The State of North Carolina's 21st Century Plan for the Use of The Yadkin River Resources

Volume 1

September 8, 2009

Prepared by Karen A. West, Acting General Counsel, (919) 715-5579 kwest@nccommerce.com; with contributions from Stephanie G. McGarrah, Asst. Secretary for Policy, Research and Strategic Planning and Christopher Harder, Director of Economic Analysis (economic analysis sections); Allan Sandoval, GIS Specialist (maps); Asst. Secretary for Communications and External Affairs Katharine C. Neal (primary Commerce functions); Stewart Dickinson, Commerce Finance Director and Mark N. Poole, Finance Specialist (financial model).

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SECTION I

Statement by North Carolina Secretary of Commerce, J. Keith Crisco

We appreciate this opportunity to present the State of North Carolina's 21st Century Plan for the Use of the Yadkin River Resources (the "Plan"), in support of the State's request to the Federal Energy Regulatory Commission ("FERC" or the "Commission"), that FERC recommend that the Federal Government exercise its right under Federal Power Act Sections 7(c) and 14, 16 U.SC. §§ 800(c) and 807, to recapture the Yadkin Hydroelectric Project, FERC Project No. 2197 (the "Project" or the "Yadkin Project"), and transfer it to the State of North Carolina for public purposes.

Background

The Yadkin River is an invaluable natural resource for the State. Its flowing waters are used for multiple purposes by our citizens. The current Project licensee, Alcoa Power Generating, Inc. ("APGI"), developed three dams and hydroelectric plants in the early 20th century and a fourth dam and hydroelectric plant in the early 1960s, to serve the industrial needs of its parent company, Alcoa, Inc.[1] At the time, this also served local needs, as the company employed nearly a thousand local people. Those facilities comprising the Yadkin Project have essentially determined how the Yadkin River flows have been used in the State for the past 100 years. The Yadkin River has been a prime attraction for centuries. Beginning in 1753, when the Moravian settlers came from Pennsylvania and established a colony, thousands of settlers came to the area, drawn by fertile land, access to water and navigable streams, and fishing.

At the time of APGI's initial license, the company argued extensively that if it were required to acquire a federal hydroelectric license to generate electricity for its aluminum smelting operations in the Badin area, a 50-year license (rather than the usual 30-year license), was "necessary, as a matter of economics, for the continuance of the smelting operations at Badin, which is the principal industry serving that area of North Carolina."[2] APGI (then "Aluminum") threatened that "[t]he possibility of discontinuance or diminution of Aluminum's smelting operations at Badin, by reason of issuance of a license for… a term too short to be economically feasible for Aluminum, would entail losses to the community in taxes and employment that

[1] The Yadkin Project license was transferred to APGI from its predecessor company, Yadkin, Inc. (f/k/a Carolina Aluminum Company, the original licensee). Yadkin, Inc. was merged into APGI as a result of an Alcoa corporate restructuring. For purposes of discussion, APGI will be referred to as the licensee, regardless of the point in time under discussion, as it succeeded to and is bound by all license terms applicable to the former entity, and both were the power subsidiaries of Alcoa. FERC Order Granting Waiver and Approving Transfer of License, *Yadkin, Inc*., Project No. 2197-039, 92 F.E.R.C. ¶ 62,029 (issued July 17, 2000).

[2] Motion for Reconsideration and Rescission of Order, Project No. 2197 and Project No. 2206. *In the matters of Carolina Aluminum Company and Carolina Power & Light Company* (August 23, 1957) (provided as Attachment I).

would be disastrous in their effect."[3] At the time, the State of North Carolina supported APGI's request for a 50-year license because the State believed that, as the largest employer and largest taxpayer in Stanly County, and with increased employment expected from increased investment, the company's continued operation of the smelting works was in the public interest. The State also noted that "Companies such as these take root in a State and weave themselves into the economic life and well-being of the people and their industries. [They] become almost institutions of the State and the economic status and well-being of many families depend upon their regularity of operations and a progressive modernization of plants and installations."[4] Fifty years later, the disaster that APGI warned about has come. After declining levels of smelting operations and corresponding employment reductions for at least 20 years, manufacturing processes at the Badin smelting works finally shut down completely in 2007, and APGI is no longer woven into the economic well-being of the people. In fact, not only does APGI not offer the benefits that were a *quid pro quo* for the State's support of its initial license, but it produces harm in that it does virtually nothing to address the water quality needs or the economic or recreational needs of the region. The State's review of the more recent record also shows that APGI has significantly deferred major maintenance of the Yadkin Project hydroelectric facilities and failed to complete investments necessary to meet State water quality standards, and that APGI cannot demonstrate good stewardship of this resource. This is in contrast to other North Carolina power producers which are also FERC licensees and State-regulated entities that serve the people of North Carolina. Those other licensees can also generally be relied upon to partner with the State on economic development projects, and to pursue development, energy innovation and activity with sensitivity to the economic benefit to the State, primarily because – unlike Alcoa and APGI – their core businesses are located within the State and their success depends on the well-being of the State's economy.

APGI's initial Yadkin River Hydroelectric license expired in 2008, and APGI has now applied to the Commission for relicensing. APGI is seeking another 50-year license. Clearly, under the circumstances that exist in 2009, there is no basis to grant APGI another license. The original basis justifying the issuance of a license to APGI long ago ceased to exist.

The State recognizes that the Commission's past practice has been to grant license renewals like that sought by APGI, but the relicensing process set out by the Federal Power Act also expressly provides for alternative actions. Under one of these alternatives (recapture), the State of North Carolina (the "State") could seek to recover for its citizens their heritage, by once again making the Yadkin River work primarily for the citizens of this State. We believe that this case warrants recapture of the license.

We are not initiating this request lightly. North Carolina is heralded as a business-friendly State; we spend a lot of time and energy promoting the attractions of North Carolina for business location and expansion, and in developing tools to help us recruit business. We have not changed

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[3] *Ibid.*

[4] Brief on Behalf of Intervenor State of North Carolina, in *Carolina Aluminum Company*, Federal Power Commission Project No. 2197 and Docket No. IT-5499 (filed Nov. 14, 1957) (provided as Attachment II).

our outlook on the importance of private industry. The State did not start out to become a hydroelectric power operator in the Yadkin River Basin. But, now, it is important that we become one, and we are fully prepared to do so. APGI's lack of sound stewardship of this important resource, and its failure to contribute in any manner to the economic health and well-being of North Carolina, puts this company, and this FERC license, in an entirely different category than other power operators. APGI has left the State no choice but to act to save this resource from APGI's neglect, by becoming the conscientious operator of this invaluable resource for the larger public good.

Why the State Needs the Ability to Better Influence the Yadkin River Flows; Essential Needs

Because the Yadkin River is a major river, it is instrumental to ensuring the region's growth and prosperity in the coming decades. Yet, as noted above, control of the Yadkin River's flows now resides with a private corporation that no longer uses the power potential of the river for the original industrial purposes that brought it to the State. Regrettably, the more recent history of this licensee fails to demonstrate that the State can rely on this licensee to be a good steward of the Project and the Yadkin River's flows, or that the State can rely on the licensee's concerns for the State's well-being. As noted earlier, this is not something that the State experiences, as a matter of course, with other FERC-licensed projects within the State.

Without the ability to control or influence the Yadkin River's flows, and without receiving the associated economic benefit of these flows, the State's ability to ensure future growth and prosperity, for the people of this region and the State as a whole, is impaired. North Carolina now competes globally for jobs and development. The rapid pace of technological innovation and economic change – brought home by the speed and severity of the recent global economic downturn which has severely impacted the State's citizens – makes it imperative that the State be provided the capability to respond quickly and flexibly to new challenges and changing conditions. We anticipate the chief task in the 21st century to be the need to create more and better jobs, and at the same time to address the increasingly more difficult task of providing a hospitable and quality environment for our growing urbanized population, as well as our still significant rural population. An analysis of the challenges facing this State over the coming decades has led the State to the conclusion that the public interest and the discharge of its responsibilities require that it assume guardianship of the Yadkin Project resources so that the value of this great natural resource can be directed to the economic interest and well-being of the people.

With such ability, the State could better advance important public purposes and still assure the development and operation of the Project consistent with FERC's mandate to license only projects that are best adapted to a comprehensive plan for a waterway, a plan that would properly balance power generation and development with non-power uses over the full license term. These would include public use of the Yadkin River's water, economic development, mitigation and remediation of environmental hazards and enhancement of fish and wildlife, flood control, aesthetics, cultural resources, recreational opportunities and other beneficial public uses. Achieving all these tasks is essential to the well-being of the State's people in the 21st century.

The State's Obligations to its Citizens: An Overview

The State's success depends on appropriate use of natural and human resources. The State has experienced considerable success in the field of economic development, which has brought a measure of improved prosperity to the State over the past two decades. Its continued success depends on its ability to use its natural and human resources even more effectively to attract and retain businesses and residents in the future. The State has statutorily adopted a declaration of public policy with regard to its responsibility for conservation of water and maintaining superior environmental quality as a public purpose.[5] The statute explicitly reflects the State's responsibility for water resources as follows:

> *Recognizing that the water and air resources of the State belong to the people, the General Assembly affirms the State's ultimate responsibility for the preservation and development of these resources in the best interest of all its citizens and declares the prudent utilization of these resources to be essential to the general welfare.*[6]

We regard the management of a major river basin like the Yadkin as requiring a balancing of multiple and competing uses in a purposeful manner.[7] This is also reflected in North Carolina's statutes:

> *Standards of water and air purity shall be designed to protect human health, to prevent injury to plant and animal life, to prevent damage to public and private property, to insure the continued enjoyment of the natural attractions of the State, to encourage the expansion of employment opportunities, to provide a permanent foundation for healthy industrial development and to secure for the people of North Carolina, now and in the future, the beneficial uses of these great natural resources.*

This is the essence of the State's daily and long-term activities. Because of our experience, we believe the State is particularly suited to making these kinds of decisions, consistent with both Federal and State law, which will play an increasingly important role in the welfare of the State and its citizens over the coming years. We discuss in more detail below, the particular problems we anticipate will need to be addressed and how the resolution of each of these problems can be improved if the State had greater authority and control over the flows in the Yadkin River.

1. Assurance of Adequate Municipal Water Supply Is Critical; Planning is Essential

Clean, reliable water resources, in particular, are essential to the State's viability. In 2008, during the State's most recent severe drought, streams in western North Carolina dropped to record lows.[8] Monthly average flows hit all-time record lows for June and July at more than half

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[5] See N.C. Gen. Stat. § 143-211(a).

[6] *Ibid.*

[7] See N.C. Gen. Stat. § 143-211(c).

[8] U.S. Geological Survey's N.C. Water Science Center. Data *available at* http://nc.water.usgs. gov/

of the U.S. Geological Survey's long-term gauges in the region, and low-water records were set in the Catawba, Yadkin and Broad River basins of North Carolina.

Stream flow determines how much water feeds the reservoirs used by most municipalities in the greater Charlotte region. Stream flow is also important to numerous industry sectors in the region, including manufacturing, agriculture (including poultry production), and forestry. According to the Division of Water Resources, a growing population, combined with severe drought conditions over the last decade, has resulted in a number of water supply problem spots, where increased water needs threaten to exceed available supply. Necessary actions to coordinate the State's water resources to assure the adequacy of present and future water supplies have been identified.[9]

Meeting North Carolina's present and future water supply needs requires a partnership between State and local governments. The State must monitor water use, potability, and availability Statewide; provide a State and regional framework for planning; administer water management laws; and establish policies that will contribute to solving water supply problems. It must ensure that backup systems are in place to protect every community in the event of emergencies and prolonged droughts. The example of Atlanta, which may face a significant disruption in its water supply due to a legal dispute over its right to withdraw water from Lake Lanier, has been watched with concern here in North Carolina.[10]

The State has consulted with Dr. David H. Moreau,[11] former Chairman of the NC Environmental Management Commission, who is an expert in modeling complex stream-reservoir systems. He has four decades of experience studying the Yadkin River region. Dr. Moreau has prepared a number of scholarly papers on the Yadkin area, including a report on regional water resource planning,[12] and has also provided a statement to the Department (the "Statement") regarding the use of the Yadkin River Basin waters for both hydroelectric power generation and to meet water demand.[13]

According to Dr. Moreau, rapid urban growth in North Carolina will lead to more conflicts over the uses to which the available water in the Yadkin River basin should be applied. This is a clear

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[9] North Carolina Drought Management Advisory Council Activities Report – 2008, North Carolina Division of Water Resources, Department of Environment and Natural Resources, Division of Water Resources, Oct. 1, 2008 (Revised Dec. 17, 2008) (provided as Attachment III).

[10] *In re: Tri-State Water Rights Litigation*, ___ F. Supp. 2d ____, 2009 WL 2371506 (M.D.Fla. July 17, 2009).

[11] A copy of Dr. Moreau's *curriculum vitae* is provided as Attachment IV.

[12] *Regional Water Resource Planning for Urban Needs*, Water Resources Institute of the University of North Carolina, 1973.

[13] *Water for Electricity and Public Water Supply in the Yadkin River Basin*, David H. Moreau, Ph.D. (August 26, 2009). This document is provided as Attachment V.

trend.[14] The exact points at which such resource conflicts will become so substantial as to be considered critical is unclear, because the exact timing of any such event is subject to weather conditions and other factors that cannot be predicted with certainty. This is the very reason why the State must start short-term, mid-term and long-term planning for this waterway. In order to do such planning and then implement those plans, the State simply must have more influence on directing Yadkin River uses than it has had in the past, or than it would have if the licensee continued to be a private corporation operating for the primary purpose of maximizing its electricity revenues from hydro production.

Absent the authority to plan for these eventualities which would be occurring over multiple years, the State would not be in a position to make the best, rational decisions that would lead to the most efficient use of the Yadkin River flows. Nor would it be positioned to engage in the balancing of legitimate public interests and the desires of different stakeholders that would result in lower long-term cost to the public. As Dr. Moreau notes, it is not unreasonable to conclude that there could come a time when some or all of the Yadkin River waters now used for hydroelectric power generation are likely to be more valuable to the State for other purposes, even over the next 40 to 50 years. Dr. Moreau's projections are conservative; many observers warn that water shortages are upon us.

The changing value and appreciation of the water in the future will be complicated by other practical considerations. For example, in his Statement, Dr. Moreau cautions that very few opportunities remain in North Carolina to develop new reservoirs to meet the State's growing demand for water supplies, as most of the best reservoir sites in North Carolina have already been developed. As a consequence, the State could be seriously handicapped in its ability to make the best use of these waters at the least cost to its citizens. Nevertheless, Dr. Moreau believes that changes can and must be made to satisfy the increasing urban needs, and that these changes can be made without precluding the use of the Yadkin flows for recreation, electric power generation, aesthetics and other benefits to the region.[15]

Planning for infrastructure takes foresight, and as Dr. Moreau notes, changes to the uses of water supplies, particularly from reservoirs, "would be facilitated if the ownership of the license were in public hands rather than being controlled by a private entity."[16] It has become clear to the State that access and the ability to deliver water are essential in discharging its responsibilities. With adequate control of the waters and effective planning, the State would acquire the ability to act swiftly when and where action is required, as in the case of a drought. This would provide stability and certainty to companies and individuals, all of whom need and use clean supplies of water.

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[14] See, for example, Peter Rogers, "Facing the Freshwater Crisis," *Scientific American* (August 2008); Michael E. Webber, "Catch 22: Water v. Energy," *Scientific American*, Special Issue, Vol. 18, No. 4 (2008).

[15] See footnote 13.

[16] Attachment V, pg. 7.

The drought also taught us that the public requires assurance of the long-term sustainability of water supplies, and it is our belief that only the State can provide this assurance through planning, coordination of multiple units of government, and where possible, the ability to control the flows of major waterways. The State will be far more effective in addressing all these needs if it were not forced to wait until there is a crisis, and if it had the means of control to permit it to take steps to match variable supply and demand over time. Quite simply, this river and its reservoirs provide an essential tool to the State in planning for the region's long-term water needs. While other rivers have established ownership patterns, the State regards the control of the Yadkin River flows and reservoirs as particularly important. While the re-direction of a river's flows might be accomplished by coordination, the Yadkin River is a special case, since its flows in the Badin area are owned by a private company that has virtually abandoned its base of operations in the State, but has still sought a 50-year Federal license to engage in its primary purpose of maximizing the revenues from the generation and sales of electricity outside North Carolina, that come from the Yadkin River flows and reservoirs.

Another environmental expert, Dr. Greg Characklis,[17] has studied dam/reservoir operations in both the Catawba and Roanoke basins. Based on his research in the Catawba basin, it is reasonable to say that regarding the Yadkin-Pee Dee basin and the Alcoa hydroelectric facility, there is the potential during severe droughts for conflicts between municipal water supply and water used to generate electricity. Low-inflow protocols, such as those put in place on the Catawba River by Duke, can mitigate those conflicts. However, there remains the potential for conflict around how a private entity operates a dam to maximize revenue vs. having a nonprofit or government agency managing the water resource for the broader public good.[18]

We hope and expect that the types and amount of renewable power generation will increase in the future, as new technologies are developed. But there is no substitute for water. Having the capability of shifting some of the Yadkin River uses for consumptive water usage may be necessary and crucial to the State in the future, as the value of and need for consumptive water use grows. Greater State control of the Yadkin River is particularly pivotal as the current licensee no longer retains the economic interests within the State that would necessarily make it sensitive to the State's concerns.

2. Availability of Clean Water Resources; Environmental Degradation of Yadkin Water Quality Remains A Public Concern

Low flows arising from drought conditions concentrate pollutants, creating problems for sewage treatment; harm fish and other aquatic life due to a reduced oxygen level in the water; and have the potential to compromise water quality for consumers. Continuing degradation of the quality of the water in the Yadkin region remains of great concern to the State, especially as to public health issues raised not only by the recent drought but also by past contamination from industrial

[17] Gregory W. Characklis, Ph. D., Associate Professor, Dept. of Environmental Sciences & Engineering University of North Carolina at Chapel Hill, School of Public Health.

[18] Telephone call and electronic mail exchange between Dr. Characklis and Katharine C. Neal, Assistant Secretary, Communications and External Affairs, N.C. Dept. of Commerce, August 25 and 26, 2009.

activities that continues to affect the region's public health. Water quality issues involving Badin Lake (which is part of the Yadkin Project), in particular, continue to raise concerns. Stanly County recently submitted a report[19] to counsel for the Department of Environment and Natural Resources ("DENR"), Division of Water Quality ("DWQ"), which summarizes evidence showing a relationship between polychlorinated biphenyls ("PCBs") in lake sediments and PCBs found in the tissues of certain fish taken from the lake. These fish are caught and eaten by some of the local residents, many of whom are forced to supplement their diets with these fish.

According to this PCB congener study, the PCBs found in the tissues of the fish in Badin Lake are the same PCBs that Alcoa's former industrial operations at the Badin aluminum smelting plant deposited in Badin Lake. This PCB congener analysis was conducted by the Director of the Ecotoxicology Program in the Department of Forestry and Natural Resources at Clemson University.[20] The same report was submitted to DENR's Division of Waste Management ("DWM"), and we understand that the County has asked DWM to perform further analysis or require further definition and exploration of the PCB contamination, and that DWM has the matter under advisement.[21]

The State's Department of Health and Human Services ("DHHS"), Division of Public Health ("DPH"), recently posted a fish consumption advisory for Badin Lake in Stanly and Montgomery Counties, as a result of elevated levels of PCBs and mercury found in the tissues of certain Badin Lake fish.[22] This advisory warned that certain vulnerable individuals in the population should avoid eating largemouth bass and catfish from Badin Lake, and recommended no more than one meal per week of these fish for all other individuals.[23] Pursuant to this advisory, DPH proposed to posts signs at Badin Lake warning people of the health hazards associated with eating these fish. APGI filed a legal proceeding in the N.C. Office of Administrative Hearings ("OAH") challenging the DPH's legal right to issue this fish consumption advisory and to post the fish advisory signs.[24] APGI's lawsuit alleged that DHHS and the DPH's issuance of the advisory warning at-risk people about the health hazards of consuming certain fish from Badin Lake had

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[19] *Review of PCB Data From Badin Lake*, John H. Rodgers, Jr. Ph.D., July 27, 2009 (provided as Attachment VI).

[20] See Curriculum Vitae of John H. Rodgers, Jr., Ph.D. (provided as Attachment VII).

[21] Information provided by the law firm of Parker, Poe, Adams and Bernstein, LLP, counsel to Stanly County.

[22] See North Carolina Division of Public Health - Epidemiology Section, Fish Consumption Advisories, Feb. 11, 2009. http://www.epi.state.nc.us/epi/fish/current.html.

[23] See Badin Lake Fish Consumption Advisory photos provided as Attachment VIII.

[24] Petition for Contested Case Hearing filed by APGI with the North Carolina Office of Administrative Hearings regarding the Badin Lake fish advisory in that contested case entitled *Alcoa Power Generating Inc. v. North Carolina Dept. of Health and Human Services and its Division of Public Health,* No. 09-DHR-2505 (North Carolina Office of Administrative Hearings, filed April 9, 2009) (provided as Attachment IX).

"deprived [APGI] of property" and had "substantially prejudiced [APGI's] rights" because the issuance of the fish advisory at that particular time(i) threatened APGI's ability to obtain from DENR the Clean Water Act Section 401 Certification (the "Certification" or the "Section 401 Certification") that APGI absolutely had to obtain in order to be eligible to receive a new 50-year license from FERC to operate the Yadkin River Project (No. 2197); and (ii) threatened APGI's ability to obtain from FERC its desired operator's license for the Yadkin River Project (No. 2197).[25] After DENR issued a Section 401 Certification to APGI, and that Certification was appealed, APGI consented to stay this legal proceeding pending resolution of the Clean Water Certification proceedings[26] (which have been consolidated at the OAH).

As was identified in the Section 401 Certification process, which was handled by DENR's Division of Water Quality,[27] pollutants from former APGI industrial operations at the site of the Project remain a threat to human health and the environment. In addition, a condition of issuance of the Certification[28] was that APGI post a surety bond within 120 days of the issuance of the Certification, in the amount of $240 million, to guarantee that financial resources would be available to make improvements to the hydroelectric plants in order to modernize the facilities and to improve dissolved oxygen levels in the discharge of the dams, as promised by APGI in this proceeding. APGI failed to post the required bond, and APGI is now contesting the requirement to post the bond.

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[25] *Ibid.*

[26] See Order Granting Motion to Amend Scheduling Order, July 27, 2009 (provided here as Attachment X). DHHS and its DPH entered into an agreement with APGI staying the APGI fish advisory lawsuit in the OAH pending: (i) the outcome of the previously filed APGI and Stanly County OAH lawsuits challenging the Clean Water Certification issued by DENR; and/or (ii) a possible settlement of the Alcoa fish advisory lawsuit.

[27] North Carolina 401 Water Quality Certification No. 003173 issued to APGI, dated May 7, 2009, and accompanying documentation. This is provided together with a DENR one-page summary release, as Attachment XI.

[28] While the State might have chosen to reject APGI's application for a Clean Water Act, Section 401 Water Quality Certification, DENR chose another route. DENR issued the Clean Water Certification subject to conditions requiring APGI to meet various water quality criteria, and to post a substantial bond to ensure those criteria would be achieved APGI has challenged the condition requiring the posting of the bond. Earlier, DENR had joined the APGI relicensing settlement agreement filed with FERC (see Attachment XIV). DENR, however, expressly preserved its authority to issue and enforce a proper Water Quality Certification. Yadkin Hydroelectric Project, FERC No. 2197, Relicensing Settlement Agreement, pg. 1-16 to 1-17, Section 1.3.12 (filed May 7, 2007) (provided as Attachment XIV). At any rate, DENR is charged with enforcement of specific concerns that represent a small, albeit important, part of the State of North Carolina's complete set of interests, as expressed in this 21st Century Plan for the Yadkin River Resources. DENR makes its decisions based on its specific concerns, and the State must necessarily be more expansive in the scope of its concerns as they affect the Yadkin River. Also, events have come to light about the dangers of PCB exposure in the Yadkin River that were not available at the time of DENR's decision-making (see Attachment I).

The investments in the hydroelectric plant and the addition of the aeration equipment were approved by FERC in 2000, as an amendment to APGI's initial license.[29] It was anticipated that the improvements would be complete prior to the time that the initial license expired in 2008. However, six years after APGI received FERC's approval, the major maintenance had been deferred, and the modernization of the plant and installation of aeration equipment were largely incomplete.[30] According to APGI, the work was stalled because "capital dried up."[31] Today, APGI has made only a small percentage of the necessary investments, which it concedes would improve output overall for the Project and would also likely improve the quality of the water. In APGI's current FERC relicensing proceeding, it submitted a relicensing settlement agreement (the "RSA") in which it agrees with third parties to make certain long overdue investments to modernize its outdated equipment and install additional aeration facilities to improve the dissolved oxygen content of the water releases at the Project turbines.[32] Under the RSA, however, APGI has given itself many more years to complete this essential work. Furthermore, through its litigation at the OAH, APGI is objecting to the efforts of DENR to assure that Alcoa timely completes the work this time. Given APGI's history regarding the diligence with which it undertakes such investments, even during the extended schedule it now promises in the RSA, the State is concerned about whether APGI can be relied upon to make them now.

With respect to the ongoing Section 401 Certification controversy, Stanly County has been granted its requested stay of the effectiveness of this Certification pending a contested case hearing by the North Carolina Office of Administrative Hearings to determine whether, under North Carolina law, the Certification should have been issued in the first place.[33] Given the current uncertainty as to whether the Certification was lawfully and effectively issued to APGI, it seems most sensible, if the Commission does not recommend recapture right away, that it defer its consideration of APGI's relicensing application until these matters are resolved, as they directly affect the Project. The final State decision on the Certification and the FERC license should not present conflicting positions.

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[29] *Yadkin, Inc*., 92 F.E.R.C. ¶ 62,084, pg. 64,100 (2000).

[30] Letter from David R. Poe, Counsel to APGI, to Magalie R. Salas, Secretary, FERC, regarding APGI, Yadkin Hydroelectric Project No. 2197-038 (Mar. 10, 2006), *available at* eLibrary Accession No. 20060310-5115 (provided as Attachment XII).

[31] See pages 3-5 of Attachment XIII, which contains the report of one of APGI's Yadkin Project relicensing consultation meetings. This report was included in Volume V(C) of APGI's 2006 Yadkin Project License Application. APGI, Application for License – Volume V (C), Project No. 2197 (2006), *available at* eLibrary Accession No. 20060425-4005.

[32] See Yadkin Hydroelectric Project, FERC No. 2197, Relicensing Settlement Agreement, pg. 2-2 to 2-5, Section 2.2 (Water Quality) (Feb. 2007), filed in *Alcoa Power Generating Inc.*, Project No. 2197-073 (May 7, 2007), *available at* eLibrary Accession No. 20070507-5011 (provided as Attachment XIV).

[33] N.C. OAH Order Granting Petition's Motion for Preliminary Injunction Stay of Certification 09 EHR 3078 in the Office of Administrative Hearings (May 27, 2009) (provided as Attachment XV)

The lengthy discussion above is designed to highlight the kinds of problems that the State will continue to face, throughout this century, as our public health and environmental standards become higher and the technological and analytical tools to assess the impacts on our health become more refined. The State believes that it must move forward with economic development, but is well aware that moving forward will require that we address, at the same time and more comprehensively than has been done in the past, how to clean up the contamination created by past activities, especially where it has led to contamination of major rivers.

3. Recreational Use: A Key Quality of Life Issue

In addition to being able to assure both individuals and industry an adequate supply of potable water, the State, with public input, is in the best position to develop the potentially diverse recreational uses of this resource, maintain its aesthetic attraction, provide for prudent economic development, and establish the conditions conducive to and sustaining an overall higher quality of life -- all attributes prized by those in rural and urban areas. The N.C. Department of Commerce (the "Department") is responsible for recruiting new companies and helping existing companies expand and create new jobs and investment in the State, also vital to the State's long-term interests. Sections III and Section VI provide information on the Department and its success in this area. The State must build on this success in the Yadkin River Basin area.

Long-term Planning to Achieve Multiple Uses Is Essential: Adequate Tools are Required

The Yadkin River is capable of accommodating multiple uses for a mixed urban and a rural population. But planning for such multiple uses, and implementing those plans, takes time. Today, there is scarce opportunity to develop new water storage reservoirs large enough for urban populations, and events like droughts can bring a society to the breaking point. The State must make plans in an environment that includes unpredictable climate, unpredictable river flows, uncertainty with regard to economic development and jobs, and changing individual and public priorities. The State must conduct infrastructure planning covering long periods of time, balancing production of hydroelectric power and supply and demand for water resources, as needs change. And, it must be in a position to act promptly and effectively. At present, the State's ability to do so would be significantly hampered by a 50-year license that gives substantial control over the Yadkin River and its reservoirs to Alcoa.

The awareness that there will be increasing pressure on the Yadkin River to satisfy the basic water and related needs of the State's residents, combined with the State's recent experience with the drought and its impact on North Carolina's communities, compelled Governor Perdue, soon after taking office, to submit her request to FERC to provide North Carolina with the ability to do its job by meeting its people's needs, and to reject the issuance of another 50-year license to an entity that cannot, by virtue of its corporate charter and its obligations to shareholders, address these needs.[34] The State, by its very nature, has a longer time horizon and a broader mandate than a corporate entity. As a State Government, North Carolina routinely engages in the process of balancing and harmonizing conflicting interests in such a way that optimizes the use of a

[34] See Raleigh News & Observer article, *The Water is Shifting Under Alcoa*, by Jack Betts (The Charlotte Observer), published June 2, 2009 (provided as Attachment XVI).

limited resource, while doing so openly, transparently, and with accountability. In other words, the State is well qualified to be a FERC licensee under the standards of the Federal Power Act.

The Federal licensing system allows FERC to examine the Yadkin River's use only every 30 to 50 years. Once granted a license, the licensee has exclusive and monopolistic control over operation of the hydro resources. Alcoa's exclusive right to this Project expired in 2008. Congress limited the Federal hydroelectric license to 50 years, a period long enough to allow an operator to recover its investment and generate returns; but after that initial period of time, the law reserves to the Nation (through FERC, Federal Agencies, and Congress) the opportunity to take a second look to ensure that this irreplaceable and vital public resource is operated with the public interest in mind, as required by the Federal Power Act.

The State's Plan: Management of the Yadkin Resources for the Public Good

The purpose of the State's Yadkin River Plan is to manage the Yadkin River resources for the public good and to demonstrate the State's ability to manage this resource by:

1. Providing sound stewardship of this crucial and valuable public resource and fiscally prudent operation and maintenance of both the water resources of the Yadkin River and the hydroelectric plant facilities.

2. Allocating a portion of the Project revenues for timely capital improvements to the Project that will enhance the quality of the Yadkin River waters and production from the outmoded plant facilities, and assure access of citizens to potable water, even during severe droughts.

3. Dedicating a portion of the annual revenues to funding long-term, ongoing programs that enhance the infrastructure of the region and the State, including enhancement and sustained funding of our community college system.

4. Dedicating a portion of the annual revenues to fund local improvements near the Project, whether environmental, public health, or recreational, with input from local communities and agencies.

5. Providing funds for long-term, comprehensive planning for the Yadkin River Basin, to accommodate changing public beneficial needs, and that will provide the State with the flexibility to act promptly to meet public needs relating to water supply and the management of the Yadkin River.

6. Providing a model for operating the Yadkin Hydroelectric Project efficiently and in a business-like fashion with value flowing back into publicly valuable infrastructure for the State.

Were the State able to acquire the license for the Yadkin Hydroelectric Project, the State itself would have the ability to plan for long-term water use, including the balancing of electricity generation and non-power uses. For the present, however, it is contemplated that the State will primarily continue the power operations, which should provide the State with income from its

ownership and management of the Project, even after payment to APGI for its net investment in the Project (plus any allowable severance damages). The net income generated from operating the Project would be applied to address a variety of Statewide purposes, such as a regional economic development fund; expediting the clean-up of the Project waters, especially at Badin Lake and the former Alcoa smelting plant site; providing a continuous source of funding for discretionary incentive programs used to recruit new and expanding companies; for infrastructure development in rural communities across the State; and to fund the community college system's upgrading of equipment used to train future workers.

Conclusion

Because of the role that the Yadkin River should and will play in directly affecting the quality of life for the State's citizens over the next half century and because of the State's lack of confidence in the current FERC licensee to provide the stewardship and cooperation necessary to allow the State to best meet the expectations and needs of its citizens as to their water supplies and other critical public concerns, the State earnestly requests that the Commission exercise the power Congress provided it to recommend Federal recapture for the public purposes stated in this Plan, with the intent that the State obtain the license upon reimbursing the United States Government for the statutory recapture payment to the present licensee, all as APGI agreed to in its 1958 license. The Plan also presents additional details of how the State would proceed, if it were to acquire the FERC license for the Project, subject to the Commission's recommendation and the approval of the United States Congress. We share our concerns, our hopes, our vision, and our plans for managing this resource. It is our belief that this presentation demonstrates the urgency of the State's request and the wisdom of the Federal Power Act in providing for ways to help the State achieve this public purpose objective by requiring a thorough re-examination every 50 years of the public interest in vital water resources, before granting the renewal of a license.

J. Keith Crisco, Secretary,
State of North Carolina, Department of Commerce

September 8, 2009

J. Keith Crisco was appointed Secretary of Commerce by Gov. Bev Perdue in January 2009. For more than 20 years, Crisco ran a highly successful North Carolina company (Asheboro Elastics Corp.), with global manufacturing and sales, which he co-founded. He holds a Pfeiffer University bachelors degree in mathematics and physics, and a Harvard MBA, From 1970-71 he served as a White House Fellow in Washington, DC, as assistant to the U.S. Secretary of Commerce during the Nixon administration. He has chaired the N.C. Center for Public Policy Research, and has been an active member of the UNC School of Public Health Advisory Council, the N.C. Community Foundation, Action for Children North Carolina, and various land trust and environmental organizations

SECTION II

Overview of the North Carolina Economy
With Special Emphasis on the Yadkin River Region

Recapture of the Project and its transfer to the people of North Carolina will have significant long-term statewide economic benefits. Revenue generated from the facilities has the potential to contribute significantly to economic development in North Carolina, thus harnessing the Yadkin River to benefit the people of North Carolina. Several long-term trends, such as the State's transition from traditional industries (agriculture and manufacturing) to more knowledge-based industries, the lack of widely shared prosperity across different regions of the State, and significant demographic changes, to name just a few of the challenges, will require effective and flexible economic development tools. In addition to these economic development challenges, North Carolina, like most states, is dealing with the impacts of a severe global recession. What follows is an in-depth analysis of North Carolina's economy, with a special emphasis on the Yadkin area.

The Yadkin River Basin drains from the Virginia border to South Carolina, cutting a swath through west central North Carolina. With 7,400 square miles, or 15.6% of the land area, this is the second largest drainage basin in the State, and the second most densely populated watershed, with 1,193,353 people, or 17.5% of the State's total population. [35] It also has the second largest number of stream miles - 5,855. There are 23 counties in this large drainage area. The counties are Alexander, Allegheny, Anson, Cabarrus, Caldwell, Davidson, Davie, Forsyth, Guilford, Iredell, Mecklenburg, Montgomery, Randolph, Richmond, Rowan, Scotland, Stanly, Stokes, Surry, Union, Watauga, Wilkes, and Yadkin.

Depending on the economic indicator under discussion, the analysis below focuses on North Carolina as a whole, the State's seven economic development regions, or the seven-county region (the "Yadkin Region") most directly impacted by the Yadkin River Project currently licensed to APGI. The seven-county Yadkin Region analyzed consists of the counties of Stanly, Anson, Richmond, Montgomery, Randolph, Davidson, and Rowan.

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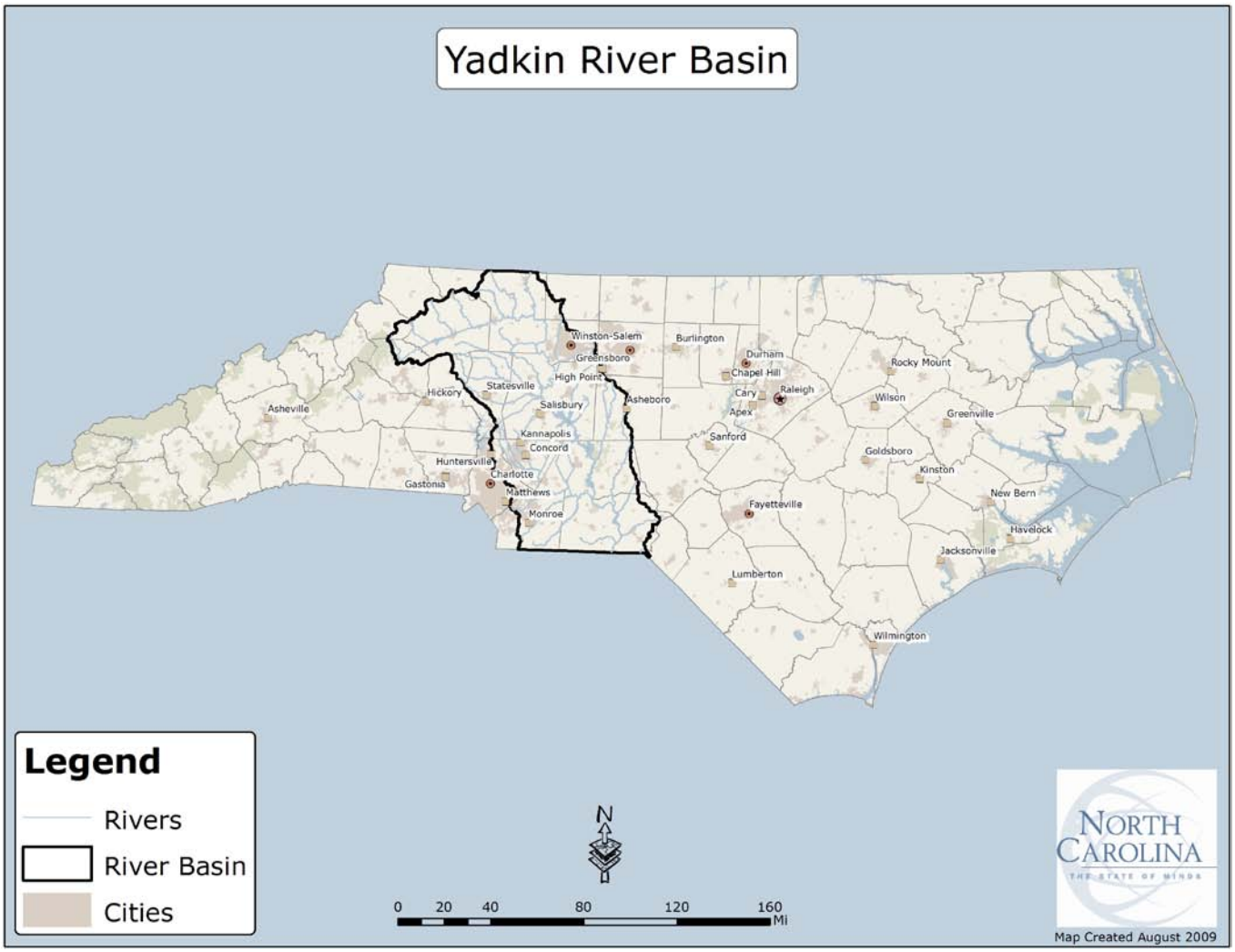
[35] *Yadkin River Basin,* North Carolina State University, College of Agriculture and Life Sciences, NCSU Water Quality Programs: http://www.water.ncsu.edu/yadkin.html.


Yadkin River Basin
Winston-Salem
Greensboro
Burlington
Durham
Chapel Hill
Rocky Mount
High Point
Statesville
Hickory
Asheville
Salisbury
Asheboro
Cary
Raleigh
Apex
Wilson
Greenville
Kannapolis
Concord
Sanford
Goldsboro
Huntersville
Charlotte
Gastonia
Matthews
Kinston
New Bern
Fayetteville
Monroe
Havelock
Jacksonville
Lumberton
Wilmington
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River Basin
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0 20 40 80 120 160
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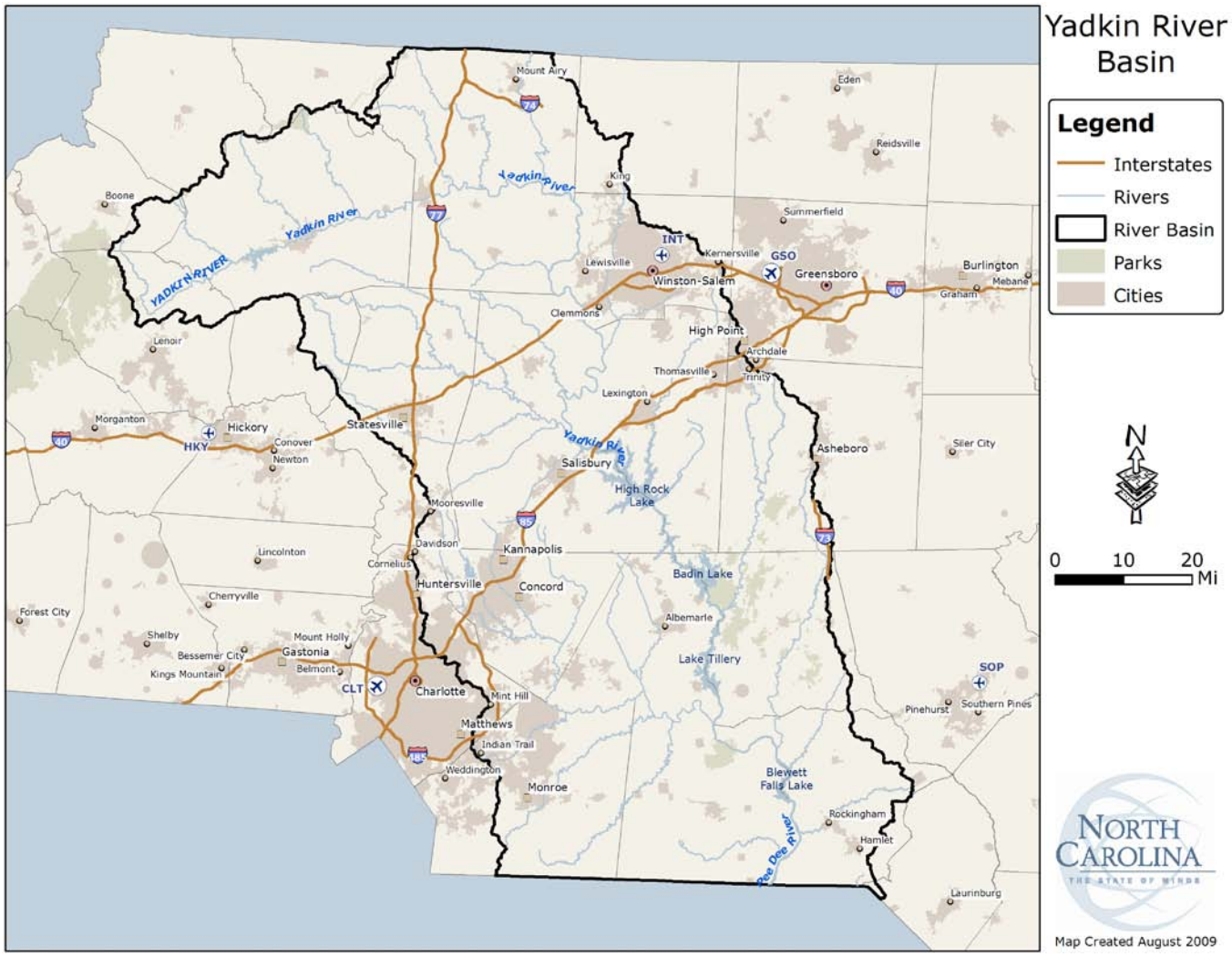
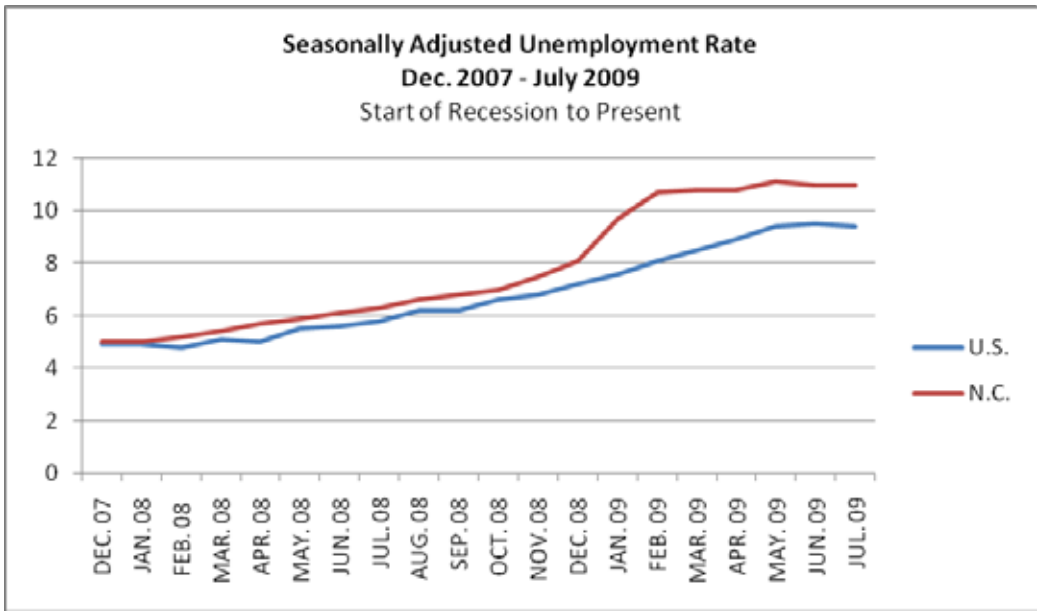
NORTH CAROLINA
THE STATE OF MINDS
Map Created August 2009



Close-up of Yadkin Region showing Yadkin River.

Impact of the Current Recession

The current economic recession has significantly impacted employment in North Carolina. Compared to the same time last year (July 2008), there are 209,024 more unemployed workers in the State, a 73% increase. At 11.0%, North Carolina is tied for the 7th highest seasonally adjusted unemployment rate in the nation. Compared to the same month a year ago, the State's unemployment rate is 4.7 percentage points higher.



N.C. Employment Security Commission

Since the start of the recession in December 2007, North Carolina's total nonfarm employment has decreased by approximately 260,300 (6.2% of the workforce). Sectors with the greatest employment decline since December 2007 are: Manufacturing (90,500); Construction (60,500); Trade, Transportation & Utilities (50,400); and Professional & Business Services (37,900).

North Carolina Nonfarm Employment Trends by Supersector

	Jun-09	Jul-09	Previous Month (07/09 compared to 06/09)		Last Year - Same Month (07/09 compared to 07/08)		Start of Recession (07/09 compared to 12/07)	
			Change	% Change	Change	% Change	Change	% Change
Mining & Logging	6,400	6,400	0	0.0%	(200)	-3.0%	(500)	-7.2%
Construction	193,300	192,400	(900)	-0.5%	(42,700)	-18.2%	(60,500)	-23.9%
Manufacturing	447,700	442,600	(5,100)	-1.1%	(72,500)	-14.1%	(90,500)	-17.0%
Trade, Transportation, & Utilities	733,600	729,800	(3,800)	-0.5%	(39,000)	-5.1%	(50,400)	-6.5%
Information	67,200	67,000	(200)	-0.3%	(4,400)	-6.2%	(5,300)	-7.3%
Financial Activities	199,700	199,100	(600)	-0.3%	(12,600)	-6.0%	(13,000)	-6.1%
Professional & Business Services	464,100	469,300	5,200	1.1%	(36,400)	-7.2%	(37,900)	-7.5%
Education & Health Services	540,700	541,200	500	0.1%	7,900	1.5%	8,100	1.5%
Leisure & Hospitality	389,900	393,100	3,200	0.8%	(4,600)	-1.2%	(6,000)	-1.5%
Other Services	178,100	174,700	(3,400)	-1.9%	(11,200)	-6.0%	(5,600)	-3.1%
Government	717,400	696,100	(21,300)	-3.0%	(6,200)	-0.9%	1,300	0.2%
Total Nonfarm Employment	3,938,100	3,911,700	(26,400)	-0.7%	(221,900)	-5.4%	(260,300)	-6.2%

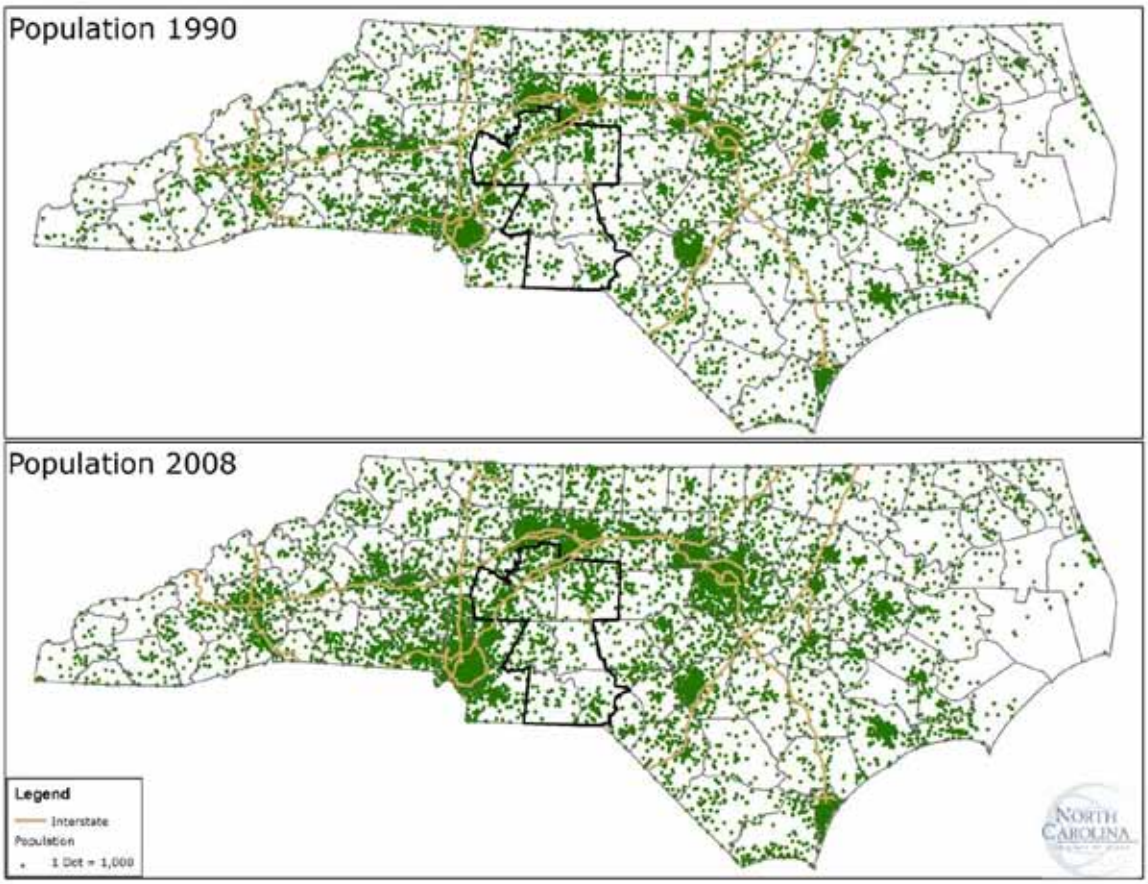
U.S. Bureau of Labor Statistics

Demographic Change

Demographic changes are significantly impacting North Carolina. The State's population is rapidly growing, there is a migration trend away from rural areas to North Carolina's more urban centers, and the workforce is aging.[36] As North Carolina experiences demographic change, it will be essential that the necessary economic development tools are in place to ensure that the State's labor force has the right mix of skills, the appropriate business and social services are available, and the necessary infrastructure such as roads, utilities, and learning institutions are funded.

The relationship between economic development and population growth is strong. North Carolina will experience population growth if employment opportunities continue and the State maintains an attractive business environment and a high quality standard of living. However, changes in population also have social and economic implications that influence business location decisions and impact existing infrastructure. North Carolina's population experienced substantial growth over the past decade as a result of people moving to the State from other states or countries (positive net migration). Currently, North Carolina is the 10th largest state in the United States, with a resident population of more than 9.2 million. Since 1990, the State's population has increased by more than 2.6 million people, a 39% increase. Since 2000, North Carolina's population has increased by approximately 1.2 million people, resulting in the 9th largest percent increase in population (14.6%) among all 50 states and the District of Columbia. North Carolina's population is projected to grow 9-10% between 2008 and 2013, resulting in an additional 850,000 people.

[36] North Carolina Department of Commerce, Division of Policy, Research and Strategic Planning, *2009 North Carolina Economic Index: A Summary of North Carolina's Economic Strengths, Challenges, and Opportunities*, March 2009.



In the Yadkin Region the population increased by 24% between 1990 and 2000, resulting in an additional 115,000 people. The region's population is expected to grow by an additional 23,000 between 2008 and 2013.

The Project licensed to APGI is situated near three of the State's seven economic development regions: the Charlotte Region, the Piedmont Triad Region, and the Southeast Region. Between 2000 and 2008, the Charlotte Region's population increased by more than 400,000, the largest increase among the State's seven economic development regions. Almost 70% of the Charlotte Region's growth is the result of people moving from other regions in North Carolina or from other States and countries. The Piedmont Triad and Southeast Regions experienced similar population growth, but on a smaller scale.

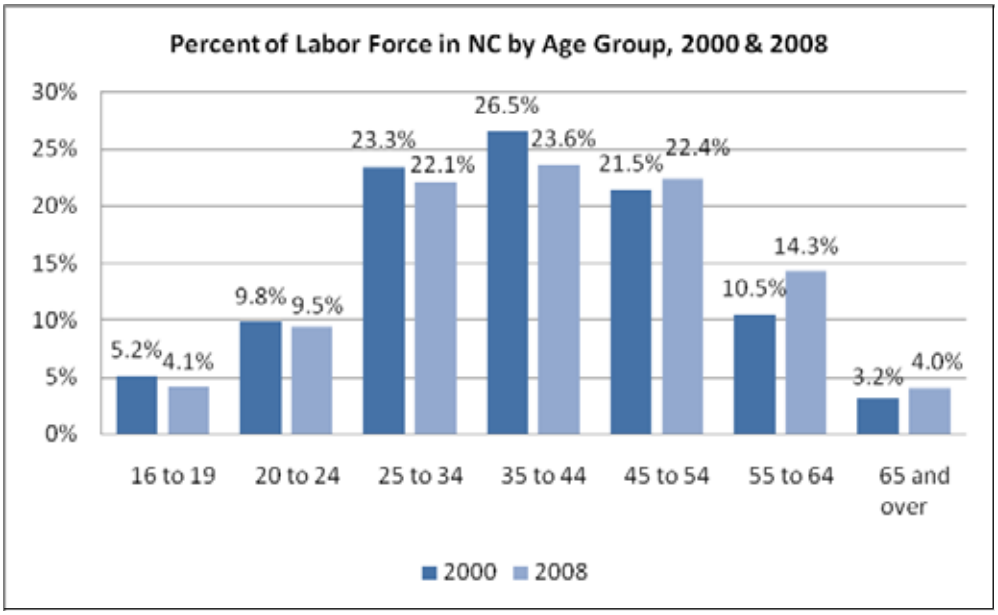
Migration from rural to urban areas (or at least to rural areas in close proximity to urban areas) is another demographic trend the State is experiencing. Urban and suburban areas are growth centers for jobs, especially those associated with high-growth knowledge-based industries. This trend is evident in the State's regional population change figures. Population change associated with North Carolina's three largest and most urban economic development regions is mostly the result of net migration. The Charlotte Region, the Research Triangle Region, and the Piedmont Triad Region all experienced net migration in excess of 60%.

Population Change for N.C. Economic Development Regions, 2000-2008

Region	Population Change	% Natural Increase	% Net Migration
Advantage West	67,853	8.0%	92.0%
Charlotte Region	401,539	30.2%	69.8%
Eastern Region	58,356	86.9%	13.1%
Northeast Region	16,648	25.4%	74.6%
Southeast Region	105,407	52.0%	48.0%
Piedmont Triad Region	145,470	38.6%	61.4%
Research Triangle Region	401,015	30.0%	70.0%
North Carolina Total	**1,196,288**	**34.5%**	**65.5%**

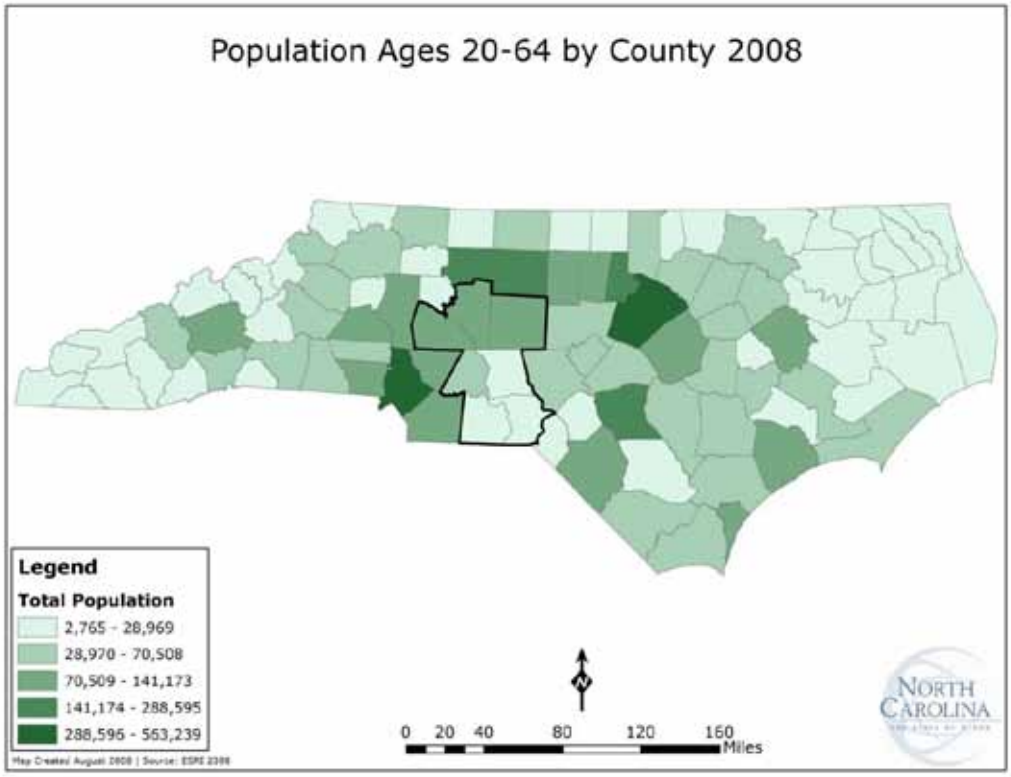
U.S. Census Bureau

The majority of North Carolina's labor force is currently between the ages of 25 and 54. However, the impending retirement of the Baby Boomer generation may deprive North Carolina of the workers it needs to compete economically. If population growth or in-migration does not fill the gap, employers may become increasingly dependent on workers age 55 and above to meet the demand for skilled workers. In 2008, workers age 55 and above constituted 18.3% of North Carolina's labor force, up from 13.7% in 2000. Given the recent decline in job opportunities for workers in labor-intensive industries, combined with the aging workforce, occupational extension and workforce development programs will become increasingly important.



U.S. Bureau of Labor Statistics

From a geographic perspective, most of North Carolina's working population is concentrated in the State's urban centers of Charlotte, the Research Triangle (Raleigh, Durham and Chapel Hill) and the Piedmont Triad (Greensboro, Winston-Salem and Highpoint) (the "Urban Centers"). These three metropolitan areas also have the majority of the State's growing knowledge-based industries.



Transitioning Economy

North Carolina's economy is transitioning from traditional labor-intensive industries (*e.g*. textile and furniture manufacturing) to knowledge-based or service industries. While this transition is not new, the rate of change is accelerating. The transition of North Carolina's economy suggests the need to significantly invest in workforce training as well as aggressive business development strategies to provide employment opportunities for displaced workers.

More than 50% of employment[37] in North Carolina is currently concentrated in the manufacturing, retail trade, health care and social assistance, and government sectors. Of these four sectors, manufacturing employment decreased between 2003 and 2008. Between 2003 and 2008, manufacturing in North Carolina experienced a decline in the percentage it represented of total employment (15.5% down to 12.4%). North Carolina's manufacturing employment decreased 12.3%, or approximately 71,000 jobs. Increased employment in the construction sector is a result of population growth and the increase in housing demand. North Carolina's aging population fostered demand in health-related services. Finally, the State's continued transition from labor-intensive industries to knowledge-based industries has fueled employment growth in sectors such as the professional and technical services and finance and insurance.

[37] All employees covered by unemployment insurance. Covered employment is subject to the Employment Security Law on which Unemployment Insurance taxes must be paid.

North Carolina Employment by Industry Sector, 2003 & 2008

Industry Sector	2003 Employment	2003 % of Total	2008 Employment	2008 % of Total	2003-2008 % Change
Agriculture, forestry, fishing and hunting	34,814	0.9%	29,672	0.7%	-14.8%
Mining	3,969	0.1%	4,134	0.1%	4.2%
Utilities	14,132	0.4%	12,349	0.3%	-12.6%
Construction	211,728	5.5%	255,419	6.0%	20.6%
Manufacturing	602,137	15.5%	527,823	12.4%	-12.3%
Wholesale trade	163,628	4.2%	185,719	4.4%	13.5%
Retail trade	432,592	11.2%	467,417	11.0%	8.1%
Transportation and warehousing	132,008	3.4%	137,177	3.2%	3.9%
Information	75,421	1.9%	72,866	1.7%	-3.4%
Finance and insurance	138,006	3.6%	152,778	3.6%	10.7%
Real estate and rental and leasing	47,280	1.2%	54,565	1.3%	15.4%
Professional and technical services	146,679	3.8%	190,852	4.5%	30.1%
Management of companies and enterprises	61,419	1.6%	71,892	1.7%	17.1%
Administrative and waste services	211,884	5.5%	242,877	5.7%	14.6%
Educational services	46,250	1.2%	60,095	1.4%	29.9%
Health care and social assistance	364,343	9.4%	452,915	10.7%	24.3%
Arts, entertainment, and recreation	45,692	1.2%	53,544	1.3%	17.2%
Accommodation and food services	292,207	7.5%	351,895	8.3%	20.4%
Other services, except public administration	96,690	2.5%	106,036	2.5%	9.7%
Government	755,162	19.5%	820,549	19.3%	8.7%
Total Covered Employment	**3,876,041**	**100.0%**	**4,250,574**	**100.0%**	**9.7%**

Economic Modeling Specialists, Inc.

The two State economic development regions closest to the Yadkin Project, the Charlotte Region and the Piedmont Triad Region, are heavily concentrated in Manufacturing and Trade, Transportation and Utilities.[38] Specifically, the region is more concentrated than North Carolina as a whole in: Durable Goods Manufacturing; Non-Durable Goods Manufacturing; Wholesale Trade, Retail Trade; and Transportation, Warehousing, and Utilities.

[38] To measure concentration, location quotient share is calculated to determine the share of regional employment in a particular industry compared to the share of employment in the same industry statewide. A location quotient above 1.0 indicates that the analysis region is more concentrated than the nation as a whole. Location quotient = percent of local employment in industry / percent of national employment in industry.

Current Employment and Concentration, Select Industries in Project Region

Select Industry Sectors	Employment Spring 2009		Project Region (Combined ED Regions)	
	Charlotte ED Region	Piedmont Triad ED Region	Employment	Location Quotient
Manufacturing	126,337	113,204	239,541	1.15
Durable Goods	76,292	56,331	132,623	1.22
Non-Durable Goods	50,045	56,873	106,918	1.08
Trade, Transportation, & Utilities	224,913	150,108	375,021	1.13
Wholesale Trade	59,476	35,147	94,623	1.25
Retail Trade	116,814	82,202	199,016	1.03
Transportation, Warehousing & Utilities	48,623	32,759	81,382	1.32
Total Covered Employment	1,039,419	728,890	1,768,309	

Economic Modeling Specialists, Inc. (EMSI)

While the region will remain concentrated in these sectors for the foreseeable future, the State must work to address potential employment losses associated with a transitioning economy. Since the start of the current recession (December 2007), North Carolina has lost almost 90,000 manufacturing jobs, or approximately 17% of the industry's workforce. Likewise, employment in Trade, Transportation and Utilities is down 6%, or 50,400 workers, since December 2007.

Lack of Widely Shared Prosperity

North Carolina's economic transformation has brought many benefits to the State – new jobs and opportunities, international recognition as a business location, and rapid population growth – but the successes have not been widely-shared. Healthy economies generate opportunities for all individuals and households to increase incomes. As North Carolina continues its economic transition, the State must focus on expanding high-wage industries, dedicate resources to providing training opportunities and improve the education levels of the labor force.

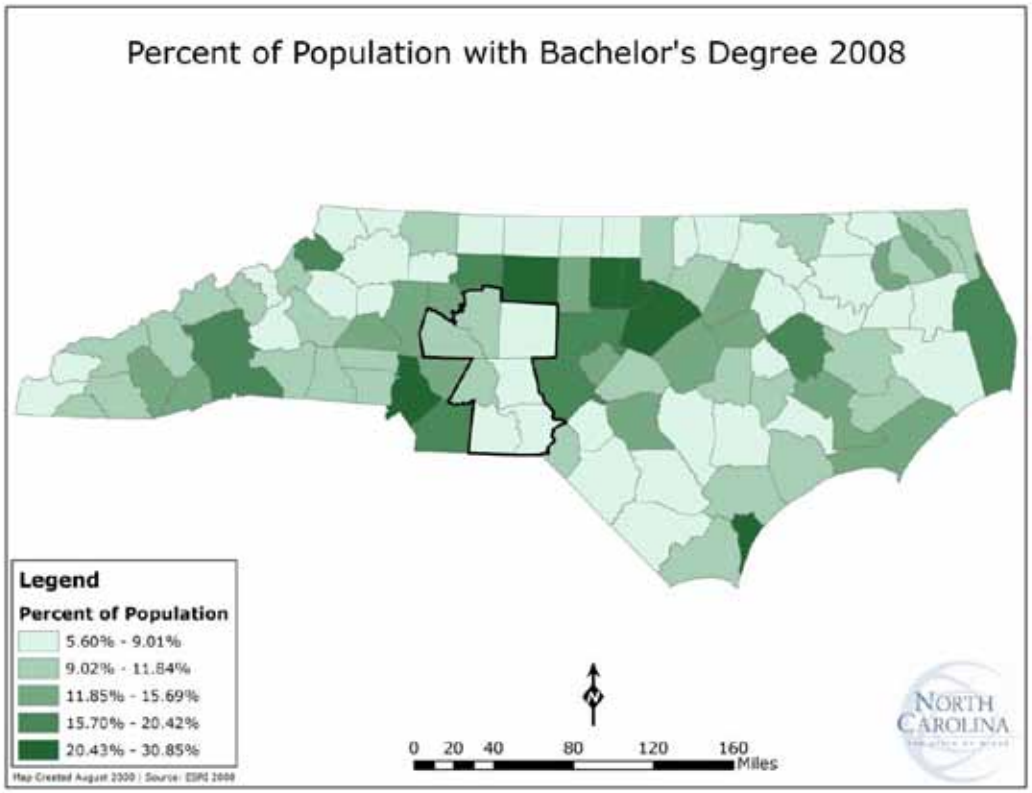
The growth of North Carolina's economy is predicated on the capabilities of its workforce, and educational attainment is a fundamental way of measuring those capabilities. North Carolina's educational attainment levels rank below the national figures. This means North Carolina employers could face challenges finding and hiring a highly educated workforce. In 2008, the State trailed or tied national averages in all educational attainment categories except for Associates Degrees and Some College/No Degree.

Educational Attainment by Degree Category, 2008

	US	NC
Less than a High School Graduation or Equivalent	16.4%	18.5%
High School Graduation or Equivalent	29.6%	29.5%
Associate's Degree	7.2%	8.0%
Some College, No Degree	20.1%	19.4%
Bachelor's Degree	17.0%	16.7%
Graduate or Professional Degree(s)	9.7%	7.9%

U.S. Census Bureau

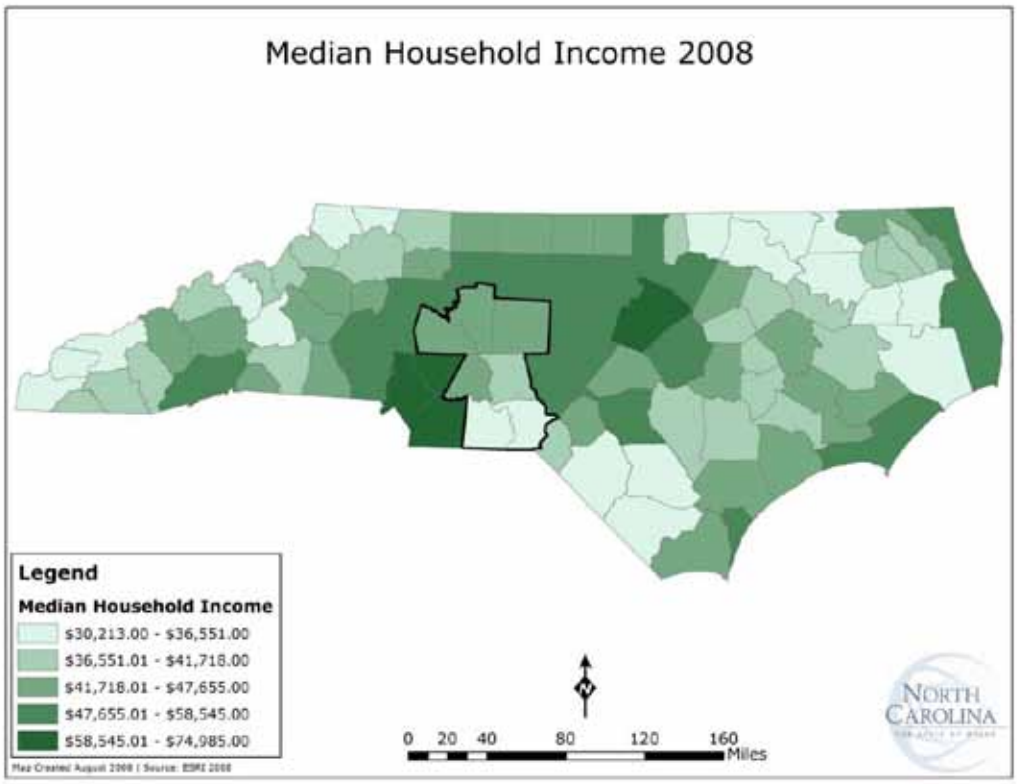
From a geographic perspective, counties with the highest percent of population with a bachelor's degree are concentrated near the State's Urban Centers. Many of the State's more rural counties or regions significantly lag in terms of educational attainment when compared to North Carolina's urban and suburban areas. In the Yadkin Region educational attainment levels are some of the lowest in the State. Bachelor's degrees are essential for the knowledge-based industries such as finance, biotechnology, advanced manufacturing and professional services.



Yadkin Region is outlined in South Central North Carolina.

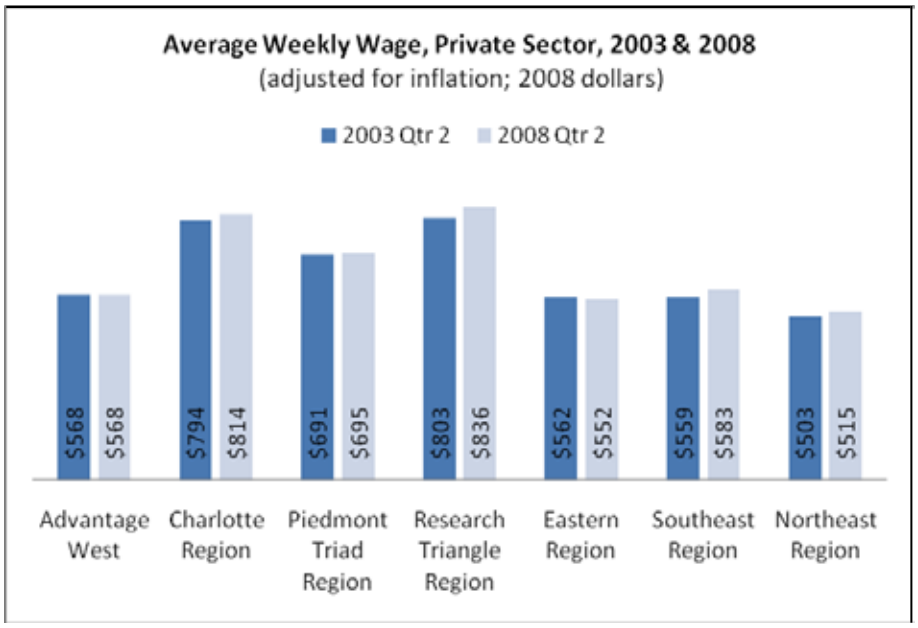
Earnings are often cited as a key indicator of job quality and the overall health of an economy. Increasing the number of high-wage jobs is a major goal of economic development, allowing for greater consumer spending which leads to economic growth. North Carolina's relatively low earnings (median household income, average weekly wage) reflect the State's comparatively low cost of living and its traditional concentration of labor-intensive industries.

In 2008, North Carolina's median household income was $51,411. Median household incomes in the Yadkin Region are all below the State's median household income. Of the seven counties in the Yadkin Region, Davidson had the highest median household income of $47,655, whereas Richmond County had the lowest at $36,115. Similar to other prosperity measures, the State's urban counties have the highest income levels.



Yadkin Region is outlined in South Central North Carolina.

The Urban Centers had the highest average weekly wages in 2008 ($836, $814, and $695, respectively). These urban regions have a high concentration of highly paid, knowledge-based jobs. When adjusted for inflation, there has been little increase in average weekly wages across the State between 2003 and 2008. The Southeast region experienced the largest percentage increase in wages, 4.3%, followed closely by the Research Triangle region (4.1%). The Piedmont Triad region experienced relatively no growth (0.6%) and the Advantage West and Eastern regions experienced a decrease in average weekly wages (-0.1% and -1.8%, respectively).



N.C. Employment Security Commission

Between the late 1980s and the mid 2000s, the income of the country's wealthiest families grew at a significantly higher rate than the income of the country's poorest families. The incomes of the nation's wealthiest 20% of families grew by 36.1% between 1987-1989 and 2004-2006, while the income of the poorest 20 percent of families had more modest gains (11.1%).[39] Income disparities grew in 37 states over the past two decades, including North Carolina. North Carolina mirrored national trends, with the income of the State's wealthiest families growing much more rapidly than the State's poorest families. Between 1987-1989 and 2004-2006, the income of the State's wealthiest 20% of families grew by 34.2%, or $30,154. The income of the State's poorest 20% of families grew by 9.9%, or $1,474. Income growth of North Carolina's wealthiest families (34.2%) was below the national average (36.1%). The income growth of the poorest families was also below that of the United States average (Economic Policy Institute).

Conclusion

Economic development is a long-term investment in the future of North Carolina. In the short-term, the State faces an historical set of economic challenges, as well as the more recent challenges brought by the recession. To remain competitive and attract 21st century businesses, North Carolina must continue its transition from traditional industries to knowledge-based industries, by strengthening its "human capital" through basic education and workforce development. To ensure widely-shared prosperity, the State must dedicate resources to providing economic opportunity for all North Carolinians, regardless of income level or geographic location. Finally, as North Carolina experiences demographic change, it will be essential that the necessary economic development tools are in place to ensure that the State's labor force has the right mix of skills, the appropriate business and social services are available, and the necessary infrastructure such as roads, utilities, and learning institutions are funded. Revenues generated

[39] Bernstein et al. Pulling Apart: A State-by-State Analysis of Income Trends, April 2008.

from the Yadkin Project and available to the State have the potential to contribute significantly to State economic development programs and initiatives designed to address these issues, as discussed in Section V.

SECTION III

The North Carolina Department of Commerce And its Role in Economic Development and Resource Management

Governor Beverly Eaves Perdue has directed the Department to prepare a plan in support of the State's motion that the Commission deny APGI's relicensing application and the State's motion that the Commission recommend Federal recapture of the Project and its transfer to the State.[40] The Department is uniquely positioned to prepare such a plan, given its pivotal role in the economic development of the State.

The Department is statutorily charged with providing for and promoting the policy of the State "to actively encourage the expansion of existing environmentally sound North Carolina industry [and] the recruitment of environmentally sound national and international industry into North Carolina through industrial recruitment efforts and through effective advertising, with an emphasis on high wage paying industry; to promote the development of North Carolina's labor force to meet the State's growing industrial needs; to promote the growth and development of [the State's] travel and tourism industries; to promote the development of [the] State ports; and to assure throughout State government, the coordination of North Carolina's economic development efforts."[41] The Department's functions include all executive functions of the State in relation to economic development, including promotion of the orderly development of the State's counties and communities, energy resource management, energy policy development, and the provision of local and regional planning assistance.[42]

Thus, the Department's focus is on five critical areas:

- **Economic Development**. This includes recruitment and retention of companies that rely on the water resources available in the Yadkin-Pee Dee River Basin. The Department is the State's lead economic development agency. Since 2001, the State has achieved remarkable success in recruiting new business and helping existing business expand in the State, especially in knowledge-based industry sectors such as Aviation/ Aerospace, Financial Services, Information Technology and Life Sciences. For seven of the past eight years, the State has ranked as having the top business climate in the U.S.[43] Factors

[40] Motion of the State of North Carolina to Present Evidence in Support of its Request that the Commission Recommend Federal Recapture, Comments and Evidence of the State in Support of its Request for Recommended Recapture and in Opposition to the Issuance of a New License to Alcoa, Motion of the State to Supplement Final Environmental Impact Statement, Request of the State for Waivers of Commission Regulations, if Necessary, and Motion of the State for Oral Argument Before the Full Commission (Alcoa Power Generating, Inc., Project No. 2197).

[41] North Carolina General Statutes §§ 143B-428, 429.

[42] North Carolina General Statutes § 143B-431(a)(1).

[43] Site Selection Magazine. See http://www.siteselection.com/portal/

important to that ranking include the State's mid-skilled workforce, business-friendly policies, strong education system from K-12 through community colleges and universities and an exceptional quality of life.

- **Workforce Development**. North Carolina's population continues to grow. As discussed in Section II, much of the population growth is a result of in-migration, *i.e.*, people moving to North Carolina from outside the State.[44] Many of these in-migrants, attracted by high-paying, knowledge-based jobs in the State's technology sectors, are members of the so-called, "creative class." For them and their families, quality of life, including a clean environment and abundant outdoor recreation sites, figures prominently in their location decisions. Richard Florida, the internationally known urban studies expert and author of "The Creative Class," has written extensively on how members of this class are demanding to live in places that offer cultural and natural assets, and the availability of these assets will play a significant role in determining how well companies and communities prosper. To continue to succeed in attracting and retaining the talented workforce required by knowledge-based industries of the 21st century, North Carolina must provide an exceptional quality of life.

  Community Development. This includes providing local communities with resources and services to help them realize economic prosperity, plan for new growth and address community needs. The Department's Division of Community Assistance ("DCA") also provides smaller communities with planning and other technical assistance. Within the DCA, the North Carolina Main Street Center promotes downtown revitalization based on economic development within the context of historic preservation, a concept developed by the National Trust for Historic Preservation that has proven successful in more than a thousand smaller communities across the country. The North Carolina Main Street program helps small towns to recognize and preserve their historic fabric, and, using local resources, build on their unique characteristics to create vibrant central business districts that meet the needs of today's communities. The Center offers two programs that work with selected towns across the State: Main Street, which focuses on communities under 50,000 that have downtown managers, and Small Town Main Street, which provides guidance to local committees in communities under 7,500 that do not have downtown managers. Several communities in the Charlotte region are participating in this program, including Albemarle (Stanly County) and Lexington (Davidson County).

  The DCA's 21st Century Communities program harnesses resources to help challenged communities thrive in a modern economic climate. Initiated in 2001 in response to business and industry closures and the loss of thousands of jobs in the manufacturing and textile industries, the 21st Century Communities program has positively impacted the State's most challenged communities and helped jump start economic development. Anson and Montgomery counties are program participants from the Charlotte region.

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[44] North Carolina Department of Commerce, Division of Policy, Research and Strategic Planning, *2009 North Carolina Economic Index: A Summary of North Carolina's Economic Strengths, Challenges, and Opportunities*, March 2009.

Travel and Tourism Development. Tourism is one of North Carolina's top industries. Governor Perdue announced in May that domestic visitors to and within North Carolina spent a record $16.9 billion in 2008, an increase of 2.1% from 2007. State tax revenues from visitors increased by 3.5% from 2007, rising to $843.2 million in 2008. Local tax revenues also increased, gaining 2.5% from 2007 to a total $542.3 million in 2008. During the last five years, visitor spending has increased 27.3% while State and local tax revenue is up 20.7%. The travel and tourism industry directly employs more than 190,000 North Carolinians who work in hundreds of small and mid-size businesses.[45] There are significant natural, cultural and heritage assets in the Yadkin-Pee Dee River Basin, including:

- Old Stone Vineyard & Winery, Salisbury
- The Rowan Museum, Salisbury, an 1854 courthouse that survived Stoneman's raid. It is one of the finest examples of pre-Civil War architecture in the State.
- Stony Mountain Vineyard, Albemarle
- Historic Downtown Davidson
- Uwharrie National Forest. Covers 50,000 acres in parts of Randolph, Davidson and Montgomery counties. Various outdoor activities are permitted in the forest, including hiking, horseback riding, mountain biking, camping and water activities.
- Village of Gold Hill, described in the 1800s as "The richest mining property east of the Mississippi." Today, the restored village is a popular tourist spot.

- **Energy Resource Management.** This includes ensuring that both residential and industrial customers have affordable access to electricity and other power sources. Governor Perdue recently signed into law House Bill 1481, to foster a three-pronged strategy designed to make North Carolina a leader in green economy jobs by strengthening State leadership in energy policy, to make smart investments that will create jobs and foster innovation, and to provide green collar workforce training. As part of the Governor's plan to strengthen and focus leadership in State energy policymaking, under HB 1481, the State Energy Office was moved to the Department to link its activities with economic development efforts; the Residential Energy Conservation Assistance Program was transferred to the relocated State Energy Office; and the Energy Policy Council, which will focus on green job creation and environmental protection, was strengthened by improving representation from environmental groups, alternative energy producers and energy services specialists.

In performing its unique role, the Department has developed a vast body of knowledge and experience, and has formed critical economic partnerships that allow it to fulfill its mission statement: to improve the economic well-being and quality of life for all North Carolinians.

[45] 2008 Visitor Profile and 2008 Economic Impact Profile, N.C. Dept. of Commerce Division of Travel and Tourism.

The Department's Policy Research and Strategic Planning Division ("PRSP") acts as the Governor's key resource in leading strategic planning and conducting economic modeling necessary to drive rational and effective economic development efforts. PRSP works closely with the Department's Divisions of Business and Industry; Workforce Development; Tourism, Community Assistance; and the Commerce Finance Center in recruiting businesses and assisting them in meeting their needs for a qualified well-trained workforce, and providing financial assistance for expansion and relocation of businesses. The research conducted by the Department also supports the North Carolina Economic Development Board[46] which is responsible for developing the Comprehensive Strategic Economic Development Plan (the "Strategic Plan").[47] The Strategic Plan reflects public and private sector input in setting priority development objectives that recognize the increasingly competitive economic environment, addresses the changing needs of the State in a comprehensive manner, and provides for the effective utilization of limited resources.[48] The Strategic Plan is discussed further in Section V.

[46] The North Carolina Economic Development Board oversees State economic development research and planning and makes policy recommendations to the Governor, Secretary of Commerce, and the General Assembly. The 37-member Board is comprised of State government officials, members of the North Carolina House of Representatives, members of the North Carolina Senate, and citizens representing non-profits, economic development organizations, and private industry appointed by the Governor.

[47] See N.C. Economic Development Board Strategic Plan 2008 Update, September 25, 2008, provided as Attachment XVII.

[48] North Carolina General Statutes § 143B-434.01(c).

SECTION IV

The Financial Model for the Yadkin Hydroelectric Project

To evaluate the potential range of options available if the State were to assume the Yadkin Project license, the State has estimated revenues that could be generated from the Project's sales of electricity. The revenue figures used in the State's financial model reflect very conservative estimates, in terms of both electricity output and income. In part, this conservatism is driven by the State's obligation to manage a natural resource in a manner that will serve the greatest good for the people in the State, as opposed to the need to maximize short-term profits on behalf of shareholders and to further the management goals of a single corporation. A common thread throughout this Plan is the State's view that a continuous and reliable source of revenues from the Project could form the most effective basis for sustaining the programs that are described in Section VI. These programs are intended to improve the well-being of North Carolina's citizens, by providing infrastructure, job training, incentives to attract high quality companies, and a healthy and attractive environment.

In constructing the State's financial model, a number of factors were considered, including:

- historical flow data;
- elevation storage curves;
- head-power relationships; and
- power output at full pool and normal draw downs

In addition, conservative assumptions were made that would most realistically anticipate the downside variations that are known to occur in the operations of hydro projects. These include reductions in generation during periodic drought conditions, unit outages for the performance of major maintenance, and scheduled equipment upgrades. Additionally, there has recently been a significant downward trend in wholesale power prices, reflecting lower demand associated with current economic conditions that could reduce earning capacity from hydroelectric generation.

On the other hand, certain factors exist that could substantially increase revenues in the future. These include:

- the possibility of higher energy prices due to new environmental requirements on power supply;
- the potential price premium associated with generation projects such as the Yadkin Hydroelectric Project which do not produce greenhouse gases;
- transmission line upgrades throughout the United States, which could considerably increase the ability to deliver energy from renewable sources and positively impact the value of the dam complex; and
- electricity market changes that could facilitate and add value to the sale of capacity, energy and reserves from the Project, as more sophisticated electric products are developed for the interstate grid.

These others factors, and their potentially significant positive effects on Project revenue, are identified but were not used to increase the State's revenue estimates for purposes of this analysis. However, the existence of these positive factors would enhance revenues and allow the State to provide more funds for its programs, or establish sinking funds for debt retirement.

As a result of this conservative approach and the considerations listed above, it is expected that the State would realize no less than $31.5 million in annual average gross revenues from generating and selling hydroelectric power from the Yadkin Project. See *Table 1 below.* It should be noted that this figure is considerably lower than APGI's 2006 estimate of $43.6 million.[48] While we believe, based on historical data for existing Project operations, and with allowances for major maintenance and upgrades, the earning potential at the Project is much higher, we believe using the lower figure here is appropriate. If one assumes operations and maintenance over the life of the license at APGI's average of 0.45 cents per KWH ($2.8 million annually on revenues of $31.5 million),[49] gross income, less O&M in less-than-optimal conditions, reaches $28.7 million.

There are capital costs that must also be funded from Project revenues. These include (1) the cost of acquisition, and (2) performance of deferred major maintenance such as generator rewinds and runner replacement, control upgrades, and the installation of aeration technology. For the purpose of this model we have priced these capital costs at $150 million (explained in note 4 of Table 1). While the figure appears large, there are a number of reasons why this amount is not burdensome. The State is acquainted with and has used a variety of financing vehicles available to public bodies and believes that in demonstrating the historical revenue potential of the Project, financing can be obtained. To calculate the carrying costs on this financing, numbers from an actual municipal bond issuance were used to demonstrate that by financing $150 million through 20-year bonds in three 5-year increments, cash flow, at its lowest point, after paying debt service, still exceeds $17 million.

Table 1

	Yrs. 1-5	Yrs. 6-10	Yrs. 11-20	Yrs. 21-25	Yrs. 26-30	Yrs. 31-50
Projected Annual Output (MWH) (1)	620,000	620,000	620,000	620,000	620,000	620,000
Projected Revenue (2)	$31,500,000	$31,500,000	$31,500,000	$31,500,000	$31,500,000	$31,500,000
Projected Expenses (O&M) (3)	$2,790,000	$2,790,000	*$2,790,000*	*$2,790,000*	$2,790,000	$2,790,000
Projected Income	$28,710,000	$28,710,000	*$28,710,000*	*$28,710,000*	$28,710,000	$28,710,000
Debt Service (4)	$3,800,000	$7,600,000	$11,400,000	$7,600,000	$3,800,000	$0
TOTAL AVAILABLE REVENUE*	**$24,910,000**	**$21,110,000**	**$17,310,000**	**$21,110,000**	**$24,910,000**	**$28,710,000**

[48] APGI, Yadkin Hydroelectric Project, Application for License, pg. D-4.

[49] The 0.45 cents/kWh average was derived from APGI's FERC Form 1s for calendar years 2001 through 2008, page 406.1 (Hydroelectric Generating Plant Statistics (Large Plants)), lines 12 and 34.

Key Assumptions

(1) Annual output was derived by taking a conservative approach to historical data from the Yadkin River basin
(2) Based on a rate of $51 MWH. This rate was calculated by dividing total revenue by total output, using an average taken from quarterly data on revenue and output from the last five fiscal years (consisting of twenty total data points), and eliminating the lowest and highest two figures as outliers.
(3) Based on APGI expense/net generation ($.0045) from 2001-2008 (FERC Form 1).
(4) Covers $150 million cost of acquisition that includes (a) net investment as of December 2005 ($24 million; APGI License Application, page D-2, Section D.2.2); (b) Narrows Unit 2 upgrade completed after December 2005 ($13 million; estimate based on Yadkin-Pee Dee FEIS, page 244 and estimate of relicensing cost from APGI Form 1s for 2006 and 2007, page 216); (c) other significant planned major maintenance and upgrades ($110 million; FEIS, page 245, Table 54); and (d) installation of aeration technology ($2.5 million; FEIS pg. 248, Table 54). Assumes issuance of $50 million bonds at years 1, 5, and 10, at 4.5%.
(5) *Subject to adjustment for FERC license conditions and terms ordered in Final License Order.

This simplified spreadsheet demonstrates that the State could comfortably accommodate necessary expenses, including debt service, and still generate significant cash flow sufficient to support a variety of the mitigation measures identified by FERC Staff in its FEIS (pages 245-55, Table 54) and by APGI in its Relicensing Settlement Agreement. If weather and water conditions are favorable, there will be additional funds, and steps could be taken to pay down the debt sooner. If weather and water conditions are adverse, it might be necessary to defer contributions to certain intended uses. But these are decisions that will be made by a responsible governing body that will be established to manage this resource in the public interest. In any event, this spreadsheet demonstrates the ability to generate a dedicated amount of income representing a stable revenue source for programs described in Section VI. By using a conservative projection, it is shown that revenues will be available to achieve the State's public purposes of providing a reliable and robust revenue stream for vital programs, maintaining the Project in good condition, and fulfilling any terms and conditions of the Project license.

As financial obligations directly associated with the Project ease, the State would have the ability to more proactively coordinate its efforts with other public agencies, private sector representatives, and other stakeholders, to devote more revenues to long-range planning and implementation. It is critical that this planning include the best use of the Yadkin River for the State's anticipated needs, as discussed in Section I. This ability to plan for the future enables the State to consider a broad spectrum of needs that can and should be addressed, such as improving the efficient distribution of water, conservation of water for individual consumption, promoting new businesses, tourism and recreation.

SECTION V

The State's Use of Revenues from Its Operation of the Yadkin River Hydroelectric Plants

The State would use revenues received from the sale of electricity generated by the Yadkin Project for a variety of Statewide economic development purposes. Several potential uses for the funds represent long-standing needs that have consistently been identified by the State in its Strategic Plan.[51]

The uses identified here include examples of high priority State programs that could be made more effective with reliable long-term funding. The actual use of Project revenues will ultimately be determined by the administrative body for the Project, as directed by North Carolina's General Assembly and Governor.

1. A regional economic development fund for the Yadkin River area. The dollars could be used to fund an enhanced Main Street pilot project that would provide dollars for small town redevelopment, infrastructure, entrepreneurship programs, worker training programs, tourism development, and business recruitment and retention in the Yadkin Region;

2. A continuous funding source for the One North Carolina Fund, which is used for recruiting new companies and assisting existing companies in starting new business activity and creating new jobs in North Carolina;

3. A continuous funding source for the Utility Fund, which provides money for infrastructure development in rural communities across the State;

4. A continuous funding source for the North Carolina Community College System's equipment fund. The Community College System is a critical part of North Carolina's workforce development network, but often has difficulty obtaining adequate funds for equipment used in worker training;

5. Resources to effect the prompt environmental clean-up of the water and surrounding areas;[52]

6. Resources for long-term water use planning and implementation as outlined by the statewide Drought Management Advisory Council (see Attachment III).

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[51] See footnote 48 and accompanying text.

[52] APGI and its parent Alcoa, as the responsible party, must pay the full clean-up costs when it is legally required to commence remediation of the environmental contamination it caused by its activity over the past decades; however, the State has an important public interest to serve in starting that process as soon as possible, rather than waiting for APGI to decide when to meet its responsibilities in this area.

The revenues from sale of electricity from the Project, used to fund ongoing programs on a sustained reliable basis, would serve a broader public purpose and help North Carolina to better realize some of the goals and objectives outlined in the Strategic Plan. The Strategic Plan focuses on seven economic development goals for the State:

1. Develop an outstanding education system and a highly qualified workforce.
2. Invest in science, technology, and university outreach.
3. Ensure a competitive environment for the recruitment and retention of business, capital investment, and job creation.
4. Create strong metropolitan growth centers that generate regional business development, shared prosperity, and a high quality of life in partnership with surrounding areas.
5. Develop thriving rural areas that maintain a high quality of life; achieve "One North Carolina" by mobilizing the State's resources to create strong regional partnerships and programs that foster broader economic development opportunities in rural North Carolina.
6. Develop a competitive regionally based infrastructure and promote sustainable economic development.
7. Maintain and strengthen the tourism, film, and sports industries; preserve, protect, and promote our State's cultural, natural, and heritage assets.

SECTION VI

Description of Programs Proposed to Be Funded with Project Revenues

Yadkin River Regional Economic Development Fund
Widely shared economic prosperity in North Carolina is a high priority goal of the Economic Development Board and the State. The Yadkin Region is rural and has lagged the State in terms of median household income ($42,792 for the region compared to $51,411 for the State as a whole). Additionally, at 13%, the Yadkin Region has a higher unemployment rate than the State as a whole (the State unemployment rate is 11.2%). With the closing of the Alcoa Badin Works aluminum smelting facility in 2002, Stanly County experienced the full effect of the jobs lost that have been difficult to replace. The Department's Division of Policy, Research and Strategic Planning estimated the economic impact associated with the closed Alcoa facility on the North Carolina economy under a conservative and an average production capacity scenario.[53] The analysis concluded that the lost output, value-added, and employee compensation associated with the closed Alcoa smelting facility result in a significant economic loss for both the State and the seven-county Yadkin region. Impact estimates suggest that North Carolina is losing between $220 million and upwards of $850 million in total output under conservative and average production capacity models, respectively, with losses in annual total employment ranging from 570 to 2,000 jobs, as a result of Alcoa's decision to curtail aluminum smelting operations at its Badin facility. It is important that North Carolina address this loss by harnessing the Yadkin River and its hydro facilities to serve the needs of its people through attracting new business to this region.

According to Stanly County officials, residents have suffered from continuous high unemployment and the County now experiences one of the highest suicide rates in the State, as well as other health-related impacts. Stanly County residents have ranked unemployment as one of their highest concerns.[54]

Research suggests that there is a relationship between a community's level of economic development and socioeconomic standing, and the health of that community. In general, the poor have the worst health. According to the World Health Organization "[w]ithin countries, the evidence shows that in general the lower an individual's socioeconomic position the worse their health. There is a social gradient in health that runs from top to bottom of the socioeconomic spectrum. This is a global phenomenon, seen in low, middle and high income countries." [55]

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[53] See Attachment XVIII, *The Estimated Economic Impact of Closure of Alcoa's Aluminum Smelting Facility in North Carolina*, N.C. Dept. of Commerce, Division of Policy, Research and Strategic Planning (Aug. 26, 2009).

[54] *2007 Community Health Assessment*, found at http://health.co.stanly.nc.us/news/Community%20Health%20Assessment/Stanly%20County%20-%20CHA%202007%20-%20final.doc

[55] See http://www.who.int/social_determinants/thecommission/finalreport/key_concepts/en/index.html

More specifically, employment and income associated with having a job impact an individual's well-being. Income determines living conditions and access to important things such as safe housing and neighborhoods, and sufficient nutritious food. Social status is also related to health, through its relationship to feelings of control over life circumstances and ability to manage stressful conditions. The conditions of employment and unemployment may also influence health, apart from the influence they exert on income and social status. The stress and loss of income that is associated with unemployment will play a major role in health.[55] Quite simply, unemployment is associated with a large number of health risks, and inadequate employment is associated with poor health outcomes.[56]

Thus, economic development can have crucial positive impacts on community health. Employment opportunities typically correlate with increased health care, in part because employed people often have access to health insurance coverage. Employment opportunities result in decreased personal and family stress and greater opportunities for personal growth. Public health professionals often say that one of the best community health improvement programs is a good economic development program that provides jobs and training opportunities. Counties with poor economic indicators typically have poor community health indicators.

Aligned with goal 5 of North Carolina's Strategic Plan, revenues generated from the Yadkin Project could be used effectively by helping to redevelop its small towns, promote entrepreneurship, build infrastructure, and create jobs in the region. It is a logical outcome that this valuable economic resource located right within their community should be used to assist those most adversely affected in their daily lives by the loss of a major employer like APGI.

With a plan to target economic development in these communities, funds from the Yadkin River Regional Economic Development Fund could also stimulate communities to leverage this by applying for other funding for which they would be eligible, such as Community Development Block Grants, the purpose of which is "to develop viable communities by providing decent housing and a suitable living environment and by expanding economic opportunities, principally for persons of low and moderate income."[57]

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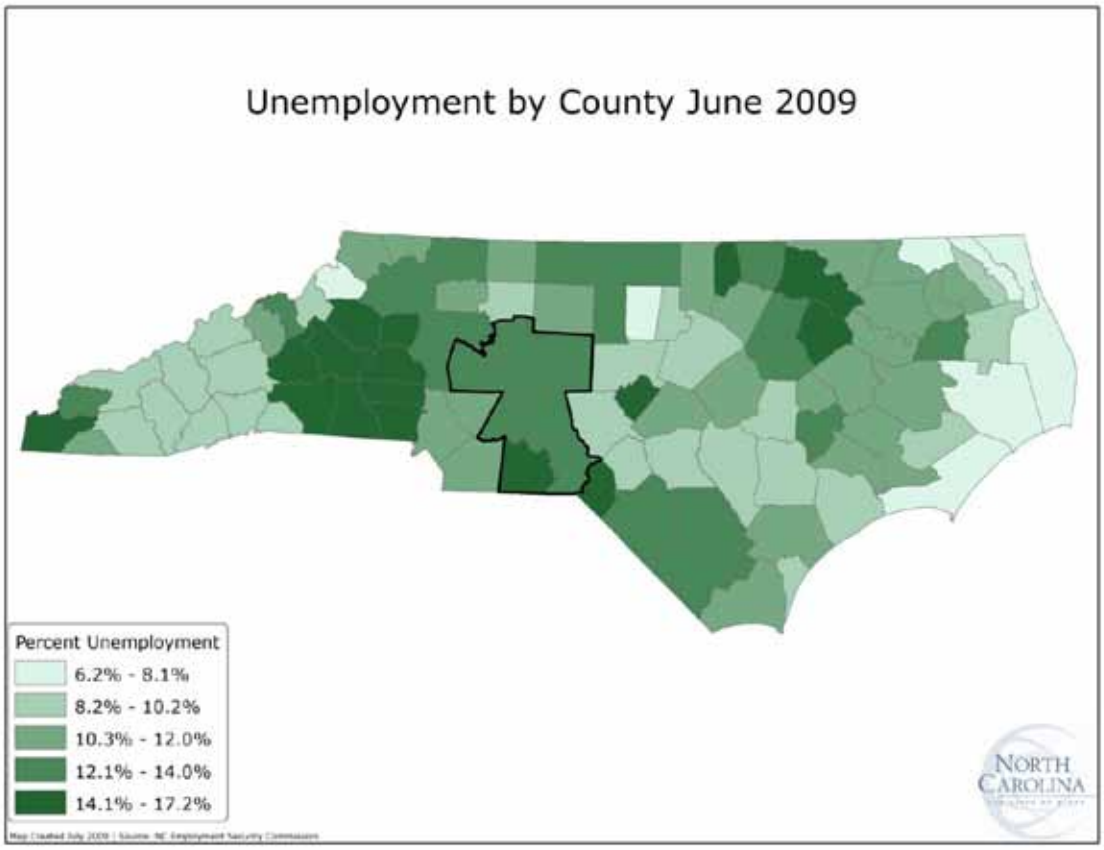
[55] Wellesley Institute, *Poverty Is Making Us Sick*. See http://www.wellesleyinstitute.com/files/ povertymakingussickfinal.pdf.

[56] U.S. Dept of Health and Human Services/California Wellness Foundation. See http://aspe.hhs.gov/ezec/ healthec/index.htm).

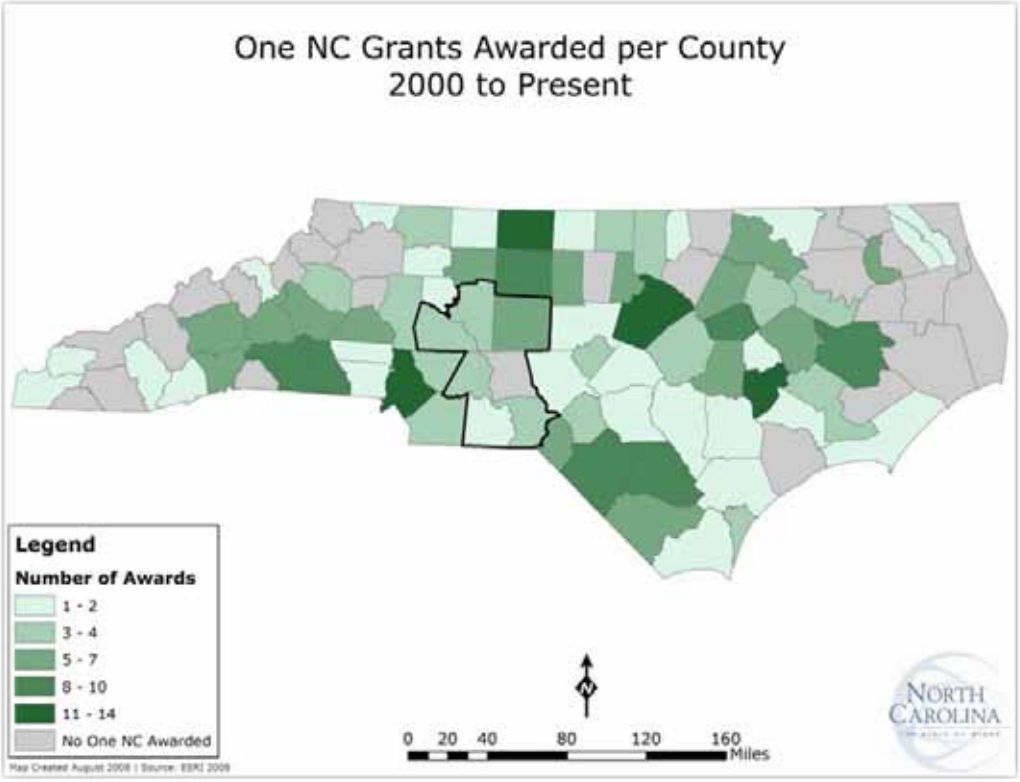
[57] See 4 N.C.A.C. 19L.0101 and http://www.nccommerce.com/ en/CommunityServices/CommunityDevelopmentGrants/CommunityDevelopmentBlockGrants.



Yadkin Region shown in outline in Southcentral N.C.

One North Carolina Fund

North Carolina seeks to ensure a competitive environment with the most effective tools possible to retain and recruit businesses that will invest and create sustainable well-paying jobs in high-value-added, knowledge-driven industries. A key component of the State's economic development portfolio is the One North Carolina Fund. This program provides cash grants based on job creation, to be used for acquisition of new machinery and equipment, or infrastructure improvements, to companies locating new projects in North Carolina**.** The One North Carolina Fund is one of the State's most powerful discretionary incentives; it has resulted in the creation of 41,249 jobs and over $7 billion in investment since 2000.



Yadkin Region shown in outline in Southcentral N.C.

The State does not have a dedicated funding source for the One North Carolina Fund and must rely on yearly appropriations, which can cause a gap in the ability to provide grants for good projects that would contribute to the economic development of a region, especially during economic downturns. Yet, this is the very time when efforts to attract and retain jobs are most critical. Goal 3, objective 3.1, action step 3 of the Strategic Plan calls for a dedicated funding source for the One NC Fund to ensure that North Carolina remains competitive. By linking this effort with a less volatile funding source, the ability of this program to address needs at the most difficult times, should be enhanced.

Several states have attempted to address this issue by developing dedicated or unique funding streams for incentive programs. The Texas Enterprise Fund (TEF) is the largest "deal-closing" incentive fund in the nation. When it was created, the Texas legislature appropriated $295 million for the biennium for the TEF, from the state's Economic Stabilization Fund (*i.e.*, the rainy day fund generated from general and special tax revenue, including oil and gas tax revenues).[58] For the 2005 and 2007 biennia, the TEF was reauthorized but at a reduced amount of $185 million. Georgia uses funds from the national tobacco settlement to finance economic development programs. In fiscal year 2009, Georgia allocated 30% of its tobacco settlement

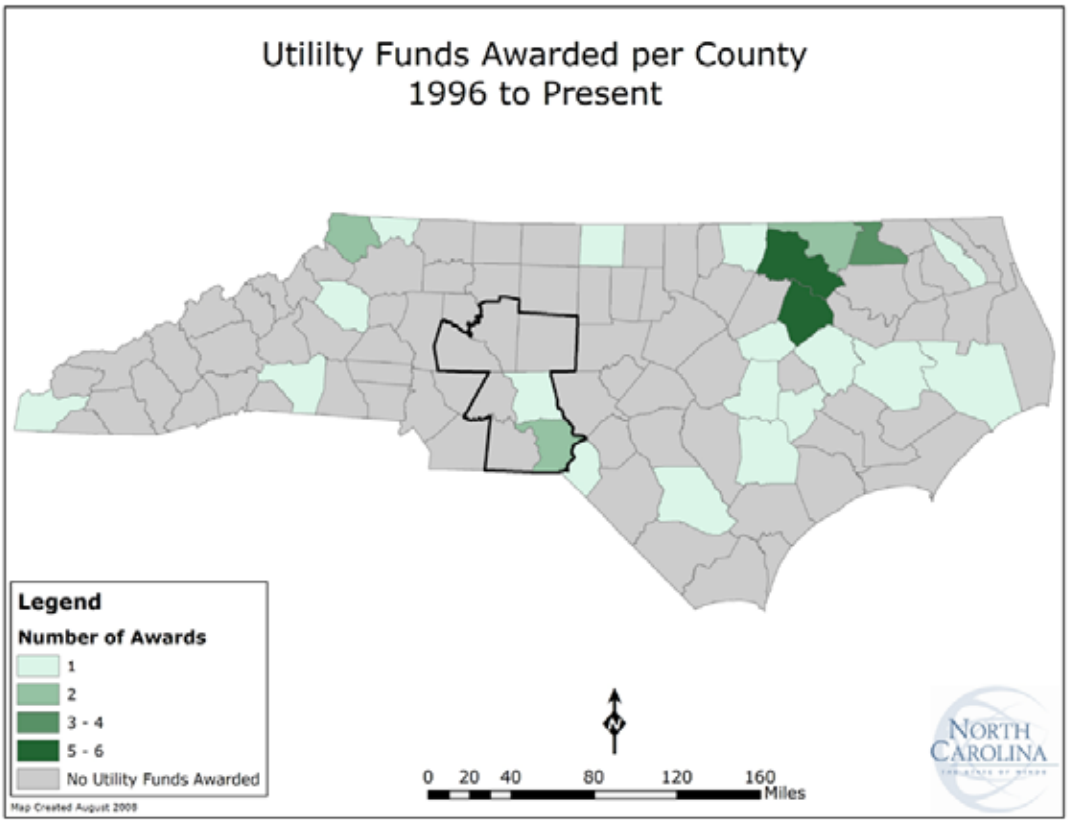
[58] Baylor, D. Center for Public Policy Priorities. Enterprise Fund Policy Page: High Road or Low Road, February 2, 2005. http://www.cppp.org/files/2/POP%20224%20Texas%20Enterprise%20Fund.pdf

funds to the One Georgia Fund.[59] Delaware created the Delaware Competitiveness Fund—a nonbanking financial institution collaboration between the State of Delaware and Citizen's Bank—to assist in purchases or upgrades of machinery and equipment and building acquisitions, expansions, and remodeling. Connecticut is adding $2 million to the Governor's Small Manufacturers Competitiveness Fund in bond funding from the Connecticut Stimulus Package—a state level $525 million stimulus bond program. North Carolina's proposed use of funds from the Yadkin Project would be consistent with these examples by providing dedicated funding to critical economic development-related programs.

Utility Fund

The need for a strong State commitment to building infrastructure is critical to comprehensive and sustainable economic development in North Carolina's rural communities. The Utility Fund provides infrastructure, such as water and sewer improvements critical to a business seeking to expand or locate in one of the 80, mostly rural, economically distressed counties. Although tremendous strides have been made in recent years, many of the State's rural communities lack the basic infrastructure that is essential to supporting long-term economic prosperity. The Strategic Plan notes that through direct intervention on specific issues relating to water/sewer, natural gas, transportation, technology and electricity, the State can significantly enhance the competitiveness of rural North Carolina. Like the One North Carolina Fund, the Utility Fund lacks a dedicated source of funding and is subject to annual appropriations by the General Assembly; amounts have varied considerably, year to year, making it difficult for this program to operate efficiently. The Utility Fund currently has more potential projects than it can fund, and a permanent source of funding would allow North Carolina to expand its funding capacity to meet the needs of more of the State's rural areas.

[59] Sweeny, T. & Ray, S. Georgia Budget and Policy Institute, *Examining How Georgia Spends Tobacco Settlement Revenues*, October 2008 http://www.gbpi.org/documents/20081007.pdf

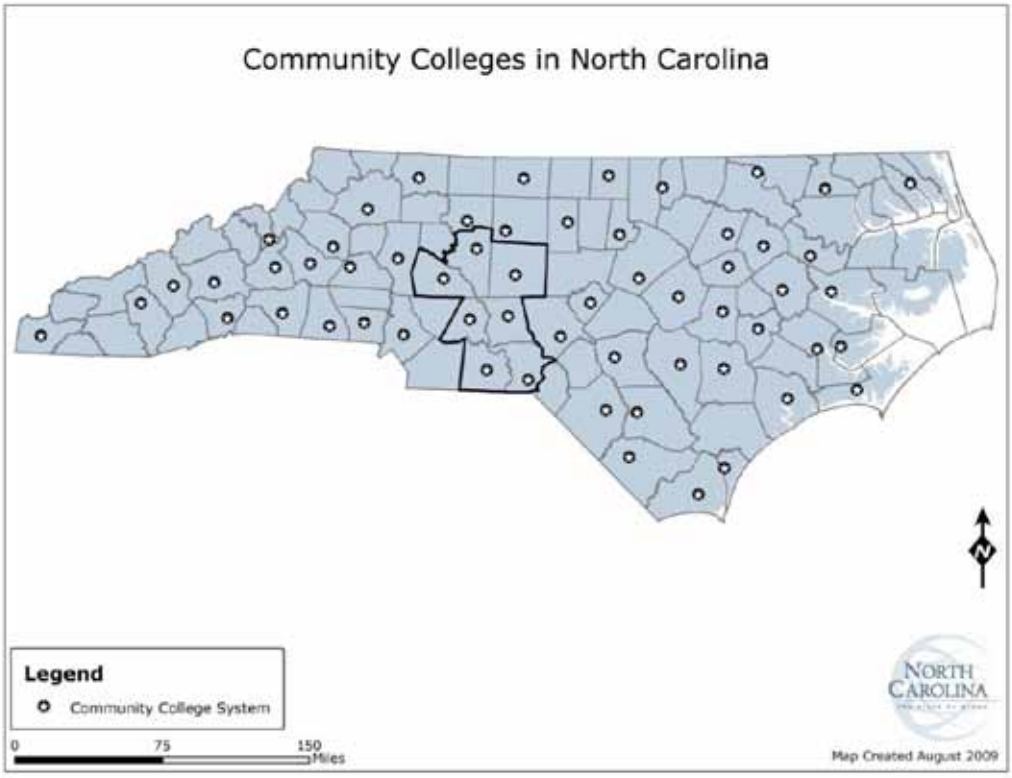


Yadkin Region outlined in Southcentral N.C.

NC Community College System Machinery and Equipment

The North Carolina Community College System (the "NCCCS") offers free, customized job training for new and expanding businesses. Comprised of 58 colleges across the State, it is the third largest community college system in the country and has earned accolades from the economic development, business and industry, and educational communities worldwide. With 160 physical facilities, the 58 colleges provide accessible training to all 100 counties. Community college classrooms are within a 30-minute drive of virtually every North Carolinian, and distance learning technology reaches students in their homes and workplaces.

Community colleges provide the programs needed to build the economy by preparing students to do the jobs available now and in the future. There are more than 1,000 curriculum programs under more than 250 curriculum titles offered across the State. Programs are offered at the certificate, diploma and associate degree levels. New programs are established as a response to local and regional labor market needs and student demand.



Yadkin Region outlined in Southcentral N.C.

For the community colleges to provide competitive skills to students, they must have state-of-the-art equipment. However, NCCCS lacks sufficient equipment funding; at the current rate, NCCCS can only replace its equipment (from desktop computers to heavy machinery) every nine years, and it has no extra funds to purchase additional new equipment. The lack of sufficient funding for equipment has resulted in outdated information technology, worn-out training equipment, and the necessity to re-direct limited operating funds to equipment accounts, none of which are acceptable methods of operation for the community colleges. Without the ability to train students on modern equipment actually used in the workplace, adequate worker training that would attract businesses that could provide stable well-paying jobs cannot be accomplished. For example, Aerospace has become an important industry in the State's business recruitment efforts. Manufacturing skills in the aerospace industry are unique to that industry, and proper equipment must be provided to train workers to meet this need.

The most basic building block of economic development is a skilled and trained workforce. Having a permanent funding source from the Yadkin Project would enable the State to compete internationally for high technology manufacturing projects that would bring good jobs and investment to communities across North Carolina.

Funds for Environmental Clean-up
As the state's third-largest industry, tourism is a major part of North Carolina's economy. The Strategic Plan includes the goal of protecting, promoting and preserving the State's natural resources in order to increase tourism and create jobs throughout the State.

A polluted environment is typically not where tourists seek to travel. Although the Yadkin Region has attractions that tourists might otherwise seek, some of which are described in Section III, the level of pollution in the area would be likely to serve as a deterrent to many. For almost 100 years, Alcoa and its predecessors have conducted industrial process operations on lands Alcoa owns within Stanly County. Alcoa's operations at the Badin Smelting Works—which occupies 126 acres in the center of Badin, North Carolina, adjacent to Badin Lake, one of the Project reservoirs—produced large amounts of hazardous waste. For example, the facility produced approximately 4,800 tons per year of spent pot linings, a hazardous waste containing cyanide complexes.[60] Some of that hazardous material was discharged into the air and water of Stanly County. The spent pot-linings and other refuse from the aluminum smelting operations were stored on or buried in the land.

Environmental contamination of the Badin Smelting Works site and the official disposal sites used by Alcoa in Stanly County—all of which are located on or near the shore of Badin Lake—has been documented by Alcoa.[61] In recent years, local residents have also publicly identified other potential Alcoa waste disposal sites in Stanly County that had not previously been mentioned by Alcoa in its official environmental reports to the State.[62] Alcoa subsequently acknowledged to North Carolina's Department of Environment and Natural Resources, one of those sites as a potential, previously undocumented waste disposal location.[63]

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[60] *North Carolina Department of Environment, Health, and Natural Resources Screening Site Investigation, Alcoa Badin Landfill*, page 1.3 (March 1991).

[61] See, e.g., MFG, Inc., *RCRA Facility Investigation Report* (March 2001) (RFI). *See also* Stanly County Board of Commissioners, Public meeting (February 5, 2007), Videofile (Attach. B), which provides an overview of: (1) the contamination that Alcoa acknowledges at the Badin Smelting Works and official dumping locations; and (2) the steps the company has taken, to date, to address the contamination. The meeting was held at the request of the Stanly County Board of Commissioners. Alcoa provided an expert from its environmental remediation staff based in Alcoa's Pittsburgh headquarters.

[62] Affidavit of Tony Dennis, attached to Scoping Comments of Stanly County and Request for Additional Information from Licensee, *APGI, Inc.*, Project No. 2197-073 (filed Feb. 26, 2007) (Stanly County Scoping Comments); Affidavit of Gary Lowder, Stanly County Scoping Comments, Attach. I; Affidavit of Mary Elizabeth Chivington, Comments Of Stanly County in Response to Licensee Filing of Relicensing Settlement Agreement, App. A (June 6, 2007).

[63] Stanly County Scoping Comments, Attach. B, 7:04, 9:32-10:00; Transcript Supplementing Video Submitted as Attachment B to Scoping Comments of Stanly County, attached to Affidavits of Jerry D. Myers, Robert M. Van Geons, Tony M. Dennis, April B. Underwood, and Gary S. Lowder (Feb. 27, 2007), *available at* eLibrary Accession No. 20070301-0093; Brief of Stanly County, Ex. G, SB 1046: An Act to Study the Impacts on the State of North Carolina of the Potential Issuance of a Fifty-Year License by the Federal Energy Regulatory Commission for the Operation of the Yadkin Hydroelectric Project, *available at* http://www.ncleg.net/gascripts/DocumentSites/ browseDocSite.asp?nID=12&sFolderName=

The government of Stanly County has also expressed concerns about groundwater quality, noting that environmental documentation for the Badin Smelting Works indicates that groundwater contamination has occurred under the site, and that the groundwater flows toward and discharges to Badin Lake.[64] As noted in Section I, earlier this year, State health authorities posted a fish-consumption advisory for largemouth bass and catfish caught in the Badin Lake, because those species may be contaminated by polychlorinated biphenyls, or PCBs, which can cause a range of health problems, possibly including cancer.

Remediation of the environmental contamination in and around the Badin Smelting Works site could both facilitate productive reuse of that industrial site and protect surface and ground water quality in the adjacent Yadkin River and Project reservoir, which is currently used for public water supply and is a crucial resource for the State. Stanly County has sites contaminated from the Alcoa Badin Plant that, if remediated, could be developed and generate tax revenues. Accelerating clean-up of these sites would facilitate development of sites within Stanly and neighboring counties.

From a tourism, recreational (fishing, boating, swimming, picnicking), public health, and economic development perspective, directing revenues from the Project to hasten environmental remediation is a wise step that would achieve a worthy public benefit.

Water Resources Management

To promote North Carolina's long-term economic growth, the State must manage its water resources to ensure that people and businesses will have access to adequate, clean and reliable supplies of water. As one of North Carolina's five major river basins, the Yadkin River basin covers more than one-fifth of North Carolina's 100 counties in its drainage area, includes 17.5% of North Carolina's population, and touches three of North Carolina's combined statistical areas (CSAs): Charlotte-Gastonia-Salisbury, Greensboro-Winston-Salem-High Point, and Lumberton-Laurinburg.[65]

In the last few years, ending in 2008, North Carolina experienced a drought that was the worst on record since 1895.[66] As a result of the drought, the North Carolina Drought Management Advisory Council met to discuss the drought and its impact statewide, including its impact on public health, agriculture, businesses and economic development. As a result of both the 2002

\Alcoa%20-%20Stanley%20County%20-%20FERC%20Re-licensing\Stanley%20briefing%20info (follow "Exhibit G" hyperlink).

[64] Stanly County Scoping Comments, page 12, *citing* RFI, page 123.

[65] North Carolina State University, College of Agriculture and Life Sciences, NCSU Water Quality Programs, *Yadkin River Basin,* http://www.water.ncsu.edu/yadkin.html.

[66] See Attachment III, North Carolina Drought Management Advisory Council Activity Report – 2008, North Carolina Division of Water Resources, Department of Environment and Natural Resources, Oct. 1, 2008 (Revised Dec. 18, 2008).

and 2007 droughts, North Carolina's government agencies came together to work on interconnections to prevent the most vulnerable municipalities from running out of water and encouraged the municipalities to conduct their own water resources planning to prepare for drought. Led by the North Carolina Department of Environment and Natural Resources, North Carolina agencies are working to find funding for the most vulnerable municipalities to help them pay for interconnections and new water intakes and pump stations.[68] To prevent similar emergency situations from occurring in the future, North Carolina and its municipalities must plan for the long-term use and delivery of water to population centers, businesses, medical facilities and other institutions. Revenues from the Yadkin Project could be set aside to help conduct these long-range plans.

[68] *Ibid.*

SECTION VII

The State as Project Licensee; The State's Capacity to Manage The Project

The State is prepared to establish an entity that will undertake responsibility for the operations of the Project by the time it receives the FERC license. In doing so, the State would expect to employ the approximately 35 employees currently engaged in operating activities for the Project. To the extent necessary or desirable, there are also subcontracting options that would involve engaging other experienced hydropower producers singly, or as a joint venture, to assist in the routine as well as the special tasks associated with operating the facilities, for at least some period of time.[69]

The State has hundreds of years of business experience in operating entities created to serve public purposes. Just a few examples are the vast University of North Carolina System, the North Carolina Ports and the North Carolina Railroad, which are described below.

University System[70]

In North Carolina, all the public educational institutions that grant baccalaureate degrees are part of the University of North Carolina. Chartered by the North Carolina General Assembly in 1789, the University of North Carolina was the first public university in the United States to open its doors. The first class was admitted in Chapel Hill in 1795.

The 1931 session of the General Assembly redefined the University of North Carolina to include three State-supported institutions: the campus at Chapel Hill, North Carolina State College, and Woman's College (now the University of North Carolina at Greensboro). By 1969, three additional campuses had joined the University through legislative action: the University of North Carolina at Charlotte, the University of North Carolina at Asheville, and the University of North Carolina at Wilmington.

In 1971 legislation was passed bringing into the University of North Carolina the State's ten remaining public senior institutions, each of which had until then been legally separate:

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[69] A recent experience of the State's owning and planning for the operations of a valuable resource for the public's benefit is the State's purchase of the landmark Chimney Rock Park, a popular tourist attraction since 1885, from a private family. The existing operator continues to operate the park while the State develops an operations plan. The State acquired the property to protect the important landmark for future generations, in the context of making it part of the larger State park system. The N.C. Division of Parks and Recreation has engaged an environmental planning and landscape architect firm to develop the master plan that will balance conservation and protection of sensitive habitats and rare species, and recreation (and the need to locate State park infrastructure). The master plan will provide for the long-term development of facilities and protection of natural resources, with input from the parks division, as well as from the public. See http://ils.unc.edu/parkproject/ncparks.html and http://www.virtualblueridge.com/news-and-events/news-428.asp.

[70] See UNC website at http://www.northcarolina.edu/about/mission.htm

Appalachian State University, East Carolina University, Elizabeth City State University, Fayetteville State University, North Carolina Agricultural and Technical State University, North Carolina Central University, the North Carolina School of the Arts (now the University of North Carolina School of the Arts), Pembroke State University (now the University of North Carolina at Pembroke), Western Carolina University, and Winston-Salem State University.

The UNC Board of Governors is the policy-making body legally charged with "the general determination, control, supervision, management, and governance of all affairs of the constituent institutions." It elects the president, who administers the University. The 32 voting members of the Board of Governors are elected by the General Assembly for four-year terms.

In addition to its teaching role, the University of North Carolina has a long-standing commitment to public service. The UNC Center for Public Television, the UNC Health Care System, the cooperative extension and research services, nine area health education centers, and myriad other University programs and facilities reap social and economic benefits for the State and its people.

The official mission statement for the University is reflected at Chapter 116-1 of the General Statutes:

> The University of North Carolina is a public, multi-campus university dedicated to the service of North Carolina and its people. It encompasses the 16 diverse constituent institutions and other educational, research, and public service organizations. Each shares in the overall mission of the University. That mission is to discover, create, transmit, and apply knowledge to address the needs of individuals and society. This mission is accomplished through instruction, which communicates the knowledge and values and imparts the skills necessary for individuals to lead responsible, productive, and personally satisfying lives; through research, scholarship, and creative activities, which advance knowledge and enhance the educational process; and through public service, which contributes to the solution of societal problems and enriches the quality of life in the State. In the fulfillment of this mission, the University shall seek an efficient use of available resources to ensure the highest quality in its service to the citizens of the State.

The UNC system demonstrates the successful public management of an enormous business. Some examples of businesses within the UNC system are UNC Hospitals, which has an operating budget of $912 million, 6,900 employees, plus an additional 1,500 physicians. And some of the businesses within UNC own and operate utilities: Appalachian State University's New River Light and Power Company has an operating budget of $14 million, with 28 employees; and UNC-Chapel Hill's utility operations have an operating budget of $110 million, with about 150 employees.[71]

North Carolina Railroad[72]

The North Carolina Railroad ("NCRR") was instrumental in encouraging the economic development of North Carolina in the 19th century, helping to define new markets, new

[71] James O. Smith, Associate Vice President-Finance, UNC General Administration.

[72] Information provided by Catherine Campbell, NCRR.

industries, and new cities. Today, NCRR continues to contribute to the State's economy, as it invests in ongoing capital improvement projects to enhance the efficiency and safety of transportation in the State. The following data come from a study conducted by the Research Triangle Institute International in May of 2007, reflecting 2005 data.

- NCRR carried 254,000 carloads of NC freight in 2005, including 7,800 intrastate carloads and 246,500 interstate carloads; 1.5 million carloads total
- NCRR carries 300,000 passengers each year
- NC freight spending by NCRR customers: $74.7 million; total NC impact: $143 million annually
- NCRR saves its customers $198 million in transportation costs annually (against the substantially more expensive truck transportation); total impact on NC output: $338 million annually. The information below summarizes NCRR cost and economic impacts.

Impact Measure	Cost Savings by NCRR Freight Customers	Direct Impact	Indirect Impact	Induced Impact	Total Impact
Output ($)	$198,000,000	$223,100,000	$73,900,000	$40,800,000	$337,700,000
Employment		611	432	385	1,428

- NCRR invests millions of dollars each year in North Carolina
- North Carolina's economy depends on NCRR's rail transportation. In counties bordering NCRR tracks, industries using rail freight services account for $143 billion in output, more than 24% of North Carolina's total economy in 2005
- NCRR freight transportation has environmental benefits, conveying $65.7 million in external benefits (cost savings)

North Carolina State Port Authority[73]

The N.C. State Port Authority (the "Port") is an enterprise agency unique within the North Carolina State Government. It was established in 1945 with no State or Federal funding for operations. There is support for capital improvements only. The State owns two modern, expanding deepwater container ports at Wilmington and Morehead City and the future North Carolina International Port, and two breakbulk/bulk facilities at Wilmington and Morehead City. The State enforces sound fiscal policy through a constitutionally mandated balanced budget. See 2002-2008 operating budget, below.[74] The Port employs about 200 people in Wilmington and 80 in Morehead City.

In 2005, Martin Associates, a national transportation and economic consulting firm, produced the North Carolina State Port Authority's economic impact report. The study used a standard port industry model which measures economic impact in terms of jobs directly and indirectly related to port activities.

[73] This information was provided by Jason Smith, N.C. Port Authority.

[74] Chart of budget provided by Laura Godwin, Director of Government Relations, N.C. Port Authority.

The study shows that North Carolina's Ports in Morehead City and Wilmington directly and indirectly support 85,000 jobs, which contribute $299 million annually in State and local tax revenues, based on the Port's fiscal 2005 cargo volumes.

Only 5,000 of those jobs are at the Ports, or otherwise directly related to maritime activity - including some 300 employees of the Ports Authority, members of the International Longshoremen's Association, trucking companies, ship's chandlers, fuel companies and so forth. Another 6,500 jobs are created by the purchasing power of those direct jobs.

In 2008, Martin Associates produced a second study, this time examining the potential economic impact of the proposed North Carolina International Terminal on the west bank of the Cape Fear River in Brunswick County. The projections confirm planners' early expectations: by the time the facility is completely built out, around 2030, it will support nearly half a million jobs and generate State and local tax revenues of well over a billion dollars each year.

Jobs and taxes are generated by companies that locate in the community and thrive due to port access. Some examples are Leather Italia (Leland), International Paper (Riegelwood), Sue Bee Honey (Elizabethtown), Aludisc (Clinton), WestPoint Home(Maxton) in the Southeast, and Lowe's, QVC, Thomasville, Broyhill, K-mart, Polo-Ralph Lauren, and Hallmark Cards, throughout the State. Spirit AeroSystems ("Spirit") was attracted to the Global TransPark (airport), in part because of its proximity to the Moorehead City and Wilmington ports. Spirit expects to create 1,031 jobs over the next six years.[75]

[75] John Lewelling, Senior Vice President, Spirit AeroSystems.

North Carolina State Ports Authority
Budget and Actual
past 7 years: FY 2002-FY 2008

	FY 01-02	FY 02-03	FY 03-04	FY 04-05	FY 05-06	FY 06-07	FY 07-08
Operating Budget							
Operating Revenue	26,202,693	26,675,014	29,163,826	32,248,269	39,034,574	46,964,820	43,978,041
Operating Expense	32,068,278	32,039,874	33,516,875	34,899,840	38,587,446	43,629,746	41,673,275
Operating Income	(5,865,585)	(5,364,860)	(4,353,049)	(2,651,571)	447,128	3,335,074	2,304,766
Non Operating Expenses*	660,901	39,974	(673,325)	(358,840)	3,606,158	(114,068)	(1,820,818)
Net Income	(5,204,684)	(5,324,886)	(5,026,374)	(3,010,411)	4,053,286	3,221,006	483,948
	-						
Operating Actual	-						
Operating Revenue	26,245,650	26,810,559	29,141,871	34,900,562	40,680,611	39,072,670	39,594,989
Operating Expense	30,052,138	31,584,320	32,721,000	37,156,482	38,492,589	39,328,180	37,470,078
Operating Income	(3,806,488)	(4,773,761)	(3,579,129)	(2,255,920)	2,188,022	(255,510)	2,124,912
Non Operating Income*	889,333	481,910	(381,972)	851,146	9,525,557	(681,218)	(1,014,145)
Net Income	(2,917,155)	(4,291,851)	(3,961,101)	(1,404,774)	11,713,579	(936,728)	1,110,767

SECTION VIII

The Impact of the Project License; The Need to Take Action

This Plan discusses a specific topic, namely, how the State would manage the Yadkin Hydroelectric Project for the next fifty years if it were to obtain the Federal license for the Project. What motivates the State's request, however, is what the State views as a compelling need to gain meaningful control over the Yadkin River resources in the future. If any single asset is vital to the State's well-being, it is an adequate, reliable water supply. The Yadkin River is one of the State's larger rivers and its development for hydropower has resulted in the creation of several large reservoirs. It is these reservoirs and the flows of the Yadkin River that will become the water sources that the State must rely on for its future water needs.

Because the Yadkin reservoirs are associated with hydroelectric production, they are subject to regulation by Federal Energy Regulatory Commission. Where a private entity like APGI holds the Federal license, the State is constrained in its ability to make and implement plans regarding these reservoirs and their use, even though located within the State. FERC is authorized to issue hydroelectric power licenses for up to 50 years. The main effect of the Federal licensing system on the State's water policy is that the State's ability to provide and plan for water resources of the Yadkin River to serve its citizens is subject, in this case, to a 50-year license, which is essentially a contract between the Federal government and APGI that determines primarily how the river and plants located geographically in the State, are operated. As to the important question of securing water supplies from FERC-licensed projects, FERC has a standard license provision that permits governmental bodies to request that the licensee provide water for consumption purposes, but the licensee may charge the user for water withdrawals based on the price of power sales it lost as a result of the water sale. In theory, this practice should make the licensee relatively indifferent during the license term as to whether it obtained its revenues by generating power from water or by selling that water for public consumption. The effect of this standard, however, is to tie the price of raw water to the price of electricity. The expense of transporting the water further increases that cost.[76]

A typical FERC license also provides for certain minimum flows for environmental purposes, water supplies for certain communities, and other measures designed to enhance recreation, fishery, and aesthetics. However, once in place, the license essentially locks in the use for the full term of the license. While some changes can be made, the license itself cannot be changed or amended without the mutual consent of FERC and the licensee. Third parties like the State, if APGI receives the new license, are limited in what they might request during the term of the Project license.

[76] Terms and Conditions of License of Constructed Major Project Affecting Navigable Waters of the United States, Form L-3, Article 13. http://www.ferc.gov/industries/hydropower/gen-info/comp-admin/l-forms/l-03.pdf.

States, through their various agencies, participate in FERC licensing and relicensing proceedings. The state agencies that participate usually include the state's department of environmental resources and its historical preservation office. Federal agencies also participate, like the US Fish & Wildlife Service ("US F&W"), and the National Marine Fisheries Service. These agencies participate in the consultative process, along with other interested individuals and organizations, to arrive at a single document, like a settlement agreement, that reflects their understandings on matters of concern. FERC has an independent obligation to review the license applicant's proposal or any settlement agreement to make sure it meets the statutory standard of "best adapted to a comprehensive plan of development for the riverway."[77] In addition, the licensee applicant must apply for a Water Quality Certification ("WQC") under Section 401 of the Clean Water Act, and the State agency responsible for implementing that provision of the Clean Water Act is authorized to rule on that WQC application. No FERC license may be issued unless the State issues a WQC or waives the certification requirement.

It is against this background that the State and its agencies became involved in the Yadkin Project relicensing application. During the latter part of the consultative process, one participant, Stanly County, raised other issues that it believed should be considered in relicensing the Yadkin Project. The County is the site of the Yadkin Project and Alcoa's mothballed Badin Smelting Works, which was powered by the Yadkin Project and had earlier provided a substantial number of jobs (nearly 1,000) in the years after the 1958 licensing of the Yadkin Project. The State supported Alcoa in 1958 when Alcoa requested a 50-year license, rather than the shorter term the Federal Power Commission initially allowed, because Alcoa represented to the FPC and to the State that it could not justify the investment needed to continue operations and employment at the Badin Smelting Works, for a shorter period.[78]

In recent years, as discussed previously, the State experienced the worst drought in its recorded history. The Yadkin River Basin was one of the rivers experiencing the effects of the drought. It became clear, as the State examined the situation, that there were vulnerable spots in its water delivery system. Because most of the water delivery systems are local, the State took the initiative to examine what steps could and needed to be taken to deal with the scarcity of water supplies under drought or other emergency situations. Interestingly enough, the few communities that had experienced loss of their water supplies prior to the drought years were the most prepared to deal with the situation. In addition to the stress and costs added to individuals and industries, there was also a cost to the environment and recreation amenities.[79]

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[77] FPA Section 10(a), 16 U.S.C. § 803(a).

[78] *Carolina Aluminum Co.*, 19 F.P.C. 704 (1958); Carolina Aluminum Company, Petition for Rehearing and for Other Relief, in *Carolina Aluminum Co.*, Federal Power Commission Project No. 2197, Docket No. IT-5499 (Apr. 25, 1957).

[79] See North Carolina Drought Management Advisory Council Activities Report – 2008, North Carolina Division of Water Resources, Department of Environment and Natural Resources, Oct. 1, 2008 (Revised Dec. 18, 2008).

The real questions became what could the State do to take effective action. In that regard, it became evident that the conditions that led to the initial licensing of the Yadkin River had changed significantly. The licensee, APGI, no longer operated the Yadkin Hydro Project to supply the Badin Smelting Works; by 2007, APGI had entirely eliminated its aluminum operations. Instead, APGI has chosen to sell the electricity generated from the Yadkin Hydroelectric Project at market prices on the open wholesale electricity market. In 2006, when its relicense application was filed, APGI reported approximately $44 million in annual gross revenues.[80] Although APGI claims the Project costs $28,310,097 annually to operate, including almost $10 million in Operating and Maintenance expenses,[81] APGI's FERC Form 1s report annual Total Production Expenses range only from $2.1 million to $4.0 million during the years 2001-2008.

In 2008 and 2009, North Carolina like the rest of the country, entered a period of financial contraction; we are not yet out of the recession. The result has been a loss of jobs, income, and taxes to the State. Against this background, we are faced with the prospect of a changing world climate that is causing significant impacts in our environment. The Federal government, as well as state and local governments and the governments of other countries are taking steps to address global climate issues, especially since scientists caution that these changes, which include a pattern of prolonged and severe weather variations, could stress our society's ability to assure fundamental goods like water and clean air and to maintain their standard of living.

These issues converged in 2009, when the State recognized that there was a once-in-a-lifetime opportunity for the State possibly to recover some larger share of the control of the Yadkin River than it had experienced in the 20th century. Federal law provided a basis for the State to recover this fundamentally critical asset, so that it could be managed in a way that would best serve the interests of the people. Specifically, the Federal Power Act provides that the Federal Energy Regulatory Commission, based on the evidence before it, can decide to recommend recapture of a project license for public purposes, to the United States Congress, if it is in the public interest. It is North Carolina's contention that the public purpose achievable by the State if it more fully controlled and participated in the decisions of how a major river in the State can be used for the public benefits set out in its Plan and its pleading, provide more than ample evidence supporting a request that the Commission recommend to Congress that the United States exercise its recapture rights under Sections 7 and 14 of the Federal Power Act, for subsequent transfer to the State of North Carolina, as proposed in this Plan.

Accordingly the State has set out its proposal as a Plan to accompany the State's request for such relief to FERC. That proposal has the following elements:

1. Payment to the U.S. Government of the statutory net investment and severance damages for the Yadkin Project. The result is that the transfer would not cost the U.S. Government any funds from General Revenues.

[80] APGI, Yadkin Hydroelectric Project, Application for License, pg. D-4.

[81] *Ibid.*

2. North Carolina would seek legislation in the United States Congress directing FERC to accept a license application from the State, for the Yadkin Project.

3. Upon transfer of the Project property, the State would assume ownership of the facilities and control of the Project operations.

4. Until physical transfer is final, APGI would operate the Yadkin Project on the basis of its existing license, allowing it substantial revenues.

5. The State would file a license application with the Commission and be subject to all license terms and conditions required by the Commission or enter into a settlement agreement with third parties and participating agencies in the course of its relicensing before FERC.

6. In the event that the U.S. Congress does not provide legislation that would allow the transfer to North Carolina within a specified time period, the law provides that the Commission may resume the relicensing considerations for the Yadkin Project, subject to applicable laws at the time.

The end result of the North Carolina proposal would be that North Carolina, if the U.S. Congress agrees, would become the licensee for the Yadkin Project, and that APGI would be compensated for its Project investment, as agreed to by APGI when it initially received its FERC license. Any license received by the State would be subject to the terms and conditions required by FERC. The value of the Project, thereafter, would be distributed in the manner discussed herein, that is, for the benefit of the citizens of North Carolina. A successful transition would mark the first use of the Federal Energy Regulatory Commission's authority under Sections 7 and 14 of the Federal Power Act, but the time and circumstances, in North Carolina's opinion, have now converged to make its exercise imperative and in the public interest.

Finally, North Carolina wishes to share with the Commission its thoughts on the kind of discourse that the State's recapture request has engendered in North Carolina. The State's recapture request has been received by many citizens and groups within the State as a sound, sensible, and timely measure.[82] Indeed, the State's recapture request has raised the awareness of many of its citizens about the infrastructure needs of the State, especially the need for clean and

[82] See, e.g., "It's Time North Carolina Recovered Hydro Plants" [Subtitle: "State Wants to Refocus Use of Water to Produce N.C. Jobs"], *The Charlotte Observer*, August 6, 2009 (http://www.charlotteobserver.com/opinion/story/872215.html); "Support Grows for Yadkin River Trust Bill," *Carolina Business Connection*, August 28, 2009 (http://www.carolinabusinessconnection.com/cbc/article.html?id=8465); "Panel of NC Lawmakers OK Yadkin River Dams Bill" [Subtitle: "NC Legislative Committee Passes Bill to Help State in Attempt to Control Yadkin River Dams"], Associated Press, August 6, 2009 (http://finance.yahoo.com/news/Panel-of-NC-lawmakers-OK-apf-195743432.html?x=0&.v=1).

adequate water supplies, and the purposefulness with which these needs must be pursued if the State is to achieve anticipated standards and quality of life for its citizens.

The State's initial attempt to establish by way of legislation, in advance of a recapture decision, a public trust to own, hold the license for, and operate the Project in the public interest in the event the State were to acquire the Project, passed overwhelmingly on two occasions in the North Carolina Senate, but did not pass the North Carolina House of Representatives during the closing days of the legislation session just ended. During most of that session, the attention of the entire General Assembly was focused almost exclusively on an approximately $4 billion budget shortfall, representing 20% of the entire State budget. This was a crisis on a scale unseen since the 1930s. Legislators were embroiled in reaching a complex and difficult compromise to balance the budget, and, until this was accomplished, it was impossible for adequate energy or attention to be placed on the Yadkin River Trust legislation. There were only a few days remaining in the session when a comprehensive budget compromise was reached, leaving no time to debate or study the merits of the proposed Yadkin River Trust legislation, or for supporters to answer questions about it and respond adequately to Alcoa's program of disinformation. However, the full text of the enabling legislation remains intact, and is currently in conference between the House and Senate. We are confident that when the new legislative session begins, the conference report will report favorably on the Yadkin River Trust concept, especially since the members of the General Assembly will then have adequate time to study the facts, make inquiries, and recognize the need for enacting the legislation promptly.

The misinformation provided by APGI included characterizing the State's request to FERC as a "takings" issue inconsistent with the United States Constitution, rather than a lawful measure expressly provided for, under Federal law and included in virtually every FERC license, including APGI's current Yadkin Project license. The licensee, APGI, is fully aware of its predecessor company's representations to the Commission's predecessor, about its concerns that its Project would be subject to takeover at the expiration of the 1958 license. In fact, it not only acknowledged the Government's right to such takeover, its core argument for special treatment resulting in a license lasting 50 years for all four Yadkin Project developments was the possibility that the Federal government would decide to recapture the Project at the end of the license term. Despite this awareness, and despite the deal struck with the State over 50 years ago that the Yadkin River would, in fact, be used to promote and sustain jobs in the Yadkin Basin, many members of the Legislature were told by APGI's representative, in public hearings before legislative committees considering legislation to create the Yadkin River Trust, that Alcoa considered the State's Trust proposal and FERC request a prohibited and unfair Government taking of its private property.[83] We find these pronouncements by APGI disingenuous, given Alcoa's original argument that a 50-year license was necessary, because it was possible that the Government would seek to recapture the Project when its 1958 license expired.

It is North Carolina's intent to use lawful means to acquire what it believes to be in the best interest of its citizens as it seeks to regain control of the Yadkin River flows, to optimize their multiple uses in a way that is more fully responsive to the public's concerns. Every citizen in

[83] See Comments of Gene Ellis, APGI Relicensing Consultant, to the NC House Water Resources Committee of the NC General Assembly, http://yadkinproject.blogspot.com/2009/07/report-from-nc-general-assembly.html.

North Carolina has the right, every day of every year, to petition his government if he disagrees with what the Governor of North Carolina or its legislature is doing, and to remind his or her elected official of the official's obligations. However, a petition to *Alcoa* complaining about the Yadkin River Project operations or seeking to change the operations, even if to benefit the public, can anticipate only constrained relief, as Alcoa has the protection of a FERC License, which establishes the terms of its exclusive license for fifty years. Absent APGI's consent, as well as FERC's approval, the terms of the license cannot be changed, however meritorious or pressing the need of the State and its citizens. To the State, it is troubling that a licensee would not acknowledge its own history and would consciously engage in misinformation, to retain a license that it obtained under very different circumstances and by promising to create so many jobs in this region of the State, some 50 years ago. Fortunately, the Commission is familiar with the law and the facts, and will be able to deal appropriately with any such misinformation.

IX

CONCLUSION

The State is uniquely equipped to determine how the Yadkin River flows can best meet the State's public purpose objectives over the next 50 years. The relicensing of the Yadkin Project presents a one-time opportunity for the State to ensure that this crucial resource is managed to provide a fair share of the Yadkin River's value to the citizens of North Carolina, to enhance the State's ability to craft timely responses to changing conditions within the State, and to perform the balancing that must be done among competing uses, including hydroelectric power, public health and environmental objectives (including maintaining the safety of its fish for consumption), maintaining access to reservoirs during droughts, assuring water supplies for new and existing businesses and communities, promoting tourism and recreation and improving the overall quality of life for North Carolina citizens.

Every major river and its flows is subject to competing uses, and the question for the future is whether and how these decisions affecting a great North Carolina river should be made. Would the public interest prevail, as contemplated in the Federal licensing law from its inception, if North Carolina must rely, over the next 50 years, on a private corporation (that has not demonstrated responsiveness in these areas) with a Federally-issued license that is essentially fixed for 50 years? How can North Carolina best meet its citizens' interests and the concerns of its businesses for adequate, clean water supplies? The State has decided, for the reasons supported here, that the answer to that question is straightforward. There is too much at stake to place trust wholly in a private corporation that cannot, by its own structure and charter, operate the Project and make decisions about Yadkin River water primarily for the citizens of this State. In contrast, the State is constitutionally aligned with exactly this purpose:

> *. . . all government of right originates from the people, is founded upon their will only, and is instituted solely for the good of the whole.*[84]

[84] N.C. Constitution, Article I, Sec. 2.

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