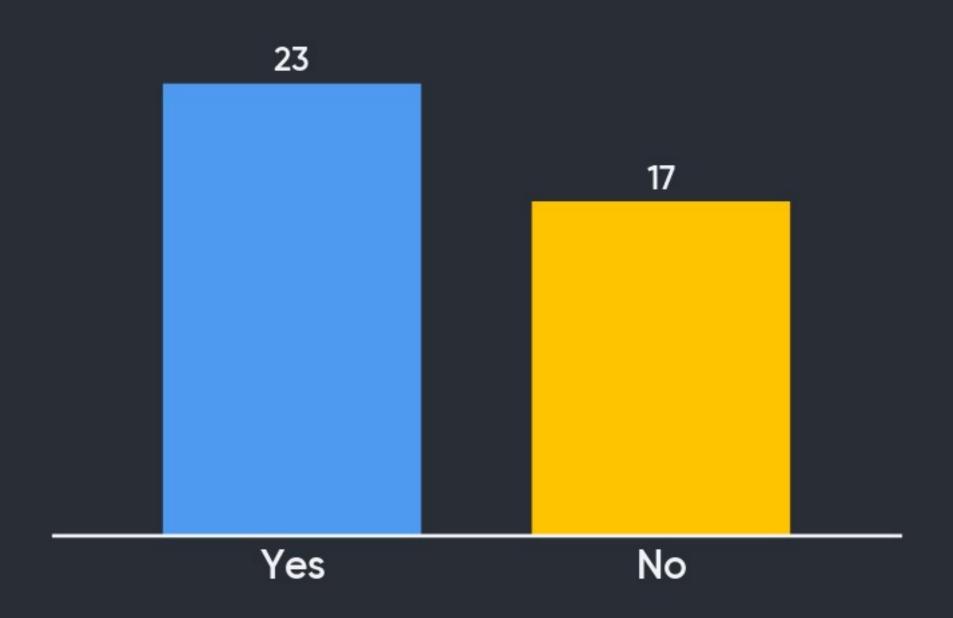


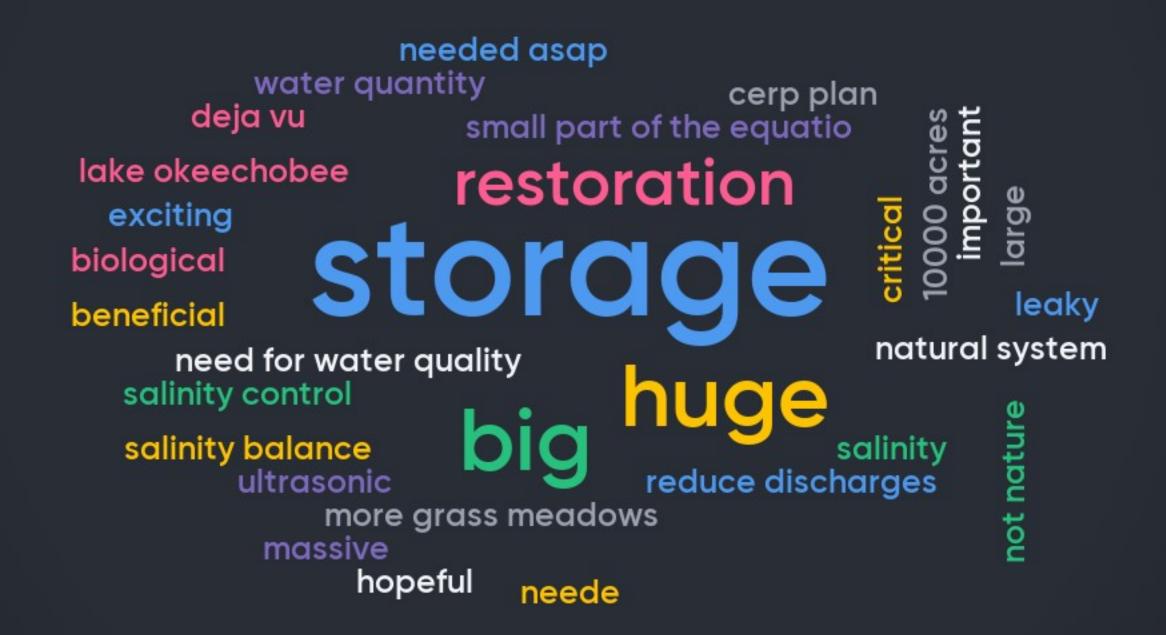


C-43 Reservoir Water Quality Feasibility Study Public Input

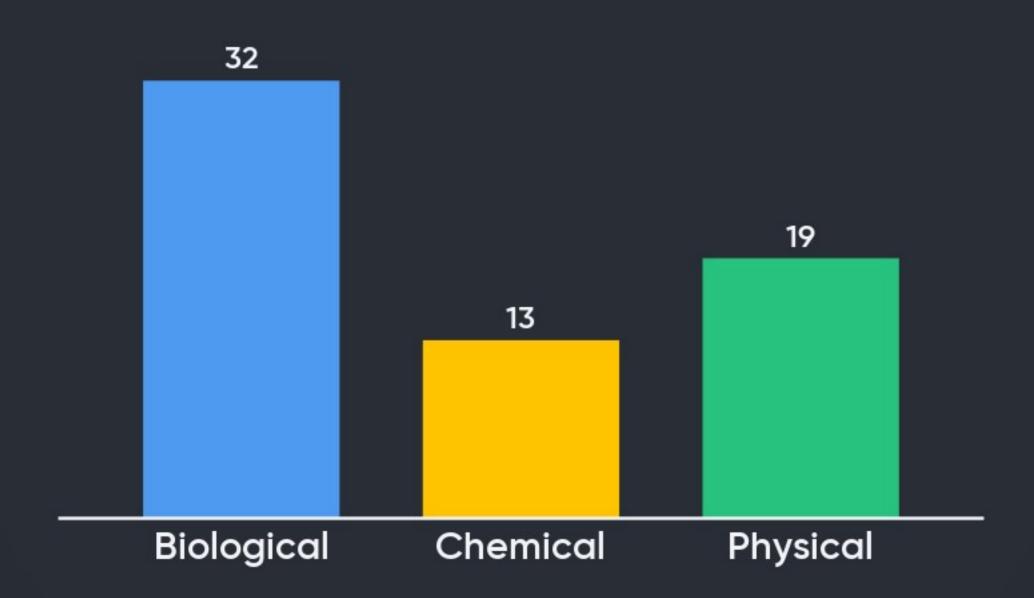
#### Is this the first public meeting for the C-43 Reservoir Water Quality Feasibility Study that you have attended?



# List one or two word(s) that immediately comes to mind when you think of the C-43 Reservoir.



# Which type of technology would you like to know more about?





EAA STAs Everglades STAs Sta in everglades

STA 3/4 in the EAA

naples

Freedom park filter marsh

Caloosa sea grass plantings

Lake Ockhobee lock

Jordan marsh

Coagulants



Bent Oaks RIB in DeLand

FAVT in neep

**Bold & Gold Marion County** 

Freedom Park in Naples using constructed wetlands in a treatment train with detention ponds

stormwater treatment areas,

Alum treatment

Biochar and wood treatment train

Dispersed Water Management

STA's



All of these

Ten Mile canal

EAA STAs, HWTT in several locations

Harns Marsh

Floating islands in Naples stormwater ponds

Bonita Springs denitrification bioreactor

Recycled water containment areas ifas

Lake Henry

Jordan Marsh

Dispersed Water Management

SAV plantings in Caloosa

Hybrid wetland Algal Scrubber Lake Jesup

**FAVT** 

harvesting of water lettuce

Hybrid wetland treatment

Bonita Springs BioFilter with nutrient removal material

Coagulation in lakes

STA 1E, 1W, 3/4

80percent capacity used by Eaa insted of lake o Pretreatment Structures,St. Petersburg, Bold and Gold

4G Ranch in Pasco County

Jordan Marsh WQ Treatment Park **HWTT** north of LO

**Constructed Wetlands** 

**SEEP at UF** 

hybrid wetland treatment northern everglades

Asr well?

**Bmps** 

Crystal river sea grass restoration

**Aqualutions** 

Floating island in Naples

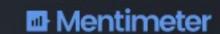
AquaFiber Lake Jesup

STA 3/4

Mechanical harvest vs chemical

Cost per pound of removal of each technology

Helping to meet Townsend Canal TMDL



Sustainability

Avoiding toxic algae formation in reservoir.

The reduction

The reduction

Beneficial reuse

Habitat

Cost effectiveness

Carbon emissions

Willing sellers

Secondary benefits

Permitting challenges

**Habitat creation** 

resiliency

Efficacy of reducing TN below 0.8 ppb

meeting numeric criteria

Impacts to wildlife

Compatibility with surrounding land uses

**Land Requirements** 

**Ecological benefit** 

Habitat

ancillary environmental benefits

Impacts to lands surrounding the reservoir

Time to operation. Shorter the better.

Wildlife impact

natural systems impacts

wildlife benefit

Fish and wildlife habitat



How different treatments could be sequenced or "trained".

Impacts to wildlife

**Ecological benefit** 

Overhead Cost

Natural system thresholds

waste disposal

Ecological systems

Will it take land off the tax rolls in Hendry County?

adding wetland habitat



Recreational value, Other biological benefits such as wildlife habitat

Habitat values as added benefit.

sustainability

Habitat

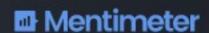
Compatibility with neighboring properties. Minimization of potential seepage impacts from reservoir.

economic impact to the Hendry County area Secondary pollution

Compatible recreational opportunities.

Disposal of sediments and chemicals





in-situ toxicity tests

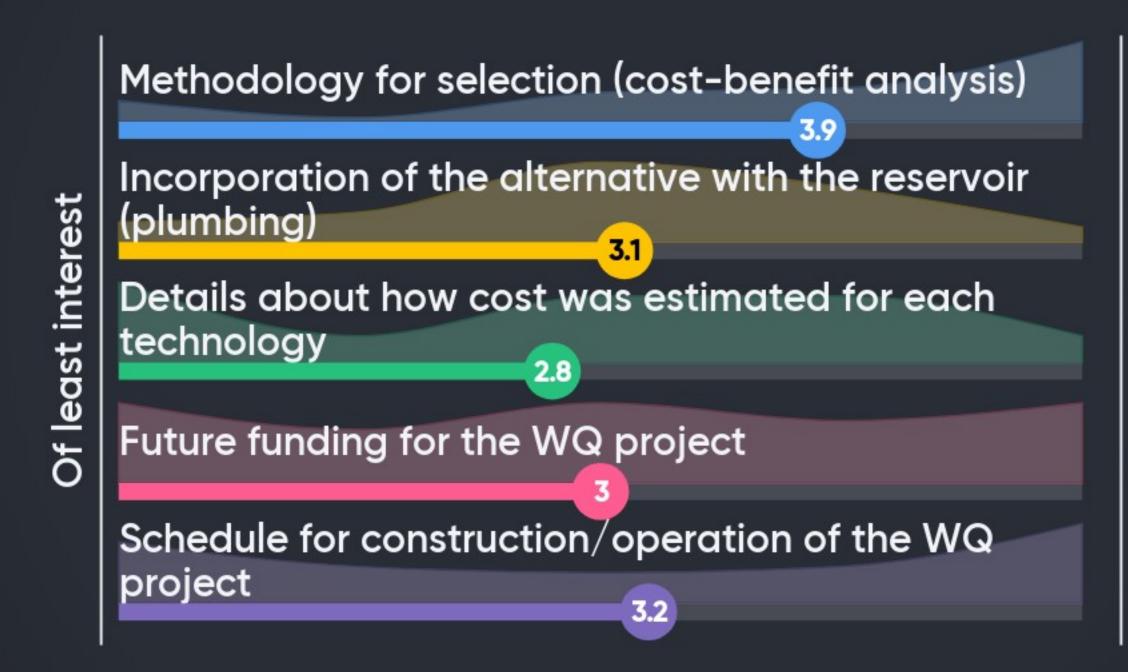
Disposal imacts

lifespan of solution

Higher nitrogen removal due to estuary limit

Synergies

#### What information would you like to hear about most at the next public meeting regarding the final 3 alternatives to be selected?



# Please type in any questions you have related to the C-43 Storage Reservoir Project.

None, thank you!

Are there any ways the storage benefits can be increased by multiple fillings?

Will the restoration of SAVs post storage be considered as part of this feasability study? Thank you-

Will the operational plan allow recycling of water within the reservoir?

will c-43 end up like another Lake O with lots of P at the bottom?

How long after incorporating the chosen technology will it be studies to determine if it continues to work?

No

Need evaluation of sea grass restoration project

Will the TMDL in the Townsend Canal affect the reservoir operations?



# Please type in any questions you have related to the C-43 Storage Reservoir Project.

How many funding sources

Now that you are aware of the water quality issue, could a filter marsh be constructed within part of the reservoir footprint?

How does the C 43 reservoir volume of water needed to be treated compare to the treatment options presented

how will this project be used in the comprehensive everglades restoration plan? Will there be trade offs between the volume of water needed to meet the MFL and WQ treatment? How will this be addressed?

Is the plan to empty the reservoir completely every

year?

Is the list of alternatives to be evaluated set, or will others be included in the future? Specifically, has DWM or other low-tech, low-cost alternatives been considered (or will they?)

Will there be any delays in construction due to the impacts of COVID-19

how many days of 457 cfs flow can the reservoir provide

# Please type in any questions you have related to the C-43 Storage Reservoir Project.

Thank you this is a great format for web meeting public input and questions

Can nutrients removed be sold?

Are you looking at phosphorus nitrogen ratios when considering the treatment and water quality within the reservoir?

Thanks. Really like the Menti function. Be safe.

This was very successful way to get updates on the project and in hearing the concerns of other stakeholders. Well done.

## Please type in any question you have related to the technologies that are being evaluated for the Study.

Could you list the 10 one more time. I missed the first hour

Is there more detail on the technologies on the website?

Have you considered the use of floating treatment wetlands in the reservoir?

What happens if the chosen technology stops doing what it says it will?

Wouldn't nitrogen removal be the primary objective since the water ends up in the estuary?

Are you considering additional proposals?

evalulate impacts to native wildlife and possibilty they might add invasive wildlife

Are the technologies to be evaluated set, or will any others be considered? Such as DWM?

As nutrients are removed, will there be a discussion of how the chosen treatment might perform? For example, at 100 ppb TP, you might remove 70% but will that removal be expected at 20 ppb?

## Please type in any question you have related to the technologies that are being evaluated for the Study.

Will there be any pilots ahead of choosing one to use?

Is one technology more beneficial or safer over others during a hurricane

Where are the guidelines given by Congress available?

Do you have a comparison table of all the treatment technologies being considered?

Are you considering phosphorus:nitrogen ratio in identifying water treatment within the reservoir

Do chemical treatments create any undesireable environmental effects?

When is the next public meeting?



#### Please type in any additional questions you may have about the Study.

Will the slides from this presentation be online? how will this study tie into the **CERP Plan?** 

Can the district sell any of the nutrients that are removed to recover any costs

Great session given the circumstances. Thank you!

Will it help to only load river water into reservoir when fairly clean?

You rock!!!!

When will it be published online?

How will ecosystem services be incorporated into the cost/benefit?

Is there possible use of ASR for nutrient reduction?



# Please type in any additional questions you may have about the Study.

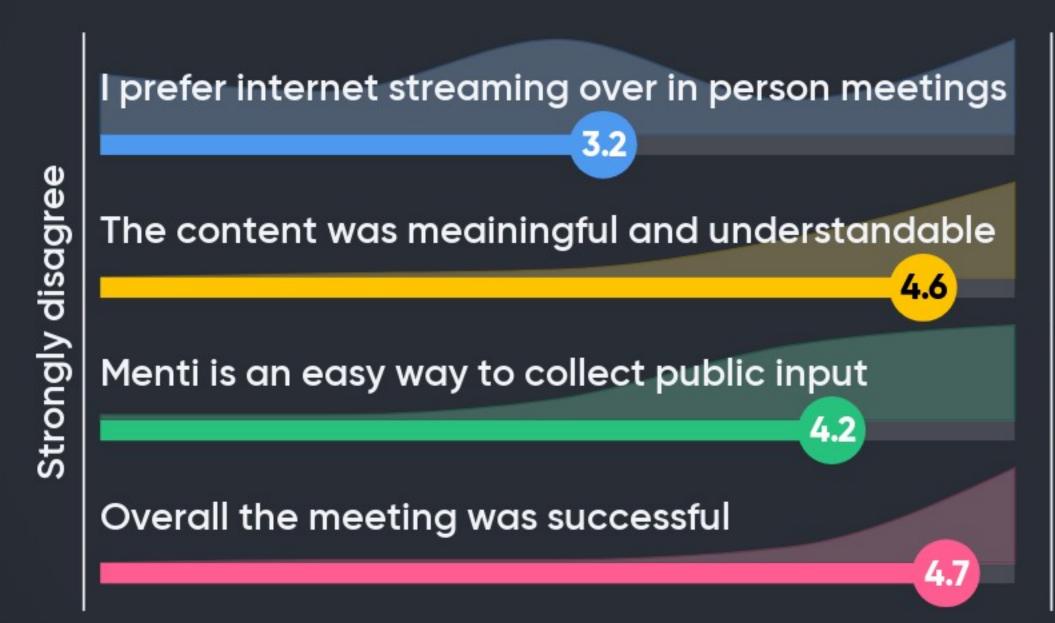
look also at the Q&A people adding in the zoom screen!!

When is the next public meeting

Great job, loved Menti!



#### Please provide feedback about the format of this meeting.





#### Project Website

C43waterquality@sfwmd.gov

https://www.sfwmd.gov/content/c43waterqualitystudy