

# Florida Department of Environmental Protection

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**SUBJECT:** 

Guidance on Springs Project Funding

DATE:

October 17, 2017

In 2016, the Florida Legislature recognized the critical importance of Florida's freshwater springs and identified a long-term funding source for the restoration, protection, and management of these unique natural resources. To that end, Florida's Department of Environmental Protection (Department) and the water management districts (Districts) share an important responsibility to identify springs projects that will help improve water quality, increase water flow and protect habitat in these extraordinary and iconic spring systems.

The selection of springs projects that will receive funding in any given year is based upon the consideration of a number of factors including nitrogen and sediment reduction, quantity of water saved or made available, readiness to proceed and cost-sharing and leveraging opportunities (including District, local government, and third-party matching funds). To ensure that all funding requests are publicly vetted and include the same information and criteria so to engender consistent and comparable consideration, we have prepared Springs Funding Guidance (Guidance) to facilitate the submittal process and bring clarity to the selection of projects that provide the greatest environmental benefits and the most favorable return on state investment.

Included in the Guidance is a project spreadsheet with specific criteria for data entries that must be completed for a project to be considered and eligible for funding. To assist with responses, the Guidance includes instructions and narrative descriptions that can be referenced to articulate and format each particular entry. In addition, each submittal must be accompanied by Geographic Information System (GIS) data, as further described in the Guidance.

# Eligibility

Eligible projects include land acquisition intended to protect springs, and capital projects that protect the quality and quantity of water that flows from springs. This would include any viable springs protection, restoration or management projects, such as:

- Agricultural Best Management Practices (BMPs)
- Water Conservation
- Hydrologic Restoration
- Land Acquisition
- Reuse
- · Wastewater Collection and Treatment; and
- Stormwater

This list is not intended to be exhaustive, and the Department will certainly consider innovative approaches and efficiencies that further the intended goal. Feasibility studies or other types of analysis, data collection, or environmental review are not eligible pursuant to budget proviso.

# Procedural Requirements

Springs funding requests must be submitted through the appropriate water management district, irrespective of whether the District is contributing funds, and only after approval by the Governing Board during a publicly-noticed meeting. This will ensure that there is public support for the project, and confirm that it has been reviewed through a District process. Governing Board action is also important in recognizing the value of multi-year plans, including budget allocations, land acquisition, and any additional construction phases contemplated. Although this process does not presuppose that all beneficial projects within the District will be afforded a cost-share allocation, the Department is relying on the Governing Boards to submit essential restoration projects regardless of District contribution.

Districts should begin the solicitation process in late fall to early winter, leaving ample time for responses, review, public notice, and Governing Board approvals prior to submittal to the Department in early May. This schedule will allow for Department review and project selection by June or July, with award announcements expected between late July and early August.

Spreadsheet submittals must be fully completed as missing or incomplete information may eliminate the project from funding consideration. As these documents are public records, please

pay special attention to the project's description and benefits so that the intent is precisely articulated.

# Special Consideration

To demonstrate the commitment to long-term springs restoration efforts, the Department will continue to encourage and fund subsequent years of any local government's multi-year plan, particularly when it relates to wastewater treatment, septic systems, and reuse of reclaimed water. This policy should help to build predictability at the local level, and present opportunities for rural and financially disadvantaged communities.

This document provides guidance for the Water Management Districts in their submittal of Springs Funding Requests to the Department of Environmental Protection.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
October, 2017

# Springs Funding Template Purpose and General Guidance

The Florida Department of Environmental Protection (DEP or Department) coordinates the development of springs project funding with the Water Management Districts (WMDs or Districts). While details on the submittal expectations are set forth in detail in this document, below are key elements to keep in mind throughout this process.

- The proviso language associated with the springs appropriation provides that funds
  may be used for land acquisition to protect springs and for capital projects that protect
  the quality and quantity of water that flow from springs.
- Project benefits include: nitrogen reduction, sediment reduction, quantity of water made available, and acres acquired. Each project submitted must have at least one project benefit.
- All data elements in the spreadsheet must be addressed, even if the answer is not applicable or "N/A." Incomplete submittals may be eliminated from consideration.
- Match is an important aspect of springs funding and Districts and local project sponsors
  are expected to meet this match commitment. This will be documented in a final report
  at the end of a grant period.
- Completion of springs projects is important. Local project sponsors and the Districts will provide a quarterly update on the status of projects selected for funding.
- The project submittal spreadsheet must be written in clear, concise and publiclyunderstood language and should be double-checked for accuracy.

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# I. Foreword

The Florida Legislature has recognized the critical importance of Florida's freshwater springs and identified a long-term funding source for the restoration, recovery, protection, and management of these unique natural resources. To that end, the Department and the Districts share an important responsibility to identify springs projects that will help improve water quality, recharge water flow and protect habitat in these extraordinary and iconic spring systems.

This guidance document has been developed to assist with the selection of projects for springs funding provided by the Legislature. It has been designed to provide the Districts with the key data elements and clear policy direction that is intended to result in consistency when collecting and submitting springs projects for funding consideration.

# II. Introduction

# A. Project Eligibility

The legislative appropriation for springs projects contains the following proviso language:

"Funds... may be used for land acquisition to protect springs and for capital projects that protect the quality and quantity of water that flow from springs."

Eligible projects are categorized in the following high-level project types:

- Agricultural Best Management Practices (BMPs)
- Water Conservation
- Hydrologic Restoration
- Land Acquisition
- Reuse
- Wastewater collection and treatment
- Stormwater
- Other Water Quality
- Other Water Quantity

This list is not intended to be exhaustive but provides a high-level roll up of category types. Within each type listed above there may be multiple project sub-types. Eligible projects, however, do not include feasibility studies or other types of analysis, data collection, or environmental review.

# B. Project Selection By the Department

The selection of springs projects that will receive state funding in any given year is based upon the Department's consideration of factors including:

<sup>&</sup>lt;sup>1</sup> See Ch. 2017-70, Laws of Florida, Specific Appropriation 1606.

- Nutrient reductions or measurable improvements in water quality
- Water savings or measurable water quantity improvements
- Cost sharing and leveraging opportunities referred to as "match"
- Readiness to proceed in a timely manner
- Proximity to primary focus areas (PFAs) or springs
- Cost effectiveness.

Factors to be considered for land acquisition include:

- Proximity to primary focus areas (PFAs) or springs
- Location within a BMAP area
- Recharge potential
- Current land use
- Manageability

To the extent applicable, each of these factors should be explained in the project description for any land acquisition project.

In addition, it is important that springs funding is used to support the Department's and Districts' efforts to achieve water quality standards and minimum flows and minimum water levels (MFLs). Therefore, special consideration is given to those project commitments contained in a restoration, prevention or recovery plan such as Basin Management Action Plans (BMAP), a BMAP annual update (or intended to be included in the next BMAP annual update), Reasonable Assurance Plans, and MFL Recovery or Prevention Strategies. Additional consideration will be given to those projects that are included in an MFL Recovery or Prevention Strategy for Outstanding Florida Springs. While projects benefitting either BMAPs or MFLs will be afforded special consideration, one type of project will not be prioritized over the other. This special focus will not only further restoration efforts in areas of established priority, but will also encourage communities to submit these much-needed projects due to the availability of enhanced funding consideration.

The Department supports those projects that are part of a local project sponsors' long-term strategy to address water quality or water supply issues. The Department may identify multiple phases of such long-term strategies for funding in multiple years subject to future legislative appropriations. See Section III.D. of this guidance and Appendix B. This policy should help build predictability at the local level, and present opportunities for rural and financially disadvantaged communities.

Finally, it is important that springs projects stay on schedule and on budget. The Department will provide guidance on the manner in which the Districts provide quarterly status updates of prior year springs projects. The Department may consider prior performance (e.g., meeting timelines and match commitments) of local project sponsors and Districts in its evaluation process.

# III. Development of the District Funding Request

#### A. District Procedure Overview

All springs funding requests must be submitted through the appropriate water management district, regardless of whether the District is contributing funds. These projects are predominately those with a local sponsor for which the project has been evaluated by the District's Governing Board. Projects submitted directly to the Department that did not go through the District solicitation and the District's Governing Board approval process will not be considered for funding. The District may additionally propose projects for which there is no local sponsor, but for which the District is the entity responsible for implementing the project, so long as the District's Governing Board considered the project alongside the other springs projects.

The Districts may use their cost share program solicitations to solicit springs projects. The Districts should begin the solicitation process in late fall to early winter, leaving ample time for responses, review, public notice, and Governing Board approvals prior to submittal to the Department in early May. This schedule will allow for the Department's review and project selection by June or July, with award announcements in late July to early August.

The District should consider the project selection factors identified in Sections II and III in their review. The project submittal spreadsheet (not just general discussion of the projects) must be approved by the Governing Board during a publicly-noticed meeting prior to submittal to the Department. This will ensure that the project has been solicited and reviewed through a public process. Governing Board consideration is also important in recognizing the value of multi-year plans, including budget allocations, land acquisition, and any additional construction phases contemplated. Again, this process does not presuppose that all beneficial springs restoration projects within the District will be afforded a cost-share allocation. The Department is, however, relying on Governing Boards to submit much needed restoration projects regardless of District contribution.

Spreadsheets must be fully completed, and if information is missing or incomplete, the project may be eliminated from funding consideration. In addition, the Department requests that the Districts submit Geographic Information System data (vector) for each project as further described in <a href="section C.1">section C.1</a>. The project location in the GIS file should be consistent with the latitude/longitude information submitted in the spreadsheet.

Once springs projects are selected, the Districts will provide routine updates to the Department for all projects for which the District is providing any funding or for which the District is the contracting entity. (The Department will seek routine updates from local project sponsors for all projects in which there is no District funding and for which the contract is directly between the Department and the local sponsor.)

Note that if a project falls through or the state funding for a project is reduced, the funds will be returned to the Department to reallocate to other projects. Neither the Districts nor local sponsors should assume the funds will be redirected to another project in the District, county, or municipality.

Because the Department intends to fully commit the springs funding each year, the Department cannot commit to providing additional funding for increased project costs. The District or its cooperator should assume that cost overruns will be the responsibility of the local project sponsor or the District.

## B. Match

Match is intended to reflect how the Department's springs funding has been leveraged with other resources. Dollar amounts reported for match must be accurate; avoid double-counting and ensure ability to confirm the dollar amounts identified in the matching funds. Match will be tracked and reported by the Department for springs projects and, as such, the District must be committed to, and able to confirm these numbers at the time of project submittal and at project completion.

The Department recognizes that certain communities, such as Rural Economic Development Initiative (REDI) communities, have less ability to provide match funding and that grant funding remains an important part of ensuring these communities are able to contribute to springs restoration and recovery. Identifying projects that can take place over multi-year periods may benefit these communities. The Department asks that Districts identify economically disadvantaged communities in the "Local Government" field (and state the designation type in parenthetical) and the Department will take the information into consideration during project selection.

There are four types of match: cash, in-kind efforts, companion projects, and other. Each of those types is defined below for both the Districts and for the local sponsor.

- Primary District Match:
  - 1. Cash (District funding e.g., District cost-share program funding)
  - 2. In Kind Efforts (District staff time directly related to the planning, implementation, supervision and completion of the project subject to review by the Department)
  - 3. Companion Projects (Costs of a companion project e.g., costs associated with a wastewater treatment plant upgrade that was required to accommodate a septic to sewer project)
  - 4. Other (Other District match not listed above, if any; e.g., prior land acquisition by the District related to the project)
- Primary Local Match:
  - 1. Cash (Local government cash funding e.g. local government appropriation or line item funding)
  - 2. In Kind Efforts (Local staff time directly related to the planning, implementation, supervision and completion of the project subject to review by the Department)
  - 3. Companion Projects (Costs of a companion project e.g. costs associated with a wastewater treatment plant upgrade that was required to accommodate a septic to sewer project)
  - 4. Other (Other Primary Local Match not listed above, if any; e.g., prior land acquisition by local government related to the project)

Guidance on what match may and may not include is provided in the below chart.

Match MAY include:	Match MAY NOT include:
Any of these items that have not been	× Prior DEP springs funding
previously counted towards match:	× Any cost identified to the left that was
✓ Legislative appropriations	previously counted towards match to any
<ul> <li>✓ Costs of a companion project (e.g. costs</li> </ul>	DEP springs funded project
associated with a wastewater treatment	× Future funding that may be requested from
plant upgrade that was required to	DEP
accommodate a septic to sewer project)	× Future funding that may be added by the
✓ WMD and local staff time directly related	WMD or local project sponsor, without a
to the planning, implementation,	definitive commitment for the funding
supervision and completion of the project	
(subject to review by DEP)	
✓ Costs associated with prior phases of a	
project that were <i>not</i> funded by DEP	ACM HIGHER SOAN ACCUSORS IN STREET, THE
springs funding	<b>全体特别是公司 地名美国西班牙斯特里</b>
✓ WMD or local government cash funding	MARIL SALVENING TO DESCRIPTION OF STREET
(e.g. WMD cost share program funding;	streng an elimital increase line hadencess
local government appropriation or line	entropy ( set) ambiguation and seed of sets
item funding)	this larger with all particularities properties being
✓ Third party cash contributions (e.g. not-for-	t will the handstrange all bus thought a let
profit providing cash funding towards land	and the second s
acquisition)	
✓ Federal funding (e.g. State Revolving Fund	the familiary of the school and the first specific
loans; 319 nonpoint source grants)	magnitude of the Andrew Society business as the s
✓ Non-DEP state funding	
✓ Costs of design, permitting and	abusta papa (Fragent)
engineering the project incurred by the	all the former sections of the section of the secti
local government or WMD	
✓ Cost of land acquisition if the purchase of	to minimum um municipania
land is necessary for project completion	A CONTRACTOR OF THE PARTY OF TH
(e.g. purchasing land for a new lift station)	
✓ Connection fees applied to the project	

# C. District Submission - Springs Project Submittal

As part of the District's Springs Project Submittal, the Department has identified key data elements required for each project that must be collected by the Districts and approved by the Governing Boards prior to submittal to the Department. This information is set forth in the springs submittal spreadsheet, a screenshot of which appears in Appendix A.

#### 1. General Guidance

The use of the word "project" in the Springs Project Submittal refers to those activities associated only with this funding request. If this funding request is part of a larger, multi-year project, additional information will be requested for what is termed the "complete project."

The district must follow the definitions and instructions included in this guidance and must present a complete submittal for the Department's review. Information needs to be written for public understanding and attention should be paid to accuracy, spelling, grammar, acronyms, consistency, and the messaging to the public. Each project submitted must have at least one project benefit. Project benefits include: nitrogen reduction, sediment reduction, quantity of water made available, and acres acquired. All data elements in the spreadsheet must be addressed, even if the answer is "not applicable" or "N/A." Incomplete submittals may be eliminated from consideration.

Finally, the Department requests that the Districts submit Geographic Information System data (vector) for each project. For a single project that include multiple points, consider whether a polygon may be appropriate. One file may be submitted containing all projects. The project location in the GIS file should be consistent with the latitude/longitude information submitted in the spreadsheet.

# 2. Specific Guidance

Specific directions for each of the columns in the submittal are provided below.

I. Contact Information						
Lead Water Management District Name	Local Government	WMD Project Manager Name, Phone and Email				
Please provide the lead WMD only, (i.e. the WMD contracting with DEP)	Please identify the local project sponsor (local government) completing the project. If a REDI or other designated economically disadvantaged community, please include designation in parentheses after name (e.g., County Name (REDI Community))	Please provide the first and last name, phone number, and email of the WMD project manager				

II. Spring Information						
Spring Name	Does the Spring have an Impairment? If so, does it have a BMAP?	Does the Spring have an MFL, and, if so, is it in recovery or prevention?				
Please provide the name of the Spring that will receive the primary benefit of the project.	Drop Down: 1) No Impairment; 2) Impairment, No BMAP or RAP; 3) BMAP or RAP	<b>Drop Down:</b> 1) No MFL; 2) MFL – Meeting, 3) MFL – Prevention; 4) MFL - Recovery				

III. Project Information						
Project Name	County	Project Location - Latitude of project	Project Location - Longitude of project			
Provide the project name. If project is included in a BMAP, BMAP Annual Report, RAP or MFL Recovery/Prevention (R/P) Strategy, the name should match so it can be easily cross-referenced	List the county or counties in which the project actually lies. Do not include all counties the project benefits.	Provide the latitude coordinate using the two- decimal point format	Provide the longitude coordinate using the two-decimal point format			

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Project Type	Project description	Is the Project Listed in a BMAP (or Annual Update)?	Is the Project Listed in a Recovery/Prevention Strategy or Identified in a Regional Water Supply Plan as Benefitting an MFL?
Drop Down: 1) Agricultural Best Management Practices (BMPs) 2) Water Conservation 3) Hydrologic Restoration 4) Land Acquisition 5) Reuse 6) Wastewater collection and treatment 7) Stormwater 8) Other Water Quality 9) Other Water Quantity	A brief narrative describing the size, purpose and benefits of the project. What does the project do and why is it being done? For land acquisition, ensure the project description includes information on all applicable factors listed in Section II.	Drop Down: 1) Yes; 2) No; 3) No, but intended to be incorporated in next BMAP Annual Update	<b>Drop Down:</b> Yes or No

	IV. Water Quality	ASSESSED OF THE PARTY OF THE PA	V. Wat	VI. Land Acquisition	
Does this Project Have Water Quality Benefits?	N Reduced (lbs/yr)	Sediment reduced (in lbs/yr)	Does this Project Have Water Quantity Benefits?	Quantity of Water Made Available (MGD)	Acres to be Acquired
<b>Drop Down:</b> Yes or No	Please provide the anticipated reduction of nitrogen using pounds per year (lbs/yr). See "Estimating Nitrogen Load Reductions from Springs Restoration Projects" guidance in Appendix C.	Please use the U.S. EPA's free, downloadable and customizable "Spreadsheet Tool for the Estimation of Pollution Load" (STEPL).	<b>Drop Down:</b> Yes or No	Please provide the anticipated quantity of water made available using million gallons per day (MGD). See "Guidance to Develop the Quantity of Water Made Available" in Appendix D.	Please provide the number of acres the district intends to acquire via fee acquisition or conservation easement. See Guidance to Identify Estimated Acreage for Land Acquisition Projects.

VI. Project Time and Cost						
State Funding Requested	Local Match	WMD Match				
How much DEP springs funding is required? This is the amount of DEP springs funding requested for this project submittal for this fiscal year. It does NOT include other funding needed to complete the project (e.g. WMD or local match) and does NOT include prior years of springs funding or funding for other future phases of the same project.	How much local match is committed to this project? This represents the local project sponsor's contribution towards this project for this fiscal year including Cash, In Kind Efforts, Companion Projects, and Other. See also section III.B. of this guidance.	How much WMD match is committed to this project? Thi represents the water management district's contribution towards this project for this fiscal year including Cash, In Kind Efforts, Companion Projects, and Other. See also section III.B. of this guidance.				

VI	VII. Other			
Third Party Match	Anticipated Start Date	Anticipated End Date	Is this a multi- year project?	Additional Information
Third party match: This reflects a third party's contribution towards this project for this fiscal year.  See also section III.B. of this guidance.	Please provide the anticipated project start date associated with this funding request.	Please provide the anticipated project end date associated with this funding request.	Drop Down: Yes or No.  If yes, complete Multi-Year Project Fiscal Spreadsheet. See also section III.D. and Appendix B.	Any additional information that would be beneficial in evaluating the project.

# D. District Submission - Multi-Year Project Fiscal

Districts must complete the Multi-Year Project Fiscal spreadsheet to identify funding for multi-year projects over the next five years. Each project the District identified as multi-year in section VI., *Project Time and Cost*, in the Springs Project Submittal spreadsheet must be included. The multi-year project fiscal spreadsheet includes three sections: **Section I**, an auto-populated totals section; **Section II**, a detailed breakout for Years 1 and 2; and **Section III**, a general breakout for Years 3, 4, and 5.

While each year is required to be broken out individually in the spreadsheet, instructions below break them out by section since the instruction for each section is the same. See <u>Appendix B</u> for a screen shot of the spreadsheet.

I. Total Project Cost							
DEP/State Funding Amount	Local Match Amount	WMD Match Amount	Third Party Match	TOTAL Project Cost			
These columns will auto populate based on information in the Years 1 – 5 breakout. There is no need for the district to enter information into these columns.							

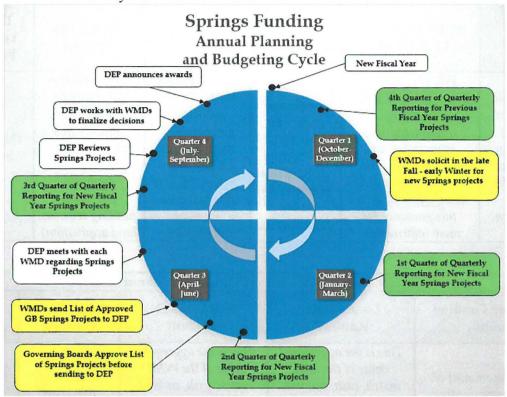
CILYRUTA DO	II. Year (1/2) – Project Funding Breakout						
DEP/State Funding Amount	Local Match - Cash	Local Match - In-kind Efforts	Local Match - Companion Projects	Local Match - Other			
This is the amount of DEP springs funding requested for Year (1/2)	Local government cash funding for Year (1/2). See <u>Section</u> <u>III.B</u> . of this guidance for more information.	Local staff time directly related to the planning, implementation, supervision and completion of the project for Year (1/2). See Section III.B. of this guidance for more information.	Costs of a companion project for Year (1/2). See Section III.B. of this guidance for more information.	Other Primary Local Match not listed previously, if any, for Year (1/2). See Section III.B. of this guidance for more information.			

	II. Year (1/2) - Project Funding Breakout (Continued)						
WMD Match - Cash	WMD Match - In- kind Efforts	WMD Match - Companion Projects	WMD Match - Other	Third Party Funding	TOTAL Year (1/2) Funding		
WMD cash funding for Year (1/2). See Section III.B. of this guidance for more information.	WMD staff time directly related to the planning, implementation, supervision and completion of the project for Year (1/2). See Section III.B. of this guidance for more information.	Costs of a companion project for Year (1/2). See Section III.B. of this guidance for more information.	Other Primary WMD Match not listed previously, if any, for Year (1/2). See Section III.B. of this guidance for more information.	This reflects a third party's contribution towards this project for Year (1/2) (e.g. notfor-profit providing funding towards land acquisition)	This column will auto total		

	III. Year (3/4/5) - Pro	ject Funding Breakout		
DEP/State Funding Amount	Local Match Amount	WMD Match Amount	Third Party Funding	TOTAL Year 3 Funding
This is the amount of DEP springs funding requested for Year (3/4/5)	This is the aggregated value of the local match, cash, in-kind, companion projects, and other, for Year (3/4/5)	This is the aggregated value of the WMD match, cash, in-kind, companion projects, and other, for Year (3/4/5)	This is the amount of third part funding for Year (3/4/5)	This cell will auto total

# E. Process Cycle and Milestones

# 1. Process Cycle



# 2. Milestones

DATE	MILESTONE
October 1st	New WMD Fiscal Year Begins
Late Fall or Early Winter	WMDs solicit projects for cooperative funding
April - Early-May	Governing Boards approve springs submittal spreadsheet before sending to DEP
Early May	WMDs submit list of Governing Board-approved projects to DEP for consideration
June-July	DEP meets with each WMD regarding projects
Mid-July	DEP reviews Springs projects
July-August	DEP works with WMDs to finalize decisions
August	DEP announces Springs projects
Post-August	Evaluation of process
January 15th	1st Quarter of Springs Quarterly Reporting
April 15th	2nd Quarter of Springs Quarterly Reporting
July 15th	3rd Quarter of Springs Quarterly Reporting
October 15th	4th Quarter of Springs Quarterly Reporting

# F. Project Selection and Announcement

The District project submittal spreadsheet will be reviewed by the Department, who may contact the Districts with questions about the information submitted. Once the Department's internal selection process is completed, the Deputy Secretary will notify the Districts' Executive Directors of the final project selections and the Department staff will work with District staff on the public announcement.

# 1. Overall Springs Funding Amount Announcement

The Department will develop and coordinate the overall statewide announcement of the total springs funding amount from the Governor's budget. This announcement will include descriptions of select example springs projects from the Districts' and the Department's approved list for that fiscal year. The announcement will be distributed through the GovDelivery/Granicus media distribution lists.

# 2. Individual Springs/District Funding Amount Announcements

Four announcements are developed by the Department to announce the specific funding amount for springs projects regionally. These include descriptions of select springs projects from the Districts' and the Department's approved list for that fiscal year. The Department will consult with the District about which projects to highlight in its jurisdiction. The District should select 3 or 4 projects to highlight that focus on the priorities of that fiscal year (e.g., septic-to-sewer conversion, BMPs, aquifer recharge, etc.). The District must ensure that the project description and specific dollar amounts included in the draft press release's description match the approved spreadsheet.

# G. Risk Mitigation - Commitment of Match Funds

The Department relies on the project benefits and match commitment in its selection of the projects and its external communication regarding the projects. Subsequent reductions in match or project benefits affect project merits. The Department requests the Districts make every effort to accurately estimate and represent the details of each project in its proposal to the Department, and to continue every effort practicable to ensure those details do not change significantly as the selected projects proceed. As such, the Department must consider the following options in the event of significant changes subsequent to project selection:

- 1. The Department may consider reliability of District match and those of its local project sponsors when considering project proposals in subsequent years.
- 2. Similarly, failure to meet timeline goals (including project completion) may be a consideration for the Department in future years.
- 3. If a project is cancelled or the state funding for a project is reduced, the funds will be returned to the Department to reallocate to other projects. Neither the Districts

- nor local sponsors should assume the funds will be redirected to another project in the District, county, or municipality.
- 4. Because the Department intends to fully commit the springs funding each year, the Department cannot commit to providing additional funding for increased project costs. The District or its local project sponsor should assume that cost overruns will be the responsibility of the local project sponsors or the District.

# IV. Appendices

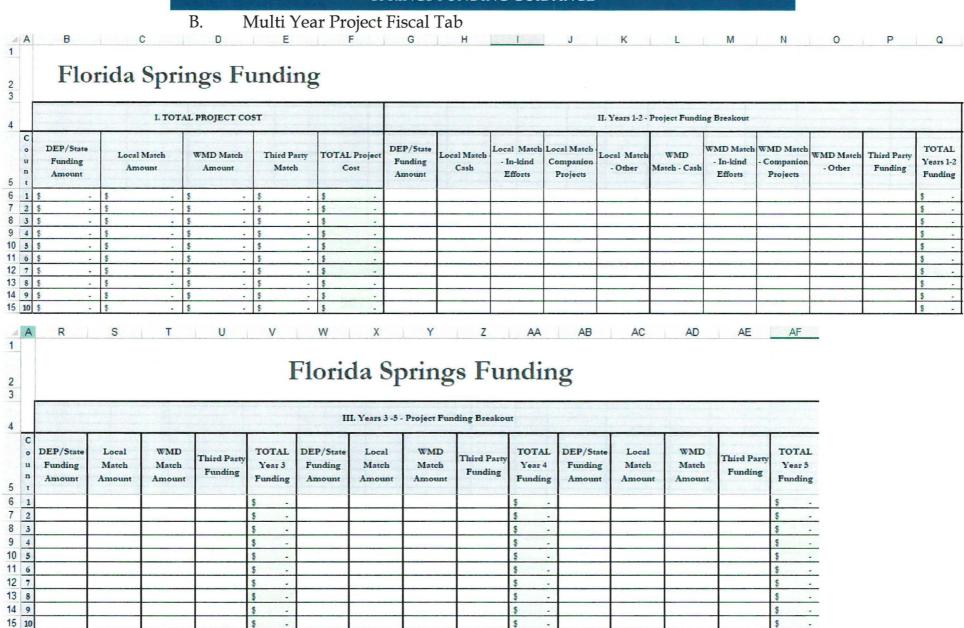
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SPRINGS PROJECT SUBMITTAL TEMPLA	ATE -	2017
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	1.	I. Contact Information			II. Spring Information		III. Project Information							
C O U N T	Lead Water Management District Name	Local Government	WMD Project Manager Name, Phone and Email		Does the Spring have an Impairmant? If so, does it have a BMAP?	Does the Spring have an MFL, and, if so, is it in recovery or prevention?	Project Name	County	Project Location - Latitude of project	Project Location - Longitude of project	Project Type	Project description	Is the Project Listed in a BMAP or Annual Update)?	Is the Project Listed in a Recovery/Prevention Strate or Identified in a Regiona Water Supply Plan as Benefitting an MFL?
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3				-				-						
4														
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# SPRINGS PROJECT SUBMITTAL TEMPLATE - 2017

3		V. Water Quality		V. Water C	Quantity	VI. Land Acquisition						VIII. Other		
C U N T	Does this Project Have Water Quantity Benefits?	N Reduced (Ibs/yr)	Sediment Reduced (Ibs/yr)	Does this Project Have Water Quality Benefits?	Quantity of Water Made Available (MGD)	Acres to be Acquired	State Funding Requested	Local Match	WMD Match	Third Party Match	Anticipa ted Start Date	Anticipated End Date	Is this a multi-year Project? If so, complete the Multi- Year Project Fscal Spreadsheet	Additional Information
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# C. Estimating Nitrogen Load Reductions from Springs Restoration Projects

# How to Apply Attenuation and Recharge Factors

In the Department's nitrogen inventories, a load to groundwater includes the nitrogen <u>input</u> to land surface, an <u>attenuation factor</u> that accounts for removal that occurs in the soil (nitrification-denitrification, plant uptake, volatilization, etc.) and a <u>recharge factor</u> that takes into account the annual rate of recharge to the Upper Floridan aquifer (based on overburden material thickness and head differences between the surficial aquifer system and the Upper Floridan aquifer).

Inputs of nitrogen are specific to the sources being addressed and should be reported in lbs/year (yr.).

Attenuation factors vary based on the nitrogen source category (e.g., septic tank, wastewater sprayfield, agricultural field with row crops, etc.). Attenuation factors for most of the sources being addressed in projects and multipliers to use in calculations are shown below.

Source type	% Attenuated	% Leached	Multiplier to use
Wastewater sprayfield	60	40	0.40
Wastewater reuse	75	25	0.25
Wastewater Rapid Infiltration Basin (RIB)	25	75	0.75
Conventional septic system	50	50	0.50
Farm fertilizer	80	20	0.20
Lawn fertilizer	80	20	0.20
Livestock on pasture	90	10	0.10

Note: Septic system values include treatment in both the drainfield (30%) and soil (20%).

Recharge factors are based on available Geographic Information System (GIS) coverages for most of the state. The recharge factor is applied to the attenuated input. For the area of interest, use the appropriate recharge coverage in GIS to determine the recharge rate (or rates, if area of interest is within more than one recharge regime) and assign the corresponding weighted factor. The recharge factors are applied as shown below.

Recharge Rate	Designation	% Recharged	Multiplier to use
>= 10 in/yr	High	90	0.90
3 to 10 in/yr	Medium	50	0.50
0 to 3 in/yr	Low	10	0.10
Discharge	Discharge	0	0

## How to Calculate Nitrogen (N) Reduction from Wastewater Projects

These may include wastewater treatment plant (WWTP) upgrades to reduce nitrogen, redistributing applied wastewater to other methods or areas.

**LOAD REDUCTION BY UPGRADING WASTEWATER PLANT TREATMENT.** For domestic WWTP upgrades from secondary treatment to advanced wastewater treatment to reduce nitrogen (assuming wastewater application volume and method does not change):

• REDUCTION IN LOAD DUE TO IMPROVED TREATMENT (lbs/yr Total Nitrogen (TN) = (Original annual TN input – Anticipated annual TN input after upgrade) X effluent treatment application method attenuation factor X effluent application area recharge factor

**LOAD REDUCTION BY CHANGING APPLICATION METHODS.** For domestic WWTP projects that involve changing application methods and/or areas applied. An example would be if additional reclaimed water lines are extended within the service area so that some of the wastewater being treated in RIBs (in a high recharge area) would be used for reclaimed water irrigation instead (in a low recharge area). Using this example, the change in N loading would be calculated as follows:

# Assuming:

- o RIB percent leached 75%. Multiplier = **0.75**
- o Reuse percent leached 25%. Multiple = 0.25
- High recharge weighted factor 90%. Multiplier = 0.90
- o Low recharge weighted factor 10%. Multiplier = 0.10
- REDUCTION IN LOAD DUE TO CHANGE IN LAND APPLICATION METHOD (lbs/yr TN) = ([Current input of N from RIBs X 0.75 X 0.90] + [current input of N to reclaimed X 0.25 X 0.10]) ([Anticipated input of N to RIBs X 0.75 X 0.90] + [anticipated input of N to reclaimed X 0.25 X 0.10]) ([Current input of N to LAM1 X LAM1 Percent leached X Weighted recharge for LAM1 application area] + [current input of N to LAM2 X LAM2 Percent leached X Weighted recharge for LAM2 application area]) ([Anticipated input of N to LAM1 X LAM1 Percent leached X Weighted recharge for LAM1 application area] + [Anticipated input of N to LAM2 X LAM2 Percent leached X Weighted recharge for LAM2 application area]) Where LAM= Land Application Method (RIBs, sprayfield, or reclaimed)

How to Calculate Septic Tank Load Reductions to Groundwater

**SEPTIC SYSTEM LOAD TO GROUNDWATER.** If a project involves reducing septic tank loads by sewering or replacing septic tanks with nitrogen reducing systems, it is first necessary to calculate the initial load that will be reduced.

Assume the following:

- Typical septic system TN input to the environment = 23.7 lbs/yr
- o Based on 2.63 persons per household<sup>2</sup> and 9.012 lbs/year per capita input of TN<sup>3</sup>

<sup>&</sup>lt;sup>2</sup> Florida statewide census (2011-2015) https://www.census.gov/quickfacts/FL

<sup>&</sup>lt;sup>3</sup> EPA estimate based on average value from several references.

- o Septic system attenuation (drainfield + soil) leaching 50%. Multiplier = 0.50
- SEPTIC SYSTEM LOAD TO GROUNDWATER (lbs/yr TN) = Number of septic systems X per-system input X 0.50 X Recharge Factor

**LOAD REDUCTIONS FROM SEPTIC TO SEWER.** To estimate N load reductions by sewering, it is necessary to consider the load being reduced by removing the septic systems as well as the load increase from additional wastewater that would be treated at the plant and applied.

• LOAD REDUCTION FROM SEPTIC-TO-SEWER PROJECT (lbs/yr-TN) = (Input from septic systems to be connected X 0.50 X Recharge Factor for septic tank area) - (Input from septic systems to be connected X %N remaining after treatment at the wastewater plant X Attenuation Factor of wastewater application method X Recharge Factor for wastewater treatment area)

Note: If the wastewater application area is outside of the spring contributing area, the load reduction = total of septic systems' load to groundwater.

#### LOAD REDUCTIONS FROM UPGRADING TO NITROGEN-REDUCING SYSTEMS.

Estimating N load reductions by converting septic systems to nitrogen reducing systems requires some assumptions about the types of nitrogen reducing systems anticipated to be installed. These are the types of systems that are available, or are being studied, and their associated nitrogen removal benefits.<sup>4</sup>

Type system	Overall treatment effectiveness (% N removed)
Conventional septic system	30%
Aerobic treatment unit + drainfield	51%
Current nitrogen reducing performance based treatment	65%
system	
Recirculating media filter	65%
Lined media treatment	65%
Passive nitrogen removal system in tank	93%

Converting to a system that reduces nitrogen by 65% may be a conservative estimate. This will provide a 35% reduction over conventional systems and is easily calculated. There may be a better estimate of the increase in treatment.

# Assumptions:

 Attenuation by drainfield and soil (conventional systems), leaching 50% = Multiplier = 0.50

<sup>&</sup>lt;sup>4</sup> From Department of Health, <u>Cost Comparisons of Various Onsite Sewage Treatment System Nitrogen Reducing Technologies</u> (July 21, 2016 draft).

- Net N removed by nitrogen reducing system, assumed = 65%, 35% leached.
   Multiplier= 0.35
- N removed by soil treatment below the drainfield = 20%, 80% leached. Multiplier = 0.80
- DIFFERENCE IN LOAD TO GROUNDWATER BY UPGRADING CONVENTIONAL SEPTIC SYSTEMS TO ONES ACHIEVING 65% N REDUCTION (lbs/yr TN) = ([Input from septic systems to be converted X 0.50] [Input from septic systems to be converted X 0.35 X 0.80]) X Recharge Factor for septic tank area

How to calculate TN load reductions from agricultural activities that reduce nitrogen loads

Agricultural activities (such as fertilizer applications on cropland, pastures, sod; animal farming operations; nurseries) are complex and variable and the actions to reduce nitrogen loads are often innovative and typically related to research projects. For that reason, justifications for the anticipated TN load reductions should be provided on a case by case basis. However, they must still be expressed as lbs/yr reductions in load to groundwater and use existing attenuation and recharge factors that are consistent with the Department's Nitrogen Source Inventory and Loading Tool (NSILT) methodology. Contact the Department's Division of Environmental Assessment and Restoration if there are questions.

# D. Guidance to Develop the Quantity of Water Made Available

A uniform method to identify the "Quantity of Water Made Available" will allow the Department, districts, and the public to fully understand the water quantity value of the project and allow for direct, district-to-district comparisons. This guidance identifies uniform methods for calculating the Quantity of Water Made Available for use by districts in requests for springs funding from the Department. The types of projects listed below include those most commonly included in requests for springs funding. For any project types not included below, the district is to use the best available method to calculate the Quantity of Water Made Available. It is recognized that the numbers generated through this methodology may not match numbers identified by the district using alternative regional methods. This guidance may be amended over time to add additional project types.

Quantity of Water Made Available should be reported in million gallons per day and should be rounded to the tenths place (e.g., 1.1 mgd or 0.5 mgd), if known. The district should not present a range of numbers.

- I. For recharge projects not involving reclaimed water, districts shall utilize the best available tool to determine the Quantity of Water Made Available as a result of the overall benefit to the aquifer. The best available tool may include a groundwater model, a surface water model, a statistical tool, or other tool that demonstrates the Quantity of Water Made Available.
- II. For agricultural projects associated with irrigation system efficiency improvements for a specific agricultural operation, the Quantity of Water Made Available shall be calculated as follows:

## Δ Efficiency × Average 5-Year Water Use

#### Where:

- a.  $\Delta$  **Efficiency** = Proposed Irrigation System Efficiency Prior Irrigation System Efficiency
- b. Average 5-Year Water Use = Average metered water use (in mgd) for the past five years. If average metered water use is not known, the district may use an estimated water use based on average crop irrigation needs or AFSIRS (using average condition). If a grower has more than one crop over the past five years, the district may use the average of fewer than five years using data from the crop with the most intensive water use.
- III. For implementation of technologies that optimize water management other than new irrigation systems (e.g., soil moisture probe), the district shall use the best available

information, including independent publications relating to the technology, and apply that information to the last five years of water use of the agricultural operation, if available.

IV. For agricultural irrigation system projects *not* associated with a known agricultural operation, such as requests for future funding for a district Ag BMP cost share program, the Quantity of Water Made Available shall be calculated as follows:

Total Project Cost × Historic Program Gallons Per Dollar, where:

- a. **Total Project Cost** = State Funding Request + All Match for Current Request as Calculated Pursuant to the Department's Guidance
- b. Historic Program's Gallons Per Dollar =  $\sum$  Historic Program's ( $\triangle$  Efficiency  $\times$  Average 5-Year Water Use)  $\div$   $\sum$  (Historic Program's Project Funding), where:
  - 1. Δ Efficiency and Average 5-Year Water Use are defined in II. a. and b., above.
  - 2. **Historic Program's Project Funding** is the sum of program's funding, including district cost share and any match from all previous projects of similar types to the funding requested.

If the district does not have historic program data, the district should use the best available regional data to determine Historic Program's Gallons Per Dollar.

V. For reclaimed water projects, the Quantity of Water Made Available shall be calculated as follows:

The greater of:

Projected Reuse Flow × Percent Offset OR

**Projected Reuse Flow × Percent Recharge**, where:

- a. Projected Reuse Flow:
  - Projected Reuse Flow shall mean the annual average actual volume of water per day treated by a wastewater treatment plant and distributed through a reuse system within five years of funding request minus any permitted supplementation from traditional sources. The projected reuse flow does not equal the designed reuse capacity.
  - Projected Reuse Flow should be based on:
    - Projected wastewater inflows
    - Known and planned customers for reclaimed water

- Ability to meet demands using only reclaimed water (e.g., during peak demands)
- The ability to realize the flows in the next five years
- For phased projects, include only the flows anticipated over the next five years in the phase for which funding is requested. Do not include flows for completed phases. The project description can describe past and future phases, if needed.

In no case shall the Projected Reuse Flow be greater than system's capacity.

# b. Percent Offset:

- If Percent Offset is known for all or a portion of the reclaimed water being generated (e.g., reclaimed water is going to be used to replace the groundwater use of an industrial user), the known Percent Offset for that portion of the water should be listed.
- If Percent Offset is not known for all or a portion of the reclaimed water being generated (e.g., residential irrigation or unspecified commercial customers), use the Percent Offset based on reuse activity provided in Table 1.
- If water sources other than groundwater are being offset, a district may only include a Percent Offset for non-groundwater if the district provides an explanation in the project description of how the non-groundwater offset will benefit springs. If no explanation is provided, the Percent Offset is zero.

#### c. Percent Recharge:

- A district shall not calculate a recharge benefit for reuse disposal that does not benefit a water system. This includes the district's consideration of whether the geographic and hydrologic location of the recharge is appropriate and providing a benefit to the aquifer system.
- For all other activities, use the Percent Recharge based on reuse activity provided in Table 1.

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Table 1. Percent Offset and Recharge based on Reuse Activities<sup>5</sup>

Reuse Activity	Percent offset based on reuse flow	Percent recharge based on reuse flow
Indirect potable reuse		100
Industrial uses	100	0
Toilet flushing	100	0
Rapid Infiltration Basins (where groundwater is used)	0	90
Efficient agricultural irrigation where irrigation is needed	75	25
Efficient landscape irrigation (golf courses, parks, etc.)	75	10
Efficient residential irrigation <sup>6</sup>	60	40
Cooling towers	100	0
Vehicle washing	100	0
Commercial laundries	100	0
Cleaning of roads, sidewalks, & work areas	100	10
Fire protection	100	10
Construction dust control	100	0
Mixing of pesticides	100	0
Inefficient landscape irrigation (parks and other landscaped areas)	50	50
Inefficient agricultural irrigation	50	50
Surface water with direct connection to groundwater (canals of SE Florida)	0	75
Wetlands restoration (when additional water is needed)	75	10
Inefficient residential irrigation <sup>6</sup>	25	50
Flushing & testing of sewers and reclaimed water lines	50	0
Rapid Infiltration Basins where groundwater is currently not used	0	25
Aesthetic features (ponds, fountains, etc.)	75	10
Sprayfields (wastewater disposal on grass or other cover crop at irrigation rates higher than agronomically necessary; intended to provide some groundwater recharge)	0	50
Wetlands (when additional water is not needed)	0	10

<sup>&</sup>lt;sup>5</sup> Adapted from the Department's SB 536 Report, December 1, 2015, which had been adapted from Table 5, Water Reuse for Florida: Strategies for Effective Use of Reclaimed Water, DEP, 2003. Adaptations in this version include: removing requirement that the augmentation be only to potable groundwater and Class I surface waters in order to recognize benefits to the aquifer system and changing table headers; adding footnotes.

<sup>&</sup>lt;sup>6</sup> Efficient residential irrigation ratios are used when the reuse facility's service agreement, local ordinance, or similar include provisions that require residence to have a functioning irrigation shut-off device; Pressure-regulated heads or pressure-regulation at the valve; Matched precipitation (rotors have correctly sized nozzles); an irrigation controller schedule set to follow local/district irrigation restrictions (or facility pressure reductions timed to meet those requirements), or volumetric rate for use (metering). Otherwise, inefficient residential irrigation ratios should be used.

# E. Guidance to Identify Estimated Acreage for Land Acquisition Projects

Restoring spring shorelines and habitats, improving the water quality of stormwater flowing to a spring and spring run, or preserving lands within a groundwater contribution area are all important tools for spring protection. To quantify this benefit, the number of acres of land preserved via the proposed project should be listed. If an acquisition project lies on the border of a groundwater contribution area or BMAP, only that portion within the BMAP or contribution area should be included.

A project may have more than one benefit metric that is measurable. For example, a project involving acquisition of a conservation easement may limit the allowable activities on a parcel to retain natural systems and aquifer recharge, while also protecting against future potential water quality impacts. Pollutant load prevention can be calculated based on the difference between the development potential for the property (or highest and best use) versus the current and/or planned use. By preventing or limiting development of the project site, an environmental benefit is realized in pounds per nitrogen per year or pounds of total suspended solids per year.