

THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF GEORGIA

SAVANNAH DIVISION

ELIZABETH E. CAIN;)
DAVID KAMINSKY and)
LARRY GIBSON,)

Plaintiffs)

v.)

U.S. ARMY CORPS OF ENGINEERS;)
GEORGIA STATE DEPARTMENT OF)
NATURAL RESOURCES, COASTAL)
RESOURCES DIVISION; SUSAN)
SHIPMAN; MARK A. DANA and)
FRANCES M. DANA,)

Defendants)

Case No. _____

DECLARATION OF James R. Holland

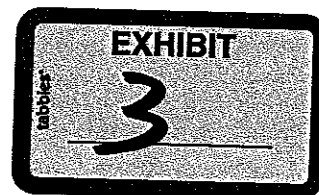
PERSONALLY APPEARED before me, an officer duly authorized by law to administer oaths, James R. Holland the Altamaha Riverkeeper and employee of the Altamaha Riverkeeper, Inc., who after first being duly sworn, states:

1.

My name is James R. Holland. I am over the age of 18, and competent in all respects to testify regarding the matters set forth herein. I have personal knowledge of the facts stated herein.

2.

I am the Altamaha Riverkeeper, employed by the Altamaha Riverkeeper, Inc. ("ARK").



3.

I am a life-long fresh water sport fisherman with more than 30 years experience fishing in the estuarine systems along coastal Georgia. A good estuarine (salt water) fisherman will know and understand the functioning of the estuarine system, including its natural processes and impacts to these processes.

4.

I also have a 23-year commercial fisheries back ground in the blue crab fishery in Coastal Georgia. For several years I was president of the Georgia Waterman's Association, which is made up of inshore commercial fishermen.

5.

I also served on the South Atlantic Fisheries Management Council (SAFMC) (Charleston, S.C.) for two years. My time on the SAFMC was spent on the Habitat Advisory Panel along with several government and university professionals in the field of coastal estuarine fisheries habitat.

6.

I also served on the Coastal Fisheries Advisory Council where you must be appointed by the Commissioner of the Georgia Department of Natural Resources (DNR).

7.

I also served on the Blue Crab Issues Sub-committee appointed by the Director of the Coastal Resources Division (CRD) of DNR.

8.

I currently serve on the Coastal Advisory Council (CAC) of the DNR to which you also must be appointed by the Georgia DNR Commissioner.

9.

I also serve on the Georgia Sea Grant Advisory Panel where we advise on federal monies that are to be allocated to scientists for scientific work in the estuaries of Coastal Georgia.

10.

Over the last twenty years, I have been actively involved in the study of the coastal environment and the impacts of human and natural activities on that environment.

11.

During the course of the last 30 years, I have observed the continuing degradation of the biological and ecological health of the coastal environment, due to the continuing disruption of natural processes stemming from the increasing population growth and poor land practices.

12.

Indeed, one of the reasons I helped to form the Altamaha Riverkeeper more than 6 years ago was because I saw first hand the disruption of the natural processes and resulting loss of fisheries and shellfish populations and habitat, among other impacts.

13.

Since my tenure as Riverkeeper began, I have observed and invested literally tens of thousands of man hours investigating and observing the interplay between natural and human activities on the coast and river basins of southeast Georgia.

14.

I have traveled hundreds of thousands of miles by airplane, boat and foot observing those impacts and have evaluated thousands of sites, including subdivisions, industrial facilities, commercial and private marinas, roads, streams, and private docks.

15.

I have observed first hand the interference with both navigability and normal tidal flow patterns caused by the construction of commercial and private docks.

16.

I have observed first hand the accumulation of marsh wracks in and around the pilings of these docks, which in turn leads to the creation of huge expanses of dead and dying vegetation and the resultant creation of huge areas of mud flats devoid of the natural flora and fauna of the marsh system.

17.

The construction of docks is particularly disruptive to the marsh environment based upon three primary factors: 1.) location- i.e. whether on east or west facing marsh; 2.) length and dimensions; and 3.) height above the marsh and tidal creeks.

18.

The construction of docks on eastern facing marshes, as is proposed in this case here, is particularly damaging to the marsh and upland areas because of the normal prevailing weather patterns which push marsh wracks to upland areas and, in normal situations, allow for the ebb and flow of those wracks.

19.

Docks, including all components of their construction, including their pilings, floating and fixed sections, together with boat hoists and boat houses, as also proposed here, trap the marsh wrack and thus prevent the normal washing or cycling which should occur.

20.

In turn, the accumulation of wrack leads to the greater accumulation of yet additional vegetation and debris, particularly man made garbage and debris which has been washed up to the water's edge, oftentimes from miles and miles away.

21.

Thus, in addition, to marsh vegetation, I have seen construction materials, boat pieces, litter, and all sorts of garbage trapped in and around docks.

22.

These marsh wracks accumulate into large masses of heavy decaying material that then cannot be washed either up on shore to serve as a base for new uplands or to be washed back out to sea. Instead, the wracks gather in place, cutting off all photosynthesis, dropping to the bottom, and creating huge masses of dead marsh area, devoid of the normal marsh biota

23.

The above described process is further compounded by the length of the dock. Obviously, the longer the dock, the more pilings there are that act as snags for this marsh wrack accumulation

24.

Additionally, the more pilings there are, the less "sheet flow" of the tidal waters there is which ordinarily permits these wracks to float out to sea.

25.

Additionally, the longer and wider the dock and related structure is, the greater the surface area that is both directly and indirectly shaded, thereby leading to both direct marsh die off and reduced vigor and health of the marsh adjacent to and in the vicinity of the dock structures.

26.

While this phenomenon has long been recognized by those of us "in the field", recent studies by scientists throughout the southeast have confirmed this process.

27.

Recently, scientists at the Skidaway Island Marine Institute have authored two papers detailing such impacts, entitled : "GIS and Field-Based Analysis of the Impacts of Recreational Docks on the Saltmarshes of Georgia," Alexander, C.R. and Robinson, M.H., 2004 Technical Report prepared for the Georgia Coastal Zone Management Program. Georgia Department of Natural Resources. Coastal Resource Division. Brunswick, Georgia; and "Quantifying the Ecological Significance of Marsh Shading: The Impact of Private Recreational Docks in Coastal Georgia," Alexander, C.R. and Robinson, M.H., 2006 Technical Report prepared for the Georgia Coastal Zone Management Program. Georgia Department of Natural Resources. Coastal Resource Division. Brunswick, Georgia copies of which are attached hereto and incorporated by reference as Exhibit³A and³B, respectively to my declaration.

28.

The 2006 study states in part,

“Until recently, no systematic study had been carried out examining this issue in the southeastern US, with the exception of one local study in SC (Sanger and Holland 2002). To address this data need, the Georgia Coastal Zone Management Program supported a study of dock proliferation and shading impacts on Wilmington Island, GA in Chatham County (Alexander and Robinson, 2004). The results of that study document a 90% increase in total dock area and a 73% increase in number of docks from 1970 to 2000. Approximately half of the total dock area in 2000 was constructed above, and thus overshadowing, the ubiquitous *Spartina alterniflora* saltmarsh vegetation. The shading effect created on average a 56% decrease in vegetation stem density beneath docks when compared to areas adjacent to docks. This stem density reduction represents a potentially important and previously unquantified term in the carbon budget of the marsh, which provides food and critical habitat for many commercially important species.” Alexander and Robinson, 2006.

29.

In addition to the two factors discussed above, a third component affecting the impacts of docks is the height above the marsh itself. This factor is particularly troublesome because of two distinctly opposite effects. The closer to the marsh a dock is (i.e. the lower in elevation), the more direct impact it has on marsh wrack accumulation and interference with navigability.

30.

However, simply raising the height of the dock does not eliminate either of those concerns and, in fact, adds an additional area of concern, which is the area of shading or shadowing. The higher a dock and related structures are, the greater and the longer the shadows created are by those structures and the more hours per day that are required for the sun to "pass through" the arc created by those shadows. Thus, as a dock is elevated, the greater the area that receives less than "normal" sunlight for longer periods of the day, thus also interfering with the normal growth of the marsh grasses and related vegetation.

31.

In addition to the impacts of the flora of the marsh system, docks and attendant structures, such as the boat house called for in these plans, are the impacts to the fauna, the animals of the marsh system.

32.

In areas of reduced marsh vigor, the normal healthy oyster populations are reduced or eliminated entirely. Further, Salt Marsh Ribbed Mussel (*Neugensia demissa*) populations, which are indicative of good water quality, are reduced or also eliminated entirely. Instead they are replaced by mud worms and other less bioproductive animals indicative of poorer water quality.

33.

Oxygen levels in areas of large expanses of dead and dying vegetation and the accompanying mud flats are reduced, further contributing to the degradation of water quality and the health of the marsh ecosystem.

34.

Additionally, human activities in and around dock structures inevitably lead to the disruption of natural biological activities through the discharge of pollutants such as trash and litter, the leaching of toxic compounds such as arsenic or other wood preservatives from the pilings and dock structures and other detrimental effects.

35.

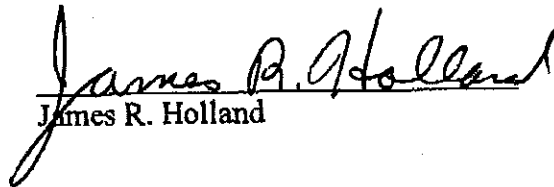
It is important to note that it is for precisely these reasons that the Georgia and federal regulatory mechanisms are established. When, as here, a dock is proposed that is more than three and one half times as long as others in the Tom's Creek basin, and when its corresponding

structures such as floating and fixed docks, a covered deck and boat house, the impacts of such a proposal are exacerbated.


36.

It is critical that such a proposal be fully evaluated through the utilization of the Individual Permit Process and/or the Coastal Marshlands Protection Act permitting process so that these impacts may be truly considered. Approval of this dock system through the State General Programmatic Permit process was clearly inappropriate in this instance.

FURTHER AFFIANT SAYETH NOT.


James R. Holland

Sworn to and subscribed before
me this 8th day of January, 2007.


Notary Public (Seal)

My Commission expires 18 Aug 2009

