Georgia Department of Audits and Accounts
Performance Audit Operations
Russell Hinton, State Auditor
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Passenger Rail Development in Georgia

Why we did this review

This special review was conducted in response to a request received from the House Appropriations Committee. In the request, we were asked to review the:

- Timeliness of actions based on appropriations;
- Expenditures over the past decade;
- Studies to be updated;
- Time frame for projects in development

The report also addresses issues related to the development of passenger rail plans over the last 20 years and more recent efforts to implement commuter service from Atlanta to Lovejoy.

Who we are

The Performance Audit Operations Division was established in 1971 to conduct in-depth reviews of state programs. The purpose of these reviews is to determine if programs are meeting their goals and objectives; provide measurements of program results and effectiveness; identify other means of meeting goals; evaluate the efficiency of resource allocation; and assess compliance with laws and regulations.

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What we found

Our review of passenger rail development in Georgia found that over the past 10-20 years the state has expended substantial amounts of time and money conducting studies of alternative rail projects, none of which has been implemented. We estimate that during the 10-year period from fiscal year 1997 through fiscal year 2006, the state spent approximately $21.1 million in state and federal funds for studies proposing a network of seven commuter rail lines and seven intercity lines that would serve Atlanta and other major cities. As of January 2007, however, the only project in development is a 26-mile commuter rail line from Atlanta to Lovejoy - a compromise project that was never identified as a stand-alone rail line in any of the studies (even though it may function as such). The decision to develop service to Lovejoy was impacted by the lack of sufficient funding to establish service all the way from Atlanta to Macon, or for the commuter segment from Atlanta to Griffin. (It should be noted that we were not asked to comment on the decision to build the Lovejoy line.)

Our review of the history of passenger rail development in Georgia also found that there have been significant changes in the administrative oversight of the development activities. Prior to 1994, the Georgia Department of Transportation (GDOT) was the only state entity actively involved in passenger rail development. The Georgia Rail Passenger Authority (GRPA) was established in 1985 but did not become operational until 1994. The Georgia Regional Transportation Authority (GRTA) was established in 1999 and was involved with the development of passenger rail as part of the Georgia Rail Passenger Program (GRPP) – a partnership that included GDOT, GRPA, and GRTA. As part of GRPP, a Program Management Team (PMT) composed of representatives of each of the organizations was established to coordinate, implement, and approve work related to passenger rail service in Georgia. It appears that disagreements among the member organizations led to the

cessation of PMT meetings in 2004; currently, GRTA is no longer an active participant in the development of passenger rail service. While the 15-member board of GRPA still exists, it has no executive director or other staff personnel due to lack of funding.

In addition to a lack of sufficient funding to implement all passenger rail projects, our review found that the pace of negotiations with Norfolk Southern and CSX has substantially impacted the implementation of passenger rail projects in the state. Although the proposed commuter rail lines and intercity rail lines were predicated on the use of the Norfolk Southern and CSX rail corridors, the state never obtained any assurance that the rail companies would allow the state to have access to their lines. Our review of the meeting minutes of the Georgia Rail Passenger Authority found that CSX officials had cautioned the state about obtaining access to their lines as far back as 1995. As of January 2007, the state has still been unsuccessful in obtaining access to any of the rail companies' lines. GDOT has reported that the state and Norfolk Southern have reached an agreement "in principle" regarding the Atlanta to Lovejoy line and that negotiations for access were nearly complete as of the date of this report.

It should also be noted that the number of prior studies of proposed passenger rail projects that will need to be updated is dependent in large part on the state's success in gaining access to additional rail lines operated by Norfolk Southern and CSX. The more time that elapses between projects, the more likely it is that existing studies will have to be reevaluated and/or revised to reflect updated demographic and cost information.

Our review of the current status of the Atlanta-Lovejoy line found that, as of January 2007, the line was projected to begin operation sometime in late calendar year 2008. This estimated start-date is based on GDOT's estimate that the line could become operational approximately 17 months after the completion of an access agreement with Norfolk Southern (estimated to be finished in early 2007). It should be noted that during the course of our review, we identified several risks associated with the Lovejoy project. We found that the project may cost more than the estimated $108 million; the state may be liable for a portion of the federal investment in the project (about $87 million) if the line is terminated prior to be being in operation for 20 years; and the state may be liable for covering any operating shortfall.

In its written response to a draft of the report, GRTA indicated that it found the report to be a concise and accurate history of passenger rail development in Georgia that effectively highlighted the challenges and risks associated with the Lovejoy Project. GRTA also noted an additional risk that ***"ridership and fare revenue may be less than anticipated in the early years"*** *based on its experience with* ***Xpress Route*** *bus service to the Hampton/Jonesboro area.*

GRPA indicated that it would not prepare a written response and noted its agreement with GDOT's response.

GDOT's written response to the draft of the report included several comments that have been addressed in the final report as necessary.

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Background

The development of passenger rail in Georgia dates back to the 1980s, with the determination that passenger rail service in the greater Atlanta area was feasible. Subsequent work resulted in plans for a network of passenger rail service around Georgia that would primarily share track usage with freight traffic. While "light rail" service (such as streetcars) and "heavy rail" service (such as the trains operated by MARTA) might also be considered as passenger rail, Georgia's passenger rail activities have focused on commuter rail and intercity rail which are described below.

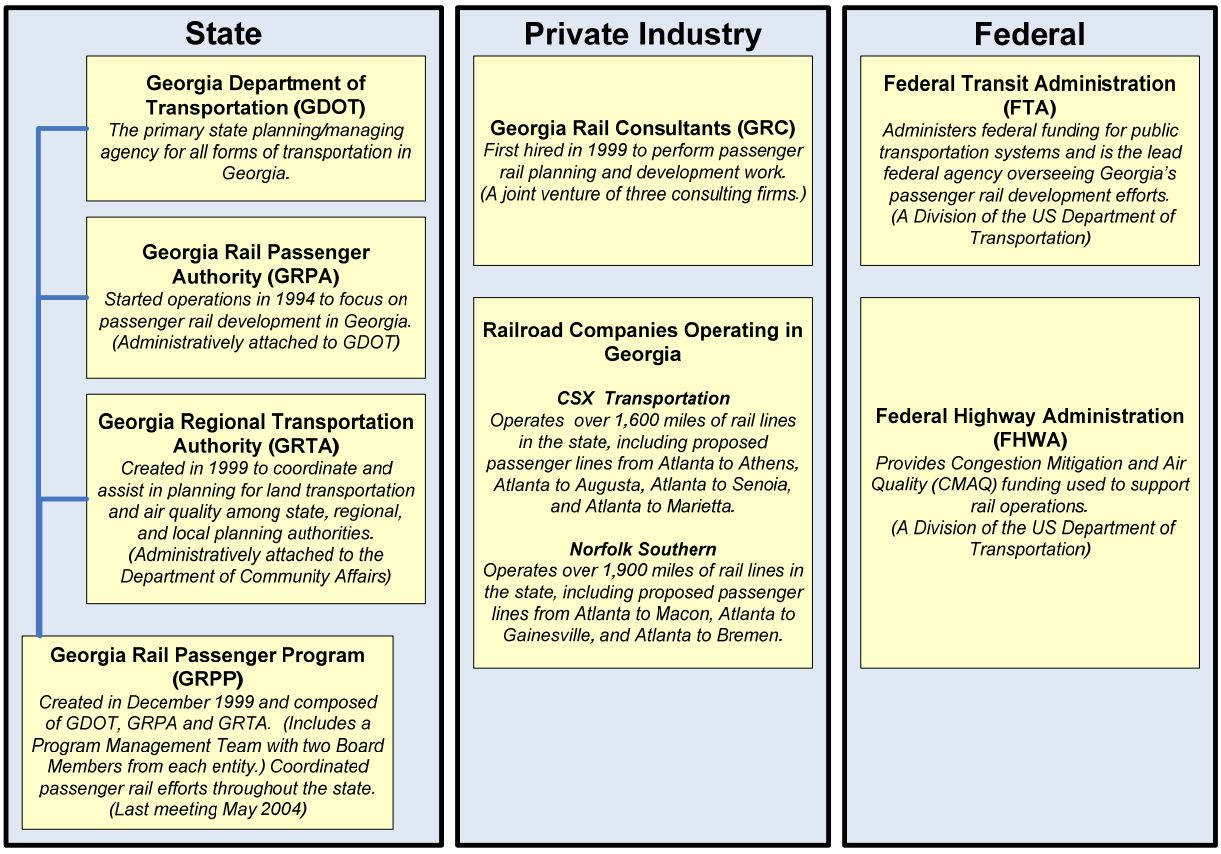
- **Commuter Rail** service typically operates in metropolitan and suburban areas primarily to serve weekday business customers. Trains usually run only at morning and evening peak times, with relatively short travel distances, more frequent stops between termination points, and a high percentage of ticket revenue coming from monthly purchases. The top speed for commuter rail operations is typically less than 80 mph.

- **Intercity Rail** service typically covers longer distances (i.e., over 60 miles) and connects population centers within or between states. Intercity operations have fewer stops, higher ticket prices, varying times of operation based on demand, and top speeds of up to 125 mph. High-speed rail is a type of intercity rail involving speeds up to 300 mph.

As illustrated in **Exhibit 1**, various government entities and private organizations have been involved in the development of passenger rail service in Georgia. The primary state entities involved with passenger rail service have been the Georgia Department of Transportation (GDOT) and the Georgia Rail Passenger Authority (GRPA). The Georgia Regional Transportation Authority (GRTA) and a management group comprised of representatives of the three state entities, called the Georgia Rail Passenger Program (GRPP), were also involved in passenger rail activities from December 1999 through May 2004.

The Federal Transit Administration (FTA) has been the primary federal entity involved in the funding of passenger rail activities; however, federal funds may also be provided by the Federal Highway Administration (FHWA) to support air quality improvements resulting from passenger rail usage. The studies and analyses of passenger rail have primarily been performed by consultants paid through contracts with the state entities identified above. Since the focus of passenger rail in Georgia has been on the shared use of existing freight lines, the two primary railroad operators in Georgia, Norfolk Southern and CSX, have also been involved in the planning process.

Exhibit 1
Organizations Involved With Passenger Rail Transportation in Georgia



Source: State Law, Website Information, and Contract Documents

Objectives, Scope, and Methodology

This special review was conducted in response to a request received from the House Appropriations Committee. In its written request, the Committee asked us to review the timeliness of actions based on appropriations, the expenditures over the past decade, the studies to be updated, and the time frame for projects in development.

In the first section of the report, we provide an historical overview of the state's passenger rail development activities, including a discussion of the overall timeliness with which the development activities have proceeded. Due to a lack of complete information and because GRPA and GRTA are allowed to carry over funds across fiscal years, we were unable to link the timeliness of actions with appropriations. We were, however, able to determine the amount expended over the past 10 years for passenger rail development activities. We also addressed the potential need to update prior studies and the estimated completion date and cost of the Atlanta-Lovejoy project (the only project currently in development).

In conducting this review, we obtained both current and historical information from GDOT, GRPA, GRTA and other organizations as appropriate. We also obtained information from the Georgia Rail Consultants (GRC), the joint venture of three consulting firms, which has conducted many of the studies and reports regarding passenger rail service in the state. It should be noted, however, that due to the long time period covered by our review, complete documentation was not always available.

A draft of this report was provided to representatives of GDOT, GRPA and GRTA for their review; their comments are included in the report where appropriate.

Historical Overview

Our review of passenger rail development in Georgia found that substantial amounts of time and money have been spent conducting studies of alternative rail projects, none of which has been implemented. The only project currently under development, the 26-mile line from Atlanta to Lovejoy, is a compromise project that was never identified as a stand-alone project in any of the prior studies (except as part of the Atlanta-Griffin line). The following sections of the report discuss: the timeliness and cost of passenger rail development; the major implementation plans that have been prepared; the changes in administrative oversight that have occurred; and the factors that have impacted project implementation.

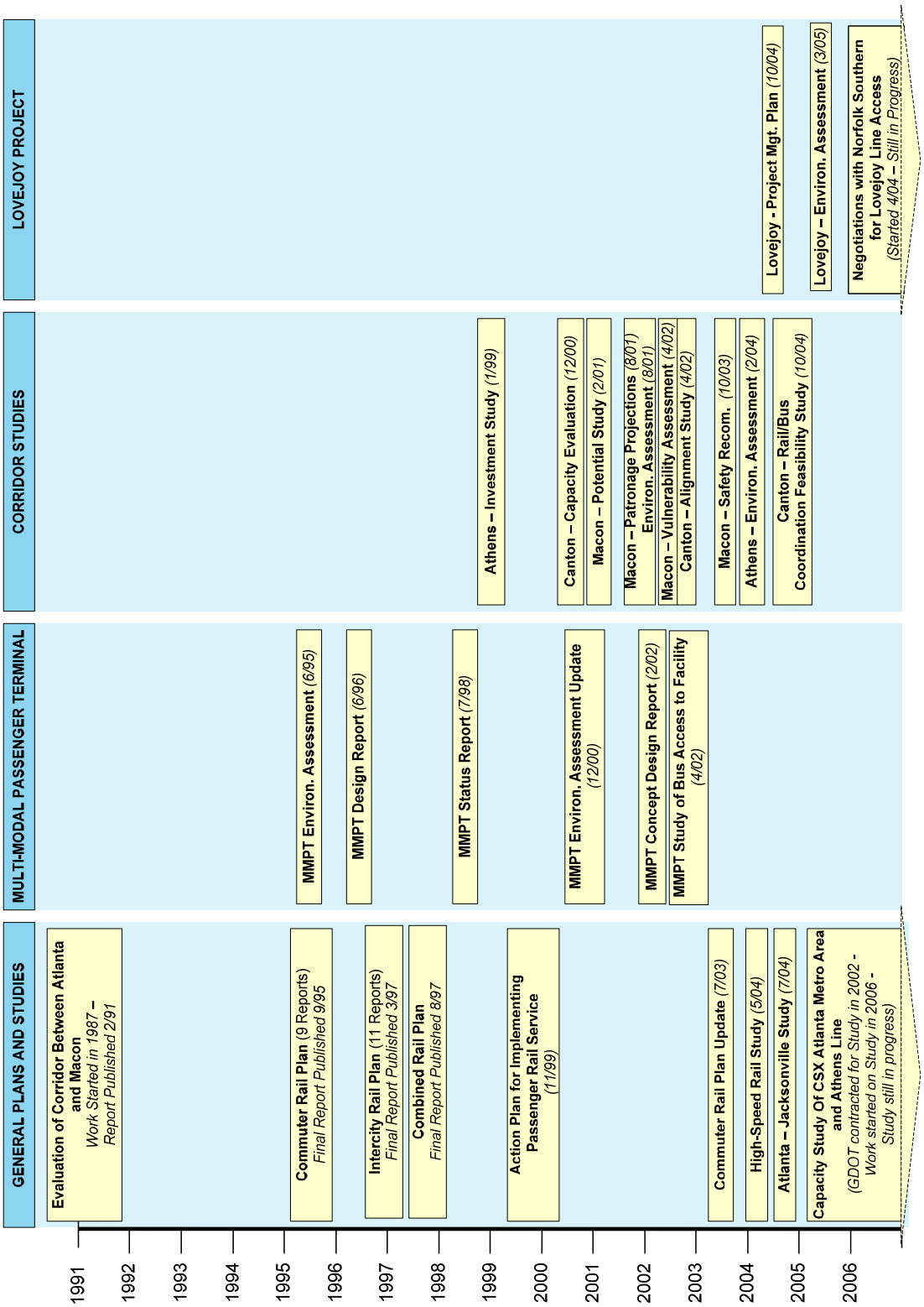
Timeliness and Cost

Over the past 20 years, a number of studies and analyses have been conducted concerning the development of passenger rail service in the state. **Exhibit 2** on the following page presents a timeline showing the major studies and analyses that have been conducted since 1987. (The 1991 evaluation of the Atlanta–Macon Corridor was started in 1987.) A listing of the 48 different reports that we identified as having been produced since 1987 is presented in the **Appendix**.

The development of passenger rail service has focused on commuter rail lines linking Atlanta and other nearby cities, and on intercity rail lines linking major cities in Georgia as well as cities in contiguous states. The only rail project currently underway is the Atlanta-Lovejoy line which is not estimated to be operational until late in calendar year 2008.

As requested by the House Appropriations Committee, we reviewed expenditure data to determine the amount of state and federal funds expended on passenger rail development during the past 10 years (from fiscal year 1997 through fiscal year 2006). As shown in **Exhibits 3 and 4** on page 6, we have estimated that approximately $14.3 million in state funds and $6.6 million in federal funds were expended during the past 10 years. (Note that additional expenditures related to the development of the Commuter and Intercity Rail plans are also included in **Exhibits 3 and 4**.)

Exhibit 2
Timeline of Significant Passenger Rail Studies and Activities (1991-2006)



Source: Appropriations Acts; Documentation from GDOT, GRPA, and GRTA

Exhibit 3
Passenger Rail Expenditures By Year
Through Fiscal Year 2006

Fiscal Year	State	Federal	Local	Total
1997	$520,786	$663,505	$0	**$1,184,290**
1998	514,603	0	0	**514,603**
1999	528,105	157,553	0	**685,659**
2000	1,641,745	617,628	0	**2,259,372**
2001	4,350,639	913,008	0	**5,263,647**
2002	3,235,498	1,349,999	0	**4,585,497**
2003 [1]	1,296,404	541,079	64,930	**1,902,413**
2004 [1]	1,433,185	277,048	35,070	**1,745,303**
2005	494,761	1,174,666	0	**1,669,428**
2006	329,837	954,295	0	**1,284,132**
10-year Total	**$14,345,562**	**$6,648,781**	**$100,000**	**$21,094,343**
Prior to 1997 [2]	$633,422	$2,533,687	$0	**$3,167,109**
Total Identified	**$14,978,984**	**$9,182,468**	**$100,000**	**$24,261,452**
Percent	61.7%	37.9%	0.4%	100.0%

[1] For fiscal years 2003 and 2004, approximately $2.5 million of Contracts and Per Diem & Fees expenditures were identified in the annual financial audits of GRPA . However, this amount is not included above since information to determine if these expenditures were already captured in our review of contract payments was not available. If these other expenditures were not captured in our contract review, the State and Total expenditures presented above would increase to $17.5 and $26.8 million, respectively.

[2] Rail expenditures for years prior to fiscal year 1997 based on information on contract costs for the Commuter Rail Plan published in 1995 and the Intercity Rail Plan published in 1997.

Source: Contract Expenditure Reports and GRPA Financial Audits

Exhibit 4
Passenger Rail Expenditures by Type
Through Fiscal Year 2006 [1]

Project	Payor (State Entity)	Funds Paid To	State Funds	Federal Funds	Local Funds	Total $	Percent
Macon Corridor	GDOT, GRPA	GRC	$2,949,167	$2,211,979	$0	**$5,161,146**	21.3%
Athens Corridor	GDOT, GRPA	GRC	1,494,785	848,000	0	**2,342,785**	9.7%
Program Management	GDOT, GRPA	GRC	1,610,470	1,373,519	0	**2,983,989**	12.3%
Canton Corridor	GDOT	GRC	1,647,425	0	0	**1,647,425**	6.8%
Atlanta Rail Capacity Analysis	GDOT	GRC	240,000	960,000	0	**1,200,000**	4.9%
Intercity Rail Plan	GDOT	LS Transit	438,686	1,754,745	0	**2,193,431**	9.0%
Commuter Rail Plan	GDOT	LS Transit	400,000	1,600,000	0	**2,000,000**	8.2%
CSX Capacity Study	GDOT	CSX	58,666	234,665	0	**293,331**	1.2%
Other Projects	GDOT, GRPA	GRC	554,909	199,560	100,000	**854,469**	3.5%
GRTA Expenditures [2]	GRTA	GRC, Other	1,543,986	0	0	**1,543,986**	6.4%
GRPA Expenditures [3]	GRPA	Various	4,040,890	0	0	**4,040,890**	16.7%
Total			**$14,978,984**	**$9,182,468**	**$100,000**	**$24,261,452**	100.0%

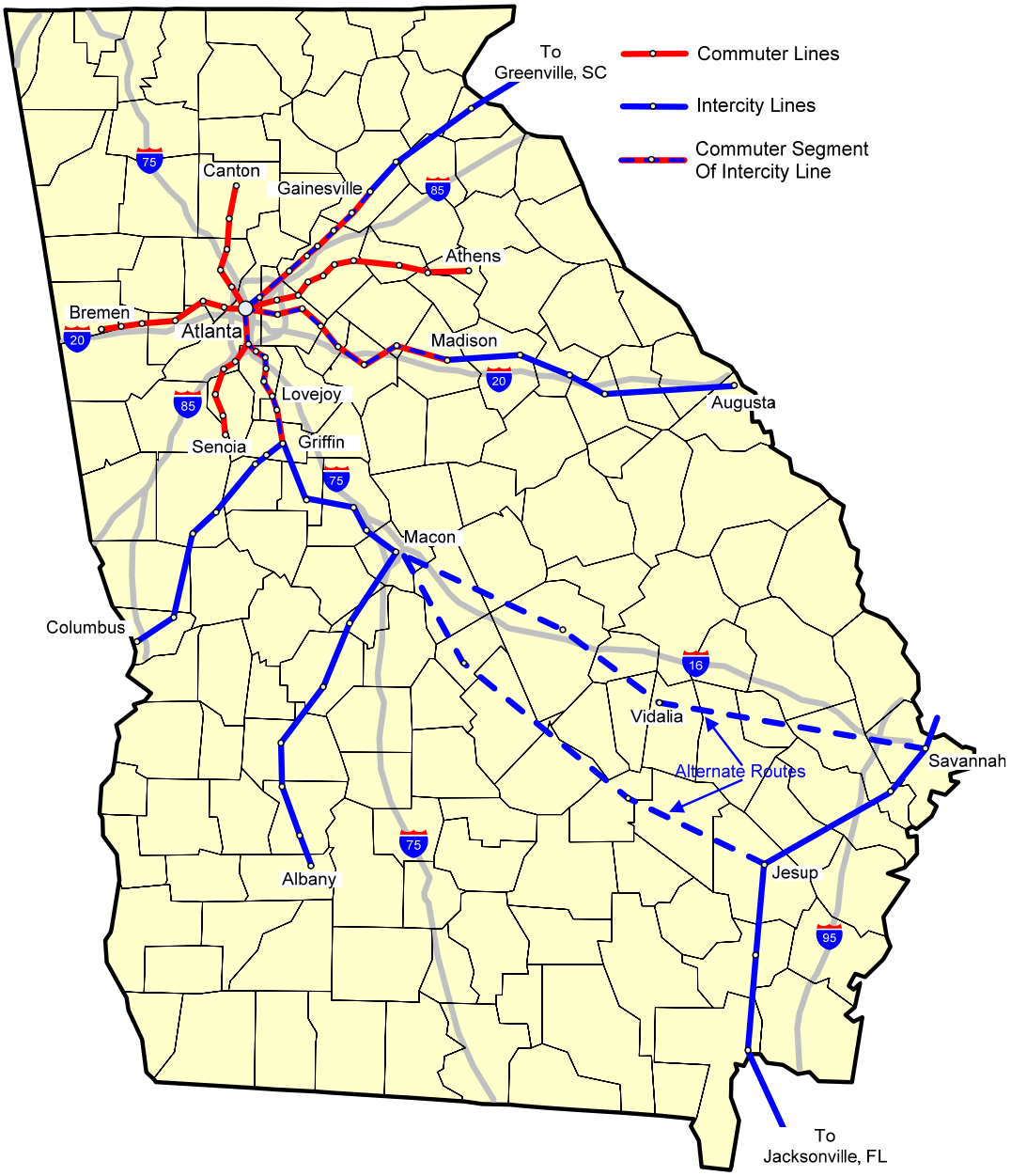
[1] Per Exhibit 3, Total Expenditures include Commuter Rail and Intercity Rail plan contract costs expended prior to fiscal year 1997.
[2] Amounts spent by GRTA could not be divided into the project categories above and are presented in aggregate.
[3] See Note #1 under Exhibit 3 regarding expenditures in fiscal years 2003 and 2004.

Sources: Contract Expenditure Reports and GRPA Financial Audits

Major Implementation Plans

The state's passenger rail activities have focused on the development of a proposed network of rail lines that would serve commuter rail passengers and intercity rail passengers. **Exhibit 5** shows the proposed network of commuter and intercity rail lines that has been the primary focus of the state's passenger rail activities. It should be noted that the network is part of the state's current action plan (Intermodal Program for Rail Passenger Service in Georgia, 1999).

Exhibit 5
Proposed Passenger Rail Lines



Source: Commuter Rail Plan, Intercity Rail Plan

As shown by the map, the proposed commuter rail lines would run from Atlanta to: Athens, Senoia, Bremen, Madison, Gainesville, Canton, and Griffin. The network of intercity rail lines would run from Atlanta to: Macon, Augusta, Columbus, and Greenville, South Carolina; from Macon to Savannah; from Macon to Albany; and from Savannah to Jacksonville, Florida. Since the release of the Commuter Rail Plan in 1995 and the Intercity Rail Plan in 1997, the estimated costs and projected completion dates of the network have increased substantially, as shown in **Exhibit 6**.

Exhibit 6

Revisions to Capital Cost Estimates for Proposed Commuter and Intercity Rail Services

Service Lines Recommended			Railroad Owner/ Operator [1]	Original Plans Commuter Rail (1995) Intercity Rail (1997)		Update - 1999 Intermodal Program for Rail Passenger Service (Nov 1999)		Update - Plan for Commuter Rail Lines (July 2003)[2]	
				Estimated Service Date	*Estimated Capital Costs (millions), 1994$ and 1996$*	*Estimated Service Date*	*Estimated Capital Costs (millions) 1999 $*	*Estimated Capital Costs (millions) 2003 $*	
Commuter	1st Phase	Atlanta to Athens	CSX	2000	$83.9	2004	$120.0	$363.5	
		Atlanta to Senoia	CSX	2000	$45.1	2009	$70.0	$188.8	
		Atlanta to Bremen	NS	2000	$44.2	2008	$55.0	$295.2	
	2nd Phase	Atlanta to Madison [3]	CSX	2010	$72.4	2005-2009	$70.0	$173.9	
		Atlanta to Gainesville	NS	2010	$72.8	2006-2010	$85.0	$310.5	
		Atlanta to Canton	CSX, GNRR	2010	$90.1	2007	$100.0	$244.6	
		Atlanta to Griffin/Macon [4]	NS	Not Recommended until 1997 [5]		2003	$70.0	$316.3	
	Cost of Common Facilities				$100.0		$50.0	Not Provided	
	Cost of Multi-Modal Passenger Terminal				$0.0		$165.0	Not Provided	
	Total Capital Costs				**$508.5**		**$785.0**	**$1,892.8**	
Intercity	1st Phase	Atlanta to Macon	NS	Before 2010	$91.5	2005	$70.0	[8]	
		Macon to Albany	NS		$91.0	2006	$100.0		
		Macon to Savannah [6]	NS, CSX, GCR		$155.5	2007	$165.0		
		Savannah to Jacksonville [7]	CSX		$35.5	2007	$30.0		
	2nd Phase	Atlanta to Augusta	CSX		$140.5	2009	$130.0	[9]	
		Atlanta to Columbus	NS		$130.5	2010	$170.0	[10]	
		Atlanta to Greenville, SC	NS		$31.5	2010	$15.0	[11]	
	Cost of Common Facilities				$72.5		$0.0		
	Total Capital Costs				**$748.5**		**$680.0**		
Total Commuter & Intercity Rail Capital Costs					**$1,257.0**		**$1,465.0**		

[1] CSX = CSX Transportation, Inc.; NS = Norfolk Southern Corp.; GCR = Georgia Central Railroad; GNRR = Georgia Northeastern Railroad

[2] The 2003 Plan update did not include information on estimated service dates.

[3] The 1999 Plan shortened the line to terminate in Covington, and the 2003 report restored service back to Madison.

[4] The 1999 plan introduced service from Atlanta to Griffin; the 2003 report lengthened service to Macon.

[5] Commuter service from Atlanta to Griffin was initially introduced in the 1997 Combined Intercity and Commuter Report.

[6] The table presents an average cost for the two alternate routes from Macon to Savannah - through Jesup and Vidalia.

[7] The proposed route from Savannah to Jacksonville, FL would run on the rail line which is also used by Amtrak.

[8] Reflects coordination with commuter line to Griffin and the incremental cost for line segment from Griffin to Macon

[9] Reflects coordination with commuter line to Covington and incremental cost for line segment from Covington to Augusta.

[10] Reflects coordination with commuter line to Griffin and incremental cost for line segment from Griffin to Columbus.

[11] Reflects coordination with commuter line to Gainesville and incremental cost for line segment from Gainesville to Greenville.

Sources: 1995 Commuter Rail Plan, 1997 Intercity Rail Plan, 1997 Combined Plan, 1999 Intermodal Program for Rail Passenger Service, and 2003 SWOT Assessment of the Seven Proposed Georgia Commuter Rail Lines

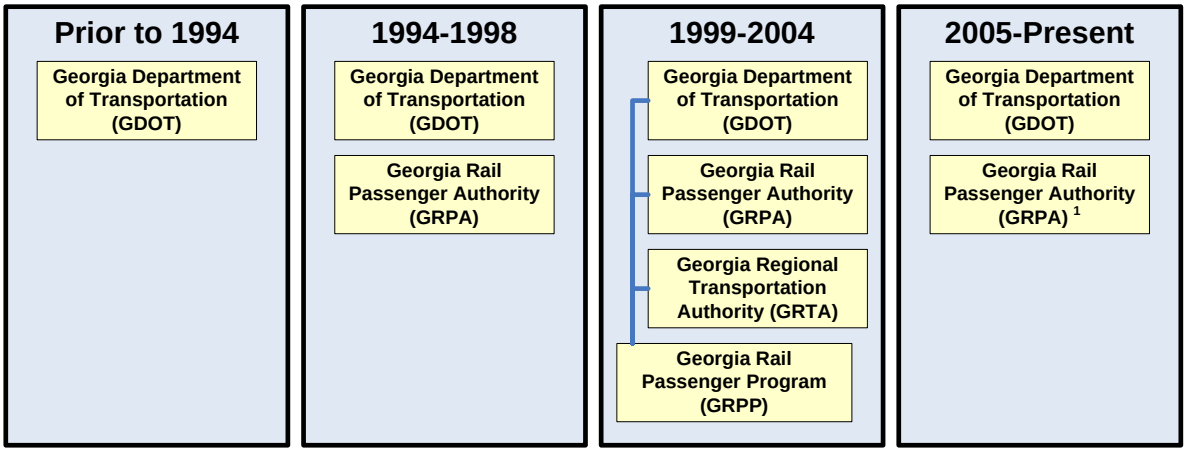
As shown in **Exhibit 6**, the cost of implementing the commuter rail system has increased from an estimated $508.5 million in 1995 to an estimated $1.89 billion in 2003. While the estimated completion dates have also been extended, the most recent plans do not include an updated estimate.

Changes in Administrative Oversight

Over the past 20 years, the responsibility for providing administrative oversight of the state's passenger rail development activities has changed significantly. The changes that have occurred are summarized in **Exhibit 7** below and are discussed in more detail in the following paragraphs.

- Prior to 1994, the Georgia Department of Transportation (GDOT) was the only state entity that was formally involved with the development of passenger rail service in the state. Although the 15-member Georgia Rail Passenger Authority (GRPA) had been created by statute in 1985, it was not funded, and did not become operational, until 1994. As stated in its enabling legislation, GRPA was created "for the purpose of construction, financing, operation, and development of rail passenger service and other public transportation projects within and without the State of Georgia." GRPA is administratively attached to GDOT.
- In 1999, the 15-member Georgia Regional Transportation Authority (GRTA) was created "for the purposes of managing or causing to be managed land transportation and air quality within certain areas of the state." GRTA is administratively attached to the Department of Community Affairs.

Exhibit 7
Organizations Involved With Passenger Rail Transportation in Georgia



[1] Last support staff position eliminated in 2006.
Sources: State Law, Contracts, Meeting Minutes, and Interviews With Staff

- Subsequent to the creation of GRTA, the Georgia Rail Passenger Program (GRPP) was established though a formal agreement involving GDOT, GRPA, and GRTA. The purpose of GRPP was to coordinate rail passenger efforts throughout the state. As part of GRPP, a Program Management Team (PMT) was established to coordinate, implement,

and approve the work of GDOT, GRPA, and GRTA "in the development and design of rail passenger service in Georgia." The six-person Team was composed of two representatives from each of the three state entities (GDOT, GRPA, and GRTA). It appears that disagreements among the member organizations led to the cessation of PMT meetings in 2004; currently, GRTA is no longer an active participant in the development of passenger rail service.

- Although GRPA continues to exist, it no longer has any staff personnel; the executive director position (GRPA's last staff position) was eliminated in 2006 due to lack of funding. Any staff work needed by GRPA is performed by GDOT personnel.

GDOT is now the only entity with staff responsible for overseeing the work of the consultants and other contractors involved with the state's rail passenger activities.

Factors Impacting Project Implementation

In addition to a lack of sufficient funding to implement all passenger rail projects, we found that the pace of negotiations with Norfolk Southern and CSX has also impacted the development of passenger rail service in the state. The state's use of existing freight lines for passenger rail service is dependent on the extent to which the state can successfully negotiate with Norfolk Southern and CSX for access to their rail corridors. Of the seven proposed commuter rail lines, three would use freight lines owned by Norfolk Southern and four would use freight lines owned by CSX. Similarly, four of the proposed intercity lines would use freight lines owned by Norfolk Southern, two would use lines owned by CSX, and one may use lines owned by both companies, depending on the route chosen. The delays the state has experienced in gaining access to the companies' freight lines are further discussed below.

- Although the Atlanta-Lovejoy line is scheduled to be in operation by the end of calendar year 2008, the state's negotiations with Norfolk Southern for access to the 26-mile segment have not yet been completed. The initial project plan for the Lovejoy line indicated that negotiations with Norfolk Southern were expected to take about five months. As of January 2007, negotiations had been ongoing for 33 months. (As of the date of this report, GDOT reported that an agreement "in principle" had been reached; however the negotiations were not expected to be finalized for another three to five months.)

- Any progress in developing a commuter rail line from Atlanta to Athens is dependent on a decision by CSX concerning the impact of passenger rail traffic on its freight business. Although the state's consulting firm did a traffic study analysis of the impact, CSX did not want to make a decision until it had conducted its own analysis. GDOT contracted for the study in 2002; however, the study was not started until 2006 and is not expected to be completed until July 2007. It should be noted that our review of the meeting minutes of GRPA found that CSX officials had cautioned the state about access to their lines as far back as 1995.

Because the development of passenger rail service is predicated on the use of existing freight lines (or on access to the lines' right-of-way), the future of

passenger rail service in the state will be determined, to a large extent, by the state's success in negotiating with Norfolk Southern and CSX.

Studies to be Updated

The number of studies that will need to be updated in the future is dependent on the extent to which the state decides to actively pursue passenger rail service as an alternative to other modes of mass transit. The more time that elapses between projects, the more likely it is that existing studies will have to be reevaluated and/or revised. Even the Commuter and Intercity Rail Plans may need to be updated to reflect updated demographic and cost information. The future development of passenger rail service in the state will also be impacted by decisions made by Norfolk Southern and CSX concerning the state's access to their freight lines.

Time Frame for Projects in Development

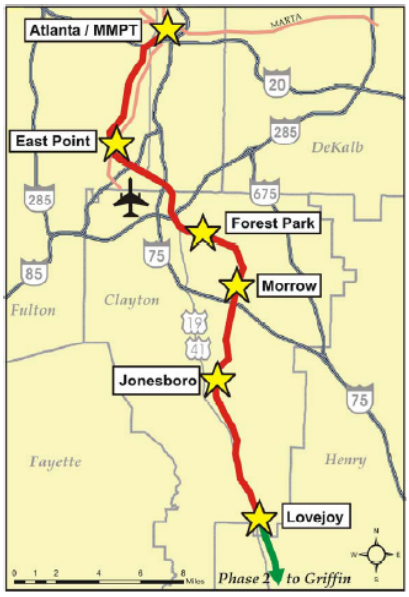
The only project currently scheduled for implementation is commuter rail service from Atlanta to Lovejoy. The following sections of this report describe the Lovejoy project and the current status of this project, including the most recent time estimates for final implementation. In addition, several risks associated with implementation of the Lovejoy project that were identified during the course of our review are also discussed.

Description of the Lovejoy Project

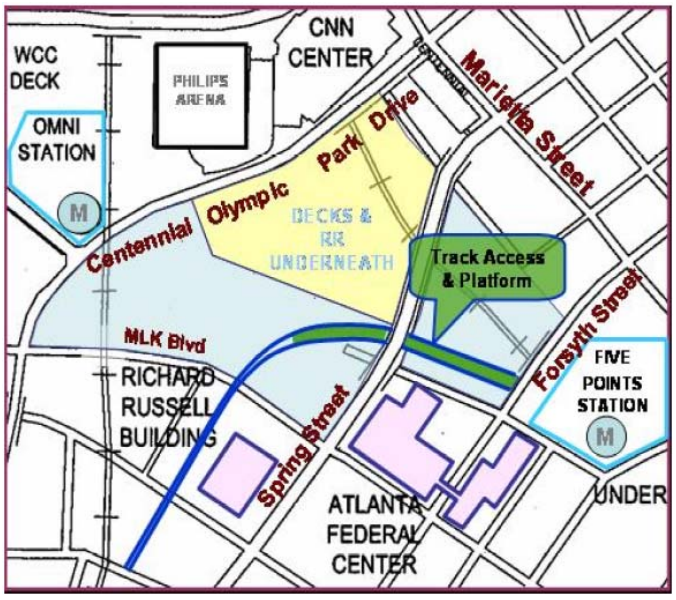
The Lovejoy commuter rail project is to have four intermediate stops in Jonesboro, Morrow, Forest Park, and East Point, with in-bound service terminating at the Multi-Modal Passenger Terminal (MMPT) in Atlanta. **Exhibit 8** shows the Lovejoy route and the proposed site for the MMPT.

Exhibit 8

Lovejoy Route



MMPT Site



Source: 2006 Fact Sheet – Lovejoy to Atlanta Rail Line

According to the most current information available from GDOT, approximately $107.6 million has been identified from federal, state and local funding sources to finance the anticipated capital expenditures to establish initial Lovejoy service, as summarized in **Exhibit 9**. Most of the funds, $86.7 million (80.6%), are from federal sources, while state funds total $19.9 million (18.5%), primarily from state general obligation bonds issued in fiscal year 2003. Almost half of these funds are expected to be spent on upgrades to the rail track between Atlanta and Lovejoy, with much of the rest being spent on the rail stations, including the Atlanta MMPT and park 'n ride lots along the route.

Exhibit 9
Anticipated Capital Expenditures for the Lovejoy Line

Projected Funding Sources	$	%
Total Federal	**$86,672,290**	80.6%
General Obligation Bonds, FY 2003	14,359,808	
GDOT	3,758,000	
GRPA [1]	1,793,500	
Total State	**19,911,308**	18.5%
Local - City of Atlanta for MMPT	**1,006,764**	0.9%
Total	**$107,590,362**	**100.0%**
Projected Uses of Funds	**$**	**%**
Trackage	$51,350,000	47.6%
Multi-Modal Passenger Terminal	15,510,000	14.4%
Park 'n Ride Lots [2]	9,660,000	9.0%
Grade Crossings	9,130,000	8.5%
Rolling Stock/Equipment [3]	9,100,000	8.4%
Capitalized 1st Year Operations	4,900,000	4.5%
Station Platforms (other than MMPT)	3,930,000	3.6%
Layover/Fueling Facility	2,790,000	2.6%
Fare Collection	1,550,000	1.4%
Total Costs [4]	**$107,920,000**	**100.0%**

[1] Previous appropriations that are still on hand.
[2] Includes $6.04 million for right-of-way (i.e., real estate) and $3.62 million for access roads.
[3] Includes cost of purchasing, transporting, and upgrading locomotives and coaches.
[4] GDOT Documentation for Sources and Uses of funds indicated a difference of $329,638.

Source: GDOT Documentation

Once Lovejoy service is established, GDOT expects annual operating expenses and fare revenues to increase each year. The projected ridership of 1,540 roundtrip passengers daily (Monday - Friday), is expected to cover approximately 35-40% of operating expenses by the third year of operations, as indicated in **Exhibit 10** on the following page. For the first three years, operating shortfalls will be covered by federal Congestion Mitigation & Air Quality (CMAQ) funding. Although Clayton County originally agreed to pay for 100% of the Lovejoy line's operating shortfall, newspaper articles in January 2007 indicated that the county was reconsidering its support. No commitment of state funds has been designated for continued Lovejoy operations.

Exhibit 10
Projected Lovejoy Operations (in millions) [1]

	1st Year	2nd Year	3rd Year	4th Year
Operating Costs	$3.69	$6.42	$7.40	$8.37
Fare Income	$0.52	$2.31	$2.97	$3.63
Operating Cost Coverage	14.1%	36.0%	40.1%	43.4%
Additional Funding Needed	$3.17	$4.11	$4.43	$4.74
Identified Source of Additional Funding	CMAQ	CMAQ	CMAQ	CMAQ, Other Federal Aid, and possibly Clayton County

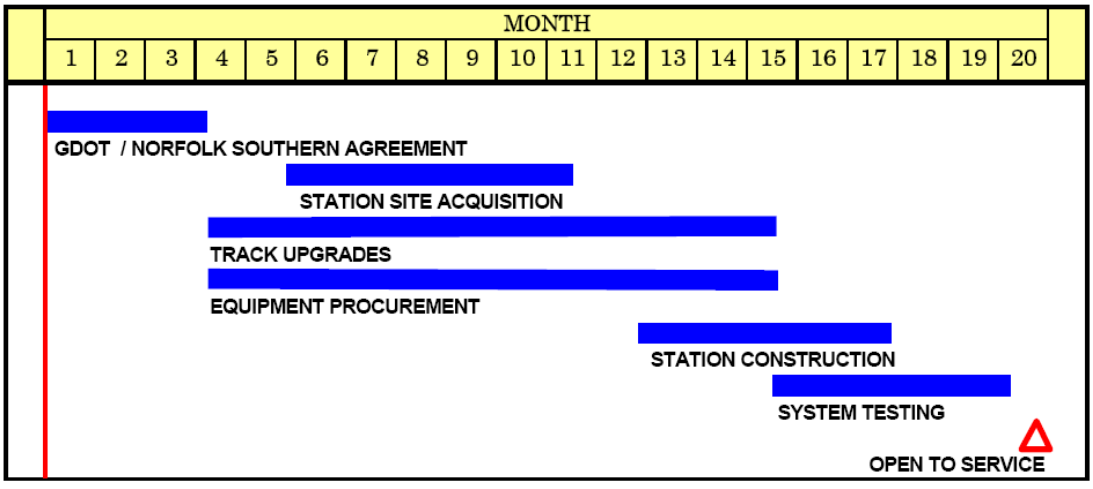
[1] Projections are in 2005 $ and based on a 2007 start date (1st year) but (per GDOT) the projections are still accurate.

Source: GDOT 2006 Fact Sheet on the Lovejoy to Atlanta Rail Line

Status of the Lovejoy Project

As of January 2007, the development of detailed engineering plans and construction work on the Lovejoy project were awaiting the completion of an access agreement between GDOT and Norfolk Southern. As shown by **Exhibit 11** below, construction of the line is expected to take approximately 17 months after the completion of the railroad agreement with Norfolk Southern, placing the commencement of operations in late 2008 (assuming the railroad agreement is completed in early 2007).

Exhibit 11
Projected Implementation Schedule for Commuter Rail Service to Lovejoy



Source: 2006 Fact Sheet – Lovejoy to Atlanta Rail Line

GDOT's inability to reach an agreement with Norfolk Southern in nearly three years of negotiations has significantly delayed implementation of the project.

Although GDOT was unable to provide complete documentation about the negotiations, our interviews with GDOT staff and representatives from Georgia Rail Consultants indicate that the primary difficulty has been disagreements regarding the amount of funds needed to upgrade the line and insurance/liability issues. Since the Lovejoy project is constrained by a funding limit (currently $107.6 million), increases in the cost estimates for track upgrades identified during the nearly three years of negotiations have required time to locate new fund sources or to identify reductions possible in other cost categories. For example, GDOT staff noted that it took approximately one year to locate additional federal funding and to identify other areas for cost-savings in order to accommodate an additional cost of $8 million to upgrade a portion of rail line in downtown Atlanta known as the "gulch".

Currently, the final agreement for use of Norfolk Southern's line is reportedly being delayed by the recent discovery of a tax issue. According to GDOT, since funds are to be spent upgrading Norfolk Southern rail tracks, a question arose about whether or not Norfolk Southern may have to pay an estimated $16 million in taxes on these upgrades. As of the time of this report, the IRS had not ruled on this issue, and GDOT stated the agreement would not be finalized until this issue was resolved. GDOT also said that if the ruling determined Norfolk Southern would have to pay the taxes, the Lovejoy project may not proceed.

Risks Associated with the Lovejoy Project

During the course of this review the following risks associated with implementation of the Lovejoy Project were identified by the review team.

- **Possible need for additional funding -** Although information provided by GDOT identified the planned expenditure of approximately $108 million for project construction (see **Exhibit 9** on page 12), interviews with GDOT management revealed that this planned cost does not include the cost of developing detailed engineering plans that are needed to construct rail stations (estimated to cost an additional $10 million) for which funding has not been identified. In addition, no analysis has been conducted to determine the cost impact that the three-year delay in starting the project may have had on the project's planned cost and how any inflationary cost increases will be funded.

  In order to accommodate these and other cost increases, GDOT personnel indicated that they may be able to locate additional cost savings within the $108 million capital plan. GDOT personnel also indicated that they were considering such alternatives as having the land for rail stations donated, reducing expenditures on passenger cars and locomotives, scaling back on construction plans, and reducing the number of stations along the proposed line.

- **The state is potentially liable for a portion of the federal investment, approximately $87 million, if Lovejoy operations terminate early -** The Federal Transit Administration (FTA) has notified GDOT that it "will be liable for reimbursement of the Federal funds provided, if the [Lovejoy] project does not come to fruition or fails to operate long enough to satisfy Federal service life requirements." The letter goes on to clarify that "if the service were terminated before the 20-year useful

life is realized, the non-depreciated value of the Federal investment accomplished on the privately owned [right of way] would have to be remitted to FTA."

- **The state may also be liable for covering any operating shortfall experienced by the Lovejoy line -** Although Clayton County originally agreed to pay for 100% of the Lovejoy line's operating shortfall, newspaper articles in January 2007 indicated that Clayton County was reconsidering this support. In order to operate the Lovejoy commuter rail service after CMAQ funding ends, the state may need to identify other sources of support for ongoing operations or fund the expected shortfall with state appropriations.

- **Project may not be a fair test of passenger rail service -** While not officially classified as a "pilot" project, the future growth of passenger rail in Georgia may hinge on the success or failure of the Lovejoy project. However, the Atlanta to Lovejoy commuter line was not one of the projects identified in the passenger rail plans which were developed in 1995 and 1997. While the 1997 Combined Plan identified advantages to testing commuter rail service to Griffin along the Atlanta to Macon intercity line, it did not address a commuter line only running to Lovejoy. The decision for Georgia's first passenger rail project to be a commuter line to Lovejoy appeared to primarily be based on the amount of funding identified as available at the time the decision was made in 2003. In addition, concerns about how passenger rail traffic would impact the freight business of the railroads that own the rail lines will not be tested by the Lovejoy project since it will primarily operate along a "light-density" line (as compared to other existing lines that are heavily used for freight traffic). If the Lovejoy line is a success, it will support growth of passenger rail in Georgia; however, if the Lovejoy project is not successful, passenger rail advocates may question if this project was a fair evaluation of the overall passenger rail concept.

GDOT needs to bring the Lovejoy project plan up-to-date before committing funds to implementation. Decision-makers should be made aware of any anticipated changes to the total estimated cost of the project so they can determine if changes that have occurred since the project was initially approved impact the viability of the project.

In its written response to the report, GDOT noted that it felt that the Lovejoy Project could be used as a gauge for determining the feasibility of future rail projects.

Appendix
Inventory of Relevant Passenger Rail Reports

Category	Completion Date	Title	Summary	State Entity Involved	Work Performed/ Coordinated by
GENERAL PLANS AND STUDIES					
COMMUTER RAIL	Feb-91	An Evaluation of the Central of Georgia Railroad Corridor between Atlanta and Macon	The report studies the Norfolk Southern line from Atlanta to Macon via Griffin "to determine the feasibility of state acquisition of the rail line." The report discusses potential passenger rail uses, including Intercity and Commuter Rail.	GDOT	Wilbur Smith Associates
	Apr-95	Draft of the Demand Forecasting Models Methodology Report - Commuter Rail Plan	The report documents the models developed for GDOT used to support travel demand forecasts in the greater Atlanta area. The report notes the uncertainty and imprecision involved in such forecasts and that this is "particularly true for commuter rail services."	GDOT	LS Transit Systems, Inc.
	Jun-95	Analysis of Station Locations - Commuter Rail Plan	The study presents the findings of an initial survey of 12 possible commuter rail station sites and lists selection criteria used to determine the most appropriate locations to attract passengers.	GDOT	LS Transit Systems, Inc.
	Jun-95	Demand Modeling Results Report - Commuter Rail Plan	The report develops a set of regional travel demand models used to estimate potential commuter rail patronage. It uses data collected from commuter rail operations in MD, VA, and NJ, and estimates that forecasted demand may have a 20% margin of error.	GDOT	LS Transit Systems, Inc.
	Jun-95	Rolling Stock Technical Report - Commuter Rail Plan	The report explores alternative options for rolling stock for commuter rail operations in the greater Atlanta area. It describes specific products available for purchase at that time.	GDOT	LS Transit Systems, Inc.
	Jun-95	Capital Cost Report - Commuter Rail Plan	The report documents the capital cost estimates for track improvements and station construction for each of the 12 corridors evaluated in the Commuter Rail Plan.	GDOT	LS Transit Systems, Inc.
	Jun-95	Operating and Maintenance Cost Report - Commuter Rail Plan	This report documents the methodology used to estimate operating and maintenance costs for commuter rail.	GDOT	LS Transit Systems, Inc.
	Jun-95	Railroad Operational and Physical Database - Commuter Rail Plan	The report provides details of data used in Commuter Rail Plan assessments.	GDOT	LS Transit Systems, Inc.
	Jun-95	Analysis of Commuter Rail Operations - Commuter Rail Plan	The assessment is the basis for the cost-benefit analysis of the 12 rail corridors identified for possible commuter rail service.	GDOT	LS Transit Systems, Inc.
	Sep-95	Commuter Rail Plan: Final Report	The Commuter Rail Plan concludes that commuter rail is feasible on six rail corridors and recommends a two-phased approach for implementation: Phase 1 includes Atlanta to Athens, Senoia, and Bremen with capital costs of $243 million and may be in service by 2000; Phase 2 includes Atlanta to Madison, Gainesville, and Canton with capital costs of $265 million and may be in service by 2010.	GDOT	LS Transit Systems, Inc.
	Jul-03	SWOT (Strengths, Weaknesses, Opportunities and Threats) Assessment of the Seven Proposed Georgia Commuter Rail Lines	The SWOT report provides updated capital costs for the Athens, Madison, Macon, Senoia, Gainesville, Bremen, and Canton corridors.	GRPA	GRPA
INTERCITY RAIL	May-96	Overview of Potential Intercity Rail Corridors - Intercity Rail Plan	This part of the Intercity Rail plan evaluated 19 rail corridors for Intercity passenger service and recommended certain routes for further study.	GDOT	LS Transit Systems, Inc.
	May-96	Potential Station Location - Intercity Rail Plan	The study identifies potential station sites for Intercity routes.	GDOT	LS Transit Systems, Inc.
	May-96	Overview of Technologies - Intercity Rail Plan	The report discusses types of rail technologies, such as conventional High-Speed trains (79-125 mph) or magnetic levitation trains, and presents information on uses, costs, and long-term suitability.	GDOT	LS Transit Systems, Inc.
	May-96	Phase 1 Report - Intercity Rail Plan	The report documents data collection efforts for describing existing intercity passenger services, estimates of passenger traffic, and quantifying population and employment demographics.	GDOT	LS Transit Systems, Inc.
	Sep-96	Technical Reports - Intercity Rail Plan	Technical information in this report includes analyses of potential ridership, revenue generation, and the development and usage of travel demand models.	GDOT	LS Transit Systems, Inc.
	Oct-96	Overview of Financing - Intercity Rail Plan	This report discusses funding sources for intercity rail service and notes formidable obstacles to use identified funding.	GDOT	LS Transit Systems, Inc.

Appendix (Continued)
Inventory of Relevant Passenger Rail Reports

Category	Completion Date	Title	Summary	State Entity Involved	Work Performed/ Coordinated by
INTERCITY RAIL (Continued)	Nov-96	Benefits and Costs - Intercity Rail Plan	This report presents the comparison of costs and benefits for two networks of rail passenger service.	GDOT	LS Transit Systems, Inc.
	Feb-97	Operating and Physical Database - Intercity Rail Plan	The document contains inventory lists of railroads, stations, mileage, and operating speeds.	GDOT	LS Transit Systems, Inc.
	Mar-97	Capital Cost Report - Intercity Rail Plan	This report discusses rail track and related line improvement costs as well as rolling stock requirements and facility costs.	GDOT	LS Transit Systems, Inc.
	Mar-97	Operations & Maintenance Cost Model Methodology Report - Intercity Rail Plan	The document provides the methdology and assumptions used in developing train operating plans and costs.	GDOT	LS Transit Systems, Inc.
	Mar-97	Intercity Rail Plan - Final Report	This Final Report presents a summary of previous phases of the study and recommends intercity service implementation in two priority groups: the First Priority group includes Atlanta to Macon corridor (via Griffin) and three other routes with the Second Priority group identifying three additional routes.	GDOT	LS Transit Systems, Inc.
	May-04	Macon-Charlotte Southeast High Speed Rail (SEHSR) Corridor Plan: Final Report	The report evaluates the costs and revenues associated with improving and upgrading the existing Norfolk Southern freight right-of-way to operate new high-speed passenger service between Macon, Atlanta, Greenville, Spartanburg, and Charlotte, with continuing service into VA and the DC-NY-Boston Northeast Corridor. It concludes that this operation would be extremely expensive.	GDOT	GRC
	Jul-04	Atlanta-Macon-Jesup-Jacksonville Intercity Rail Passenger Service Study	Based on specific legislative appropriation for this study, it evaluates the potential for intercity passenger train service between Atlanta and Jacksonville. The study recommended that additional corridor segments also be assessed.	GRPA	GRC & AMTRAK
Combined Plan - Intercity and Commuter Rail	Aug-97	Combined Intercity and Commuter Report (Phase 4 Final Report of the Intercity Rail Plan)	Report updates the results for the 1995 Commuter Rail Plan and combines it with recommendations from 1997 Intercity Rail Plan Final Report. The combined report recommends adding to the overall plan commuter service to Griffin (Macon corridor) as part of the network based on the combined impact of running commuter and intercity rail along the same route.	GDOT	LS Transit Systems, Inc.
	Nov-99	Intermodal Program for Rail Passenger Service in Georgia	This action plan summarizes roles of GDOT, GRPA, and GRTA in the newly developed Georgia Rail Passenger Program (GRPP), and combines recommendations from the Commuter Rail Plan and Intercity Rail Plans. It proposes various commuter and intercity rail services, presents funding issues, and the necessary steps needed to move forward with implementation.	GDOT, GRTA & GRPA	GRC
Other	Oct-04	GRPP Station Planning & Design Standards	This study provides guidelines for planning and design of new commuter rail stations by taking into consideration the wide range of communities served, facility types, ridership, site conditions and locations, and anticipated levels of service.	GDOT	GRC
MULTI-MODAL PASSENGER TERMINAL					
Multi-Modal Passenger Terminal	Jun-95	Finding of No Significant Impact (FONSI) on the Design and Construction of the Atlanta MMPT	The document is FTA's approval (finding of no significant impact, or FONSI) of the Environmental Assessment for the Atlanta MMPT. The FONSI was also re-evaluated and re-validated in December 2000.	GDOT	GDOT
	Jun-96	Multi-Modal Passenger Terminal Design Report	The report provides details of efforts taken to design the MMPT facility and includes illustrations.	GDOT	Heery International, Inc
	Jul-98	Multi-Modal Passenger Terminal Status Report	The status report gives a history and chronology of the MMPT project and presents a two-phased implementation plan for MMPT.	GDOT	N/A
	Dec-00	Finding of No Significant Impact (FONSI) Update: Atlanta Multi-Modal Passenger Terminal	The FONSI was reviewed and remains valid (FONSI originally issued in June 1995)	GDOT	GRC
	Feb-02	Concept Design Report for the Multi-Modal Passenger Terminal	The report lays out the design concept for the proposed MMPT station. The document contains cost estimates and illustrations of the proposed facility.	GDOT, GRTA & GRPA	GRC
	Apr-02	MMPT Bus Access Study	This report addresses bus routes from various counties coming in to the downtown MMPT and intersection operations in the vicinity of the MMPT site.	GDOT	GRC

Appendix (Continued)
Inventory of Relevant Passenger Rail Reports

Category	Completion Date	Title	Summary	State Entity Involved	Work Performed/ Coordinated by
CORRIDOR STUDIES					
Athens Corridor	Jan-99	Major Investment Study on the Athens-Atlanta Corridor	The study recognizes the need for better mobility along the Athens corridor and examines alternatives, costs, financing, environmental impacts, etc. The study follows federal requirements for long-range transportation planning.	GRPA	Parsons, Brinkerhoff
	Jul-03	Athens-Atlanta Patronage Methodology and Results Report	This report describes the travel demand forecasting model used and presents patronage forecasts for the corridor.	GDOT, GRTA & GRPA	GRC
	Feb-04	Finding of No Significant Impact (FONSI) for the Athens- Atlanta Line	FTA found no significant impact for the plan based on the Environmental Assessment submitted for the corridor.	GRPA, GDOT	GRC
Macon Corridor	Feb-01	Assessment of Passenger Service Potential for Macon - Houston County	This report presents the costs and revenues of extending rail passenger service from Macon to points in Houston County.	GDOT, GRTA & GRPA	GRC
	Aug-01	Macon-Atlanta Line Patronage Projections Methodology and Results Report	The report presents patronage projections for both commuter and intercity passenger service along the proposed Macon-Atlanta corridor.	GDOT, GRTA & GRPA	GRC
	Aug-01	Environmental Assessment for the Macon-Atlanta Corridor	The report documents the work performed to assess the environmental impact to the Macon-Atlanta corridor of the various transportation alternatives.	GDOT, GRTA & GRPA	GRC
	Nov-01	Finding of No Significant Impact (FONSI) for Macon-Atlanta Commuter Rail/Bus	No significant impact was found for the plan based on the Environmental Assessment submitted for the corridor. The FONSI was also re-validated in March 2005 related to the Lovejoy project	GDOT, GRTA & GRPA	GRC
	Apr-02	Macon to Atlanta Rail Corridor Site Vulnerability Assessment	The report assesses development risk at the proposed commuter rail station sites along the Macon to Atlanta rail corridor.	GDOT	GRC
	Oct-03	Macon Line Grade Crossing Safety Recommendations Report - Executive Summary	The recommendations of the report aim to improve safety at line crossings equipped with active warning devices.	GDOT	GRC
	Mar-05	Updated Macon FONSI to reflect initial service to Lovejoy	The FONSI for the Macon Commuter Rail project was updated and re-validated regarding proposed service to Lovejoy	GDOT	GRC
Canton Corridor	Dec-00	Corridor Capacity and Speed Evaluation for the Cartersville-Elizabeth-Atlanta and Canton-Elizabeth Atlanta Passenger Rail Corridors	This report makes recommendations for trackway and related operational improvements to achieve speed and capacity increases on segments including Atlanta to Elizabeth, Elizabeth to Cartersville, and Elizabeth to Canton.	GDOT	GRC
	Apr-02	Canton-Ballground Alignment Study	Includes updated study alignment sketches to incorporate site plans for adjacent development master plans.	GDOT	GRC
	Oct-04	Canton-Elizabeth/Marietta-Atlanta Commuter Rail-Express Bus Feasibility Study	This study assesses the feasibility of implementation of commuter rail service from Canton along the Georgia Northeastern Railroad, to interface with Cobb Community Transit express bus service to downtown Atlanta.	GDOT	GRC
LOVEJOY PROJECT					
Lovejoy Project	Oct-04	Atlanta-Lovejoy Project Management Plan	The plan defines the scope of project implementation for preliminary engineering, final design, construction, testing, and start-up. It establishes policies in areas including project control, quality assurance, and safety.	GDOT	GRC
	Mar-05	Environmental Assessment for the Atlanta-Lovejoy portion of the Macon-Atlanta Corridor	This study concluded that there would be no new evironmental impact associated with the Atlanta-Lovejoy portion of the Atlanta-Macon Corridor.	GDOT	GRC
	Mar-06	New Jersey Transit Comet I Coaches, Initial Condition Assessment Report	This report discusses the assessment of New Jersey Comet I coaches.	GDOT	GRC

Source: Passenger Rail Reports

For additional information or for copies of this report call 404-657-5220 or see our website:
http://www.audits.state.ga.us/internet/pao/rpt_main.html