Georgia Water Coalition’s “Dirty Dozen” list highlights the worst offenses to Georgia’s waters. What unites each of the “Dirty Dozen” is that public waters are being abused in ways that benefit a few, but harm many including property owners, downstream communities, fish and wildlife, hunters and anglers, and boaters and swimmers.

Over the past decade, the health of Georgia’s waterways has been compromised by a lack of funding for environmental protection programs and political cronyism. Georgia’s Environmental Protection Division (EPD) has seen its funding cut by 44 percent and staff cut by 23 percent (250 positions) since 2008, seriously jeopardizing its ability to enforce the state’s environmental laws.

More problematic is the political cronyism that puts campaign contributors and their business interests on the Department of Natural Resources Board, which oversees EPD—the agency that regulates those same businesses. Board members who have spoken up for the protection of waterways have been systematically removed from the board and replaced with political cronies. Of the 16 governor-appointed board members currently serving, 11 have ties to entities that EPD regulates. Even the current Director of EPD, a political-appointee of Gov. Nathan Deal, previously served as a lobbyist for a firm that represents industry and business groups. Too often in Georgia, the “fox is watching the hen house,” and the system gives polluters free passes while the rest of us get dirty water.

Meanwhile, during the past year, the Deal administration has directed $102 million in state dollars to reservoirs and water supply projects of dubious need, including some $9 million in state “investments” that directly benefited businesses and individuals that were major donors to his gubernatorial campaign. At the same time, state funding for lower cost projects to maximize existing water supplies has languished. The $102 million that Gov. Deal directed to questionable and environmentally destructive water supply projects this year is more than three times the $30 million in state dollars invested by the Georgia Environmental Finance Authority in water conservation and efficiency projects from 2006-2010.

The Georgia Water Coalition publishes this list as a call to action for our state’s leaders and its citizens to come together to correct pollution problems, eliminate the wasteful use of our state tax dollars and restore our streams, rivers, lakes and coastal wetlands.

The Georgia Water Coalition is a consortium of more than 175 conservation and environmental organizations, hunting and fishing groups, businesses, and faith-based organizations that have been working to protect Georgia’s water since 2002. Collectively, these organizations represent more than 300,000 Georgians.
In May 2011, after five years of King America Finishing Co. (KAF) illegally dumping toxic substances into the Ogeechee River, some 38,000 fish died—the largest known fish kill in Georgia’s history. With funding for its Emergency Response Team gutted, it took Georgia’s Environmental Protection Division (EPD) days to respond to this tragedy and warn the public. And, it took almost a month for EPD to instruct the company to stop the dumping. More than a year later, the impacts of the fish kill are still rippling through Ogeechee communities. Long-time river users no longer fish the river, riverfront property values have declined and the Ogeechee fishery is still recovering—despite a state-financed re-stocking program. Meanwhile, KAF has still not been held accountable.

**THE RIVER:**
The Ogeechee River, and its major tributary the Canoochee River, are two of Georgia’s natural gems. These beautiful blackwater rivers flow freely through eastern Georgia, draining a 5,540 square-mile basin that encompasses wetlands, forests, farms, and scores of towns and cities. Within that basin, hundreds of thousands of Georgians rely on the rivers, their tributaries and underlying aquifers for drinking water. The Ogeechee and Canoochee rivers also support diverse wildlife, offer opportunities for recreation, supply water for agricultural and industrial uses and carry off wastewater. These blackwater rivers, stained a tea-color from tannins in surrounding swamps, are perhaps the most distinctive natural features in the region and certainly among its most important natural resources.

**THE DIRT:**
KAF’s discharge into the Ogeechee led to one of the worst single environmental disasters in Georgia history, yet despite the magnitude of the problem, meaningful corrective action has been slow in coming. And, despite this tragedy, and other similar events, EPD continues to operate without an adequate emergency response team dedicated to acting swiftly when serious threats to human health and the environment occur.
Since the initial tragedy, EPD has followed up its initial errors with more errors. The agency’s original “solution” to KAF’s pollution was ruled invalid by a Bulloch County Superior Court Judge because EPD had negotiated the agreement in secret and failed to allow for public input. While EPD could have fined the company as much as $90 million, it instead agreed to allow the company to perform a $1 million environmental improvement project on the river.

In October, after outcry from Ogeechee River residents and legal appeals by Ogeechee Riverkeeper, EPD withdrew its draft permit that allows KAF to discharge pollutants to the Ogeechee and announced that it would require the company to conduct a study to determine what impacts its toxic discharge would have on the Ogeechee. Although such studies are required by law, EPD had not made that request of the company until the permit was challenged by Ogeechee Riverkeeper.

These actions show a repeated pattern on the part of EPD to protect the polluter at the expense of other river users. It is unfortunate that citizens must take legal action to force EPD to fully enforce our environmental laws and protect our rivers and the people who depend upon them.

WHAT MUST BE DONE:

EPD must immediately stop KAF’s toxic and illegal discharge to the Ogeechee River and place limits on the company’s pollution of the Ogeechee so that the river is protected. They must also revise the $1 million consent order issued to KAF, allowing the public to help determine what kind of environmental improvement project should be completed. Additionally, they must begin studies to evaluate the dangers of chemicals used in fire retardant processing that KAF discharges to the Ogeechee River. Furthermore, to enable EPD to respond effectively to unexpected threats to the environment and human health, funding for EPD’s Emergency Response Team should be restored.

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Each year, some 90 million people course through Atlanta’s Hartsfield-Jackson International Airport; what those visitors don’t know is that a stone’s throw from the airport’s runways is a site so polluted with heavy metals and other hazardous substances that Georgia’s Environmental Protection Division (EPD) has placed it on the state’s Hazardous Site Inventory—a designation that requires that the pollution be cleaned up—either by the property owners or the state. Among the substances at the Tift Hazardous Waste Site lurking in soil and groundwater and potentially polluting the South River watershed are acetophenone, copper, zinc, arsenic, barium, nickel, zinc, arsenic, cadmium and lead—a toxic stew linked to brain damage and reproductive dysfunction in humans.

And, there’s an even bigger problem at the Tift Site, there’s no money to pay for a cleanup. That’s because Georgia’s General Assembly for the past decade has looted state funds—paid for by taxpayers, local governments and businesses—that are intended to pay for fixing messes like the Tift Site. Statewide, there are 560 sites similar to the Tift Site threatening public health and the environment.

THE DIRT:
When Georgians dump trash at landfills, we pay a 75-cent-per-ton tipping fee that is used to create the state’s Hazardous Waste Trust Fund—a fund designed to clean up hazardous waste sites and help remediate old, unlined landfills that pose a threat to drinking water and the environment. Since 2004, these and other fees designated for the Trust Fund have totaled an estimated $143 million, but because the General Assembly has the
discretion to redirect funds, only $53 million (40 percent) has actually been deposited in the Trust Fund and made available to clean up sites like Tift. The rest, $86.5 million, has been used by legislators to pay for other state expenses.

The Tift Site is representative of a problem whose magnitude is difficult to fathom. Of the state’s 159 counties, 133 Georgia counties contain at least one of Georgia’s 560 identified hazardous waste sites. The sites are diverse in ownership—from private citizens to local governments to Fortune 500 companies—and because Georgia’s legislature refuses to use our taxpayer fees for the purposes they were intended, these contaminated sites continue to pollute our soil, water and air and pose health risks to nearby communities.

In the 2012 General Assembly session, legislation was introduced and passed by the House that would have addressed the chronic raiding of the Hazardous Waste Trust Fund. Unfortunately, the bill died in the Senate with Senate Rules Chairman Don Balfour telling the Atlanta Journal-Constitution: “We have been doing this for 20 years, and I still keep getting re-elected.”

The law creating the Hazardous Waste Trust Fund expires at the end of 2013. Unless action is taken to renew the Trust Fund and prevent legislators from raiding it, Georgia’s 560 known hazardous waste sites will continue polluting our rivers and our communities.

WHAT MUST BE DONE:
The Hazardous Waste Trust Fund must be renewed during the 2013 legislative session and our elected officials must stop looting it.

Our legislators must appropriate the full amount to the trust fund so that EPD and local governments can continue to fund important, needed pollution clean-up and remediation projects that will protect community health and our drinking water. If the General Assembly cannot assure that all of the funds collected under the fund will be used for its stated purpose, it should be allowed to expire.

For More Information Contact:
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The Chattahoochee River supplies drinking water to nearly four million people in metro Atlanta. For decades, the river has been the center of a water dispute between Georgia, Alabama and Florida. The Chattahoochee has suffered from extreme droughts while serving as ground zero in the ongoing conflict over water use in the Apalachicola-Chattahoochee-Flint (ACF) basin. These events have fueled Georgia’s misguided strategy to circumvent federal control over the Chattahoochee by damming its tributaries. The most glaring example of this strategy is Hall County’s proposed Glades Reservoir on Flat Creek which flows into the Chattahoochee River and Lake Lanier. This project would divert and impound water that would otherwise fill Lake Lanier, interfering with federal management of the lake and complicating efforts to reach a water sharing agreement with Alabama and Florida.

THE RIVER:
The Chattahoochee’s Lake Lanier is metro Atlanta’s major source of drinking water, fulfilling more than 70 percent of the region’s needs. Recently, the courts decided the U.S. Army Corps of Engineers (Corps) has authority to operate Lanier for water supply. Because two-thirds of the water storage for the ACF basin drains into Lake Lanier, the Corps also manages releases from the lake to help relieve downstream communities from drought and floods while providing flows to support recreation, hydropower generation and fish and wildlife. Lake Lanier is one of Georgia’s top recreational destinations, receiving 7.5 million visitors annually. The Chattahoochee River National Recreation Area, extending for 48 miles below Buford Dam, provides year-round recreational opportunities for another three million visitors annually. The Chattahoochee’s upper reach is recognized by Trout Unlimited as one of America’s 100 Best Trout Streams.

THE DIRT:
In the works since 2001, Glades Reservoir was initially proposed as an amenity lake for an upscale
subdivision, but in response to recent droughts and the tri-state water conflict, the project has evolved into its present version: an 850-acre reservoir allegedly supplying 72.5 million gallons a day (MGD) of drinking water at a projected cost of at least $95 million. Proponents of the project are pushing for construction despite the fact that the Corps now may operate Lanier to meet the current and future water supply needs of Gainesville and Hall County, rendering the reservoir and the $95 million a wasted investment.

Rather than solving the state's water needs, Glades Reservoir and other proposed reservoirs in the Chattahoochee River basin will serve only to undermine Georgia's ability to secure an amicable and equitable water sharing agreement with Alabama and Florida. Glades Reservoir's threat to the water sharing negotiations is so severe that American Rivers this year named the Chattahoochee River the third most endangered river in the country.

Aside from needlessly provoking Alabama and Florida, the proposed reservoir would have devastating impacts on the Chattahoochee River and Flat Creek. The dam would obliterate more than 17 miles of free-flowing streams, and because Flat Creek alone isn't big enough to fill the proposed reservoir, Hall County proposes to pump 108 MGD directly from the Chattahoochee River to keep the reservoir full. This pump-storage scheme threatens to draw the Chattahoochee down to dangerously low levels while diverting even more water from Lake Lanier, which has suffered from chronically low levels in recent years. Meanwhile, Glades may sit full and untapped until 2050 and beyond for lack of water customers.

Meanwhile, state and local leaders continually fail to embrace water conservation as a reasonable alternative for meeting future water demands. Gov. Nathan Deal and his administration refused to allow water conservation and efficiency projects to be eligible for funding under the governor's $300 million water supply program created in 2011. Instead, the Deal administration has dedicated almost all of these funds to reservoir projects, many of which are justified by inflated, unrealistic population projections and water supply needs.

While support for Glades Reservoir has waned at the local level, Gov. Deal has indicated his support for the project. Though the project will serve only Hall County, Gov. Deal recently told the Gainesville Times, that a partnership between the state and Glades Reservoir “needs to be explored.” He also noted: “It is regional, but in many respects it is statewide.” Such comments suggest that money from the Governor’s Water Supply Program (GWSP) might soon flow to this boondoggle of a project in the Governor’s hometown.

WHAT MUST BE DONE:
Georgia's leaders must adopt a more fiscally and environmentally responsible approach to meeting Georgia's water needs. In order to resolve the tri-state water conflict, Gov. Deal and the Environmental Protection Division must withdraw support for the Glades Reservoir and any other reservoirs proposed within the ACF basin until the Corps completes its update for the Water Control Manual. This manual will determine how much water from Lake Lanier and the Chattahoochee the state may rely upon for water supply. Until then, the state should cease all funding for reservoir projects through the GWSP and initiate efforts to seek more cost effective water supply alternatives like water conservation or increased storage directly in Lake Lanier.
When Nathan Deal became Governor in 2011 he created the $300 million Governor’s Water Supply Program (GWSP) to fund “critical, cost-effective” projects that will provide “an adequate supply of clean and affordable water” for communities in need. In August 2012, the Deal Administration released the first $102 million in this program and the results show that the bulk of the money went to reservoir projects of dubious need and to businesses and individuals that were supporters of Deal’s gubernatorial campaign.

Such is the case on the Flint River, where a groundwater injection scheme promoted by Deal supporter, Joe Tanner & Associates, received a $4.6 million grant for a project that is experimental in scope, of tenuous public benefit and will not provide drinking water to any community in need. An additional $4.4 million in state “investment” (funds not requiring reimbursement to the state) went to the Lake Lanier Islands Development Authority to develop a well for this private resort and water park owned by Deal campaign contributor Virgil Williams.

THE RIVER:
The Flint River originates in Metro Atlanta and flows southwest to join the Chattahoochee River at the Florida state line, gathering tributaries over approximately 350 miles and draining an 8,460 square-mile river basin. More than one million Georgians depend upon the Flint. While the Upper Flint provides water supplies for Metro Atlanta, the lower Flint supports some of the most productive agribusiness counties in the state. Like the Chattahoochee, the Flint is at the heart of a two-decade-long battle over water rights between Georgia, Alabama and Florida. In 2009, it was named to American Rivers list of the nation’s most endangered rivers.

THE DIRT:
Rather than funding critical, cost-effective water supply projects for communities in need, the GWSP has
proven to be a conduit to funnel state tax dollars to Gov. Deal’s political supporters.

With assistance from consultant and former Department of Natural Resources Commissioner, Joe Tanner – whose Joe Tanner & Associates firm donated $12,825 to Gov. Deal’s campaign—the Southwest Georgia Regional Commission (SWGRC) will run experiments to pump water from streams and rivers into an underground aquifer to determine if this surface water can be recaptured – a process otherwise known as aquifer storage and recovery, or ASR. The project will not produce any drinking water for public use.

This highly expensive experiment will cost up to $4.8 million for every million gallons of water captured, and could cost as much as $1.2 billion in an effort to supplement Flint River flows and reduce pressure on the Chattahoochee and Lake Lanier to meet required minimum river flows into Florida. Proponents of the project have suggested that metro Atlanta water customers may be asked to fund the project as part of a public-private partnership.

When administrators of the GWSP evaluated the project’s application they could not find a need for it. Out of a possible score of 100 points for “project need,” the proposal received no points.

Likewise, Lake Lanier Islands’ proposal to drill a new well that would enable the resort to build an additional hotel received only five points under the project need evaluation. However, Williams, the resort’s owner, did spill $15,800 into Deal’s campaign coffers.

Thus, both of these questionable projects not only received state funding, they were the only projects under the GWSP to receive direct state investment—for which no repayment is required.

**WHAT MUST BE DONE:**

Georgia’s leaders can maximize taxpayer dollars and secure new water faster and more cost-effectively by investing in the water supplies and infrastructure we already have.

With two more years and another $200 million in state funding available for water supply projects under the GWSP, Gov. Deal must make water conservation and efficiency measures eligible for funding. The Governor must also restore taxpayers’ trust in his water supply program by directing funds to truly critical and cost-effective water supply projects. Our state water supply tax dollars should not be used for political purposes.

As population grows, our water demands don’t have to. Other cities, like Seattle, Boston and Raleigh, have shown that by using existing water supplies more efficiently, your population can grow while your water use stays the same, or even decreases—and you can save tax dollars.
The proposed Richland Creek reservoir in metro Atlanta’s Paulding County is symptomatic of Georgia’s rush to “secure water supplies” at the expense of common sense and state and local tax dollars. While lower cost alternatives exist to secure future water supplies, local leaders, supported by Gov. Nathan Deal’s water supply program, are promoting an unnecessary $85 million project that threatens downstream water users and a population of federally protected fish that are only found in the Etowah River basin—and nowhere else in the world.

**THE RIVER:**
Flowing 163 miles from the North Georgia mountains in Lumpkin County to Rome in Northwest Georgia, the Etowah River ventures far enough south to provide about ten percent of Metro Atlanta’s water supply—most of it through withdrawals from Lake Allatoona. As the Chattahoochee River and Lake Lanier reach their water supply limits, metro Atlanta communities have increasingly looked to the Etowah for additional water. Currently, there are nine proposed reservoirs in the Etowah River basin. Virtually all of these involve damming an Etowah River tributary and then piping water to the Chattahoochee River basin in metro Atlanta. And, virtually all of these proposed reservoirs would impact habitat for federally protected fish species. The Etowah is considered one of the most biologically diverse rivers of its size in the country, hosting 75 native fish species, including 17 species that are considered imperiled. A hotbed of biodiversity, the Etowah is under assault by water supply projects.

**THE DIRT:**
The Richland Creek reservoir poses a serious threat to federally protected fish species, downstream water users and state taxpayers. It serves as an example of Georgia’s misplaced water supply priorities. Rather than investing limited state and local funds in maximizing existing water supplies, water planners are opting for high-cost alternatives that waste tax dollars on new projects of dubious need.
In August, the Georgia Environmental Finance Authority awarded a $29 million state loan from the Governor’s Water Supply Program to Paulding County to help build the $85 million project that is expected to produce 35 million gallons of water a day (MGD). This loan was awarded despite the fact that the U.S. Army Corps of Engineers (Corps) has not yet approved the project. Serious questions about the reservoir’s need remain.

For instance, the Paulding County Water Department currently cannot account for nearly 25 percent of the water it purchases from the neighboring Cobb-Marietta Water Authority. About 15 percent of the water it purchases leaks out of delivery pipes before ever reaching a water customer. These water losses cost the department $1.4 million annually. Reducing the leaks by just five percent could produce an additional 566,000 gallons per day—enough to supply 3,000 homes.

Furthermore, Paulding County has grossly overestimated its future population. County documents supporting the reservoir suggest that the county’s population will grow by 14,000 residents per year for the next decade, but from 2000-2010, the county grew by an average of 5,482 residents per year and growth slowed dramatically following the economic downturn in 2008. Reservoir proponents suggest that the county will need 47 MGD by 2035, but a more realistic projected demand could be 24 MGD—if the county fixed leaks, implemented other water efficiency measures and recalculated its population projections.

Paulding County already has a water supply—Lake Allatoona. Given recent court decisions, it appears Georgia communities will have more access to Lake Allatoona—not less—meaning Lake Allatoona could potentially meet the county’s water needs for the foreseeable future.

Unfortunately, rather than aiding local water suppliers in fixing leaks, Gov. Deal’s administration is sending state tax dollars to build new reservoirs like Richland Creek that may ultimately prove unnecessary.

**WHAT MUST BE DONE:**

A decision from the Corps about whether Paulding County will get the green light for the project is pending. In the meantime, the state and Paulding County should direct limited funds to fixing leaking pipes and implementing other water efficiency measures.

Spending $29 million in state funds to build a reservoir that will feed pipes that leak 15 percent of the water supplied by that reservoir is fiscally irresponsible. If your truck has a gas leak, you don’t keep buying more gas to fill it up, you fix the leak. Equally irresponsible is investing in reservoir projects without first determining how much water will be available from Lake Allatoona. That cannot be determined until the Corps completes studies of the operation of Allatoona Dam and a water sharing agreement is reached with Alabama.
For more than a half century, Rayonier’s Jesup pulp mill has discharged noxious waste into the state’s largest river, the Altamaha, that fouls the river for miles, completely altering its character by turning the water black and pulpy and emitting a rancid odor. Fisheries, including the river’s once prosperous commercial shad fishery, have been severely damaged. White sandbars are stained brown. Fishermen catch seemingly healthy fish only to find them reeking of nauseating pulp mill odors when they begin to clean them. Despite being aware of the problem for years, Rayonier and Georgia’s Environmental Protection Division have failed to fix the mess and restore the Altamaha.

THE RIVER:
The Altamaha is Georgia’s largest river and the third largest contributor of freshwater to the Atlantic Ocean on North America’s eastern shore. It drains a 14,000-square mile basin stretching from north of Atlanta to Darien and is a place of unsurpassed beauty. Often called “Georgia’s Little Amazon,” The Nature Conservancy named it to its list of the 75 last great places on Earth. Formed by the confluence of the Ocmulgee and Oconee rivers, the Altamaha system provides drinking water for communities from metro Atlanta to Middle Georgia. The Altamaha itself fuels two major industrial complexes—a nuclear power plant near Baxley and Rayonier’s pulp mill near Jesup where the makings of flatscreen TVs, air & oil filters and disposable diapers are produced. Its freshwater flow supports commercial shrimp and crab harvests on the Georgia coast and makes possible the rich fisheries of Sapelo Island, Little St. Simons Island, St. Simons Island and the Sea Island Resort.

THE DIRT:
Rayonier has operated a pulp mill on the Altamaha at Jesup since the mid-1950s and the consequences for the Altamaha have been disastrous. A once-thriving commercial shad fishery has been greatly diminished. Anglers say fish caught from that area of the river are not edible because they reek of the mill. And,
biologists suspect that the mill is responsible for making a long stretch of the river un-inhabitable for mussels, creatures that when found in abundance actually help keep rivers clean.

Rayonier’s blackwater discharge discolors the river, staining white sandbars brown and carrying the mill’s noxious fumes downstream. The plant’s 50 million gallon a day wastewater discharge completely changes the character of the river for some 50 miles to the Altamaha Delta. In 2008, EPD and Rayonier entered into an agreement to fix this long-running pollution problem by reducing the color of the discharge by 50 percent over a period of eight years. Four years later, the pollution continues with no visible improvement.

In 2011, Rayonier boasted earnings of $264 million while its stockholders reaped a 32 percent return from dividends and stock price gains. The company’s 2011 annual report states: “Investors who have held our stock for the past five years have more than doubled their investment.” The company is currently investing $300 million to convert its largest production line at the mill to a more profitable product. However, the company still hasn’t invested adequately in fixing its foul discharge.

Experts say that similar pulp mills are able to operate facilities like this with virtually clear wastewater discharges, yet Rayonier has been allowed to discharge effluent using decades old technology.

**WHAT MUST BE DONE:**

In 2011, Rayonier’s discharge to the Altamaha was noted in the Georgia Water Coalition’s Dirty Dozen and in 2012, after six years of inaction, EPD finally requested that Rayonier apply for a wastewater discharge permit renewal.

Now, with Rayonier in the midst of that permit renewal process, EPD has the opportunity to issue a new permit that would eliminate this decades-old pollution problem. EPD must ensure that Rayonier’s new pollution discharge permit includes strict and enforceable limits on the color, odor, chemical, and biological pollutants that are currently allowed to be discharged into the river.

The permit must require Rayonier to invest in technology and infrastructure to improve its wastewater treatment and fully protect and restore the Altamaha while shortening the time frame for eliminating its polluting discharge.
In the early 20th century, a half-mile channel was dug through Georgia’s coastal marshlands for the purposes of moving timber to market via river barges on Dover Creek and the Satilla River. A century later the lumberjacks are gone, but the channel known as Noyes Cut remains, wreaking havoc on migrating fish, blue crabs and boating routes near the mouth of the Satilla River. Today, filling in the obsolete timber barge route could result in restoration of striped bass, herring, eel and shad migrations in Camden County’s coastal creeks and the Satilla River while improving routes for recreational boaters. Despite the fact that a Corps’ study recommended the closing of Noyes Cut in the 1980s, to date, no action has been taken to correct this century-old problem.

THE RIVER:
The blackwater Satilla River drains some 4,000 square miles of the far southeastern portion of the state and empties into the Atlantic Ocean at St. Andrew Sound amidst Georgia’s Golden Isles. Its estuary and intricate maze of coastal marshes and tidal creeks, where freshwater and saltwater mix, are critical nurseries for important commercial seafood and sport fish. Through the years, the great “mixing zone” of the Satilla has been altered by land-use practices and by navigational cuts through the salt marshes, like Noyes.

THE DIRT:
In the early 1900s, Noyes Cut was seen as a necessity to move Georgia’s bountiful timber crop to markets. Little thought was given to the unintended consequences of this “short cut” for commerce that connected Dover Creek, a coastal tidal creek, with the mainstem of the Satilla River. Nearly, a century later, we are left to deal with the results of this tinkering in the salt marsh.

Noyes Cut has permanently altered the ebb tide on Dover Creek, causing the siltation of the creek and thus blocking access to the creek’s freshwater reaches for migratory fish, crabs and shrimp. Portions of
the creek that were once 100 yards wide have now narrowed to ten yards, and the inland reaches of Dover Creek and adjacent Umbrella Creek go dry at low tide. The siltation has also blocked creek access to commercial fisherman who earn their livelihood harvesting seafood from these waters.

The impacts of Noyes Cut are compounded by land use changes in the larger Satilla River watershed that have resulted in chronic low flows and unnaturally-low oxygen levels in the river. These conditions have driven migratory fish from the river’s mainstem, making restoration of the river’s tidal creeks all the more important for a healthy fishery in the river’s estuary which expands across 10,000 acres of Georgia’s coast.

**WHAT MUST BE DONE:**
Funding is needed to conduct computer modeling to predict the changes that would occur if Noyes Cut was closed and filled. If the modeling suggests that closing the cut would have positive benefits, the Corps should move forward with funding to close the cut and restore the natural flow of saltwater and freshwater in Dover Creek and the Satilla River estuary.

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Twice in 2012, Bull Sluice Lake, a reservoir on the Chattahoochee River formed by Morgan Falls Dam near Atlanta, nearly disappeared, stranding boaters on mudflats. The sudden drop in Bull Sluice’s elevation was the result of a communication glitch between the U.S. Army Corps of Engineers (Corps), which operates Lake Lanier’s Buford Dam upstream, and Georgia Power Co., which operates Morgan Falls Dam. As a result of the glitch, Chattahoochee River flows below Buford and Morgan Falls dams dipped to unprecedented lows with unknown water quality consequences, underscoring an ongoing problem on the river: the lack of timely flow and water quality monitoring.

In the 1970s, Georgia’s Environmental Protection Division (EPD) established a minimum flow of 750 cubic feet per second (cfs) in the Chattahoochee River below Morgan Falls Dam at Peachtree Creek in order to dilute discharges from sewage treatment plants in metro Atlanta and to protect the health of the river. Unfortunately, EPD has yet to provide real-time monitoring at this critical location, making compliance with this flow requirement impossible to verify. In addition, since implementing the minimum flow standard more than 30 years ago, EPD has yet to conduct a comprehensive, scientific study to confirm that 750 cfs is adequate to assimilate metro Atlanta’s sewage and protect water quality.

THE RIVER:
Flowing 436 miles from its headwaters in the North Georgia mountains to its confluence with the Flint River in southwest Georgia, the Chattahoochee is the most heavily used river in the state. It provides drinking water for close to four million Georgians, including 73 percent of metro Atlanta’s population, and equally important, it dilutes the waste from metro Atlanta’s sewage treatment plants. After joining the Flint to form the Apalachicola, the river winds another 106 miles to Apalachicola Bay on the Gulf of Mexico. Dammed 13 times, the Chattahoochee has been significantly altered and degraded by human activities, but remains noteworthy for the freshwater flows that sustain Florida’s most productive estuary in Apalachicola Bay and for its aquatic biodiversity. The Apalachicola-Chattahoochee-Flint basin is home to the largest number of
fish species among Gulf Coast drainages east of the Mississippi River.

**THE DIRT:**
Since the 1970s, the state of Georgia has relied on a 750 cfs flow standard at the confluence of the Chattahoochee River and Peachtree Creek in Atlanta. The state has deemed 750 cfs as adequate to protect the health of the river by providing sufficient flows to dilute discharges from more than a dozen sewage treatment plants in Fulton, Cobb, Douglas, and Gwinnett counties. EPD's failure to measure, or require regulated entities to measure, river flow on a real-time basis poses a threat to the river as well as public health and safety.

In practice, EPD relies on after-the-fact calculations of daily average flow data from multiple sources to determine if the flow standard was met. In addition, EPD requests variances from the 750 cfs flow requirement during periods of drought without adopting other measures to ensure river health standards are met.

Moreover, EPD relies on a single water quality parameter—dissolved oxygen—to determine whether water quality in the river is safe.

Reports prepared by the Corps suggest that additional flow at the Peachtree Creek location would be necessary for the river to handle wastewater discharges as the metro Atlanta region grew in population. Yet, almost forty years later, EPD has still not conducted studies necessary to determine if 750 cfs is adequate to protect the river, wildlife and human health, particularly as the region grows.

**WHAT MUST BE DONE:**
After this issue was highlighted in the Georgia Water Coalition's 2011 Dirty Dozen report, EPD installed a water quality monitor for dissolved oxygen in the Chattahoochee River downstream from Peachtree Creek, and the information collected is available on the internet in real time.

EPD must still work with the Corps, U.S. Environmental Protection Agency (EPA), Atlanta Regional Commission and local water utilities to determine an effective and transparent means to ensure the 750 cfs flow standard is met. In order to do so, EPD should require all water utilities to provide their withdrawal data to the Corps on a real-time basis so that the Corps can better operate Buford Dam to meet the 750 cfs standard at all times.

In addition, EPD should conduct a study to determine whether the 750 cfs target is protective of all designated uses. Until that study is complete, EPD should not issue any more water withdrawal or discharge permits for the river.
On the south side of Gainesville in Hall County, the predominantly minority community of Newtown has fought for more than half a century to protect their homes, health and property values from harmful industrial pollution. Today, they face the proposed expansion of a landfill that processes food waste, biosolids and sewage sludge. Already, nearby residents say that odor from the facility is so unbearable that children, at times, cannot play outside.

Promoted by politically-powerful individuals with ties to Gov. Nathan Deal, expansion of the Gainesville Waste and Recycling (GWAR) landfill poses a serious threat to water resources in the Oconee River basin and to the health of families in Newtown. This site is an example of the hundreds of industrial operations statewide that are not fully complying with pollution regulations to stop the flow of bacteria, excess nutrients, toxic substances and other contaminants into Georgia’s waterways.

THE DIRT:
The expansion of this landfill goes straight to the top of Georgia’s political hierarchy. In 2002, Gov. Deal and his business partner, Ken Cronan, purchased 100-acres in Newtown that was a former Hall County landfill. The property is adjacent to another business co-owned by Deal and Cronan called Gainesville Salvage Disposal. The governor (then a Congressman) divested his interest in 2003, but according to documents uncovered by the Gainesville Times, Deal and his staff were involved in meetings, re-zonings and the permitting of the landfill through 2008.

In 2007, Cronan registered GWAR to operate a construction and demolition landfill on this 100-acre site. That same year, a landfill application filed with Georgia’s Environmental Protection Division (EPD) was signed by Congressman Deal, and in 2010 EPD issued a permit to operate a landfill handling construction waste at the site. This year, the permit was modified several times to allow composting of food waste and biosolids mixed with sewage sludge—the likely source of the odor and possible contamination of nearby streams.
Finally, in August, GWAR requested permission from the Corps of Engineers to expand its existing landfill to areas on the site with streams and wetlands. The expansion will destroy 1,532 feet of streams feeding Allen Creek—a creek that is already listed by EPD as polluted because of high bacteria levels. There are also recent indications that the groundwater at the site may be contaminated.

With EPD issuing permits for landfill expansions, the Hall County Commission in November rezoned 50 acres adjacent to GWAR that will allow for an even larger expansion of operations.

While the landfill poses a threat to the health of nearby residents and Allen Creek, it also serves as an example of EPD’s woefully under funded program to regulate pollution flowing off industrial sites. The state agency currently has only three employees to oversee industrial stormwater compliance at thousands of sites statewide—from landfills and poultry and food-processing operations to chemical plants and auto salvage yards. A preliminary review of the GWAR landfill operation, including neighbors’ observations and anecdotal information, suggests that existing pollution controls at the site are inadequate.

Meanwhile, the low-income, minority community of Newtown is left to deal with the mess. More than 13 industrial facilities operate there, burdening the community with a myriad of environmental and public health concerns, including groundwater contamination, release of landfill gases such as methane and volatile organic chemicals, fire hazards, and odor problems.

**WHAT MUST BE DONE:**

EPD should deny environmental permits necessary for expansion of the GWAR facility. The clustering of landfills near Newtown may exceed the threshold permissible under state law. Furthermore, this landfill site is located just upstream of Allen Creek, a stream already identified as polluted with high bacteria levels. The processing of food waste, biosolids and sewage sludge without adequate pollution controls and the destruction of streams for landfill expansion will contribute to the further contamination of Allen Creek.

EPD must also seek adequate funding from Gov. Deal and the General Assembly to support its solid waste and industrial stormwater programs so that the agency will have adequate staff to ensure that landfills and other industrial facilities are keeping pollution out of our streams and rivers and protecting adjacent communities like Newtown.

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In 2010, the Army Corps of Engineers agreed to allow Grady County, in far Southwest Georgia, to build a 960-acre public fishing lake on Tired Creek despite substantial criticism from state, federal, and other stakeholders. This boondoggle will put Grady County taxpayers on the hook to pay for the multi-million-dollar lake, will destroy more than 300 acres of wetlands and nine miles of streams and will alter flows on the Ochlockonee River for property owners and communities in Grady County and Florida.

Since the 1930s, state and federal authorities have proposed multiple plans for a park and lake on Tired Creek. All have failed to materialize—due to lack of funding and a lack of need. But, Grady County officials have been undaunted. When Georgia’s Department of Natural Resources questioned the need for an additional fishing lake just 25 miles from the large-mouth bass hotbed of Lake Seminole, county leaders pushed forward—first promoting an amenity lake for a high-end residential golf development. When federal authorities denied environmental permits for that proposal, the County returned with additional proposals. Without any meaningful regulations on development around the proposed reservoir, the U.S. Army Corps of Engineers (Corps) finally approved the construction of a fishing lake.

The Ochlockonee River basin is located in Georgia and Florida and drains approximately 6,330 square miles. Approximately 1,460 square miles of the basin are in Georgia. Flowing 206 miles to the Gulf of Mexico from its headwater streams in Worth County, the Ochlockonee cuts through the heart of Georgia’s bread basket with 44 percent of the land area dedicated to growing peanuts, corn, cotton, soybeans and other food crops. Swimming in its waters are a number of rare fish species, including Suwanee bass, bannerfin shiners and spotted bullheads. Tired Creek is a major tributary of the Ochlockonee in Grady County near Cairo.

Grady County officials had to convince the Corps that their project served a justifiable need in order to
get the permits required to construct a fishing lake. To do so, the County conducted a fishing demand survey. The study painted a glowing future for the anglers’ paradise, but a closer inspection of the study shows that demand for an additional fishing reservoir in the area was overblown, while impacts to downstream property owners and communities were overlooked.

The flawed study ignored the chilling effect that Georgia state fishing license fees would have on out-of-state anglers and overestimated the number of Floridians who would forgo fishing their in-state waters to purchase a Georgia license for the privilege of fishing at Tired Creek Reservoir. The study also included children under the age of five (including infants and toddlers), in calculating projected angler visitation rates for the reservoir.

This study supports a project that puts Grady County taxpayers on the hook for a project that is estimated to cost at least $15 million. Already, the county has issued $15 million in bonds to fund the project and county taxpayers are now footing the bill with increased property taxes and a one-cent local option sales tax. It remains to be seen whether this outlay will be enough to cover the real costs of the project. The same consultant working with Grady County also estimated the costs of reservoir projects in Walton and Cherokee counties. Combined, those two projects are now $389 million above the original estimates.

However, in July, county taxpayers rejected the Southwest Regional Transportation SPLOST which was slated to pay for a highway bridge that will need to be relocated if the lake is built.

Grady County has also fought to minimize the size of the buffer around the lake and the county has refused to put the undeveloped portion of the property – more than 2,000 acres – under a conservation easement which would help preserve the reservoir’s long-term health and limit development around a publicly-funded fishing lake.

**WHAT MUST BE DONE:**
Grady County should abandon this proposed reservoir and seek more cost-effective and environmentally sustainable projects to utilize its water resources for economic development.

By improving access to the Ochlockonee River through the construction of boat launches, biking and walking trails, and other amenities, the County could provide more fishing and recreational opportunities for its citizens and promote tourism for significantly less investment. Already in Florida, communities along the Ochlockonee have established water trails for paddlers and boaters. An extension of this water trail into Grady County could be an amenity that attracts visitors, improves quality of life for local residents and attracts businesses to locate to Grady County.

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Along Georgia’s rivers, you’ll find 17 fossil-fuel-fired and nuclear-powered electric generation facilities. Water pumped from our rivers is critical in the power generation process as it is used to cool operating systems and keep electricity flowing to our homes, businesses, industries and farms. In fact, more water is pumped from Georgia’s waterbodies to produce electricity than is removed for any other use—nearly fifty percent of Georgia’s total water use. These facilities permanently remove about 187 million gallons a day (MGD) from Georgia’s rivers—enough water to supply the cities of Augusta, Savannah, Columbus, Macon, Albany and Rome.

Among the rivers most impacted by these withdrawals is the Savannah which provides water for Plant Vogtle, one of the state’s two nuclear power plants. Earlier this year, the Southern Company began construction of two new nuclear reactors at Vogtle. The proposed reactors are expected to require an additional withdrawal from the Savannah River of as much as 74 MGD.

At a time when Georgia is already struggling to supply enough water for homes, businesses, industries and farms, the state needs to seek innovative ways to reduce the energy sector’s significant demands on our rivers.

THE RIVER:
Forming the state line between Georgia and South Carolina, the Savannah River drains a land area of 10,577 square miles and flows 313 miles across the Piedmont and Coastal Plain before emptying into the Atlantic Ocean at the City of Savannah. Georgia’s first river, it supplies drinking water to approximately 1.4 million people, including two of Georgia’s largest cities, Augusta and Savannah. Additionally, the river feeds countless industries, including the Savannah harbor, the state’s largest seaport, and supports a thriving recreation and tourism industry—three U.S. Army Corps of Engineers’ reservoirs host a combined 21 million visitors annually. Biologically rich, the river serves as spawning grounds for the federally protected Atlantic and shortnose sturgeon.
THE DIRT:
The massive water withdrawals required for Plant Vogtle’s proposed new nuclear reactors, on top of the water requirements for two existing reactors, pose a serious threat to the Savannah River. When water is withdrawn from the river, both fish and their eggs often get sucked to their death as well. And, once the water is removed from the Savannah, much of it will never be returned. In a worst-case scenario the proposed new reactors will withdrawal 49 MGD for evaporative cooling, but only 8 MGD will be returned. That means 88 percent of the water removed from the river will be lost in the process. To put the projected consumptive water loss in perspective, with average per capita daily water use in Georgia at 75 gallons, this means the two existing and two proposed Vogtle reactors could consume enough water to supply over 1.1 million Georgians with drinking water.

Additionally, the water that is returned to the river is discharged from the plant at an elevated temperature, which can cause oxygen levels in the river to decline, further stressing imperiled fish populations. Add to that the potential for releases of tritium, a radioactive form of hydrogen, and relying on surface water to cool these reactors makes less and less sense, especially when alternative cooling technologies exist.

Dry cooling (also known as “air cooling”) or wet/dry hybrid cooling systems, are in use in the United States and other countries, but not in Georgia. Though not currently in use at nuclear plants, a hybrid cooling option was approved for a proposed reactor at the North Anna nuclear plant in Virginia. The U.S. Environmental Protection Agency has stated that dry cooling is “appropriate in areas with limited water available for cooling or where the source of the cooling water is associated with extremely sensitive species.” The Savannah fits both of those categories.

WHAT MUST BE DONE:
As Plant Vogtle’s partners (Georgia Power Company, Oglethorpe Power Company, Dalton Utilities and MEAG Power) move forward with construction of the plant’s new reactors, they must reconsider alternative cooling technologies to reduce stress on the Savannah River.

Additionally, Georgia’s Environmental Protection Division, which is currently reviewing water withdrawal permits for the new reactors, must evaluate water-saving cooling technologies and the long-term sustainability of the Savannah River. These cooling technologies would significantly reduce water use, lessening impacts on the Savannah. Moreover these alternatives can be cost-effective, especially in light of ongoing drought conditions, which have caused shutdowns at other power plants in the region.

Finally, given Georgia’s current reliance on water-intensive electricity generation, development of less-water intensive energy options including energy efficiency and conservation and renewable sources such as wind and solar should be a statewide priority.
As Georgia citizens, every time we purchase new tires for our vehicles, we pay a $1 per tire fee to the state to ensure proper disposal and recycling of our scrap tires. In place since 1990, these fees, deposited in the state’s Solid Waste Trust Fund, have helped our state clean up illegal and abandoned landfills, tire piles, and dumps. Unfortunately, during the past eight years, the Georgia General Assembly has looted millions of dollars from the Solid Waste Trust Fund, leaving tire dumps scattered across the state, posing a risk to public health and the environment.

Such is the case in Southwest Georgia where some 150,000 tires sit at the Randolph County Transfer Station in Cuthbert awaiting proper disposal and recycling. Collecting water, the tires are breeding grounds for disease-carrying mosquitoes. Meanwhile the risk of fire is always present—a catastrophe that could release toxic fumes into the air and release contamination into nearby Pachitla Creek.

THE RIVER:
Draining parts of Randolph and Calhoun counties in Southwest Georgia, Pachitla Creek is a tributary of Ichawaynochaway Creek which flows to the Flint River. Ichawaynochaway is one of South Georgia’s most pristine streams and, along with the Flint, flows through Georgia’s rich agricultural lands. The Flint, and Chattahoochee, are at the heart of a two-decade-long battle over water rights between Georgia, Alabama and Florida. In 2009, it was named to American Rivers list of the nation’s most endangered rivers.

THE DIRT:
Between 2004 and 2011, the Solid Waste Trust Fund collected over $51 million in tire fees. Unfortunately, the General Assembly has the discretion to redirect these funds, and thus, only $19 million (about 35 percent) has actually been used to clean up tire dumps. The rest—$32 million in fees collected from taxpayers—has been used to pay for other portions of Georgia’s budget. The result is more than 512 sites
across the state containing a total of 1.2 million tires—all awaiting proper disposal, if only the money was available. These tires can be found piled in illegal dumps, dumped in our rivers and along our roadways and even abandoned in rental storage units.

As for the Randolph County tire pile, Georgia’s Environmental Protection Division (EPD) estimates that it will cost between $375,000 and $450,000 to clean up the site. Unfortunately for Cuthbert residents and other communities blighted with tire dumps, state legislators allotted only $345,000 for all tire cleanups statewide.

This negligence leaves ticking time bombs of rubber spread across the state. In 1992, a tire fire in Palmetto burned for days, sending toxic black smoke into the air for weeks and costing state and local officials $4.5 million to extinguish. Likewise, a 2002 fire in Watson burned for days, forcing residents to evacuate their homes and costing $130,000 to extinguish.

Abandoned tires fill with rainwater and become dangerous breeding grounds for mosquitoes, which can carry diseases like West Nile virus and Eastern Equine Encephalitis.

These varied threats all come from a recyclable resource which, if repurposed properly, can continue to fill important needs—and create jobs in the recycling industry. Scrap tires can be transformed into any number of products, including playground equipment, floor mats, and even “crumb rubber” for the manufacture of rubber-asphalt.

Finally, because the Solid Waste Trust Fund also provides funding to local governments for waste reduction and recycling programs, efforts to extend the life of local landfills and promote cleaner communities have been greatly hampered.

**WHAT MUST BE DONE:**

Georgia legislators must restore taxpayers’ faith by ceasing the annual raid of the Solid Waste Trust Fund and using our scrap tires fees as a hidden tax to fill holes in the state budget.

Legislators must appropriate the full amount to the trust fund so that EPD and local governments can continue to perform needed pollution cleanups and remediation projects that will protect community health and our drinking water.