

Atlanta Regional Commission  
200 Northcreek, Suite 300  
3715 Northside Parkway  
Atlanta, Georgia 30327-2809



Harry West  
Director

April 24, 1998

Honorable Rita Rainwater, Chairman  
Douglas County Commission  
8700 Hospital Drive  
Douglasville, GA. 30134

RE: Development of Regional Impact  
Riverwalk Planned Unit Development

Dear Rita:

I am writing just to formally transmit the resolution which the Commission adopted on April 22, 1998, concerning the Development of Regional Impact (DRI) Review of the Riverwalk Planned Unit Development. As you are aware, the resolution (copy attached) finds that this DRI would not be in the best interest of the State unless the number of units is reduced to comply with the County watershed protection zoning and the on-site wastewater treatment and re-use system is approved by both the Douglasville-Douglas County Water and Sewer Authority and the Georgia Environmental Protection Division.

Along with the Commission's resolution, I am enclosing copies of our review report and comments received during the review. Please let me know if you need anything further concerning the review.

Sincerely,

A handwritten signature in dark ink, appearing to read "Harry West", is written over a horizontal line.

Harry West  
Director

Enclosure

- c Mr. Dan Reuter, Douglas County  
Mr. Steve Tiemann, Highland Park Village Partnership  
Hon. Charles Camp, City of Douglasville  
Mr. Harold Reheis, Georgia EPD  
Mr. Wayne Shackelford, Georgia DOT  
Mr. Paul Radford, Georgia DCA

**RESOLUTION BY THE ATLANTA REGIONAL COMMISSION CONCERNING  
RIVERWALK PLANNED UNIT DEVELOPMENT**

**WHEREAS**, pursuant to the Georgia Planning Act of 1989 and Georgia Department of Community Affairs Rules for the Review of Developments of Regional Impact (DRI), the Atlanta Regional Commission has reviewed the Riverwalk Planned Unit Development proposed on 928.2 acres on the east side of Highway 5 on both sides of the Dog River in Douglas County; and

**WHEREAS** the proposed development would consist of 1,255 homes, a golf course, and up to 75,000 sq. ft. of neighborhood retail services; and

**WHEREAS** the development is proposed in the Dog River Water Supply Watershed and the Dog River provides the only current and projected future water supply for Douglas County; and

**WHEREAS** Douglas County has adopted watershed protection measures through its zoning ordinances for this watershed; and

**WHEREAS** these measures have been in place since the 1970's; and

**WHEREAS** the 1997 Atlanta Region Water Supply Plan supports the Douglas County protection measures; and

**WHEREAS** the County watershed protection zoning would allow at most 746 houses even if the property had sewer service; and

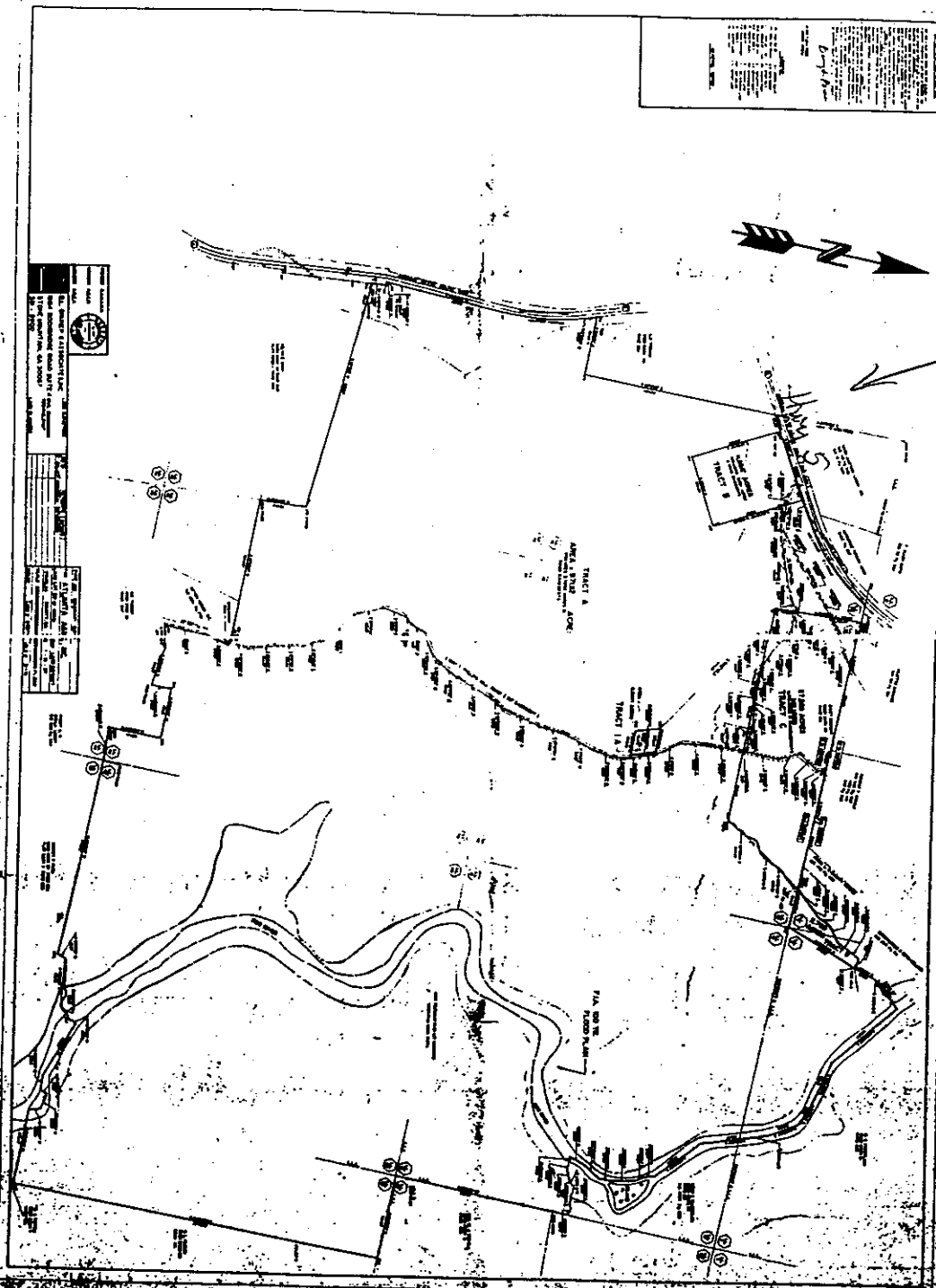
**WHEREAS** the proposed development will increase the pollutant load from storm water for every pollutant between 60 percent and 117 percent over development consistent with County zoning; and

**WHEREAS** the proposed storm water drainage system is only conceptual and provides no assurance that the water supply would be adequately protected for the intensity of development proposed on the site; and

**WHEREAS** the staff also has concerns about the proposed on-site wastewater treatment and re-use system that is proposed since the record of similar treatment systems in the Atlanta Region has indicated recurring problems; and

**WHEREAS** the City of Douglasville has expressed concerns about the proposed development;

**NOW THEREFORE BE IT RESOLVED** that the Commission finds that the Riverwalk Planned Unit Development as proposed would not be in the best interest of the State unless the number of units is reduced to comply with the County watershed protection zoning and the on-site wastewater treatment and re-use system is approved by both the Douglasville-Douglas County Water and Sewer Authority and the Georgia Environmental Protection Division.



Facility: Riverwalk Planned Unit Development  
Preliminary Report: March 12, 1998  
Final Report: April 22, 1998

## DEVELOPMENTS OF REGIONAL IMPACT

### REVIEW REPORT

#### GENERAL

According to information on the review form or comments received from potentially affected governments:

**Is the proposed project consistent with the host-local government's comprehensive plan? If not, identify inconsistencies.**

Yes. Douglas County reports that their Future Land Use Plan depicts low and estate density residential in this location. However, the Douglas County Dog River Water Supply Watershed protection zoning ordinance would not allow the number of units proposed in the Riverwalk plan.

**Is the proposed project consistent with any potentially affected local government's comprehensive plan? If not, identify inconsistencies.**

See City of Douglasville letter expressing concern.

**Will the proposed project impact the implementation of any local government's short-term work program? If so, how?**

See Douglas County Schools letter.

**Will the proposed project generate population and/or employment increases in the Region? If yes, what would be the major infrastructure and facilities improvements needed to support the increase?**

The proposed 1,255 residential units and 75,000 sq. ft. of retail space could accommodate a population of 3,138, including 910 students, and 150 jobs according to regional averages. This would necessitate many additional classrooms at schools serving the area.

**What other major development projects are planned in the vicinity of the proposed project?**

ARC has not reviewed any other major developments in this vicinity of the county.

**Will the proposed project displace housing units or community facilities? If yes, identify and give number of units, facilities, etc.**

No.

**Will the development cause a loss in jobs? If yes, how many.**

No.

### **LOCATION**

**Where is the proposed project located within the host-local government's boundaries?**

The site proposed for development is in southwest Douglas County on the east side of Highway 5. The site is more than 2 miles from the Chattahoochee River which is the Douglas/Fulton boundary. 33°38'/84°49'

**Will the proposed project be located close to the host-local government's boundary with another local government? If yes, identify the other local government.**

See above.

**Will the proposed project be located close to land uses in other jurisdictions that would benefit or be negatively impacted by the project? Identify those land uses which would benefit and those which would be negatively affected and describe impacts.**

While the site is not immediately near the City of Douglasville, it has the potential to impact the Dog River which provides water supply for the city and county.

### **ECONOMY OF THE REGION**

According to information on the review form or comments received from potentially affected governments:

**What new taxes will be generated by the proposed project?**

Based on a estimated \$153,125,000 built-out value, the development could generate \$1,750,000 in annual property taxes.

**How many short-term jobs will the development generate in the Region?**

300.

**Is the regional work force sufficient to fill the demand created by the proposed project?**

Yes.

**In what ways could the proposed development have a positive or negative impact on existing industry or business in the Region?**

To be determined.

## **NATURAL RESOURCES**

As submitted, the proposed Riverwalk subdivision includes 1255 single-family houses, 75,000 square feet of commercial, a golf course with clubhouse, tennis courts and pools, an additional swim and tennis club and a potential school site on a 928 acre parcel in unincorporated Douglas County. The property is located entirely within the Dog River Water Supply Watershed, and the Dog River - the County's sole water source - crosses the property.

The proposal clusters residential development on about 528 acres of the site. The residential areas would have lots of either 12,000 square feet (SF) average area or 25,000 SF average area. The remaining 400 acres would be in "open space", which would include the golf course. Estimates for the area used for the commercial site, connecting roads and the other facilities are not given in the proposal, nor does it state whether these uses are included in the 528 acres committed to residential development. The proposal includes dedication of the 100-foot undisturbed natural vegetative buffers required by County zoning along the property's streams, but it also proposes them as a greenway, possibly connecting to a potential Countywide greenway system. An earlier version of the project proposed bike paths in the 100-foot buffer.

The property has no sewer service. The applicant is proposing treating wastewater with a private facility on-site, then using the treated effluent to irrigate the golf course. The project also proposes a "natural" storm water drainage system that would use the existing terrain, with engineered modifications, to drain storm water by guiding runoff into open, landscaped drainage channels.

An existing Phase One of Riverwalk, with 59 houses on 95 acres served by septic systems, is not included in the 928 acre parcel and is not addressed in this report.

The areas of concern for this project are the overall project density and impervious area, the proposed storm water drainage system, the proposed wastewater treatment system, the proximity of the golf course to the Dog River, wetlands and the proposed bike trail/greenway system.

### **Overall Project Density and Impervious Area**

The property is currently under Douglas County's watershed protection zoning, which limits the type and intensity of development in the Dog River watershed to protect the County's drinking water supply. The watershed zoning includes the following requirements:

- Five-acre minimum lots
  - Within 1000 feet of the Dog River
  - Within 500 feet of its named tributaries (Flyblow Creek on this property)
  - Within 250 feet of all streams flowing into Dog River or its named tributaries
- Beyond these boundaries, the minimum lot sizes are:
  - One acre for properties on septic tanks
  - 30,000 square feet for lots on sewer.
- In addition to the lot size requirements, the following building and development setbacks apply:
  - 300 feet along Dog River and its named tributaries (including Flyblow Creek)
  - 200 feet along all other streams draining into Dog River or its named tributaries
  - The first 100 feet of all setbacks are an undisturbed natural vegetative buffer.

The watershed zoning would allow approximately 544 lots with septic and 746 lots with sewer. This project's 1255 proposed lots are a 67 percent increase over the maximum now allowed with sewer, and a 129 percent increase over the maximum allowed with septic systems.

Based on house size estimates from the developer and the County, as well as observation of similar developments in the Atlanta Region, ARC staff developed estimates of impervious surface for each lot size. These include an estimate of the right-of-way in front of each lot, measured to the right-of-way's midpoint. The impervious estimates include the street paving.

The estimates, including house, garage, driveway, outdoor areas such as decks and the street paving fronting each lot, were approximately 4800 SF for the small (12,000 SF) lots and 7700 SF for the large (25,000 SF) lots. With right-of-way included, these numbers show about 33 percent impervious for the 12,000 SF lots and 28 percent for the 25,000 SF lots. With the proposed 788 small lots and 467 large lots, the estimated residential impervious area is about 172 acres.

ARC staff have developed rough estimates of the impervious coverage for the other proposed uses on the property, using County zoning regulations, standard rules of thumb, and estimates based on the site designs shown in the conceptual site plan. The proposed commercial area, golf course facilities, swim and tennis club, the proposed school and the entrance and connecting roads would add about 28 acres of impervious surface. The estimated total impervious surface in this proposal is about 200 acres.

The County's watershed zoning will allow up to 96 five-acre lots and either 650 30,000 SF lots with sewer or 448 one-acre lots with septic systems. Using typical impervious percentages for residential development of these densities in the Atlanta Region (10 percent for five acres, 19 percent for 0.5 to 1 acre and 12 percent for 1 to 2 acres), a project developed under the existing zoning would have 133 acres of impervious surface if sewered. Without sewer service, the total impervious area would be 102 acres.

ARC staff has compared the nonpoint pollutant loadings for the proposed project and for development consistent with the current zoning, using the impervious estimates discussed above. As shown in the attached table, the proposed development shows increases in all categories over development consistent with current zoning. These increases range from 60.52 percent for total suspended solids (TSS) and 70.67 percent for biological oxygen demand (BOD) to 116.9 percent for lead (Pb). These increases indicate the effects of greater impervious surface in the watershed.

#### **Proposed Storm Water Drainage System**

The proposal would mitigate both storm water quantity and quality impacts through a storm water drainage system that uses existing drainage patterns and topography, vegetated conveyance channels (to provide infiltration and filtering), and a series of storage (detention/retention) ponds. The system design is intended to slow storm water velocity and maximize infiltration and includes multiple "stairstepped" ponds, site design that minimizes channel slopes and maximizes their lengths, check dams, infiltration basins, outlet protection and use of soil stabilizing mats. The proposed lot clustering and open space areas have also been offered as mitigation measures.

ARC staff concerns with the proposed measures include:

- The analysis of the soil types in the Douglas County Soil Survey appears to overestimate the site's ability to support extensive infiltration.
- The proposal recommends maintenance of detention basins every 3 to 8 years, but no funding mechanism is provided and no responsibility for performing the maintenance is identified. Further, maintenance of the vegetated channels is not addressed. Infiltration channels can clog easily and require maintenance much more frequently than the proposed basin schedule.
- Except for the illustrative example for one basin, the proposed storm water drainage system is primarily a concept plan. Preliminary engineering for the entire development, including preliminary building site and impervious surface locations, is needed to assess the proposal.

#### **Proposed On-Site Wastewater Treatment System**

The proposed wastewater treatment system includes open holding ponds on at least three sites around the property. Two ponds (or "aerated treatment cells") would be located at each site to provide two stages of settling for the effluent. The effluent from the top of the second pond would then be disinfected and sprayed onto the proposed golf course areas as the only means of effluent disposal. The system has not been tested in the Southeast, and no information has been provided concerning the use of the system in a public water supply



watershed. Although storage areas for up to 49 days of effluent are proposed, there is no other provision for disposal when the golf course irrigation is not needed for a longer period.

ARC staff is concerned that excess runoff from the sprayed effluent will enter Dog River or its tributaries. The track record of similar land treatment facilities irrigating golf courses, has been poor in the Atlanta area. Further, no plan for long-term operation or funding has been provided. The subdivision should be approved only after the proposed treatment system, or another public wastewater disposal option, is approved by the Georgia Environmental Protection Division and the Douglasville/Douglas County Water and Sewer Authority for use in the water supply watershed.

### **Proposed Golf Course**

The proposal includes an eighteen-hole golf course that makes up much of the property's open space. While the most recent concept plans show that most of the proposed greens and fairways are located outside the 100-foot vegetative buffers along Dog River and Flyblow Creek, some appear to be very close to the 100-foot line, and the fairway for the eighteenth hole crosses Flyblow Creek. The eleventh fairway is also shown crossing an unnamed tributary of Flyblow Creek, and its 100-foot buffer is not shown. These buffers are required on the unnamed streams as well as on the larger ones under the County's Watershed Zoning. The design of the golf course should conform to the requirements of the County Watershed requirements, especially in maintaining the undisturbed buffers. The design should not include paved paths to run along the creeks in the buffers.

The applicants have stated verbally that the course would be "Audubon Gold Certified," although no written specifications or criteria have been provided. Apparently, such a course would be a "green" or "natural" golf course, which minimizes or eliminates the use of most fertilizers and pesticides, and uses such grass species that minimize the need for irrigation. This concept can help reduce of pollutants in runoff from the course, but detailed information on plantings, maintenance and course management need to be provided in writing before we can support it.

Other than the proposed sewage treatment facilities, no other water sources for golf course irrigation have been proposed. It is our understanding from the Douglasville-Douglas County Water and Sewer Authority that withdrawals from the River or from its tributaries, or withdrawals from wells on the property, will not be permitted.

### **Wetlands**

The proposal relies on the US Fish and Wildlife Service Wetland Maps to locate any wetlands on the property. These are planning level documents and cannot be relied upon to provide accurate information about the presence or absence of wetlands on any particular site. The applicant needs to conduct a detailed site inspection using an inspector listed with the US Army Corps of Engineers to determine the presence, location and extent of any wetlands on the property.

### **Bike Paths/Greenways**

Although the most recent conceptual plans show no trails or bike paths along Dog River or its tributaries. However, earlier versions of the site plan do show a trail or path system within the 100-foot buffer along all the creeks and the River. Further, the current proposal talks of a greenway system that could be linked to a County-wide greenway system. In our experience in other parts of the Atlanta Region, greenway systems usually include some sort of path or trail, and that for longer systems, bike paths, graded and paved for heavy use, are usually what are proposed. Such paths are usually 12 to 15 feet in width and are paved on a graded roadbed - they are essentially one lane roads. Such facilities will also add a measurable amount of impervious surface to the proposed project if they are of the extent shown in the early concept plans. Approximately four miles of trails could be located on the property along both banks of Dog River and one bank of Flyblow Creek. With a width of twelve feet, these paths would add about 5.8 acres more impervious surface to the total for the subdivision. The proposed routing for the bike path system needs to be shown on the concept plans for the site.

### **Conclusion**

The impervious area for the proposed project exceeds the impervious amounts that would likely occur under the County's existing watershed zoning, which has been in place since the 1970's. The comparison of pollution loadings indicates that more polluted runoff will occur as a result of more intense development even with the proposed open space/golf course area. The Dog River is Douglas County's sole source of water and care needs to be taken to protect it.

### **HISTORIC RESOURCES**

**Will the proposed project be located near a national register site? If yes, identify site.**

No.

**In what ways could the proposed project create impacts that would damage the resource?**

N/A

**In what ways could the proposed project have a positive influence on efforts to preserve or promote the historic resource?**

N/A

## **INFRASTRUCTURE**

### **Transportation**

**How much traffic (both average daily and peak am/pm) will be generated by the proposed project?**

Land Use	Units	Weekday	AM Peak Hour		PM Peak Hour	
			Enter	Exit	Enter	Exit
Single Family	1,255	10,607	188	535	687	370
Specialty Retail Center	75,000	3,050	231	250	211	159
Golf Course	18	677	48	10	31	29
<i>Total</i>		<i>14,333</i>	<i>467</i>	<i>795</i>	<i>930</i>	<i>558</i>

The above trip generation figures were calculated using the Institute of Traffic Engineers Trip Generation (5th Edition) manual.

**What are the existing traffic patterns and volumes on the local, county, state and interstate roads that serve the site?**

The following volumes are based on 1996 GDOT coverage counts from area facilities that will likely provide the primary routes for traveling to the proposed development. 2010 volumes for these facilities were obtained from the ARC transportation model.

Facility	1996			2010		
	Lanes	Volume	V/C Ratio	Lanes	Volume	V/C Ratio
Bill Arp Rd from Giles Rd to Dorset Shoals Rd	4	5,500	0.1	4	6,326	0.1
Bill Arp Rd from Dorsett Shoals Rd to Bright Star Rd	4	11,900	0.2	4	13,793	0.3
Bill Arp from Giles Rd to SR 166	4	5,300	0.1	4	6,953	0.1
Dorsett Shoals Rd from Bill Arp to Kings Hwy	2	2,300	0.1	2	5,126	0.3

This table indicates major area roads have sufficient roadway capacity to serve existing and future traffic.

**What transportation improvements are under construction or planned for the Region that would affect or be affected by the proposed project? What is the status of those improvements (long or short range or other)?**

The ARC's adopted Interim Atlanta Regional Transportation Improvement Program FY 1998 - FY 2000 (ITIP) as adopted January 28, 1998 includes no projects in the vicinity of this site. The long range element of ARC's Regional Transportation Plan: 2010 (1995 update) includes the following long range project (FY 2002+) in the vicinity of this site:

DO 030 SR 5 from Dorsett Shoals Rd to Central Church Rd. 2 to 4.

The Atlanta Region Bicycle Transportation and Pedestrian Walkways Plan, 1995 Update and the Douglas County Bicycle and Pedestrian Plan includes the following project in the vicinity of this site.

Bill Arp Rd from Bankhead Hwy to SR 166. Bicycle and pedestrian facilities. 2020

**Will the proposed project be located in a rapid transit station area? If yes, how will the proposed project enhance or be enhanced by the rapid transit system?**

No.

**Is the site served by transit? If so, describe type and level of service.**

No.

**Are there plans to provide or expand transit service in the vicinity of the proposed project?**

No.

**What transportation demand management strategies does the developer propose (carpool, flex-time, transit subsidy, etc.)?**

None.

**What is the cumulative generation of this and other DRIs or major developments? Is the transportation system (existing and planned) capable of accommodating these trips?**

The traffic analysis suggests that major roads in the area have sufficient capacity to serve the current and future traffic needs of motorized vehicles. The developer and the county are encouraged to take steps to reduce automobile trips generated by the development and support alternative transportation modes in the area if the development is approved. Such steps should include:

- construction of an internal sidewalk network linking the residential development, the commercial development, and the golf course;
- construction of sidewalks along exterior frontage routes connecting to an interior sidewalk network;
- providing bicycle facilities within the development to connect to Bill Arp Road.
- developing specialized services such as vanpools, express bus service, and park and ride lots to address commutes generated by the residents.

These facilities would tie into the planned bicycle and pedestrian facilities on Bill Arp Rd from Bankhead Hwy to SR 166 (included as a long range project in the Atlanta Region Bicycle Transportation and Pedestrian Walkways Plan, 1995 Update.)

## **AIR QUALITY ANALYSIS**

### **Analysis Methodolgy**

The proposed 928 acre planned unit development is comprised of single family attached lots, a semi private golf course, and 75,000 sq. ft. of neighborhood retail space. The emissions analysis for the proposed development is based on trip generation estimates, calculated as a function of both number of housing units and square footage of retail space. These trip estimates are based upon the ITE trip generation manual. The estimated emissions are based on light duty gas vehicles (passenger automobiles) using a mix of peak highway and off peak off off-highway conditions assuming 20% cold starts for each.

### **Results of Analysis**

Estimates for both hydrocarbons and nitrogen oxides resulting from this development are presented in the following tables.

	<b><u>TONS PER YEAR</u></b>	<b><u>TONS PER DAY</u></b>
Nitrogen Oxides	<b>37.130</b>	<b>0.143</b>
Hydrocarbons	<b>33.562</b>	<b>0.129</b>

The results of the analysis performed indicate that the proposed development generates an acceptable level of harmful emissions. However, the development contributes to sprawling conditions and generates demand for additional trips by single occupant vehicles, providing limited opportunities for the use of alternative modes of transportation or connections to complementary land uses.

Although the project complies with air quality thresholds, several complementary strategies should be incorporated into it's design. Some address the design of the proposed development itself, while others relate to surrounding land uses outside the geographic scope of this DRI.

## **INFRASTRUCTURE**

### **Wastewater and Sewage**

**How much wastewater and sewage will be generated by the proposed project?**

According to regional averages 0.51 MGD.

**Which facility will treat wastewater from the project?**

See above discussion under natural resources section.

**What is the current permitted capacity and average annual flow to this facility?**

N/A

**What other major developments will be served by the plant serving this project?**

N/A

## **INFRASTRUCTURE**

### **Water Supply and Treatment**

**How much water will the proposed project demand?**

Again according to regional averages 0.59 MGD.

**How will the proposed project's demand for water impact the water supply or treatment facilities of the jurisdiction providing the service?**

Dog River provides Douglas County's water supply. See concerns under natural resources section.

## **INFRASTRUCTURE**

### **Solid Waste**

**How much solid waste will be generated by the project? Where will this waste be disposed?**

Information with the review indicates 3,136 tons per year.

**Other than adding to a serious regional solid waste disposal problem, will the project create any unusual waste handling or disposal problems?**

No.

**Are there any provisions for recycling this project's solid waste.**

None stated.

## **INFRASTRUCTURE**

### **Other facilities**

**According to information gained in the review process, will there be any unusual intergovernmental impacts on:**

- Levels of governmental service?
- Administrative facilities?
- Schools?
- Libraries or cultural facilities?
- Fire, police, or EMS?
- Other government facilities?
- Other community services/resources (day care, health care, low income, non-English speaking, elderly, etc.)?

The projected 910 students would certainly impact Douglas County Schools making this a good location for an additional school site. See comments from Douglas County Schools.

## **HOUSING**

**Will the proposed project create a demand for additional housing?**

No, the development is primarily housing.

**Will the proposed project provide housing opportunities close to existing employment centers?**

No.

**Is there housing accessible to the project in all price ranges demanded?**

Yes.

**Is it likely or unlikely that potential employees of the proposed project be able to find affordable\* housing?**

Likely.

\* Defined as 30 percent of the income of a family making 80 percent of the median income of the Region. 1996 median family income of \$52,100 for Atlanta MSA.

# **Riverwalk Property Nonpoint Source Pollutant Loading (lbs/yr) Comparison**

<u>Current Zoning</u>	<u>Tot acres</u>	<u>BOD</u>	<u>ISS</u>	<u>TP</u>	<u>IN</u>	<u>Pb</u>	<u>Zn</u>
96 lots at 5 acre size	480	7200.0	170400.0	139.2	729.6	4.8	24.0
650 lots at .69 acre	448	15232.0	286272.0	483.8	2114.6	26.9	121.0
<b>Total</b>	<b>928</b>	<b>22432.0</b>	<b>456672.0</b>	<b>623.0</b>	<b>2844.2</b>	<b>31.7</b>	<b>145.0</b>

<u>Proposed Project</u>	<u>Tot acres</u>	<u>BOD</u>	<u>ISS</u>	<u>TP</u>	<u>IN</u>	<u>Pb</u>	<u>Zn</u>
467 lots at .67 acres	313	19404.5	360924.4	608.0	2664.9	38.8	155.2
788 lots at .33 acres	260	14291.7	265826.0	447.8	1962.7	28.6	114.3
golf course	200	2600.0	65400.0	88.0	436.0	0.0	0.0
commercial	6	648.0	5898.0	10.3	104.4	1.3	7.4
open space	149	1341.0	35015.0	11.9	89.4	0.0	0.0
<b>Total</b>	<b>928</b>	<b>38285.3</b>	<b>733063.5</b>	<b>1166.0</b>	<b>5257.4</b>	<b>68.7</b>	<b>277.0</b>

**% diff from current    0.00%    70.67%    60.52%    87.15%    84.85%    116.90%    91.05%**



**DRI AIR QUALITY ANALYSIS FOR PROPOSED RIVERWALK DEVELOPMENT**  
*Trip Generation Rates (by sq. feet of retail, office, and hotel space)*

		Total Trips	Peak Trips	Off-peak Trips	Peak VMT	Off-peak VMT	NOx G/D	HC G/D	NOx T/D	HC T/D	NOx T/Y	HC T/Y
<b>OFFICE</b>												
Hi-Mid Rise	0	0	0	0	0	0	0.00	0.00	0.000	0.000	0.000	0.000
Medical	0	0	0	0	0	0	0.00	0.00	0.000	0.000	0.000	0.000
<b>RETAIL/SERVICE</b>												
	5,128	989	4,139	6,924	28,971	39,692.19	42,374.31	0.044	0.047	11.376	12.145	
<b>HOTEL</b>												
	0	0	0	0	0	0	0.00	0.00	0.000	0.000	0.000	0.000
<b>APT/HOUSE</b>												
	9,212	2,708	6,504	35,205	45,527	89,860.53	74,728.04	0.099	0.082	25.754	21.417	
<b>INDUSTRIAL</b>												
Autos	0	0	0	0	0	0	0.00	0.00	0.000	0.000	0.000	0.000
Trucks	0	0	0	0	0	0	0.00	0.00	0.000	0.000	0.000	0.000
<b>Impact of Total Development</b>												
								0.143	0.129	37.130	33.562	

\* Reductions for passby trips, if any, based on ITE Trip Generation passby descriptions.

**Tons per acre**  
**NOx** 0.026    **VOC** 0.012

3/26/98

File #

**Assumptions:**

1. Auto Emissions factors based on 20% CS for LDGV for a mix of peak and off peak highway speeds for
2. Average commute trip length in region = 13 miles

3. Average Non-work trip length in region = 7 miles
4. Reasonableness threshold = 50 tons per year
5. Average Heavy Duty Truck Trip = 22.78 miles (Atlanta Area Commercial Vehicle Survey 1/97)
6. Average Light Duty Truck Trip = 14.97 miles (Atlanta Area Commercial Vehicle Survey 1/97)
7. Average Medium Duty Truck Trip = 19.86 miles (Atlanta Area Commercial Vehicle Survey 1/97)
8. Estimations of average vehicle speeds for freeways developed using GDOT speed monitoring program
9. Estimations of average vehicle speeds for arterials developed using ARC travel time modeling

### Calculations:

Perform each of the following steps for each different type of development included in the proposed development.

1. Total trips derived from Trip Generation Manual based upon development type and number of units and square footages.
2. Trip generation estimates are divided into AM and PM peak based on entries and exits.  
The total of peak (AM+PM)\*2.5 entries and exits = peak period auto trips
3. Reduce PM Peak trips to account for passby and internal trips as per percentages noted in ITE Trip Generation Manual
4. Peak VMT derived by multiplying peak trips by average commute distance in region
5. Off peak VMT derived by multiplying off-peak trips by average non-work trip in region
6. Derive Emissions totals for NOx in grams per day  
Multiply Peak VMT by MOBILE5A peak hwy emissions factor (speed = 36.8mph)  
Multiply Off-peak VMT by MOBILE5A off peak hwy emissions factor (speed = 55 mph)  
Sum total of peak + off peak to get total NOx emissions in grams per day
7. Derive emissions totals for VOC in grams per day  
Multiply Peak VMT by MOBILE5A peak hwy emissions factor (speed = 36.8mph)  
Multiply Off-peak VMT by MOBILE5A off peak hwy emissions factor (speed = 55 mph)  
Sum total of peak + off peak to get total NOx emissions in grams per day
8. Derive Emissions totals for NOx in grams per day for retail portion.  
Multiply Peak VMT by MOBILE5A peak hwy emissions factor (speed = 36.8 mph)  
Multiply Off-Peak VMT by MOBILE5A off peak emissions factor (speed = 55 mph)
9. Derive Emissions totals for VOC in grams per day for retail portion.  
Multiply Peak VMT by MOBILE5A peak hwy emissions factor (speed = 36.8 mph)  
Multiply Off-Peak VMT by MOBILE5A off peak emissions factor (speed = 55 mph)
10. Convert to tons per day.  
Divide total emissions derived from step 7 by 907180 for both VOC and NOx
11. Convert to tons per year  
Multiply total emissions derived from step 8 by 260 (number of weekdays in a year)
12. To obtain the impact of the total development sum the emissions generated by each different piece (e.g. office, retail, residential)

# City of Douglasville

CHARLES L. CAMP  
Mayor

*Council Members:*

CHARLES J. BANKS - Ward 1  
EARL C. COSGROVE - Post 1  
RICK DENSON - Post 2  
HARVEY JONES - Ward 3  
BONNIE KEMP - Ward 4  
WINTON H. MORELAND - Ward 2  
MICKEY THOMPSON - Ward 5



WILLIAM D. OSBORNE  
City Manager

BARBARA McCRAVY  
City Clerk

JOEL DODSON  
City Attorney

March 31, 1998

Ms. Beverly Rhea  
Review Coordinator  
Atlanta Regional Commission  
200 Northcreek, Suite 300  
3715 Northside Parkway  
Atlanta, Georgia 30327-2809

Dear Beverly:

The following Development of Regional Impact comments pertaining to the proposed Riverwalk Planned Unit Development (PUD) in unincorporated Douglas County are being made by me on behalf of the City of Douglasville.

We are very concerned about this proposed PUD development because it is in the Dog River Basin -- the Dog River being the source of Douglasville's and Douglas County's water supply.

This proposed project was discussed by me, members of the City Council, and appropriate staff members on March 29 during our Spring Workshop. Previously, our staff had met on this matter with Douglasville - Douglas County Water and Sewer Authority (WSA) Executive Director Peter Frost and Douglas County Planning Director Dan Reuter.

The City of Douglasville does not object to a residential PUD in Riverwalk. However, the City does object to the current proposal, and does not believe it to be in our City's best interests.

If this project is to proceed, the City of Douglasville would propose the following:

-- The development should be on sewer; however, the City is not comfortable with the plan being proposed by Highland Park Village Partnership. The City would like for the development to follow recommendations to be made by the WSA.

-- Lots should be a minimum of one-acre.

-- The development should follow all provisions of the new Dog River Watershed Protection Ordinance which has been adopted by the City of Douglasville, or equivalent provisions of Douglas

County's Watershed Protection Ordinance applicable to the Dog River Basin. This would include provisions applicable to commercial development.

Thank you for the opportunity to provide this information. Please let me or City Manager Bill Osborne know if there are questions.

Best wishes.

Sincerely,

  
Charles L. Camp  
Mayor

CLC:bb

cc: City Manager Bill Osborne  
Planning Director Dan Reuter  
Development Coordinator George Crew



# DOUGLAS COUNTY SCHOOL SYSTEM

P.O.Box 1077~Douglasville, GA~30133~(770)920-4000~FAX (770)920-4027

Randy M. Brittain, Superintendent

March 18, 1998

Ms. Beverly Rhea  
Review Coordinator  
Atlanta Regional Commission  
200 Northcreek, Suite 300  
3715 Northside Parkway  
Atlanta, GA 30327-2809

Dear Ms. Rhea:

Thank you for the information regarding Riverwalk Planned Unit Development. I have enclosed a copy of the impact study that we completed for the Douglas County Board of Commissioners. As you can see this development would have a significant impact on the Douglas County School System. We anticipate needing 25 additional elementary classrooms, 15 additional middle school classrooms and 10 additional high school classrooms to accommodate the incoming students of this development.

In the report provided by your office and the report provided by Highland Park Village Partnership which was prepared by Sheaffer International, Ltd., it is mentioned that the developer has plans for including a school in the development. The Douglas County School System would be very interested in discussing this proposal in more detail.

If you need additional information, please call me at (770) 920-4020. Thank you for your assistance in this matter.

Sincerely,

Samuel E. Land  
Assistant Superintendent  
Operations & Personnel

**DOUGLAS COUNTY PLANNING & ZONING DEPARTMENT**  
**Impact Study for Land Use Permits, Rezoning and Proposed Subdivisions**

Request For: ☐ Land Use Permit ☒ Rezoning ☐ Subdivision *PUO*

Case Number: 98-33 Date of Meeting (If Required): 4-7-98

**BOARD OF EDUCATION**

AREA SCHOOLS AFFECTED	INSTRUCTIONAL UNITS AVAILABLE	NO. OF TEACHERS ASSIGNED	AVERAGE DAILY ATTENDANCE	SCHOOL CAPACITY
<i>South Douglas Elem</i>	<i>30</i>	<i>29.5</i>	<i>452</i>	<i>552</i>
<i>Fairplay Middle</i>	<i>41</i>	<i>42.5</i>	<i>717</i>	<i>875</i>
<i>Alexander High</i>	<i>69</i>	<i>75</i>	<i>1230</i>	<i>1325</i>

1. Approximately how many students would be projected for this development?

*1,255*

2. What additional man-power, equipment or construction would be necessary, if any?

*Construction of new school would be necessary.*

3. Are there any future plans for school expansions in this area? If so, please indicate as provided below. *25 elementary classrooms; 15 middle school classroom; 10 high school classroom*

AREA SCHOOLS AFFECTED	FUNDED FUTURE CONSTRUCTION	DATE COMPLETE	PLANNED ENROLLMENT

4. Are federal, state or local funds available for construction?

*Na*

5. Additional remarks?

*Na*

Impact Study for Land Use Permits, Rezoning and Proposed Subdivisions

DATE OF HEARING: 4-7-98 APPLICATION NUMBER: 98-33  
APPLICANT: Highland Park Village Partnerships  
LANDOWNER: SAME  
PROPERTY LOCATION: Hwy 5 & Riverwalk Dr.  
LAND LOT: 6+7 DISTRICT: 2 SECTION: 5 PARCEL: A  
LL, 25, 40, 41, 42, 43, 75+76 D355  
PRESENT ZONING: ROS-1, ROS-2, RBDOS PROPOSED ZONING: PUD  
PROPOSED USE: Dwellings, Golf Course + Village LOT SIZE: 1,024<sup>+-</sup> ACRES  
LAND USE PERMIT: ☒ PERMANENT ☐ TEMPORARY ( ☐ New ☐ Renewal )  
SUBDIVISION: ☐ STANDARD ☐ SHORTCUT ☐ PRIVATE ESTATE  
NUMBER OF LOTS IN SUBDIVISION: \_\_\_\_\_  
LOCATOR MAP:

SEE Attached Map