



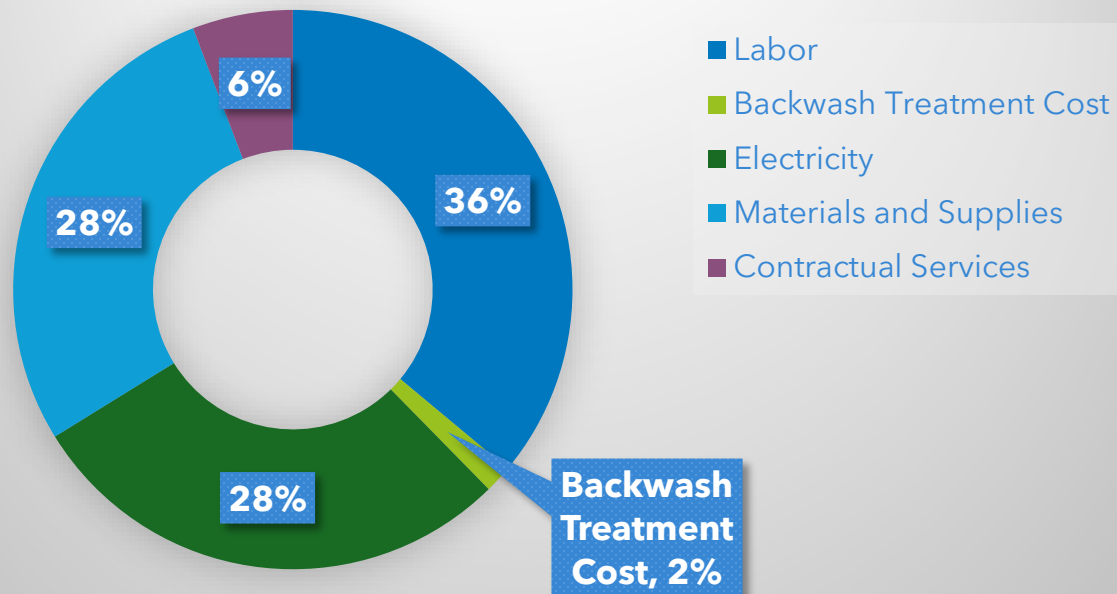
# DERWA Backwash Analysis

**DERWA Board of Directors  
September 22, 2025**

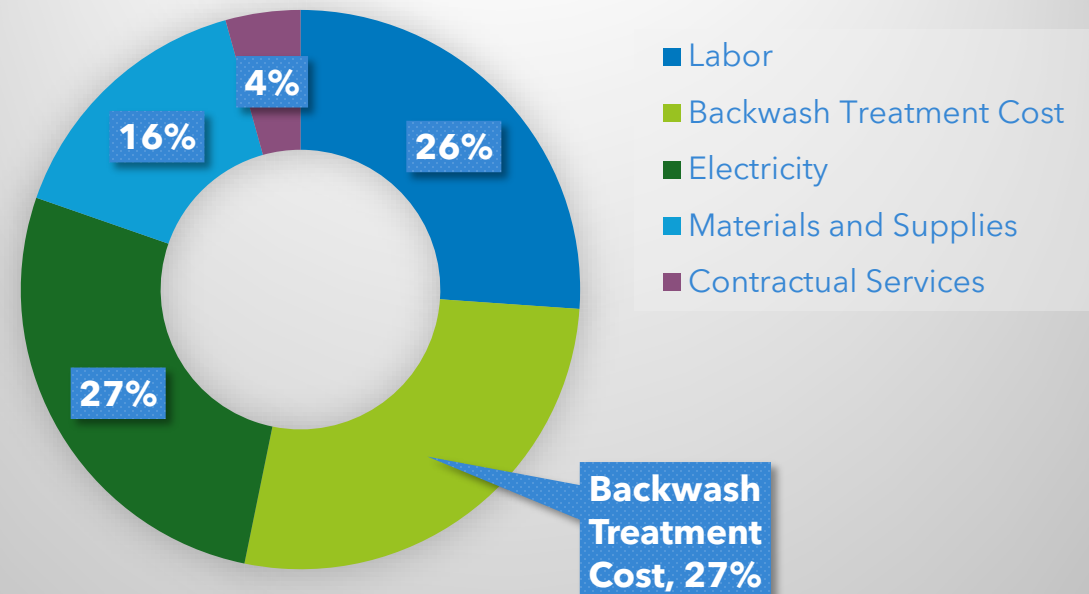
Karla Hammond, Associate Engineer & Paul Friedlander, Carollo Engineers

# DERWA O&M Comparison

## FY21 DERWA O&M Costs

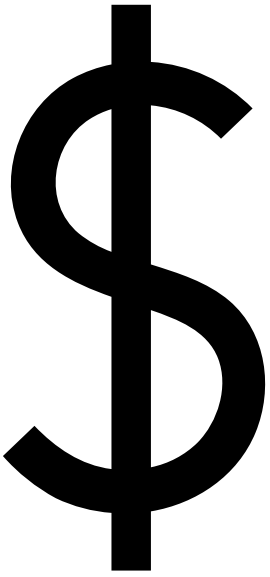


## FY26 DERWA O&M Costs





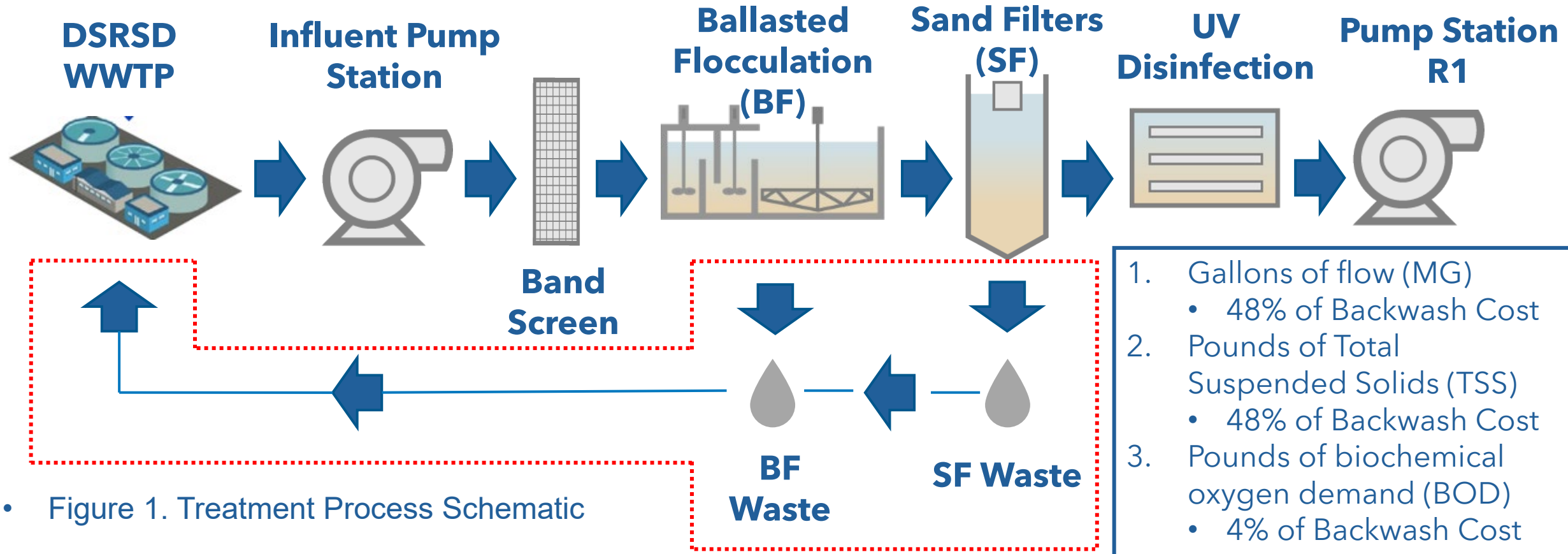
# Actual Backwash Treatment Costs



- FY 2023 Actual billing
- \$36,000

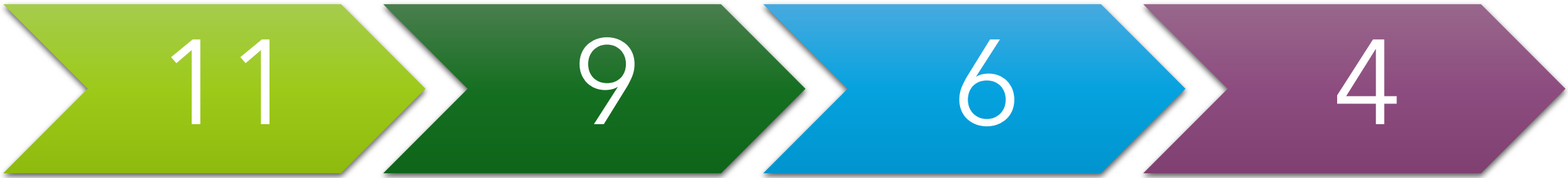
- FY 2024 Actual billing
- \$1,279,988

# DERWA RWTP Overview





# Eleven (11) Options Identified

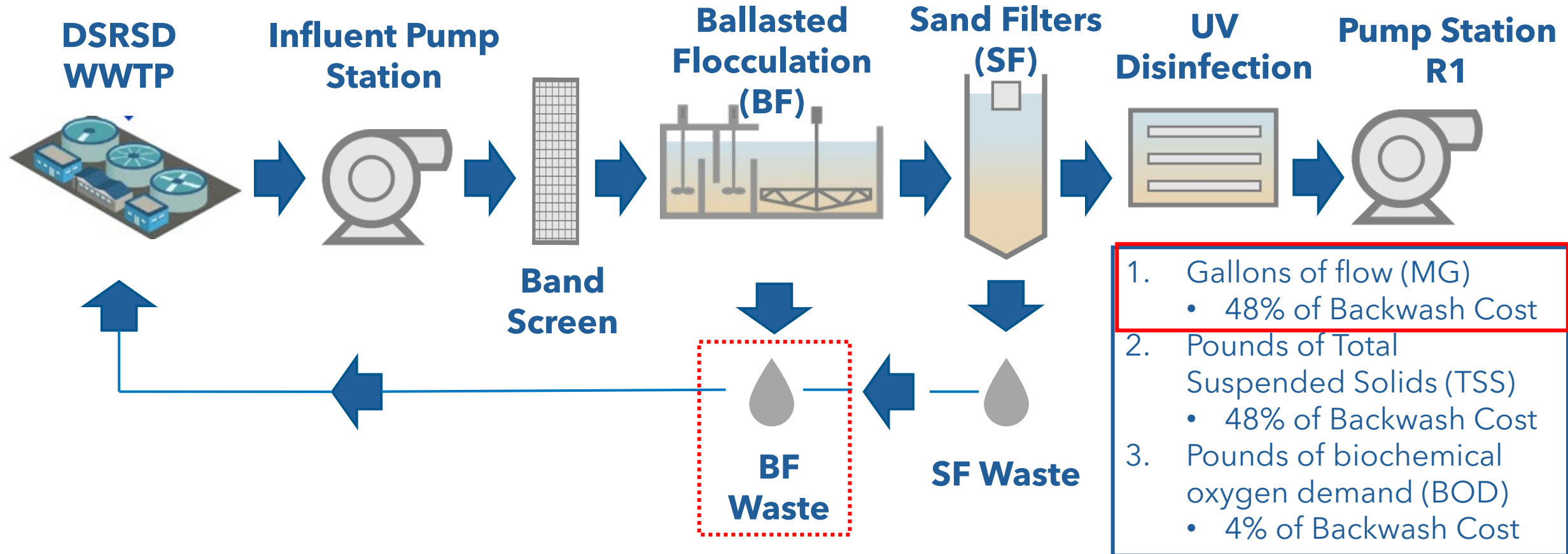


## Four (4) Options Tested & Evaluated

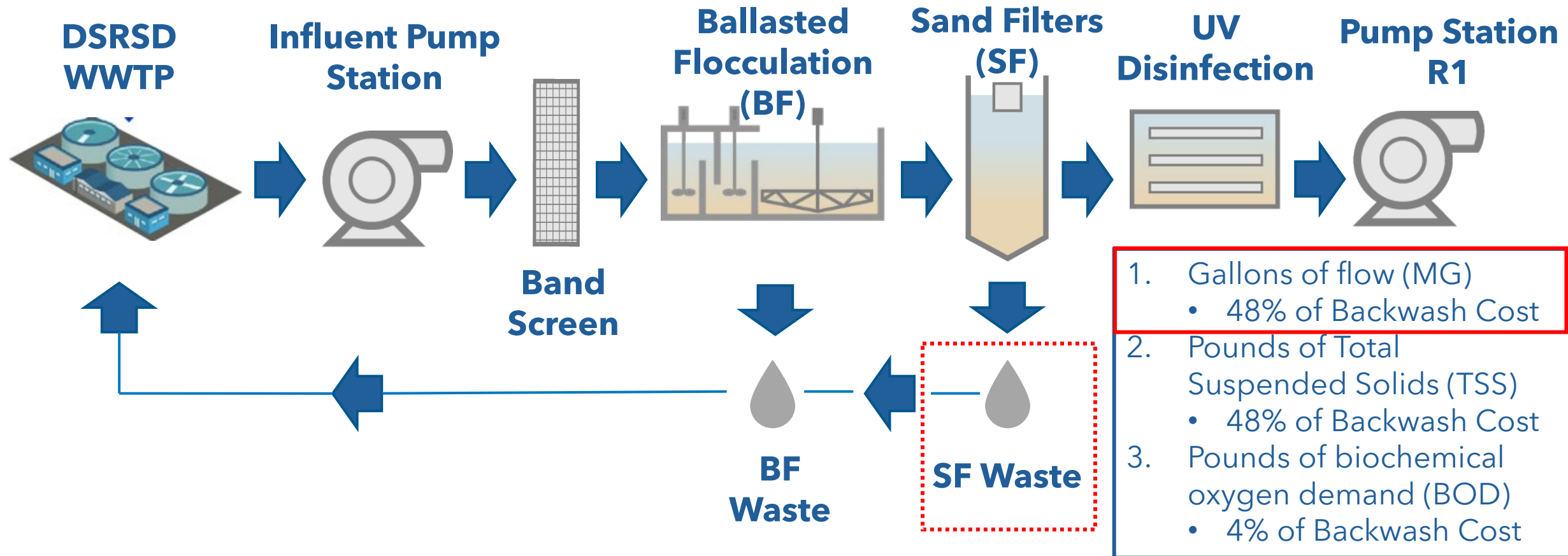
	RWTP	
1	BF Waste Rate	Test
2	Reduce SF Backwash Flow	Test
3	Reduce Chemical Usage at BF	Test
4	Sand Size in BF	Test*



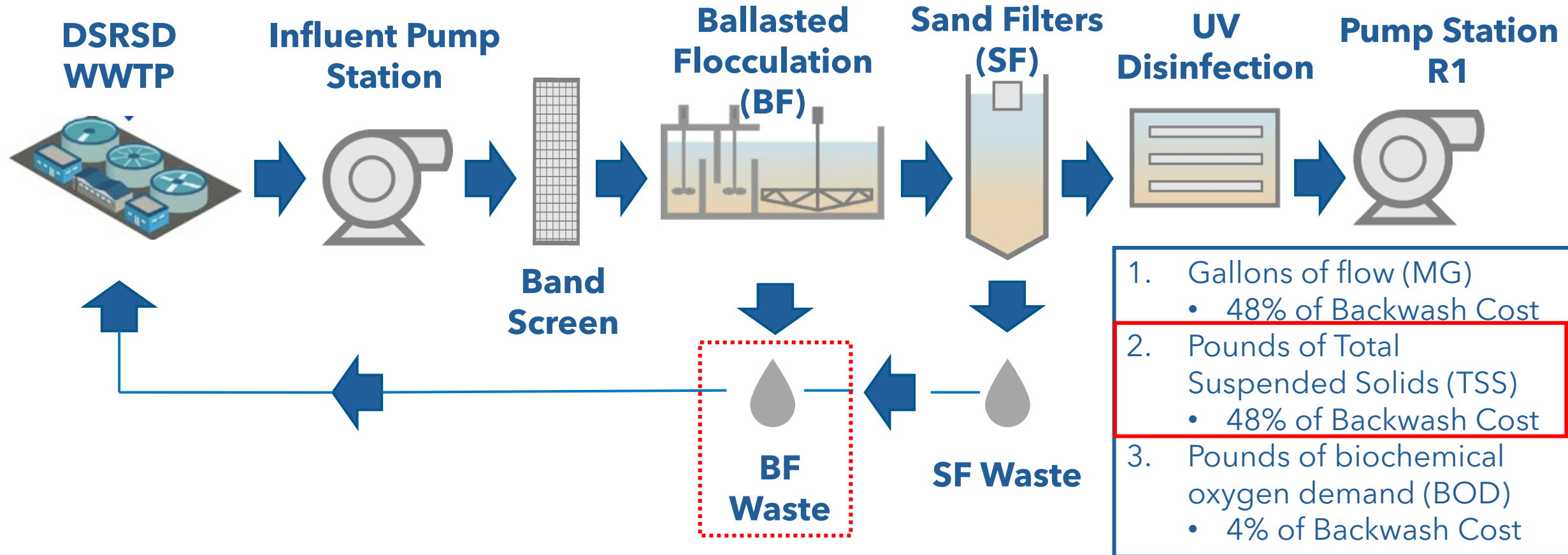
# Option 1 - BF Waste Cycle Frequency



# Option 2 Reduce SF Backwash Flow



# Options 3 & 4 Reduce Chemical Usage at BF & Sand Size in BF







# Summary

38% reduction  
in BF waste  
flow

- Potential annual savings of \$80,000

30% reduction  
in SF waste  
backwash flow

- Potential annual savings of \$120,000



# Next Steps

- DSRSD WWTP Masterplan Update is ongoing
- Option 4 Sand Size in BF



Karla Hammond, Associate Engineer & Paul Friedlander, Carollo Engineers