

Coastal Update 2014

By Jim Blackburn

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Hello all. I am again writing at year's end to offer my perspective on the Texas Coast. I started this newsletter many years ago to explain to supporters where improvements stood at Formosa Plastics, and I am happy to report that Formosa continues to perform well. This year I remain focused upon the future of our bays and estuaries and the challenges that I see for them and for those of us who enjoy using them. I hope you enjoy this year's edition. Please forward this to anyone who you believe would enjoy it. I also want to apologize in advance if you receive multiple copies of this update. Our computer system was "upgraded" and I lost many of my contacts so I have tried to pull together various lists and mailings from the past and likely have included many names more than once.

1. Blackburn & Carter, Rice University and Sustainable Planning and Design (SuPLDES)

This last year has been one of transition for me. I am now doing less environmental law work, and Mary Carter is mostly retired. I am doing more research at Rice University along with my normal teaching load and am also doing environmental and sustainability planning through my newly-formed consulting firm, Sustainable Planning and Design (SuPLDES).

Those of you needing environmental legal help are welcome to continue to call, and Dale and Zona keep the office running. However,

I am referring most inquiries about legal work to Charles Irvine and Mary Conner, former associates of ours that have formed their own firm, Irvine & Conner, and who provide high quality environmental law advice and advocacy. Their web site is <http://www.irvineconner.com/>.

I continue to be involved in the whooping crane and the Rollover Pass law suits and will certainly jump in on issues that concern me, either as an environmental lawyer, a researcher, a planner or a plaintiff. And I continue to write poetry about nature and spirituality (see last section of this newsletter). In early 2015, Texas A&M Press will be issuing a 2nd edition of the *The Book of Texas Bays* written by me with photos by Jim Olive (with a new forward), and a new book of bird poetry is also being conceived. If you want purchase a copy of the bird poetry and painting book that I did with Isabelle Scurry Chapman called *Birds: A Book of Verse and Vision*, send me an email at jbb@blackburncarter.com.

2. Killing the Bays That Produce Coastal Gold

If we Texans don't change our approach to water policy and freshwater inflows for the bays and estuaries of the Texas coast, we are going to lose the estuaries that many of us know and love. Currently, Texas water policies have ecologically "killed" Nueces Bay according to the Texas Commission on Environmental Quality. Federal District Judge Janis Jack of Corpus Christi ruled in 2013 that Texas water withdrawal permits impacted San Antonio Bay so substantially that crab production declined and 23 whooping cranes died. Recently, the Houston Chronicle reported that Galveston Bay was showing signs of ecological

harm from reduced freshwater inflows. And Matagorda Bay is under attack by the water users living adjacent to or near the Highland Lakes.

I have been talking about and litigating this issue for many years, and I have trouble understanding the number of people that I encounter who are surprised to learn that we are killing our bays. Either there is an assumption out there that existing institutions are appropriately addressing this problem or the assumption is that there is no problem and all is well with our bays. Let me assure you. Neither conclusion is correct.

One of my biggest concerns is that many of us are afraid to “rock the boat” by speaking up about the bays. Nowhere could this be clearer than in voting and support for political candidates. Frankly, although it seems not to be the case, Republicans can support environmental issues. The question is – why don’t our Republican voters demand coastal protection from our Republican state and federal elected representatives? So far they have not and we are not getting protection from our elected officials (except in Aransas County where they have been leaders in coastal stewardship).

There are many ways to combine conservative or “red state” political beliefs and coastal protection, but they require effort and creativity. Much of the research I have been undertaking at SSPEED Center at Rice has been focused upon finding methods to combine “red state” values with long term conservation goals. And as will be explained later in this write-up, there are emerging solutions that combine ecological protection with creative market solutions that basically require no new

regulation. It can be done, but it does involve doing things differently than in the past and that involves change. Without change, we are doomed to replicate our past failures.

My favorite statement by Alfred Einstein is “the world that we have created today as a result of our thinking thus far has problems that cannot be solved by thinking the way we were thinking when we created them”. To which I add “Hallelujah brother”. We have to think differently. We have to be open. We have to let science speak to us. We have to listen. And we have to act.

Fresh water is a key to the future of the coast. Our bays must have freshwater inflows. So far, our water permitting system has failed to respond to this need, even though we have known about it for well over fifty years. We have issued more surface water permits than there is dependable water in every major river system except for perhaps the Sabine-Neches. Our climate is changing. Evaporation will increase in the future. Base flow will decline substantially during drought years which will become more frequent. So – without even setting aside water for the bays and estuaries, we need to face the fact that our surface water allocation system is and will continue to be a failure. Reliance upon it in the future will not only jeopardize our bays but our economy as well.

As is explained in the articles that I link to below, we are not paying the “full cost” of surface water in Texas today. As we starve our bays for water, we are killing oysters, shrimp, crabs and smaller finfish like menhaden and mullet that support redfish, speckled trout and

flounder. There is a cost for each gallon of water that does not reach our bays, yet we have never recognized or computed that cost. Some work I have done on San Antonio Bay indicates a minimum damage of \$4 per thousand gallons for water removed from the bay. If this cost is added to the cost for building a reservoir and/or a conveyance and treatment system, the cost of surface water becomes higher than brackish desalination. If we charged correctly for our surface water – which is owned by the State – we would shift the direction of future water supplies toward desalination, a move that would – over time – protect our bays.

Charging for the state's water is a break-through concept that is consistent with market economics and market thinking. People seem to understand money. Corporations are comfortable talking about money and prices. And I guarantee you I can keep the attention of any audience in Houston if I talk about environmental protection and money. The price of water can lead us to protect our bays IF we are willing to set the price correctly.

With regard to water, our reliance on the ways of the past has led to problems that will repeat and worsen unless we change. Change takes leadership. Change takes guts. It is up to those of us who love the coast to insist that these changes begin. And no place is better than this upcoming session of the Texas legislature. Make sure and write to your local representatives and state senator, as well as to our new Governor elect, the Lt. Governor and the Speaker of the House and let them know that you want them to protect the bays.

Note: a guest editorial I wrote about coastal productivity was published by the Houston Chronicle on November 30, 2014. The link is <http://www.chron.com/opinion/letters/article/Blackburn-Our-bays-and-coast-are-under-threat-5924595.php>.

This editorial was excerpted from a much longer article I wrote for the Baker Institute at Rice titled “The Texas Coast: Freshwater Inflow, Coastal Productivity, and Texas Water Policy”. It can be found at <http://bakerinstitute.org/media/files/files/e96c4be0/CES-pub-TexasCoast-101414.pdf>.

3. Whooping Crane Case Update

I have the honor of being the lead attorney in litigation to protect the whooping crane, and I believe it to be among the most important legal actions in my career. As many of you know, The Aransas Project (TAP) filed suit in federal district court in Corpus Christi and won, securing a ruling by Judge Janis Jack that officials of the Texas Commission on Environmental Quality (TCEQ) violated the federal Endangered Species Act by “taking” 23 whooping cranes in the winter of 2008-2009. Her 123 page ruling was a powerful rejection of many of the ideas and arguments that bay and estuarine advocates hear from the TCEQ as well as from river authorities and surface water users.

Judge Jack’s ruling was overturned at the 5th Circuit Court of Appeals by a three judge panel comprised of Edith Jones, Jerry Smith and Emilio Garza, all of Texas. This decision was a narrow one, based on what was in my opinion an improper substitution of the panel’s judgment about the facts written as if it were a ruling of law. In theory, fact issues are

determined at the trial level with the court of appeals intended to focus upon questions of law.

In response to this opinion, TAP filed a Motion for Rehearing on July 28, 2014. To date, there has been no response to this Motion by the 5th Circuit. Usually Motions for Rehearing are denied rather promptly. In this case, the other side was requested on August 4 to write a short response to our Motion for Rehearing. That response was filed on August 27. Since that time, we have not heard from the 5th Circuit. At the least it is unusual for a Motion for Rehearing to take this long for a decision.

If the Motion for Rehearing is granted (something that happens only a few times each year), the decision of the three judge panel would be erased and a new hearing before all 15 judges would be scheduled. It is also possible that a Motion for Rehearing will be denied, but a dissent may be filed with it. That occurs on occasion and could be helpful if and when we request that the U.S. Supreme Court hear our appeal. At this time, it is impossible to say what result may come, but speculation runs rampant in idle minds.

In addition to the whooping crane lawsuit, there are several other actions that are ongoing in the San Antonio Bay watershed. First, there is a legal action by the Guadalupe Blanco River Authority (GBRA) seeking a declaratory judgment declaring a permit application by the San Antonio Water System (SAWS) to be illegal due to its potential impact on GBRA bonds that may be issued for future water projects. SAWS is seeking a bed and banks permit to allow 50,000 cfs of return

flow to reach San Antonio Bay, a truly creative and very beneficial proposal for the future of San Antonio Bay and the whooping cranes. SAWS's excellent proposal should be supported by all concerned about the future of the whoopers and the San Antonio-Aransas Bay complex. On the other hand, it is not surprising that the GBRA, the principal force seemingly working against the whoopers and the bay, would object to this proposal by SAWS and try a devious legal move that so far has failed. The Texas Commission on Environmental Quality (TCEQ) and other parties (including TAP) intervened and filed to dismiss the GBRA's lawsuit on multiple grounds. The Travis County District Court heard the arguments and did dismiss the case entirely. GBRA has appealed the dismissal and the Third Court of Appeals in Austin heard oral arguments on December 3rd, 2014.

There are also two permit applications that are pending by GBRA to construct new reservoirs and/or diversions that would further reduce freshwater inflows to the San Antonio Bay complex. There is a mid-basin reservoir proposed near Gonzales that would divert at least 75,000 acre feet of water and there is a lower basin reservoir proposed near the mouth of the River that is proposed to divert 185,000 acre feet. Frankly, the Guadalupe and San Antonio Rivers are already over-allocated. The Bay cannot survive these additional reservoirs and neither can the whoopers or our fishing. So if you care about fishing in Port O'Connor or Rockport or Seadrift, you might consider paying close attention and doing something. The GBRA will kill San Antonio Bay if we let them.

4. Matagorda Bay Update

Clearly Nueces Bay and the San Antonio-Aransas Bay complex are the two estuaries hardest hit so far, but the Matagorda-Lavaca Bay complex is not far behind. Espiritu Santo Bay connects San Antonio Bay with Matagorda Bay and has suffered from freshwater inflow deprivation. Two of the 23 whoopers that died during the winter of 2008-2009 used territories east of San Antonio Bay in Espiritu Santo.

The Colorado River provides most of the inflows to Matagorda Bay. This river system is unique from a management perspective in that most of the water rights are possessed by the LCRA which holds large amounts of water in storage in the Highland Lakes. The LCRA is required to develop a water management plan for the Highland Lakes that must be approved by the TCEQ, a departure from the status quo for most river systems where withdrawal decisions are more ad hoc.

For the last three years, flows coming down the Colorado River have been reduced by the Lower Colorado River Authority (LCRA). With the decline of water levels in the Highland Lakes, the LCRA has proceeded to shut off rice farmers from irrigation water and to also reduce releases for inflows to Matagorda Bay. Arguably, this is so that homeowners can water their lawns in Austin and in the Hill Country on and adjacent to the Highland Lakes as well as maintain recreational boating. Salinity in Matagorda Bay and Lavaca Bay has risen over the last several years. Anecdotal evidence indicates that fishing has worsened during that time period as would be expected.

As is the case with the Guadalupe system, there also are a number of proposed actions that could worsen the situation for Matagorda Bay. First, the LCRA is seeking to have its management plan for the Highland Lakes re-authorized by the TCEQ. That re-authorization proposal was subject to an emergency action in early 2014 and will likely come before the TCEQ for consideration in 2015. That proposed plan will provide for reduced inflows to Matagorda Bay. The LCRA is also seeking to construct an off-channel reservoir at Lane City that will create a yield of about 100,000 acre feet of water that is intended to keep water in the Highland Lakes and make more water available for rice farmers. Once again, however, there is no specific proposal to ensure that Matagorda Bay will gain the inflows that it requires for long term ecological health. The location of the proposed Lane City Reservoir Project is shown on the figure below.



A comprehensive strategy for both the Matagorda Bay and San Antonio Bay systems is taking form under the leadership of the Matagorda Bay Foundation (MBF). MBF is planning to seek review of multiple projects – both existing and proposed – of both the GBRA and LCRA under both

Section 7 and Section 9 of the federal Endangered Species Act, seeking a determination of the impacts of these projects both upon the whooping crane and the Kemp's ridley sea turtle. If we are unable to address these problems through action by the Texas legislature or our agencies, then we have no choice but to fight with every tool at our disposal. I consider this my duty as a steward and a coastal citizen. If you want to know more about the proposed action of the Matagorda Bay Foundation or would like to join with us in this action, please contact me at jbb@blackburncarter.com. MBF will fight to ensure that Matagorda Bay does not end up like Nueces Bay.

5. The LSCNRA and TCX

Two projects that we created at the SSPEED Center at Rice are moving forward and should be excellent additions to the Texas coast, hopefully in the not-too-distant future. Both the Lone Star Coastal National Recreation Area (LSCNRA) and the Texas Coastal Exchange (TCX) were proposed as non-structural hurricane damage mitigation strategies. These were proposed as ways to support economic activity that can withstand the twenty-foot surge flooding that we should plan for in the upper and middle Texas coast.

The LSCNRA has been developed as a proposal by a coalition of local partners' and steering committee including leadership by former Secretary of State James Baker, Houston businessman John Nau and Galvestonian Doug McLeod, as facilitated by the National Parks Conservation Association. For the last 18 months, a series of meetings have occurred with potential partners in the formation of this National

The TCX concept is less developed but potentially every bit as exciting as the LSCNRA. The TCX proposes to create a web-based system for buying and selling ecological services, thereby providing a basis for private landowners to receive income by protecting and restoring native habitat. We have identified ecosystems that we believe to be amenable to such transactions – oyster reefs, coastal marshes, coastal prairies, bottomland hardwoods and coastal woodlots – and we are working to line up buyers for these services, including corporations seeking to offset their carbon and ecological footprints, governmental entities and other interested parties. At the same time, we have a technical team developing the transaction system and rule structure for the exchange. In this way, we hope to create a viable economy around a restored and regenerated coastal ecology across 1.6 million acres of land. And it will be done on a willing participant basis without any new regulation. If this proves to be successful, I have no doubt that it has the potential to transform traditional thinking of landscape conservation throughout Texas and the United States.

6. Hurricane Defense and the Fishery of Galveston Bay

In addition to non-structural alternatives, we at the SSPEED Center as well as colleagues at Texas A&M Galveston have been studying structural alternatives for protecting the industrial and residential development around Galveston Bay. And make no mistake about it – our residential and industrial areas around the bay are both very vulnerable. A major hurricane coming ashore around San Luis Pass would generate a hundred year surge of about 20 feet at the coast at

Galveston, a surge that would increase to 23 to 25 feet in the Clear Lake and Houston Ship Channel areas. Such a surge would cause massive damage, easily exceeding \$100 billion, with the likely loss of hundreds if not thousands of lives depending upon the extent of evacuation. It would also produce one of the worst oil and chemical disasters in United States history.

To address this potential disaster, various proposals have been developed for protective structures. Our SSPEED Center team of researchers has proposed construction of the Centennial Gate across the mouth of the Ship Channel, and we are studying other alternatives for providing bay-wide protection, including expansion of oyster reefs and dredged material disposal areas. Texas A&M Galveston has proposed a “coastal spine” that involves a dike of some type along the West End of Galveston Island and the Bolivar Peninsula with some form of gate across Bolivar Roads and potentially San Luis Pass.

Before a final decision can be made, much more detail needs to be developed about economic, ecological and social impacts of these alternatives. And while many of these issues are either being adequately studied or are proposed to be evaluated, there is one major issue that has not been considered in any great detail and that is the impact of various alternatives on bay circulation and fishery production and migration. This is an important issue that should be carefully evaluated prior to recommending any alternative.

Various alternatives will impact Galveston Bay in various ways. The southern alignment of the Centennial Gate proposal will potentially

impact water circulation from the Houston Ship Channel and the San Jacinto River into Tabbs Bay and behind Atkinson Island. The “coastal spine” will potentially block circulation across Bolivar Roads and San Luis Pass. Various in-bay solutions such as dredge disposal site expansion and oyster reef expansion could segregate the bay into hydrologic compartments. Each of these alternatives will need to be designed with a focus on circulation and fisheries. And to date, not much has been done in this arena.

When the Netherlands built their coastal defense system starting in the late 1950s, little to no attention was directed toward estuarine and fishery impacts. The area north of Amsterdam was diked off and became a freshwater lake as did estuaries south of Rotterdam. In the Eastern Scheldt, an attempt was made to incorporate circulation into the dike design by placing gates that could be closed during storm events. However, research into circulation and shellfish production after completion of this project indicates significant reductions in the tidal range and in shellfish distribution. Today, the Netherlands is in the process of rethinking some of their earlier containment concepts due to these ecological impacts.

To date, no decision has been made regarding the placement of any of these structures in Galveston Bay. However, we need to carefully and thoroughly examine and understand the impacts of whatever structures are proposed. We should insist on the best engineering solutions from a fishery and hydrologic standpoint, and we should insist upon excellent quantitative and qualitative analyses of the impacts of these structures. Only by honest and open examination of these

alternatives can we make informed decisions with full knowledge and understanding of all costs.

So what is at stake with circulation and fish migration in Galveston Bay? Blue crabs from throughout the bay migrate to the passes where the females lay their eggs which then come back into the bay system. White and brown shrimp move from the bay into the Gulf to lay their eggs which develop into planktonic life forms and float with the tide and find their way back through the passes and into our bays and nursery marshes and estuaries. Redfish spawn in the waters of the Gulf, and the young migrate to the bay. Flounder move to and through the passes in late fall and spawn in the Gulf, yet spend most of their early years in the bay. Speckled trout spawn in the lower bay as a general rule, but move back and forth through the passes. And the list goes on.

To address this issue of the potential impacts of surge barriers on bay circulation and fish movement, an effort will be initiated at SSPEED Center to better understand the full scope of the issues and the tools that are available to help evaluate this important question of impact. To this end, in 2015 SSPEED Center will sponsor a forum to discuss our knowledge about modeling bay circulation and fish and shellfish production and movement. If you are interested in participating in this forum, please contact me at blackbur@rice.edu and let me know of your interest. We will try to include as many as space will allow.

7. Rollover Pass

In last year's Coastal Update, I set out in some detail the continuing saga of the attempt by the General Land Office of the State of Texas to close Rollover Pass. As of this writing, the federal litigation against the Corps of Engineers is still pending before the Galveston Division of the Southern District of Texas.

On behalf of the Gulf Coast Rod, Reel and Gun Club, we filed a Motion to Supplement the Record to add documents for the court to consider in the argument about the legality of the Corps' action in issuing this permit. Such a motion is a necessity in a permit fight at the federal court level under the federal Administrative Procedure Act which, as a general matter, does not allow "new" evidence to be argued. In this case, no public comments had been submitted in response to certain reports filed by the General Land Office with the Corps because they had not been made public and were not known. As explained last year, we have discovered some serious errors (if not material misrepresentation) in the modeling and other information submitted by the GLO, and we want to set the record straight prior to making final arguments before the Judge.

In last year's update, I also explained that we expected condemnation to be pursued by Galveston County which was being pushed ("encouraged") by the GLO to use its power of eminent domain to condemn the land upon which the pass is located. In late November, the Gulf Coast Rod, Reel and Gun Club received an "offer" sheet from Galveston County setting forth a price that they were willing to pay to purchase the Pass. This is the first step in the initiation of formal condemnation procedures which we will oppose.

I again urge all fishermen concerned about East Bay that this issue is important. East Bay was suffering as a salt-water fishery until the Pass was opened in the 1950s. It is currently an excellent place to fish due in large part to the contribution of Rollover Pass circulation to keep East Bay from becoming too fresh (a unique problem). At a time when great effort has been made to open Cedar Bayou in the Aransas-San Antonio Bay complex, it seems strange that we are closing Rollover, the best public fishing venue on the Upper to Middle Texas Coast. If you want to donate to the Gilchrist Community Association Rollover Pass Fund, please send your contribution to Ted Vega, Gilchrist Community Association, P.O. Box 186, High Island, Texas 77623. The Rollover Pass website can be found at <http://www.rolloverpasstexas.com/>.

8. Poems

Once again at the end of a coastal update comes the poetry. Enjoy.

The Boat-Tailed Grackle

On the north shoreline of Matagorda Bay
On a cool day in the fall,
Amassing wealth.

The marsh grass undulates in the light wind,
Glittering gold and green below azure sky.
Water-covered stalks provide a sanctuary for shrimp and crabs
And long-billed wading birds that probe the muck

For morsels burrowed deep
Within the carbon laden soil
Whose life expels the odors of the salt marsh -
Odors that surround me, envelope me,
Enhance me and transform me.

The black-eyed blackbird sits atop a golden stem
Overseeing its domain
And sees me floating slowly toward him.
The long tail flicks once and then again.
I hold the marsh deep within my breath,
Savoring that the bird and I are in contact,
One living thing touching another,
Two portions of life energy sharing time and space.

We move apart as we came together - slowly,
Richer for the other's presence,
Richer for the fact of the other's existence,
Richer for the experience of life being lived,
Richer for the healing vapors
Of the Matagorda marsh.

Poem The Bald Eagle

Driving down the coast
Near the Formosa wetland
In Jackson County in the fall.

The lines of geese move toward me,
Drawn to the pasture as if to a magnet,
Wings set, feet down they fall from the sky
To join the thousands of their brethren
That march across the field like an army,
Pulling fresh green shoots as they go,
Creating a low murmur, hailing the new arrivals,
Enjoying the fruits of their long migration south.

Suddenly, the mood changes and they rise as one,
Startled from the tranquility of a peaceful feed
By the black shadow that emerges
From the dark side of the cloud of rising birds.

The bald eagle sails effortlessly,
Confidently glancing side to side,
The white head rotating like a gun turret,
Looking for the weak or the wounded,
Looking for an easy meal,
Seemingly pleased with the terror
Its simple presence strikes within
The massed snows and blues.

Driving away a smile crosses my face.
I am one with the bald eagle
And yet I am also one
With the snows and the blues,
Soaring across the coastal domain,

Eating and nibbling as I go,
Finding nutrition for my soul
On the coastal prairie
In Jackson County in the fall.



Photo Courtesy of Jeff Mundy

The Laughing Gull 3

On the waterfront
On the shore of Galveston Bay
In Seabrook Texas.

The bay is flat,
The tide is slack,
The birds are loafing.
No sound comes from the laughing gulls
As they sit on the pilings
That extend from the water
Like a stand of dead trees,
All that remains of the piers
That once extended human provenance
Over the bay.

Today there is no sense – no clue
Of the power of those storms -
Storms generated by warm ocean waters –
Storms that we name and fear -
Storms that go down in the history
Of human misery.

Ike, Alicia, Carla, and the big one of 1900 –
All points in time
That are hard to recall
When the laughing gull sits quietly
On a calm, beautiful day
On Galveston Bay.

And finally, my good friend Don Greene, an advocate for the natural environment and Buffalo Bayou, passed away this year. This is my tribute to Don.

The Peregrine Falcon

On the Rio Grande
In Santa Elena Canyon
With Don Greene

The bluffs rise high above the river
That flows gently in this area,
Letting our rafts glide through
The late afternoon shadows
That provide blessed relief
From the Texas sun.

Flute music has begun,
Seemingly emanating from the canyon walls
That provide the home
For the Peregrine falcon that power glides
Across the bare blue sky,
Saluting us in the waning light,
Saluting our guide Don Greene,
A man who has led all who would listen
To learn more of Earth and self.

Today, we who listened,

We who heard the flute,
Are richer for it.
Thank you Don for being my friend,
For helping me better understand
Who and what I am,
For making my life richer,
For making the Earth a better place.

Happy Holidays. Blackburn.