# Chatham County Mosquito Control: 2021; a year in review

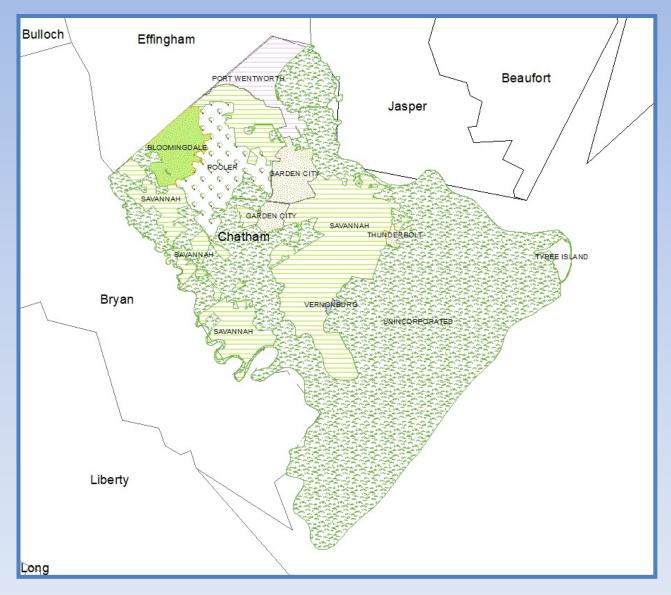


Robert A. Moulis Chatham County Mosquito Control

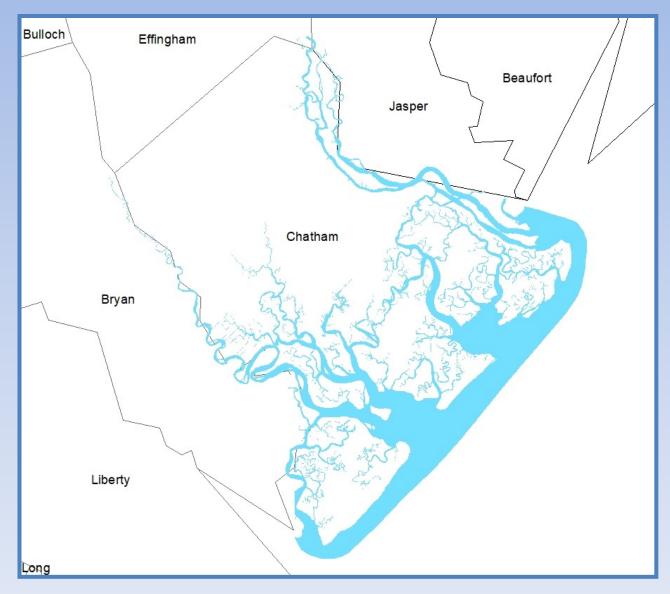
#### The county is the northern most coastal county in the state



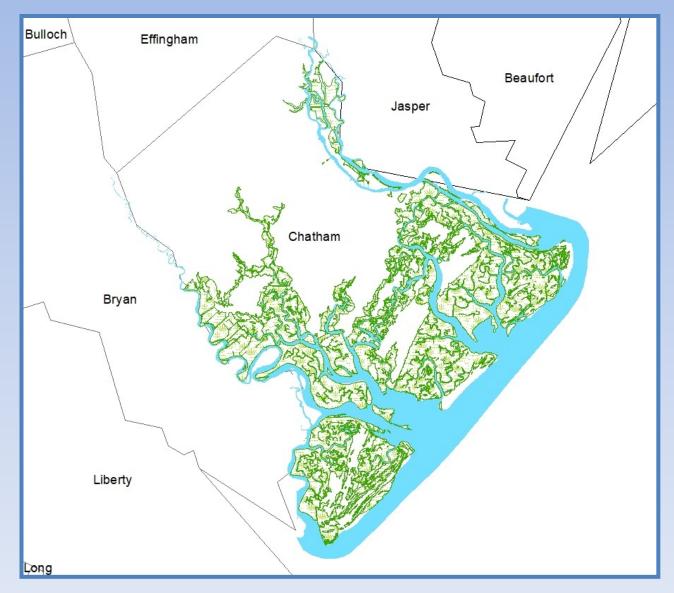
The county includes eight municipalities and a rather large unincorporated area composed of a variety of upland habitat



# The wetland habitats can be affected by tidal cycles along the coast that may extend well inland.



Much of the county's eastern portion is composed of saltmarsh habitat dominated by cordgrass, *Spartina alterniflora*.



#### Such areas display a dramatic difference between tides



### Particularly during "spring" tides, which often floods high marsh areas



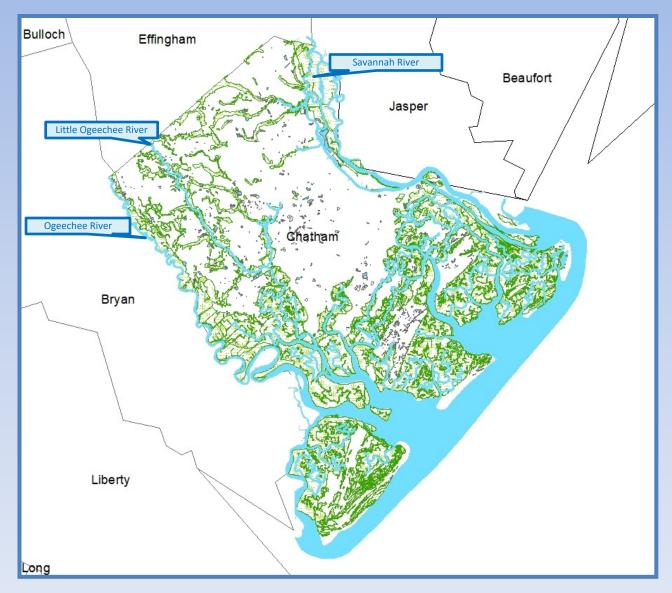
# These flooding events often cause large explosions of salt marsh mosquitoes



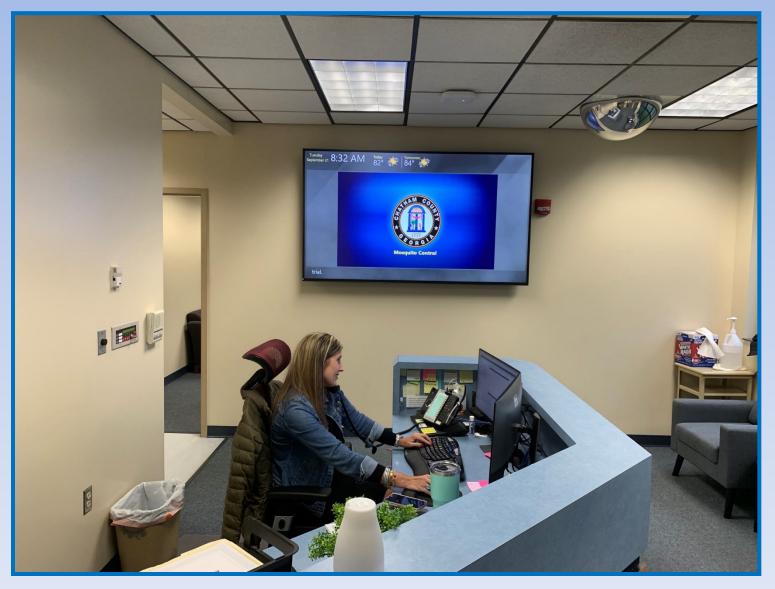
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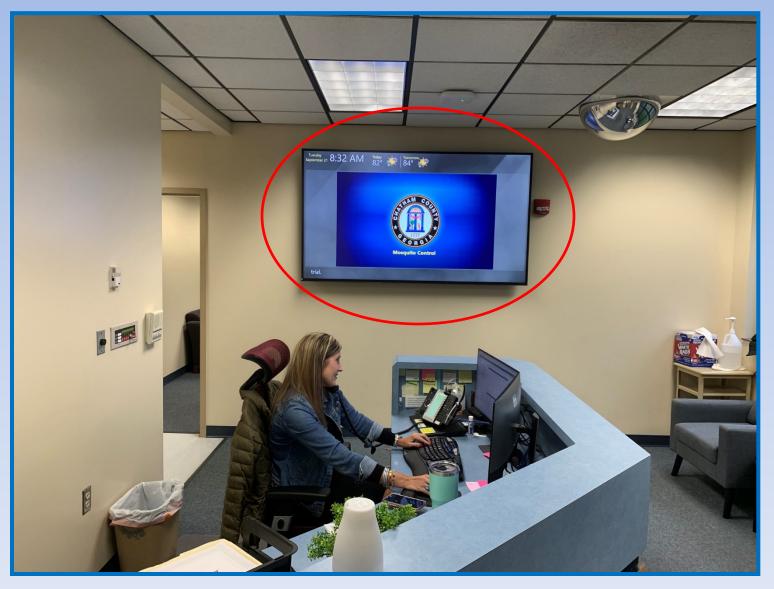
#### Inland areas of the county are drained primarily by three river systems (the Savannah, Ogeechee, and Little Ogeechee rivers)



#### The public can report a mosquito problem in a number of ways: Direct Contact



#### The public can report a mosquito problem in a number of ways: Direct Contact



#### The public can report a mosquito problem in a number of ways: On-line



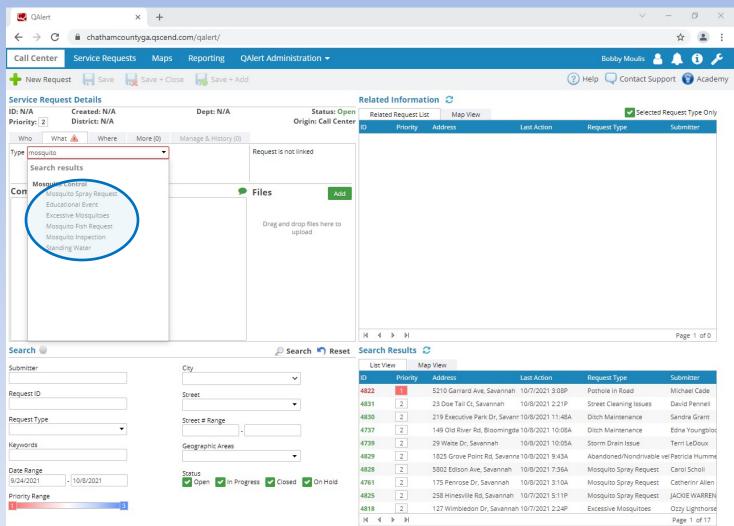
# Requests for service can also be placed on-line

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Submitter	City		List View		ap View			
Submitter	City	~	ID	Priority	Address	Last Action	Request Type	Submitter
Request ID	Street		4625	2	1 Al Henderson Dr, Savannal	n 9/21/2021 8:58A	Canal maintenance	PEARL STRAW
		•	4624	2	529 Quarterman Dr, Savanna	al 9/21/2021 8:31A	Ditch Maintenance	David Scogin
Request Type	Street # Range		4623	2	160 Lansing Ave, Savannah	9/21/2021 8:25A	Drainage problems	Trent Broxton
	-		4622	2	1 Diana Dr, Savannah	9/21/2021 8:18A	Drainage problems	Wallace Milling
Keywords	Geographic Areas		4580	2	182 Mills Run Dr, Savannah	9/21/2021 7:34A	Ditch Maintenance	Lavon Shuman
		•	4583	2	Savannah	9/20/2021 3:20P	Road Sign Repair	Jennifer Rachlin
Date Range	Status		4531	2	132 Blue Gill Ln, Pooler	9/20/2021 2:28P	Flooding Concerns - Draina	ag Sonja Walton
9/7/2021 - 9/21/2021	🔽 Open 🔽 In Progress 🔽 Cli	osed 🔽 On Hold	4553	2	2 Brandle Cove, Savannah	9/20/2021 2:26P	Ditch Maintenance	Thurnell Griffen
Priority Range			4559	2	Grove Point Rd, Savannah	9/20/2021 2:24P	Drainage problems	Keith Glover
1 3			4574	2	1 Brighton Way, Savannah	9/20/2021 2:21P	Canal maintenance	Frankie Sowell
				> >				Page 1 of 10
			* - Master S	ervice Requ	uest with linked Service Reques	3		

#### "QAlert" allows all sorts of problems to be reported, those of a mosquitonature are filtered to Mosquito Control

QAlert	×	+						0	- 0 ×
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Call Center Servio	ce Requests	Maps	Reporting	QAlert Administration 👻				Bobby Moulis 🔒	🐥 🛈 🎤
🕂 Add 🥖 Edit	🗙 Delete 🛛 🧺	Print					? Help	Contact Supp	ort 💡 Academy
Views	Request Typ	pes	Search Ope	n and In Progress	- Q			C Ref	fresh 💡 Map
My Service Request	s		ID	Request Type	Address	Create Date	Last Action	Submitter	Priority
Requests routed to me			603	Speeding	22 Rose Ave Savannah	7/2/2020 11:04a	9/21/2021 9:50a	JOE WILSON	2
Open and In Progre			4626	Street Cleaning Issues	15 Island Dr Savannah	9/21/2021 9:49a	9/21/2021 9:50a	Rebel Jackson	2
Escalating Soon Requests that will escalate	in the next 7 days		4619	Mosquito Spray Request	2125 Iowa St Savannah	9/17/2021 5:59p	9/21/2021 9:42a	Josh Walters	2
Closed All closed requests On Hold All on hold requests + Add View		4625	Canal maintenance	1 Al Henderson Dr Savannah	9/21/2021 8:58a	9/21/2021 8:58a	PEARL STRAW	2	
		4624	Ditch Maintenance	529 Quarterman Dr Savannah	9/21/2021 8:31a	9/21/2021 8:31a	David Scogin	2	
			4623	Drainage problems	160 Lansing Ave Savannah	9/21/2021 8:24a	9/21/2021 8:25a	Trent Broxton	2
Create a new view from a :	Create a new view from a search		4622	Drainage problems	1 Diana Dr Savannah	9/21/2021 8:18a	9/21/2021 8:18a	Wallace Milling	2
			4467	Roadside Maintenance	5 Possum Point Savannah	8/30/2021 1:10p	9/21/2021 8:16a	Ray Marchant	2
			4469	Roadside Maintenance	298 Cushing Dr Savannah	8/30/2021 1:17p	9/21/2021 8:16a	Claud Shore	2
			4416	Cut Overgrown Grass/Weeds/Trees	5915 Acl Blvd Savannah	8/24/2021 10:56a	9/21/2021 8:06a	James Sheuman	2
			4461	Cut Overgrown Grass/Weeds/Trees	7301 Tropical Way Savannah	8/30/2021 8:58a	9/21/2021 8:06a	Ginger Paul	2
		4580	Ditch Maintenance	182 Mills Run Dr Savannah	9/13/2021 2:28p	<b>9/21/2021</b> 7:34a	Lavon Shuman	2	
			4583	Road Sign Repair	Savannah	9/13/2021 3:09p	9/20/2021 3:20p	Jennifer Rachlin	2
			4531	Flooding Concerns - Drainage Problem	132 Blue Gill Ln Pooler	<b>9/7/2021</b> 1:27p	9/20/2021 2:28p	Sonja Walton	2
			163 requests for	ind					<b>*</b>

#### Several options are available for Mosquito Control



\* - Master Service Request with linked Service Requests

Chatham County transitioned to a new notification system which gives interested citizens information of pending aerial sprays



WHY RAVE? SOLUTIONS \* RESOURCES \*

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GET A DEMO

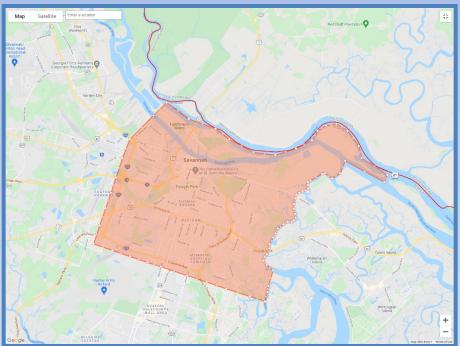


Rave Alert is the leading **FedRAMP-authorized** mass notification system enabling governments, organizations, institutions and schools to quickly and reliably send messages, including desktop notifications, in just three clicks.

VIEW DEMO »

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Individuals are geocoded into the system based on their home address, and receive notifications by phone, text, or email





### New automatic storm shutters were installed on the Admin building



#### New automatic storm shutters were installed on the Admin building



#### Source reduction projects continue along the Savannah River



# UTV treating roadside ditch for larvae



# ULV ground treatments are conducted on a limited basis



### A majority of the adult mosquito treatments we conduct are by air



A second "sand hog" used to load helicopters remotely was put into service during 2021



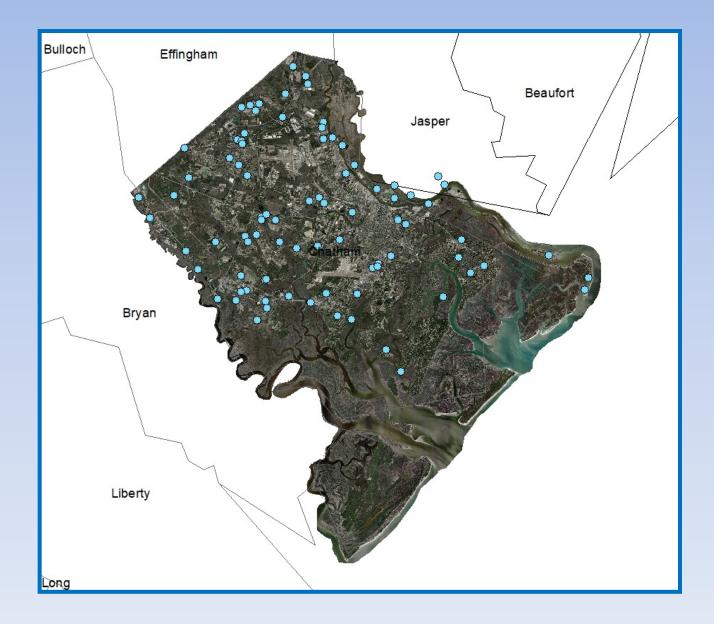
### West Nile virus (WNV) was recorded from three samples in Chatham County

YEAR	Adult mosquitoes trapped	Positive Pools	Total Acreage larvicided	Total Acreage Adulticided	Percent by air	Percent by ground
2016	298798	0	8236	1256417	98.84%	1.27%
2017	283026	93	8880	1114124	98.39%	1.61%
2018	229974	148	3154	1396017	99.04%	0.96%
2019	284920	192	2950	806382	97.91%	2.09%
2020	266631	11	7430	648102	97.86%	2.14%
2021	219484	3	7513	566199	97.68%	2.32%

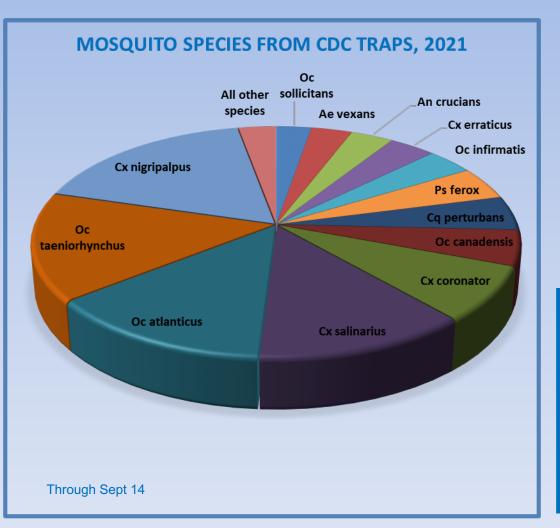
# Surveillance traps continue to provide valuable information on adult mosquito populations



#### CDC trap locations in Chatham County



#### CDC trap numbers (x=65,576) for Chatham County in 2021







Gravid traps provide information on *Culex* mosquitoes, particularly *Culex quinquefasciatus*, our primary West Nile virus vector.

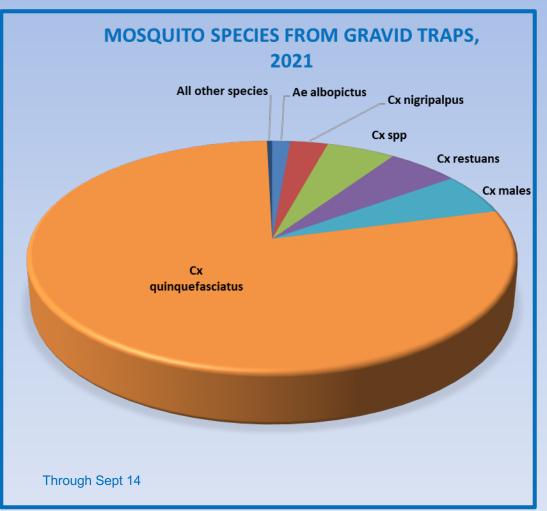




#### Gravid trap locations in Chatham County



#### Gravid trap numbers (x=155,220) for Chatham County in 2021





Our sentinel chicken program places a bird overnight in an elevated container, the color of the container alternates between white and black





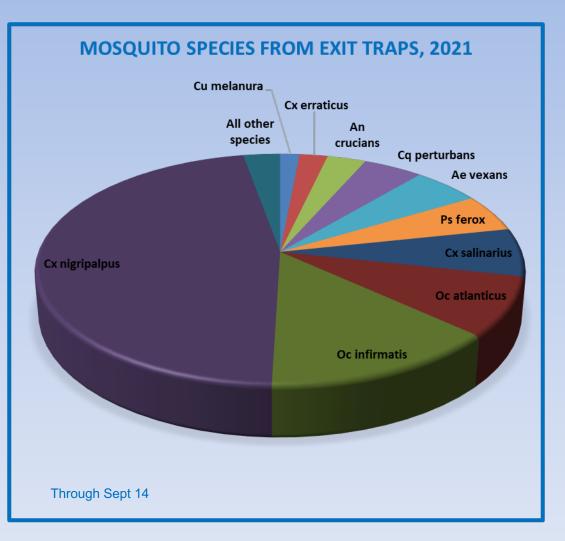
Exit traps attached to the tops of the sentinel cages provide information concerning which species feed upon the sentinels, and also supplement mosquito species available for testing.



#### Exit trap/sentinel chicken sites in Chatham County



#### Exit trap numbers (x=743) for Chatham County in 2021







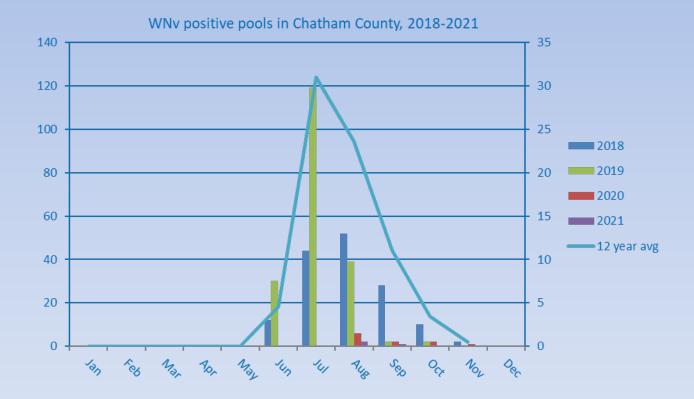
### In 2021, West Nile virus (WNV) was recorded from one site in Chatham County



In 2021, West Nile virus (WNV) was recorded from three samples in Chatham County

DATE	ID	Species of mosquito involved	Number of Mosquitoes in sample	MIR
8/18/21	CHC-21-1925	Culex quinquefasciatus	25	2.59
8/18/21	CHC-21-1944	Culex quinquefasciatus	25	2.59
9/8/21	CHC-21-2387	Culex quinquefasciatus	25	3.39

2021 marked the second consecutive year of a decline in positive pools



#### West Nile virus (WNV) was recorded from three samples in Chatham County

YEAR	Total Mosquitoes Pooled	Total Pools	Positive Pools	Overall MIR
2001	1459	137	0	0.00
2002	11308	669	9	0.80
2003	28961	2142	67	2.31
2004	40235	4144	39	0.97
2005	62288	6260	0	0.00
2006	26335	2078	0	0.00
2007	58005	2981	36	0.62
2008	53882	3042	0	0.00
2009	20961	1010	0	0.00
2010	41111	2123	0	0.00
2011	66368	4257	214	3.22
2012	50328	3513	38	0.76
2013	79524	5327	108	1.36
2014	59337	2779	7	0.12
2015	41543	1987	1	0.02
2016	53005	2772	0	0.00
2017	46163	2710	93	2.01
2018	30926	1530	148	2.49
2019	50408	2590	192	3.81
2020	65884	3320	11	0.17
2021	57157	2547	3	0.05

Thank You



**Questions?**