

Economic Analysis of Recreational Fishing in the Proposed GRNMS Research Area

Updated April, 24 2008



Georgia Saltwater Fishing Statistics 2006

146,000 Georgia Saltwater Anglers
1,707,000 Georgia Saltwater Fishing Days

Total Economic Impact of Saltwater Fishing in Georgia in 2006:

Total Expenditures	\$119,250,000
Total Impact – Sales	\$153,361,000
Total Impact – Income	\$63,021,000
Total Impact – Employment	1,892

Sources: American Sportfishing Association, Sportfishing in America, January 2008
US Fish and Wildlife Service, 2006 National Survey of Fishing, Hunting and Wildlife
Associated Recreation, 2006
NOAA, NMFS, Marine Angler Expenditures in the Southeast Region, 1999
NOAA, NMFS, The Economic Importance of Marine Angler Expenditures
in the United States, 2004



Methodology and Assumptions

GRNMS boat location data sources: multiple sources including aerial photography and on water DNR patrol boat records.

Boat location data spans 1999 to 2007. 1,266 boat locations identified.

Approximately 50 percent of these occurred on fishing tournament days. No difference in spatial distribution of kingfish tournament days compared with non-tournament days.

Statistical analysis of boat location data estimated a typical year of person days of fishing within GRNMS.

Assumptions for GRNMS fishing analysis:

All boats identified are fishing

Average of 4 fishers per boat

Trip expenditure profile of tournament boats provided by Georgia DNR

Trip expenditure profile of private boats provided by NMFS MRFSS

50 percent private/rental and 50 percent charter/tournament

95 percent Georgia resident and 5 percent non-resident

This analysis assumes that all economic value associated with the areas closed are lost. Any factor that could mitigate or off-set the level of impact is not addressed. The estimated impacts are thought of as “maximum potential losses” because humans have proven to be very adaptive, resilient and quite ingenious in responding to changes and rarely does society fail to at least mitigate or off-set most losses.



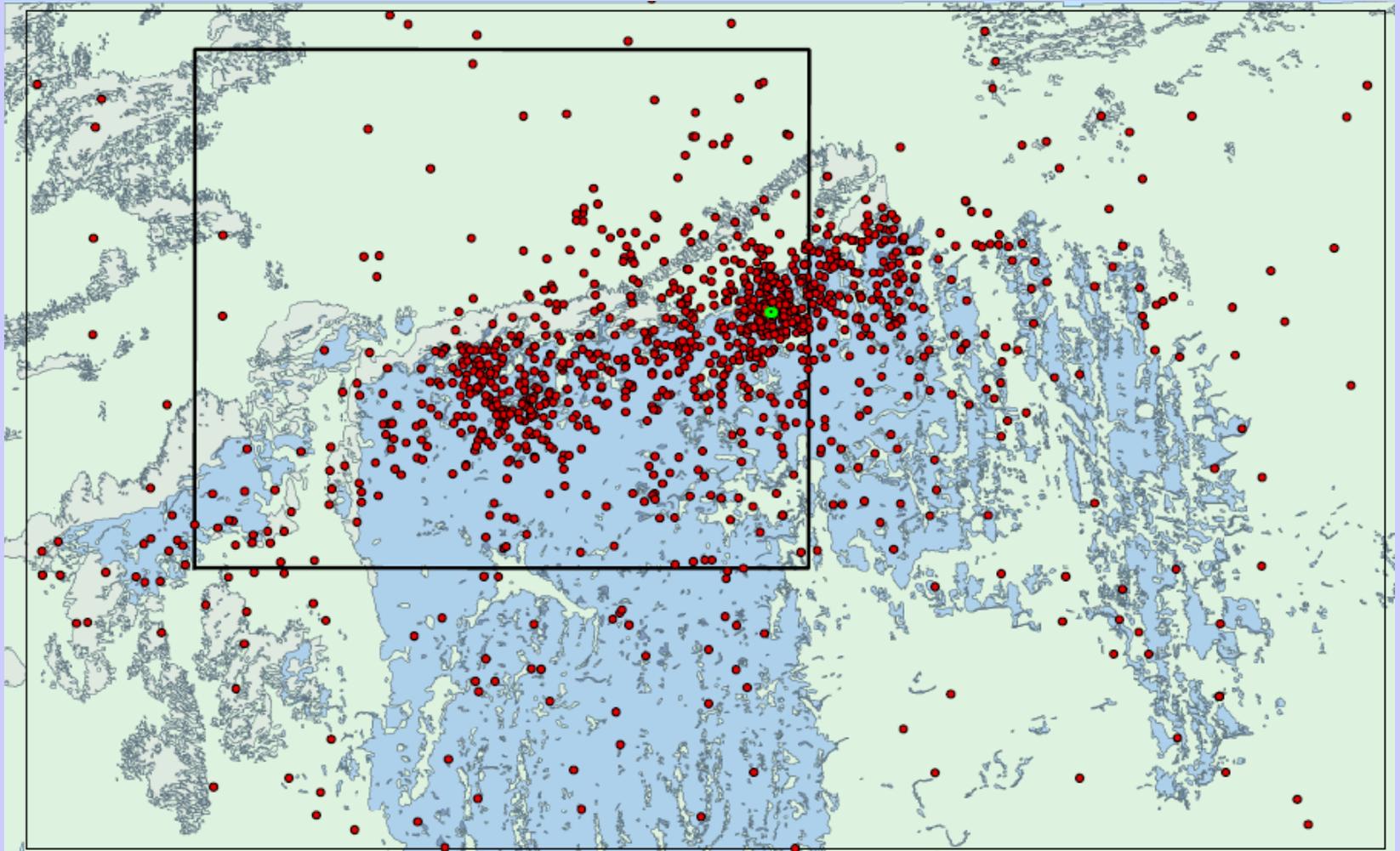
GRNMS Fishing Expenditures

4,694 person days = \$1,537,985 total fishing expenditures

GRNMS		Average Person Day Expenditures		Total Expenditures	
Trip Expenditures	Mode	Resident Spenders (\$)	Nonresident Spenders (\$)	Resident Spenders (\$)	Nonresident Spenders (\$)
Private Transportation	Tournament	13	13	28,985	1,526
	Private	7	10	15,324	1,142
Food	Tournament	6	6	13,378	704
	Private	14	35	31,862	4,135
Lodging	Tournament	100	100	222,965	11,735
	Private	301	27	670,368	3,168
Public Transportation	Tournament			-	-
	Private		41	-	4,814
Boat Fuel	Tournament	50	50		
	Private	24	23	54,103	2,686
Tournament Entry Fee	Tournament	100	100	222,965	11,735
Access/Boat Launching	Tournament	6	6	13,378	704
	Private	6	4	12,788	439
Equipment Rental	Tournament			-	-
	Private		11	-	1,306
Bait	Tournament	19	19	42,363	2,230
	Private	11	8	25,090	947
Ice	Tournament	6	6	13,378	704
	Private	2	3	5,396	318
Total	Tournament	300	300	668,895	35,205
	Private	365	162	814,931	18,954



Research Area Scenario 1



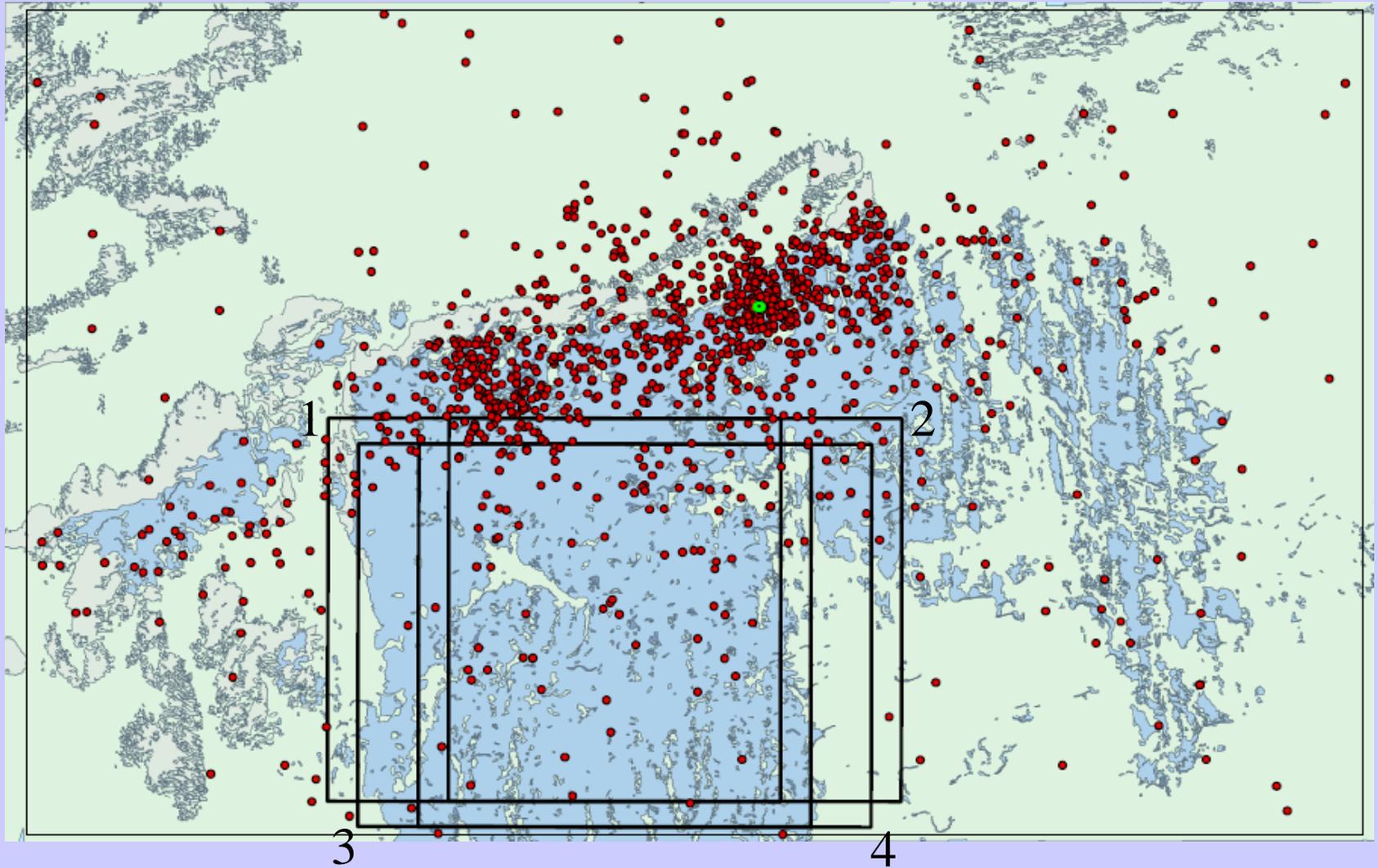
Scenario 1 Impacts to Fishing Expenditures

67.0 percent of fishing impacted = \$1,030,476

GRNMS		Expenditure Impacts Scenario 1	
Trip Expenditures	Mode	Resident Spenders (\$)	Nonresident Spenders (\$)
Private Transportation	Tournament	19,421	1,022
	Private	10,267	765
Food	Tournament	8,963	472
	Private	21,348	2,770
Lodging	Tournament	149,390	7,863
	Private	449,158	2,123
Public Transportation	Tournament	-	-
	Private	-	3,225
Boat Fuel	Tournament	-	-
	Private	36,250	1,799
Tournament Entry Fee	Tournament	149,390	7,863
Access/Boat Launching	Tournament	8,963	472
	Private	8,568	294
Equipment Rental	Tournament	-	-
	Private	-	875
Bait	Tournament	28,384	1,494
	Private	16,811	635
Ice	Tournament	8,963	472
	Private	3,615	213
Total	Tournament	448,171	23,588
	Private	546,017	12,699



Research Area Scenario 2



Scenario 2 Impacts to Fishing Expenditures

Boundary 1: 12.4 percent of fishing impacted = \$190,638

Boundary 2: 12.2 percent of fishing impacted = \$188,062

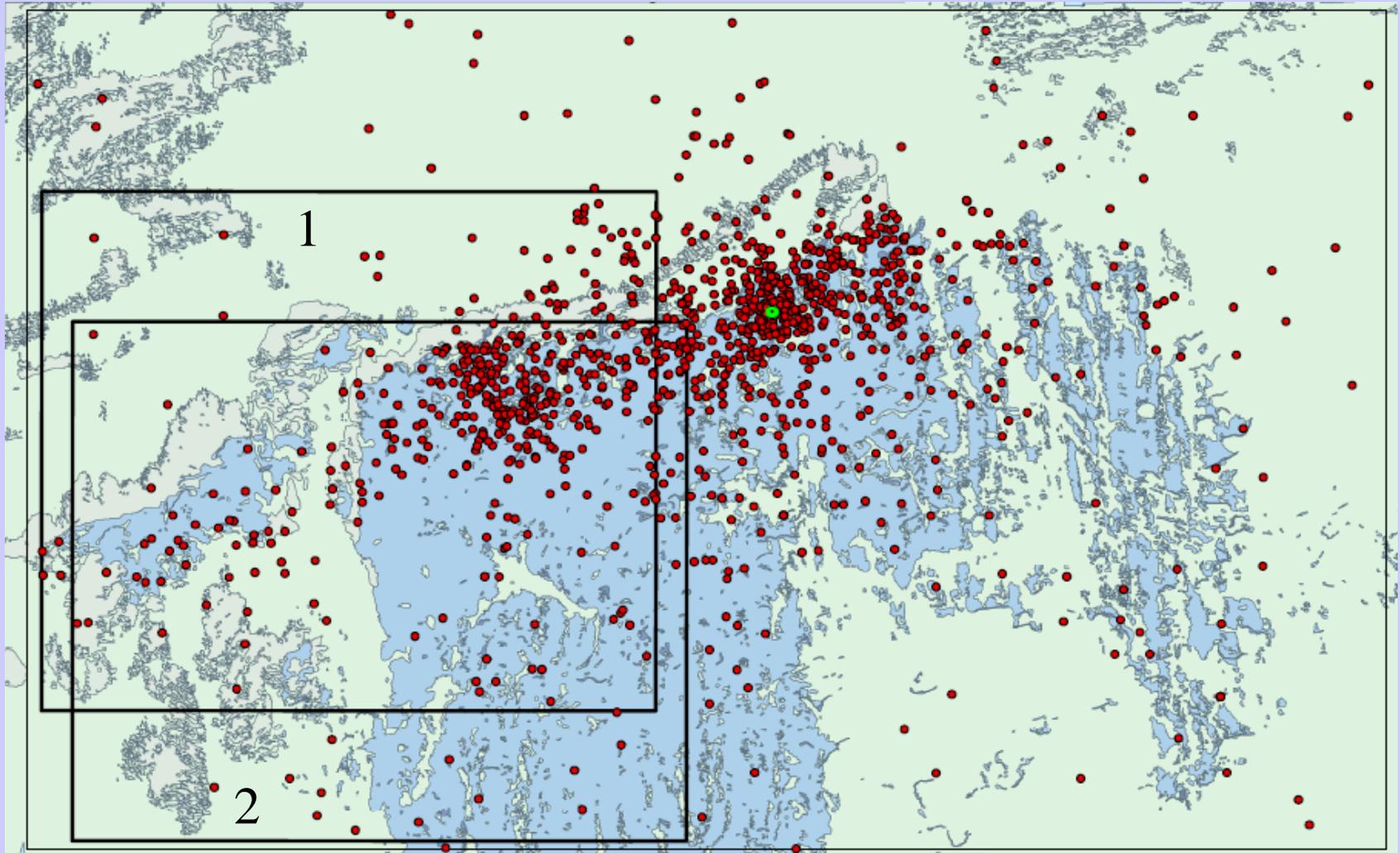
Boundary 3: 8.8 percent of fishing impacted = \$135,250

Boundary 4: 8.7 percent of fishing impacted = \$133,962

GRNMS		Expenditure Impacts Scenario 2, Boundary 1		Expenditure Impacts Scenario 2, Boundary 2		Expenditure Impacts Scenario 2, Boundary 3		Expenditure Impacts Scenario 2, Boundary 4	
Trip Expenditures	Mode	Resident Spenders (\$)	Nonresident Spenders (\$)						
Private Transportation	Tournament	3,593	189	3,544	187	2,549	134	2,525	133
	Private	1,899	142	1,874	140	1,348	100	1,335	99
Food	Tournament	1,658	87	1,636	86	1,176	62	1,165	61
	Private	3,949	513	3,896	506	2,802	364	2,775	360
Lodging	Tournament	27,637	1,455	27,264	1,435	19,607	1,032	19,421	1,022
	Private	83,094	393	81,971	387	58,952	279	58,391	276
Public Transportation	Tournament	-	-	-	-	-	-	-	-
	Private	-	597	-	589	-	423	-	419
Boat Fuel	Tournament								
	Private	6,706	333	6,616	328	4,758	236	4,712	234
Tournament Entry Fee	Tournament	27,637	1,455	27,264	1,435	19,607	1,032	19,421	1,022
Access/Boat Launching	Tournament	1,658	87	1,636	86	1,176	62	1,165	61
	Private	1,585	54	1,564	54	1,125	39	1,114	38
Equipment Rental	Tournament	-	-	-	-	-	-	-	-
	Private	-	162	-	160	-	115	-	114
Bait	Tournament	5,251	276	5,180	273	3,725	196	3,690	194
	Private	3,110	117	3,068	116	2,206	83	2,185	82
Ice	Tournament	1,658	87	1,636	86	1,176	62	1,165	61
	Private	669	39	660	39	475	28	470	28
Total	Tournament	82,912	4,364	81,791	4,305	58,822	3,096	58,262	3,066
	Private	101,013	2,349	99,648	2,318	71,665	1,667	70,982	1,651



Research Area Scenario 3



Scenario 3 Impacts to Fishing Expenditures

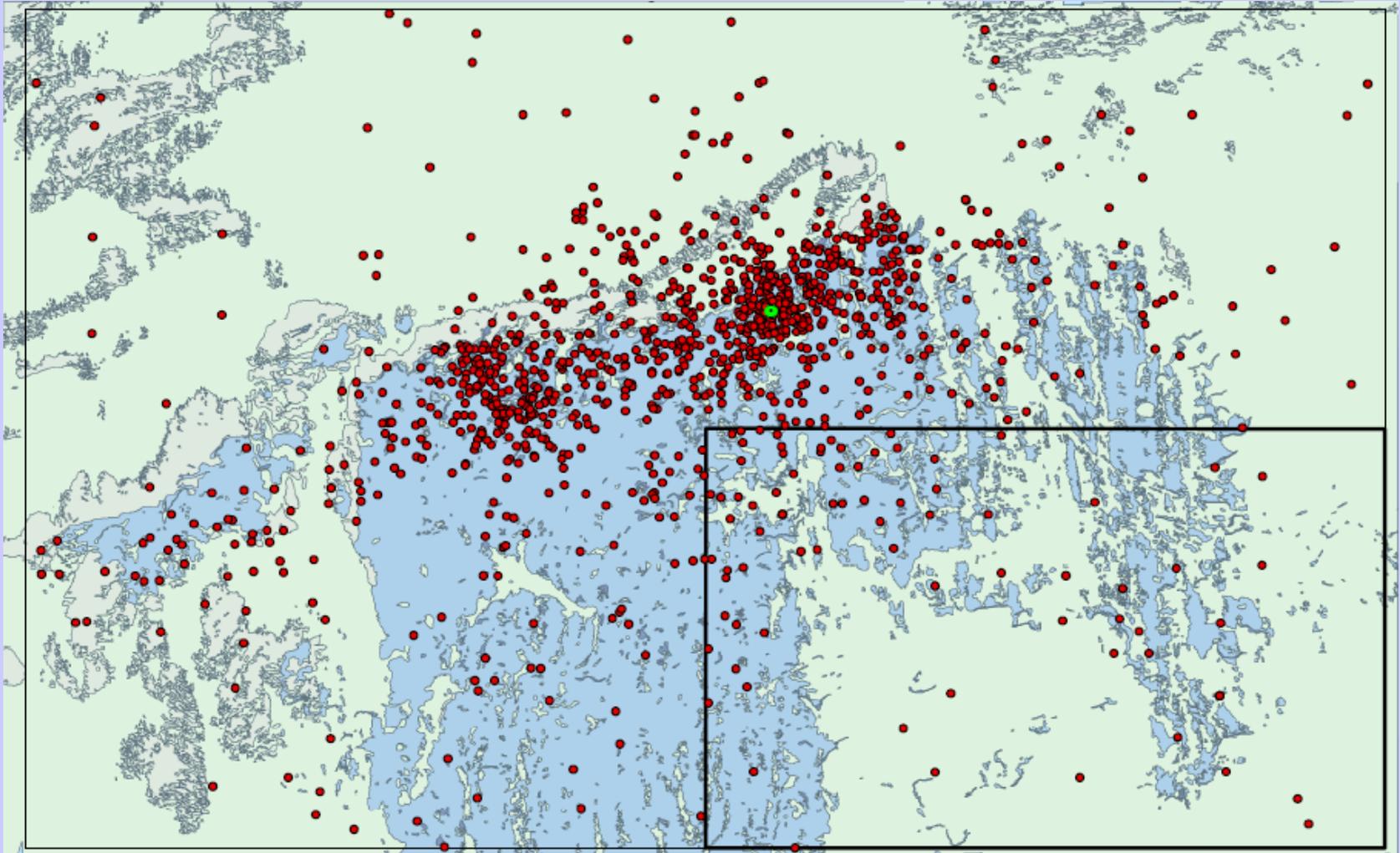
Boundary 1: 35.9 percent of fishing impacted = \$552,593

Boundary 2: 34.6 percent of fishing impacted = \$531,983

GRNMS		Expenditure Impacts Scenario 3, Boundary 1		Expenditure Impacts Scenario 3, Boundary 2	
Trip Expenditures	Mode	Resident Spenders (\$)	Nonresident Spenders (\$)	Resident Spenders (\$)	Nonresident Spenders (\$)
Private Transportation	Tournament	10,414	548	10,026	528
	Private	5,506	410	5,300	395
Food	Tournament	4,807	253	4,627	244
	Private	11,448	1,486	11,021	1,430
Lodging	Tournament	80,111	4,216	77,123	4,059
	Private	240,861	1,138	231,878	1,096
Public Transportation	Tournament	-	-	-	-
	Private	-	1,730	-	1,665
Boat Fuel	Tournament	-	-	-	-
	Private	19,439	965	18,714	929
Tournament Entry Fee	Tournament	80,111	4,216	77,123	4,059
Access/Boat Launching	Tournament	4,807	253	4,627	244
	Private	4,595	158	4,423	152
Equipment Rental	Tournament	-	-	-	-
	Private	-	469	-	452
Bait	Tournament	15,221	801	14,653	771
	Private	9,015	340	8,679	328
Ice	Tournament	4,807	253	4,627	244
	Private	1,939	114	1,866	110
Total	Tournament	240,332	12,649	231,368	12,177
	Private	292,802	6,810	281,882	6,556



Research Area Scenario 4



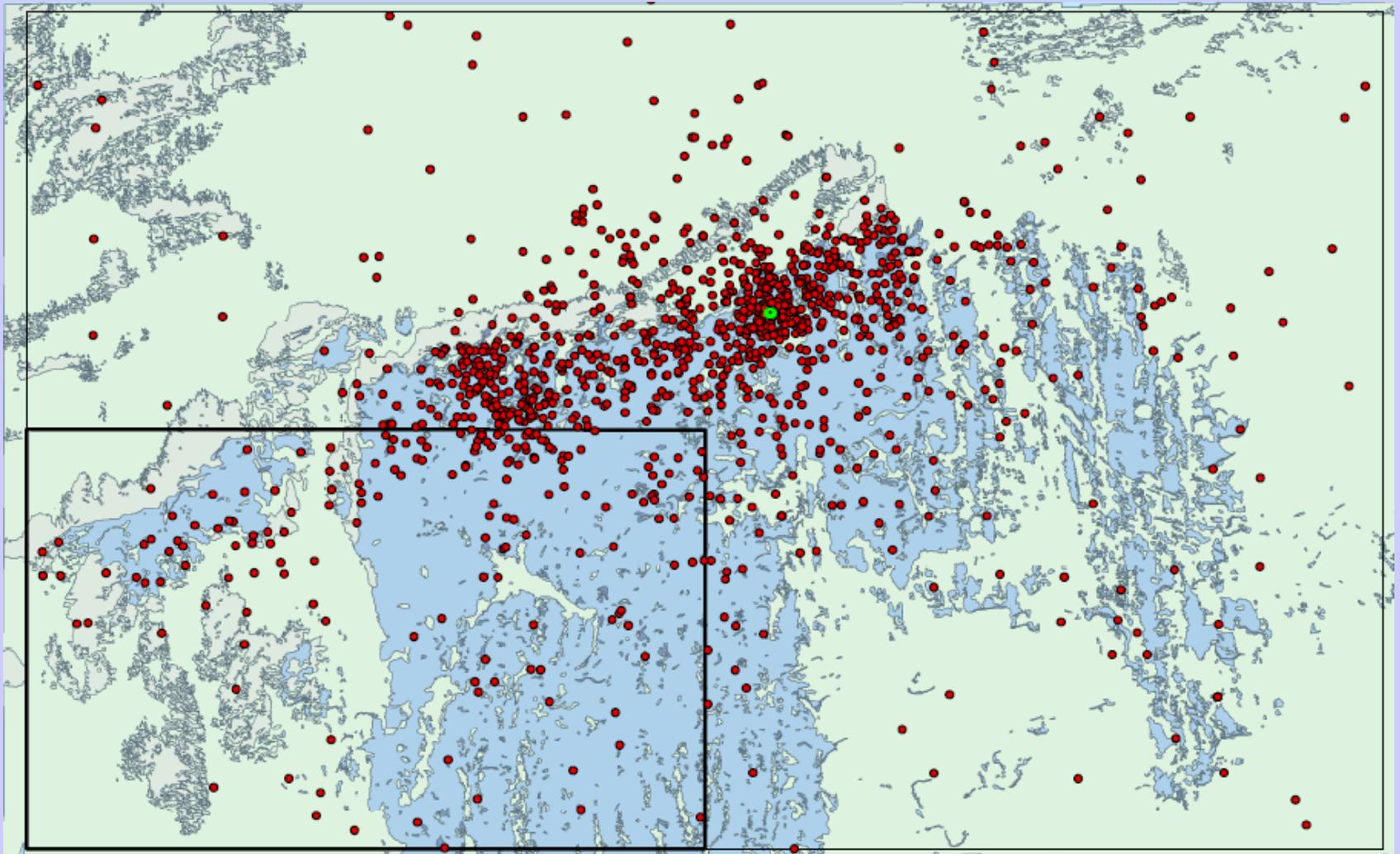
Scenario 4 Impacts to Fishing Expenditures

6.7 percent of fishing impacted = \$103,048

GRNMS		Expenditure Impacts Scenario 4	
Trip Expenditures	Mode	Resident Spenders (\$)	Nonresident Spenders (\$)
Private Transportation	Tournament	1,942	102
	Private	1,027	76
Food	Tournament	896	47
	Private	2,135	277
Lodging	Tournament	14,939	786
	Private	44,916	212
Public Transportation	Tournament	-	-
	Private	-	323
Boat Fuel	Tournament	-	-
	Private	3,625	180
Tournament Entry Fee	Tournament	14,939	786
Access/Boat Launching	Tournament	896	47
	Private	857	29
Equipment Rental	Tournament	-	-
	Private	-	88
Bait	Tournament	2,838	149
	Private	1,681	63
Ice	Tournament	896	47
	Private	362	21
Total	Tournament	44,817	2,359
	Private	54,602	1,270



Research Area Scenario 5



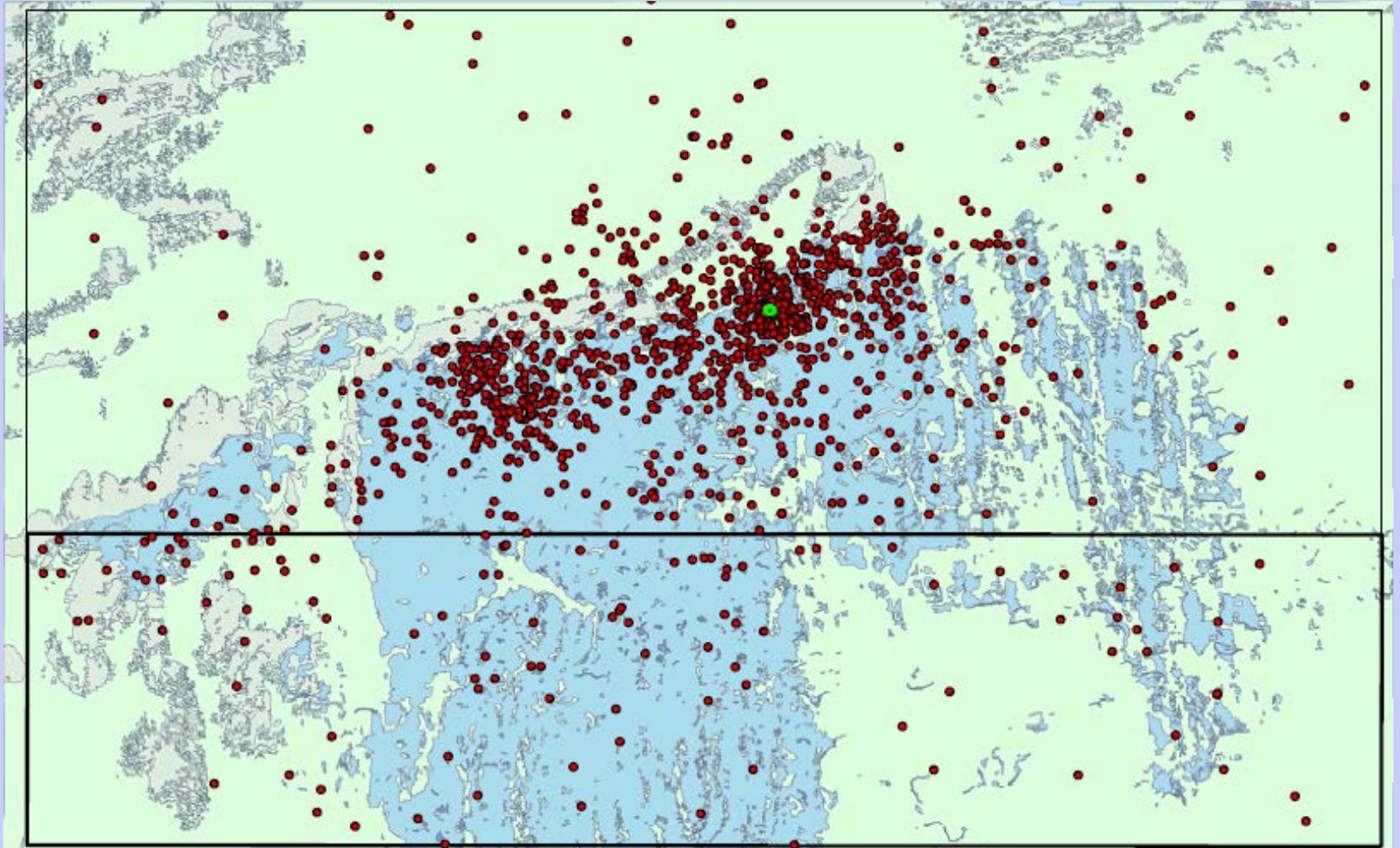
Scenario 5 Impacts to Fishing Expenditures

14.5 percent of fishing impacted = \$222,840

GRNMS		Expenditure Impacts Scenario 5	
Trip Expenditures	Mode	Resident Spenders (\$)	Nonresident Spenders (\$)
Private Transportation	Tournament	4,200	221
	Private	2,220	165
Food	Tournament	1,938	102
	Private	4,617	599
Lodging	Tournament	32,306	1,700
	Private	97,130	459
Public Transportation	Tournament	-	-
	Private	-	697
Boat Fuel	Tournament	-	-
	Private	7,839	389
Tournament Entry Fee	Tournament	32,306	1,700
Access/Boat Launching	Tournament	1,938	102
	Private	1,853	64
Equipment Rental	Tournament	-	-
	Private	-	189
Bait	Tournament	6,138	323
	Private	3,635	137
Ice	Tournament	1,938	102
	Private	782	46
Total	Tournament	96,917	5,101
	Private	118,076	2,746



Research Area Scenario “Southern Expansion”



Southern Expansion Impacts to Fishing Expenditures

9.2 percent of fishing impacted = \$141,690

GRNMS		Expenditure Impacts Southern Expansion	
Trip Expenditures	Mode	Resident Spenders (\$)	Nonresident Spenders (\$)
Private Transportation	Tournament	2,670	141
	Private	1,412	105
Food	Tournament	1,232	65
	Private	2,935	381
Lodging	Tournament	20,541	1,081
	Private	61,759	292
Public Transportation	Tournament	-	-
	Private	-	443
Boat Fuel	Tournament	-	-
	Private	4,984	247
Tournament Entry Fee	Tournament	20,541	1,081
Access/Boat Launching	Tournament	1,232	65
	Private	1,178	40
Equipment Rental	Tournament	-	-
	Private	-	120
Bait	Tournament	3,903	205
	Private	2,311	87
Ice	Tournament	1,232	65
	Private	497	29
Total	Tournament	61,623	3,243
	Private	75,077	1,746



Summary

It is estimated that the economic impact of a research area on Georgia recreational fishing may be between 0.11% (scenario 4) and 0.86% (scenario 1) of statewide saltwater fishing expenditures. This is considered to the maximum potential loss. Rarely does society fail to at least mitigate or off-set most losses.

Scenario #	Boundary #	% GRNMS Impacted	Impacted GRNMS Person Days	Impacts to GRNMS Saltwater Fishing Expenditures	% Impact to GA Person Days of Saltwater Fishing	% Impact to GA Total Saltwater Fishing Expenditures
1	1	67.0%	3,145	\$1,030,476	0.18%	0.86%
2	1	12.4%	582	\$190,638	0.03%	0.16%
2	2	12.2%	574	\$188,062	0.03%	0.16%
2	3	8.8%	413	\$135,250	0.02%	0.11%
2	4	8.7%	409	\$133,962	0.02%	0.11%
3	1	35.9%	1,687	\$552,593	0.10%	0.46%
3	2	34.6%	1,624	\$531,983	0.10%	0.45%
4	1	6.7%	315	\$103,048	0.02%	0.09%
5	1	14.5%	680	\$222,840	0.04%	0.19%
Southern Expansion		9.2%	432	\$141,690	0.03%	0.12%

