



# COLLABORATIVE MODELING LAB

OASIS SCENARIOS AND REGIONAL CONSERVATION MESSAGE DISCUSSION

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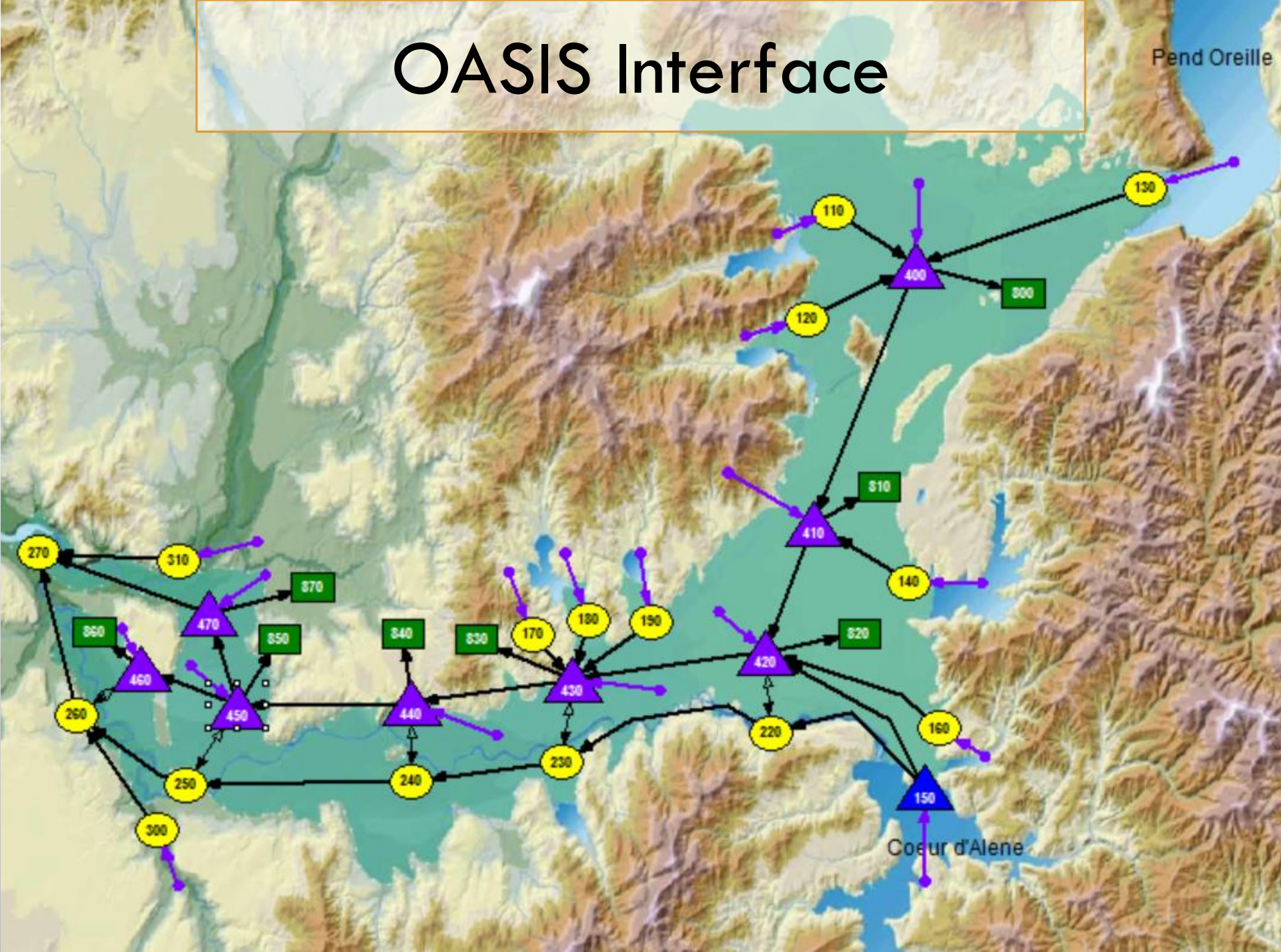
# OUTLINE

I) OASIS SCENARIO DISCUSSION

II) SPOKANE RIVER BASIN / SVRP REGIONAL  
WATER CONSERVATION MESSAGE DISCUSSION



# OASIS Interface



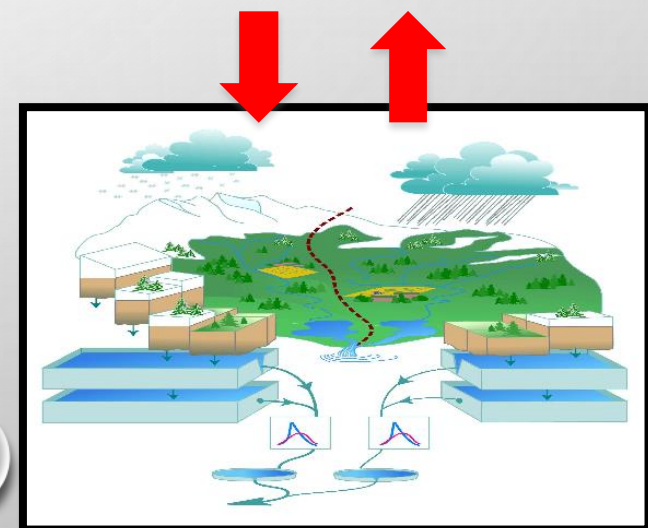
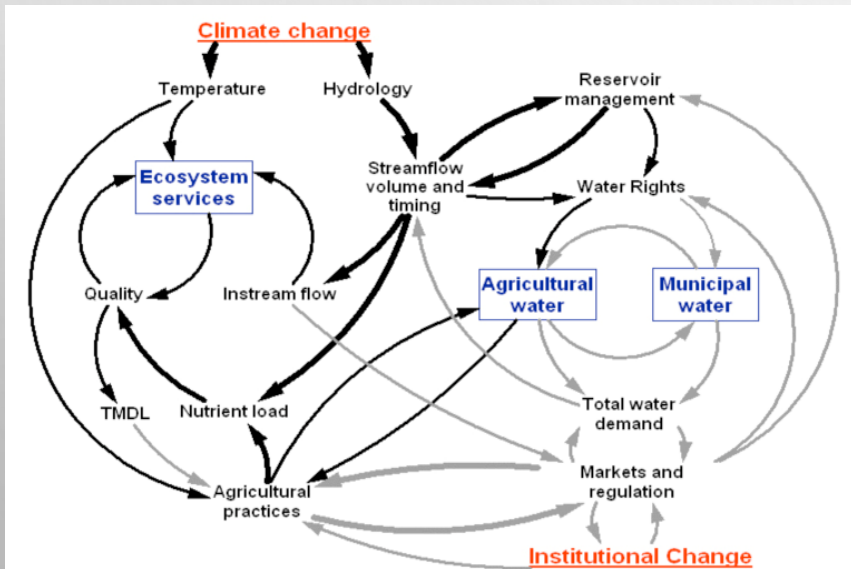
# INFLOWS

- GROUNDWATER MODFLOW INPUTS (TIME-SERIES)
  - AREAL + TRIBUTARY RECHARGE FOR THE 7 SUB-REGIONS
  - LAKE INPUTS
    - \*COEUR D'ALENE LAKE IS MODELED AS A RESERVOIR
- GROUNDWATER DEMAND INPUTS (FROM MODFLOW AND USGS)
  - MUNICIPAL, AGRICULTURAL, INDUSTRIAL
- RIVER INPUTS
  - COEUR D'ALENE LAKE TOTAL INFLOWS
  - HANGMAN CREEK USGS GAGE DATA
  - LITTLE SPOKANE RIVER USGS GAGE DATA

# WHY MODELS?

## MODELS AS A PLATFORM FOR DIALOGUES

- LEARNING TOOL
- DECISION/PLANNING SUPPORT TOOL
- EXPLORE FUTURE SCENARIOS



# WHY STAKEHOLDER INPUT IS IMPORTANT

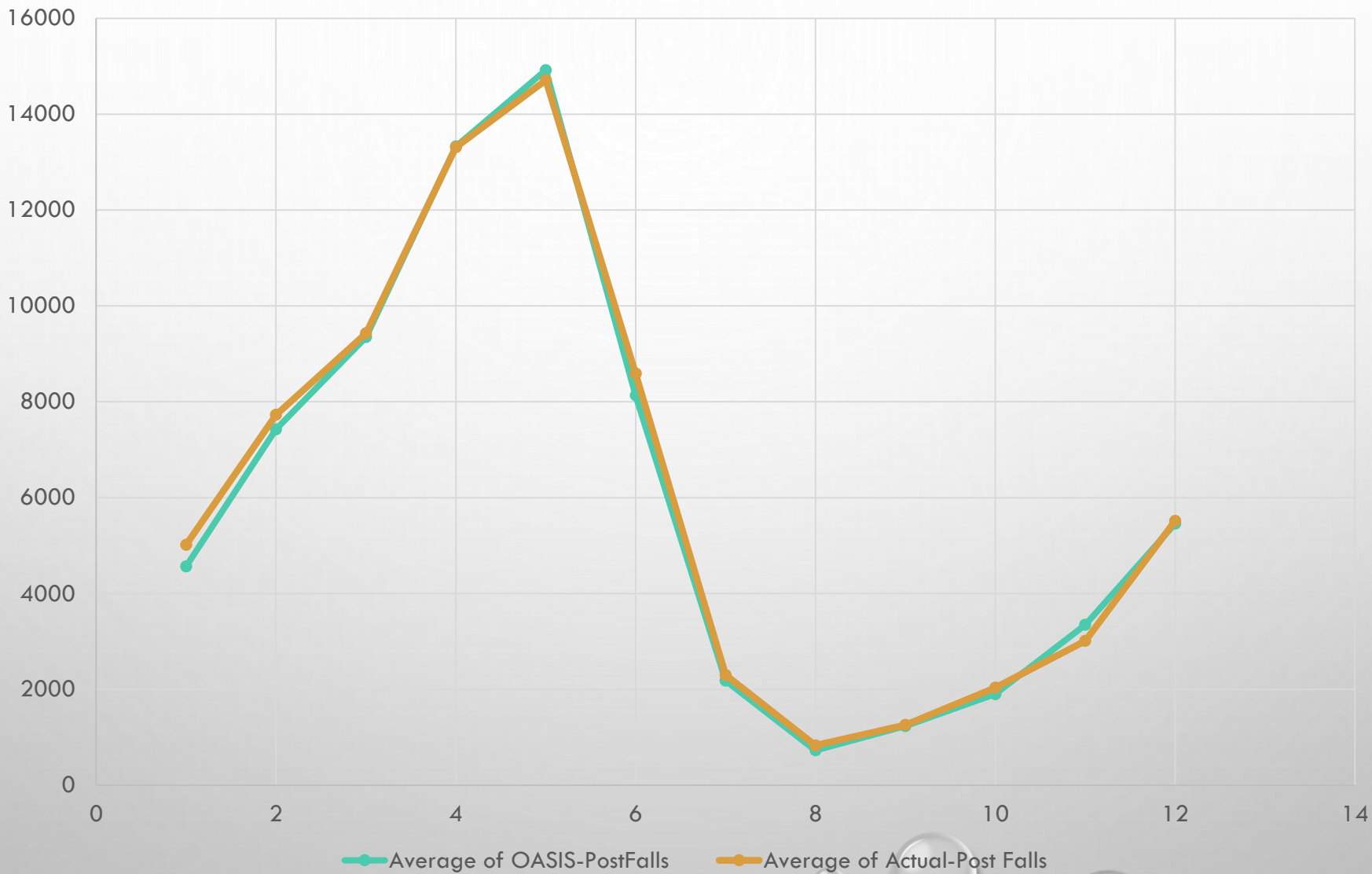
- PURPOSE OF MY RESEARCH
  - UNDERSTAND **YOUR** REGIONAL WATER RESOURCE MANAGEMENT NEEDS
    - SUCH THAT I CAN PROVIDE A MEANINGFUL AND RELEVANT TOOL FOR WATER RESOURCE PROFESSIONALS (OASIS)
  - DEVELOP **RELEVANT** SCENARIOS TO ADDRESS WATER RESOURCE MANAGEMENT CHALLENGES IN THE REGION
- WHAT KIND OF SCENARIOS, GRAPHICS, METRICS, ETC. WOULD **YOU** LIKE SEE?
  - WHAT ARE YOUR **BIG IDEAS** RELATED TO WATER RESOURCES IN THIS REGION?

The slide features a light gray background with a subtle gradient. In the top-left and bottom-right corners, there are clusters of realistic, 3D-rendered water droplets of various sizes, some overlapping. The main text is centered on the slide.

# OASIS MODELING OUTPUTS

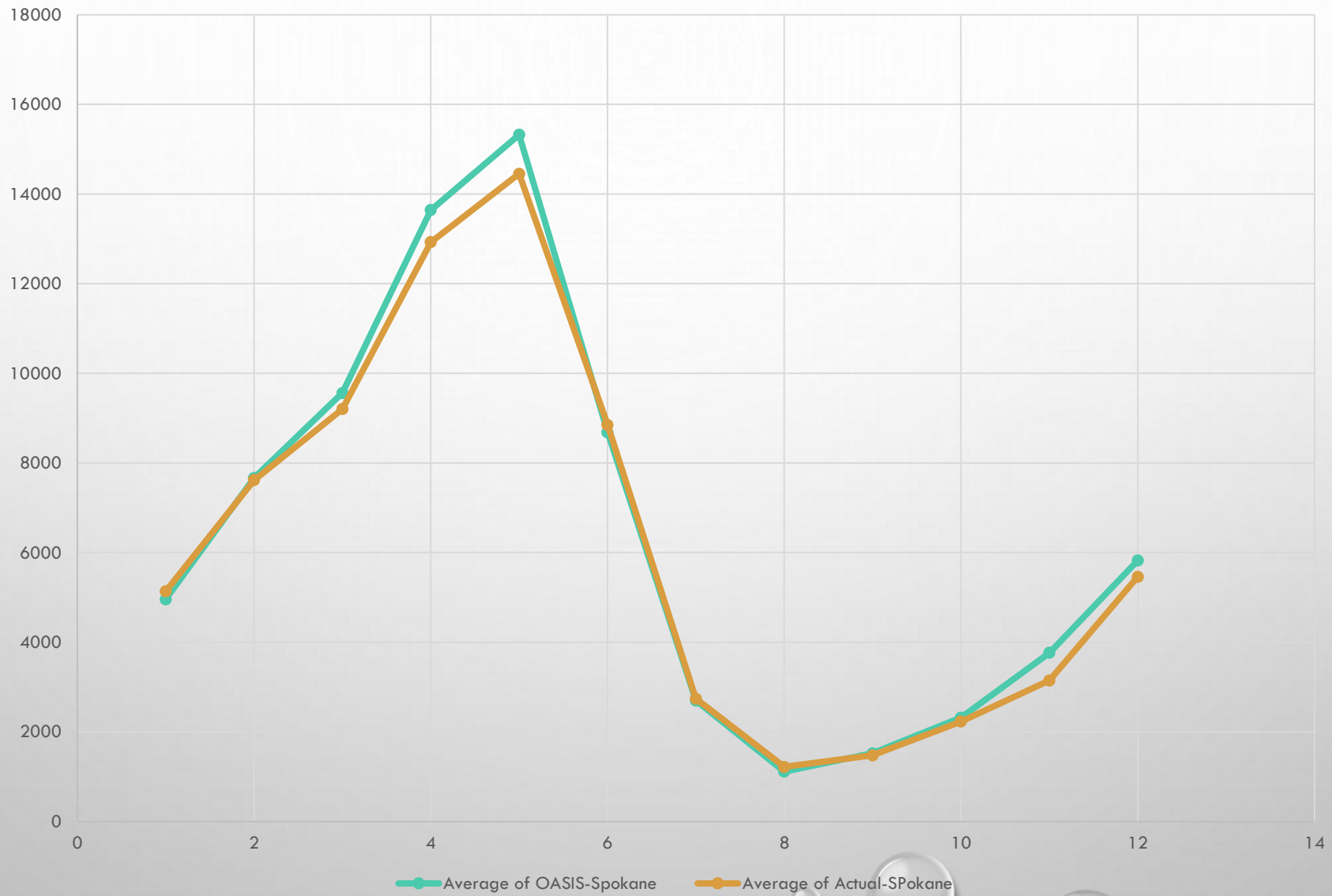
COMPARISON TO GAGED DATA AND RESPONSE EFFECTS SPREADSHEET TOOL

# at Postfalls Monthly Avg (CFS) OASIS vs. Gage

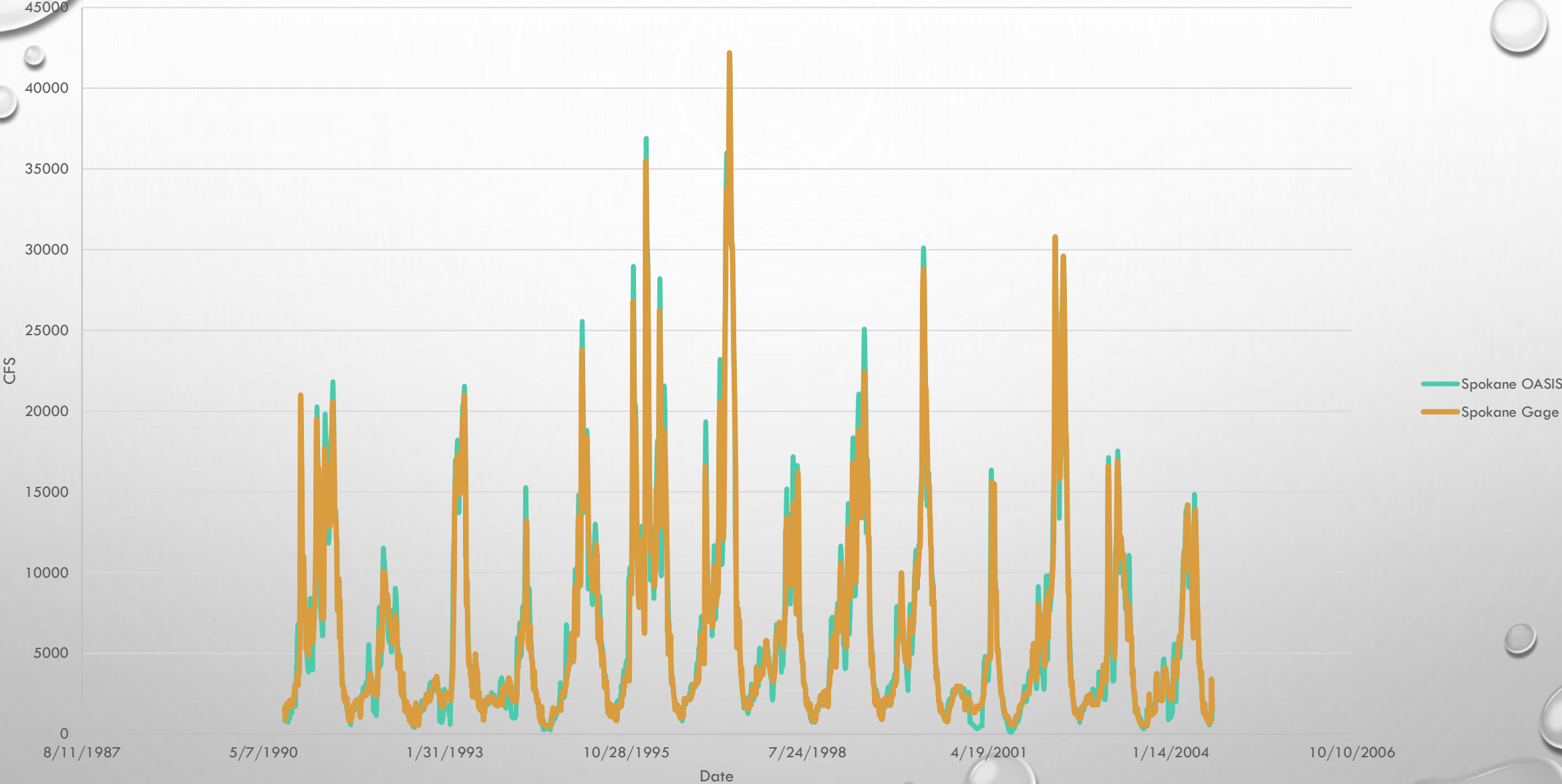




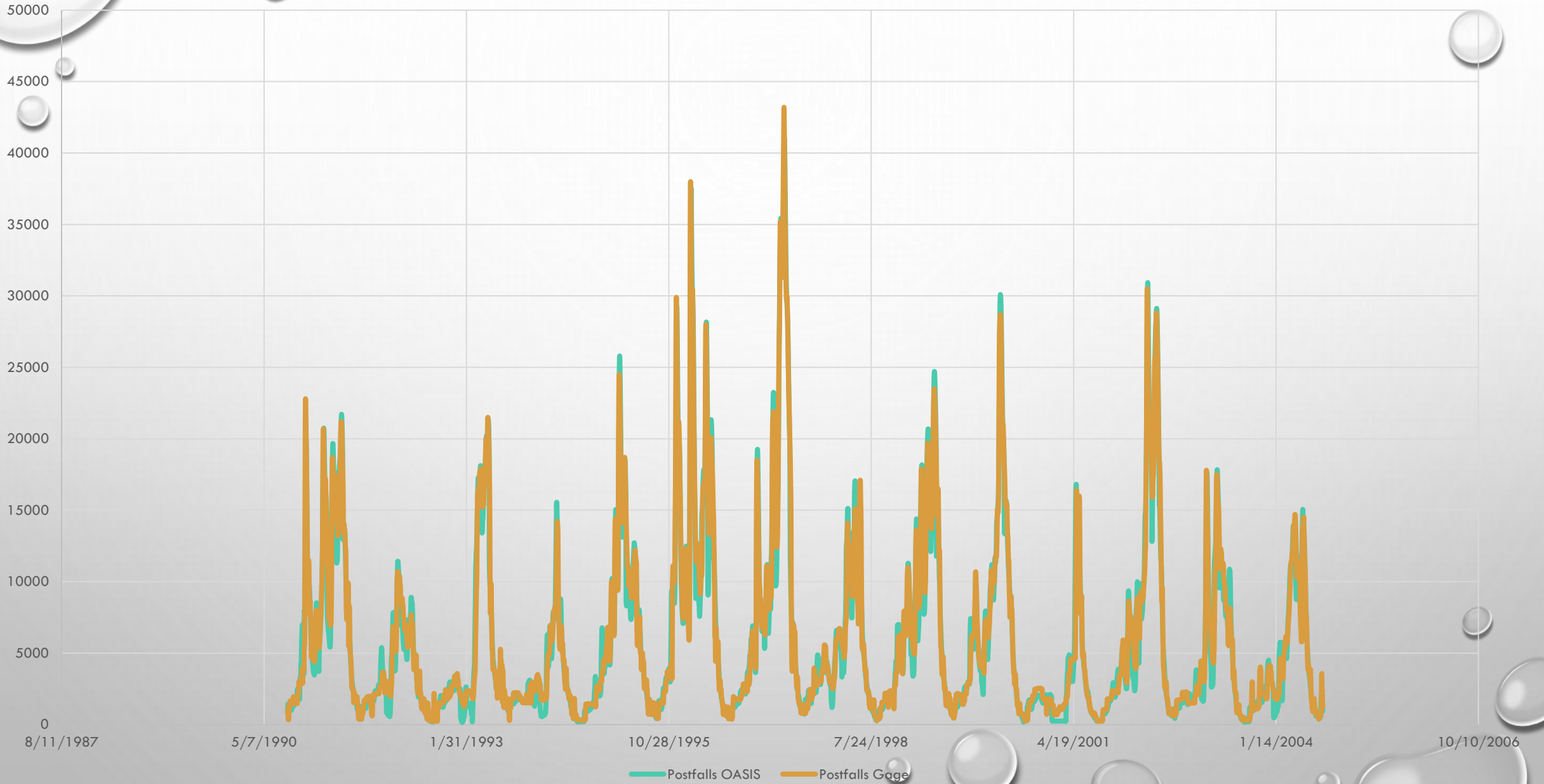
at Spokane Monthly Avg (CFS)  
OASIS vs. Gage



Spokane: OASIS vs. Gaged



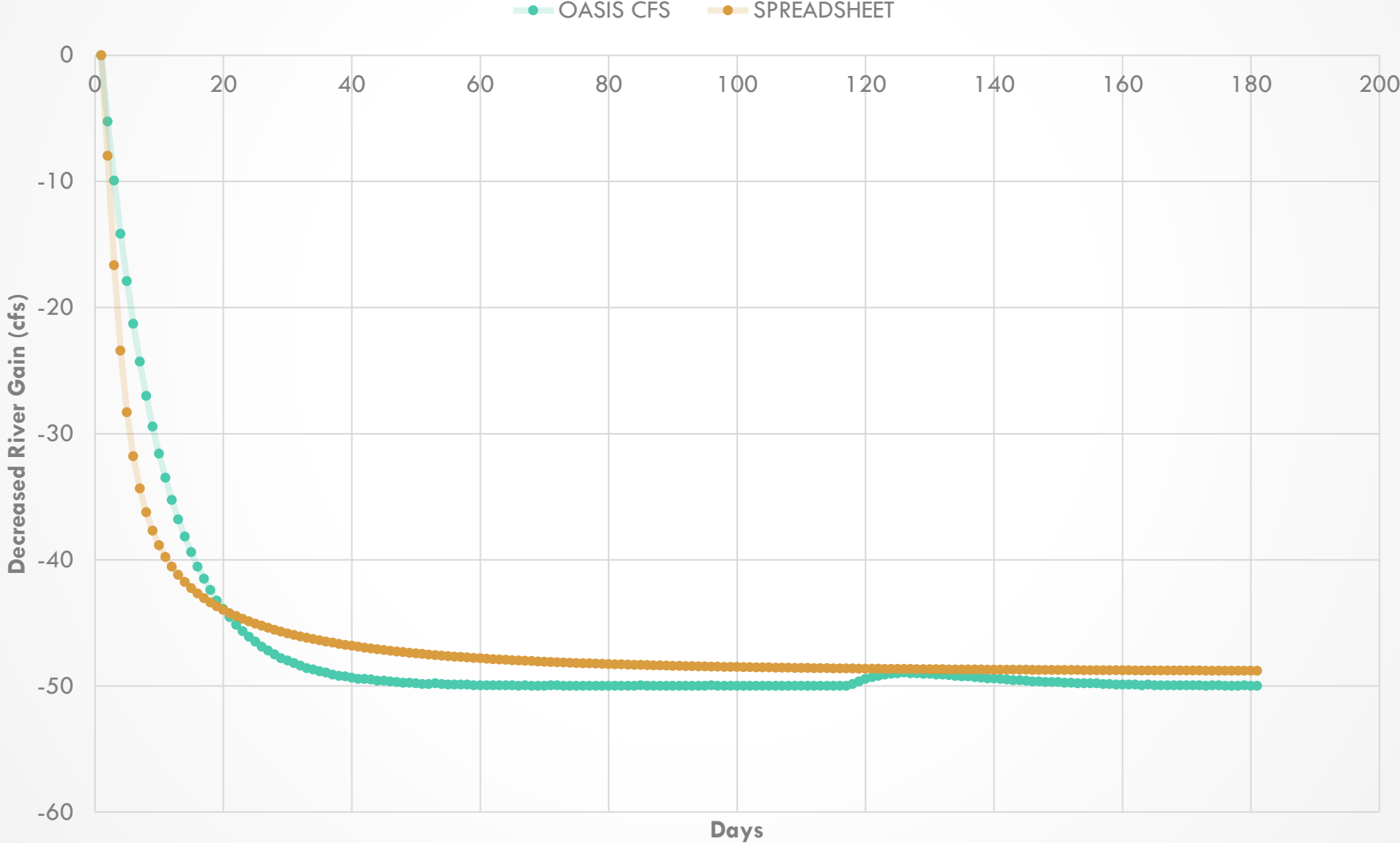
# Post Falls: OASIS vs. Gaged



# River Effect Graph (CFS)

## OASIS vs. MODFLOW Spreadsheet Tool

(+100 MGD pumping in Spokane area for 180 days)

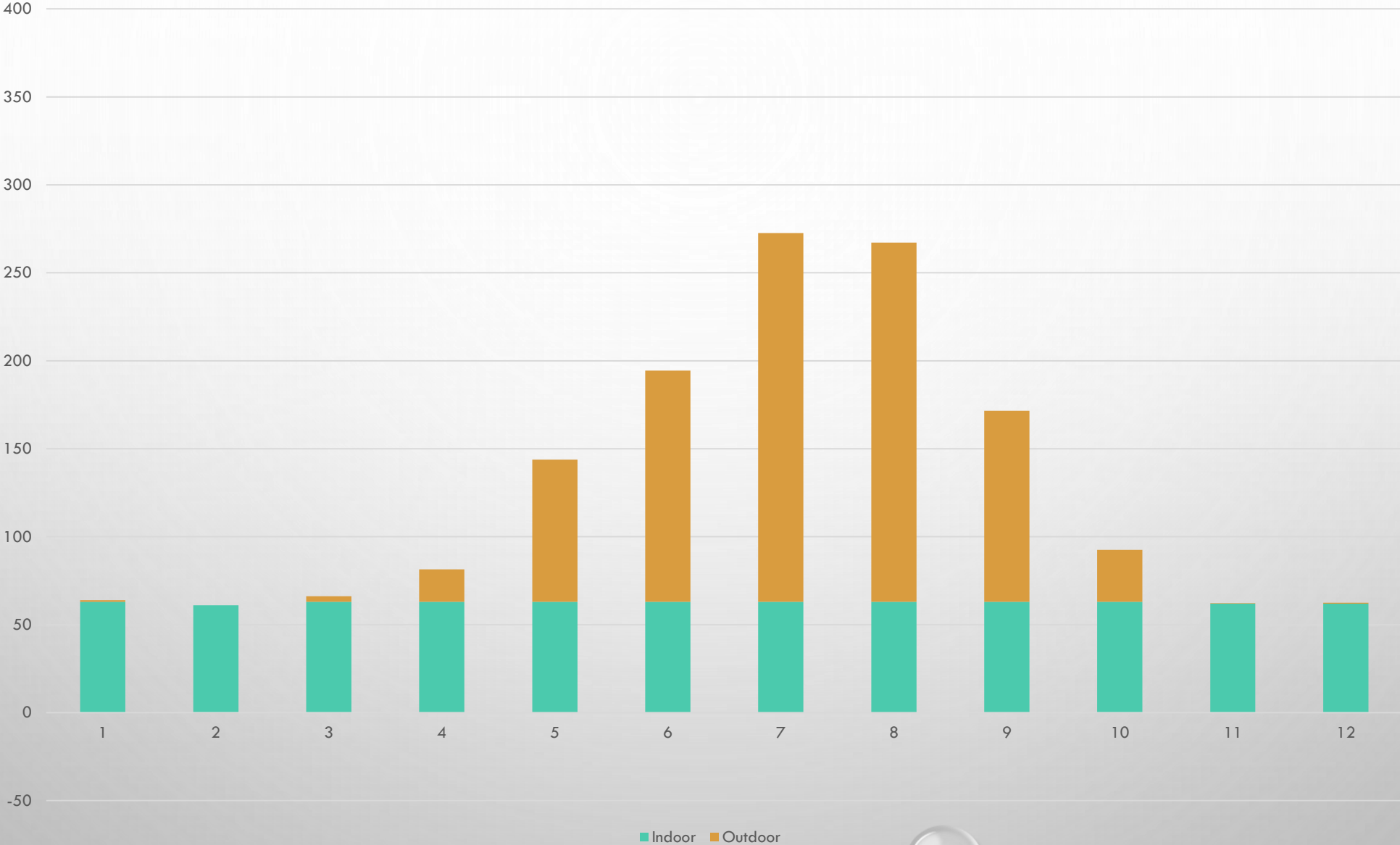


The background features a light gray gradient with several realistic water droplets of various sizes scattered in the corners. The droplets have highlights and shadows, giving them a three-dimensional appearance. The largest droplets are in the top-left and bottom-right corners, while smaller ones are scattered throughout.

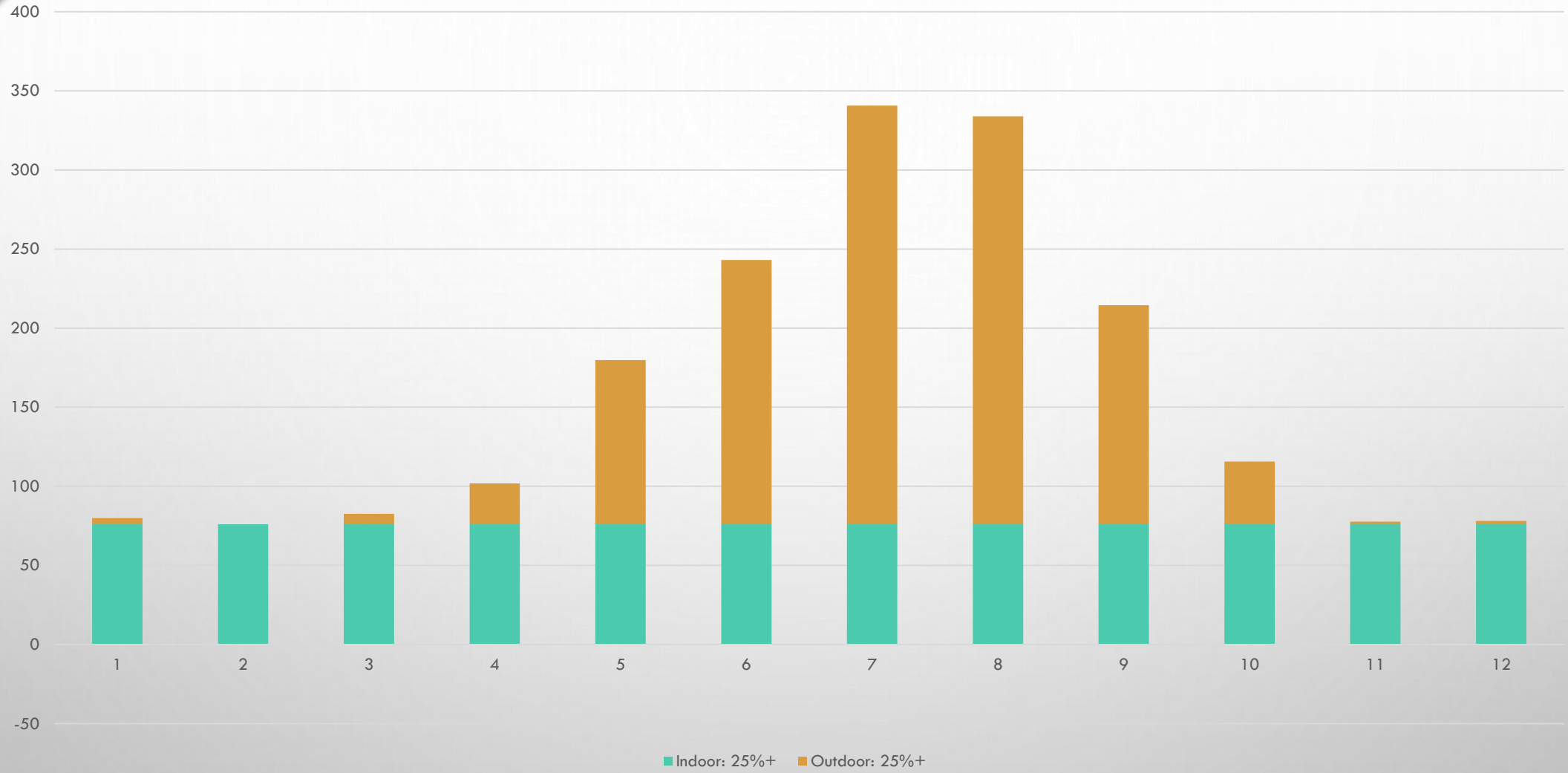
# OASIS MODELING SCENARIO:

CLIMATE CHANGE + 25% INCREASE IN REGIONAL DEMAND  
(I RANDOMLY THOUGHT OF THIS SCENARIO)

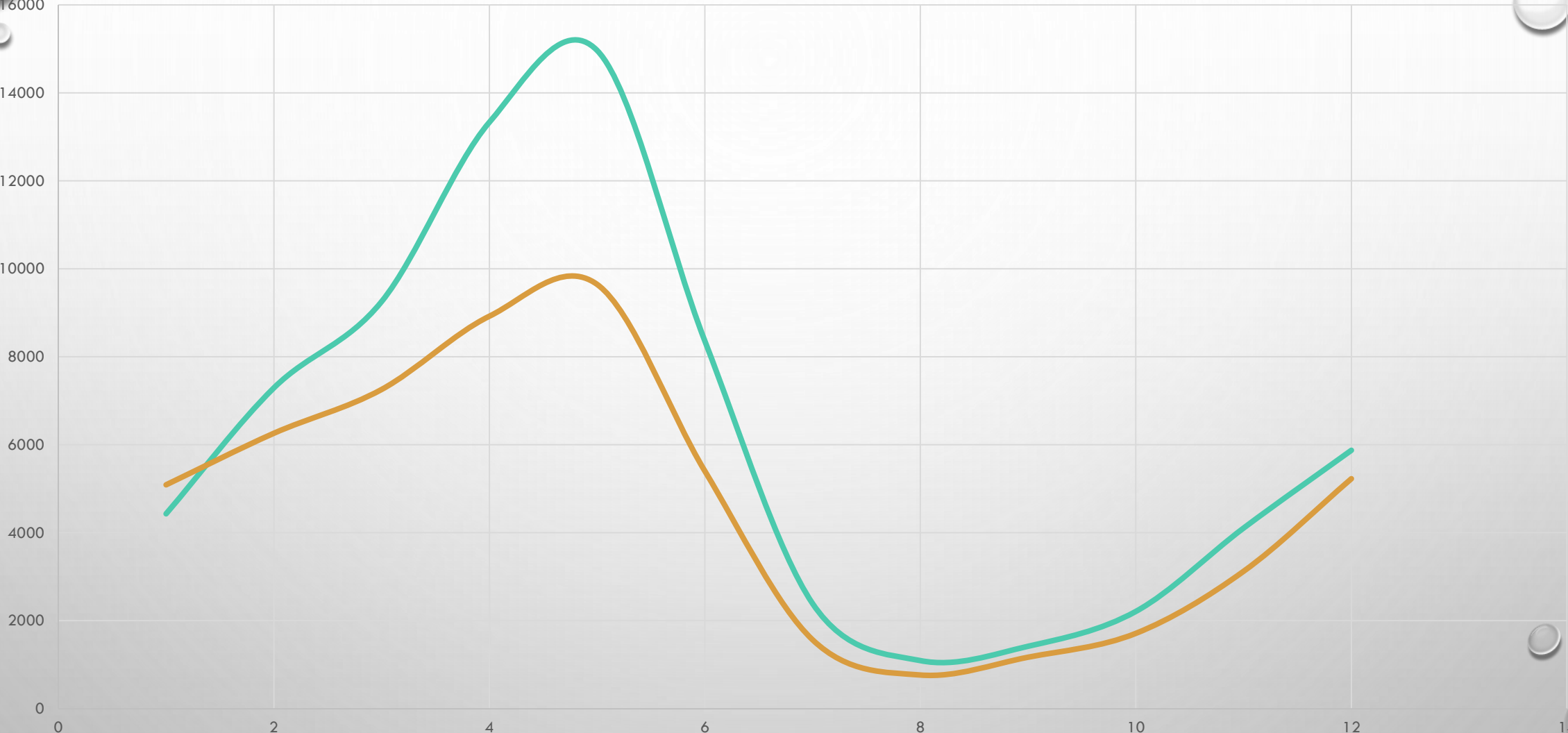
# Total Average Monthly Demand [BAU]



Total Average Monthly Demand: +25%



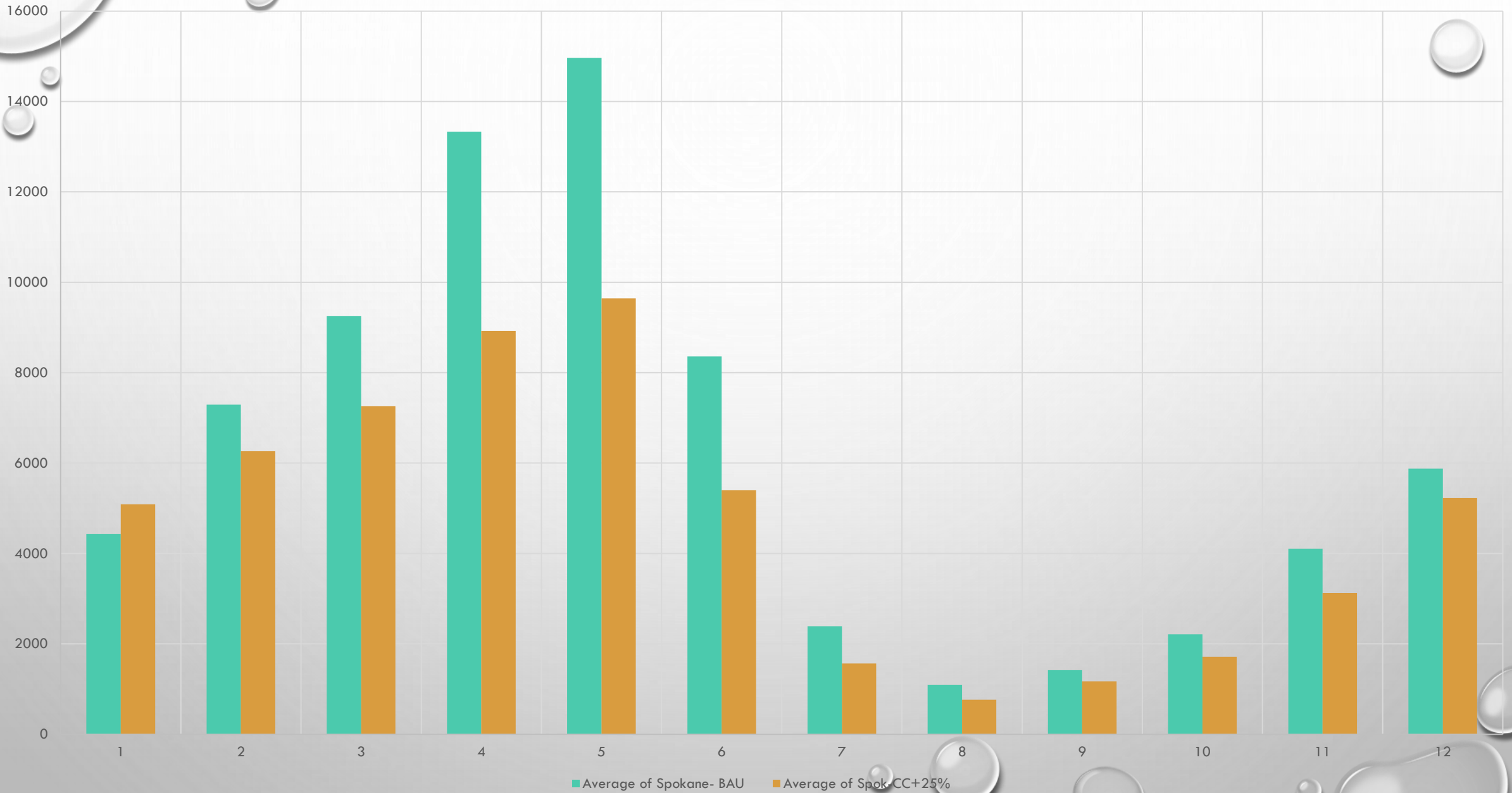
Spokane Gage Monthly Avg: BAU vs CC + 25%



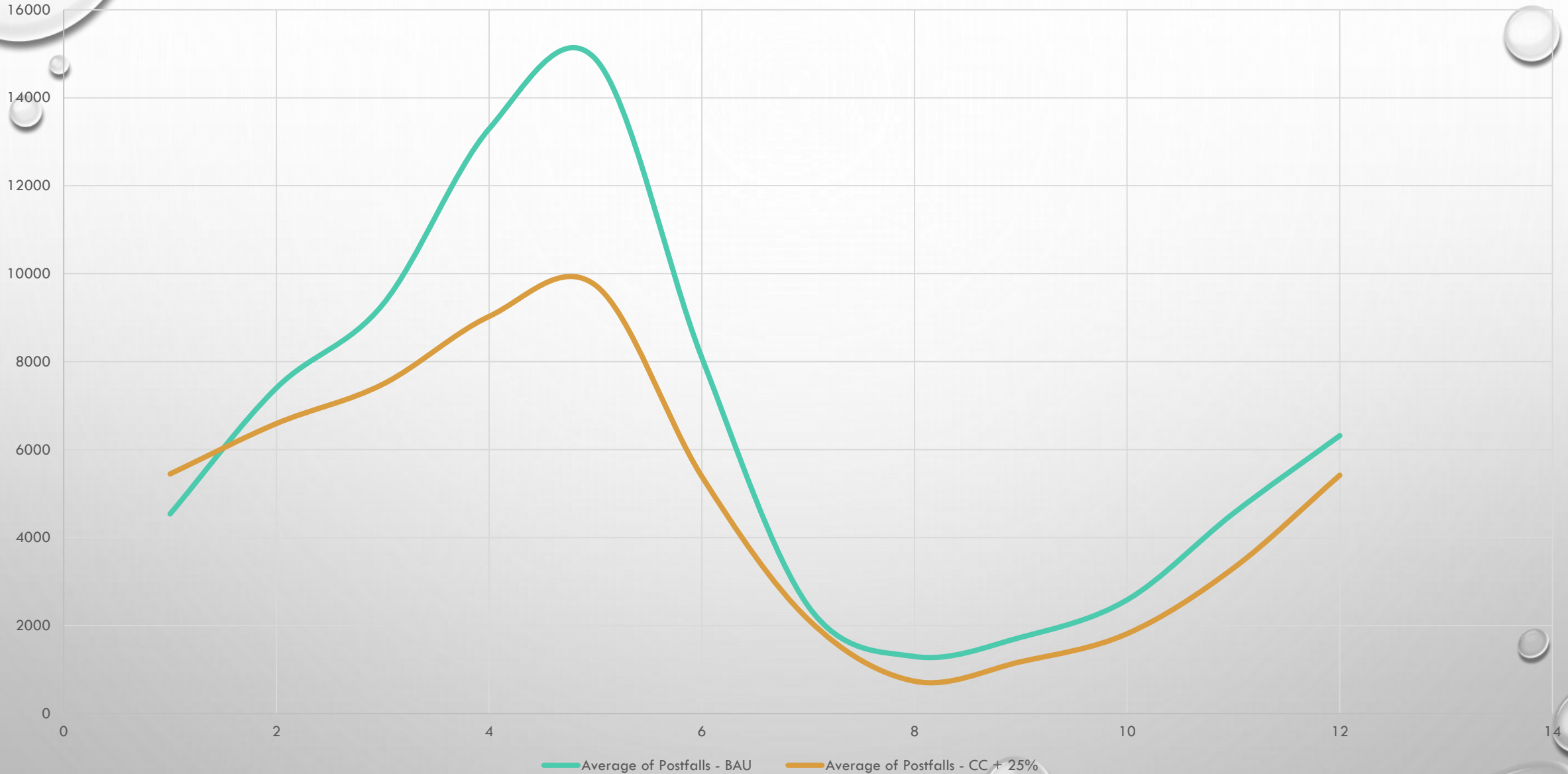
— Average of Spokane- BAU — Average of Spok-CC+25%



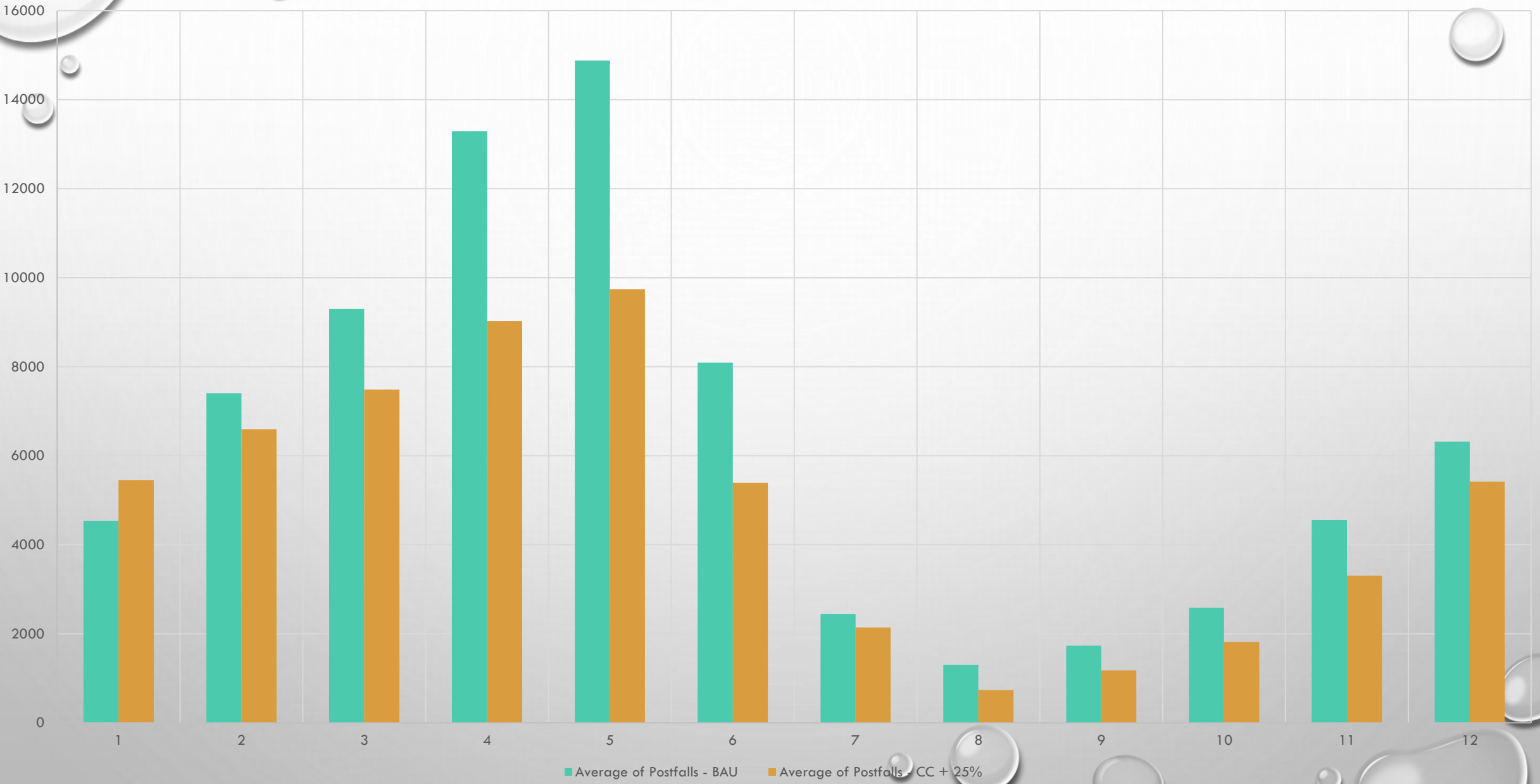
Spokane Gage Monthly Avg: BAU vs CC + 25%



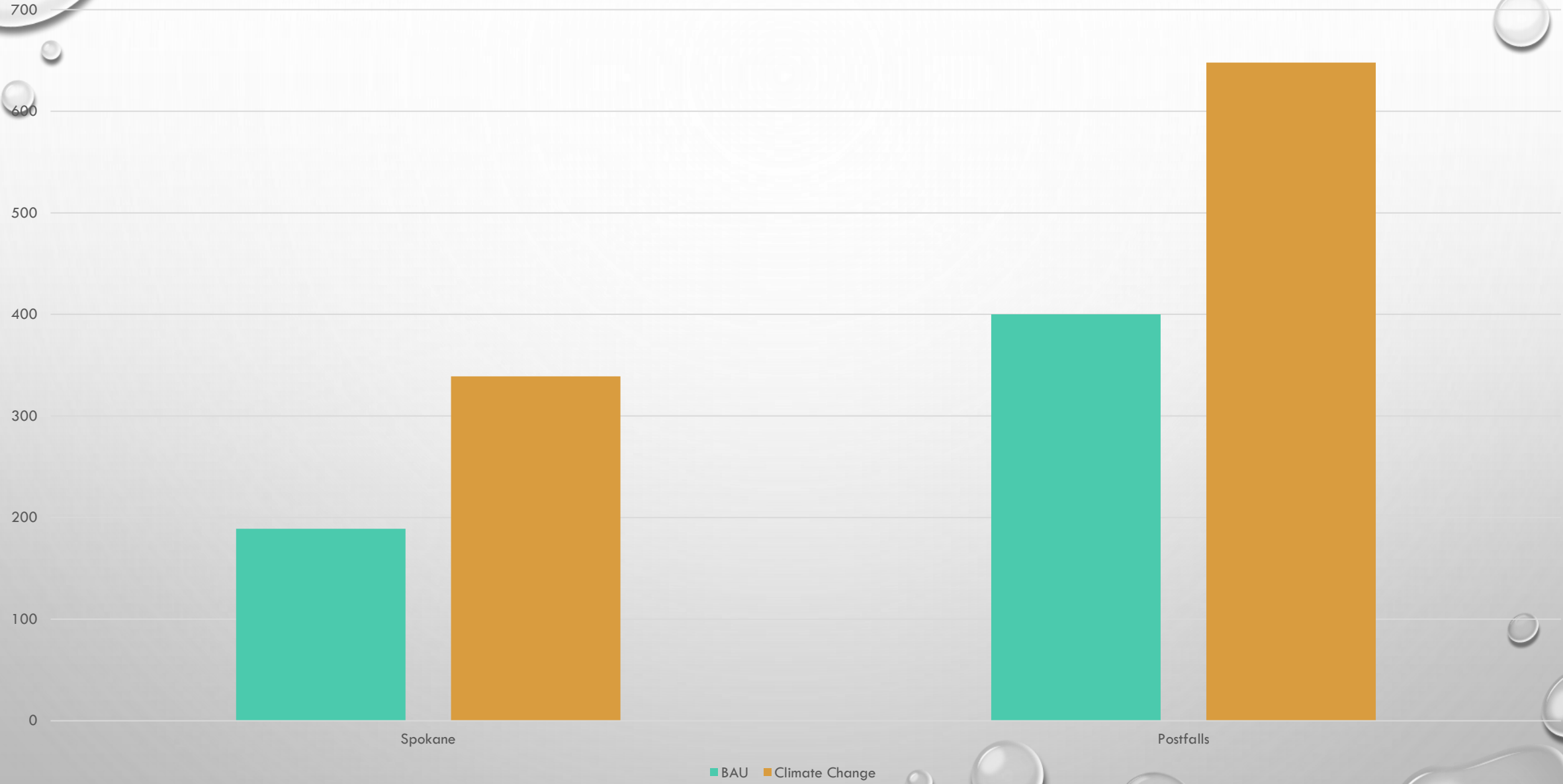
PostFalls Gage Monthly Avg: BAU vs. CC+25%



PostFalls Gage Monthly Avg: BAU vs. CC+25%



# # of total lowflow day occurrences: BAU vs. CC





# DISCUSSION

WHAT KIND OF SCENARIOS, GRAPHICS, METRICS, ETC.  
WOULD YOU LIKE SEE?

WHAT ARE YOUR **BIG IDEAS** RELATED TO WATER  
RESOURCES IN THIS REGION?



The background features a light gray gradient with several realistic water droplets of various sizes scattered in the corners. The droplets have highlights and shadows, giving them a three-dimensional appearance.

# REGIONAL WATER CONSERVATION BRANDING AND MESSAGING

## CONVERSATION

The background features a light gray gradient with several realistic water droplets of various sizes scattered in the corners. The droplets have highlights and shadows, giving them a three-dimensional appearance. They are located in the top-left, top-right, and bottom-right areas of the frame.

**WHAT DO YOU THINK ABOUT A REGIONAL  
WATER CONSERVATION STRATEGY?**

# IWAC IDEAS FROM MIKE G. AND ROB L.

- CREATE A LOCAL BRANDING STRATEGY
  - POTENTIALLY DIFFERENT STRATEGIES FOR WATER PURVEYORS AND COMMUNITY MEMBERS
  - FOCUS ON A REGIONAL MESSAGE THAT IS RELATABLE REGARDLESS OF STATE BORDERS
- CREATE A MESSAGE TO TEACH PEOPLE:
  - WHERE THEIR WATER COMES FROM
  - WHY THEY SHOULD CONSERVE
  - HOW TO CONSERVE
  - WHERE TO GET INFORMATION/RESOURCES FOR SAVING WATER
- CREATE EDUCATION/OUTREACH GOALS
- COLLABORATE TO ESTABLISH
  - VIDEO IDEAS
  - BRANDING
  - WEBSITES



# OTHER CAMPAIGNS

- ENVIRONMENT AMERICA – PROTECT OUR WATERS: [HTTP://WWW.ENVIRONMENTAMERICA.ORG/PROGRAMS/AME/CLEAN-WATER-AMERICA-0](http://www.environmentamerica.org/programs/ame/clean-water-america-0)
- EPA – WE'RE FOR WATER: [HTTP://WWW3.EPA.GOV/WATERSENSE/WEREFORWATER/](http://www3.epa.gov/watersense/wereforwater/)
- NATIONAL - WATER USE IT WISELY: [HTTP://WATERUSEITWISELY.COM/](http://wateruseitwisely.com/)
- CALIFORNIA – SAVE OUR WATER: [HTTP://SAVEOURWATER.COM/](http://saveourwater.com/)
- CALIFORNIA – BE WATER WISE: [HTTP://WWW.BEWATERWISE.COM/](http://www.bewaterwise.com/)
- DENVER – USE ONLY WHAT YOU NEED: [HTTP://WWW.DENVERWATER.ORG/CONSERVATION/USEONLYWHATYOUNEED/](http://www.denverwater.org/conservation/useonlywhatyouneed/)
- OREGON – ONE DROP: [HTTPS://WWW.ONEDROP.ORG/EN/PROJECT/BURKINA-FASO/](https://www.onedrop.org/en/project/burkina-faso/)
- WASHINGTON – WISE WATER USE: [HTTP://WWW.MWCOG.ORG/ENVIRONMENT/WATER/WATERSUPPLY/WISEWATER.ASP](http://www.mwco.org/environment/water/watersupply/wisewater.asp)
- WASHINGTON - SAVING WATER PARTNERSHIP - [HTTP://SAVINGWATER.ORG/](http://savingwater.org/)
- WASHINGTON - SAVING PUGET SOUND: [HTTP://WWW.ECY.WA.GOV/PUGET\\_SOUND/](http://www.ecy.wa.gov/puget_sound/)

# VIDEOS: WATER MESSAGE EXAMPLES

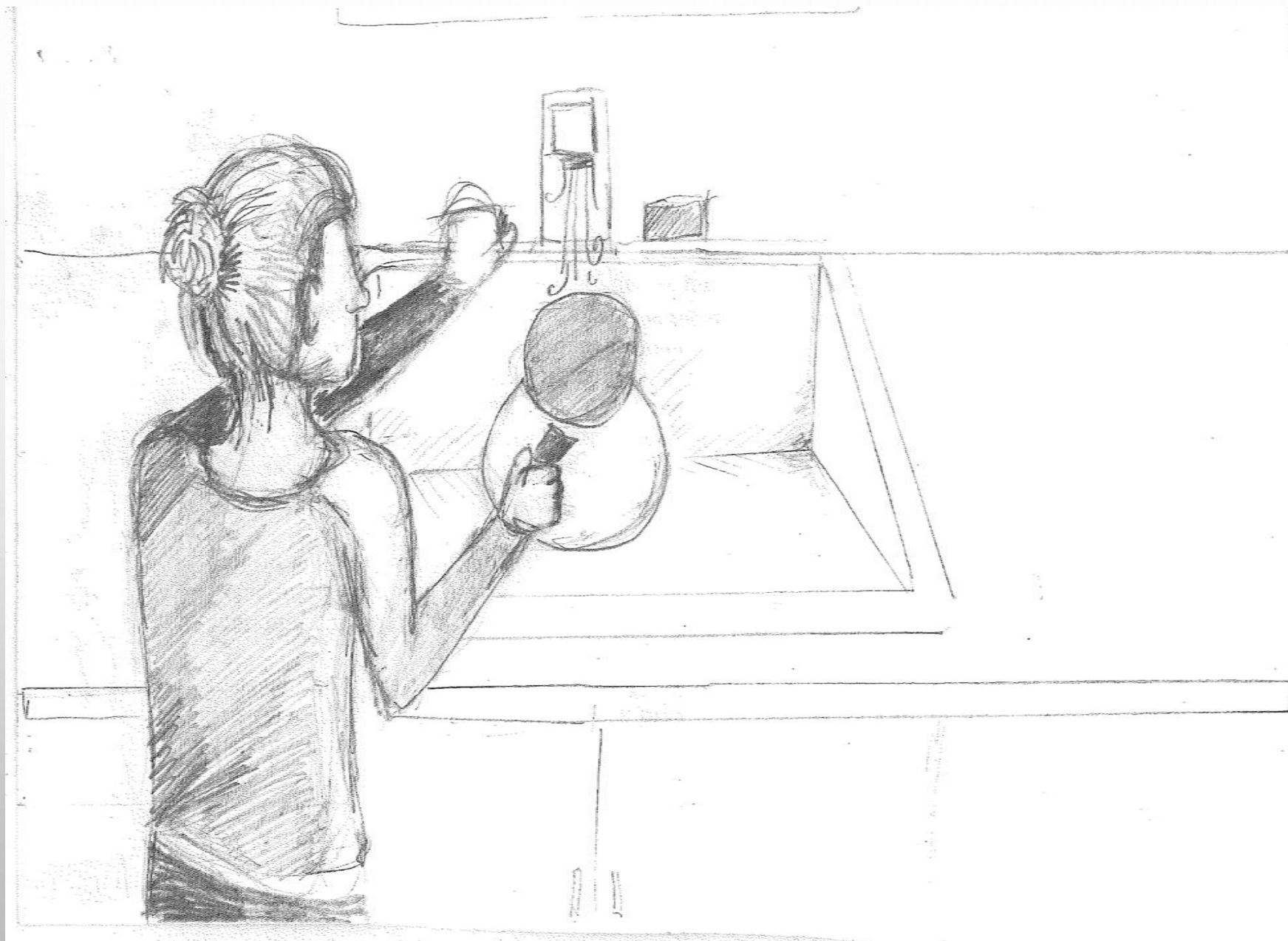
- WATER AS A LIMITED RESOURCE
  - [HTTPS://WWW.YOUTUBE.COM/WATCH?V=QTZMERFL-JO](https://www.youtube.com/watch?v=QTZMERFL-JO)
- PERSONAL WATER SAVING TIPS
  - [HTTPS://WWW.YOUTUBE.COM/WATCH?V=GOLF2RBXMZE](https://www.youtube.com/watch?v=GOLF2RBXMZE)
- WATER FIRM MESSAGE
  - [HTTPS://WWW.YOUTUBE.COM/WATCH?V=VIAW5MCJHPI](https://www.youtube.com/watch?v=VIAW5MCJHPI)

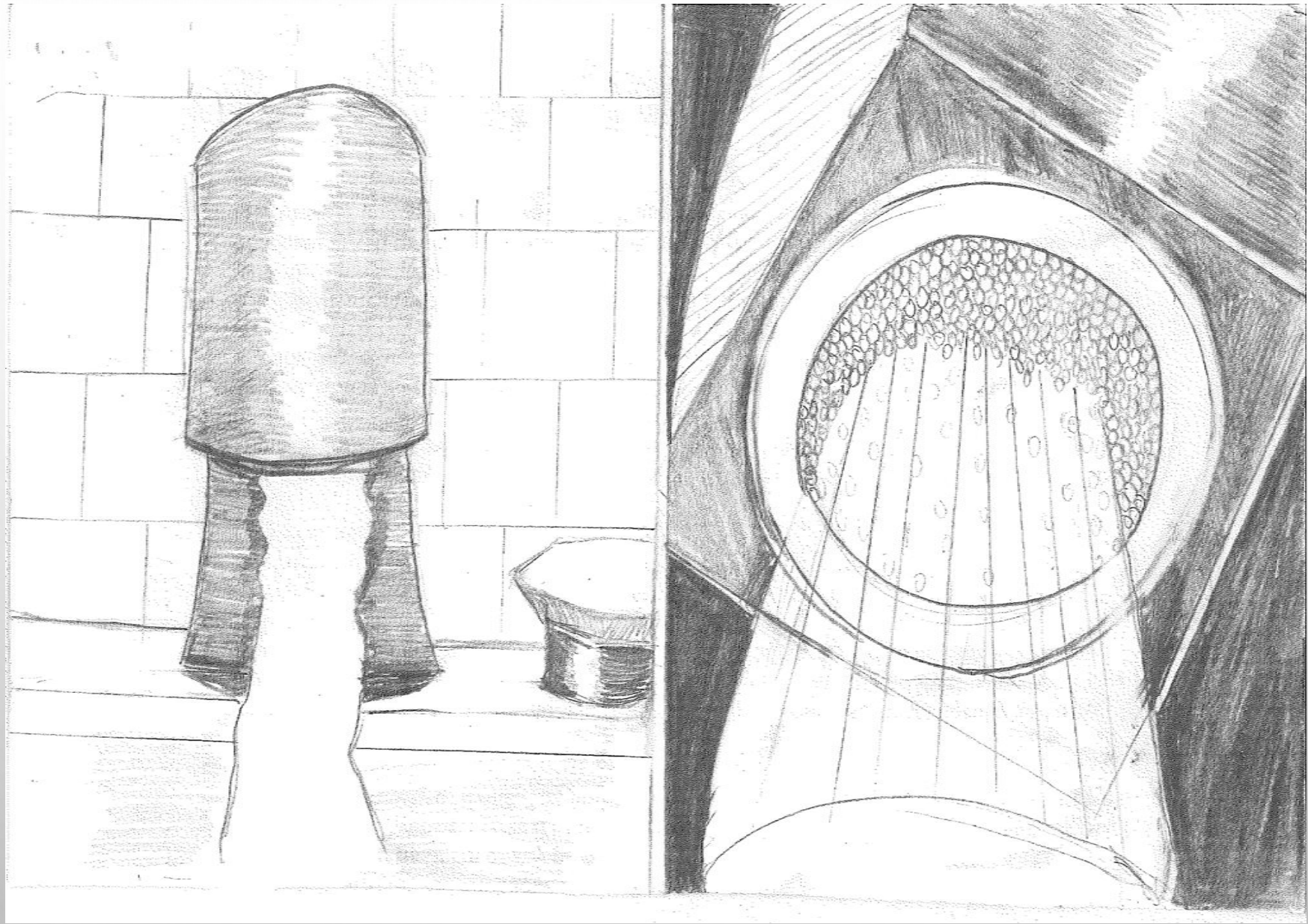
The background is a light gray gradient with several realistic water droplets of various sizes scattered in the corners. The droplets have highlights and shadows, giving them a three-dimensional appearance. The text is centered in the middle of the page.

# WATER VIDEO IDEA

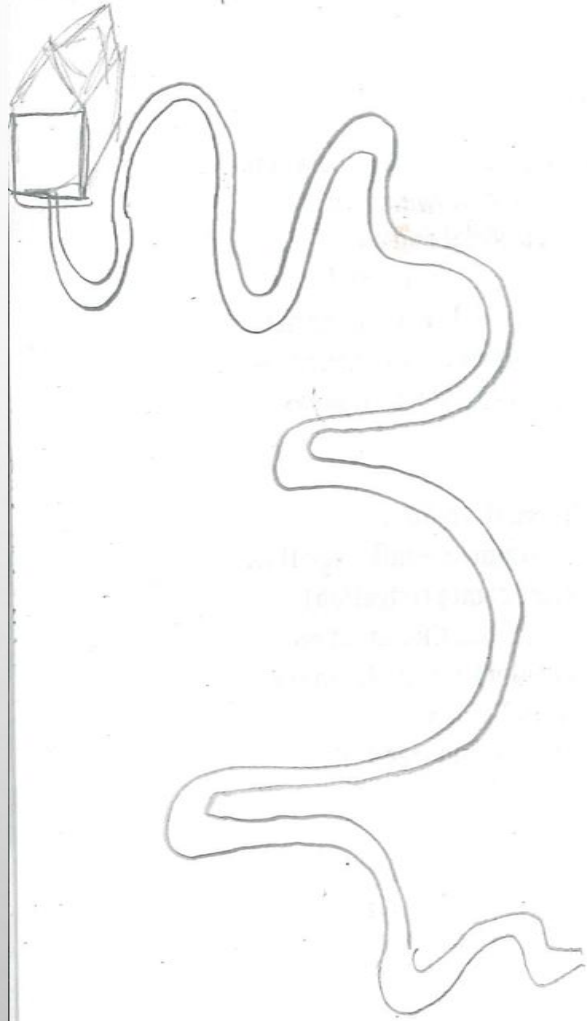
SKETCHES FROM KAYLA







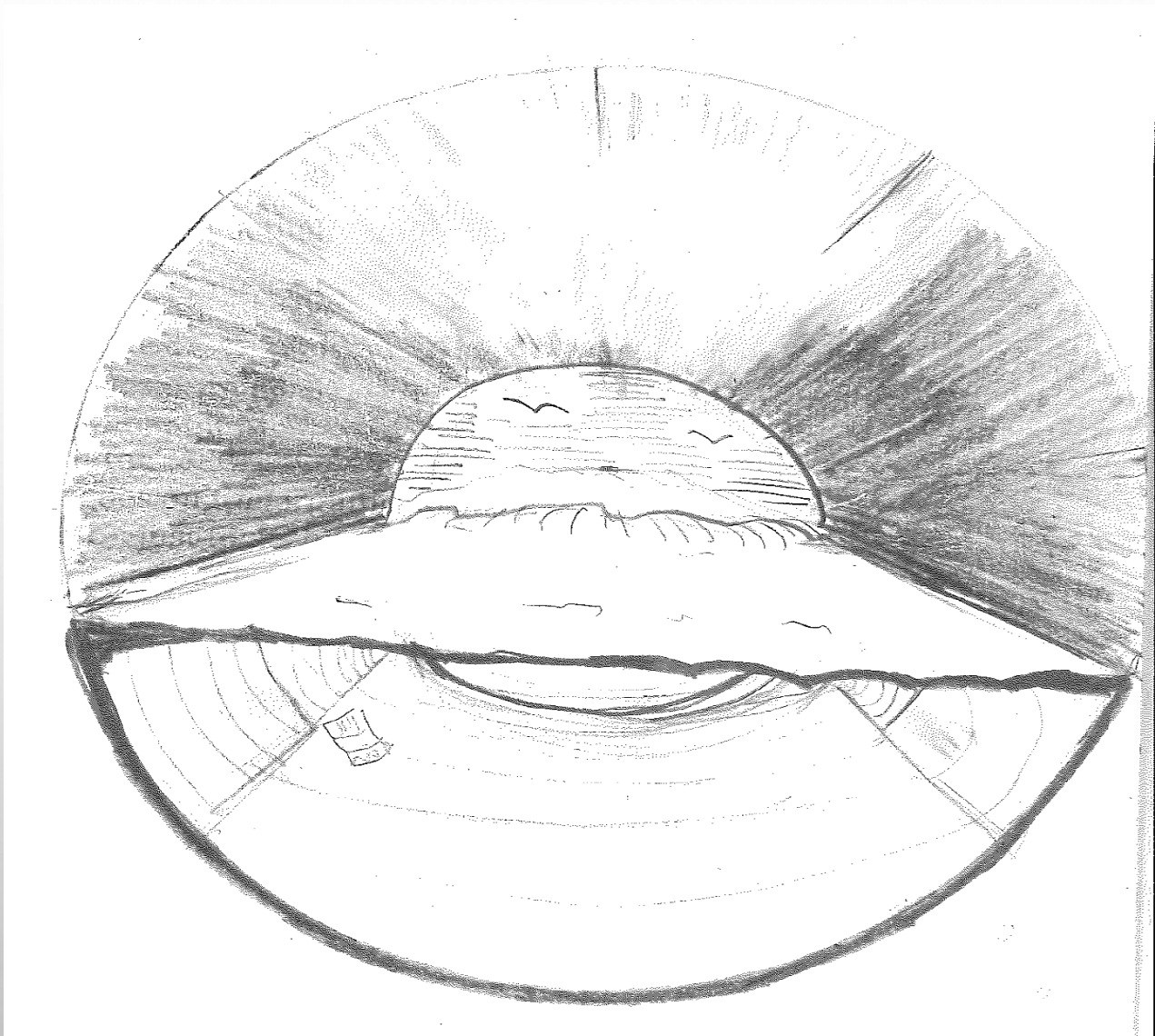
# Rollercoaster through pipe system



- Smart growth
- [Impervious surfaces]
- interactive tool on Website

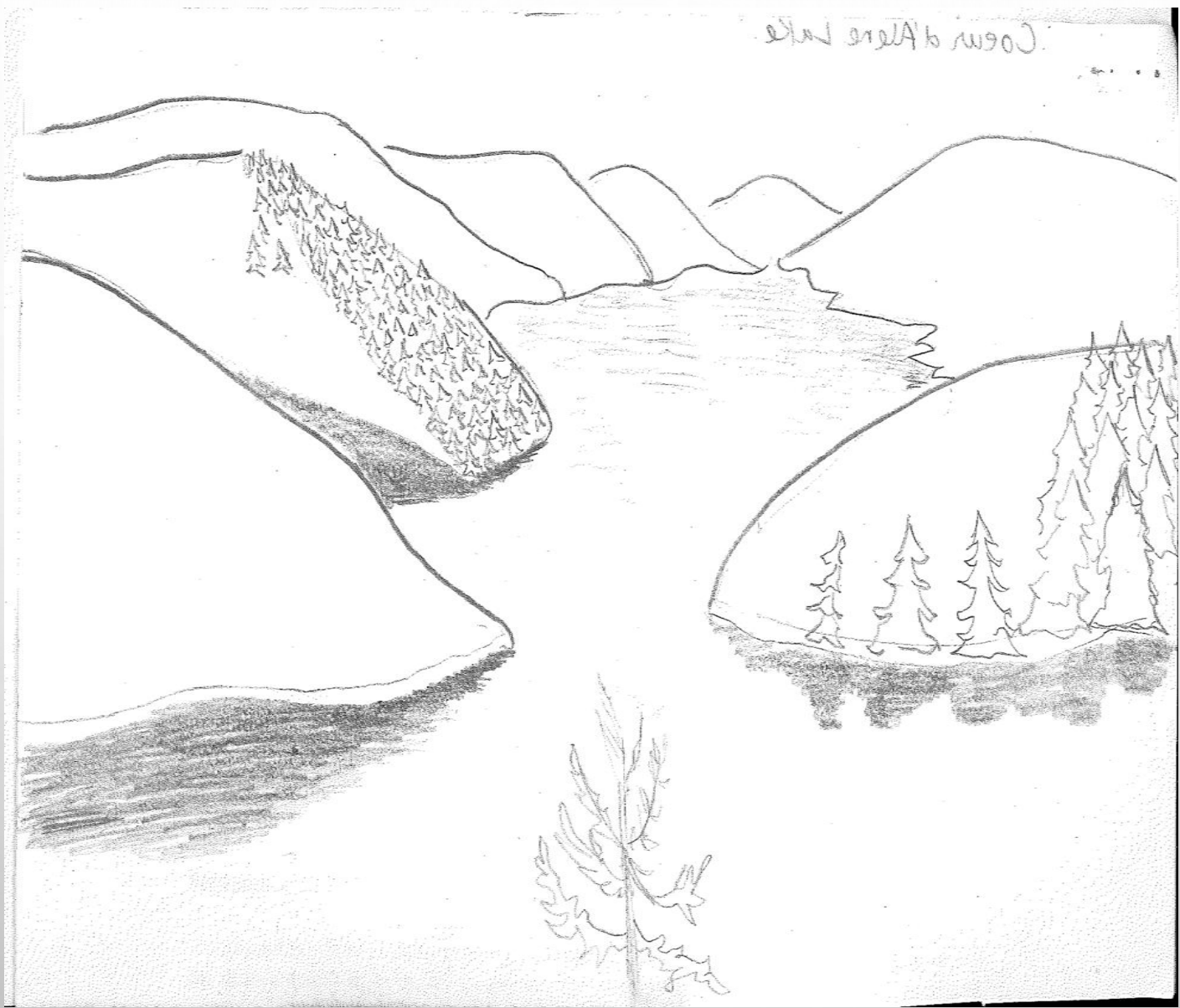
If;

- we inputted stormwater along w/ the water coming from the kitchen
- Rainy/high precipitation event causes N<sub>2</sub> runoff from nearby agriculture fields





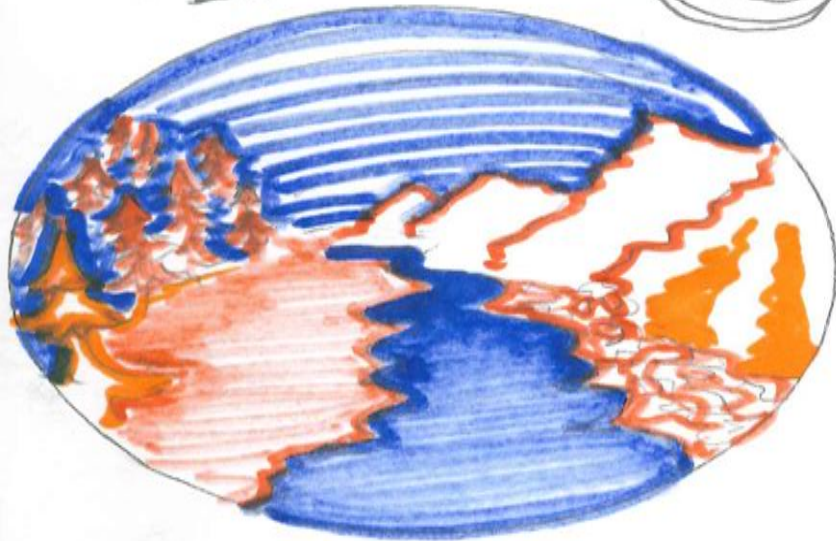
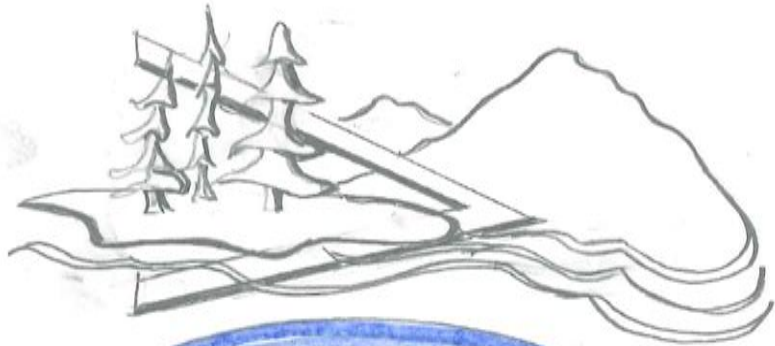
Coon's Lake



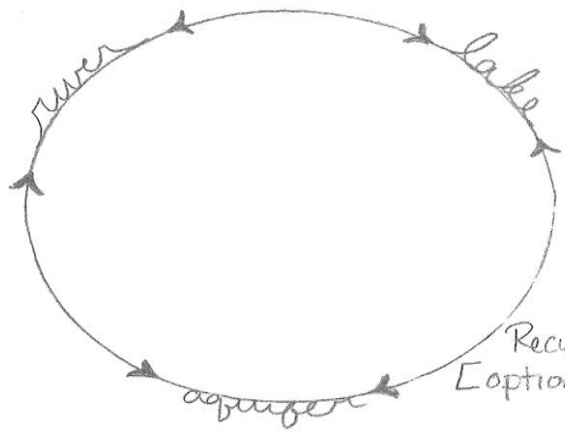
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# REGIONAL WATER BRAND LOGO IDEAS

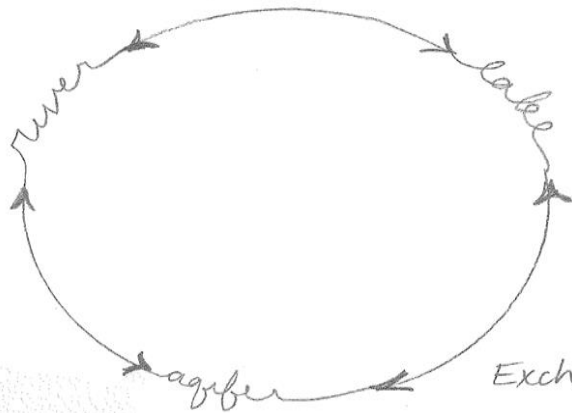
SKETCHES FROM KAYLA



Outside Frame Ideas



Recycle / exchange  
[optional words]

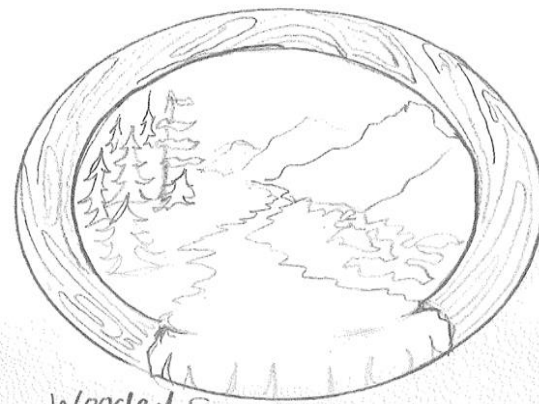
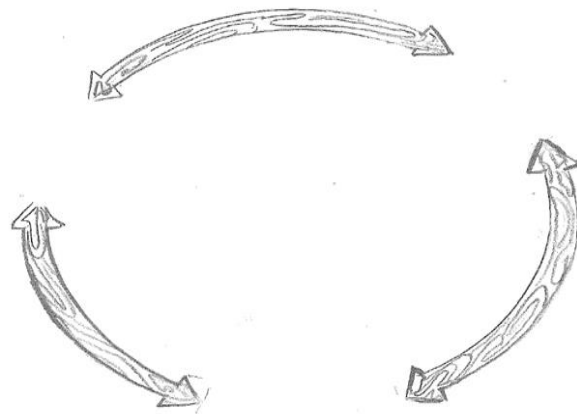
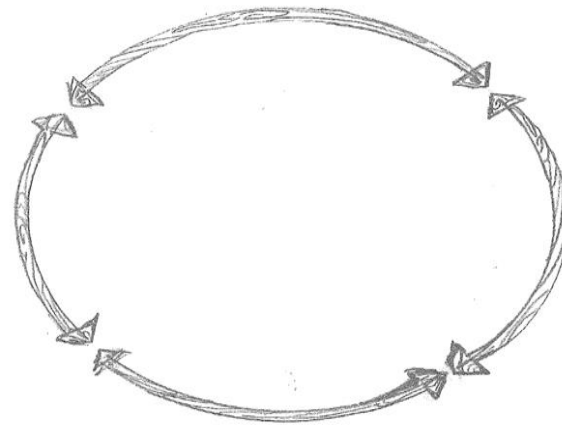


Exchange



words  
'burned'  
into wood  
frame

Wooded-Window



Wooded Frame

- Idaho + Washington (common traits)  
 ↳ forested  
 ↳



Smart Growth Today, for an Abundant Tomorrow



- photocopy ideas  
 ↳ Questionnaire  
 ↳ Interviews client  
 ↳ Research competitors, industry itself

- Storm Water Conservation  
 Smart Growth  
 - newsletter  
 ↳ advert, media  
 ↳ what media?  
 ↳ water consumers  
 ↳ multi messages  
 Billboard &

## DISCUSSION

WHAT ARE YOUR THOUGHTS ON A REGIONAL  
CONSERVATION MESSAGE?

WHAT ARE YOUR GOALS AS WATER RESOURCE LEADERS  
RELATED TO A REGIONAL WATER MESSAGE?