FORM 4
Configuration Name: __Florida Crystals_____

INSTRUCTIONS
Summary Sheet of a Treatment Component
For Proposed Configuration

Instructions – Authors with Assistance from Facilitator Complete a Separate *FORM 4* for Each Treatment Component Included in the Proposed Configuration. **Bold items required.**

*Note – One of these forms is completed for **EACH** Treatment Component as identified on FORM 2. This FORM 4 is to capture any additional specific information about the Treatment Component not already provided in FORM 1 and FORM 2.*

==========

Configuration Name (from *FORM 1*): **_Florida Crystals**_____
_____

Component Number and Name (from *FORM 2*): _____
_Component 1: 14,000 acre STA in S-5A basin
_____

==========

Does Treatment Component Also Have a Primary Function as a Storage Component? _____ Yes __**X**_ No

If yes, complete *FORM 3* first and only add information not provided in *FORM 3* to this *FORM 4*.

General Description of Treatment Component:

_____
___STA in S-5A basin to treat water from S-5A basin and L-8 canal_____
_____
_____
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_

FORM 4
Configuration Name: __Florida Crystals_____

Encourage the Authors to be descriptive about the features of the component that matters most to them.

Type of Treatment (check all that apply):

_____ Mechanized like a Chemical Treatment Plant
__ **X** __Actively Managed like a Stormwater Treatment Area
_____ Minimally Managed like a Wetlands
_____ Passively Managed like Natural Lands

Have the Authors check which of the above best describes the treatment component. This is especially important if they have defined a treatment component unlike anything we have experience with – checking one or more of the above will help in understanding what it is similar to.

Check Most Important Feature(s) of Treatment Component (if any) (check all features that are critical to Authors; if not checked then the proposed configuration will be optimized for this feature):

_____ Volume of Water to be Treated – Provide volume in ac-ft _____
(Facilitator will convert information to ac-ft as necessary)

_____ Water Depth – Provide depth in feet _____

__ **X** _ Total Acres of Land –**_15,000 acres (14,000 acres effective)**
(Facilitator will include acreage for component infrastructure as necessary)

_____ Ability to Meet A Specific Performance Measure (PM) / Indicator (I)
PM / I: _____ Percentage _____

Additional PM / I Information: _____
_____

_____ Cost – Provide maximum allowed cost _____

Only the features above that are critical to the Authors should be checked. It is acceptable not to check any features above. The evaluation performed will be based on this critical information and this critical information will not be changed during the evaluation. For example, if the Authors state the treatment component must be on 40,000 acres of land, then other features during the evaluation will be modified as necessary to obtain that requirement within any other limitations provided. The more limitations or critical features specified, the more difficult it may be to achieve the benefits within a reasonable cost.

FORM 4
Configuration Name: __Florida Crystals_____

General Component Location:
(provide details on the required location of the component in addition to the information drawn on the map, examples –

- *anywhere north of Lake Okeechobee*
- *only on US Sugar Lands west of L-19 Canal*
- *any lands between L-19 Canal and New Miami River Canal*)

List Counties: __**Palm Beach**
_____
Description: _____
_____
_In S-5A basin hydrologically upstream of STA 1W and STA 1E
_____
_____
_____
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Provide additional information about the location of the component if needed to ensure the component is sited at the desired location. The Authors do not need to be specific. If no additional information provided, the Evaluation Team will utilize the information shown on the map and more specifically site the component to reduce costs and increase benefits.

General Description of Treatment Component Operations:
_____
_____
_____
_____
_____
_____

If the Authors envision this component to be operated a certain way, this is where they need to describe that operation. For example, "natural un-recruited

vegetation in the flowway will serve as the treatment component to obtain the required water quality for the Everglades".

Check Most Important Operational Feature(s) of Treatment Component (if any) (check all features that are critical to Authors; if not checked then the proposed configuration will be optimized for this feature):

_____ Reliability of Treatment Component – As compared to a Stormwater Treatment Area _____

_____ Inflow Capacity – Provide inflow in cubic feet per second _____ (Facilitator will convert information to cfs as necessary)

_____ Inflow Type – Select _____Gravity _____ Pump_____ Both

_____ Outflow Type – Select _____Gravity _____ Pump_____ Both

_____ Ability To Go Dry – Select _____ Yes _____ No _____ No Preference

_____ Internal Cells – Select _____ Yes _____ No _____ No Preference

If yes, how many cells? _____ Cells

Only the features above that are critical to the Authors should be checked. It is acceptable not to check any features above. The evaluation performed will be based on this critical information and this critical information will not be changed during the evaluation. For example, if the Authors state the inflow capacity is 1,000 cfs, then other features during the evaluation will be modified as necessary to obtain that requirement within any other limitations provided. The more limitations or critical features specified, the more difficult it may be to achieve the benefits within a reasonable cost.

INSTRUCTIONS
Summary Sheet of a Treatment Component
For Proposed Configuration

Instructions – Authors with Assistance from Facilitator Complete a Separate *FORM 4* for Each Treatment Component Included in the Proposed Configuration. **Bold items required.**

*Note – One of these forms is completed for **EACH** Treatment Component as identified on FORM 2. This FORM 4 is to capture any additional specific information about the Treatment Component not already provided in FORM 1 and FORM 2.*

==========

Configuration Name (from *FORM 1*): **_Florida Crystals_____**
_____

Component Number and Name (from *FORM 2*): _____
_Component 3: Convert Talisman "A" to STA_____

==========

Does Treatment Component Also Have a Primary Function as a Storage Component? _____ Yes __**X**_ No

If yes, complete *FORM 3* first and only add information not provided in *FORM 3* to this *FORM 4*.

General Description of Treatment Component:

_____
___Convert Talisman "A" to STA as described in 2/19/09 WRAC presentation
See attached map.
_____
_____
_____
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_____
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Encourage the Authors to be descriptive about the features of the component that matters most to them.

FORM 4
Configuration Name: __Florida Crystals_____

Type of Treatment (check all that apply):

_____ Mechanized like a Chemical Treatment Plant
__ **X** __Actively Managed like a Stormwater Treatment Area
_____ Minimally Managed like a Wetlands
_____ Passively Managed like Natural Lands

Have the Authors check which of the above best describes the treatment component. This is especially important if they have defined a treatment component unlike anything we have experience with – checking one or more of the above will help in understanding what it is similar to.

Check Most Important Feature(s) of Treatment Component (if any) (check all features that are critical to Authors; if not checked then the proposed configuration will be optimized for this feature):

_____ Volume of Water to be Treated – Provide volume in ac-ft _____
(Facilitator will convert information to ac-ft as necessary)

_____ Water Depth – Provide depth in feet _____

__ **X** _ Total Acres of Land –_**34,500 acres effective**
(Facilitator will include acreage for component infrastructure as necessary)

_____ Ability to Meet A Specific Performance Measure (PM) / Indicator (I)
PM / I: _____ Percentage _____

Additional PM / I Information: _____
_____

_____ Cost – Provide maximum allowed cost _____

Only the features above that are critical to the Authors should be checked. It is acceptable not to check any features above. The evaluation performed will be based on this critical information and this critical information will not be changed during the evaluation. For example, if the Authors state the treatment component must be on 40,000 acres of land, then other features during the evaluation will be modified as necessary to obtain that requirement within any other limitations provided. The more limitations or critical features specified, the more difficult it may be to achieve the benefits within a reasonable cost.

FORM 4
Configuration Name: __Florida Crystals_____

General Component Location:
(provide details on the required location of the component in addition to the information drawn on the map, examples –

- *anywhere north of Lake Okeechobee*
- *only on US Sugar Lands west of L-19 Canal*
- *any lands between L-19 Canal and New Miami River Canal*)

List Counties: __**Palm Beach**
_____
Description: _____
_____
_Talisman "A" land
_____
_____
_____
Provide additional information about the location of the component if needed to ensure the component is sited at the desired location. The Authors do not need to be specific. If no additional information provided, the Evaluation Team will utilize the information shown on the map and more specifically site the component to reduce costs and increase benefits.

General Description of Treatment Component Operations:
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If the Authors envision this component to be operated a certain way, this is where they need to describe that operation. For example, "natural un-recruited vegetation in the flowway will serve as the treatment component to obtain the required water quality for the Everglades".

Check Most Important Operational Feature(s) of Treatment Component (if any)
(check all features that are critical to Authors; if not checked then the proposed configuration will be optimized for this feature):

_____ Reliability of Treatment Component – As compared to a Stormwater Treatment Area _____

_____ Inflow Capacity – Provide inflow in cubic feet per second _____

FORM 4
Configuration Name: __Florida Crystals_____

(Facilitator will convert information to cfs as necessary)

_____ Inflow Type – Select _____Gravity ____**X**_ Pump_____ Both

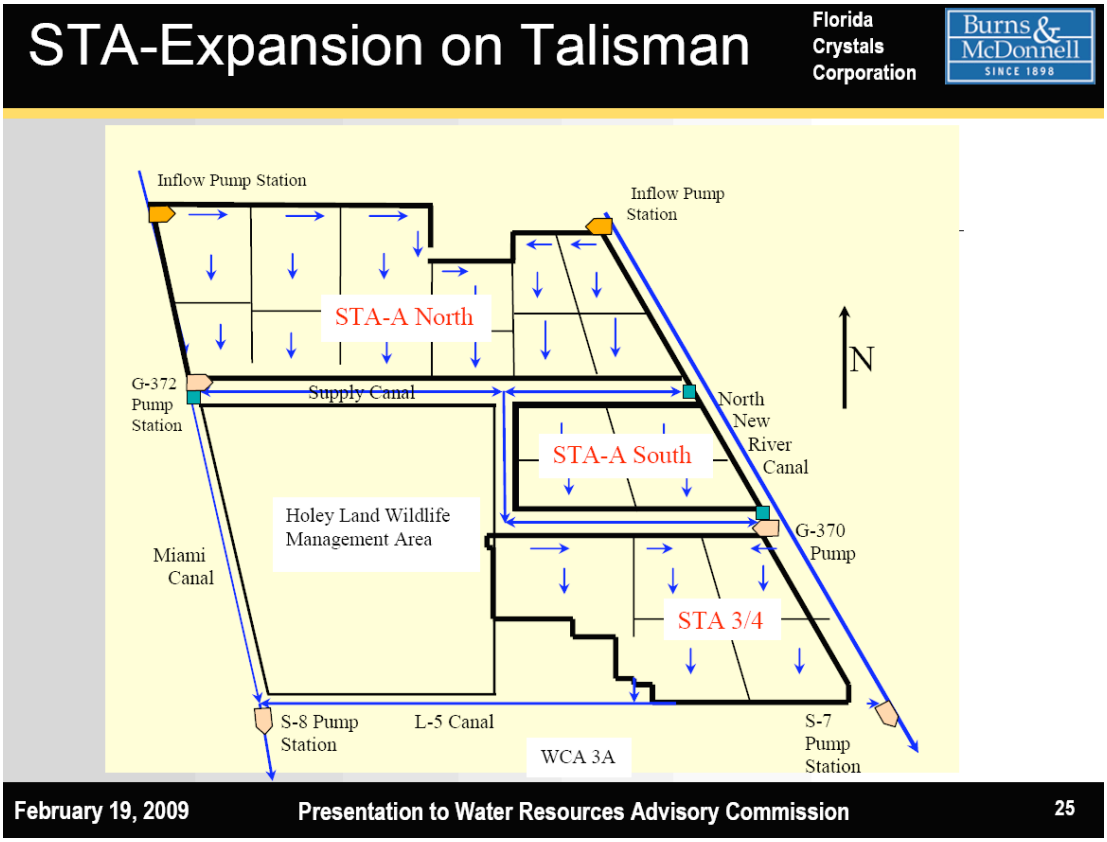
_____ Outflow Type – Select ____ **X** __Gravity _____ Pump_____ Both

_____ Ability To Go Dry – Select _____ Yes _____ No _____ No Preference

__ **X** __ Internal Cells – Select ___ **X** __ Yes _____ No _____ No Preference

If yes, how many cells? ___see attached map_____

Only the features above that are critical to the Authors should be checked. It is acceptable not to check any features above. The evaluation performed will be based on this critical information and this critical information will not be changed during the evaluation. For example, if the Authors state the inflow capacity is 1,000 cfs, then other features during the evaluation will be modified as necessary to obtain that requirement within any other limitations provided. The more limitations or critical features specified, the more difficult it may be to achieve the benefits within a reasonable cost.



FORM 5
Configuration Name: __Florida Crystals_____

INSTRUCTIONS
Summary Sheet of a Conveyance Component
For Proposed Configuration

Instructions – Authors with Assistance from Facilitator Complete a Separate *FORM 5* for Each Conveyance Component Included in the Proposed Configuration. **Bold items required.**

*Note – One of these forms is completed for **EACH** Conveyance Component as identified on FORM 2. This FORM 5 is to capture any additional specific information about the Conveyance Component not already provided in FORM 1 and FORM 2. If no specific conveyance component identified by the Authors, the Evaluation team will term the requirements to convey water from one component to another and this form would not need to be completed by the Authors.*

==========

Configuration Name (from *FORM 1*): **Florida Crystals**

_____

Component Number and Name (from *FORM 2*): _____
Component 4 – Enlarge Miami Canal to Flowway

_____

==========

Does Conveyance Component Also Have a Primary Function as a Storage Component? ___ _ Yes __ **X** ___ No

If yes, complete *FORM 3* first and only add information not provided in *FORM 3* to this *FORM 5*.

Does Conveyance Component Also Have a Primary Function as a Treatment Component? _____ Yes ___ **X** _ No

If yes, complete *FORM 4* first and only add information not provided in *FORM 4* to this *FORM 5*.

General Description of Conveyance Component:

_____

New gated spillway @S-3 with nominal 7000 cfs capacity.
Enlarge Miami Canal from S-3 to flowway (component 5) for 7000 cfs.
Replace US27 bridge over Miami Canal
Replace rail bridge over Miami Canal
Enlarge levees on each side of canal to approximate top elevation of 22.0

_____

FORM 5
Configuration Name: __Florida Crystals_____

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Encourage the Authors to be descriptive about the features of the component that matters most to them. For example, the middle of the lined canal will be deeper to handle typical flows with the wider, shallow part of the canal designed for peak flows.

Type of Conveyance:

_ **X** _ Open Water with Water Level Below Ground Elevation
Surface Finish:
___ **X** __ Managed Vegetation _____ Natural Vegetation
_____ Lined _____ No Preference

_ _ Open Water with Water Level Above Ground Elevation
Surface Finish:
_____ Managed Vegetation ___ __ Natural Vegetation
_____ Lined _____ No Preference

___ Closed Pipe: ____ Below Ground Elevation ___ Above Ground Elevation

Managed Vegetation is vegetation within the conveyance feature is mowed and treated as necessary to minimize restriction to water flow. The banks are vegetated but with appropriate erosion protection as needed. This is similar to how the canals within the South Florida Water Management District are currently managed. Natural Vegetation is vegetation within the conveyance feature that is essentially allowed to grow naturally, not actively maintained, may restrict water flow, and may provide treatment benefit. The banks are vegetated but with appropriate erosion protection as needed.

Conveyance Feature: _____ New _ **X** __ Enhancement of an Existing Canal (provide name of existing canal) __**Miami Canal**

_____

FORM 5
Configuration Name: __Florida Crystals_____

Check Most Important Feature(s) of Conveyance Component (if any) (check all features that are critical to Authors; if not checked then the proposed configuration will be optimized for this feature):

_____ Volume of Water to be Conveyed – Provide volume in ac-ft _____
(Facilitator will convert information to ac-ft as necessary)

_____ Water Depth – Provide depth in feet _____

_____ Conveyance Width – Provide width in feet _____

_____ Total Acres of Land – Provide acreage _____
(Facilitator will include acreage for component infrastructure as necessary)

_____ Ability to Meet A Specific Performance Measure (PM) / Indicator (I)
PM / I: _____ Percentage _____

Additional PM / I Information: _____
_____

_____ Cost – Provide maximum allowed cost _____

Only the features above that are critical to the Authors should be checked. It is acceptable not to check any features above. The evaluation performed will be based on this critical information and this critical information will not be changed during the evaluation. For example, if the Authors state the water depth is 4 feet and volume is 1 million ac-ft, then other features during the evaluation will be modified as necessary to obtain that requirement within any other limitations provided. The more limitations or critical features specified, the more difficult it may be to achieve the benefits within a reasonable cost.

General Component Location:
(provide details on the required location of the component in addition to the information drawn on the map, examples –

- *anywhere north of Lake Okeechobee*
- *only on US Sugar Lands west of L-19 Canal*
- *any lands between L-19 Canal and New Miami River Canal*)

List Counties: _____
Description: _____

FORM 5
Configuration Name: __Florida Crystals_____

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Provide additional information about the location of the component if needed to ensure the component is sited at the desired location. The Authors do not need to be specific. If no additional information provided, the Evaluation Team will utilize the information shown on the map and more specifically site the component to reduce costs and increase benefits.

General Description of Conveyance Component Operations:

_____
_____
_____
_____
_____
_____

If the Authors envision this component to be operated a certain way, this is where they need to describe that operation. For example, "canal can go dry and will be capable of conveying flows no greater than 4,000 cfs".

Check Most Important Operational Feature(s) of Treatment Component (if any) (check all features that are critical to Authors; if not checked then the proposed configuration will be optimized for this feature):

__**X**__ Inflow Capacity – Provide inflow in cubic feet per second __**7000**____
(Facilitator will convert information to cfs as necessary)

__ **X** __ Inflow Type – Select ___ **X** ___Gravity _____ Pump_____ Both

__ **X**__ Outflow Type – Select __ **X** __Gravity _____ Pump____ ___ Both

_____ Ability To Go Dry – Select ___ _ Yes _____ No _____ No Preference

_____ Internal Cells – Select _____ Yes _____ No ___ _ No Preference

If yes, how many cells? _____ Cells

Only the features above that are critical to the Authors should be checked. It is acceptable not to check any features above. The evaluation performed will be based on this critical information and this critical information will not be changed during the evaluation. For example, if the Authors state the inflow capacity is 6,000 cfs and both inflow and outflow by gravity, then other features during the evaluation will be modified as necessary to obtain that requirement within any other limitations provided. The more limitations or critical features specified, the more difficult it may be to achieve the benefits within a reasonable cost.

FORM 3
Configuration Name: Florida Crystals_____

INSTRUCTIONS
Summary Sheet of a Storage Component
For Proposed Configuration

Instructions – Authors with Assistance from Facilitator Complete a Separate *FORM 3* for Each Storage Component Included in the Proposed Configuration. **Bold items required.**

*Note – One of these forms is completed for **EACH** Storage Component as identified on FORM 2. This FORM 3 is to capture any additional specific information about the Storage Component not already provided in FORM 1 and FORM 2.*
==========

Configuration Name (from *FORM 1*): **_Florida Crystals_____**
_____

Component Number and Name (from *FORM 2*): _
Component 5 – 45,000 acre managed flowway_____
_____
==========

General Description of Storage Component:
_____
__Managed flowway with levee on east side of Miami Canal. Existing Miami Canal is used for conveyance until its capacity is exceeded at which time water will overflow to the west into the flowway. Also used for conveyance (Form 5 completed). Need to verify land surface elevation in northwest corner of site. Consider adjusting northeast corner of flowway to avoid need for railroad relocation
_____
Encourage the Authors to be descriptive about the features of the component that matters most to them.

Type of Storage:
_____ Deep _____**X**_ Shallow _____ Dispersed
_____ Storage Below Ground Elevation _____ Storage Above Ground Elevation
Deep Storage is generally over 4 feet water depth. Shallow Storage is generally less than 4 feet water depth. Dispersed Storage is generally water in wetlands, over natural lands, or flooded ranchlands.

Storage Below Ground Elevation is water level below surrounding ground surface such as a lake or in-ground reservoir. Storage Above Ground Elevation is water level above surrounding ground surface such as a reservoir. It is possible for a

component to have both Below and Above Ground Storage such as a reservoir excavated 4 feet below surrounding ground surface and water is able to be stored up to 6 feet above ground surface.

Check Most Important Feature(s) of Storage Component (if any) (check all features that are critical to Authors; if not checked then the proposed configuration will be optimized for this feature):

_____ Volume – Provide volume required in ac-ft _____
(Facilitator will convert information to ac-ft as necessary)

__**X**__ Water Depth – Provide depth in feet ___**4 feet**_____

__ **X** __ Total Acres of Land – **47,000 acres max. (45,000 acres effective)**
(Facilitator will include acreage for component infrastructure as necessary)

_____ Ability to Meet A Specific Performance Measure (PM) / Indicator (I)
PM / I: _____ Percentage _____

Additional PM / I Information: _____
_____

_____ Cost – Provide maximum allowed cost _____

Only the features above that are critical to the Authors should be checked. It is acceptable not to check any features above. The evaluation performed will be based on this critical information and this critical information will not be changed during the evaluation. For example, if the Authors state the storage component must have 1 million ac-ft of storage, then other features during the evaluation will be modified as necessary to obtain that requirement within any other limitations provided. The more limitations or critical features specified, the more difficult it may be to achieve the benefits within a reasonable cost.

General Component Location:
(provide details on the required location of the component in addition to the information drawn on the map, examples –

- *anywhere north of Lake Okeechobee*
- *only on US Sugar Lands west of L-19 Canal*
- *any lands between L-19 Canal and New Miami River Canal*)

List Counties: __**Hendry and Palm Beach**_____
Description: _____

FORM 3
Configuration Name: Florida Crystals_____

Bounded on the north by L-1E, on the west by the west US Sugar ownership line (east of L-2); on the south by STA 5 and Rottenberger; on the east by the east side of the Miami Canal

Provide additional information about the location of the component if needed to ensure the component is sited at the desired location. The Authors do not need to be specific. If no additional information provided, the Evaluation Team will utilize the information shown on the map and more specifically site the component to reduce costs and increase benefits.

General Description of Storage Component Operations:

_____
_Gravity flow from Lake Okeechobee to flowway through enlarged Miami Canal (component 4); pumped or gravity flow (principally pumped) outflow to STA on Talisman "A"(component 3)

_____
_____
_____

If the Authors envision this component to be operated a certain way, this is where they need to describe that operation. For example, "water elevation would always be above 2 feet so that it never goes dry and does not create ponding and traps wildlife in isolated pools".

Check Most Important Operational Feature(s) of Storage Component (if any) (check all features that are critical to Authors; if not checked then the proposed configuration will be optimized for this feature):

_____ Inflow Capacity – Provide inflow in cubic feet per second _____
(Facilitator will convert information to cfs as necessary)

_____ Inflow Type – Select _____Gravity _____ Pump_____ Both

_____ Outflow Type – Select _____Gravity _____ Pump_____ Both

_____ Ability To Go Dry – Select _____ Yes _____ No _____ No Preference

_____ Internal Cells – Select _____ Yes _____ No _____ No Preference

If yes, how many cells? _____ Cells _____ Leave up to optimization

Only the features above that are critical to the Authors should be checked. It is acceptable not to check any features above. The evaluation performed will be based on this critical information and this critical information will not be changed

during the evaluation. For example, if the Authors state the storage component must have only gravity inflow, then other features during the evaluation will be modified as necessary to obtain that requirement within any other limitations provided. The more limitations or critical features specified, the more difficult it may be to achieve the benefits within a reasonable cost.

FORM 5
Configuration Name: __Florida Crystals_____

INSTRUCTIONS
Summary Sheet of a Conveyance Component
For Proposed Configuration

Instructions – Authors with Assistance from Facilitator Complete a Separate *FORM 5* for Each Conveyance Component Included in the Proposed Configuration. **Bold items required.**

*Note – One of these forms is completed for **EACH** Conveyance Component as identified on FORM 2. This FORM 5 is to capture any additional specific information about the Conveyance Component not already provided in FORM 1 and FORM 2. If no specific conveyance component identified by the Authors, the Evaluation team will term the requirements to convey water from one component to another and this form would not need to be completed by the Authors.*

==========

Configuration Name (from *FORM 1*): **Florida Crystals**

_____

Component Number and Name (from *FORM 2*): _____
Component 5 – 45,000 acre managed flowway

_____

==========

Does Conveyance Component Also Have a Primary Function as a Storage Component? ___**X**_ Yes _____ No

If yes, complete *FORM 3* first and only add information not provided in *FORM 3* to this *FORM 5*.

Does Conveyance Component Also Have a Primary Function as a Treatment Component? _____ Yes ___ **X** _ No

If yes, complete *FORM 4* first and only add information not provided in *FORM 4* to this *FORM 5*.

General Description of Conveyance Component:

_____
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FORM 5
Configuration Name: __Florida Crystals_____

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Encourage the Authors to be descriptive about the features of the component that matters most to them. For example, the middle of the lined canal will be deeper to handle typical flows with the wider, shallow part of the canal designed for peak flows.

Type of Conveyance:

___ Open Water with Water Level Below Ground Elevation
Surface Finish:
_____ Managed Vegetation _____ Natural Vegetation
_____ Lined _____ No Preference

_ **X** _ Open Water with Water Level Above Ground Elevation
Surface Finish:
_____ Managed Vegetation ___ **X** __ Natural Vegetation
_____ Lined _____ No Preference

___ Closed Pipe: ____ Below Ground Elevation ___ Above Ground Elevation

Managed Vegetation is vegetation within the conveyance feature is mowed and treated as necessary to minimize restriction to water flow. The banks are vegetated but with appropriate erosion protection as needed. This is similar to how the canals within the South Florida Water Management District are currently managed. Natural Vegetation is vegetation within the conveyance feature that is essentially allowed to grow naturally, not actively maintained, may restrict water flow, and may provide treatment benefit. The banks are vegetated but with appropriate erosion protection as needed.

Conveyance Feature: _____ New _ **X** __ Enhancement of an Existing Canal (provide name of existing canal) __**Miami Canal**

_____

FORM 5
Configuration Name: __Florida Crystals_____

Check Most Important Feature(s) of Conveyance Component (if any) (check all features that are critical to Authors; if not checked then the proposed configuration will be optimized for this feature):

_____ Volume of Water to be Conveyed – Provide volume in ac-ft _____
(Facilitator will convert information to ac-ft as necessary)

_____ Water Depth – Provide depth in feet _____

_____ Conveyance Width – Provide width in feet _____

_____ Total Acres of Land – Provide acreage _____
(Facilitator will include acreage for component infrastructure as necessary)

_____ Ability to Meet A Specific Performance Measure (PM) / Indicator (I)
PM / I: _____ Percentage _____

Additional PM / I Information: _____
_____

_____ Cost – Provide maximum allowed cost _____

Only the features above that are critical to the Authors should be checked. It is acceptable not to check any features above. The evaluation performed will be based on this critical information and this critical information will not be changed during the evaluation. For example, if the Authors state the water depth is 4 feet and volume is 1 million ac-ft, then other features during the evaluation will be modified as necessary to obtain that requirement within any other limitations provided. The more limitations or critical features specified, the more difficult it may be to achieve the benefits within a reasonable cost.

General Component Location:
(provide details on the required location of the component in addition to the information drawn on the map, examples –

- *anywhere north of Lake Okeechobee*
- *only on US Sugar Lands west of L-19 Canal*
- *any lands between L-19 Canal and New Miami River Canal*)

List Counties: _____
Description: _____
_____
_____
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_____
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FORM 5
Configuration Name: __Florida Crystals_____

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Provide additional information about the location of the component if needed to ensure the component is sited at the desired location. The Authors do not need to be specific. If no additional information provided, the Evaluation Team will utilize the information shown on the map and more specifically site the component to reduce costs and increase benefits.

General Description of Conveyance Component Operations:

_____
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If the Authors envision this component to be operated a certain way, this is where they need to describe that operation. For example, "canal can go dry and will be capable of conveying flows no greater than 4,000 cfs".

Check Most Important Operational Feature(s) of Treatment Component (if any) (check all features that are critical to Authors; if not checked then the proposed configuration will be optimized for this feature):

__**X**__ Inflow Capacity – Provide inflow in cubic feet per second __**7000**____
(Facilitator will convert information to cfs as necessary)

__ **X** __ Inflow Type – Select ___ **X** ___Gravity _____ Pump_____ Both

__ **X**__ Outflow Type – Select _____Gravity _____ Pump____ **X** ___ Both

_____ Ability To Go Dry – Select ___ **X** _ Yes _____ No _____ No Preference

_____ Internal Cells – Select _____ Yes _____ No ___ **X** _ No Preference

If yes, how many cells? _____ Cells

Only the features above that are critical to the Authors should be checked. It is acceptable not to check any features above. The evaluation performed will be based on this critical information and this critical information will not be changed during the evaluation. For example, if the Authors state the inflow capacity is

6,000 cfs and both inflow and outflow by gravity, then other features during the evaluation will be modified as necessary to obtain that requirement within any other limitations provided. The more limitations or critical features specified, the more difficult it may be to achieve the benefits within a reasonable cost.

FORM 5
Configuration Name: __Florida Crystals_____

INSTRUCTIONS
Summary Sheet of a Conveyance Component
For Proposed Configuration

Instructions – Authors with Assistance from Facilitator Complete a Separate *FORM 5* for Each Conveyance Component Included in the Proposed Configuration. **Bold items required.**

*Note – One of these forms is completed for **EACH** Conveyance Component as identified on FORM 2. This FORM 5 is to capture any additional specific information about the Conveyance Component not already provided in FORM 1 and FORM 2. If no specific conveyance component identified by the Authors, the Evaluation team will term the requirements to convey water from one component to another and this form would not need to be completed by the Authors.*
==========

Configuration Name (from *FORM 1*): **Florida Crystals**

_____

Component Number and Name (from *FORM 2*): _____
Component 6 – Divert S-4 basin to flowway

_____

==========

Does Conveyance Component Also Have a Primary Function as a Storage Component? ___ _ Yes ___ **X** __ No

If yes, complete *FORM 3* first and only add information not provided in *FORM 3* to this *FORM 5*.

Does Conveyance Component Also Have a Primary Function as a Treatment Component? _____ Yes ___ **X** _ No

If yes, complete *FORM 4* first and only add information not provided in *FORM 4* to this *FORM 5*.

General Description of Conveyance Component:

_____
____Divert S-4 basin to flowway (component 5) as described in 2008 feasibility study.
_____
_____
_____
_____

FORM 5
Configuration Name: __Florida Crystals_____

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Encourage the Authors to be descriptive about the features of the component that matters most to them. For example, the middle of the lined canal will be deeper to handle typical flows with the wider, shallow part of the canal designed for peak flows.

Type of Conveyance:

_**X**_ Open Water with Water Level Below Ground Elevation
Surface Finish:
__ **X** ___ Managed Vegetation _____ Natural Vegetation
_____ Lined _____ No Preference

_ _ Open Water with Water Level Above Ground Elevation
Surface Finish:
_____ Managed Vegetation ___ __ Natural Vegetation
_____ Lined _____ No Preference

___ Closed Pipe: ____ Below Ground Elevation ___ Above Ground Elevation

Managed Vegetation is vegetation within the conveyance feature is mowed and treated as necessary to minimize restriction to water flow. The banks are vegetated but with appropriate erosion protection as needed. This is similar to how the canals within the South Florida Water Management District are currently managed. Natural Vegetation is vegetation within the conveyance feature that is essentially allowed to grow naturally, not actively maintained, may restrict water flow, and may provide treatment benefit. The banks are vegetated but with appropriate erosion protection as needed.

Conveyance Feature: __ **X** __ New _ __ Enhancement of an Existing Canal
(provide name of existing canal) __ _____

FORM 5
Configuration Name: __Florida Crystals_____

Check Most Important Feature(s) of Conveyance Component (if any) (check all features that are critical to Authors; if not checked then the proposed configuration will be optimized for this feature):

_____ Volume of Water to be Conveyed – Provide volume in ac-ft _____
(Facilitator will convert information to ac-ft as necessary)

_____ Water Depth – Provide depth in feet _____

_____ Conveyance Width – Provide width in feet _____

_____ Total Acres of Land – Provide acreage _____
(Facilitator will include acreage for component infrastructure as necessary)

_____ Ability to Meet A Specific Performance Measure (PM) / Indicator (I)
PM / I: _____ Percentage _____

Additional PM / I Information: _____
_____

_____ Cost – Provide maximum allowed cost _____

Only the features above that are critical to the Authors should be checked. It is acceptable not to check any features above. The evaluation performed will be based on this critical information and this critical information will not be changed during the evaluation. For example, if the Authors state the water depth is 4 feet and volume is 1 million ac-ft, then other features during the evaluation will be modified as necessary to obtain that requirement within any other limitations provided. The more limitations or critical features specified, the more difficult it may be to achieve the benefits within a reasonable cost.

General Component Location:
(provide details on the required location of the component in addition to the information drawn on the map, examples –

- *anywhere north of Lake Okeechobee*
- *only on US Sugar Lands west of L-19 Canal*
- *any lands between L-19 Canal and New Miami River Canal*)

List Counties: _____
Description: _____
_____
_____
_____
_____

FORM 5
Configuration Name: __Florida Crystals_____

_____
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_____
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_____
_____

Provide additional information about the location of the component if needed to ensure the component is sited at the desired location. The Authors do not need to be specific. If no additional information provided, the Evaluation Team will utilize the information shown on the map and more specifically site the component to reduce costs and increase benefits.

General Description of Conveyance Component Operations:

_____
_____
_____
_____
_____
_____

If the Authors envision this component to be operated a certain way, this is where they need to describe that operation. For example, "canal can go dry and will be capable of conveying flows no greater than 4,000 cfs".

Check Most Important Operational Feature(s) of Treatment Component (if any) (check all features that are critical to Authors; if not checked then the proposed configuration will be optimized for this feature):

__ __ Inflow Capacity – Provide inflow in cubic feet per second __**7000**____
(Facilitator will convert information to cfs as necessary)

__ __ Inflow Type – Select ___ ___Gravity _____ Pump_____ Both

__ __ Outflow Type – Select _____Gravity _____ Pump____ ___ Both

_____ Ability To Go Dry – Select ___ _ Yes _____ No _____ No Preference

_____ Internal Cells – Select _____ Yes _____ No ___ _ No Preference

If yes, how many cells? _____ Cells

Only the features above that are critical to the Authors should be checked. It is acceptable not to check any features above. The evaluation performed will be based on this critical information and this critical information will not be changed

during the evaluation. For example, if the Authors state the inflow capacity is 6,000 cfs and both inflow and outflow by gravity, then other features during the evaluation will be modified as necessary to obtain that requirement within any other limitations provided. The more limitations or critical features specified, the more difficult it may be to achieve the benefits within a reasonable cost.

FORM 5
Configuration Name: __Florida Crystals_____

INSTRUCTIONS
Summary Sheet of a Conveyance Component
For Proposed Configuration

Instructions – Authors with Assistance from Facilitator Complete a Separate *FORM 5* for Each Conveyance Component Included in the Proposed Configuration. **Bold items required.**

*Note – One of these forms is completed for **EACH** Conveyance Component as identified on FORM 2. This FORM 5 is to capture any additional specific information about the Conveyance Component not already provided in FORM 1 and FORM 2. If no specific conveyance component identified by the Authors, the Evaluation team will term the requirements to convey water from one component to another and this form would not need to be completed by the Authors.*

==========

Configuration Name (from *FORM 1*): **Florida Crystals**

_____

Component Number and Name (from *FORM 2*): _____
Component 7 – Expand Bolles Canal

_____

==========

Does Conveyance Component Also Have a Primary Function as a Storage Component? ___ _ Yes __ **X** ___ No

If yes, complete *FORM 3* first and only add information not provided in *FORM 3* to this *FORM 5*.

Does Conveyance Component Also Have a Primary Function as a Treatment Component? _____ Yes ___ **X** _ No

If yes, complete *FORM 4* first and only add information not provided in *FORM 4* to this *FORM 5*.

General Description of Conveyance Component:

_____

Since new levee will be constructed on east side of Miami Canal to create flowway (component 5), existing flow from Bolles Canal to Miami Canal will no longer be possible. This component provides either 1) expansion of Bolles Canal to convey flow to North New River Canal, or 2) a pump station to take flow from Bolles over the new levee into Miami Canal if canal expansion is not feasible.

FORM 5
Configuration Name: __Florida Crystals_____

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Encourage the Authors to be descriptive about the features of the component that matters most to them. For example, the middle of the lined canal will be deeper to handle typical flows with the wider, shallow part of the canal designed for peak flows.

Type of Conveyance:

_ **X** _ Open Water with Water Level Below Ground Elevation
Surface Finish:
___ **X** __ Managed Vegetation _____ Natural Vegetation
_____ Lined _____ No Preference

_ _ Open Water with Water Level Above Ground Elevation
Surface Finish:
_____ Managed Vegetation ___ __ Natural Vegetation
_____ Lined _____ No Preference

___ Closed Pipe: ____ Below Ground Elevation ___ Above Ground Elevation

Managed Vegetation is vegetation within the conveyance feature is mowed and treated as necessary to minimize restriction to water flow. The banks are vegetated but with appropriate erosion protection as needed. This is similar to how the canals within the South Florida Water Management District are currently managed. Natural Vegetation is vegetation within the conveyance feature that is essentially allowed to grow naturally, not actively maintained, may restrict water flow, and may provide treatment benefit. The banks are vegetated but with appropriate erosion protection as needed.

Conveyance Feature: _____ New _ **X** __ Enhancement of an Existing Canal (provide name of existing canal) __**Bolles Canal**
_____

Configuration Name: __Florida Crystals_____

Check Most Important Feature(s) of Conveyance Component (if any) (check all features that are critical to Authors; if not checked then the proposed configuration will be optimized for this feature):

_____ Volume of Water to be Conveyed – Provide volume in ac-ft _____
(Facilitator will convert information to ac-ft as necessary)

_____ Water Depth – Provide depth in feet _____

_____ Conveyance Width – Provide width in feet _____

_____ Total Acres of Land – Provide acreage _____
(Facilitator will include acreage for component infrastructure as necessary)

_____ Ability to Meet A Specific Performance Measure (PM) / Indicator (I)
PM / I: _____ Percentage _____

Additional PM / I Information: _____
_____

_____ Cost – Provide maximum allowed cost _____

Only the features above that are critical to the Authors should be checked. It is acceptable not to check any features above. The evaluation performed will be based on this critical information and this critical information will not be changed during the evaluation. For example, if the Authors state the water depth is 4 feet and volume is 1 million ac-ft, then other features during the evaluation will be modified as necessary to obtain that requirement within any other limitations provided. The more limitations or critical features specified, the more difficult it may be to achieve the benefits within a reasonable cost.

General Component Location:
(provide details on the required location of the component in addition to the information drawn on the map, examples –

- *anywhere north of Lake Okeechobee*
- *only on US Sugar Lands west of L-19 Canal*
- *any lands between L-19 Canal and New Miami River Canal*)

List Counties: _____

FORM 5
Configuration Name: __Florida Crystals_____

Description: _____
_____
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_____
Provide additional information about the location of the component if needed to ensure the component is sited at the desired location. The Authors do not need to be specific. If no additional information provided, the Evaluation Team will utilize the information shown on the map and more specifically site the component to reduce costs and increase benefits.

General Description of Conveyance Component Operations:
_____
___**provide 3/4" per day removal rate.**
_____
_____
_____
_____
_____
If the Authors envision this component to be operated a certain way, this is where they need to describe that operation. For example, "canal can go dry and will be capable of conveying flows no greater than 4,000 cfs".

Check Most Important Operational Feature(s) of Treatment Component (if any) (check all features that are critical to Authors; if not checked then the proposed configuration will be optimized for this feature):

__ __ Inflow Capacity – Provide inflow in cubic feet per second _____
(Facilitator will convert information to cfs as necessary)

__ __ Inflow Type – Select ___ ___Gravity _____ Pump_____ Both

__ __ Outflow Type – Select __ __Gravity _____ Pump____ ___ Both

_____ Ability To Go Dry – Select ___ _ Yes _____ No _____ No Preference

_____ Internal Cells – Select _____ Yes _____ No ___ _ No Preference

If yes, how many cells? _____ Cells

Only the features above that are critical to the Authors should be checked. It is acceptable not to check any features above. The evaluation performed will be based on this critical information and this critical information will not be changed during the evaluation. For example, if the Authors state the inflow capacity is 6,000 cfs and both inflow and outflow by gravity, then other features during the evaluation will be modified as necessary to obtain that requirement within any other limitations provided. The more limitations or critical features specified, the more difficult it may be to achieve the benefits within a reasonable cost.

FORM 1
Configuration Name: _Florida Crystals_____

INSTRUCTIONS
Summary Sheet of Proposed Configuration

Instructions – Authors with Assistance of Facilitator Complete *FORM 1* for Each Proposed Configuration. **Bold items required.**
*For all of the forms with the Instructions of "*Authors with Assistance of Facilitator Complete . . .*" should be completed at the Workshop. The form can be filled in by the Authors or filled in by the Facilitator based on the information provided by the Authors, whichever the Authors prefer. If filled in by the Authors, the Facilitator will review for legibility, understandability, and completeness. If filled in by the Facilitators, Authors should review for accurate representation of their Configuration.*
==========

Configuration Name: _Florida Crystals_____
_____
Assist Authors of Proposed Configuration with Establishing a Unique and Descriptive Name of the Proposed Configuration. This Name will be used for all future presentations and documentation to describe that Proposed Configuration

Authors of Configuration: _____**Galen Miller, Sam Poole**_____
_____
_____
_____
_____
List the Name of Every Individual that created and contributed to this Configuration during the exercise

Spokesperson Name and Contact Info: _**Sam Poole: 954-627-9918, spoole@bergersingerman.com**

_
For technical questions contact Galen Miller: 816-668-1317, gmiller@burnsmcd.com

The Authors need to select a Spokesperson for the Configuration who will present the Configuration at the second day of the Workshop and who will be the point of contact for the Facilitator during the Evaluation phase. Need name, email address, and phone number.

Facilitator Name and Contact Info: __**Mark Long, 561-644-4292, malong@sfwmd.gov**_____
_____
Name, email address, and phone number of District Facilitator who will be the point of contact with the Spokesperson and the Evaluation Team.
==========

FORM 1
Configuration Name: _Florida Crystals_____

Configuration's General Description:

Expand STA 1W/STA 1E by 14,000 acres in S-5A basin; convert Talisman Compartment A to STA; couple Compartment B with (expanded) STA 3/4; develop 45,000 acre managed flowway south of Lake Okeechobee and generally west of Miami Canal; complete ECART; complete C-43 and C-44 reservoirs and treatment areas; divert S-4 basin runoff to managed flowway; discontinue (if possible) backpumping to Lake Okeechobee at S-2, S-3, and S-4; discontinue "backpumping" from L-8 canal.

_____
_____

This description should be able to convey the general aspects, elements, and general location of this configuration. Think of this description as a one page slide in a WRAC or Governing Board presentation. The general location information would be north of south of lake Okeechobee and if located solely or partially on USSC lands.

List Percentage of any Performance Measure (PM) / Indicator (I) Evaluated by RESOPs to be Achieved by Proposed Configuration:

PM / I: _____ Percentage: _____
PM / I: _____ Percentage: _____
PM / I: _____ Percentage: _____
PM / I: _____ Percentage: _____
PM / I: _____ Percentage: _____

Additional PM / I Information: _____
_____
_____
_____

Complete only if the Authors have a specific PM / I that they want to make certain is met by this configuration. An Example – LO - Below Stage Envelope performance of 50% or better. *Use the list of PM / I in the Facilitator's Packet as needed. Also, if specific questions or need clarifications, flag down Cal Neidrauer and Walter Wilcox. If nothing provided, the Proposed Configuration will be evaluated to optimize all PM /I as best as possible.*

Anticipated Benefits of Proposed Configuration Not Evaluated by RESOPs (examples – ecologic or economic benefits):

_____
_Improved water quality in discharges to Loxahatchee NWR; reduction in Lake Okeechobee TP load due to discontinuation of backpumping.

Configuration Name: _Florida Crystals_____

List any additional benefits anticipated from the Proposed Configuration by the Authors that RESOPs can not evaluate (Benefits not listed as a PM / I). These benefits may be ecological, economical, etc.

Proposed Configuration Estimated Cost in 2009 Dollars
(unless otherwise specified, includes real estate, ecological remediation, design, construction, engineering during construction, construction management, and contingency costs):

__approximately $1.5 billion plus land acquisition and remediation

If they have a cost estimate, please ask them to provide. If the cost estimate obtained during the evaluation phase is significantly different, we can contact the Spokesperson and attempt to clarify. Verify if the estimate provided includes all of the items listed about. If not, list which items the estimate does include. If they do not have an estimate, that is okay.

Overall Operational Assumptions for RESOPs to be Utilized During Evaluation of Configuration:

___RESOPS input file provided

List anything specifically the Authors want relative to the operation of the configuration not listed elsewhere on FORM 1. Examples might be a specific Lake Okeechobee Regulation Schedule, specific high and low levels for Lake

Okeechobee, only gravity flow from Lake Okeechobee, the ability or no ability to divert water from Lake Okeechobee to the north, storage component can never go dry, only a specified flow target for the Everglades, STAs can go dry or must always have water, no harmful discharges to estuaries, etc. Specifying any of these types of conditions may limit the benefits the configuration would achieve based on RESOPs instead of RESOPs optimizing the operating parameters as best as possible.

Key Elements Not Mentioned Elsewhere:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

List the main aspects that are the biggest concern to the Authors that have not been mentioned elsewhere on this FORM 1. Examples might be gravity flow from Lake Okeechobee, no storage over 4 feet deep, a shallow flowway that conveys and treats water, all construction located west of the Miami Canal, no deep storage, no ASRs, etc. These items you might pick up during the course of the 2-day Workshop.

FORM 2
Configuration Name: __Florida Crystals _____

INSTRUCTIONS
Summary Sheet of Components
For Proposed Configuration

Instructions – Authors with Assistance of Facilitator Complete *FORM 2* for Each Proposed Configuration. **Bold items required.**
It may be easier to complete this form after the Authors have drawn an initial configuration on a map.
==========

Configuration Name (from *FORM 1*): ___**Florida Crystals**_____
_____

==========

Provide Name and Circle Primary Function(s) of Each Component of Proposed Configuration (a component can have more than one primary function):

1. **14,000 acre STA in S-5A basin** / Treatment
2. **Enlarge North New River & Bolles (ECART)** / Conveyance
3. **Convert Talisman "A" to STA** / Treatment
4. **Enlarge Miami Canal to flowway** / Conveyance
5. **45,000 acre managed flowway** /Storage / Conveyance
6. **Divert S-4 basin to flowway** / Conveyance
7. **Expand Bolles canal** / Conveyance
8. _____ Storage / Treatment / Conveyance
9. _____ Storage / Treatment / Conveyance
10. _____ Storage / Treatment / Conveyance
11. _____ Storage / Treatment / Conveyance
12. _____ Storage / Treatment / Conveyance

Establish a Unique and Descriptive Name for each component within the proposed configuration. This name and the corresponding number will be used throughout the evaluation phase for this Configuration. The primary function of a component is based on the desires of the Authors. Typically, a reservoir stores water although it may provide some treatment – a reservoir typically is just considered a storage component. Similarly, a Stormwater Treatment Area is considered a treatment component although it does provide some storage. However, a flowway may be considered a storage, treatment, and conveyance feature and the Authors want all three functions to be primary functions. Also, ask the Authors to add these component numbers to the map they are drawing on to assist in verifying the location of each component.

A separate FORM 3 will be completed for EACH Storage Component listed above. A separate FORM 4 will be completed for EACH Treatment Component

listed above. A separate FORM 5 will be completed for EACH Conveyance Component listed above. If a component is both Storage and Treatment, complete FORM 3 first and provide any missing information in Form 4. Similarly, if a component is both Treatment and Conveyance, complete FORM 4 first and provide any missing information in Form 5. If a component is both Storage and Conveyance, complete FORM 3 first and provide any missing information in Form 5. And Lastly, If a component is Storage, Treatment, and Conveyance, complete FORM 3 first, then provide any missing information in Form 4, and any remaining missing information in Form 5.

General Description of How Water Flows Through the Proposed Configuration: _____
_____
_____
_____
_____
_____
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_____
_____
_____
_____
_____
_____
_____

The Authors should be able to generally describe how the water gets from the originating water source (for example, Lake Okeechobee) to the final destination of the water. As much as possible, the Authors should utilize the names of the components specified above and all of those specified components should be included in the description. If they do not have specific conveyance components defined, then the Evaluation Team will include the proper conveyance to follow the path they have described. For example, the description above may be "Water flows from Lake Okeechobee down the North New Miami River Canal, to Component No. 1 Flowway, discharges to a canal, enters Component No. 2 Stormwater Treatment Area, discharges into the Everglades." Or "Water flows from Kissimmee River to Component No. 3 Reservoir and to Lake Okeechobee." Then, the Evaluation team will add the conveyance components that fit the requirements of the other information provided by the Authors to insure the Configuration is functionally viable.