NEXT LEVEL OF TREATMENT (NLT)

REGULATORY REQUIREMENT TO MEET NEW TOTAL MAXIMUM DAILY LOAD (TMDL) STANDARDS AND A SERIES OF SEASONAL AND ANNUAL POLLUTION REDUCTIONS.
NEW (FIFTH) PRIMARY CLARIFIER

WILL SUBSTANTIALLY IMPROVE FLEXIBILITY TO MOVE AND STORE STORM AND SNOW MELT EVENT FLOWS TO OPTIMIZE PLANT PERFORMANCE.
PILOT STUDY REVIEW

PILOT STUDY LOOKED AT 6 TECHNOLOGIES. MEMBRANES WERE BEST.
MEMBRANE FILTRATION

ULTRA FILTRATION CANDIDATES: 0.1 OR 0.043 MICRON PORE SIZE

A MICRON IS 1 MILLIONTH OF A METER

A THIN HUMAN HAIR IS ABOUT 20 MICRONS
HOW MUCH DO WE NEED?

50 MILLION GALLONS / DAY FILTER CAPACITY

OLYMPIC POOL IS 500,000 GALLONS
50 MGD = 100 OLYMPIC POOLS / DAY
TWO COMPETING PROTOCOLS
IMMERSED VERSUS PRESSURE SYSTEMS

IMMERSED SYSTEMS
LIKE PENDLETON WATER SYSTEM

PRESSURE SYSTEMS
LIKE SANDPOINT WATER SYSTEM
IMMERSED SYSTEM

LARGE, SERPENTINE, CONCRETE TANK ARRAY

BUILDING TO HOUSE IT AGAINST FREEZING IN WINTER

PENDLETON WATER TREATMENT PLANT
PRESSURE SYSTEM

LARGE BUILDING WITH RACKS OF CANNISTERS ALL MANIFOLDED

PLUG AND PLAY RACKS OF CANISTERS OF FILTERS

UP TO 6,300 FILTER TUBES PER 5 IN. CANISTER

39 CANISTERS PER RACK

SANDPOINT WATER TREATMENT PLANT
WHAT’S NEXT?

CHALLENGE TEST

ISSUE RFQ

• ESTABLISHED MEMBRANE PRODUCER
• LARGE ENOUGH TO MEET PRODUCTION
• FINANCIALLY SOUND
• PRODUCT PROVEN IN THE FIELD AT LEAST 10 YEARS
• STAFFED FOR GREAT CUSTOMER SERVICE
• PROVIDES THE BEST LIFE CYCLE COST - BENEFIT

NEW SIDE BY SIDE PILOT REPRESENTATIVE AND RUN OF THE PLANT

IMMERSED

CHALLENGE TEST

PRESSURE

ESTIMATED COST OF NLT = $100 MILLION IMPORTANT TO GET IT RIGHT
TIMELINE PROJECT PLANNING

10 Years


SPA3 FINALIZATION
INTEGRATED PLAN
CONSULTANT SELECTION

SIDE BY SIDE PILOT
GC/CM SELECTION/ APPROVAL
SELECT VENDOR
GMP / GCCM INITIATION
SELECTED VENDOR PILOT
CONSTRUCTION
COMMISSIONING
APPROVE SYSTEM
FINAL DESIGN
REFINING
CLEANER RIVER FASTER
QUESTIONS / COMMENTS?