

January 18, 1999

Mr. Michael E. Wilder, Chair
Georgia Industry Environmental Coalition
Water Resources Workgroup
c/o Georgia Power Company
241 Ralph McGill Boulevard, NE
Atlanta, Georgia 30308-3374

Subject: **Clean Water Act, Section 303(d) Listing of Impaired Waters
An Evaluative Report of the Process
LAW Project No.: 12000-8-0170**

Dear Mr. Wilder:

Law Engineering and Environmental Services, Inc. (LAW) is pleased to submit this letter report to the Georgia Industry Environmental Coalition (GIEC) describing the regulatory and technical processes involved in the development of the Clean Water Act (CWA), Section 303(d) list of impaired waters in Georgia. This report was prepared in accordance with the scope of work (Task 1) described in our October 23, 1998 proposal to the Water Resources Workgroup of the GIEC as authorized by Jim Baker and you on November 20, 1998.

The purpose of this effort is to provide the GIEC membership with contemporary, accurate, and useful information on the 303(d) listing process such that each member can assess potential implications to their respective business operations. The specific objectives of this report are presented below:

1. Provide an overview of the regulatory basis for placing waters on the 303(d) list
2. Summarize the relevant U.S. Environmental Protection Agency (U.S. EPA) technical guidance and policy used in the development of the 303(d) list
3. Evaluate the application of the guidance and policy by the Georgia Department of Natural Resources, Environmental Protection Division (EPD) in the development of Georgia's 303(d) list of impaired waters
4. Summarize the U.S. EPA and EPD perspective on "de-listing" of impaired waters
5. Present a GIEC strategy for addressing 303(d) and related TMDL issues in Georgia

Regulatory Background

To assist GIEC members in cutting through the regulatory haze of acronyms and bureaucratic jargon, a brief overview of the federal Clean Water Act (CWA) programs related to the Section 303(d) listing process is provided. Section 305(b) of the CWA (Water Quality Assessment Program) requires states to prepare a water quality inventory, every five years (formerly every two years), to document the status of water bodies they have assessed. Similar to the 303(d) listing process, Section 304(l) (Impaired Waters Program) requires states to identify, as a "one time" effort, all surface waters adversely affected by toxic, conventional (e.g., BOD, total suspended solids, fecal coliform, oil and greases), and non-conventional (e.g., ammonia and chlorine) pollutants from both point and non-point sources. Section 314(a) (Clean Lakes Program) requires states to identify publicly-owned lakes known to be impaired by point and non-point sources of

pollutants. Section 319 (Non-Point Source Management Programs) requires states to identify waters adversely impacted by non-point sources of pollution. Efforts expended to satisfy the overlapping requirements under sections 305(b), 304(l), 314(a), and 319 contribute greatly to the preparation of 303(d) lists. The comprehensive *Water Quality in Georgia Report* prepared biannually by EPD, incorporates into one document the information (lists) required under CWA Sections 305(b), 303(d), 304(l), 314(a), and 319.

In accordance with Section 303(d)(1), codified in 40 CFR Part 130.7, every two years each state must identify Water Quality-Limited (stream, lake, or estuary) Segments and report them to U.S. EPA. Water Quality-Limited Segments (WQLSs) are impaired waters that do not meet water quality standards. These waters continue to fail to support designated uses (e.g., drinking water supply, recreation, fishing, etc.) due to exceedance(s) of numeric or narrative criteria after application of: 1) technology-based effluent limitations on point sources; 2) more stringent local, state or federal limitations; or 3) other pollution control requirements (e.g., best management practices) that may have been required by local, state, or federal authorities.

As alluded to earlier, the list of WQLSs, referred to as the 303(d) list, is largely a subset of the more comprehensive 305(b) list, codified at 40 CFR Part 130.8, which includes all waters in the state either Supporting, Partially Supporting, or Not Supporting designated uses. Due to the similarity of effort involved in developing the 303(d) and 305(b) lists, U.S. EPA is considering amending the reporting cycle for 303(d) lists from every two years to every five years to coincide with the 305(b) reporting frequency.

In developing the 303(d) list, states must prioritize each WQLS taking into account the severity of the pollution and designated use of the water. In addition, the specific pollutant(s) causing or expected to cause violations of water quality standards must be identified. Importantly, this priority ranking specifically identifies the WQLSs targeted by the state for the development of pollutant-specific Total Maximum Daily Loads (TMDLs) during the next two years, as well as those to be developed in future years. A TMDL is the sum of the municipal or industrial pollutant point source waste-load allocations (WLA) and the land-use associated pollutant non-point source load allocations (LA) combined with an allocated margin of safety (MOS) to account for any lack of knowledge concerning the relationship between point or non-point source controls and water quality. The TMDL represents the maximum pollutant load a specific water body segment can assimilate and still meet water quality standards and support designated uses. If multiple pollutants are responsible for a WQLS designation, then multiple TMDLs have to be developed and implemented. The scope of TMDL development can be "geographically targeted" to address either segments, basins, or watersheds, if necessary, to account for both point and non-point pollutant sources contributing to the impairment.

Section 303(d) Implementation in Georgia

The mandate for U.S. EPA, or delegated states such as Georgia, to prepare 303(d) lists and develop and implement TMDLs has been a requirement of the CWA since the 1970's. Failure to carry-out this mandate in an appropriate and timely manner has resulted in legal actions being taken by environmental public interest organizations against U.S. EPA and several states throughout the country. One such suit was brought under the CWA citizen suit provision against U.S. EPA concerning the TMDL program in Georgia by the Sierra Club in 1995 (Civil Action 1: 94-CV-2501-MHS). Federal Judge Marvin Shoob ruled in favor of the Sierra Club on March 26, 1996 finding that U.S. EPA and the State of Georgia had failed to establish and implement TMDLs for

Georgia's impaired waters as required by the CWA. The Court ordered U.S. EPA to ensure that TMDLs be developed and implemented by the state within five years for all WQLSs identified in Georgia. As ultimately agreed to by Consent Decree between U.S. EPA and the plaintiffs, Georgia intends to develop TMDLs as part of their River Basin Management Planning watershed approach originally adopted in 1992. The River Basin Management Planning process provides the framework and schedule for addressing 303(d)-listed waters in Georgia. The schedule for the development and public proposal of TMDLs for 303(d)-listed WQLSs includes the:

- Savannah and Ogeechee River Basins (on segments listed due to NPDES-permitted point sources) by June 30, 1999
- St. Marys, Satilla, Suwannee, and Ochlockonee River Basins by June 30, 2000
- Ocmulgee, Oconee, and Altamaha River Basins by June 30, 2001
- Chattahoochee and Flint River Basins by June 30, 2002
- Coosa, Tallapoosa, and Tennessee River Basins by June 30, 2003
- Savannah and Ogeechee River Basins (on segments listed due to non-point sources) by June 30, 2004

Thus far, Georgia has completed River Basin Management Plans for the Chattahoochee, Flint, Coosa, Tallapoosa, and Oconee Rivers. Each of these plans set out an approach and schedule consistent with the Consent Decree for developing and implementing TMDLs for the WQLSs within each respective basin. Once TMDLs are developed, they must be implemented within 18 months. Implementation comes in the form of WLA through NPDES-permitted effluent limitations on point sources and LA through comparatively less-structured and less-regulated controls on land use for non-point sources of pollutants.

U.S. EPA Technical Guidance and Policy

Technical guidance and regulatory policy statements and/or memoranda relative to development of 303(d) lists are provided to the states by U.S. EPA on a biannual basis. References commonly cited by Georgia and other states, and reviewed by LAW in the preparation of this report, include:

- *Guidance for Water-Quality-Based Decisions: The TMDL Process*, U.S. EPA, 1991
- *Compendium of Tools for Watershed Assessment and TMDL Development*, U.S. EPA, 1997
- *New Policies for Establishing and Implementing Total Daily Maximum Loads (TMDLs)*, U.S. EPA Memorandum, Robert Perciasepe, U.S. EPA, 1997
- *National Clarifying Guidance For 1998 State and Territory Section 303(d) Listing Decisions*, U.S. EPA Memorandum, Robert H. Wayland III, U.S. EPA, 1997
- *Supplemental Guidance on Section 303(d) Implementation*, U.S. EPA Memorandum, Geoffrey H. Grubbs, U.S. EPA, 1992
- *Guidance for 1994 Section 303(d) Lists*, U.S. EPA Memorandum, Geoffrey H. Grubbs, U.S. EPA, 1993
- *Guidelines for Preparation of the 1996 State Water Quality Assessments 303(d) Reports*, U.S. EPA, 1995
- *Draft TMDL Program Implementation Strategy*, U.S. EPA, 1996
- *Report of the Federal Advisory Committee on the Total Maximum Daily Load (TMDL) Program*, The National Advisory Council For Environmental Policy And Technology, U.S. EPA, 1998

These guidance documents and written policies provide the framework for development of 303(d) lists by the states. Key components of these documents as applicable to the listing or "de-listing" process are summarized as follows:

- Waters are to be listed in accordance with Section 303(d)(1) "if they show non-attainment with water quality standards, including numeric and/or narrative criteria and/or existing or designated beneficial uses".
- Water bodies impaired due to modifications to flow are to be listed in accordance with Section 303(d)(1). Flow-related use-impairments could result from high or low flows due to diversions or other human modifications. (e.g., This could be interpreted to include fish community impacts in flow regulated rivers and/or streams, excessive freshwater inflows to estuarine areas, and saltwater intrusion into freshwater habitats.)
- Water bodies that do not meet water quality criteria for temperature or a designated use due to temperature should be listed whether the source of the pollutant (heat) is due to a thermal discharge or solar radiation. Both are recognized as sources of heat that can be allocated through the TMDL process.
- States may exclude impaired waters from 303(d) listing where existing management measures, including best management practices, have been implemented and water quality standards are expected to be attained in the "near future" (i.e., prior to the required date for the next 303(d) list). Conversely, water bodies currently supporting designated uses, but not expected to maintain such support during the following two years unless preventative actions are taken (i.e., threatened waters) should be identified on 303(d) lists; however, though development of TMDLs for these waters is not required, a "watershed-based loadings analysis" is being recommended by the Federal Advisory Committee on the TMDL program.
- The specific pollutant(s) causing, or expected to cause, exceedance of water quality standards in a water body over the next two years, must be identified by the states. Water bodies impaired by an unknown source must also be listed (e.g., impairment due to a fish tissue contaminant not traceable to a specific source).
- Each WQLS identified must be prioritized for the development and implementation of TMDLs based on the severity of the pollution and the uses to be made of the water.
- The states are directed to consider all "existing and readily available water quality-related data and information" in compiling 303(d) lists. These data should be solicited from various sources including local, state, or federal agencies, the public, and academic institutions.

- The regulations do not differentiate between exceedances of water quality standards based on the source of the pollutant or the ease of which a pollutant can be controlled (e.g., impairment due to atmospheric deposition) in the determination to list an impaired water and develop applicable TMDLs.
- States are not required to list waters whose impairment or lack of designated use attainment is due solely to physical barriers to fish migration.
- The states are required to submit their 303(d) list to U.S. EPA for approval by April 1 of even-numbered years (i.e., biannually).
- Once listed, the states have from 8 to 13 years to complete TMDL development (beginning with the 1998 list). For high priority listed waters, TMDLs must be developed within five years. (Note: In Georgia this schedule has been overridden by Judge Shoob's Consent Decree as earlier described on page two.)
- In the period between listing of a WQLS and TMDL development, states are required to implement restrictions on new or additional discharges that will cause or contribute to an exceedance of water quality standards.

Georgia's Interpretation and Application of 303(d) Guidance and Policy

In compiling Georgia's 303(d) list, EPD used existing and readily available water quality data from 39 sources including data collected by federal, state, and local governments, universities, and power companies. Where applicable to the pollutant of concern, analytical data from Georgia-accredited laboratories were used in making listing determinations. Data provided by citizens' interest and/or volunteer groups (e.g., Adopt-a-Stream) were used for screening purposes and were not relied upon for listing determinations.

The identification of 303(d)-listed waters in Georgia starts with the 305(b) list of waters in the state either Supporting, Partially Supporting, or Not Supporting water quality standards. The specific U.S. EPA guidance documents referenced by EPD to identify 303(d)-candidate waters included two agency memorandums authored by Geoffrey H. Grubbs, (Washington-Office of Water) titled *Supplemental Guidance on Section 303(d) Implementation* (August 13, 1992) and *Guidance for 1994 Section 303(d) Lists* (November 26, 1993). According to EPD's letter transmitting the 303(d) list to U.S. EPA, Georgia waters were evaluated and identified for inclusion on the 303(d) list in the following manner:

1. Georgia waters were designated as either Supporting, Partially Supporting, or Not-Supporting [i.e., "305(b) waters" were identified] based on the following "frequency of exceedance threshold" decision criteria from the 305(b) Water Quality Assessment Program:
 - Where less than 10 percent of sample measurements are in exceedance of established criteria, the water body of interest is designated as "Supporting" water quality standards. These waters were excluded from further consideration for 303(d) listing.

- Where 10 to 25 percent of sample measurements are in exceedance of established criteria, the water body of interest is designated as "Partially Supporting" water quality standards.
 - Where greater than 25 percent of sample measurements are in exceedance of established criteria, the water body of interest is designated as "Not Supporting" water quality standards.
2. Waters Partially Supporting and Not Supporting water quality standards were considered to be 303(d)-candidate waters; however, actual inclusion on the 303(d) list was based on the status of ongoing or planned activities to improve water quality. Numeric status codes were assigned to 303(d)-candidate waters in the following manner:
- A status code of "1" was assigned to 303(d)-candidate segments where enforceable state, local, or federal requirements were completed in 1996-97 that will lead to attainment of water quality standards. Because these segments were included on Georgia's 1996 303(d) list, this action essentially "de-listed" or excluded the segments from the 1998 303(d) list.
 - A status code of "2" was assigned to 303(d)-candidate segments where enforceable state, local, or federal requirements are ongoing and expected to lead to attainment of water quality standards. Again, because these segments were included on Georgia's 1996 303(d) list, this strategy essentially "de-listed" or excluded the segments from the 1998 303(d) list.
 - A status code of "3" was assigned to 303(d)-candidate segments where U.S. EPA, Region 4, had proposed TMDLs in June 1997 and finalized them in February 1998. Only WQLSs "still requiring TMDLs" need be included on the 303(d) list; therefore, these segments were "de-listed" [they were included on the 1996 303(d) list] or excluded from the 1998 303(d) list.
 - A status code of "4" was assigned to 303(d)-candidate segments where U.S. EPA, Region 4, had proposed TMDLs in June 1997 and was expected to finalize them in the second quarter of 1998. [U.S. EPA ultimately disapproved this determination as discussed below.]
 - Remaining 303(d)-candidate segments not falling into the previously defined categories were then designated with an "X" and recognized as Georgia's 303(d) list of impaired waters where TMDLs are required to be scheduled for development and implementation.
3. Prioritization of 303(d)-listed waters was determined as follows:
- Interestingly, EPD placed the highest priority (Priority 1) on 303(d) category "2" status segments. These segments are not considered by EPD to be true 303(d)-listed segments because, according to U.S. EPA guidance, ongoing enforceable actions are expected to resolve water quality impairments. The guidance allows for states to consider programmatic needs when setting priorities. Because EPD has committed to direct the majority of its resources

to complete ongoing pollution control actions and ensure that water quality improvements are achieved, these segments were given the highest priority. Therefore, no 303(d)-listed (designated "X") segments have been assigned Priority 1.

- Priority 2 designations were assigned to true 303(d)-listed (designated "X") segments with multiple data points where metals or other toxic pollutant concentrations, or dissolved oxygen concentrations, were in exceedance of water quality standards.
 - Priority 3 designations were assigned to true 303(d)-listed (designated "X") segments where pollutant (metals and/or fecal coliform bacteria) sources were largely attributable to "general urban runoff and non-point sources". In their 303(d) list transmittal letter to U.S. EPA, EPD cited inadequacy of testing methods for metals and poor correlation of existing bacteriological tests to potential human illnesses as their rationale for prioritization. EPD stressed the imperative need for additional research by U.S. EPA to address these issues.
4. Four water bodies (WQLS) were targeted by EPD for TMDL development over the next two years. Three of the WQLSs are located in the Savannah River Basin and include Beaverdam Creek-Commerce and Bear Creek-Lavonia, each targeted for dissolved oxygen TMDL development, and Rocky Creek-Washington targeted for metal (copper) and aquatic toxicity TMDL development. (Discussions are currently ongoing between EPD and U.S. EPA regarding which agency will take the lead in developing the TMDL for the Rocky Creek-Washington WQLS.) One WQLS located in the Ogeechee River Basin, Taylors Creek-Fort Stewart, was targeted for dissolved oxygen TMDL development. In each case, municipal water pollution control plants (WPCPs) were identified as the point sources of impairment for these WQLSs.

Using the process as described above, EPD identified 470 river/stream WQLSs, 34 lake/reservoir WQLSs, and 6 estuarine WQLSs for inclusion on the 1998 303(d) list. The majority of listed WQLSs resulted from the exceedance of state criteria for fecal coliform bacteria or metals, poor fish communities (though there are currently no applicable "criteria" for fish or aquatic communities) due to urban runoff or non-point sources, or fish tissue contaminants where PCBs, chlordane, or mercury were the cause and whose sources were unknown. A summary of the causative factors for listing is provided in the following table. Clearly, non-point and urban runoff pollutant sources (both, wet weather-related) were the primary factors cited for 303(d) listing, accounting for over 97 percent of the total WQLSs identified. Industrial-related point sources accounted for approximately 4.8 percent of evaluated causes. (Note: Percentages are not additive due to multiple causes cited for some WQLSs.)

Evaluated Cause(s)	Frequency Cited	Percent of Total WQLSs (n=510)
Combined Sewer Overflow	18	3.53
Industrial Facility	12	2.35
Residual From Industrial Source	12	2.35
Marina	0	0
Municipal Facility	40	7.84
Non-Point and Unknown Sources	273	53.53
Urban Runoff/Urban Effects	225	44.12
Shellfish Ban	0	0
Natural	0	0
Dam Release	2	0.39
Lake Fertilization	1	0.20

The initial 1998 303(d) list for Georgia was submitted by Alan Hallum, Chief of EPD's Water Protection Branch, to Robert F. McGhee, Director of U.S. EPA's Water Management Division in Region 4, on April 1, 1998. Upon review, U.S. EPA largely approved EPD's application of guidance and policy in developing the list, but took exception to their decision to exclude 132 WQLSs that received storm-water discharges permitted under the State's General Storm Water Permit [U.S. EPA had approved the exclusion of these same waters from the 1996 303(d)]. Because EPD did not indicate when water quality standards would be attained, U.S. EPA made the determination that the storm-water permits would not result in attainment of applicable water quality standards "in a reasonable timeframe", which they defined through guidance documents and policy statements as two years (i.e., by April 1, 2000). This significant decision was contested by EPD stating that a timeframe for attainment of water quality standards is not specified in the regulations and that U.S. EPA had changed its position from previous listing cycles by establishing a two-year time frame for implementation of actions to achieve water quality standards.

In further action, U.S. EPA disapproved EPD's decision to exclude from the 1998 listing eight segments located below dams with poor dissolved oxygen concentrations that U.S. EPA had proposed for TMDLs in June 1997 and expected to develop "in the near future". As a result of these decisions to disapprove, an additional 140 WQLSs were added to the Georgia 303(d) list for 1998. As required by the regulations, EPD issued Public Notice No. 98-28 on October 23, 1998 seeking public review and comment on the 1998 303(d) list. At this writing, EPD is expecting final approval of the Georgia 303(d) list by U.S. EPA in early January, 1999.

Currently, little progress has been made in the development of TMDLs for the Savannah-Ogeechee point source WQLSs. Based on personal discussions with Kevin Farrell, Coordinator of EPD's, Watershed Planning and Monitoring Program, the decisions to list Bear Creek-Lavonia and Rocky Creek-Washington were initially based on modeling predictions that water quality standards were not being maintained. Since that time, the NPDES permits for the Lavonia and Washington WPCPs have been revised and modeling now predicts attainment of water quality standards. Further, the dissolved oxygen impairments associated with the Taylors Creek-Fort Stewart and Beaverdam Creek-Commerce WQLSs may be reflective of background conditions and not WPCP-related point sources. As a result, TMDLs may not be developed for these WQLSs in 1999 as scheduled and exclusion (de-listing) from the 2000 303(d) list may be sought. The litigious

atmosphere surrounding the TMDL issue in Georgia has created uncertainty about how scenarios such as previously described will ultimately be addressed by EPD and subsequently approved by U.S. EPA.

The preceding discussion notwithstanding, TMDL development in Georgia has been delayed pending receipt of a TMDL technical guidance manual being prepared for EPD by U.S. EPA's contractor Tetra Tech. Existing guidance will most likely be relied upon because the technical manual is not expected to be completed for perhaps six months; too late for use by EPD to meet the June 30, 1999, deadline.

Policy and Perspective on "De-Listing"

The CWA and associated regulations do not directly address the issue of "de-listing" a water body from a 303(d) list. Currently, once a water body has been included on the 303(d) list it can not be "de-listed" per se, rather it must be excluded from subsequent listings. U.S. EPA's *Guidance for 1994 Section 303(d) Lists* provides two instances whereby a previously listed water body may be excluded or removed from a state's 303(d) list prior to development of a TMDL: 1) if the water body meets all applicable water quality standards including numeric and narrative criteria and designated uses, or is expected to meet such standards in a reasonable timeframe (i.e., two years) due to implementation of required pollution controls, or 2) if, upon re-examination, the original basis for listing is determined to be inaccurate. These conditions for removal of a water body from a 303(d) list are supported by the Federal Advisory Committee on the TMDL Program. However, the Federal Advisory Committee goes one step further by recommending that states develop a procedure for submitting listing/de-listing petitions to U.S. EPA between listing cycles. The development and implementation of TMDLs for an impaired water body also results in its exclusion from the 303(d) listing process as only "water-quality limited segments *still* requiring TMDLs" [40 CFR Part 130.7(b)(1)] are required to be listed.

Similarly, a Memorandum of Agreement (MOA) between U.S. EPA and the Tennessee Department of Environment and Conservation (TDEC) regarding the implementation of CWA Section 303(d) stipulates that waters may be removed from the 303(d) list (not between listing cycles) for reasons including, but not limited to: 1) more recent or accurate monitoring data indicating that the water has attained compliance with applicable water quality standards for the pollutant(s) of concern; 2) more sophisticated water quality modeling indicates that the water is not a water quality limited segment for the identified pollutant(s) of concern; 3) flaws to the original analysis that led to the water being listed are identified; or 4) other pollution control requirements are developed for the water and pollutant(s) of concern that will lead to attainment of water quality standards in two years. These four elements for the removal or exclusion of water bodies from the 303(d) listing process are cited consistently throughout U.S. EPA guidance and policy documents.

Based on discussions with Kevin Farrell, additional data collection efforts by industry or other stakeholders would be welcome by EPD. New data for a previously listed WQLS indicating, either directly or through predictive modeling, that water quality standards are now being attained would be evaluated by EPD on a case-by-case basis to determine if the segment could be excluded from subsequent 303(d) lists and, thereby, the TMDL process. The new data would have to be applicable to the causative factor(s) for the initial 303(d) listing. For example, water column chemistry data indicating no exceedances in numeric surface water quality criteria for metals

would not be applicable justification for "de-listing" a WQLS initially established due to instream aquatic toxicity.

Precedent for "de-listing" exists with the U.S. EPA-approved actions taken by EPD during development of the 1998 303(d) list where 14 WQLSs, previously included on the 1996 303(d) list, were "de-listed" or excluded based on new monitoring data that indicated applicable water quality standards were being maintained. Additional waters are likely to be excluded from the 2000 303(d) list due to additional EPD funding for the collection of fecal coliform geometric mean data and agreement with U.S. EPA to not list segments based solely on the one-time detection of metals above numeric criteria.

Georgia has no specific written procedure or policy for "de-listing" or excluding waters from 303(d) listing beyond the technical guidance documents and policy statements issued for all the states by U.S. EPA. According to Kevin Farrell, serious consideration would be given to a procedural document for "de-listing" 303(d)-listed waters developed specifically for Georgia by GIEC or other stakeholders. The objectives of such a procedural document would be to provide, in a single document, consistent guidance that enhances the decision making process for 303(d) listing by ensuring that decisions are based on sound scientific data and regulatory concepts. Public and private resources to address TMDL issues are limited; therefore, every effort should be made to include only those waters that are truly impaired.

Based on the understanding that "de-listing" is actually avoiding being listed in the first place, the attached draft procedural policy document for listing Georgia waters under CWA Section 303(d) is provided for review by the GIEC membership. The procedural policy document, based largely on the listing policy developed by the State of Washington, presents the minimum data requirements and policy considerations for listing water bodies on the Georgia 303(d) list. Upon review and approval by the GIEC membership, the procedural policy document could be submitted to EPD for their consideration at the upcoming TMDL workshop .

GIEC Strategy Regarding 303(d) Listing and TMDLs

As previously discussed, WQLSs impaired due to urban runoff and non-point sources of pollution comprise the vast majority of WQLSs included on Georgia's 303(d) list and should be the primary focus of EPD's TMDL development efforts. Consequently, controls should be directed at land-use practices on a watershed scale. The most likely affected stakeholders include individual landowners and public or private enterprises (possibly some GIEC members with large land holdings) involved in agriculture, forestry or urban development. Industry, however, potentially stands to be adversely impacted in at least two ways: 1) through restrictions on new or additional discharges that could cause or contribute to exceedance of water quality standards and 2) by the threat that EPD, when faced with the need to address both a point and non-point impairment source, will first and inequitably exercise its authority and control over point source discharges (through the NPDES permitting program) before attempting controls on non-point sources where it has the least recognized authority. It is, therefore, imperative that the GIEC membership be informed and remain involved as EPD and U.S. EPA move forward in the 303(d) listing and TMDL development process. To that end, the following suggestions are made:

- GIEC should continue to be actively involved in Georgia's rule making process to ensure that good science and judgment are used in establishing designated uses and developing ambient surface water quality numeric and narrative criteria for the state's

waters. These are the elements of the state's water quality standards upon which determinations of impairment and ultimate 303(d) listing are based.

- GIEC members with either NPDES-permitted discharges to surface waters or that discharge to "privately owned treatment works" (i.e., WPCPs) (or with large land holdings) should review EPD's biannual *Water Quality in Georgia Report* (the 1996-1997 report is due out in the first quarter of 1999) to determine if their (or the WPCP) receiving water body is classified as either Supporting, Partially Supporting, or Not Supporting water quality standards. Regardless of the assigned classification, the rationale or basis for the classification and specifically the characteristics of the data-set supporting the classification, should be thoroughly understood. This knowledge will allow the GIEC member to assess the potential for classifications to change and become subject to 303(d) listing in the next cycle. The necessity for the proactive member to initiate or expand their own targeted instream water quality monitoring programs can also be determined.
- GIEC members should be aware of, and familiar with, any instream water quality monitoring efforts being conducted on their receiving waters by local, state, and/or federal resource agencies, academic institutions, or volunteer citizens' interest groups. Obtain copies of associated reports and water quality data whenever possible.
- Faced with the prospect of 303(d) listing and subsequent TMDL development, consideration should be given to working with EPD and other stakeholders to develop Water Quality Management and Improvement Plans for attaining water quality standards in a "reasonable timeframe", thus avoiding or being excluded from the TMDL development process. [EPD may promote this strategy to exclude some WQLSs from the 2000 303(d) list].

New regulations and associated guidance on the 303(d) listing and TMDL development resulting from the recommendations of the Federal Advisory Committee's review of the TMDL program are expected to be issued for public comment by U.S. EPA during 1999. It is not clear at this time if the new regulations will be a clarification of existing rules or propose entirely new concepts (e.g., mandatory watershed characterization and stabilization plans for listed waters, surrogate measures for TMDLs, measures other than daily loads, and preparation of separate lists and watershed-based loadings analyses for waters identified as "threatened"). The development of these new TMDL regulations, as well as the TMDL guidance document being prepared by Tetra Tech, should be watched closely for their potential impact to the GIEC membership.

LAW appreciates the opportunity to assist you and the GIEC with this important environmental issue. We trust that the GIEC membership will find the information provided in this letter report useful in the development of their respective business strategies for the coming years. We are available to answer any questions you may have and provide further assistance on this issue as requested. You may contact either of us at (770)-421-3400.

Sincerely,

LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

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