

**TO:** Interested Parties

**FROM:** Mimi Drew, Director  
Division of Water Facilities

**SUBJECT:** Guidance for Development of Documentation to Provide Reasonable Assurance that Proposed Pollution Control Mechanisms will Result in the Restoration of Designated Uses in Impaired Waters

The purpose of this memo is to describe the types of information that should be considered, and subsequently documented, when evaluating whether there is sufficient reasonable assurance that:

- 1) proposed pollution control mechanisms (typically described in watershed management or restoration plans) addressing impaired waters will result in the attainment of applicable water quality standards (designated uses) at a clearly defined point in the future, and
- 2) reasonable progress towards restoration of designated uses will be made by the time the next 303(d) list of impaired waters for the basin with the impaired water is due to be submitted to the Environmental Protection Agency (EPA).

There are many site-specific issues related to determining whether reasonable assurance has been provided. Accordingly, this document describes the elements or issues that should be considered when evaluating a submittal or when documenting the basis for the Department's decision, rather than attempting to establish specific criteria on what constitutes reasonable assurance.

It should be noted that the term "reasonable assurance" is used throughout many Department programs and rules, and this guidance specifically addresses the issues related to the "reasonable assurance" provided by proposed pollution control mechanisms. This guidance should not be used to evaluate the meaning of reasonable assurance in other contexts, particularly in permitting decisions.

### Background

The Impaired Waters Rule (IWR), Chapter 62-303, Florida Administrative Code (Identification of Impaired Surface Waters), establishes a formal mechanism for identifying surface waters in Florida that are impaired (do not meet applicable water quality standards) by pollutants. Most waters that are verified as being impaired by a pollutant will be listed on the state's 303(d) list pursuant to the Florida Watershed Restoration Act (FWRA) and Section 303(d) of the Clean Water Act. Once listed, Total Maximum Daily Loads (TMDLs) will be developed for the pollutants causing the impairment of the listed waters. However, as required by the FWRA, the Department will evaluate whether existing or proposed pollution control mechanisms will effectively address the impairment before placing a water on the state's verified list. If the Department can document there is reasonable assurance that the impairment will be effectively addressed by the control measure, then the water will not be listed on the final verified list (other impaired waters that will not be listed include waters with TMDLs and waters impaired by factors not related to pollutants).

### Current Rule Text Relating to Evaluation of Pollution Control Mechanisms

The rule text addressing the evaluation of proposed pollution control mechanisms is as follows:

*62-303.600 Evaluation of Pollution Control Mechanisms*

*(1) Upon determining that a water body is impaired, the Department shall evaluate whether existing or proposed technology-based effluent limitations and other pollution control programs under local, state, or federal authority are sufficient to result in the attainment of applicable water quality standards.*

*(2) If, as a result of the factors set forth in (1), the water segment is expected to attain water quality standards in the future and is expected to make reasonable progress towards attainment of water quality standards by the time the next 303(d) list is scheduled to be submitted to EPA, the segment shall not be listed on the verified list. The Department shall document the basis for its decision, noting any proposed pollution control mechanisms and expected improvements in water quality that provide reasonable assurance that the water segment will attain applicable water quality standards.*

Responsible Parties for Reasonable Assurance Demonstration

It is ultimately the Department's responsibility to assure adequate documentation in the administrative record whenever the Department decides to not list an impaired water segment for a given pollutant. This documentation will be very important because verified lists will be adopted by Order of the Secretary and third parties will be provided an opportunity to challenge, via an administrative hearing, all listing decisions (both those listing a water and those to not list a water for a given pollutant). However, the Department expects local stakeholders (including state and local government) will prepare the necessary documentation to demonstrate reasonable assurance that their proposed control mechanisms will restore a given water body. The Department will provide guidance to stakeholders on what information is needed and how it should be submitted.

Time Frame for Development of Documentation

The Department will prepare basin-specific verified lists as part of its Watershed Management Cycle, which rotates through all of the state's basins over a five-year, five phased cycle<sup>1</sup>. During the first phase of the cycle, the Department will assess water quality in the basin and prepare a draft planning list of potentially impaired waters in the basin. The Department and interested parties will then have approximately one year (Phase 2) to monitor waters on the planning list and prepare documentation, as appropriate, to provide reasonable assurance that impaired waters will be restored. The Department will review submittals from interested parties during Phase 2, before adopting the verified list for the basin containing the water segment in question.

What it Means to be Under Local, State, or Federal Authority

Both the FWRA and the IWR require that the pollution control programs under consideration be "under local, state, or federal authority." A pollution control program will be considered "under local, state, or federal authority" if the program is subject to or required by a local ordinance, state statute or rule, or federal statute or regulation.

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<sup>1</sup> Federal regulations currently call for state 303(d) lists every two years, but Florida plans to submit annual updates based on the basin-specific verified lists.

Programs will also be considered under local, state, or federal authority if they are subject to a written agreement, signed by both local stakeholders and at least one governmental entity, that includes measurable goals, performance criteria, benchmarks, and back-up corrective actions to assure the further progress of the program. It is important to note that these written agreements do not need to be enforceable for non-regulated nonpoint sources.

Many nonpoint sources are currently outside of the regulatory programs of EPA, the Department, and the Water Management Districts, and reductions at these nonpoint sources will be voluntary. In fact, pollution control mechanisms for these nonpoint sources would be voluntary even if a TMDL were developed. As such, these agreements may provide the same level of reasonable assurance that can be provided for a TMDL implementation plan as long as they maintain the Department's enforcement capability over all point (regulated) sources involved.

#### Time Frame for Attaining Water Quality Standards

The FWRA and the IWR do not establish a specific time limit by which waters must attain applicable water quality standards or designated uses. However, the pollution control mechanisms or watershed restoration plan must provide reasonable assurance that designated uses will be met at some time in the future. As such, the documentation submitted to the Department must provide a specific date by which time designated uses are expected to be restored. In cases where designated uses will not be met for many years, the documentation should also provide justification as to why the specified time is needed to restore designated uses.

#### Parameter Specific Nature of Demonstration

To not place an impaired water segment on the verified list, reasonable assurance must be provided for each pollutant that has been documented to cause impairment of the water segment. However, some entities, including the Department, may want to provide reasonable assurance addressing only selected pollutants, which could result in the Department not listing the water segment for those pollutants, but still listing it for others. In this event, TMDLs will only be developed for the remaining listed pollutants.

#### Information to Consider and Document when Assessing Reasonable Assurance in the IWR

To provide reasonable assurance that existing or proposed pollution control mechanisms will restore designated uses, the following information should be evaluated and documented for the Administrative Record:

- (a) **A Description of the Impaired Water** - name of the water listed on the verified list, the location of the water body and watershed, the watershed/8-digit cataloging unit code, the NHD identifier (when they become available), the type (lake, stream, or estuary) of water, the water use classification, the designated use not being attained, the length (miles) or area (acres) of impaired water, the pollutant(s) of concern (those identified as causing or contributing to the impairment), and the suspected or documented source(s) of the pollutant(s) of concern.
- (b) **A Description of the Water Quality or Aquatic Ecological Goals** - a description of the water quality-based targets or aquatic ecological goals (both interim and final) that have been established for the pollutant(s) of concern, the averaging period for any numeric

water quality goals, a discussion of how these goals will result in the restoration of the water body's impaired designated uses, a schedule indicating when interim and final targets are expected to be met, and a description of procedures (with thresholds) to determine whether additional (back-up) corrective actions are needed.

- (c) **A Description of the Proposed Management Actions to be Undertaken** – names of the responsible participating entities (government, private, others), a summary and list of existing or proposed management activities designed to restore water quality, the geographic scope of any proposed management activities, documentation of the estimated pollutant load reduction and other benefits anticipated from implementation of individual management actions, copies of written agreements committing participants to the management actions, a discussion on how future growth and new sources will be addressed, confirmed sources of funding, an implementation schedule (including interim milestones and the date by which designated uses will be restored), and any enforcement programs or local ordinances, if the management strategy is not voluntary.
- (d) **A Description of Procedures for Monitoring and Reporting Results** – a description of the water quality monitoring program to be implemented (including station locations, parameters sampled, and sampling frequencies) to demonstrate reasonable progress; quality assurance/quality control elements that demonstrate the monitoring will comply with Chapter 62-160, F.A.C.; procedures for entering all appropriate data into STORET; the responsible monitoring and reporting entity; the frequency and format for reporting results; the frequency and format for reporting on the implementation of all proposed management activities; and methods for evaluating progress towards goals.
- (e) **A Description of Proposed Corrective Actions** – a description of proposed corrective actions [and any supporting document(s)] that will be undertaken if water quality does not improve after implementation of the management actions or if management actions are not completed on schedule, and a process for notifying the Department that these corrective actions are being implemented.

#### Water Quality-Based Targets and Aquatic Ecological Goals

Some of the most important elements listed above are the requirements to provide water quality-based targets or aquatic ecological goals and a discussion on how resultant pollutant(s) reduction targets/goals will result in restoration of designated uses. Some people have expressed concern about these targets because they equate a water quality-based restoration target with a TMDL (thus assuming a “Catch 22” that a TMDL is needed to make a demonstration that a TMDL is not needed). However, as is also the case for TMDLs, water quality based targets can take many forms, and need not be a result of a complex hydrodynamic/water quality model.

In some cases, there may be sufficient historical data (paleolimnological data, loadings from periods pre-dating the impairment, or baseline data for Outstanding Florida Waters<sup>2</sup>, for example) that could be used to determine an appropriate water quality target. In other cases, simplified modeling (including regression analysis) may allow for conservative estimates of the assimilative capacity that could then be used as the basis for restoration goals. And finally, a water quality target may have been developed that would be scientifically equivalent to (or act

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<sup>2</sup> Baseline data would be data for the year prior to designation of the OFW.

as the basis for) a TMDL, but the target has not been administratively adopted as a TMDL. In each of these cases, a sound water quality target could be used to evaluate whether the proposed pollution control mechanisms will sufficiently reduce loadings to meet the assimilative capacity of the water in question and result in attainment of designated uses.

### Interim Targets

Because it will usually take many years to fully restore the designated uses of an impaired water, interim water quality targets will often be needed to measure whether reasonable progress is being made towards the restoration of designated uses. Examples of such interim targets are provided in the last section of this document, but site-specific measures are also encouraged.

### Averaging Periods for Water Quality Targets

While the averaging period for water quality based targets should be consistent with how the underlying standard is expressed, they can often be expressed in a variety of ways and need not be expressed as “daily loads.” Annual averages or medians are often appropriate for some parameters, but shorter term (seasonal, for example) averages may be necessary if the impairment is limited to specific seasons or parts of the year. Multi-year averages may be appropriate in limited circumstances where there is naturally high variation of the water quality target.

### Estimates of Pollutant Reductions from Restoration Actions

It will often be difficult to precisely estimate the pollutant reductions that will result from specific restoration activities. This is particularly true for the implementation of Best Management Practices (BMPs) for nonpoint sources. However, to provide reasonable assurance that a BMP or other restoration action will reduce loadings of the pollutant of concern to a level that will restore the water’s designated uses, documentation should address how the reductions were calculated, including providing documented values from the scientific literature for reductions attributed to similar management actions. If the expected reductions are expressed as a range, the mid-point of the range should be used as the basis for estimating reductions, unless documentation is provided supporting the use of different removal efficiencies in this specific application.

### New Sources/Growth

Another key element is the discussion on how future growth and new sources will be addressed. Restoration goals must address possible increased loadings of the pollutant of concern that are anticipated due to population growth or land use changes in contributing watersheds, both from point and nonpoint sources. This will be particularly important for waters impaired by nutrients given that so many Florida watersheds are faced with continuing urban, residential, and agricultural development that results in increased nutrient loading from stormwater, septic tanks, and wastewater discharges.

### Examples of Reasonable Progress

The determination of whether there will be reasonable progress towards attainment of water quality standards will be very site- and pollutant-specific. Documentation should be provided

supporting specific progress towards restoration of the designated uses of the impaired water. Possible examples of reasonable progress include, but are not limited to:

- (a) A written commitment to implement controls reducing loadings within a specified time frame from watershed stakeholders representing at least 50% of the anthropogenic load of the pollutant(s) of concern;
- (b) Evidence of at least a ten percent reduction (or alternatively, a percent reduction consistent with meeting the water quality target by the specified date) in annual anthropogenic loading of the pollutant(s) of concern;
- (c) Evidence of at least a ten percent decrease (or alternatively, a percent decrease consistent with meeting the water quality target by the specified date) in the annual average concentration of the pollutant(s) of concern in the water;
- (d) Bioassessment results showing there has been an improvement in the health of the biological community of the water, as measured by bioassessment procedures similar to those used to determine impairment and conducted in similar conditions; or
- (e) Adoption of a local ordinance that specifically provides water quality goals, restricts growth or loads tied to the pollutant(s) of concern, and provides an enforcement option if the proposed management measure(s) are not implemented as required.

Reasonable progress must be made by the time the next 303(d) list is due to be submitted to EPA, which is currently every two years. EPA has contemplated changing the listing cycle to every four or five years, and the IWR was specifically worded to allow a longer time frame for requiring reasonable progress in the event that the listing cycle changes.

#### Long-Term Requirements

If at any time the Department determines that Reasonable Assurance and Reasonable Progress are not being met, the order adopting the verified list will be amended to include the water body on the verified list for the pollutant(s) in question. Additional reasonable progress must be made each time a water body is considered for listing under Chapter 62-303, F.A.C. (every five years).

If you have any questions about this guidance memo, contact Daryll Joyner of the Bureau of Watershed Management in Tallahassee at 850-245-8431.

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