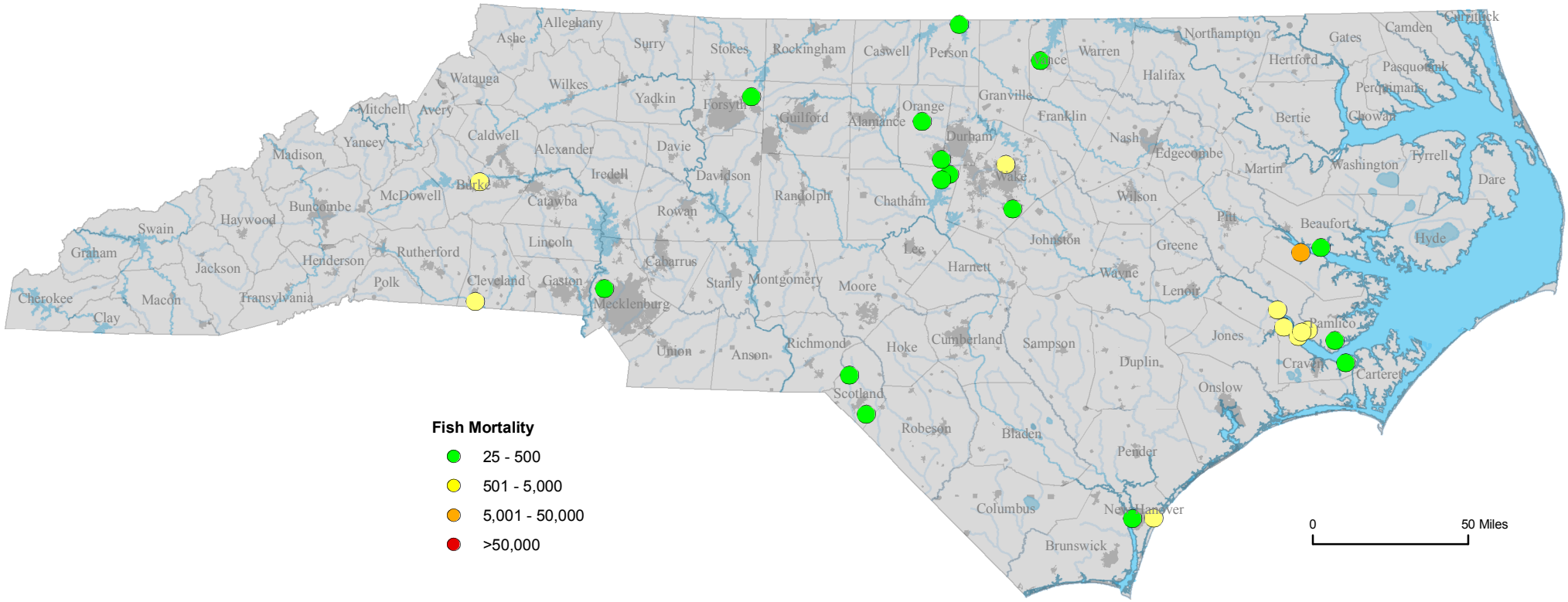
Fish Kill Events Reported to the North Carolina Division of Water Quality - 2006



2006 Fish Kill Events (by County)

Total 2006 Fish Kills: 25

Total 2006 Fish Mortality: 35395

Date	Kill Number	Waterbody	Location	Mortality	Comments
Beaufort					
7/19/2006	WA06005	Duck Creek	near Bath	210	The kill involved about 100 silver perch about 3-6 inches in length and 10 catfish from 5-9" long. Dissolved Oxygen at midday was above 130% saturation, and the pH was 7.6 suggesting an algal bloom was present. Water temperature was about 91degrees F. Algal samples were collected and forwarded to DWQ/ESS. The fish were fresh and likely died the previous night or early morning. No lesions were observed. ESS staff identified a dense bloom of the filamentous bluegreen alga Pseudanabaena (previously identified as Ocscillatoria limnetica). This is a harmless alga which frequently blooms in the state's coastal rivers during summer.
8/2/2006	WA06003	Pamlico River	Blounts Bay	13220	A citizen reported the kill at about 9:30am. It was a multi-species kill made up primarily of juvenille spot and croaker about 3-4" in length. Investigators also saw Blue Crab and Menhaden. They estimated over 13,000 dead fish over about a 1/2 mile section of shoreline near the mouth of Blounts Creek in Western Blounts Bay. This included about 11,000 spot and over 1,000 croaker. The fish appeared to be less than 24 hours old. Measurements from the real time monitoring platform at marker number 5 (a few miles downstream) revealed a sudden drop in dissolved oxygen the previous night between midnight and 3:AM. Water quality measurements during the investigation indicated dissolved oxygen had rebounded in the area and fish ceased to die. The recent heat and calm weather resulted in threatening conditions for fish in the area. Surface water temperatures approaching and exceeding 90 degrees Farenheit were measured. The deeper waters throughout the river were reported as hypoxic.
					Total Kills for County: 2 **Total Mortality for County: 13430**
Burke					
2/2/2006	AS06001	Hunting Creek	near Morganton	1000	The event was the result of an explosion and fire at the Synthron chemical manufacturing facility in Morganton NC and was investigated by both Catawba River Keeper Foundation and NCWRC staff. The fish kill began at site of Synthron explosion (intersection of Kirksey and Amherst Roads) downstream to the confluence of Hunting Creek and Catawba River. The Catawba Riverkeeper Foundation estimated over 1,000 fish were killed in approximately 2 miles of Hunting Creek. Catawba Foundation observed large fish , some as long as 14 inches during the assessment. They identified dead creek chubs, suckers, and sunfish species. On February 2, NCWRC staff examined Hunting Creek to determine the extent of the fish kill and the feasibility of executing a formal investigation. NCWRC staff were able to inspect two sites along the approximately 3-km reach of the fish kill . NCWRC staff walked the stream bank which consisted of approximately 775 m of stream below the input source (Synthron, Inc). Evaluation of this reach resulted in the visual location of approximately 130 dead sucker species; no live fish were observed within this reach. NCWRC staff also visually examined the confluence of Hunting Creek and Catawba River. No dead or moribund fish were observed, but one live fish (unidentified species) was observed surfacing approximately 70 m below the culvert on Hunting Creek. NCWRC staff were forced to halt further examination due to the development of physical ailments (headache and nausea) that were probably caused by exposure to fumes from ongoing chemical fires at the Synthron facility.
					Total Kills for County: 1 **Total Mortality for County: 1000**

Date	Kill Number	Waterbody	Location	Mortality	Comments
Chatham					
3/20/2006	RA06001	Jordan Lake	New Hope Creek Arm	50	Samples examined by ESS staff showed phytoplankton density at 45,000 units/ml which is considered a severe bloom (>30,000 units/ml). The assemblage was diverse and comprised of blue greens, greens, diatoms, and cryptomonads. The dominant taxon (>30% of total density) was the filamentous blue green Pseudanabaena at 17,000 units/ml. RRO staff received reports of more dead fish at Farrington Point on the same arm. Fisherman reported crappie piping for air.
3/25/2006	RA06002	Jordan Lake	Farrington Point	60	Surface water readings taken at Farrington Point boat ramp showed high dissolved oxygen and ph. Fisheman stated seeing ~ 200 other fish washed up on rip rap area that was not accessible by foot. They stated they were primarily catfish with a few crappie. Water appeared to have greenish brown color and very thick.
					Total Kills for County: 2 Total Mortality for County: 110
Cleveland					
8/4/2006	MO06001	Broad River	NC 150 S. of Boiling Springs	700	Fish began dying on 8/2/06 High water temperatures recorded at time of investigation. Dissolved oxygen levels within acceptable range. Investigators suspected heat stress as cause for event.
					Total Kills for County: 1 Total Mortality for County: 700
Craven					
3/23/2006	WA06001	Batchelor Creek	near Bellair	700	The kill was approximately 2 days old and extended for 1.8 miles. It affected menhaden from 6-10 inches in length and no lesions were observed. Physical water quality data showed no obvious reason for the event. Cause unknown.
6/7/2006	WA06002	Pembroke Lake	New Bern	3850	Investigators suspected an algal bloom as a factor in kill event. ESS staff examined water samples and identified a bloom of euglenoid algae and diatoms. Green cloudy water and a dissolved oxygen level of < 2mg/L was observed during the investigation.
8/2/2006	WA06004	Neuse River	Johnson Point	5000	The Neuse River Response Team investigated a fish kill in the Neuse River n the Johnson Pt. area along the south side of the river. The fish kill was reported by a local resident. The kill involved primarily silver perch, and other species including croaker, menhaden, flounder, blue crab, and spot. Most of the fish observed were juvenile from 3-8" in length, had no lesions, and appeared to be 24 hours old. The fish kill covered approximately 2 miles of shoreline from Johnson Pt. downstream and included approximately 5000 fish. The event coincided with a drop in dissolved oxygen levels measured at Channel Marker 11 located 3.5 miles downstream. Real-time monitoring equipment recorded hypoxic (less than 1.0 mg/L) conditions near the area for almost 4 hours on the morning of 8/2/06.
10/24/2006	WA06007	Upper Broad Creek		502	The reporting source contacted NRRT to report a multi species fish kill in Broad Creek. They noted that fish were gulping at the surface on 10-23-06. Cause was not determined. Additional decomposed fish reported in Fairfield Harbor on 11/1/06. Investigators suspected Fairfield Harbor fish originated from this event and WA06008.
10/25/2006	WA06008	Northwest Creek		4720	While NRRT members were responding to a fish kill in Broad Creek, a citizen reported a similar event occuring in neighboring, Northwest Creek. Upon investigation the following morning, team members found dead fish the entire stretch of the creek (2.17 miles) and estimated a total of 726 fish that included multiple species. Additional decomposed fish reported in Fairfield Harbor on 11/1/06. Investigators suspected Fairfield Harbor fish originated from this event and WA06007.

Date	Kill Number	Waterbody	Location	Mortality	Comments
11/9/2006	WA06009	Long Creek	near Batchelor	50	The Neuse River Response Team investigated a fish kill in Long Creek after a call from a resident from the area. Long Creek is located 1.5 miles east of Clubfoot Creek off the Neuse River. Approximately 50 Atlantic Menhaden were found along the eastern shoreline of the creek. The fish were 8-9 inches in length and had no lesions. They appeared to be 3-4 days old, and had what appeared to be net marks on them. Water quality measurements did not indicate anything unusual at the time of investigation, and healthy fish were observed swimming in the area. No exact cause could be determined due to the age of the fish, although bycatch is the most likely culprit.
					Total Kills for County: 6 **Total Mortality for County: 14822**
Forsyth					
5/9/2006	WS06001	Spurgeon Creek	Unamed Tributary	200	Investigators suspected pond turnover. Rain and wind observed before event. No obvious contamination at the site or upstream during investigation.
					Total Kills for County: 1 **Total Mortality for County: 200**
Mecklenburg					
11/29/2006	MO06002	Paw Creek	Charlotte	180	Fish kill due to gasoline release from the BP Delivery Line (7401 Old Mt. Holly Rd) owned by Plantation Pipeline in Paw Creek, Mecklenburg County. State Incident No. 200604155, EPA Incident # 819250. A site investigation was conducted along the impacted stream segment on 11/29/2006 and 12/4/2006 by CH2MHill consultants.
					Total Kills for County: 1 **Total Mortality for County: 180**
New Hanover					
2/10/2006	WL06002	Greenfield Lake	Wilmington	200	Die-off of shad suspected as a result of low water temperatures or "winter kill". Water temperatures around the time of the investigation were recorded near 40 degrees F. No visible health problem seen on fish.
9/8/2006	WL06001	Bradley Creek	Airlee Gardens	900	Investigators observe fish from various size ranges. Suspected runoff from Hurricane Ernesto rains caused low dissolved oxygen and subsequent fish kill.
					Total Kills for County: 2 **Total Mortality for County: 1100**
Orange					
4/7/2006	RA06003	Eno River	Lake Ben Johnson dam	32	Investigators observed a layer of scum impounded by some fallen trees (immediately upstream of the dam). Investigators suspected kill occurred in the impoundment and later flowed into the river. Because the kill was reported late, no samples were taken.
8/3/2006	RA06006	Morgan Creek	Chapel Hill	60	Plant bypass occurred putting 450,000 gallons of primary treated wastewater into Morgan Creek. Water samples were taken by OWASA staff.
					Total Kills for County: 2 **Total Mortality for County: 92**
Pamlico					
7/9/2006	WA06006	Dawson Creek	near Janeiro	51	NRRT & PRRT team members responded to a fish kill in Dawson Creek. The kill was approximately 2-3 days old and extended for .725 miles . It affectected gizzard shad of 254-304 mm in length and no lesions were observed. Physical water quality data showed no obvious reason for the event. Cause of event is unknown to due to the old age of the fish. An oily surface film was observed at the same time.

Date	Kill Number	Waterbody	Location	Mortality	Comments
					Total Kills for County: 1 Total Mortality for County: 51
Person					
6/15/2006	RA06007	Bowes Branch	Fire pond at La. Pacific Corporation	340	The La. Pacific Corporation plant near Roxboro experienced a serious fire within the production facility. A subsequent fish kill occurred in the company's fire pond. During the fire, large quantities of water were pulled from the pond to spray on the fire. Runoff was at times about 3 to 4" deep running from the building to the stormwater system, thereby returning to the pond. The fire began at 2:41 AM on 6/13, and the use of water ended about 4:30 PM, a period of just under 14 hours. Production units experiencing fire included mixers in which the chemicals Methyl Diisocyanate, Paraformaldehyde, and Paraffin Wax were being applied to wood. Some undetermined quantity of these materials returned to the pond with the recycling firewater. There was heavy rain from the remnants of tropical depression Alberto most of the day of 6/14, as well. Dead fish were observed and reported at about 7:35 AM on 6/15. The pond was also observed at that time to have a reddish material floating along one edge where the wind had moved it. A total of 290 fish were observered killed the first day: 113 bass, 50 carp, and 127 sunfish. None was observed to be diseased, malformed, or otherwise abnormal. The next day, another 50 were gathered, 20 bass and 30 sunfish. About half were "fresh" enough to have expired overnight.
					Total Kills for County: 1 Total Mortality for County: 340
Scotland					
8/4/2006	FA06001	Private Pond	near Johns	100	Investigators suspected low dissolved oxygen resulting from pond turnover as a cause for the event. The event occurred after a heavy rainstorm.
9/5/2006	FA06002	Gattis Pond	near Laurel Hill	360	Investigators suspected low dissolved oxygen resulting from pond turnover as a cause for the event. Fish seen gasping at surface and acting lethargic. Some fish had been removed from the pond by owner at time of investigation.
					Total Kills for County: 2 Total Mortality for County: 460
Vance					
8/24/2006	RA06008	Private Pond	UT to Crooked Creek	500	Pond is located on a spring fed tributary to Nutbush creek. An upstream neighbor had failing septic system and it had been piped into tributary for undetermined length of time. Low D.O. and Nitrates noted in water samples taken by private pond management company prior to calling DWQ. Aerators had been put in the pond by the time DWQ was contacted so D.O. Levels were acceptable upon investigation. DWQ followed the progression of the pond for several weeks. Correcting the upstream problem appeared to solve the problems in the pond.
					Total Kills for County: 1 Total Mortality for County: 500
Wake					
4/1/2006	RA06004	Mine Creek	above Shelly Lake, Raleigh	2260	Fish were killed after the release of concrete sealer via a storm drain from adjacent dwellings upstream of Bent Creek, including sunfish, catfish, suckers, darters, and minnows. The sealant release most likely occurred on March 29, 2006. NCWRC staff was contacted on March 31 and arrived at the accident site on April 1, 2006 to observe a consistent number of dead fish within a 1.2 mile stretch downstream of the storm drain. The NCWRC costs associated with the fish kill investigation, associated fish loss, and report preparation were $1,420.60. The NCWRC requested a total reimbursement of $1,420.60.

Date	Kill Number	Waterbody	Location	Mortality	Comments
8/7/2006	RA06005	Swift Creek	below Lake Benson Dam	150	No water observed flowing over spillway at Lake Benson. Water below dam was stagnant and Swift Creek was very low below spillway. Some fish were traped in pools of water isolated from the creek. Dead fish were noted in shallow pools.

Total Kills for County: 2 **Total Mortality for County: 2410**