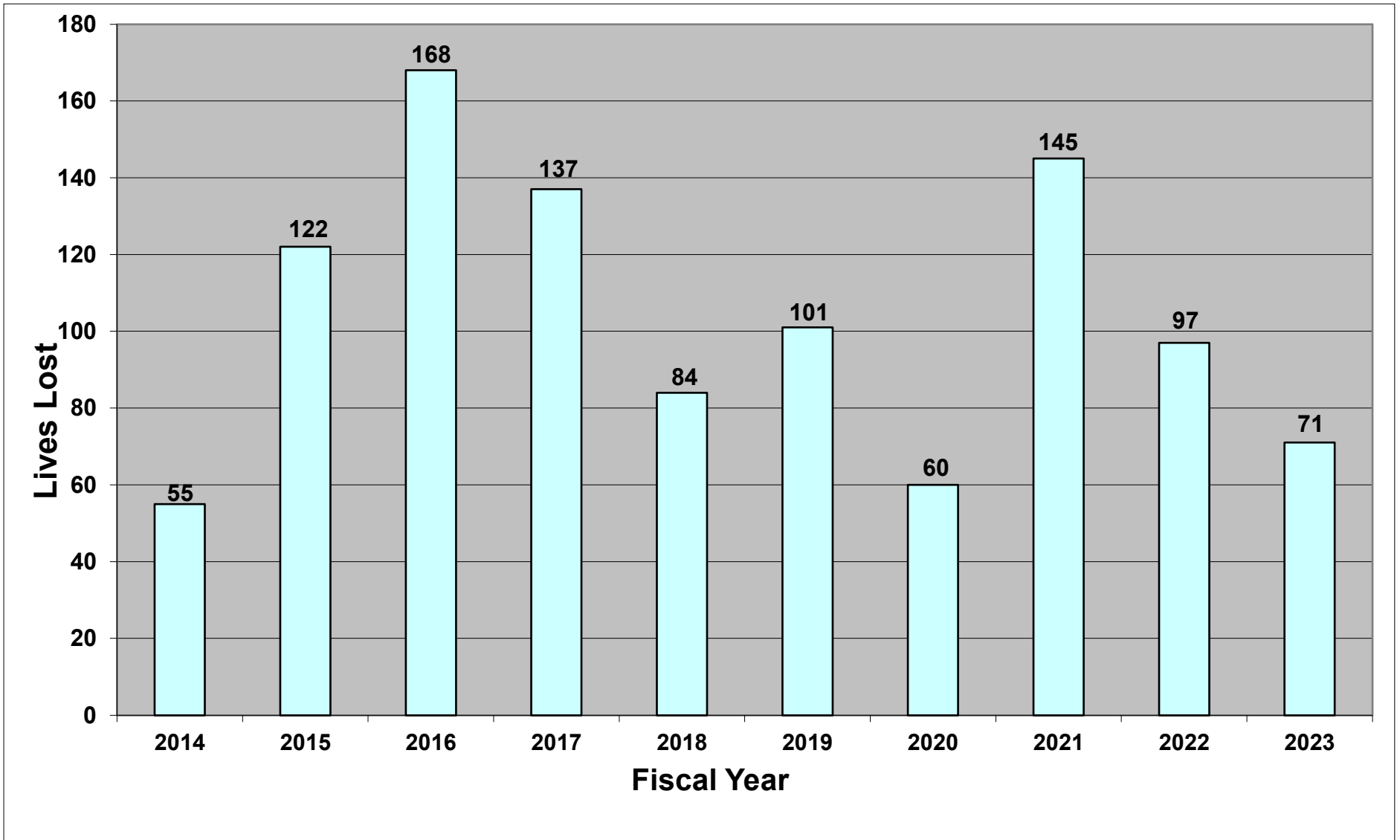
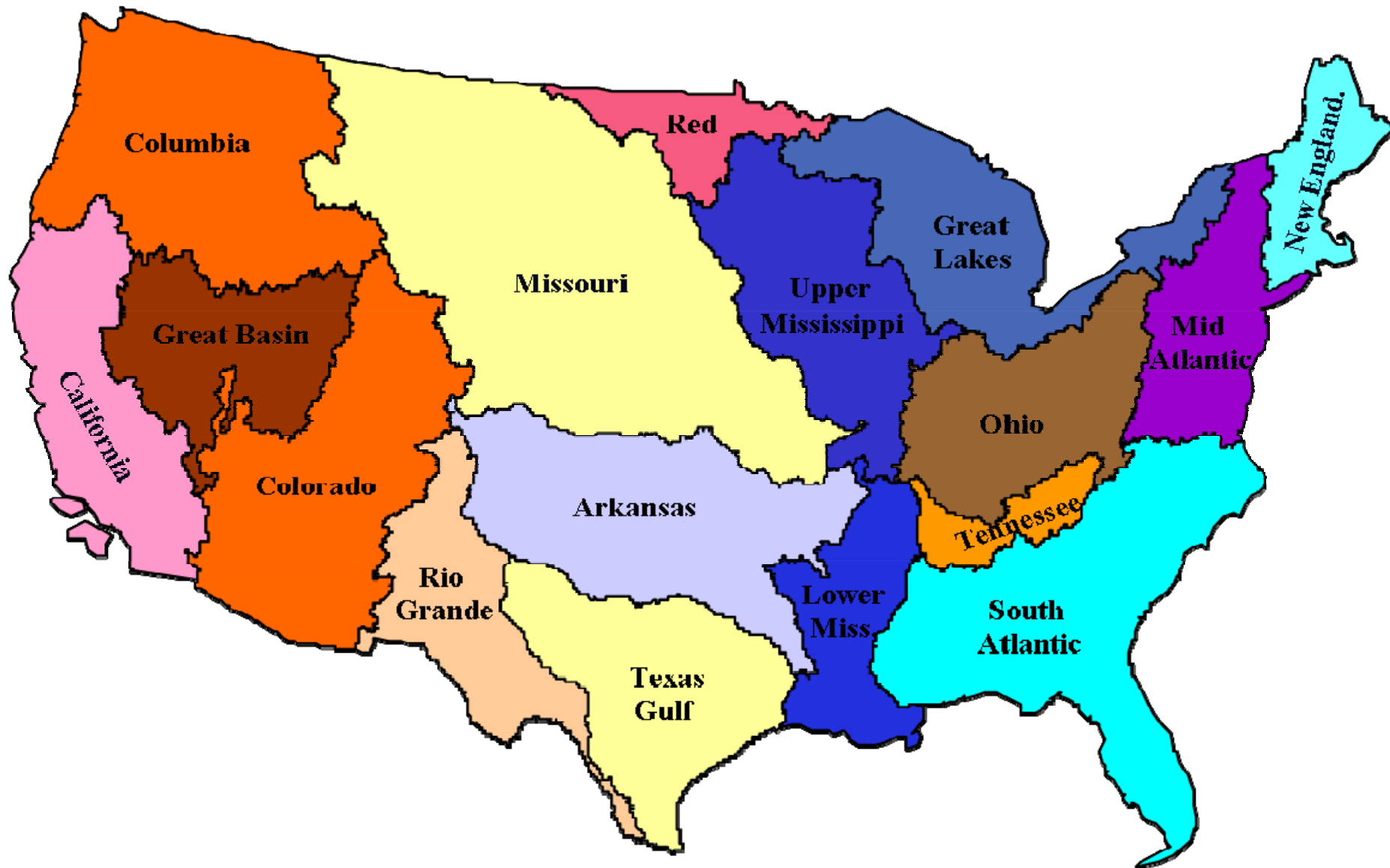


FIGURE 4

# Continental U.S. River Basins



For Use with Table 6

G-6

FIGURE 5

**Benefits of Federal Projects (Damages Prevented)**  
**Accumulative Corps Expenditures (Principle plus O&M)**  
Adjusted to 2000 Using Construction Cost Index EM 1110-2-1304 (Mar 2021 revision)

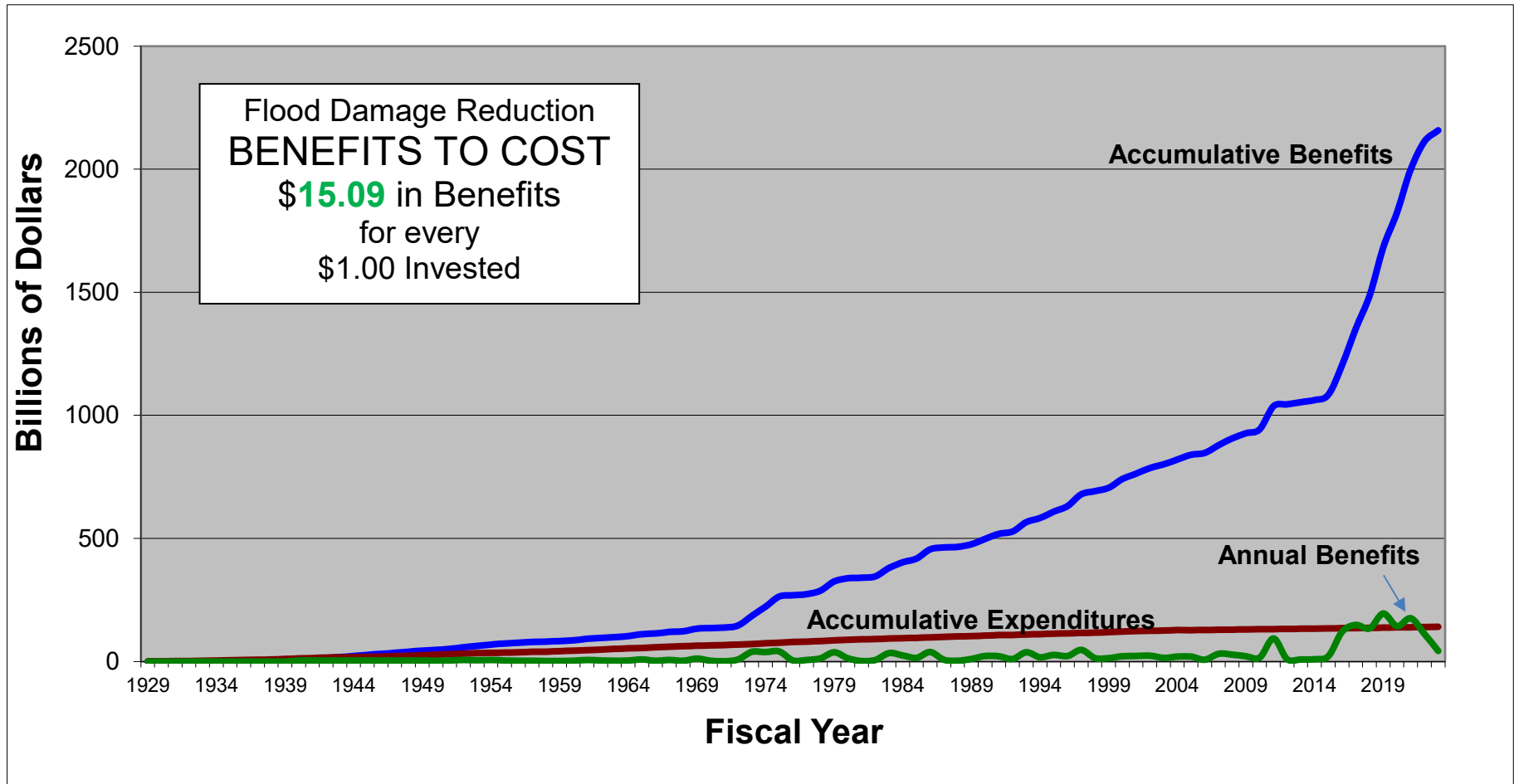
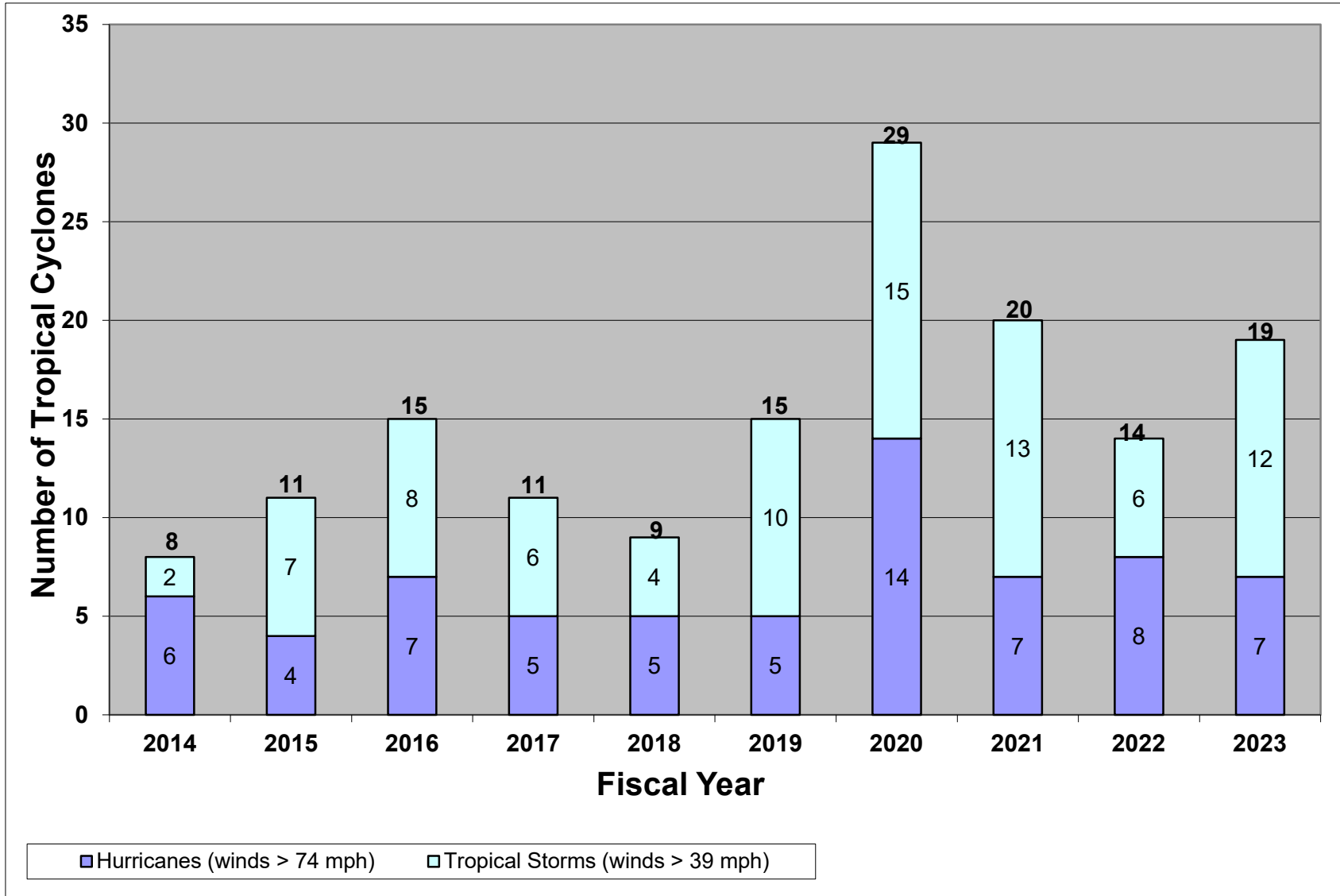


FIGURE 6

# Atlantic Tropical Cyclones



# TABLES

**TABLE 1**

<b>FLOOD DAMAGE REDUCTION</b>							
<b>BY STATE (THOUSANDS OF DOLLARS) During Fiscal Year 2023 (Refer to Figure 4)</b>							
Location	Reduction by Corps Supported Reservoirs (FY2023)	Reduction by Corps Levees and Shore Protection Projects (FY2023)	Reduction by Corps Supported Emergency Operations (FY2023)	Total Flood Damage Reduction by the Corps of Engineers (FY2023)	Average Damage Reduction (FY2014-2023)	Comparison of 2023 Totals to 10- Year Average (FY2014-2023) *	
ALABAMA	0	0	0	0	0	Medium	
ALASKA	0	0	0	0	15,931	Low	
ARIZONA	8,373	0	0	8,373	3,954	High	
ARKANSAS	156,921	671,456	0	828,378	6,908,613	Low	
CALIFORNIA	1,118,758	242,873	0	1,361,631	11,013,625	Low	
COLORADO	199,270	3,322	0	202,592	32,713	Very High	
CONNECTICUT	31,507	91,414	0	122,921	44,343	High	
FLORIDA	0	9,090	0	9,090	6,841	Medium	
GEORGIA	113,200	5,606	0	118,806	94,475	Medium	
HAWAII	0	32,487	0	32,487	18,390	Medium	
IDAHO	589,940	5,635	20	595,595	255,266	High	
ILLINOIS	13,489	590,771	0	604,260	3,492,346	Low	
INDIANA	27,343	121,926	0	149,269	214,161	Medium	
IOWA	164,361	355,552	0	519,914	539,434	Medium	
KANSAS	7,658	0	0	7,658	424,329	Low	
KENTUCKY	292,653	77,144	0	369,796	429,854	Medium	
LOUISIANA	2,810	89,664,904	0	89,667,714	132,609,398	Medium	
MAINE	0	0	0	0	5	Low	
MARYLAND & DC	0	52	0	52	24,352	Low	
MASSACHUSETTS	27,677	50,239	0	77,916	37,170	High	
MICHIGAN	0	1,482	0	1,482	3,071	Low	
MINNESOTA	65,318	214,789	0	280,107	76,662	High	
MISSISSIPPI	3,261	465,830	0	469,091	12,758,273	Low	
MISSOURI	181,445	602,811	0	784,256	3,076,091	Low	
MONTANA	382,734	36	0	382,771	158,835	High	
N. CAROLINA	41,234	965	0	42,199	259,003	Low	
N. DAKOTA	361,086	37,061	0	398,147	339,643	Medium	
NEBRASKA	190,059	40,737	0	230,796	305,025	Medium	
NEVADA	2,470	0	0	2,470	696	High	

**TABLE 1**

<b>FLOOD DAMAGE REDUCTION</b>						
<b>BY STATE (THOUSANDS OF DOLLARS) During Fiscal Year 2023 (Refer to Figure 4)</b>						
Location	Reduction by Corps Supported Reservoirs (FY2023)	Reduction by Corps Levees and Shore Protection Projects (FY2023)	Reduction by Corps Supported Emergency Operations (FY2023)	Total Flood Damage Reduction by the Corps of Engineers (FY2023)	Average Damage Reduction (FY2014-2023)	Comparison of 2023 Totals to 10-Year Average (FY2014-2023) *
NEW HAMPSHIRE	17,843	0	0	17,843	5,414	High
NEW JERSEY	0	45,992	0	45,992	91,485	Medium
NEW MEXICO	129,776	0	0	129,776	48,637	High
NEW YORK	154,782	465,515	117	620,414	480,328	Medium
OHIO	92,318	9,546	412	102,276	804,357	Low
OKLAHOMA	115,998	0	0	115,998	831,655	Low
OREGON	31,303	1,304,514	0	1,335,817	1,373,453	Medium
PENNSYLVANIA	19,902	9,259	0	29,161	8,333,047	Low
PUERTO RICO & VIRGIN ISLANDS	594	0	0	594	72,735	Low
RHODE ISLAND	0	8,012	0	8,012	5,637	Medium
S. CAROLINA	20,490	74	0	20,564	12,149	Medium
S. DAKOTA	70,165	229	0	70,393	37,279	Medium
TENNESSEE	53,720	36,587	0	90,307	459,736	Low
TEXAS	1,216,002	44,259	0	1,260,261	11,934,052	Low
UTAH	24,245	0	0	24,245	1,186,922	Low
VERMONT	164,231	7,056	0	171,287	44,184	High
VIRGINIA	480,723	9,178	0	489,902	224,789	High
W. VIRGINIA	87,501	1,042	0	88,543	440,421	Low
WASHINGTON	1,540,263	927,992	6,328	2,474,583	2,453,646	Medium
WISCONSON	0	8,458	0	8,458	5,734	Medium
WYOMING	125,530	2,731	0	128,261	98,651	Medium
<b>Totals</b>	<b>8,326,952</b>	<b>96,166,757</b>	<b>6,877</b>	<b>104,500,586</b>	<b>202,086,810</b>	
FY 2023 Damages Prevented in the U.S. = 52% of the 10-year (2014-2023) Average						
<b>LEGEND:</b>	Low = Less than 1/2 average.		High = Twice to five times average.			
	Medium = 1/2 to twice average.		Very High = More than five times average.			

**TABLE 2**

<b>TOTAL DAMAGES SUFFERED</b>							
<b>BY STATE (THOUSANDS OF DOLLARS) During Fiscal Year 2023</b>							
Location	Damages Suffered (FY2023)	Damage Reduction (FY2023)	Potential Damages (FY2023)	Percent Damages Reduced (FY2023)	Average Damages Suffered (FY2014-2023)	Lives Lost (FY2023)	Lives Lost (FY2014-2023)
ALABAMA	20	0	20	0	5,545	0	21
ALASKA	7,175	0	7,175	0	9,826	0	2
ARIZONA	8,456	8,373	16,829	50	14,477	6	46
ARKANSAS	361	828,378	828,739	100	11,550	1	18
CALIFORNIA	1,013,990	1,361,631	2,375,621	57	194,653	14	54
COLORADO	5,966	202,592	208,558	97	18,217	7	21
CONNECTICUT	1,740	122,921	124,661	99	941	0	1
DELAWARE	0	0	0	0	360	0	0
FLORIDA	29,760	9,090	38,850	23	201,658	0	11
GEORGIA	2,407	118,806	121,213	98	2,530	0	0
GUAM & AMERICAN SAMOA	426	130	556	23	1,449	0	0
HAWAII	1	32,487	32,488	100	11,300	1	6
IDAHO	6,685	595,595	602,280	99	10,541	0	0
ILLINOIS	550,912	604,260	1,155,172	52	85,673	0	24
INDIANA	10,849	149,269	160,118	93	11,474	3	25
IOWA	2,115	519,914	522,029	100	35,431	0	4
KANSAS	206	7,658	7,864	97	4,967	0	7
KENTUCKY	6,650	369,796	376,446	98	48,085	3	88
LOUISIANA	138	89,667,714	89,667,852	100	984,423	1	30
MAINE	16,487	0	16,487	0	2,796	0	1
MARYLAND & DC	501	52	553	9	10,366	0	7
MASSACHUSETTS	1,653	77,916	79,569	98	3,693	0	0
MICHIGAN	63,767	1,482	65,249	2	270,025	0	1
MINNESOTA	2,854	280,107	282,961	99	23,663	0	2
MISSISSIPPI	5,422	469,091	474,513	99	8,894	0	8
MISSOURI	20,253	784,256	804,509	98	66,542	4	59
MONTANA	6,515	382,771	389,286	98	1,141	2	2
N. CAROLINA	496	42,199	42,695	99	119,635	1	52
N. DAKOTA	11,161	398,147	409,308	97	10,961	1	5
NEBRASKA	1,406	230,796	232,202	99	90,052	0	7

**TABLE 2**

<b>TOTAL DAMAGES SUFFERED BY STATE (THOUSANDS OF DOLLARS) During Fiscal Year 2023</b>							
Location	Damages Suffered (FY2023)	Damage Reduction (FY2023)	Potential Damages (FY2023)	Percent Damages Reduced (FY2023)	Average Damages Suffered (FY2014-2023)	Lives Lost (FY2023)	Lives Lost (FY2014-2023)
NEVADA	44,277	2470	46,747	5	8,140	3	5
NEW HAMPSHIRE	187	17,843	18,030	99	2,971	0	0
NEW JERSEY	33	45,992	46,025	100	24,837	0	28
NEW MEXICO	3,462	129,776	133,238	97	5,394	0	22
NEW YORK	4,995	620,414	625,409	99	71,988	1	19
OHIO	14,957	102,276	117,233	87	26,033	1	15
OKLAHOMA	295	115,998	116,293	100	1,903	2	40
OREGON	14	1,335,817	1,335,831	100	6,778	0	4
PENNSYLVANIA	20,217	29,161	49,378	59	48,718	9	24
PUERTO RICO & VIRGIN ISLANDS	4251	594	4845	12	1,504,068	1	4
RHODE ISLAND	0	8,012	8,012	100	133	0	0
S. CAROLINA	1296	20,564	21,860	94	20,502	0	20
S. DAKOTA	1,550	70393	71943	98	104,311	0	5
TENNESSEE	12,887	90,307	103,194	88	32,898	0	44
TEXAS	1,049	1,260,261	1,261,310	100	4,863,583	1	210
UTAH	47,710	24245	71,955	34	11,862	6	32
VERMONT	144,341	171,287	315,628	54	17,141	2	2
VIRGINIA	604	489,902	490,506	100	16,093	0	14
W. VIRGINIA	5,912	88,543	94,455	94	22,187	1	31
WASHINGTON	1,645	2,474,583	2,476,228	100	40,291	0	4
WISCONSON	727	8458	9,185	92	27,598	0	14
WYOMING	2,941	128,261	131,202	98	3,911	0	1
<b>Totals</b>	<b>2,091,722</b>	<b>104,500,588</b>	<b>106,592,310</b>	<b>98.0</b>	<b>9,122,208</b>	<b>71</b>	<b>1040</b>
<b>Average</b>				<b>76.4</b>			

\* Source: From NOAA data as of 31 Mar 2024

**TABLE 3**

**FLOOD DAMAGE REDUCTION  
BY STATE (THOUSANDS OF DOLLARS) Fiscal Years 2014 - 2023**

Location	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	10-Yr Avg
ALABAMA	0	0	0	0	0	0	0	0	0	0	-
ALASKA	111,000	0	27,600	0	0	0	20,710	0	0	0	15,931
ARIZONA	0	2,792	1,338	9,084	2,163	6,192	7,266	1,727	601	8,373	3,954
ARKANSAS	65,679	715,046	8,088,588	16,453,144	10,791,455	12,966,439	8,005,053	5,266,751	5,905,599	828,378	6,908,613
CALIFORNIA	33,672	52,473	3,157,982	7,477,222	442,971	6,755,081	745,397	34,615	90,075,204	1,361,631	11,013,625
COLORADO	2,191	8,860	701	44,851	57,980	4,160	0	5,799	0	202,592	32,713
CONNECTICUT	11,538	112	746	918	4,514	117,416	1,253	180,028	3,980	122,921	44,343
DELAWARE	0	0	0	0	0	0	0	0	0	0	-
FLORIDA	0	0	0	40,468	1,340	3,351	6,717	1,347	6,096	9,090	9,031
GEORGIA	140,405	32,370	83,719	40,584	44,857	212,471	161,526	38,043	71,970	118,806	94,475
GUAM & AMERICAN SAMOA	0	0	0	0	0	0	0	0	0	130	13
HAWAII	3,300	3,129	1,205	3,944	24,637	19,737	33,714	31,832	29,912	32,487	29,380
IDAHO	110,135	35,978	154,121	892,365	134,176	303,899	130,283	36,542	159,561	595,595	255,266
ILLINOIS	1,061,436	2,820,287	4,885,738	5,642,769	455,241	16,466,733	1,665,994	825,572	495,426	604,260	3,492,346
INDIANA	116,279	227,968	157,838	213,721	376,813	283,558	213,992	217,076	185,094	149,269	232,200
IOWA	811,783	261,613	324,382	100,403	1,021,971	2,114,732	111,605	13,929	114,014	519,914	539,435
KANSAS	17,616	247,163	607,544	319,988	42,403	2,097,524	203,569	438,123	261,699	7,658	424,329
KENTUCKY	67,585	350,231	232,904	97,798	440,552	530,167	284,321	1,528,633	396,558	369,796	677,534
LOUISIANA	462,484	590,684	118,378,989	157,506,649	174,131,060	237,474,676	189,117,761	240,088,580	118,675,387	89,667,714	132,609,398
MAINE	53	0	0	0	0	0	0	0	0	0	5
MARYLAND & DC	901	192	239,816	347	1,447	226	50	258	232	52	24,352
MASSACHUSETTS	35,960	8,805	8,238	12,834	32,993	52,661	14,651	120,390	7,257	77,916	37,171
MICHIGAN	1,187	2,640	3,215	3,981	2,732	2,690	6,236	5,267	1,278	1,482	3,071
MINNESOTA	37,043	9,040	8,312	13,177	43,312	210,116	102,345	6,613	56,556	280,107	76,662
MISSISSIPPI	180,862	573,226	16,961,025	21,016,539	19,191,789	28,244,587	20,023,292	19,046,235	1,876,086	469,091	12,758,273
MISSOURI	409,658	3,561,680	3,633,333	5,409,337	2,157,819	10,042,968	1,614,198	952,035	2,195,622	784,256	3,076,091
MONTANA	92,629	19,162	19,408	260,275	169,971	59,835	174,567	49,252	360,476	382,771	158,835
N. CAROLINA	21,646	9,440	59,126	566,522	445,225	673,406	153,561	81,952	536,953	42,199	258,745
N. DAKOTA	274,199	92,163	24,437	163,535	485,486	1,172,199	357,387	54,986	373,891	398,147	339,643
NEBRASKA	363,799	261,683	54,107	40,547	594,669	1,303,840	73,520	43,863	83,429	230,796	305,025

**TABLE 3**

**FLOOD DAMAGE REDUCTION  
BY STATE (THOUSANDS OF DOLLARS) Fiscal Years 2014 - 2023**

Location	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	10-Yr Avg
NEVADA	0	0	0	0	0	4491	0	0	0	2470	696
NEW HAMPSHIRE	3,981	0	0	0	13884	9,319	206	8224	679	17843	5,414
NEW JERSEY	140,215	77,868	65,874	124,973	78,526	87,338	54,650	191,153	48,264	45,992	94,318
NEW MEXICO	47,869	10,231	10,921	2,250	47,236	13,415	2,468	141,871	80,334	129,776	48,637
NEW YORK	467,931	194,346	67,574	367,953	560,173	274,656	218,712	1,329,384	702,137	620,414	480,328
OHIO	491,214	424,591	135,536	354,796	1,887,595	875,756	564,560	722,030	2,485,220	102,276	804,357
OKLAHOMA	10,270	490,375	624,410	178,599	312,573	4,815,773	915,538	518,515	334,497	115,998	831,655
OREGON	948,725	1,869,666	782,400	1,597,625	1,948,572	2,561,991	520,895	285,269	1,883,565	1,335,817	1,272,796
PENNSYLVANIA	50,509	48,105	13,911	80,512	4,805,262	2,213,097	8,731,530	67,174,441	183,938	29,161	8,333,047
PUERTO RICO & VIRGIN ISLANDS	78,757	0	0	0	0	0	0	0	648,000	594	84,772
RHODE ISLAND	5,861	0	0	0	7121	9,550	0	25545	284	8012	5,637
S. CAROLINA	51,268	3,263	2,899	2,959	8,413	6,705	5,193	2,731	17,497	20,564	16,975
S. DAKOTA	48,041	37,521	542	1046	51,640	92,624	28,312	575	42,097	70,393	37,279
TENNESSEE	67,487	112,066	136,293	562,487	498,566	1,275,877	875,784	687,715	290,773	90,307	459,736
TEXAS	5,377,123	15,740,619	27,433,067	27,268,358	7,630,676	12,262,279	16,579,097	4,435,089	1,353,950	1,260,261	11,934,052
UTAH	10619	0	8,924	11,781	0	9395	8,253	0	11,796,000	24,245	1,186,922
VERMONT	34,200	17,821	14,227	23,563	35,101	67,468	25,969	39,095	13,112	171,287	44,184
VIRGINIA	3,527	178,635	279,019	92,419	266,960	139,165	231,475	424,246	142,542	489,902	224,789
W. VIRGINIA	49,957	251,305	185,778	22,421	700,469	320,488	282,234	1,791,662	711,355	88,543	440,421
WASHINGTON	517,105	2,213,602	3,767,389	1,790,859	2,245,253	770,016	4,508,854	778,395	5,470,408	2,474,583	2,453,646
WISCONSON	1537	67	1,175	1,315	788	4795	33,906	0	5,300	8,458	5,734
WYOMING	137,833	28,920	25,979	165,768	133,926	89,837	108,313	35,700	131,971	128,261	98,651
<b>Totals</b>	<b>12,977,069</b>	<b>31,585,738</b>	<b>190,670,330</b>	<b>248,980,686</b>	<b>232,330,310</b>	<b>347,022,699</b>	<b>256,924,917</b>	<b>347,661,088</b>	<b>248,214,804</b>	<b>104,500,588</b>	<b>202,284,489</b>

**TABLE 4**

<b>FLOOD DAMAGES SUFFERED BY STATE (THOUSANDS OF DOLLARS) Fiscal Years 2014 - 2023 *</b>											
Location	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 20120	FY 2021	FY 2022	FY 2023	10-Yr Avg
ALABAMA	34,613	1,721	7,956	3,130	1,560	1,010	1,280	3,605	550	20	5,545
ALASKA	912	15,530	143	6,005	3,280	7,000	2,387	41,155	14,677	7,175	9,826
ARIZONA	13,468	1,193	1,065	8,161	5,973	6,316	753	86,904	12,485	8,456	14,477
ARKANSAS	29,883	35,545	5,001	26,719	1,610	14,560	508	1,068	246	361	11,550
CALIFORNIA	3,144	64,273	29,394	625,953	55,580	110,043	5,050	22,464	16,641	1,013,990	194,653
COLORADO	1,773	9,590	290	1,415	3,240	993	6	157,997	902	5,966	18,217
CONNECTICUT	0	0	100	21	375	61	60	7051	0	1,740	941
DELAWARE	0	0	0	0	0	0	0	3600	0	0	360
FLORIDA	195,361	17,866	94,753	548,046	72	667	47843	37,553	1,044,664	29,760	201,659
GEORGIA	496	206	11006	348	353	5263	1,579	3,098	548	2,407	2,530
GUAM & AMERICAN SAMOA	0	0	13000	0	37	84	577	245	120	426	1,449
HAWAII	0	0	0	0	28400	0	30,600	52,800	1,200	1	11,300
IDAHO	17,778	62	0	66032	3,538	7,196	2,232	0	1,893	6,685	10,542
ILLINOIS	140,693	3,236	18,300	32,564	11,294	49,850	10,445	26,117	13,314	550,912	85,673
INDIANA	11761	2,131	2,191	5,655	11,380	1,590	793	49,424	18,967	10,849	11,474
IOWA	46,220	30,537	28,995	3,932	18,435	211,541	1,666	10,250	615	2,115	35,431
KANSAS	547	6,886	4,552	7,276	18,180	8,522	217	2,003	1,286	206	4,968
KENTUCKY	5,716	11,691	5,159	6,813	9,259	4,563	19,257	409,972	1,768	6,650	48,085
LOUISIANA	1,733	15,498	9,198,402	93,092	779	31,000	386	502929	275	138	984,423
MAINE	1994	609	600	280	2900	0	292	978	3824	16,487	2,796
MARYLAND & DC	5,335	142	22,630	1,021	71,204	1,065	505	1,255	0	501	10,366
MASSACHUSETTS	1,003	741	175	1513	692	125	30144	811	72	1653	3,693
MICHIGAN	1,807,634	100	7,040	189,905	111,247	76,551	282,899	152,060	9,043	63,767	270,025
MINNESOTA	42,661	26	5,924	853	6,006	169,228	2,080	2	6,998	2,854	23,663
MISSISSIPPI	6,311	1,070	21,914	13,253	2,085	17,597	6,896	13,170	1,220	5,422	8,894
MISSOURI	1,013	36,166	293,945	138,247	156	28,671	451	765	145,750	20,253	66,542
MONTANA	1856	0	35	766	552	804	250	30	600	6515	1,141
N. CAROLINA	2,829	701	9,644	714,498	225,291	9,838	12,735	217,279	3,036	496	119,635
N. DAKOTA	10,833	740	465	300	603	78750	2,860	2,850	1,050	11,161	10,961
NEBRASKA	1,906	257,084	17,445	531	348	613948	3,728	4,095	30	1,406	90,052

**TABLE 4**

<b>FLOOD DAMAGES SUFFERED BY STATE (THOUSANDS OF DOLLARS) Fiscal Years 2014 - 2023 *</b>											
Location	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 20120	FY 2021	FY 2022	FY 2023	10-Yr Avg
NEVADA	11,633	2,899	444	17,289	2,260	85	43	2,099	370	44,277	8,140
NEW HAMPSHIRE	3,061	315	0	12826	4,589	2,975	235	5,519	0	187	2,971
NEW JERSEY	8,850	110	3,122	0	3,200	0	2	233,000	50	33	24,837
NEW MEXICO	4,207	6,371	3,790	10,141	3,903	404	3,260	10,347	8,055	3,462	5,394
NEW YORK	68,457	26,743	5,990	23,696	4,855	22,333	42,243	512,707	7,859	4,995	71,988
OHIO	71,149	27,044	4,626	18,532	5,961	88,844	19,098	694	9,425	14,957	26,033
OKLAHOMA	537	12,295	425	761	265	1769	250	330	2,100	295	1,903
OREGON	0	0	9769	250	35	16951	40,579	35	142	14	6,778
PENNSYLVANIA	10,988	4,519	6,689	44,556	19,642	16,386	6,296	356,719	1,173	20,217	48,719
PUERTO RICO & VIRGIN ISLANDS	3	0	500	15021686	500	0	13335	31	373	4251	1,504,068
RHODE ISLAND	84	50	30	2	10	0	30	54	1074	0	133
S. CAROLINA	2,347	615	173,569	18,546	317	189	7048	206	887	1296	20,502
S. DAKOTA	7,966	1,241	82	4	3164	1,025,882	349	0	2,875	1,550	104,311
TENNESSEE	52,225	3,646	20,923	538	2,576	100,818	5,754	129,251	358	12,887	32,898
TEXAS	214,935	724,748	1,296,802	43,562,798	128,775	1,169,730	149,817	31,591	1,355,585	1,049	4,863,583
UTAH	5,375	1,250	5,447	19,590	1,600	20	5,390	21,965	10,269	47,710	11,862
VERMONT	3,065	2,293	712	8,640	1,075	1,977	4,035	5,265	10	144,341	17,141
VIRGINIA	556	15,536	10,644	56,788	44,052	16,928	10,282	3,070	2,470	604	16,093
W. VIRGINIA	2,483	14,810	165,654	5,217	5,219	1,347	2,485	2,397	16,350	5,912	22,187
WASHINGTON	4,291	1,181	5,389	25,632	25,690	1,458	258,870	4,681	74,078	1,645	40,292
WISCONSON	464	4,070	29,512	60,151	161,544	6,975	10,255	1,540	740	727	27,598
WYOMING	1,280	5,244	1,240	2,251	10	245	0	775	25126	2,941	3,911
<b>Totals</b>	<b>2,861,429</b>	<b>1,368,324</b>	<b>11,545,483</b>	<b>61,406,223</b>	<b>1,013,671</b>	<b>3,932,152</b>	<b>1,048,135</b>	<b>3,133,806</b>	<b>2,821,143</b>	<b>2,091,722</b>	<b>9,122,209</b>

\* Source: From NOAA data as of 31 Mar 2024.

**TABLE 5**

**TOTAL LIVES LOST  
BY STATE - Fiscal Years 2014 - 2023 \***

Location	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	10-Yr Total
ALABAMA	2	1	3	0	0	1	2	4	8	0	21
ALASKA	0	0	0	0	0	0	0	2	0	0	2
ARIZONA	2	2	0	11	2	2	8	11	2	6	46
ARKANSAS	0	3	1	5	0	4	0	0	4	1	18
CALIFORNIA	1	3	0	4	24	4	0	3	1	14	54
COLORADO	0	0	0	0	1	6	1	4	2	7	21
CONNECTICUT	0	0	0	0	0	0	0	1	0	0	1
DELAWARE	0	0	0	0	0	0	0	0	0	0	0
FLORIDA	3	0	0	3	0	0	0	0	5	0	11
GEORGIA	0	0	0	0	0	0	0	0	0	0	0
GUAM & AMERICAN SAMOA	0	0	0	0	0	0	0	0	0	0	0
HAWAII	0	1	0	2	2	0	0	0	0	1	6
IDAHO	0	0	0	0	0	0	0	0	0	0	0
ILLINOIS	1	4	12	1	0	2	2	1	1	0	24
INDIANA	5	4	1	0	1	2	6	1	2	3	25
IOWA	1	0	1	0	1	1	0	0	0	0	4
KANSAS	0	1	2	1	2	1	0	0	0	0	7
KENTUCKY	7	10	1	1	6	6	10	2	42	3	88
LOUISIANA	2	2	15	0	0	4	1	5	0	1	30
MAINE	1	0	0	0	0	0	0	0	0	0	1
MARYLAND & DC	0	1	2	0	3	0	0	1	0	0	7
MASSACHUSETTS	0	0	0	0	0	0	0	0	0	0	0
MICHIGAN	0	0	0	0	1	0	0	0	0	0	1
MINNESOTA	0	0	0	0	1	1	0	0	0	0	2
MISSISSIPPI	1	1	0	1	0	2	0	3	0	0	8
MISSOURI	1	4	21	9	1	7	5	3	4	4	59
MONTANA	0	0	0	0	0	0	0	0	0	2	2
N. CAROLINA	0	0	0	21	12	1	4	13	0	1	52
N. DAKOTA	0	0	0	0	0	2	0	0	2	1	5
NEBRASKA	1	1	0	0	0	5	0	0	0	0	7

**TABLE 5**

**TOTAL LIVES LOST  
BY STATE - Fiscal Years 2014 - 2023 \***

Location	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	10-Yr Total
NEVADA	0	0	1	1	0	0	0	0	0	3	5
NEW HAMPSHIRE	0	0	0	0	0	0	0	0	0	0	0
NEW JERSEY	0	1	0	0	0	0	0	27	0	0	28
NEW MEXICO	2	4	3	2	0	0	0	6	5	0	22
NEW YORK	0	1	0	0	0	0	1	16	0	1	19
OHIO	1	5	0	0	1	3	4	0	0	1	15
OKLAHOMA	0	14	7	1	2	9	4	0	1	2	40
OREGON	1	0	1	0	0	0	1	1	0	0	4
PENNSYLVANIA	0	0	0	0	4	3	3	5	0	9	24
PUERTO RICO & VIRGIN ISLANDS	0	0	0	1	2	0	0	0	0	1	4
RHODE ISLAND	0	0	0	0	0	0	0	0	0	0	0
S. CAROLINA	2	1	11	2	4	0	0	0	0	0	20
S. DAKOTA	1	0	0	0	0	3	0	0	1	0	5
TENNESSEE	2	0	5	0	2	4	2	28	1	0	44
TEXAS	15	35	51	70	4	20	3	6	5	1	210
UTAH	2	20	0	0	0	0	2	1	1	6	32
VERMONT	0	0	0	0	0	0	0	0	0	2	2
VIRGINIA	1	2	1	0	4	5	0	1	0	0	14
W. VIRGINIA	0	1	24	0	2	0	0	0	3	1	31
WASHINGTON	0	0	0	0	0	0	0	0	4	0	4
WISCONSON	0	0	5	0	2	3	1	0	3	0	14
WYOMING	0	0	0	1	0	0	0	0	0	0	1
<b>Totals</b>	<b>55</b>	<b>122</b>	<b>168</b>	<b>137</b>	<b>84</b>	<b>101</b>	<b>60</b>	<b>145</b>	<b>97</b>	<b>71</b>	<b>1040</b>

\* Source: From NOAA data as of 31 Mar 2024.

**TABLE 6**

<b>REGIONAL DISTRIBUTION FLOOD DAMAGES PREVENTED BY STATE (THOUSANDS OF DOLLARS) Fiscal Years 2013 - 2023</b>											
Location	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	10-Yr Avg
ALASKA	111,000	0	27,600	0	0	0	20,710	0	0	0	15,931
ARKANSAS-RED-WHITE	43,663	1,149,661	1,402,721	569,140	420,729	7,635,390	1,810,549	1,312,180	1,468,575	467,527	1,628,014
CALIFORNIA	33,672	52,473	3,157,982	7,477,222	442,971	6,755,081	745,397	34,615	90,075,204	1,361,631	11,013,625
COLORADO	0	2,792	1,338	9,084	2,163	6,192	7,266	1,727	601	8,373	3,954
COLUMBIA N PACIFIC	1,727,827	4,140,105	4,727,070	4,665,085	4,540,433	3,721,939	5,409,693	1,170,313	7,930,977	4,825,934	4,285,938
GREAT BASIN	10,619	0	8,924	11,781	0	13886	8,253	0	11,796,000	26,715	1,187,618
GREAT LAKES	410,004	208,904	145,444	454,381	743,299	713,047	775,251	586,447	651,798	522,287	521,086
GULF & S. ATLANTIC	292,981	53,843	412,142	700,438	712,576	1,009,109	529,427	182,804	1,281,081	569,686	574,409
HAWAII & GUAM	3,300	3,129	1,205	3,944	24,637	19,737	33,714	31,832	29,912	32,617	18,403
LOWER MISSISSIPPI	755,511	1,586,297	143,255,041	200,048,111	206,116,370	279,212,641	218,075,351	264,906,038	127,362,642	91,303,069	153,262,107
MID-ATLANTIC	358,862	176,682	356,003	267,566	4,826,145	2,309,821	8,891,137	68,310,602	556,804	571,325	8,662,495
MISSOURI	1,364,883	3,644,767	3,163,792	451,451	2,215,745	12,262,408	483,222	328,156	527,306	1,153,331	2,559,506
NEW ENGLAND	66,991	703	2,102	4,665	57,549	209,880	3,001	343,462	6,277	365,698	106,033
OHIO	666,207	1,407,918	613,815	659,043	3,576,054	1,875,239	1,162,784	4,479,829	3,712,543	630,954	1,878,439
RIO GRANDE	50,061	14,921	11,622	47,101	105,215	17,575	2,468	147,670	80,334	134,343	61,131
SOURIS-RED-RAINY	25,614	16,037	13,234	59,249	85,732	529,452	346,370	13,869	231,400	161,428	148,239
TENNESSEE	39,858	72,010	149,853	80,673	259,371	852,036	778,465	619,199	270,446	86,811	320,872
TEXAS AND GULF	5,376,714	15,734,289	27,423,690	27,265,636	7,599,646	12,245,240	16,557,409	4,430,782	1,352,946	1,259,438	11,924,579
UPPER MISSISSIPPI	1,639,302	3,321,207	5,796,754	6,206,116	601,675	17,634,026	1,284,449	761,564	879,960	1,019,419	3,914,447
<b>Totals</b>	<b>12,977,069</b>	<b>31,585,738</b>	<b>190,670,332</b>	<b>248,980,686</b>	<b>232,330,310</b>	<b>347,022,699</b>	<b>256,924,916</b>	<b>347,661,089</b>	<b>248,214,806</b>	<b>104,500,586</b>	<b>202,086,321</b>

**TABLE 7**

2023 ATLANTIC OCEAN TROPICAL CYCLONES AND THEIR EFFECTS *								
Name	Class	Category	Dates	Max Wind (Kt.)	Min Pressure (MB)	Damages in USA (Millions)	Lives Lost in USA	States Most Affected
Arlene	Tropical Storm		01-JUN - 03-JUN	35	998	0	0	
Bret	Tropical Storm		19-JUN - 24-JUN	60	996	0	0	
Cindy	Tropical Storm		22-JUN - 26-JUN	50	1011	0	0	
Don	Hurricane	1	14-JUL - 24-JUL	65	986	0	0	
Gert	Tropical Storm		19-AUG - 04-SEP	50	998	0	0	
Emily	Tropical Storm		20-AUG - 21-AUG	45	998	0	0	
Franklin	Hurricane	4	20-AUG - 01-SEP	130	926	0	0	
Harold	Tropical Storm		21-AUG - 23-AUG	50	995	NA	0	TX - very minor
Idalia	Hurricane	4	26-AUG - 31-AUG	115	942	3,600	12	FL, GA, SC, NC
Jose	Tropical Storm		29-AUG - 01-SEP	55	996	0	0	
Katia	Tropical Storm		01-SEP - 04-SEP	50	998	0	0	
Lee	Hurricane	5	05-SEP - 16-SEP	145	926	50	4	
Margot	Hurricane	1	07-SEP - 17-SEP	80	969	0	0	
Nigel	Hurricane	2	15-SEP - 22-SEP	85	971	0	0	
Ophelia	Tropical Storm		22-SEP - 24-SEP	60	981	450	0	NC
Philippe	Tropical Storm		23-SEP - 06-OCT	50	998	0	0	
Rina	Tropical Storm		28-SEP - 01-OCT	45	999	0	0	
Sean	Tropical Storm		11-OCT - 15-OCT	40	1105	0	0	
Tammy	Hurricane	2	18-OCT - 29-OCT	95	987	0	0	
<b>Totals</b>							<b>16</b>	
<b>Saffin-Simpson Scale for Wind Speed</b>								
Tropical Storm: 34-63 kt (39-73mph)				<b>Detailed information available at</b>				
Hurricane Cat 1: 64-82 kt (74-95 mph)				<a href="http://www.nhc.noaa.gov">http://www.nhc.noaa.gov</a>				
Hurricane Cat 2: 83-95 kt (96-110 mph)				* Source: From NOAA data as of 15 Apr 2024.				
Hurricane Cat 3: 96-113 kt (111-130 mph)								
Hurricane Cat 4: 114-135 kt (131-155 mph)								
Hurricane Cat 5: Greater than 135kt (155 mph)								